

**REPORT OF THE
JOINT LEGISLATIVE AUDIT
AND REVIEW COMMISSION**

**REVIEW OF THE PERFORMANCE
AND MANAGEMENT OF THE
VIRGINIA DEPARTMENT OF HEALTH**

**TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA**



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Preface

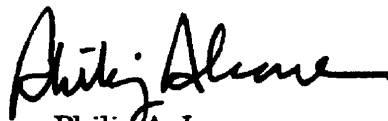
A long-standing priority of the Virginia General Assembly is the protection of public health for the citizens of the Commonwealth. To this end, the General Assembly has authorized the Virginia Department of Health to provide a comprehensive array of public health programs. These programs, which include individual and population-based health care services, as well as specific public environmental health programs, are considered critical to the maintenance and improvement of the quality of life in Virginia.

House Joint Resolution 137, passed by the 1998 General Assembly, and Item 16-L of the 1999 Appropriations Act directed the Joint Legislative Audit and Review Commission (JLARC) to conduct a review of the performance and management of the Virginia Department of Health. This report presents findings from that review. To complete this study, JLARC staff conducted interviews with State and local health department staff, sent mail surveys to the 35 health district directors and to local staff in each of the State's 119 local offices, and reviewed program records from a sample of local health departments.

The findings from this review indicate that despite some problems, local health department staff have effectively organized and are successfully implementing the core programs of public health. These include programs to treat persons with various communicable diseases, as well as programs to protect the public health and the environment from the improper construction and operation of on-site sewage systems. Improvements are needed, however, in the immunization program for children, the State's food service inspection program, and the services provided to treat persons who are infected with tuberculosis.

More pressing are problems at the State level, which have hindered the operation and management of the Virginia Department of Health. Due mostly to constant turnover in the commissioner's office and among key management positions, the agency's strategic planning and policy development functions have been weakened. Accordingly, key policy questions regarding the future funding and role of the local health departments have been largely unaddressed. In addition, the turnover and poor planning have undermined the agency's efforts to update its new computer system. This report provides recommendations to address these and other problems identified in the review.

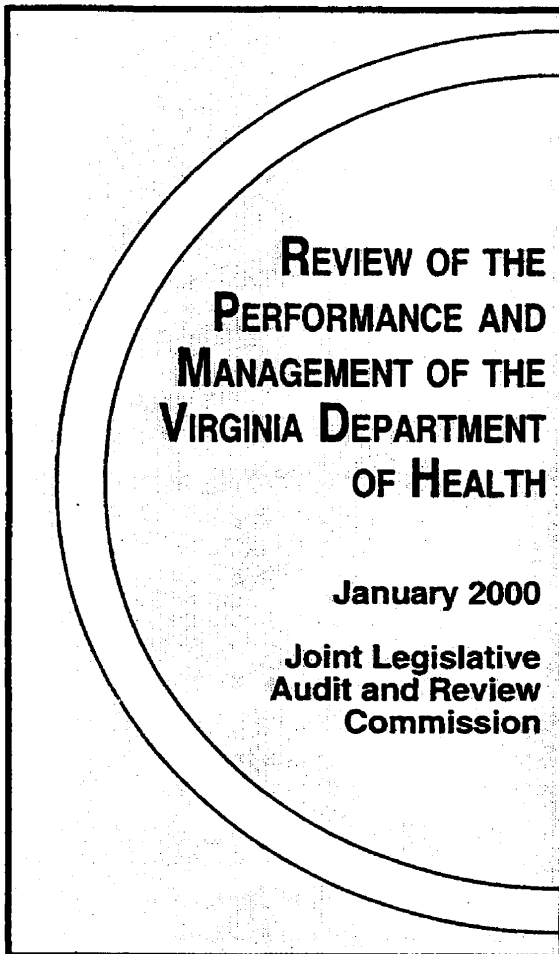
On behalf of the Commission, I wish to express our appreciation for the assistance and cooperation provided by the Virginia Department of Health and local health department personnel during the course of this review.



Philip A. Leone
Director

January 6, 2000

JLARC Report Summary



In 1998, the General Assembly passed House Joint Resolution 137 directing JLARC to study the functional area of Health and Human Resources, including the Virginia Department of Health (VDH). One year later, through the 1999 Appropriations Act, the General Assembly specified that JLARC should focus its review of VDH on the "organization, management, and performance" of VDH. The General Assembly also required that JLARC's review include VDH's newly developing role in regulating and providing oversight of managed care organizations.

VDH is a large State agency that is statutorily required to administer a compre-

hensive program of public health services. Through Section 32.1-2 of the *Code of Virginia*, the General Assembly outlined the purpose and priorities for public health with the following language:

The General Assembly finds that the protection, improvement, and preservation of public health and of the environment are essential to the general welfare of the citizens of the Commonwealth. For this reason, the State Board of Health and the State Health Commissioner, assisted by the State Department of Health, shall administer and provide a comprehensive program of preventative, curative, restorative, and environmental health services, educate the citizenry in public health and environmental health matters...collect and preserve vital records and health statistics...and abate hazards nuisances to the environment, thereby improving the quality of life in the Commonwealth.

Currently, most of the public health programs are delivered through 119 local health departments under the general auspices of 35 health districts. These programs include State-mandated services for the control of communicable and sexually transmitted diseases, and the regulation of food service establishments and onsite sewage systems. Additionally, most of the local health departments across the State provide a variety of non-mandated indigent health care services for persons who are uninsured.

Two factors raised concerns about the operation of VDH and prompted the legislative action that led to this review. First, in the past seven years there has been a considerable lack of continuity in the leadership

of VDH and among senior management staff. This has prompted questions about the general management and direction of the State's public health system. Second, there have been numerous citizen complaints concerning the local delivery of some public health services especially in the area of environmental health.

In terms of local service delivery, the findings for this review indicate that despite problems with staffing, local health departments have generally done a good job in organizing and delivering services in the core programs of public health. Services for each of the major communicable disease programs have been properly organized and delivered in order to combat the high morbidity rates for certain diseases. In the area of environmental health, local health departments appear to have programs in place which ensure that legislative intent is met regarding the inspection of restaurants and the construction of onsite sewage systems.

Nonetheless, there are problems with some of the State's public health programs that must be addressed to ensure the long-term effectiveness of these programs. Long-standing funding shortages have hampered the ability of district directors to achieve equitable staff allocations in the local health departments. This has mitigated local efforts to treat persons who have the tuberculosis infection and slowed the use of outreach and client-tracking strategies that are needed to increase immunizations for children, especially in the State's major urban areas. Also, significant legislative changes are needed to improve the State's outdated restaurant inspection program.

If these problems are to be effectively addressed, VDH will need more consistent leadership in the commissioner's office. Over the last eight years, constant turnover in this position and among key senior management positions has hindered the management and operation of VDH in a number of ways. Most notably, the agency's in-

ternal planning process has been weakened and its efforts to update its computer system have been undermined. Key policy questions regarding the role of local health departments in the delivery of non-mandated primary healthcare services remain unresolved. Furthermore, the funding problems experienced by the local health departments and some of the central office divisions responsible for various regulatory functions in the agency have been largely unaddressed.

The remainder of the report summary discusses six areas, which should be focal points for needed improvements at VDH. These areas include: (1) the communicable disease program, (2) the restaurant inspection program, (3) the on-site sewage system and permitting process, (4) the funding of community health, (5) the performance of central office regulatory functions, and (6) the continuity of leadership.

Communicable Disease Programs Are Properly Implemented, But Some Improvements Are Needed

As a core function of public health, local health departments implement several programs to prevent and control the spread of communicable diseases. These programs are designed to reduce the morbidity rate for tuberculosis, ensure the vaccination of children for preventable diseases, and control the spread of a host of other communicable diseases.

This study found that, for the most part, these programs are appropriately designed and implemented. Local staffs ensure that more than nine out of every ten patients who have tuberculosis disease start and complete their treatment within the prescribed time period. Statewide, nearly three-quarters of all children are immunized in a timely manner, and local health departments are providing the required follow-up when certain communicable diseases are reported. Also, through a tightly administered program

for persons who contract sexually transmitted diseases, local health department staff successfully deliver the necessary treatment to the majority of persons who contract venereal diseases, HIV, or AIDS.

Notwithstanding these findings, State and local staff need to make several changes to the communicable disease programs to address problems associated with the delivery of tuberculosis prevention drug therapy, childhood vaccinations, and disease reporting. Specifically, nearly four out of ten persons who are a high-risk for developing tuberculosis (they do not have the actual disease) do not complete their medication as prescribed. Immunization rates are unacceptably low in certain pockets of the State. Furthermore, approximately 30 percent of local health departments do not track the immunization outcomes for children and 20 percent have no programs in place to contact children who are not immunized according to law. Finally, while local health department staff appear to do a good job following up on reported cases of communicable diseases, these same staff report that their response times sometimes lag due to poor or delayed reporting by private doctors who diagnose the diseases.

Recommendation. The Virginia Department of Health should collect the necessary data to contrast the demographics of persons who complete preventive drug therapy with those who do not. As a part of this effort, the department should determine the patients' reasons for failing to complete the therapy and take the appropriate actions to address this problem.

Recommendation. The Virginia Department of Health should require local offices that do not sample school records or directly contact parents/guardians of non-immunized children to prepare an action plan to conduct these activities, and begin implementation no later than July, 2000.

Recommendation. To increase the efficiency and effectiveness of the State's immunization program, the General Assembly may wish to consider requiring private doctors to ensure that immunization data for all children they vaccinate is entered onto the Virginia Health Department's online network when that system is completed. This requirement should include the necessary legal protections for physicians from any lawsuits that might arise from their participation in this program, but also clearly state the Virginia Department of Health's responsibility to ensure the integrity and confidentiality of the network information.

Recommendation. To improve private physicians' awareness of the State's reporting requirements for communicable diseases, the Virginia Department of Health should initiate a statewide public awareness campaign. This campaign should stress the importance of timely reporting for communicable diseases, outline the statutory requirements for such reporting, and identify the penalties for non-compliance.

Virginia's Restaurant Inspection Program Should Be Modified

One of the State's most basic mandated public health functions is the inspection of food service establishments to prevent foodborne illness. Some examples of food service establishments are restaurants, day care centers, schools, and kitchens that are located in corrections facilities. The goal of the Virginia's food service establishment inspection program is to prevent the unsafe preparation and handling of food.

While it appears that local health departments are generally meeting the current legislative requirement of inspecting each establishment annually — nearly 100 percent of the food service establishments in the Commonwealth receive at least one annual inspection — the capacity of local

health departments to protect the public health could be significantly improved in two ways. First, local governments need the authority to impose civil fines for those food establishments that persistently violate the food code. Under the current system, there is no practical way for local governments to enforce compliance for public health violations that are not immediate risks but could become health risks over time.

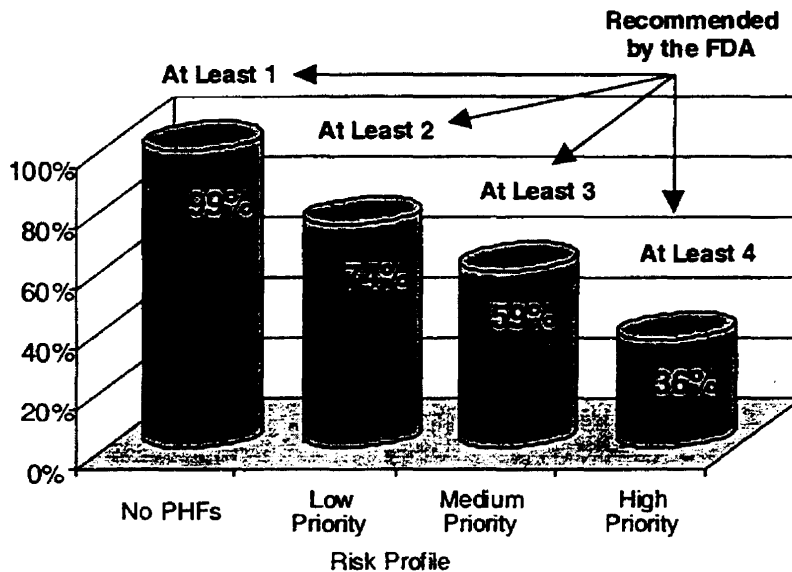
Second, local health departments need to increase the number of inspections for restaurants that serve potentially hazardous foods. Presently, almost three-quarters of the establishments in the State can be categorized as medium or high risk based on the types of food being served. The Food and Drug Administration recommends that "high-risk" food service establishments be inspected four times per year. However, only 36 percent of the high priority establishments identified in this study were inspected at least four times (see figure).

Recommendation. The General Assembly may wish to amend the *Code of Virginia* by granting local health inspectors the authority to assess civil fines on establishments for repeated violations of the State's food code.

Recommendation. The General Assembly may wish to amend Section 35.1-22 of the *Code of Virginia* to link the number of annual inspections of a food service establishment to the risk profile of the establishment. The number of annual visits required should reflect the recommendations made in the 1997 FDA Food Code.

Recommendation. The Virginia Department of Health should do a workload analysis to assess the need for additional environmental health staff in the local health departments. Staffing levels should reflect the need to inspect establishments based on their risk assessment. This analysis should be completed by October of 2000.

Percent of Establishments with the Number of Inspections Per Year Recommended by the FDA



*No "potentially hazardous foods" are served.

Timeliness of Permitting Process for Onsite Sewage Program and Private Wells Remains a Problem for Some Localities

The *Code of Virginia* requires the health department to process applications for septic systems within 15 working days. To meet this standard for timeliness, the General Assembly requires the health department to contract with an authorized on-site soil evaluator (AOSE) for applications that are not processed within 15 working days. An AOSE is a qualified professional who has demonstrated the skills necessary to complete soil evaluations and systems designs. As a separate requirement local health department staff must ensure that newly constructed septic systems are adequately distanced from the seasonal water table, based on established standards.

Based on the JLARC study sample, it is estimated that about 43 percent of all applications for permits that are received by the local offices are for septic systems or both septic systems and private wells. Just over four out of every 10 of these applications are not processed within the 15-day time requirement. Furthermore, over half of local health departments surveyed State-wide indicated that limited staffing was a barrier to meeting the required mandate.

A new law went into effect in 1999 requiring local health departments to accept soil evaluations from AOSEs, which may alleviate some of the staffing problem and improve the timeliness of the permitting process. However, as this law went into effect in July of 1999 and there are currently only 20 registered AOSEs in Virginia, it is too soon to determine whether the acceptance of AOSE evaluations will reduce the workload enough to eliminate the timeliness problem in the permitting process.

Recommendation. The Virginia Department of Health should complete a workload analysis in a year to determine the effect of Section 32.1-163.5 of the

Code of Virginia on the workload of environmental health staff at the local health departments. This analysis should be completed by December 2000.

Problems Exist with the Funding of Community Health Programs

A major issue for VDH concerns the funding of the community health programs operated through the local health departments. Since 1954, the State and local governments have agreed to share in the costs of local community health programs. In 1988, JLARC staff developed a formula to address a long-standing concern that the required local shares were based on the estimated true value of locally taxable real property, which: (1) by itself, was no longer an accurate measure of local ability to generate revenues to pay for services, and (2) had been driven up by inflation, so that a majority of localities were required to pay the maximum local share (45 percent) of the program budget. The new formula was based on the capacity of each locality to generate revenue, effectively resolving the debate about the required local shares.

However this study found that several problems remain with the cooperative budget and resource allocation process that have undermined efforts to achieve appropriate and equitable funding levels for local community health programs across the State. Despite a long-standing objective to establish a needs-based formula that identifies both the public health needs and associated costs in each locality, VDH has yet to implement such a system. While the agency has conducted some work towards this goal, it has stopped short of completing a systematic assessment of need for community public health.

Also, the formula addressing State and local shares of health department costs, developed to reduce inequities in the amount of public health funding that each local health department received, has only been

partially implemented. The disparity in local funding for public health services has actually increased and has imposed a special burden on local health departments in urban and rural areas.

Finally, the process used by district directors to allocate State funds to the local health departments is largely unsystematic. This, combined with the limits imposed on the State funding of community public health, has undermined efforts by health directors to achieve equity in the allocation of staff to the health departments in their districts.

The cost of correcting this particular aspect of the problem would be more than \$7 million. Fully funding this formula would reallocate the local shares of the cooperative budgets, and consequently the State shares, based on the factors considered in the formula. However, this additional funding would not address the overall funding needs of the community health services function. The total funding need for the system must be identified by VDH.

Recommendation. The Virginia Department of Health should develop staffing standards for each major community public health program and present a preliminary estimate of the resources required to meet statewide local public health needs. The Department of Health should present this methodology and associated estimate to the House Appropriations and Senate Finance committees by October 2000.

Recommendation. The Virginia Department of Health should develop and implement a policy for allocating the State's share of the cooperative budget. The policy should build upon and extend the needs-based formula and staffing standards for use in allocating positions and funds to the local health departments. Staffing standards developed in the statewide needs assessment should be applied to workload data from the lo-

cal health departments to determine staffing levels and funding. The State share to meet those costs should be calculated using the VDH formula for State and local shares, but with the use of updated data for local revenue capacity and median adjusted income. The Department of Health should present this policy to the Board of Health prior to September 2000.

Workload and Staffing Resource Issues for Certain Central Office Regulatory Functions Require Attention

Chapter IV of this report documents concerns regarding the adequacy of existing resources to meet program expectations for the divisions of shellfish sanitation, long-term care, and the Office of the Chief Medical Examiner. The chapter also examines the agency's response to requirements that it regulate the quality of care provided by managed care organizations. In the divisions of shellfish sanitation and long-term care, the demands imposed by federal requirements are making it difficult for staff to operate at previous workload levels. Also, State medical examiners are refusing to accept certain types of cases for autopsies authorized by local medical examiners pursuant to legislative intent. This has been done in order to manage workload. To address this problem, VDH should develop a plan identifying the resources that are necessary for the office of the Chief Medical Examiner to perform the activities prescribed to it by the *Code of Virginia*.

In terms of overseeing the quality of care provided by managed care organizations, the agency is in the final stages of completing a new set of regulations. However, VDH needs to address a number of issues identified by a consultant's report to improve its oversight of managed care organizations.

Turnover in the Commissioner Position and Among Senior Management Staff Has Hampered Management of VDH

To carry out its wide and diversified range of public health activities, VDH employs a large professional staff headed by a Commissioner of Public Health. Approximately one quarter of VDH staff work in the central office or at a satellite or regional facility. Since the majority of the public health services are provided through the local health departments, management staff at the VDH central office are responsible for setting the course for public health through planning and policy development. Other staff at the State office function primarily as a source of technical assistance for the health districts and local health departments.

To guide the work of the system, over the last five years VDH has established a strategic plan that identifies 14 goals for public health, nearly 50 objectives, and more than 200 strategies that must be implemented to meet those objectives. While it is still too early to assess the agency's performance for such a long-term plan, there are several major problems within the organization which have adversely impacted both the overall management of VDH and the initial efforts to implement this plan.

Paramount among these has been the frequent turnover among health commissioners. Since 1991, there have been five health commissioners at VDH. Furthermore, the fact that the current commissioner was still considered "acting" until very recently has fostered an atmosphere of instability among central office staff and raised questions in the field about the consistency and clarity of VDH's mission for public health.

More damaging is the fluid nature of the leadership in the commissioner's office, which appears to have contributed to unusually high turnover among senior manag-

ers at VDH (see table on page VIII). This has severely weakened the internal planning process and perpetuated funding problems for a number of the agency's divisions. These organizational problems have been especially harmful to the operation of the Office of Information Management (OIM) and its plans to modernize the agency's computer system. Absence of leadership, poor project management, staff turnover, and inadequate funding are just a few of the problems which undercut work on the new computer system. As a result, the project development process has been protracted and the Office of Information Management (OIM) has not been able to establish a completion date for the VISION (Virginia Information System Online Network) system. Unless these problems are addressed, it is unlikely that the agency will achieve many of the goals outlined in its 1999 strategic plan.

Recommendation. The Virginia Department of Health should reduce the administrative duties of the Associate Commissioner to allow this position to focus on broader issues of policy direction and communication.

Recommendation. The General Assembly may wish to consider revising §32.1-17 of the *Code of Virginia* to broaden the requirements for State Health Commissioner to include membership in any recognized board in a primary care specialty.

Recommendation. A permanent Commissioner for the Virginia Department of Health should be appointed. (Note: The acting commissioner's appointment was made permanent shortly before this report went to press.)

Recommendation. The Office of Information Management in the Virginia Department of Health should develop a detailed project plan for the remaining modules of VISION. This project plan

should include a detailed budget plan, staffing requirements, and scheduled completion dates for each module. The Department of Health should present the

VISION project plan to the Senate Finance and House Appropriations Committees by February 1, 2000.

Tenures for Senior Managers at the Virginia Department of Health			
<i>Position</i>	<i>Employees Serving In the Position</i>	<i>Acting or Permanent</i>	<i>Dates</i>
Deputy Commissioner for Public Health	Dr. Robert Stroube Dr. Clydette Powell Dr. E. Anne Peterson Dr. Curtis Thorpe Dr. Grayson Miller Dr. William Nelson Dr. Carl Armstrong Dr. Donald Stern	Acting Acting Acting Acting Acting Acting Acting Acting	9/1/99 – Present 12/23/98 – 8/31/99 11/16/98 – 12/22/98 10/5/98 – 11/15/98 8/24/98 – 10/2/98 4/25/98 – 8/4/98 7/10/97 – 4/24/98 11/1/95 – 7/10/97
Deputy Commissioner for Health Policy and Health Care Delivery	Dr. Clydette Powell	Permanent	10/19/98 – Present (Position did not exist prior to 10/19/98)
Deputy Commissioner for Administration	Helen Tarantino Helen Tarantino	Permanent Acting	11/16/96 – Present 3/11/96 – 11/15/96
Associate Commissioner for Community Health Services	Jeffrey Lake	Permanent	12/1/96 – Present
Office of Epidemiology	Dr. Robert Stroube Suzanne Jenkins Dr. Grayson Miller	Permanent Acting Permanent	10/1/98 – Present 9/10/97 – 10/1/98 10/1/86 – 9/10/97
Office of Family Health Services	Dr. Donald Stern Margaret Tate	Permanent Acting	7/10/97 – Present 4/1/96 – 7/10/97
Data Processing Director	Mark Neidinger Eletta Heath-Hansen Dr. Jared Florance Gary Blankenbecler	Consultant Acting Acting Permanent	6/23/99 – Present 8/10/98 – 5/9/99 12/16/97 – 7/21/98 11/14/94 - 12/01/97

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I. Introduction

In 1998, the Virginia General Assembly passed House Joint Resolution 137 directing the Joint Legislative Audit and Review Commission (JLARC) to “study the functional area of Health and Human Resources.” This resolution placed the focus of the review on the operation and management of the agencies in this Secretariat, including the Virginia Department of Health. In addition, the 1999 Appropriation Act required JLARC to review the “organization, management, and performance of the Department of Health, including a review of the Department’s monitoring of health maintenance organizations.”

The Virginia Department of Health (VDH) is responsible for the administration of the State’s system of public health. Broadly defined, public health is the practice of applying policy and science to promote and maintain the health of a population. In Virginia, communicable disease control, disease prevention, health education, and maintenance of sanitation and drinking water infrastructures are integral parts of this system. Proponents of the system of public health indicate that its programs are a constant, but often-unnoticed component of every person’s life, and that failure in these programs can lead to immediate or long-term harm to the population.

In recent years, a number of concerns have been raised about the State’s health department. These concerns have surfaced because a lack of continuity in the leadership of the department, problems that VDH has reportedly experienced in achieving Y2K compliance with its computers and bringing a state-of-the art information system online, and citizen complaints concerning the local delivery of some public health services.

This report presents JLARC’s review of the organization, operation, and performance of the Virginia Health Department. The remainder of this chapter provides an overview of the health department, examines the agency’s recent funding history and staffing patterns, presents information on trends in the public health of the Commonwealth, and outlines the approach used to conduct this study.

OVERVIEW OF THE VIRGINIA DEPARTMENT OF HEALTH

The evolution of public health both nationally and in Virginia has been shaped by two factors: (1) significant developments in science concerning the etiology of communicable diseases and the means for controlling their threat to public safety; and (2) rising public expectations that government should play a critical role in preserving the public health of the community. Virginia’s initial entry into the field of public health occurred in 1872 when the General Assembly enacted legislation establishing the State Board of Health. The early role of this Board was limited, focusing exclusively on preventing the spread of some communicable diseases. Over the next century, the General Assembly progressively expanded the role and functions of the State’s public health system.

With the goal of protecting, improving, and preserving the public health of the Commonwealth, the General Assembly redefined the State Health Department in 1947 to both organize and deliver a myriad of public health services. Reflecting the expanded mission of public health, the Department of Health was required to “administer and provide a comprehensive program of preventive, curative, restorative, and environmental health services.” The programs funded to carry out this mission included: disease prevention; maternal and child health; and regulatory programs for drinking water, wells, septic tanks, restaurants, as well as the regulation of healthcare providers.

In 1986, the Health Department underwent substantial change when the Medicaid program — a program that provides health insurance for the poor — was removed from the department and established as the major program administered by another agency (now known as the Department of Medical Assistance Services). Prior to the separation, Medicaid composed almost three-quarters of the Health Department’s annual budget. However, according to VDH staff, the loss of the program was not entirely negative for the agency as VDH management was released from the burden of administering this complex program.

VDH continued to concentrate its efforts in services to promote population and individual health but was relieved of the management responsibility for the Medicaid program. To carry out these duties, the department has organized its functions into five different offices and two centers under the general direction of two deputy commissioners for public health. Additionally, a wide range of community health services and regulatory activities of the local health departments are organized and managed by an associate commissioner through 35 health districts.

The Mission and Purpose of the Virginia Department of Health Has Been Greatly Expanded

In 1872, an act of the General Assembly created the State Board of Health and Vital Statistics, the earliest precursor of the Virginia Department of Health. The primary mission of this board was to oversee issues of sanitation and prevent the spread of communicable diseases. At that time, no general sanitary system existed and there was a public health concern regarding the potential spread of communicable diseases such as cholera, typhoid, and tuberculosis. However, because there was so little scientific data on the potential for controlling such diseases and limited evidence of disease outbreaks, the initial State Board of Health received no State funding to carry out its narrow mission.

In 1893, fear of a nationwide cholera epidemic prompted the General Assembly to commission a new health board. Over the next seven years, this board received a total of \$7,000 in State funding. During this same time period, advances in science uncovered evidence on the etiology of numerous lethal communicable diseases, thereby making it possible to organize a system of public health for the control and treatment of these problems.

Over the next 50 years, state legislatures across the country and in Virginia began to provide the funding and statutory authority needed to support a much more expansive role for public health agencies. For example, in 1908 the Virginia General Assembly established the Virginia Department of Health, equipping it with the State's first public laboratory. Other system changes implemented in the Commonwealth during this 50-year period included the following:

- establishment of three State institutions to control tuberculosis (1908-1920);
- creation of State Bureaus to organize and deliver sanitary engineering services, shellfish sanitation, maternal and child health programs, and public health nursing (1910-1927); and
- implementation of State-run programs for handicapped children, venereal disease control, hospital and nursing home licensure, and solid waste and control of disease-carrying organisms such as mosquitoes and rodents (1930-1940).

Expanded Local Health Presence and Mission. The next watershed year for public health in Virginia occurred in 1947. In this year, the General Assembly passed legislation which required "each county and city to establish and maintain a local health department," effectively creating a statewide presence for public health. Seven years later, legislation was passed that allowed the Department of Health to organize each of these local departments into 35 different health districts.

These changes were a part of the General Assembly's efforts to establish broad program priorities for the public health in State statute. Specifically, in Section 32.1-2 of the *Code of Virginia*, the General Assembly outlined its "findings and purpose" for public health with the following language:

The General Assembly finds that the protection, improvement, and preservation of public health and of the environment are essential to the general welfare of the citizens of the Commonwealth. For this reason, the State Board of Health and the State Health Commissioner, assisted by the State Department of Health, shall administer and provide a comprehensive program of preventive, curative, restorative, and environmental health services, educate the citizenry in public health and environmental health matters...collect and preserve vital records and health statistics...and abate hazards nuisances to the environment, thereby improving the quality of life in the Commonwealth.

With an expanded local public health delivery system and its broad goals for public health, the General Assembly began to mandate additional health services. At the same time, the federal government also established certain regulatory requirements concerning public health. In Virginia, the responsibility for implementing these requirements was placed in the local health departments. As Exhibit 1 reveals, the

Exhibit 1

Health Services Provided by the Virginia Department of Health	
Mandated Area	Type of Service
Communicable Disease Control	Childhood immunizations; sexually transmitted disease screening, diagnosis, and surveillance; HIV/AIDS testing and counseling; reportable communicable disease outbreaks; food borne disease outbreaks; tuberculosis screening, diagnosis, treatment, and surveillance; and community education.
Child Health Services	Screening for genetic problems; dietary supplements; well childcare; and community education.
Maternal Health Services	Prenatal and postpartum care for high-risk women; baby care services; implementation of WIC program; and community education.
Family Planning Service	Clinic services including drugs, and contraceptive supplies; pregnancy testing, counseling, and community education.
Environmental Health Services	Investigation of communicable diseases; rabies control; regulation of ice cream, frozen desserts, marinas, migrant labor camps, local jails, juvenile corrections facilities, milk, on-site sewage disposal, water supply sanitation, wells, and restaurants; inspection of sewage treatment plants, and tourist establishments.
Quality Health Care	Inspect hospitals, nursing homes, and adult homes.
Source: Virginia Department of Health, "Information on Central Office Operations."	

Virginia Health Department now must provide services in the following areas: communicable disease control; child health; maternal health; family planning; environmental health; and oversight to help ensure quality health care in hospitals, nursing homes, and adult homes.

In an attempt to accommodate this broad list of mandated services, VDH has changed its mission statement several times in recent years with each reflecting a more ambitious program of public health. Whereas the mission of the initial State Board of Health back in 1872 was restricted to the control of epidemics, by 1991 VDH had broadened its mission in the following way:

To provide a coordinated prevention-oriented program that promotes and protects the health of all Virginians and ultimately results in optimal health for all citizens of the Commonwealth.

Several years later, however, VDH modified its mission statement to reflect its growing environmental health functions:

...to achieve and maintain optimum personal and community health by emphasizing health promotion, disease prevention, and environmental protection.

Finally, in its 1999 strategic plan, VDH proposed yet another change to its mission. This proposed change, which would focus some public health activities on strengthening the family, reads as follows:

...provide quality service and promote, manage, and implement policies that strengthen the family and reduce dependence on government by encouraging prevention, excellence, accountability, and innovation.

The Virginia Department of Health Is Organized as a Multi-Tiered System

There are three important elements in Virginia's health department system. First, there is a State Board of Health, which formulates health policy and establishes the regulations that govern the operation of the system. Second, there is a State Health Commissioner — with several deputy and associate commissioners — who is vested with the authority to perform the duties of the Board of Health when it is not in session (Figure 1). Third, there are 35 local health districts consisting of 119 local health departments. These local offices provide various services in the general areas of environmental health and community healthcare, including communicable disease control. The State Health Commissioner delegates the necessary statutory authority to the health districts so that public health activities can be implemented locally.

State Board of Health. The State Board of Health is an 13-member body that was established by the General Assembly to provide leadership for Virginia's Health Department and serve as an advocate for the public health interests of the citizens of the Commonwealth. The Board is composed of individuals from every aspect of public health: health professionals, consumers, local government representatives, and industry representatives. Members are appointed by the Governor for four-year terms and can serve no more than two consecutive terms. Current State statute requires the Board to meet annually.

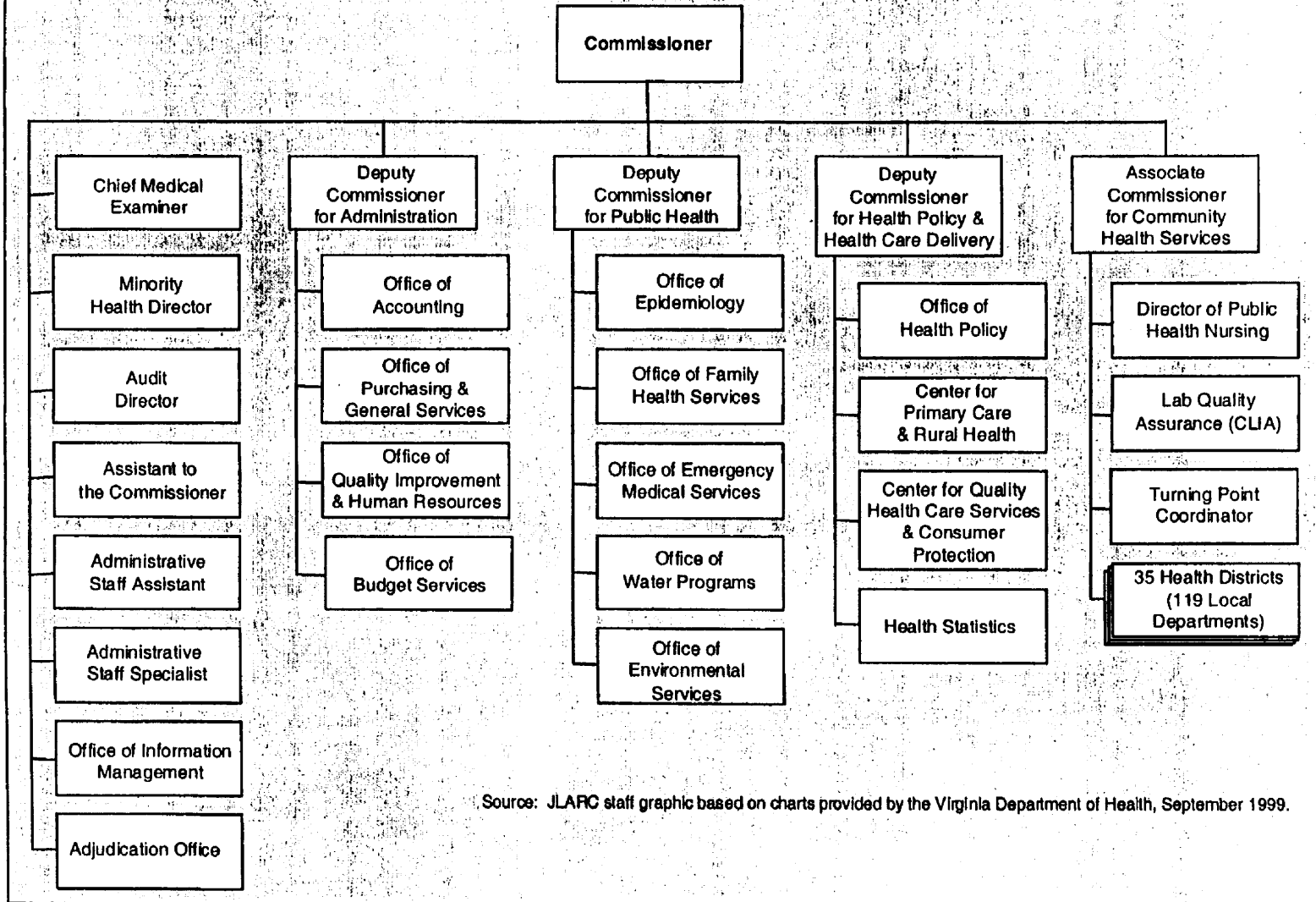
The *Code of Virginia* gives the Board the authority to formulate a "program of environmental health services, laboratory services and preventive, curative, and restorative medical care services." In addition, the Board is responsible for awarding grants for various health services, developing regulations to govern certain emergencies, and directing the Department of Health to inform the Board on health care policy and financing issues.

The Commissioner's Office. Section 32.1-17 of the *Code of Virginia* establishes the position of State Health Commissioner. While the Governor is authorized to appoint the person to fill this position for a coinciding term, the General Assembly requires that individual to be a licensed physician, certified by the American Board of Preventive Medicine, and experienced in public health duties, sanitary science, and environmental health.

To facilitate the State development and local implementation of health policy, the Commissioner can appoint, among other positions, three deputies and one associate commissioner. These deputies and associate commissioners each have a small advisory staff and oversee VDH activities in the areas of administration, public health, health policy and health care delivery, and community health services.

Figure 1

Organizational Structure of the Virginia Department of Health



Source: JLARC staff graphic based on charts provided by the Virginia Department of Health, September 1999.

The Deputy Commissioner for Administration is responsible for the Offices of Quality Improvement and Human Resources, Purchasing and General Services, Budget Services, and Accounting. This functional area serves the internal needs of VDH programs and staff by handling fiscal services, procurement, hiring, personnel policies, and other related duties.

The Deputy Commissioner for Public Health focuses on general issues concerning the well being of Virginia citizens. This position is responsible for the Offices of Family Health Services, Epidemiology, Water Programs, Environmental Services, and Emergency Medical Services. The Deputy Commissioner for Health Policy and Health Care Delivery is responsible for the Center for Quality Health Care Services and Consumer Protection, the Center for Primary and Rural Health Care, and the Office of Health Policy. In addition, activities associated with generating State health statistics are organized in this area.

The Associate Commissioner for Community Health Services oversees offices with four separate functions: (1) technical assistance to local public health nurses, (2) quality assurance and oversight of State-operated laboratories, (3) policy and planning for the Turning Point project, and (4) management of 35 local health districts. In the past, a regional layer separated the health districts from the State level offices. However, during the fiscally austere times of the early and mid 1990s, the regional offices were eliminated in an effort to preserve services at the local level.

Local Delivery System. Presently, there are 119 local offices that provide a wide array of environmental services and both mandated and non-mandated community healthcare services. These public health activities are carried out under the general auspices of the 35 health districts. In effect, these local offices are extensions of VDH and operate under contract between the State agency and local governments. These contracts delineate the health services that will be provided in the local jurisdictions located in the health districts, thereby establishing the parameters of the cooperative agreement between the State and local governments.

In three localities — Richmond, Arlington, and Fairfax — local governments manage their own health programs and are considered locally administered health districts. The only significant distinction between these offices and those that are still a part of the State system, however, is in personnel. The staffs in these locally administered districts are employees of local government and subject to local personnel policies. Cooperative budget funds support these staff to the extent of the allocation to locally administered district.

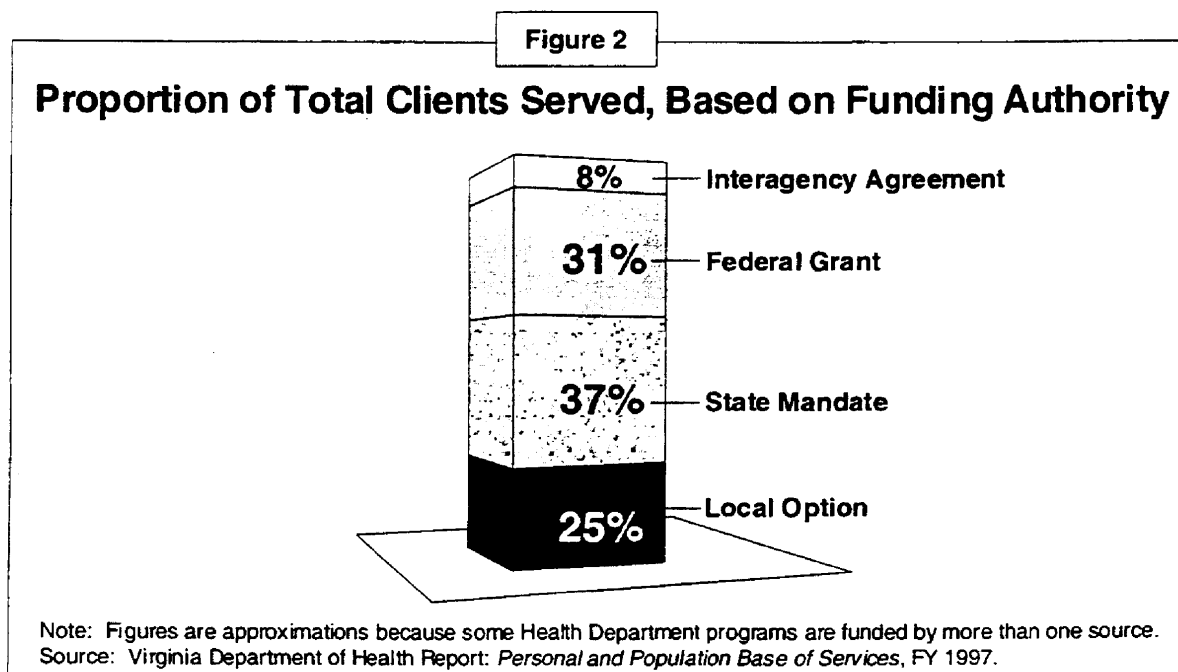
Community Health Services. While almost all localities are expected to provide a basic set of environmental health services — such as inspections of restaurant, septic systems, private wells, swimming pools, migrant labor camps — the type and level of community health services offered may vary substantially. Differences in local missions for public health, the amount of local funding available for non-mandated services and the availability of federal grants has produced significant variation in the scope of community public health services across localities. For example, some

local health departments operate fully staffed medical clinics that provide a range of non-mandated medical services. However, rising costs, limited growth in general fund appropriation, and an increase in managed care for persons with Medicaid have caused a number of other local health departments to limit the scope of their primary healthcare services.

Figure 2 presents data on the proportion of clients who receive various health services according to the funding authority for the various programs. Persons treated through programs mandated by the State accounted for the largest category of clients served (37 percent). Some of the services provided these individuals included immunization services, treatment for tuberculosis, sexually transmitted diseases, and other communicable diseases. Roughly 25 percent of the clients were served through programs which were considered local options. These included children who received services through school health programs partially staffed with VDH personnel, adults who received personal care, home health, or activities of daily living services, and persons who were provided general medical care.

Federal grants for programs such as the Supplemental Nutrition for Women, Infants and Children's program, Family Planning Services, and Maternal and Child Health are an integral part of the local public healthcare delivery system. The adults and children served in these programs represented 31 percent of the clients receiving services from VDH in FY 1997.

Finally, as a part of numerous interagency agreements, VDH implemented a range of health services for about eight percent of its clients. The most notable of these activities was the preventative health and case management services provided for children through the Early and Periodic Screening, Diagnosis and Treatment program.



VDH'S FUNDING AND STAFFING LEVELS

State funding for the Department of Health comes from four primary sources and is spread over 15 functional areas. Since FY 1986, total appropriations for the Virginia Department of Health have increased significantly and presently total more than \$404 million. This increase has been fueled by an infusion of federal dollars in the system — the major funding source for public health in Virginia — as the State's relative general fund contribution has declined. The two other funding sources are dedicated and special revenues, which represent nearly one third of VDH's budget.

Local funding is also an integral part of the public health budget for the Commonwealth. Localities are required to match a portion of the State's contribution. Localities may also provide more funding if they chose to provide a higher level of service. Presently, local governments contribute approximately ten percent of the cost of public health services in the Commonwealth (about \$38 million).

Despite the overall growth in the total amount of dollars allocated to the State's public health system over the last decade, there has been no appreciable increase in staffing for VDH. Specifically, VDH had roughly the same number of staff in 1997 as it did in 1986. The growth in State staff for VDH was curtailed by the Workforce Transition Act of 1995 and other government downsizing decisions. In addition, a number of positions were lost by the decisions of three large localities (the counties of Fairfax and Arlington and the City of Richmond) to operate locally administered local health departments.

Funding for the Department of Health Has More than Doubled Since 1986

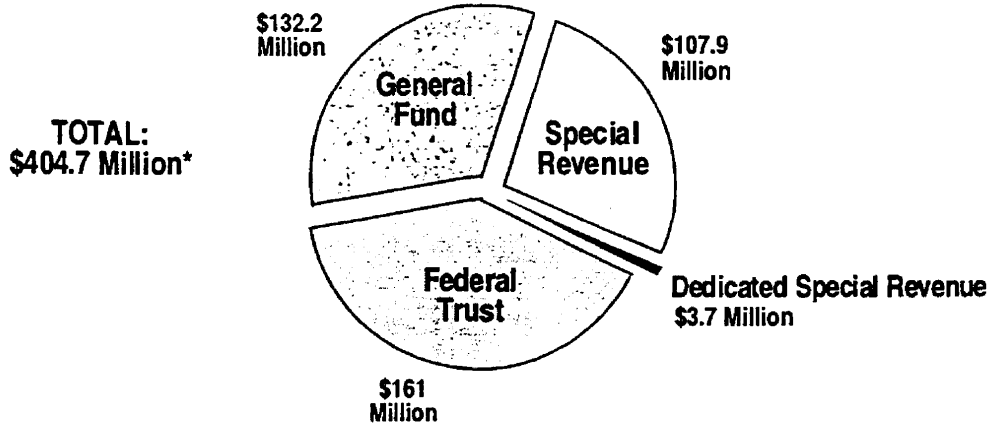
VDH operations are funded from four main sources: (1) federal trust monies, (2) the State general fund, (3) special revenue, and (4) dedicated special revenues. As shown in Figure 3, four out of every ten dollars that were appropriated for public health in Virginia in FY 2000 were provided through the federal trust (\$161 million). These funds are generated through VDH's acquisition of nearly 40 federal grants.

Appropriations from the general fund accounted for \$132 million of total funding, or 33 percent. Special revenue appropriations total another \$108 million and the primary sources of that revenue are local match and clinic service and fee revenues in the 35 health districts. Dedicated special revenue — funds that can not be reverted to the general fund — accounted for the remainder of the State's VDH appropriations.

Trends in Public Health Funding. As Figure 4 illustrates, appropriations for State administration of public health services have increased significantly since FY 1986. The total amount of money appropriated for public health from the four previously discussed funding sources in FY 2000 was more than \$404 million. This amount

Figure 3

Funding Sources for Virginia Department of Health, FY 2000

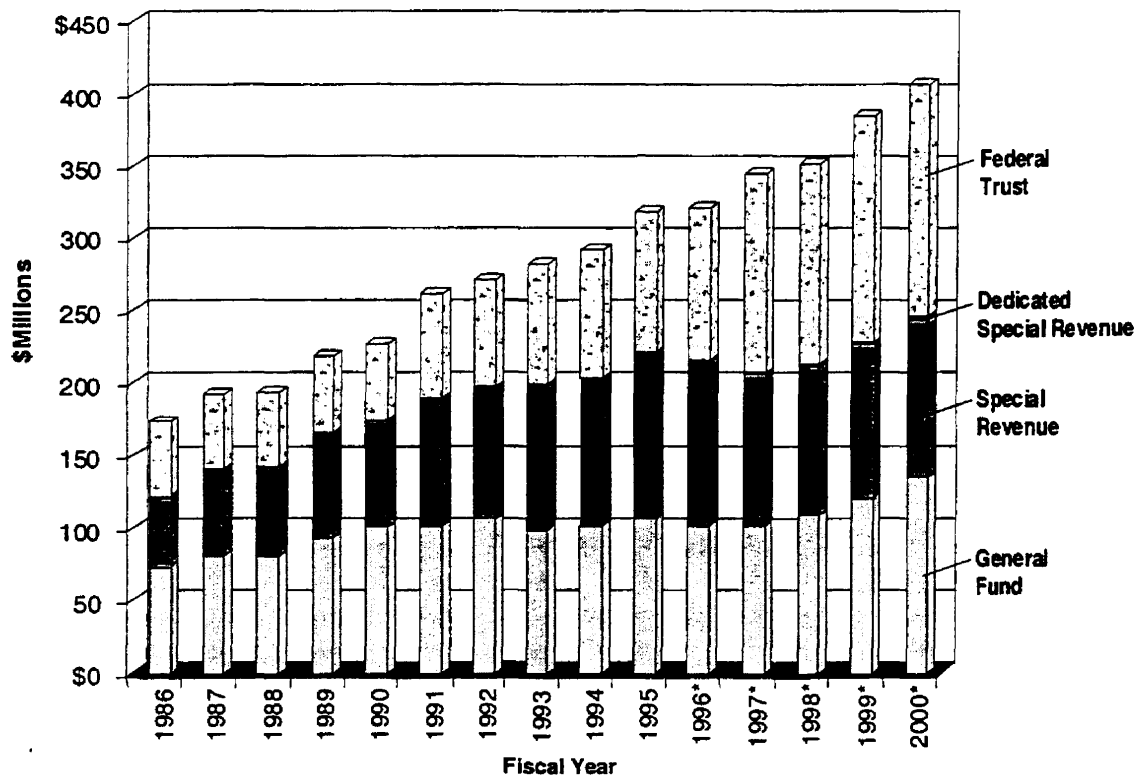


* Does not include \$2.2 million in VHCF funding.

Source: 1999 Virginia Acts of Assembly.

Figure 4

Total Appropriations by Funding Source for the Virginia Health Department



* Does not include VHCF funding.

Source: Virginia Acts of Assembly, 1985 - 1999.

represents an average annual increase in funding of nearly nine percent from the FY 1986 VDH appropriation of \$174 million.

Although general funds for public health increased during this period, total general fund dollars as a percent of the all public health appropriations has declined. As the State slowed the rate of growth in general fund dollars allocated to public health during the early 1990s, the surge in funding for public health was fueled by sharp increases in federal funding for the system. As revealed in Figure 4, the amount of federal funds flowing into the system began to gradually increase in 1995 before sharply accelerating by the end of the decade. By FY 2000, four out of every ten dollars of VDH's public health budget were from federal contributions. This represented a 25 percent increase from the size of the federal contribution in FY 1986. By comparison, general fund dollars dropped from 43 to 33 percent of the budget — a 26 percent decline. This shift can be partially attributed to increased federal involvement in State public health programs that focus on the control of communicable and sexually transmitted diseases. However, it also reflects a retrenchment in State funding for public health that began during the recession of the early 1990s.

Funding by Program Area. Because of the broad scope of public health in the Commonwealth, funding for the system must be allocated among numerous program areas. Specifically, public health funding is distributed over 15 general program areas comprising all of VDH's operations. Of these 15 functions, Community Health Services (CHS) received the largest share of funding in FY 1999, accounting for more than \$153 million or 40 percent of all operations (Table 1). Included in CHS are appropriations for general medical services, maternal and child health services, environmental health services, and local administrative services. VDH's communicable disease program, which pays for immunization services, tuberculosis control, treatment of sexually transmitted diseases, and other epidemiological services, received a \$42.8 million appropriation which accounts for 11 percent of total funding.

Allocating Funds to Local Health Departments. As noted earlier, funding for CHS also includes appropriations for the 119 local health departments. The amount of each local appropriation is based partially on a funding formula developed by JLARC that establishes a match rate for each local jurisdiction. Presently, each locality contributes to the State a local share for the costs of their health programs, based on a measure of the locality's ability to pay.

This local share can vary between 18 percent and 45 percent. As a result of the formula, the State always pays the majority share. Currently, the aggregate relative contribution for local health offices is 40 percent.

Staffing for the Department of Health Has Declined Since FY 1996, Largely Due to WTA and Conversions of Positions to the Local Government Level .

Although overall funding for the department has consistently increased over the last 13 years, the number of appropriated staffing positions has not. For example,

Table 1

**Total Appropriation for Functional Program Areas
Within the Virginia Department of Health**

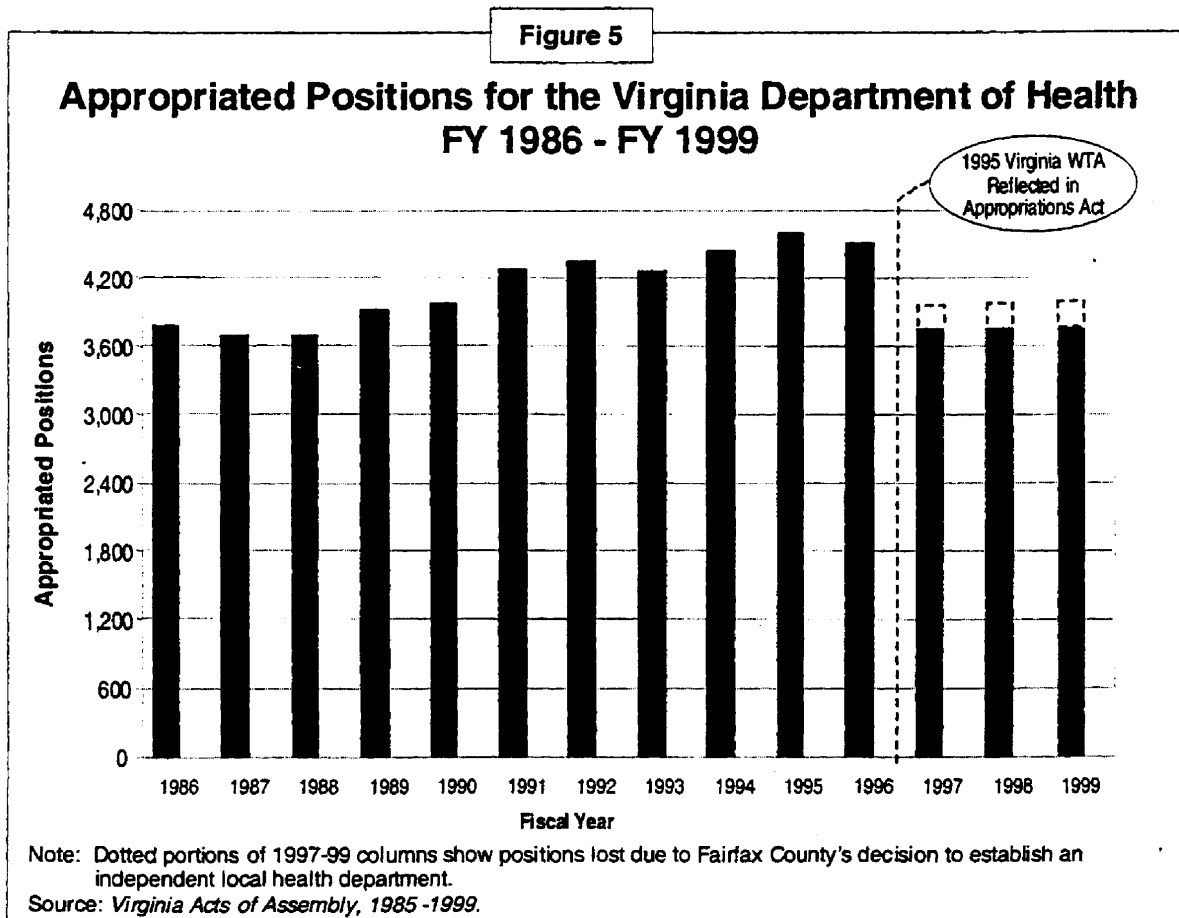
Program Area	Funding Activities	FY 1999 Appropriations	Percent of Total
Administrative and Support Services	Commissioner's Office, Internal Audit, DGS Rent, Accounting and Budgeting Services, Personnel Services, Computer Services	\$9,549,999	2%
Health Research, Planning, and Coordination	Physical Health Research, Planning and Coordination, Health Resources Development	\$2,318,013	1%
Communicable and Chronic Disease Prevention and Control	STD/AIDS, Immunization Services, Tuberculosis Prevention and Control, Epidemiological Services, Cancer Registry	\$42,800,256	11%
Vital Records and Health Statistics	Health Statistics, Registration Services	\$3,963,373	1%
Medical Examiner and Anatomical Services	Anatomical Services, Medical Examiner Services	\$3,960,825	1%
Community Health Services	Dental Health, Environmental Health, Family Planning, Home Health Services, General Medical Services, Maternal and Child Health Services, Local Administration Services	\$153,046,935	40%
Emergency Medical Services	Financial Assistance to Volunteer Rescue Squads	\$12,237,552	3%
State Health Services	Maternal & Child Health, Children's Specialty Services, Family Planning Services, Child Development Services	\$31,983,505	8%
Nutritional Services	Nutritional Assistance	\$76,677,982	20%
Environmental Resource Management	Sewage and Wastewater Regulation, Water Supply Engineering	\$28,408,374	7%
Higher Education Student Financial Assistance Scholarships	Scholarships	\$2,195,139	<1%
Regulation of Food	Shellfish Sanitation	\$1,588,715	<1%
Regulation of Public Facilities and Services	Regulation of Health Care Facilities	\$6,152,426	2%
Regulation of Products	Regulation of Hazardous Products, Radiological Materials Regulation	\$1,643,891	<1%
Special Health Improvement and Demonstration Services	Pilot and Demonstration Services	\$5,242,597	1%

Source: 1999 Virginia Acts of Assembly.

from FY 1986 to FY 1995, the number of appropriated positions for the Department of Health increased from 3,800 to over 4,600 – an increase of more than 20 percent (Figure 5). However, by FY 1999 VDH had fewer than 3,760 positions. VDH has attributed part of this loss to the 1995 decision by Fairfax to establish a locally administered local health department. In this transition, those former 250 State positions were converted to local government positions. It should be noted, nonetheless, that these positions are still available to provide health services in Fairfax, therefore treating them as a loss of staff is somewhat misleading.

The health departments in Arlington County and the City of Richmond also chose to become independently administered in 1989 and 1996, respectively. Nonetheless, the more than 200 positions allocated to those localities were maintained by VDH and then redistributed throughout the public health system.

From a State agency’s perspective, the more meaningful reductions in local staff have occurred as a result of the Virginia Workforce Transition Act (WTA) of 1995. As a result of WTA, the department lost 400 positions to early retirement. Approximately 380 of these positions were in the area of community health services. Additionally, VDH staff indicate that over the last eight years, the department has made a



conscious effort to maintain service levels in the face of what staff believe has been limited growth in funding for health services (the average annual growth rate during those years was five percent). To compensate for limited funding growth, some management positions have been eliminated – mostly from the regional offices — and many positions have been left vacant.

COMMUNITY HEALTH INDICATORS FOR VIRGINIA

Much of the staffing and funding for VDH are allocated for the purpose of promoting or improving the health of people in Virginia communities. One way to broadly assess the performance of VDH is through an examination of data measuring the health of the State's population using annual and longitudinal measures.

When major health indicators for which the latest annual data were available are examined, the citizens of Virginia generally appear less healthy than the rest of the country. However, these types of comparisons offer no insight on the health trends of the State's population. In other words, the data do not address whether the health of the population is eroding or improving over time. When these types of data are examined, the story is mixed. For some indicators, the morbidity rates appear high but the trend is downward. For others, the morbidity rates fluctuate from year-to-year with no particular directional trend. Still for other indicators, there is little or no change at all in morbidity rates.

Notwithstanding these data, it is important to note that many factors both within and outside the control of the department influence the trends in community health indicators. Consequently, these data do not provide a sufficient basis for evaluating the efficacy of VDH's public health programs. A comprehensive analysis must include a review of the agency's staffing and workload patterns, local implementation practices, and performance outcomes for specific programs, as well as an assessment of the department's organization and management structure.

Virginia Compares Somewhat Unfavorably to National Averages on Key Health Indicators

According to VDH publications, the department chooses to focus its public health improvement activities in four priority areas: pregnancy outcomes, chronic disease, communicable disease, and environmental hazards. Following the national standard set by the Centers for Disease Control and Prevention, Virginia published *Healthy Virginia Communities* (December 1997) in which it evaluated its success in promoting public health.

JLARC staff chose eight indicators from the report that appeared to reflect some of the major components of the State's public health program. Those indicators

are displayed in Table 2 along with a comparison to the national average. As shown, for all but two of the reported indicators, the rate of illness, disease, or deaths in Virginia was higher than the national average. For two indicators, the differences were relatively small. For example, the rate of low weight births in the Commonwealth was only three percent higher than the national average and the rate of stroke-related deaths was almost identical. However, occurrences of gonorrhea, syphilis, and salmonellosis in Virginia exceeded the national average by 10, 187, and 16 percent respectively.

Trend Data Offer a Mixed Story on the Health of Virginia's Citizens

For a number of reasons, considerable caution must be exercised when making health comparisons across communities using point-in-time or annual estimates. Foremost, some point-in-time measures can be unreliable as small changes in certain health outcomes (for example, infant deaths) may produce large changes in the resulting statistics. Additionally, these types of comparisons offer no insight on the health trends of the population. Virginia's rates, while higher, may be on a consistent downward trend. To account for this problem, trend data on several community health indicators for Virginia is reported in this section of this chapter.

Trends in Pregnancy Outcomes. Trends in infant mortality rates, rates of low birthweight, and non-marital births are a common focus in public health statistics because of the adverse health consequences often associated with these social phenomena. Trend data for these outcomes are reported here as measures of pregnancy outcomes (Figure 6).

Table 2

Health Indicators: Comparisons of Virginia and the United States

Indicator	Virginia's Rate	National Rate	Percent Difference
Infant Mortality Rate	7.7	7.2	6
Low Birthweight Rate	7.7	7.5	3
Coronary Heart Disease Deaths	232	271.6	(17)
Stroke-Related Deaths	59.9	59.7	.003
Occurrence of Syphilis	9.2	3.2	187
Occurrence of Gonorrhea	135	122.5	10
Occurrence of Tuberculosis	5.3	7.4	(40)
Occurrence of Salmonellosis	16.7	14	16

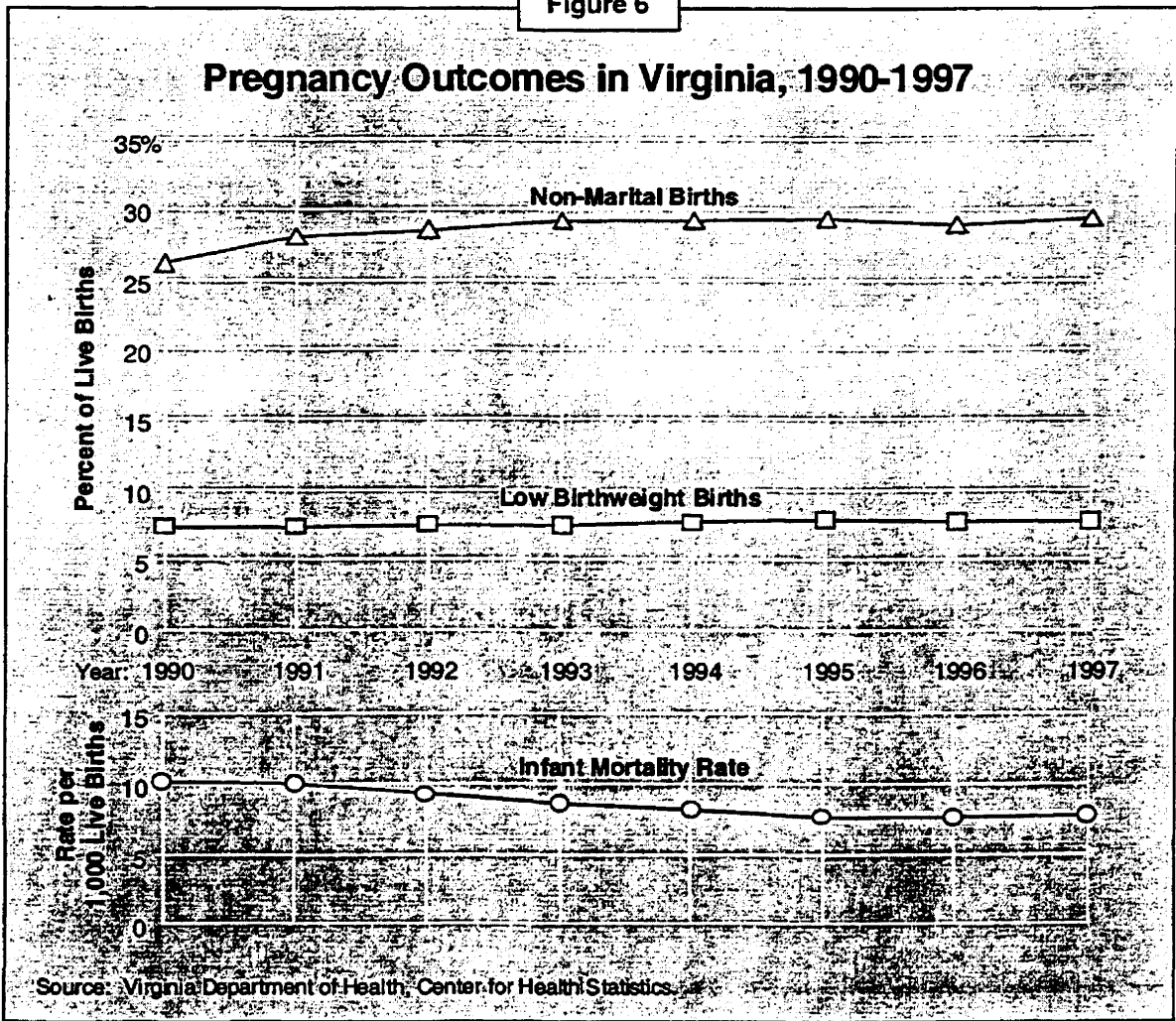
Notes: Unless otherwise noted, the rates in this table are calculated per 100,000 population for 1997. The exceptions are as follows: infant mortality and low birthweight rates are calculated per 1,000 live births; and tuberculosis rates are based on 1998 data. The difference in the rates for syphilis is slightly inflated because Virginia's data includes cases of early latent syphilis while the national data does not.

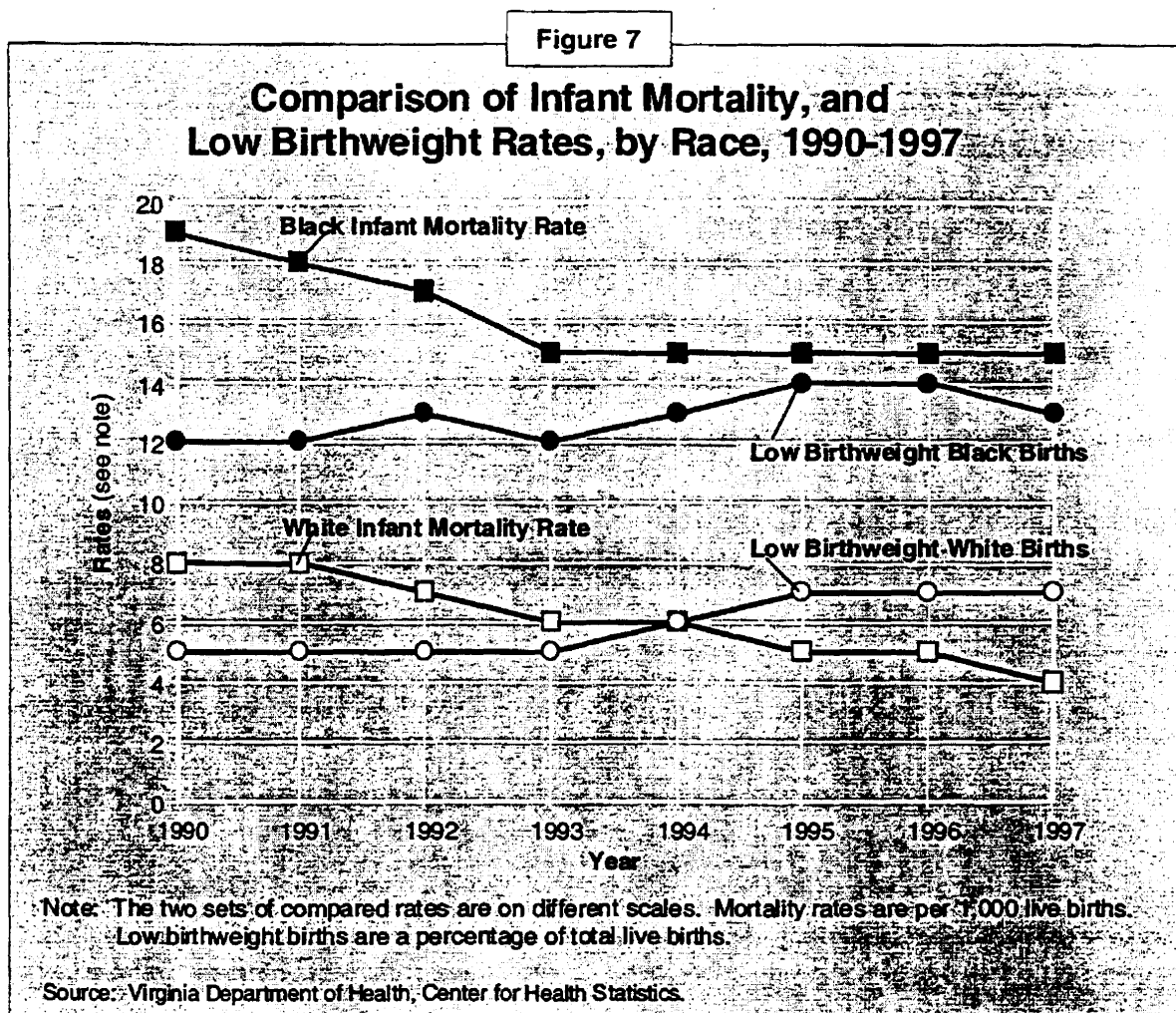
Sources: *Healthy Virginia Communities*, Virginia Department of Health, 1997. Virginia Office of Vital Statistics.

As shown, these data offer a mixed picture for Virginia. On the one hand, Virginia has experienced a consistent decline in its infant mortality rate over the past seven years. However, the State has witnessed slight increases in the rate of low birthweight babies and a substantial increase in the percent of children born out of wedlock. Furthermore, it is important to note that there are substantial differences in these measures according to race (Figure 7). While the trends in infant mortality and low birthweight birth rates have fluctuated for both whites and blacks, the rates for blacks are typically two to three times higher than those observed among whites.

The differences between race are most stark when the data on the percent of non-marital births are separated by race. There has been an increase in the number of children born out-of-wedlock to both races, but the rates for blacks — which are typically over 60 percent — are three times higher than the rates for whites (Figure 8, page

Figure 6

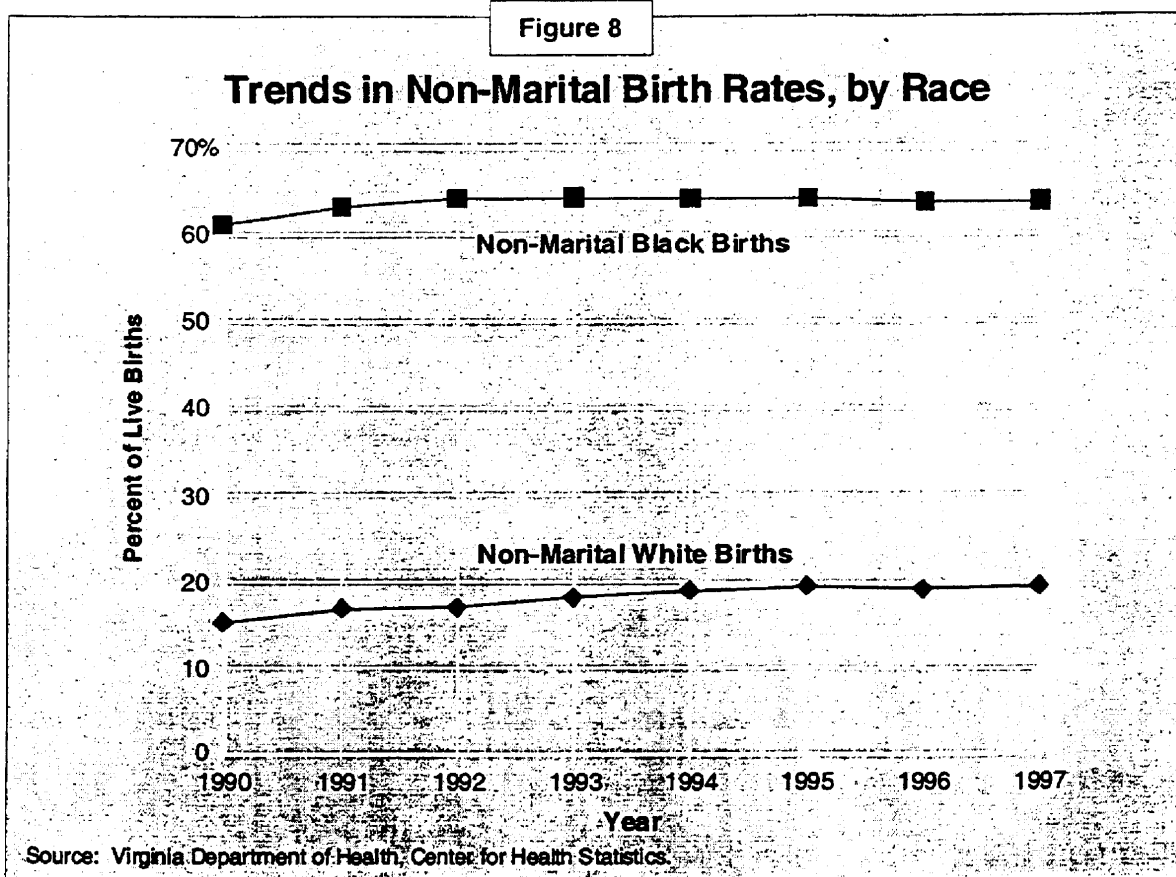




18). A number of complex socio-economic factors are likely driving these racial disparities which are completely apart from the issue of public health. Most notably, numerous studies have documented the correlation between poverty and these types of adverse pregnancy outcomes. Because blacks are disproportionately poor in Virginia, some of these differences are not surprising.

At the same time, one of the long-standing functions of public health in Virginia has been to combat the adverse health consequences of poverty. From that perspective, these data may indicate some limitations in VDH's ability to offset the adverse consequences of poverty upon pregnancy outcomes, as revealed by the differences in outcomes based on race.

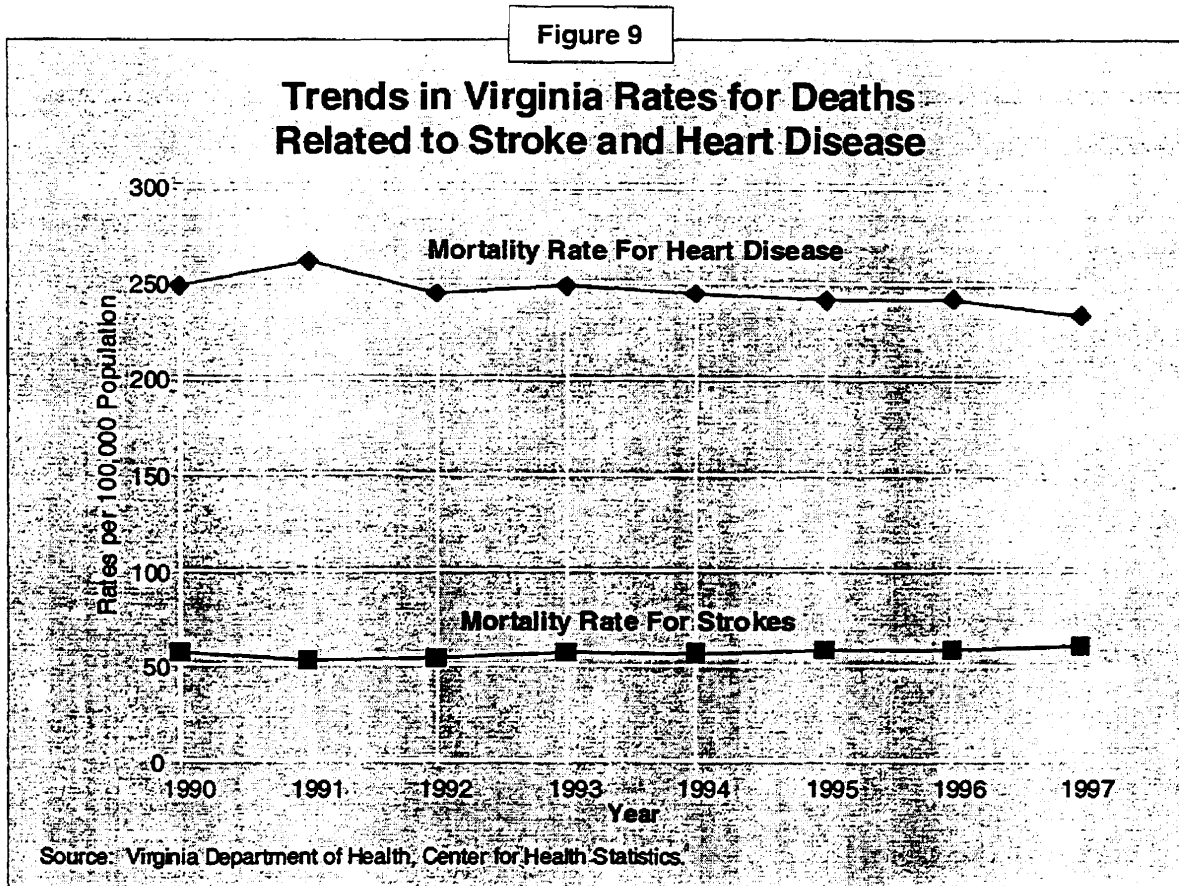
Chronic Disease Rates. Figure 9 (page 19) reports trend data for State deaths due to heart disease and strokes. While the decline has been slight, the data does indicate that the rate of death due to heart disease has been decreasing in Virginia. A review of the data for strokes, however, reveals a slightly different picture.



Specifically, following a decline in the rate of stroke deaths from 1990 to 1992, there was a slight increase in the rate over the next six years.

Trends in Reportable Diseases. As a basic function of public health, the State Board of health has outlined a list of reportable diseases that VDH must track and investigate. A small but significant number of these diseases are transmitted through sexual practices (for example, syphilis, gonorrhea, and HIV). Some, such as Salmonellosis, are spread through improper food handling practices or inadequate or poor hygiene (for example shigellosis). Others like tuberculosis and meningococcal meningitis are spread through the exchange of respiratory and throat secretions. Finally, a smaller number are transmitted through animal bites (for example, rabies). Because upward trends in these diseases are sometimes viewed as an indictment of the effectiveness of public health programs, many of the agency's disease prevention activities are designed to reduce the rate at which these reportable diseases occur.

Figure 10 (page 20) reports the trend in disease rates for Virginia from 1990 to 1997. While spikes are observed in the rates in 1991 and 1994, overall, these data suggest that there has been a general decline in the occurrence of reportable diseases during this time period. Still, there are limitations to these data that must be considered in the analysis of disease trends. Most notably, these trend data do not reflect



those instances where persons contract a disease but do not seek medical attention. This type of under reporting weakens any conclusions that can be drawn from the data.

One disease category where the problem of under-reporting is not as severe statewide is sexually transmitted diseases. A sexually transmitted disease (STD) is an infection passed from person to person through sexual contact. Four of the most noted such diseases are gonorrhea, syphilis, HIV, and AIDS. Gonorrhea's long-term complications include sterility and ectopic pregnancy. Syphilis bacteria can spread through the body of an infected individual, causing damage to the nervous system and the body's organs and eventually death. HIV works to weaken the immune system, eventually resulting in the development of AIDS. The transmission of AIDS occurs primarily but not solely from sexual contact and it is the eighth leading killer in Virginia.

While each STD is unique, the communicable nature and damaging results of these diseases if left untreated make HIV/AIDS, syphilis, and gonorrhea priority concerns for VDH. As a result, a considerable amount of resources are spent tracking these diseases and educating the public on their methods of transmission. One benefit of this increased vigilance appears to be a decline in the rates for each of these STDs over the last eight years.

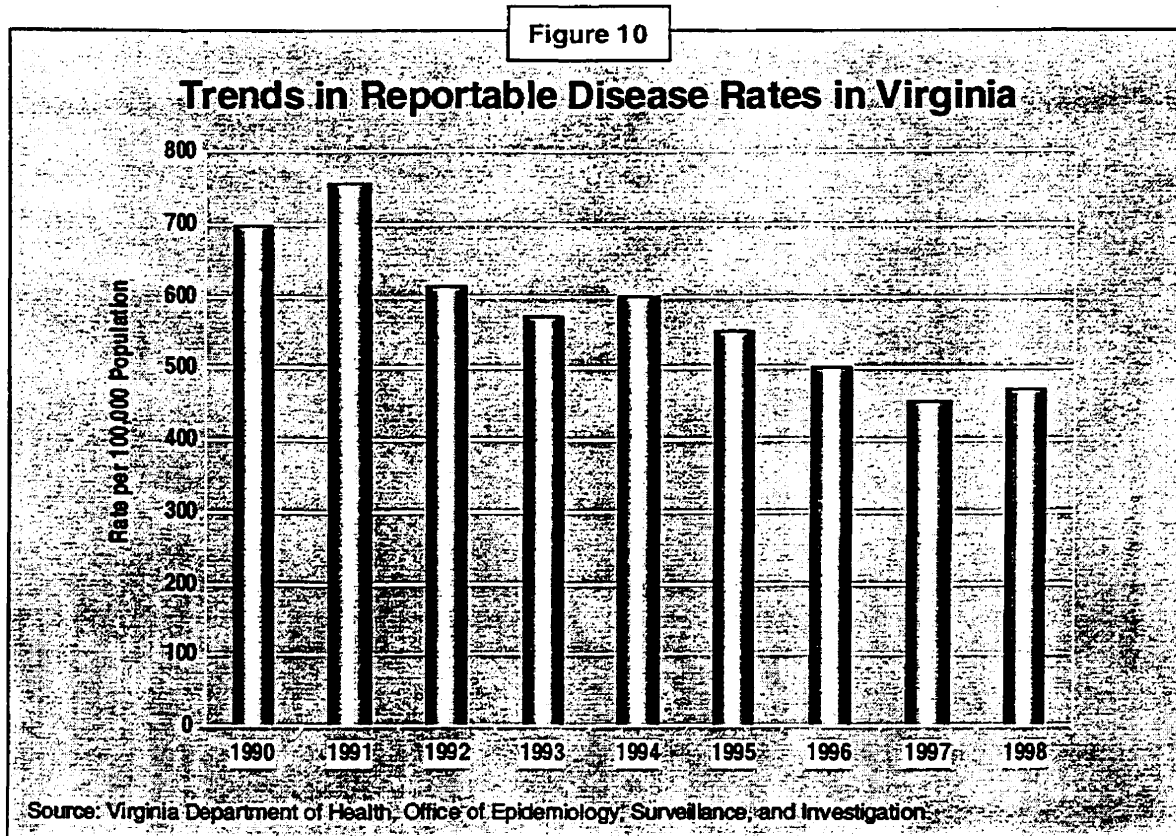
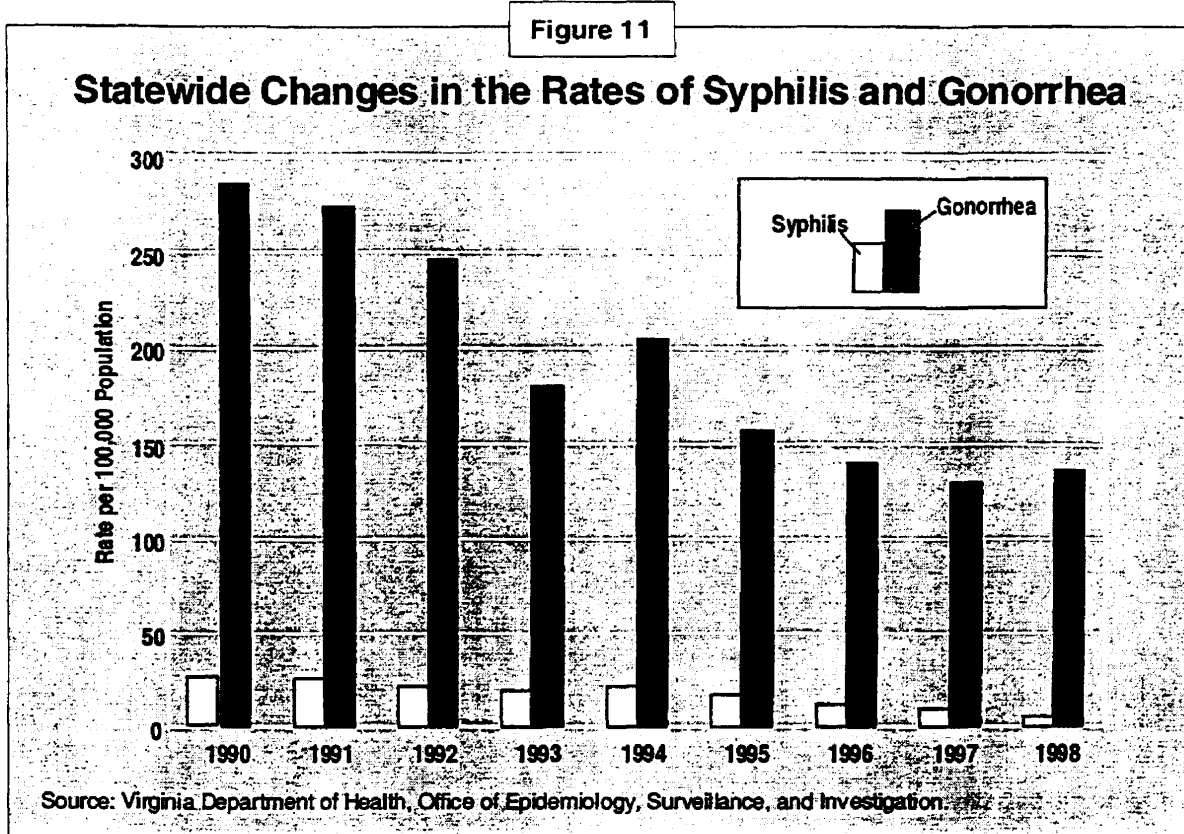


Figure 11 shows the decline in rates for gonorrhea (which occurs at the highest rate statewide) and syphilis. In 1990, the rate of new cases of gonorrhea in Virginia was 285 per 100,000 population. By 1998, this figure had dropped by more than 50 percent to 135 per 100,000 population. The rate of decline for syphilis was even more pronounced. In 1990, there were 25 cases of this disease for every 100,000 people in the State. Seven years later, the rate had dropped to 5.58 per 100,000 population – a 77 percent drop. The statewide trends for both syphilis and gonorrhea mirror the national declines in the rates of occurrence for these STDs. Over roughly this same period of time, the national rate for new cases of syphilis dropped by 84 percent, while the rate for new cases of Gonorrhea fell by 56 percent.

In terms of HIV and AIDS, public health doctors pay special attention to changes in the rates of HIV because these patterns will likely predict future trends in the more lethal AIDS disease. Statewide trend data for HIV and AIDS, while not as promising, do seem to indicate that the State is making progress in slowing the rate of new cases of these lethal viruses as well.

Figure 12 (page 22) provides evidence of a decline in the rate of new cases for both of these diseases. Further, trends in the rate of AIDS are consistent with HIV. An exception appears to occur for AIDS from 1990 to 1993, when the rates accelerated rapidly. However, much of this increase can be attributed to the upgraded techniques



for surveillance that were put in place nationwide during these years. Since 1993, the rates of decline for AIDS and HIV have been similar, at 47 and 43 percent respectively.

Statewide Trends in Tuberculosis (TB). A cornerstone of public health in Virginia is the State's TB monitoring program. Because this disease is transmitted through the air indiscriminately, controlling TB proliferation in Virginia is a top priority of VDH. As reported in Figure 13 (page 22), since 1990, the rate of TB in the Commonwealth has dropped by nearly 25 percent. Specifically, in 1990 the State's TB rate was 6.62 for every 100,000 persons. By 1998, that figure had fallen to 4.99 persons for every 100,000 Virginia residents.

Evaluating Virginia's System of Public Health Requires More Detailed Data

Because of its broad mission, there are legitimate questions concerning how the performance of VDH should be evaluated. As a part of an assessment of its policies and programs, VDH has established benchmarks for the Year 2000. The purpose of these benchmarks is to measure the agency's progress in achieving the three following goals: (1) improve pregnancy outcomes; (2) decrease the burden of chronic disease; and (3) protect Virginians from communicable disease and environmental health hazards. Using a task force, VDH identified 30 community health status or risk indicators for

Figure 12

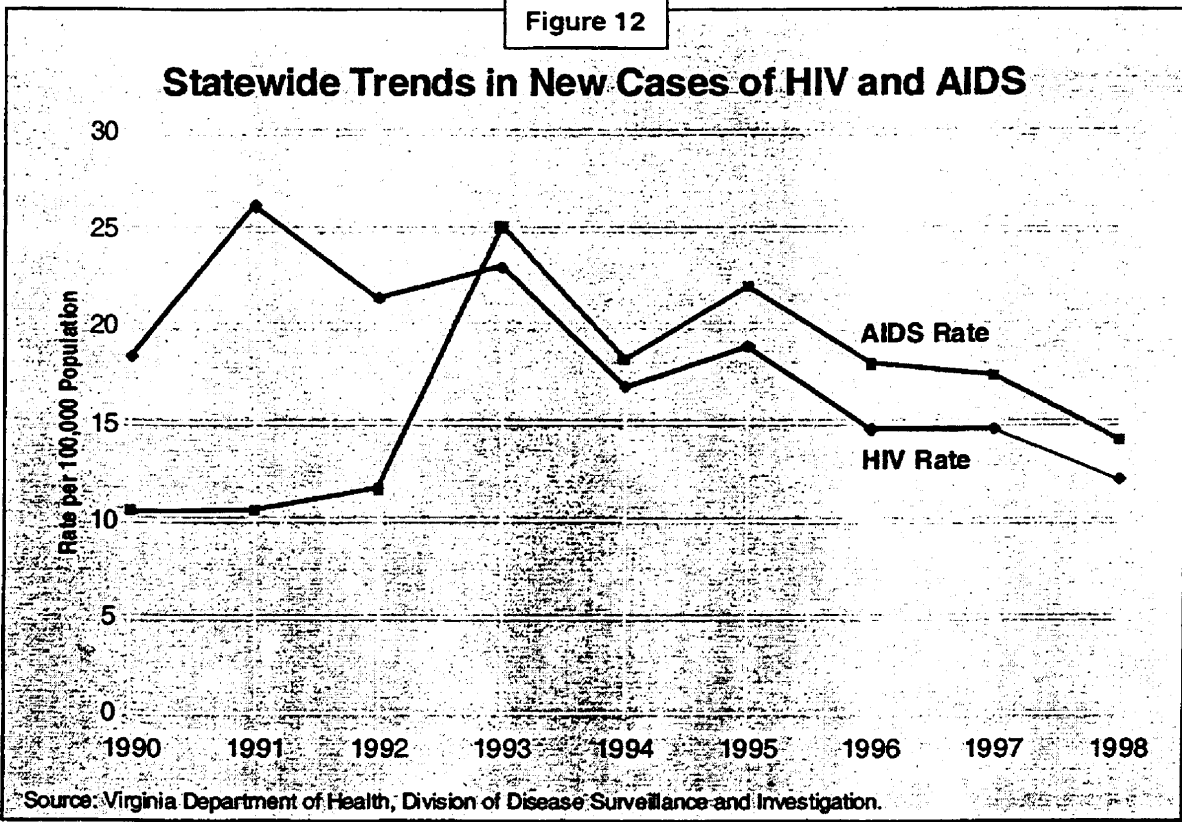
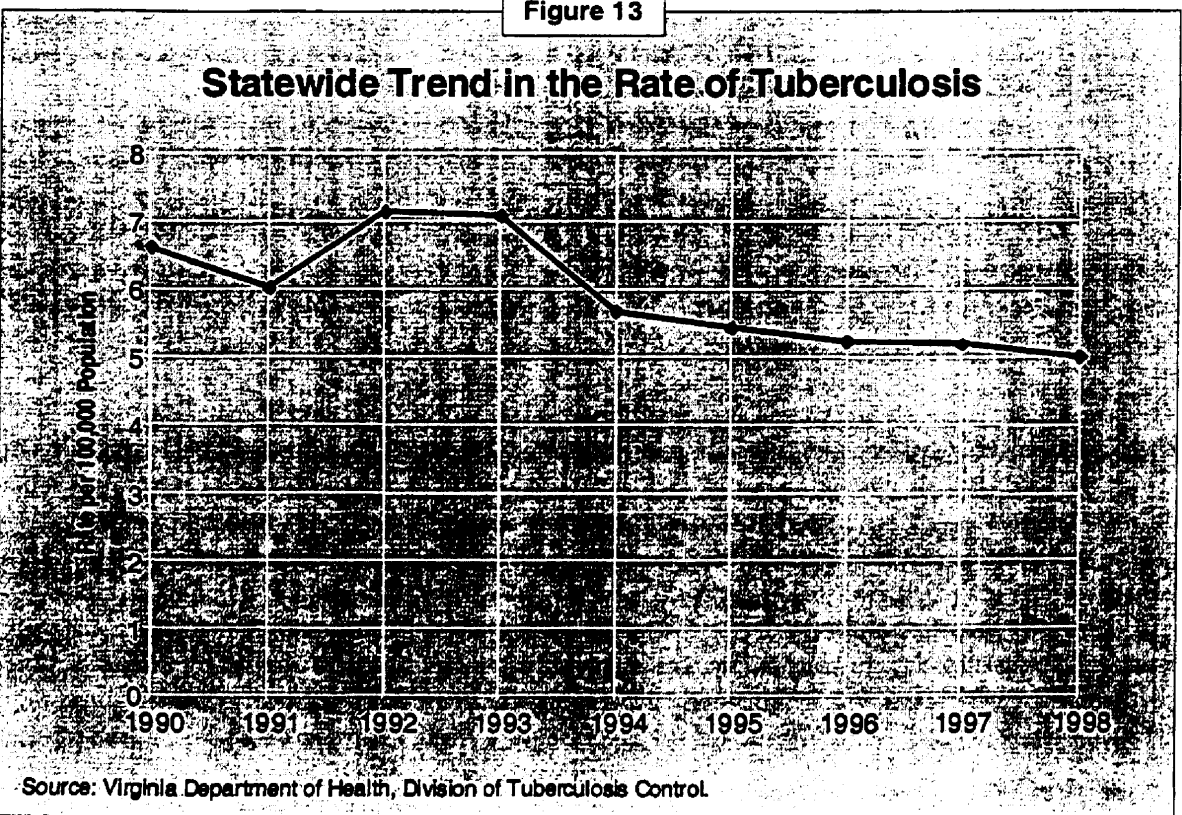


Figure 13



which outcomes will be compared to the benchmarks established for the year 2000. Examples of several of these indicators or health status outcomes are:

- Reduce the infant mortality rate to no more than seven per 1,000 live births.
- Reduce low birthweights to an incidence of no more than five percent of live births.
- Reduce stroke deaths to no more than 20 per 100,000 people.
- Confine the incidence of HIV infection to no more than 11.9 per 100,000 people.

Using statistics similar to those reported in this section, VDH will then assess the performance of its system in reducing or preventing death, disease, and disability. Nonetheless, because there are many factors that drive the statistics that will provide the basis for this assessment, conclusions about the performance of VDH can not be easily or appropriately made based entirely on these outcomes. Such an assessment offers no insights into the organizational efficiency of VDH's central office, the quality of agency leadership, and the adequacy of the agency's strategic planning process in addressing the pressing concerns and issues on the horizon of public health. There may be issues in these areas which, if addressed, could enhance the performance outcomes of VDH.

Similarly, a valid assessment of the agency's programs must be based, in part, on an evaluation of the implementation practices and outcomes of the agency's particular programs and not just community-wide health indicators which are subject to the influence of many factors outside of VDH. As will be discussed in the next section of this chapter, these components — a review of VDH's organization and management, and an assessment of local program performance — are the central elements of JLARC's staff review of the agency.

JLARC REVIEW

This section of the chapter outlines the approach used by JLARC staff in its study of the health department. To address the mandate's emphasis on the "operation, management, and performance" of the department, this review was broadly defined to focus on two separate aspects of the State's system of public health: (1) the success of the agency in implementing its basic public health functions, and (2) the State-level organization and management of the public health system. Within this framework, the following research questions were identified to define the focus of the study:

1. What are the performance outcomes for Virginia's major programs of public health and what factors appear to influence any variation in these outcomes?

2. How has the leadership and staff turnover at VDH impacted the direction, and management of the Department of Health in providing the State's public health services?
3. Is the Department of Health organized, staffed, and managed to provide adequate support and guidance for the State's system of public health services?
4. Are the activities provided from the VDH central office being effectively implemented and evaluated to meet statutory requirements?
5. Is the Office of Information Management appropriately organized, staffed, and managed to meet the data information needs of the Department of Health?
6. Has the Department of Health implemented the new requirements regarding managed care organizations?

To examine these aspects of the system, the JLARC staff conducted structured interviews with State-level staff, analyzed data on the organization and staffing patterns of the agency, and surveyed each division director in the department, the 35 health district directors and staff in each local health department. Additionally, file reviews and structured interviews were conducted in a small subset of localities.

Local Program Structure, Funding, and Performance Outcomes

Although VDH provides a wide array of services under a broad program of public health, this review focused on some of the department's key mandated and optional programs. Particular attention in the analysis was given to the following programs because they are mandated by state law and are locally-operated: immunization, tuberculosis control, sexually transmitted diseases, restaurant inspections, surveillance and investigation of disease outbreaks, and sewage and water services. Programs in family and child health, which are integral parts of the public health system, could not be examined for this study due to the absence of outcome data. JLARC staff surveyed 116 out of 119 localities and collected data on the structure, characteristics, staffing, and performance of the local health departments. For a smaller subset of localities, JLARC staff conducted structured interviews with local staff to collect information on the program implementation process and audit some of the local program records.

Local Structure, Funding, and Staffing. According to VDH staff, there is considerable variation in the way local offices are organized and staffed to carry out their public health functions. As a result, for all local offices, a descriptive picture was developed, focusing on its service mix and staffing patterns.

Program Performance Data. JLARC staff examined selected outcome measures to examine each of the aforementioned programs. Through data requests to VDH's management information staff and mail surveys of each locality and the local health districts, key outcome data for these programs were collected. Exhibit 2 provides a list of the outcome measures used to assess the performance of local health departments.

More Detailed Data Collection for a Subset of Local Offices. To more completely understand the program implementation process, visits were made to a subset of local offices that were selected for this review in a non-random, purposive manner. This selection strategy was used for three primary reasons. First, the approach was used to ensure that each of the three locally administered local health departments — Richmond City, Fairfax, and Arlington — would be included in the study.

Second, JLARC staff wanted to ensure that a mix of urban and rural localities would be included in the more detailed study. Like so many locally operated systems, there are sharp differences in the resources available to public health departments across the State. Therefore, one goal of the analysis was to evaluate whether important differences exist in public health programs and practices that can be linked to the geographic location of the departments.

Finally, there is considerable disagreement among key actors in the State's public health system regarding the role of public health in the delivery of primary health care services. Accordingly, JLARC staff purposively selected localities where major clinics have either been downsized or eliminated, such as Richmond, Virginia Beach, and Arlington, as well as those that continue to operate large primary health care programs, such as Alexandria.

Exhibit 2

Outcome Measures for JLARC Study of Locally-Delivered Public Health Services	
Program	Outcome Measure
Immunization	Proportion of children who received their schedule of immunization shots by their second birthday
Tuberculosis Control	Proportion of persons infected with TB completing treatment Proportion of TB disease cases completing treatment
Sexually Transmitted Diseases and HIV	Proportion of STD/HIV cases receiving counseling Proportion of named partners receiving counseling Proportion of named partners tested
Restaurant Inspection Program	Proportion of restaurants inspected Frequency of restaurant inspections
Surveillance and Investigation of Disease Outbreaks	Proportion of disease outbreak cases with completed follow-up
Sewer and Water Services	Proportion of applications processed and completed in a timely manner

Source: JLARC staff selection of outcome measures.

Figure 14 indicates the localities that were selected for this study. At each site, the structured interviews were conducted with the local staff who are responsible for providing the public health services that are the focus of the analysis. These site visits were also used to audit some of the office records for the purpose of collecting performance data that is not available in aggregate form. In particular, JLARC staff reviewed a small sample of records in each office which document the inspection process and outcomes for restaurants, the timeliness of the permitting process for septic tanks and wells, and the nature of the local agencies' responses to disease outbreaks.

State-Level Organization and Management of VDH

The last part of this study focused on the organization and management of VDH at the State-level. JLARC staff used structured interviews, mail surveys, and document reviews to examine the general operation and structure of the agency with respect to issues concerning leadership, staffing, service delivery, and the performance of information management.

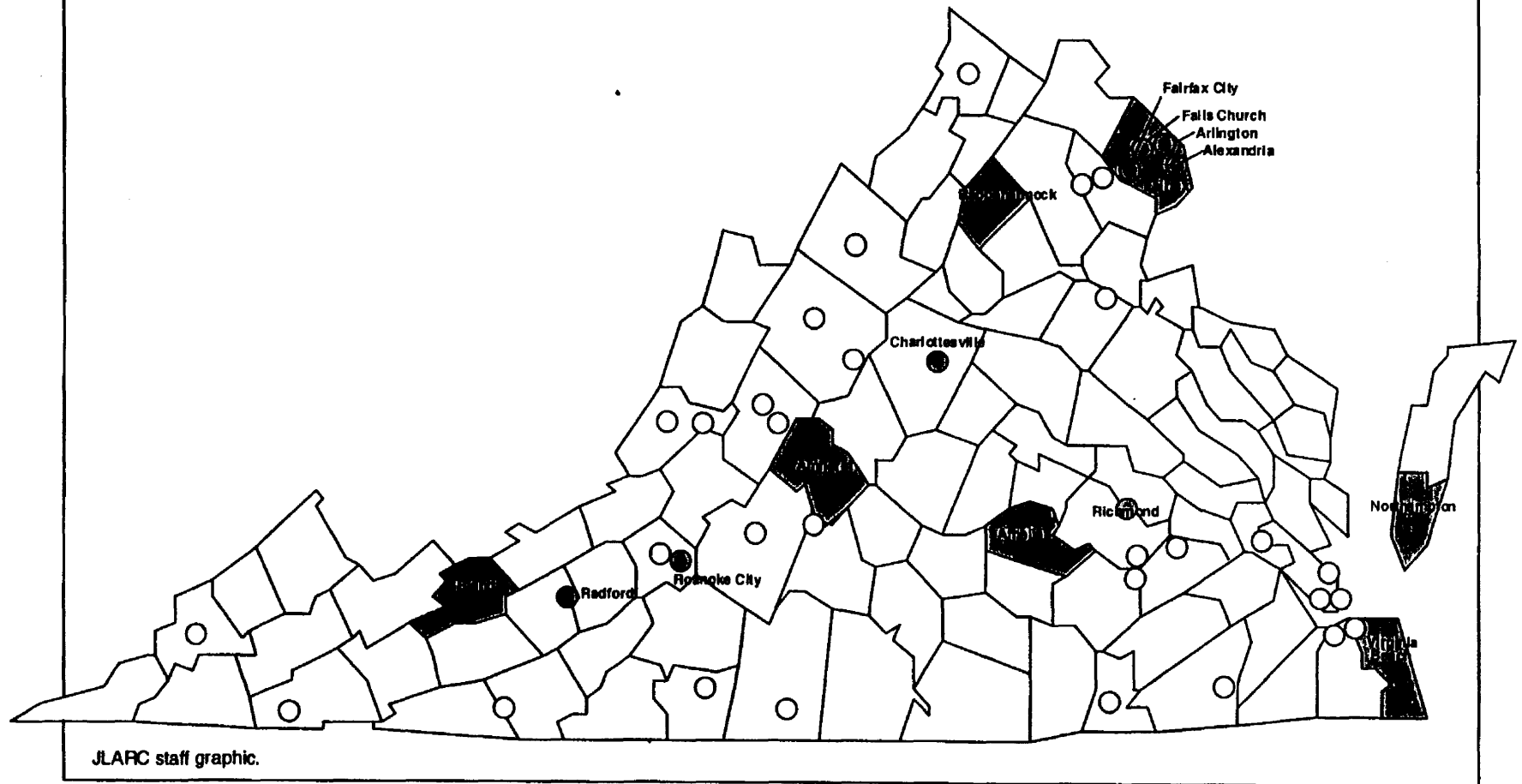
Structured Interviews. Many of the issues addressed in the organization and management review of the department required interviews with senior management staff. Through these interviews, staff views concerning the impact of VDH's changing leadership on the direction, funding, and staffing of the agency were solicited. These staff members were also questioned on the basic structure of the agency — organization of key functions, chain of command, span of control — and were asked to discuss the strategies they use to manage the work of their offices. Finally, the interviews were used to query staff on the activities that management has put in place to ensure that the department meets its statutory duties, as well as discuss existing barriers or limitations that impact the agency's ability to meet program mandates.

Mail Survey of Division Directors. A key feature of VDH management structure is its 19 division directors. These staff members are responsible for providing staff management, program planning, technical assistance, oversight, and in some cases, actual service delivery for the major public health functions of the department. Because of the importance of this layer of management, each division director was surveyed regarding the major aspects of their job, their relationship with field staff, the overall direction and management of VDH, and their success in establishing programs and procedures to carry out the agency's mandates. To supplement these interviews, JLARC staff reviewed division procedures for local oversight, division operational plans, as well as data on staff vacancy rates.

Review of VDH's Monitoring of Health Maintenance Organizations. In addition to the above mentioned activities, JLARC was required by the 1999 General Assembly to examine the Department of Health's oversight of the State's managed care organizations and regulatory development process related to that function. To perform this analysis, JLARC staff interviewed staff from the Center for Quality Health Care Services and Consumer Protection (CQHCCSP). Moreover, JLARC staff attended

Figure 14

Localities Visited as Part of the JLARC Study of the Virginia Department of Health



meetings of the advisory committee established to develop and discuss the draft regulations and reviewed the draft regulations. Survey responses from the division directors within CQHCSCP were also analyzed. Finally, JLARC staff reviewed the private consultant's report prepared for CQHCSCP in 1999 concerning the Center's resource requirements.

REPORT ORGANIZATION

This chapter has provided an overview of the study mandate, VDH, and the JLARC review. Chapter II addresses the performance outcomes for some of the key State-mandated public health programs. Chapter III examines the funding of community public health services. Chapter IV focuses on the regulatory program and public health services provided centrally. Finally, Chapter V discusses the operation and management of VDH.

II. Performance Outcomes for State-Mandated and Locally Operated Public Health Programs

Virginia's system of public health is uniquely defined by cooperative operating agreements between the State and each local jurisdiction in the Commonwealth. A key aspect of these agreements, which are renewed annually, is the provision that outlines the public health services that will be provided in each locality. Based on State statute and consistent with the overall mission of VDH, a set of mandatory public health services is listed in these agreements.

Presently, there are seven major programs that represent the cornerstone of the State's public health system (Exhibit 3). These programs fall into three more general categories of communicable disease control, women's and infant healthcare, and environmental health. This chapter presents JLARC staff's assessment of the performance of the public health services that local health departments provide as a part of their communicable disease control and environmental health functions.

The study results indicate that on balance, local health departments have done a good job in organizing and delivering public health services in most of these program areas. Services for each of the major communicable disease programs have been properly organized and delivered to attack the morbidity rates for certain diseases. This was especially evident for those programs that are implemented to control the spread of tuberculosis, sexually transmitted diseases, and HIV and AIDS.

In terms of environmental health, while several aspects of the State's food inspection program need to be revisited, local health departments appear to have programs in place which ensure that restaurants receive the State-mandated one inspection per year. And, when evaluating the design and construction of septic systems, environmental health specialists ensure that required separation distances between the system and the groundwater are met.

Still, there are problems with some of the State's public health programs that, if not addressed, could substantially weaken the long-term effectiveness of these services and in some cases threaten basic public health. In particular, VDH staff need to improve their efforts to treat persons who are infected with tuberculosis but do not have the actual disease. Also, better outreach and client tracking strategies are needed to increase immunizations for children. Finally, the agency should develop a statewide marketing program that encourages private doctors to more consistently report the communicable diseases they diagnose through routine patient care.

PERFORMANCE OF COMMUNICABLE DISEASE PROGRAMS

According to VDH staff, the number one priority of the State's public health system is the locally operated communicable disease programs. These programs, which

Exhibit 3

Key Locally-Operated Public Health Programs in Virginia		
Public Health Area	Program	Target Group
Communicable Disease	Tuberculosis	Persons with TB disease and in some cases persons who are infected but do not have the disease
	Immunization	All children in the Commonwealth who are not immunized by private physicians
	Sexually Transmitted Disease and HIV	All persons who contract an STD (including HIV) or are exposed to someone who has an STD
	Surveillance and Investigation	Persons/facilities involved in disease outbreaks
Women's and Infant Healthcare	*Women's and Infant Health	Low-income pregnant women and indigent women with young children
	*Family Planning	Low-income women
Environmental Services	Food Service Establishment Inspections	All food service establishments in the Commonwealth
	Sewage and Water Services	All private wells and septic tanks
Notes: Services provided by Women's and Infant Health and Family planning are driven by mostly federal mandates. In addition, the health department has yet to establish a data system in which outcome data are systematically collected. As a result, these programs were not included in the JLARC performance assessment.		
Source: Virginia Department of Health.		

are designed to reduce the morbidity rate for tuberculosis, ensure the vaccination of children for preventable diseases, and control the spread of a host of other communicable diseases, represent the basic infrastructure of the public health system.

Program outcome data support the view that VDH's communicable disease programs are generally well designed and effectively implemented. For example, in the area of communicable disease control, local staffs ensure that more than nine out of every ten patients who have tuberculosis disease start and complete their treatment within the prescribed time period. Statewide, nearly three-quarters of all children are immunized in a timely manner, and local health departments are providing the required follow-up when certain communicable diseases are reported. Also, through a tightly administered program for persons who contract sexually transmitted diseases, local health department staff successfully deliver the necessary treatment to the majority of persons who contract venereal diseases, HIV, or AIDS.

Notwithstanding these findings, State and local staff need to make several changes to the communicable disease programs to address problems associated with the delivery of tuberculosis prevention drug therapy, childhood vaccinations, and disease reporting. Specifically, nearly four out of ten persons who have a high risk for developing tuberculosis (they do not have the actual disease) do not complete their medication as prescribed. Immunization rates are unacceptably low in certain areas of the State. Furthermore, approximately 30 percent of local health departments do not track the immunization outcomes for children and 20 percent have no programs in place to contact children who are not immunized according to law. Also, the timeliness with which local staff are able to respond to disease outbreaks could be improved if private doctors provided more timely and consistent reporting.

Local Health Departments Have Done a Good Job Implementing the State's Mandated Communicable Disease Programs, But Some Improvements Are Needed

The cooperative service plan agreements effectively represent the State and local definition of public health for the relevant local jurisdiction. A key component of these plans are the State requirements for the local delivery of communicable disease services. The programs funded in this area are designed to provide for the protection of public health "by investigation, control, and prevention of communicable and non-communicable disease and epidemics..." The major programs in this area are: Tuberculosis Control, Immunization Services, Sexually Transmitted Disease Control, HIV/AIDS Prevention and Treatment, and Disease Surveillance and Investigation and Control (including Rabies Control).

As these programs have come to define much of what is considered mandated public health care both nationwide and in Virginia, any questions about the performance of local health departments must be partly addressed by evaluating the operational effectiveness of these core programs. This section of the chapter assesses the outcomes for the mandated communicable disease programs.

Tuberculosis Control Program's Drug Treatment Completion Rates Are High, But the TB Drug Prevention Program Could Be Improved. Every locality in the State is required by law to operate a tuberculosis (TB) control program. TB is a disease caused by bacteria that usually attacks the lungs. The disease is transmitted through the air when a person who has full-blown TB coughs or sneezes. Persons who breathe these bacteria become infected; however, they may not necessarily develop a case of TB if their bodies' immune systems are strong enough to keep the bacteria from growing. Consequently, persons who have weak immune systems – for example, infants, children, or HIV patients — pose the greatest risk for developing the disease should they be exposed to the TB bacteria.

The department's TB program is designed to control the spread of the bacteria through a targeted program of TB testing and treatment. To accomplish this, the Division of Tuberculosis Control has established separate policies governing the process for

the identification of persons who are at-risk of developing TB and those who have TB disease. For screening to determine if a person has TB disease, VDH first recommends a clinical assessment for symptoms. If the patient is symptomatic, further testing is recommended using sputum examinations or chest radiography. Because of the generally low incidence of actual TB disease statewide, the policy recommends that local health departments focus these testing efforts on populations where the prevalence of the active disease is likely to be high (for example, homeless persons, migrant workers, or individuals who are foreign born).

When persons are diagnosed with actual TB disease, several different drugs are prescribed. The greatest danger for these patients occurs when they skip medications and do not complete their treatment program. This allows drug-resistant bacteria to proliferate. Once this happens, a more powerful dosage of drugs must be administered for longer periods of time, at a cost of more than \$200,000 per patient. As a result, the Center for Disease Control recommends the use of direct observed therapy (DOT) for TB patients receiving treatment. DOT involves a health care worker meeting the patient every day or several times a week so that he or she can be observed taking the medication.

The tuberculin skin test is the only tool available to screen for TB infection. However, this test often produces false positives in persons who have a low risk for developing actual TB disease. Therefore, VDH recommends that clinical assessments of patient risk factors be conducted before the skin test is given. Moreover, if a person is considered a high risk for TB disease, local staff are asked to determine if that individual is willing and able to complete preventative drug therapy before a screening is conducted and therapy is prescribed.

If a person tests positive for the TB bacteria and is considered a risk for developing the disease, staff at the local health departments will implement a program of preventive therapy with the drug INH. This treatment program lasts six months for most patients. For children and HIV patients, the treatment lasts between six months to one year because of their under-developed or weakened immune systems.

To conduct a performance assessment of the TB program for this study, JLARC staff collected survey data on the screening and program treatment practices of local health departments along with statistics from the State office on the drug therapy completion rates for persons with TB disease. Additionally, similar data were analyzed for persons who were screened and in some cases treated for TB infection.

Table 3 reports the survey results from questions in which local health departments were asked to describe their screening practices for persons suspected of having TB. As indicated, the responses for almost 90 percent of the health departments indicate that staff limit TB screening to high-risk populations in compliance with State policy. The rates were somewhat smaller for local health departments in urban locations but the differences are not substantial.

Table 3**TB Screening Practices for Local Health Departments**

<i>Does the local office limit TB screening to persons who are high risk?</i>	Type of Local Jurisdiction			
	Total	Urban	Suburban	Rural
Yes	89%	80%	89%	91%
No	11%	20%	11%	9%

Notes: A total of 117 local health departments responded to this question on the survey. Designation of local health departments as "urban", "suburban", or "rural" is based on JLARC staff analysis of population density for the jurisdictions served by those health departments.

Source: JLARC staff survey of local health departments.

Next, JLARC staff examined the drug treatment completion rates for persons with TB disease who were started on a drug treatment regimen in FY 1997. This analysis revealed that the drug treatment completion rates for this program are high (Table 4). Statewide, 92 percent of all persons with TB disease, who are started on medication, complete the program within the required timeframe. These rates remain consistently high after accounting for the geographic nature of the jurisdictions served by the local health departments.

According to the director for the Division of Tuberculosis Control, the completion rate would likely approach 100 percent if the medication were provided at no cost to the uninsured. Under current guidelines, persons with a case of TB can expect to pay more than \$2,000 for treatment. If their disease were drug-resistant, the cost would be substantially higher.

The results for drug treatment completion change considerably, however, when the TB prevention program is considered. Statewide, only 64 percent of all persons who are started on a drug regimen to prevent their TB infection from developing into TB disease actually complete the program. This means that nearly one in three such

Table 4**Drug Program Completion Rates for Persons Who Were Treated for Tuberculosis in FY 1997**

<i>Did the patient complete the drug treatment program?</i>	Type of Health District			
	Total	Urban	Suburban	Rural
Yes	93%	95%	93%	93%
No	7%	5%	7%	7%

Notes: Designation of health districts as "urban", "suburban", or "rural" is based on JLARC staff analysis of population density for the jurisdictions located within these health districts. Data on drug completion rates provided for all 35 health districts.

Source: Virginia Department of Health, Division of Tuberculosis Control.

patients do not complete the program and are potentially at-risk for developing TB disease. It also poses a public health risk.

A multivariate analysis was conducted to identify the factors that were most strongly associated with drug treatment completion rates for local health departments in the 35 health districts. The dependent variable for the analysis represented the portion of all TB prevention patients who completed their drug treatment regime. The other variables considered in the model were:

- the geographic makeup of the health district based on the population density of the district;
- the poverty rate for the health district based on the aggregate population density of the localities in the district;
- a measure of the portion of children in the district that have difficulty speaking English (a proxy measure for a more difficult-to-serve transient population);
- the average fiscal stress of the jurisdictions in the health districts;
- the proportion of local health departments in the district that screen high risk TB cases; and,
- the proportion of local health departments in the district that provide direct observed therapy for patients receiving medication.

This analysis revealed that the factor most strongly associated with the dependent variable was the ratio of patients receiving healthcare services to the number of VDH health care workers who provided the services (Table 5). As this ratio increased, the drug completion rate for persons infected with TB disease declined. This suggests that healthcare staff in offices where the patient workload is relatively high can not find the time to perform the type of patient monitoring needed for the TB drug prevention program. The department has indicated that treating persons with the actual disease is a higher priority than those who are at-risk of developing the disease. Consistent with this, JLARC staff found that local health departments are more likely to provide direct observed therapy to TB disease patients than they are to persons who are merely infected. However, because it appears that local health departments are targeting drug prevention therapy to persons at a high risk for developing the actual disease, low completion rates among this population raise the specter of future increased rates of TB disease. In other words, this population could become the next potential wave of TB disease cases.

Recommendation (1). The Virginia Department of Health should collect the necessary data to contrast the demographics of persons who complete preventive drug therapy with those who do not. As a part of this effort,

Table 5

**Factors Which Impact the Drug Treatment Completion Rate
for Persons Who Received Medication to Prevent
the Development of TB Disease**

Variable	Standard Coefficient	Significance Level
Type of Locality (1=Urban 0=Other)	-.260	.204
Type of Locality (1=Rural 0=Other)	.085	.711
1995 Poverty Rate for Localities in Health District	-.292	.346
Portion of Students with Difficulty Speaking English	-.252	.165
Fiscal Stress of Localities in Health District	.289	.347
Ratio of Patients Receiving Healthcare Services to Staff	-.618	.001
Proportion of Local Health Departments in District that Screen Only High-Risk Cases	.265	.124
Proportion of Local Health Departments that Provide Direct Observed Therapy to Patients on Medication	.191	.210
<p>Notes: The unit of analysis for this regression model was the 35 health districts. Data from the local health departments in each district was aggregated to create a district wide measure. The standardized coefficients reported for each independent variable represent the average change (in standard deviation units) in the proportion of TB prevention cases that completed their drug treatment program that is associated with a one standard deviation change in the independent variable. The R² value for the model is .38.</p> <p>Source: Data used in this analysis was collected from the JLARC staff survey of local health departments, the Virginia Health Department's Division of Tuberculosis Control and Office of Information Management, the Commission on Local Governments, the Virginia Department of Education, and the Weldon Cooper Center.</p>		

the department should determine the patients' reasons for failing to complete the therapy and take the appropriate actions to address this problem.

The Immunization Program: Vaccination Rates for Children Fall Far Short of VDH's Goal for the Year 2000. Because vaccines have proven to be among the most effective method for preventing the spread of infectious or communicable disease, State law requires that all children be completely immunized by two years of age. This criterion was established because medical research has demonstrated that children in this age group are at-risk for certain preventable diseases. Children who satisfy this requirement will not need booster shots again until they reach kindergarten age. As shown in Exhibit 4, there is a suggested timeline to complete the immunizations and booster shots. Appointments for this purpose generally occur at two months, four months, six months, and 12 to 18 months, with the remaining booster shots scheduled by the time the child reaches six years of age.

VDH is directed by statute to provide all immunizations required for school attendance without charge. However, parents are free to take their children to private providers for this service. According to the State's director of immunizations, the trend is that fewer children are getting immunizations from VDH. In past years, more than 50 percent of all school-age children received their immunizations through VDH. Presently, the number has dropped to approximately 28 percent. This shift has been created by a number of factors, including expanded Medicaid and managed care services,

Exhibit 4

Recommended Immunization Schedule for Children Under Two Years of Age

Vaccine	Age							
	Birth	1 month	2 months	4 months	6 months	12 months	15 months	18 months
Hepatitis B	1 st dose		2 nd dose		3 rd dose			
Diphtheria, Tetanus, Pertussis		1 st dose	2 nd dose	3 rd dose		4 th dose		
H. influenzae type b		1 st dose	2 nd dose	3 rd dose	4 th dose			
Polio		1 st dose	2 nd dose	3 rd dose				
Measles, Mumps, Rubella						1 st dose		

Note: Some vaccines require doses for ages 4-6 years and 11-12 years. Therefore, some vaccines may indicate a first dose but a second dose is not presented in the table

Source: Recommended Childhood Immunization Schedule, Centers for Disease Control and Prevention.

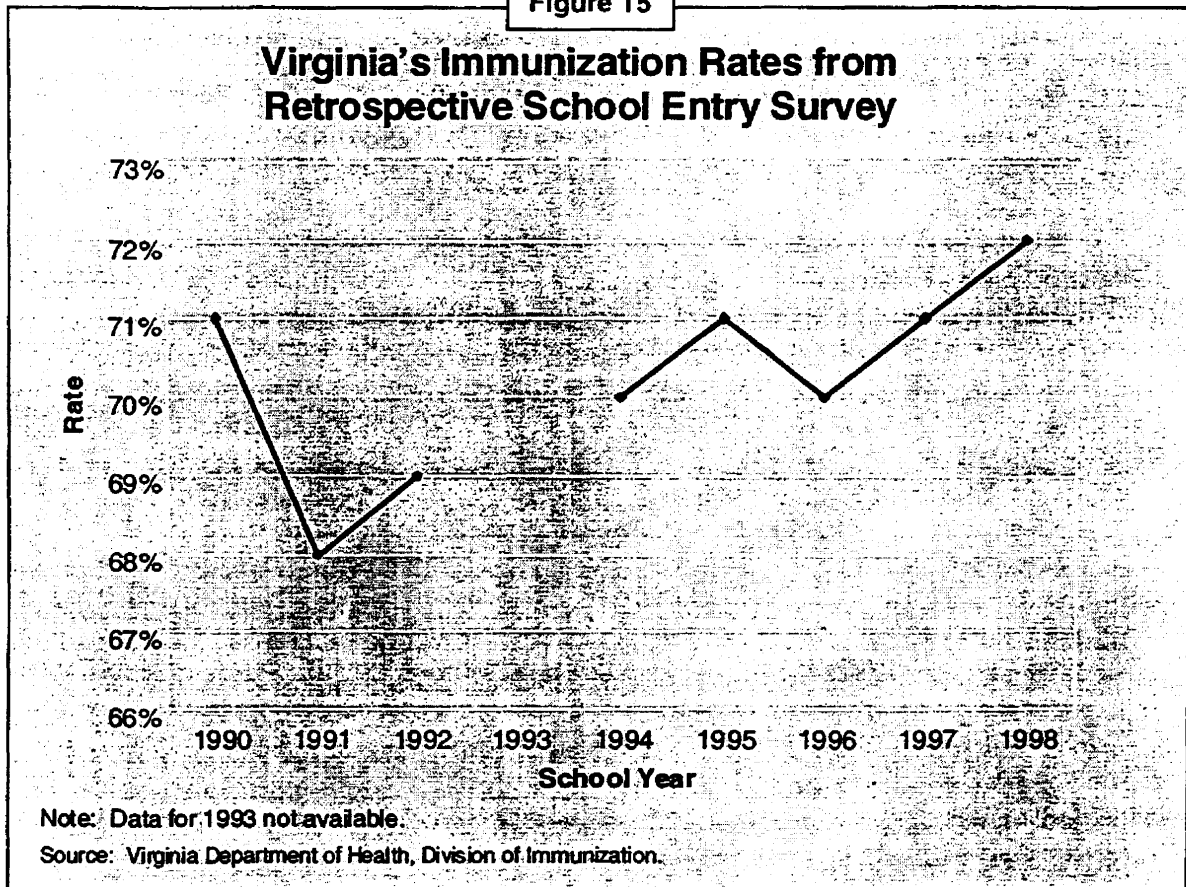
walk-in services through private clinics, the Vaccine for Children's program, and a growth in community health centers.

In response to the shift, VDH has focused its attention on examining levels of immunization across Virginia to identify those areas with the highest rates of non-compliance with the vaccine program. While the director of immunization services at VDH feels there will always be a need for VDH clinics to provide immunizations for some children, the proliferation of other providers has allowed the agency to focus more on community awareness and to encourage local health departments to specifically target areas of high non-compliance. The agency is hopeful that this approach will help VDH contribute to meeting the immunization goal of 90 percent by the year 2000.

To track statewide changes in Virginia's immunization rate, VDH participates in an annual retrospective study of vaccine rates for two-year-old children. When these children reach five years, VDH takes a look back at their vaccination history to assess whether they received their full schedule of shots by their second birthday.

Figure 15 reports the trend in vaccination rates for children in Virginia using data from this retrospective study and illustrates the lack of progress the State is making in vaccinating children in a timely fashion. While 72 percent of children do

Figure 15



receive a timely series of vaccinations, this rate has increased by less than two percent in the last eight years and it falls substantially short of the State's objective for the year 2000. Furthermore, this rate obscures evidence of low immunization rates in various areas across the State. For example, in the City of Richmond, the immunization rate reported on the JLARC survey was 68 percent. In Hampton and Norfolk, the reported rates were 63 and 50 percent respectively. The Roanoke City Health department reported an immunization rate of 64 percent.

According to the director of immunizations, VDH is aware of the problem areas in the State. However, both he and the local health department officials interviewed by JLARC staff believe this problem is not an issue of access to the clinical help but quite possibly one of parental motivation. Besides, they note that with the changes in the healthcare marketplace, many of these clients have their own doctors and no longer rely on the health department for these services. For those that do, local health department staff indicated that the following outreach strategies were used to increase community awareness and raise immunization rates:

- All parents who visit the health department for any reason are asked to show proof that their child's immunization shots are up-to-date (80 percent of local health departments use this strategy);

- A record of shots is maintained on all children who receive services from the health department and their parents are notified when their children's next schedule of shots is due (80 percent of health departments); and
- General outreach — media campaigns — are conducted to encourage all parents to have their children immunized (92 percent of health departments).

When children begin to miss their scheduled shots, local staff indicated that they make home visits, phone calls and send out postcards or letters. Nevertheless, the JLARC survey of local health departments revealed that a small but significant minority of these offices make no effort to sample school records to monitor immunization rates (Table 6). The proportion of local health departments that participate in this follow-up activity is lowest among offices in rural jurisdictions. The rate of health departments that contact children who miss immunization shots is higher, but approximately 20 percent of the offices do not perform this function either.

Finally, almost without exception, the local health department staff who were interviewed by JLARC staff stated that two changes could be made that would dramatically improve the efficiency of the process. The first is the establishment of a universally shared database that contains updated immunization for every child in the State. Currently, local health departments have no efficient way of determining whether a child has already received some of his or her shots from another physician or local health department. Therefore, when they serve a child whose parents cannot locate or remember their child's shot history, an inordinate amount of time must be spent researching this case. If the healthcare worker is unable to obtain the required information, the child is given a full schedule of shots, possibly replicating past vaccines. A universal database would solve this problem while providing both private doctors and local health department officials with the data needed to identify and track children who miss scheduled shots. The department's new information system is envisioned as

Table 6

Proportion of Local Health Departments that Conduct Retrospective Sampling for Immunization Rates and Perform Direct Contact of Non-Immunized Children

Local Policy	Type of Locality			
	Total	Urban	Suburban	Rural
Local Health Department Conducts Retrospective Sampling of School Records (n=117)	70%	85%	85%	60%
Local Health Department Directly Contacts Parents or Guardians of Non-Immunized Children (n=109)	79%	83%	81%	78%
Notes: The designation of local health departments as "urban", "suburban", or "rural" is based on JLARC's staff analysis of population density for the jurisdictions located within these health districts.				
Source: JLARC staff survey of local health departments.				

the vehicle to accomplish this goal. However, as will be discussed in Chapter III, the process of bringing this system online has been fraught with problems.

The second change needed is a State law requiring physicians to enter immunization data in the system for the growing number of children that they serve. When the department was discussing the merits of its new online system various physician groups expressed some concern about the potential liability they faced for putting confidential information in a database for which they cannot control access. Technical staff at VDH indicate that this will not be a problem with the new system because the data will be encrypted and travel only within VDH's secure Wide Area Network.

Recommendation (2). The Virginia Department of Health should require that local offices which do not sample school records or directly contact parents/guardians of non-immunized children prepare an action plan to conduct these activities, and begin implementation no later than July, 2000.

Recommendation (3). To increase the efficiency and effectiveness of the State's immunization program, the General Assembly may wish to consider mandating that private doctors ensure that immunization data for all children that they vaccinate is entered onto the Virginia Health Department's online network when that system is completed. This requirement should include the necessary legal protections for physicians from any lawsuits that might arise from their participation in this program, but also clearly state the Virginia Department of Health's responsibility to ensure the integrity and confidentiality of the network information.

Sexually Transmitted Diseases and HIV: VDH's Sexually Transmitted Disease and HIV Program is Effectively Administered. One of the long-standing public health functions of VDH is to control the spread of sexually transmitted diseases (STDs) and HIV/AIDS. While VDH also provides services for persons who contract other STDs, there has always been a special emphasis on treating persons with syphilis, gonorrhea, HIV, and AIDS because of the damaging effects of these particular diseases when left unchecked.

The General Assembly has passed legislation to facilitate the agency's work in this area in several ways. First, because many persons who contract a STD or HIV/AIDS will not visit the health department for services, *the Code of Virginia* requires all licensed physicians in Virginia to report persons with these diseases to the VDH.

Second, the General Assembly has empowered the health department with the authority to conduct surveillance and investigations into "all preventable diseases and epidemics in the Commonwealth" which includes STDs and HIV/AIDS. With this authority, local health department staff may, among other things, perform what is commonly referred to as "contact tracing." In the cases of STDs and HIV/AIDS, this involves contacting persons named as sexual partners by individuals who are infected with any of the diseases. The purpose of the contact is to encourage the named partner

to participate in education awareness, testing, counseling, and treatment programs if they are infected.

Third, each local health director in the State can, under the threat of a court order, require persons who are suspected of infection to submit to testing and, if necessary, treatment. If their recalcitrance continues and they do not comply with the director's request, these individuals can eventually be held in contempt of court, quarantined, and forcibly treated.

Together, the purpose of these statutes is to provide local staff with the tools they need to break the chain of infection for these diseases, thereby preventing an epidemic. Obviously to meet legislative intent in this area, the health department has to be intimately involved in a large portion of the STD and HIV/AIDS cases in the State, irrespective of whether the infected persons are clients of the health department. Therefore, to assess the performance of VDH's STD and HIV/AIDS program, JLARC staff examined the process used by local staff to handle these types of cases and the rate at which health department staff successfully completed patient contacts, testing, and treatment for persons suspected of infection.

The data reported in Table 7 underscore the difficult task faced by local health department workers who provide services for infected persons. As shown, except for cases involving syphilis and HIV infection, a large number of persons who contract

Table 7

The Proportion of Persons Statewide with Syphilis, Gonorrhea, or HIV/AIDS Who Receive Counseling from Local Health Department Staff

STD and HIV/AIDS	Type of Health District			
	Total	Urban	Suburban	Rural
Proportion of Syphilis Cases in Virginia Handled by Local Health Departments in 1998 (n=379)	95%	84%	76%	100%
Proportion of Gonorrhea Cases in Virginia Handled by Local Health Departments in 1998 (n=9,215)	44%	48%	31%	48%
Proportion of HIV Cases in Virginia Handled by Local Health Departments in 1998 (n=825)	80%	72%	69%	57%
Proportion of AIDS Cases in Virginia Handled by Local Health Departments in 1998 (n=963)	52%	44%	55%	57%
Notes: The designation of local health departments as "urban", "suburban", or "rural" is based on JLARC's staff analysis of population density for the jurisdictions located within these health districts.				
Source: Division of HIV/STD, Virginia Department of Health.				

these diseases are not clients of the local health departments. For example, local health department staff counseled only 44 percent of all persons who contracted gonorrhea in 1998. The contact rate achieved by staff who work in "suburban" offices was only 31 percent. Among AIDS cases statewide, local staff counseled 52 percent of those infected. These numbers clearly suggest that local staff need to work closely with private physicians if they are to successfully conduct "contact tracing" as outlined in the *Code of Virginia*.

This study found that VDH has developed written policies that clearly outline the investigative procedures that local staff are to follow when processing STD or HIV/AIDS cases. With this guidance, local staff contact persons who test positive for a priority STD (gonorrhea, syphilis). Through this contact, staff conduct an extensive interview using what is referred to as an interview record. Aside from patient demographics, this interview record is used to collect data on the patient's sexual history and all the names of persons with whom he or she has had sexual contact. If the individual is not under the care of another doctor, local staff will provide both counseling services and treatment.

For persons who are named as partners on the interview record, local staff are encouraged to locate and interview these individuals expeditiously. The department emphasizes the importance of immediate contacts to prevent the further spread of the disease. Once the contact is made, healthcare workers use a field record to collect relevant information on the named partner and if warranted, will initiate testing to assess whether the person has been infected.

However, when handling HIV/AIDS cases that originate outside of the department, rather than calling the patient directly, agency policy requires local staff to interview the patient's doctor and request permission to contact the patient. If this permission is not granted, the majority of the staff members interviewed by JLARC staff indicated that, consistent with agency policy, their investigation of the case ends. Under such circumstances, unless the private doctor conducts contact tracing, the department will not be able to identify persons who may have been exposed to the virus carried by the infected patient. Other staff members indicated that they are unsure as to whether they have the authority to perform contact tracing in these circumstances. A small minority of local staff interviewed by JLARC staff is convinced that they have the statutory authority and they proceed accordingly.

The language in the *Code of Virginia* which authorizes contact tracing makes no exceptions for HIV or AIDS patients who are under the care of a private physician. Additionally, the director of the STD/HIV Division indicated that local health department staff need not obtain the permission of private doctors before contacting HIV or AIDS patients. However, because doctors who withhold permission often do so for valid medical reasons, the department does not encourage staff to make contacts in such cases. If the doctor's decision is not based on a valid medical reason, the director stated that local staff are encouraged to address whatever concerns are expressed in an attempt to acquire permission to contact the patient. If this fails, the case will be monitored from the central office using the patient information provided by the doctor.

Noting that the morbidity rates for HIV and AIDS in the State are falling, the director stated that this was the preferred approach because it fosters a good working relationship with the medical community without threatening the public health.

Once patients are contacted, a key question addressed in this study was whether local staff are successful in testing persons who are named as contacts by infected individuals, and whether a large percentage of these individuals are treated by local health departments. Table 8 reports these outcomes for the diseases of syphilis, gonorrhea, HIV, and AIDS. As illustrated, for three of the diseases, local health departments were able to test more than seven out of ten persons that were identified through contact tracing, and for two diseases, they were able to provide treatments for more than seven of ten. However, the figures for AIDS patients (69 and 61 percent respectively) are slightly lower. For those named persons who do not come to the department for testing and treatment, healthcare workers in the offices visited by JLARC staff noted that these persons rely on private healthcare. In almost all of these cases, public health staff track the treatment outcomes for these patients.

Surveillance and Investigation of Disease Outbreaks: Timely Reporting of Data by Private Physicians is Critical. The final State-mandated communicable disease program examined for this study is the Disease Surveillance, Investigation, and Control program. As a basic function of public health, the State regulations outline a list of reportable diseases that VDH must track and investigate. This responsibility has been assigned to the Surveillance and Investigation Division in the Office of Epidemiology.

Under the current system, physicians must report to their respective local health departments each occurrence of any of the diseases outlined in regulations promulgated by the Board of Health. As a part of this report, the physicians are to include the name of the person with the disease. The only exception is influenza, for which cases are reported in aggregate form on a weekly basis.

Table 8

Local Health Department Outcomes Associated with the Syphilis, Gonorrhea, and HIV/AIDS Cases Identified Through Contact Tracing

Program Outcome	Syphilis	Gonorrhea	HIV	AIDS
Proportion of "Named" Partners Who Were Tested By Local Health Departments	77%	79%	72%	69%
Proportion of "Named" Partners With Positive Tests Who Were Treated By Local Health Departments	75%	86%	69%	61%

Source: Division of HIV/STD, Virginia Department of Health.

Using these reports, local staff will usually contact the doctor to verify the problem, and then attempt to interview the patient. The purpose of this interview is to determine the etiology of the disease and implement the necessary corrective action to prevent the occurrence of an outbreak.

According to VDH staff, a disease outbreak refers to any occasion in which the occurrence of disease is greater than expected. If an outbreak has already occurred when the report is received in the local office, staff must conduct the necessary follow-up to contain the spread of the disease. In these situations, local staff will work to determine if the outbreak has a common source (for example, did all of the infected persons eat at the same restaurant). If a common source links all or most of the cases, local staff will investigate that source and take the necessary steps to stop the further spread of the disease. Unless an outbreak affects a large number of people or involves a rare, potentially lethal disease, the cases are handled at the local level.

Clearly, an important component of this process is the local follow-up on each individual affected by the disease or outbreak. Under VDH's current organizational structure, the director of the Surveillance and Investigation Division does not have the line authority to require staff follow-up. Local follow-up work is completed at the discretion of the health district director. Whether such follow-up is performed usually depends on the demands the local health departments are facing.

Because of this problem, the Director of the Surveillance and Investigation Division identified nine diseases that, when reported, should always receive a local follow-up. They are as follows:

- Meningococcal meningitis,
- Salmonellosis,
- Shigellosis,
- Giardiasis,
- H. influenzae,
- Hepatitis A,
- Hepatitis B,
- Lead in children, and
- Animal bites/ rabies exposure.

In light of this, JLARC staff surveyed each local health department to identify the number of cases that occurred in the locality during 1998, the number that received local follow-up, and the number of cases that were ultimately resolved. Resolved cases are those in which staff identified the source of the disease and/or recommended steps to decrease the likelihood of a future occurrence of the problem.

The figures reported in Table 9 indicate that the local health departments perform the necessary follow-up on virtually every occurrence (96 percent) of the "critical" diseases identified by the division director. As a part of the follow-up, the staff reported that they either identified the problems that caused the disease occurrence and/or recommended steps to reduce the likelihood of a future problem.

Table 9

Follow-up and Resolution Rates for "Critical" Disease Cases Monitored by Local Health Departments

Outcomes Measures for Disease Surveillance And Investigation	Type of Locality			
	Total	Urban	Suburban	Rural
Proportion of "Critical" Disease Cases that Received Follow-up by Local Health Department Staff (n=112)	96%	94%	97%	96%
Proportion of Follow-up Cases that Were Resolved by Local Health Department Staff (n=112)	95%	86%	98%	96%
Notes: The designation of local health departments as "urban", "suburban", or "rural" is based on JLARC's staff analysis of population density for the jurisdictions located within these health districts. JLARC staff audited the files at 12 local health departments and the results were consistent with the figures reported in this table.				
Source: JLARC staff survey of local health departments.				

In interviews with local health department workers in 13 localities, staff in each of these offices identified poor reporting by private doctors as a major hindrance to this program. In most cases, these staff noted that despite the reporting requirements in statute, most morbidity reports are received late and in some cases they are never provided. When the latter occurs, the department is not made aware of a disease occurrence until they receive a copy of the report from the laboratory that conducted the test. Because the lab reports are typically provided long after the disease has occurred, staff are unable to respond to each of the "critical" diseases in a timely fashion.

***Recommendation (4).* To improve private physicians' awareness of the State's reporting requirements for communicable diseases, the Virginia Department of Health should initiate a statewide public awareness campaign. This campaign should stress the importance of timely reporting for communicable diseases, outline the statutory requirements for such reporting, and identify the possible penalties for non-compliance.**

PERFORMANCE OUTCOMES FOR ENVIRONMENTAL HEALTH PROGRAMS

The second major component of the State's system of mandated, locally implemented public health program is environmental health. The two major functions in this area are food service establishment inspections and the regulation of on-site sewage disposal systems and private well construction. For both of these areas, the Board of Health has developed regulations that provide the basic framework for the activities that must be carried out by the local health department staff.

The goal of the food service establishment inspection program is to prevent the unsafe preparation and handling of food. The following case example illustrates the importance of the food inspection process in protecting the public health. It is based on the results of a restaurant that was inspected in Northern Virginia.

In August, 1999, a local environmental health specialist noted and cited a high-risk establishment for the following violations during a routine inspection: roaches were present throughout the cooking area, a trash can lid was used as a table for preparing food, and there were unclean surfaces. The establishment was also cited for repeat violations including feta cheese and salad dressing being held at unsafe temperatures, walls and floors in disrepair, and a refrigerator that did not maintain a safe temperature. In all, the restaurant was cited for three critical violations and 14 non-critical violations. While on-site, the environmental health specialist observed that the food temperatures were corrected and an exterminator was brought on site to eliminate roaches.

In terms of the overall study findings, it appears that local health departments are generally meeting the current legislative requirement of inspecting each establishment annually. However, the capacity of local health departments to protect the public health could be significantly improved by allowing localities to impose civil fines for those food establishments that persistently violate the food code and by increasing the number of annually required inspections for high-risk food service establishments.

Regarding the on-site sewage and private well permitting process, the study findings indicate that local environmental health specialists ensure that these systems are constructed according to health regulations. However, the process is not always timely. The *Code of Virginia* requires the health department to process applications within 15 working days. Local health departments meet this requirement for just over half of septic system applications.

Additional Inspections Linked to Risk Assessment and Enforcement Are Needed in the Food Service Establishment Inspection Program

One of the State's most basic mandated public health functions is the inspection of food service establishments to prevent foodborne illness. Some examples of food service establishments are restaurants, day care centers, schools, and kitchens that are located in corrections facilities. The *Code of Virginia* requires the State Board of Health to establish regulations governing procedures for the licensure and operation of food service establishments. Using this authority, the Board requires VDH staff to inspect each of approximately 24,000 food service establishments in the State at least once per year. Local health department staff handle all food service establishment inspections. Several localities have adopted a more stringent food code that reflects more recent food science. These localities also inspect establishments more than once annually depending on the risk profile of the establishment.

This section of the chapter assesses the ability of the current inspection program to protect public health. To conduct the analysis, JLARC staff collected surveys from local health department staff and district directors. The surveys were used to determine the ability of local health departments to meet the annual inspection mandate. JLARC staff also collected inspection information from a random sample of establishments in 13 local health departments. This information was used to determine the frequency of inspections and the impact of the program over time.

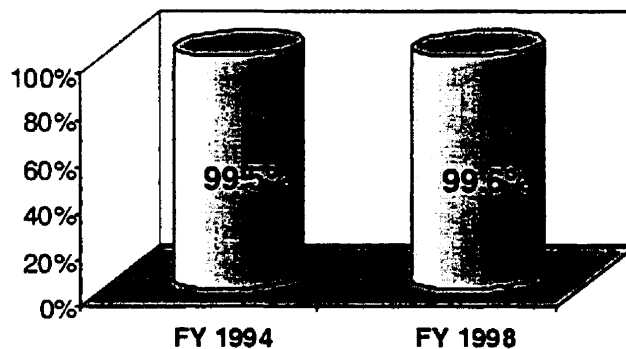
Coverage Rate. To determine if local health departments in the State are inspecting food service establishments annually as mandated by the *Code of Virginia*, JLARC staff calculated a coverage rate for each local health department. This measure is defined as the percent of food service establishments in a given locality that were inspected at least once in a given fiscal year. Coverage rates were calculated for fiscal years 1994 and 1998 to measure changes in inspection activity over time.

As shown in Figure 16 the average coverage rates for local health departments in FY 1994 and FY 1998 were nearly 100 percent. Staff in eight of the 12 local health departments that had coverage rates that were less than 100 percent in at least one of the two years perceived annual inspections as a problem. In a JLARC survey, staff at these local health departments cited limited staffing and competing demands for resources by other programs as the barriers to meeting the mandate.

The Type and Frequency of Inspections. Most local health departments inspect food service establishments more often than once per year. Some reasons for these additional inspections are local policy, necessary follow-up inspections for establishments with violations, or complaint investigations. As noted earlier, it is the policy

Figure 16

Local Health Department Coverage Rates for Annual Food Service Establishment Inspection Mandate



Notes: This graphic includes information from 118 of 119 local health departments. Some data were reported by calendar year instead of fiscal year.

Source: JLARC mail survey of health district directors.

of some local health departments, such as those in Northern Virginia, to link the number of inspections per year to a risk assessment of the establishment.

JLARC staff used inspection information for a random sample of food service establishments at 13 local health departments to examine the pattern of inspections over time. With the current system, inspections are classified as routine, follow-up, complaint investigations, or hazard analysis and critical control point (HAACP). Routine inspections require an assessment of the entire establishment based on each provision in the food code. As shown in Table 10, three-quarters of all inspections conducted in the State are routine in nature. Follow-up inspections are conducted to verify that violations cited in the routine inspections are corrected in a timely manner. Most critical violations must be corrected immediately. Those that cannot be corrected at the time of the classes range from “no PHFs,” for no serving of potentially hazardous foods, to “high priority class,” for PHFs prepared from raw ingredients, cooked, cooled and reheated. While the VDH central office recommends this particular risk assessment, local health departments sometimes use a risk index or other risk assessment tools to develop the profile of the food service establishments in their area.

Using information on the risk profile of each food service establishment in the subset of localities included in this study, JLARC staff found that almost three quarters of the establishments in the sample were medium or high priority class (Figure 17). In light of this risk, the FDA recommends that these establishments be inspected three to four times per year.

Many establishments are inspected more than once per year. As Figure 18 shows, over half of the establishments in the study sample with a low to medium priority class were inspected at least two or three times respectively, as recommended by the FDA. However, only 36 percent of the high priority establishments were inspected at least four times, as recommended by the FDA. Four of the localities in the sample had a policy of inspecting establishments based on priority class. The other local health

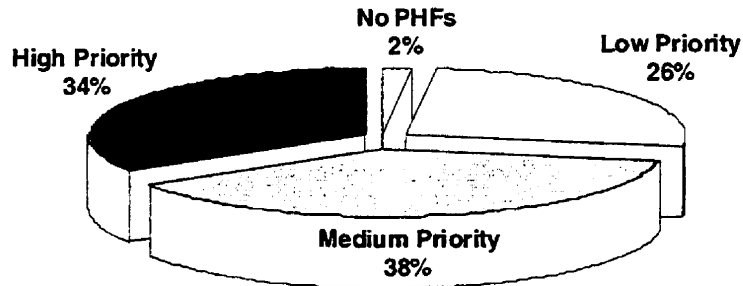
Table 10

Reasons for VDH Inspection Visits to Food Service Establishments

Reason for Visit	Percent of Visits
Routine Inspection	75%
Follow-Up Inspection	6%
Complaint Investigation	6%
Hazard Analysis & Critical Control Point (HAACP)	1%
Foodservice Critical Procedures Report	1%
Other	3%
Reason Not Specified	9%
Notes: Based on 6,270 observations that are weighted. Inspections with missing information are not included in the total. Sampling errors and statistical tests for these estimates are reported in Appendix B.	
Source: JLARC file reviews at 13 local health departments.	

Figure 17

Priority Classification of Establishments in the Study Sample

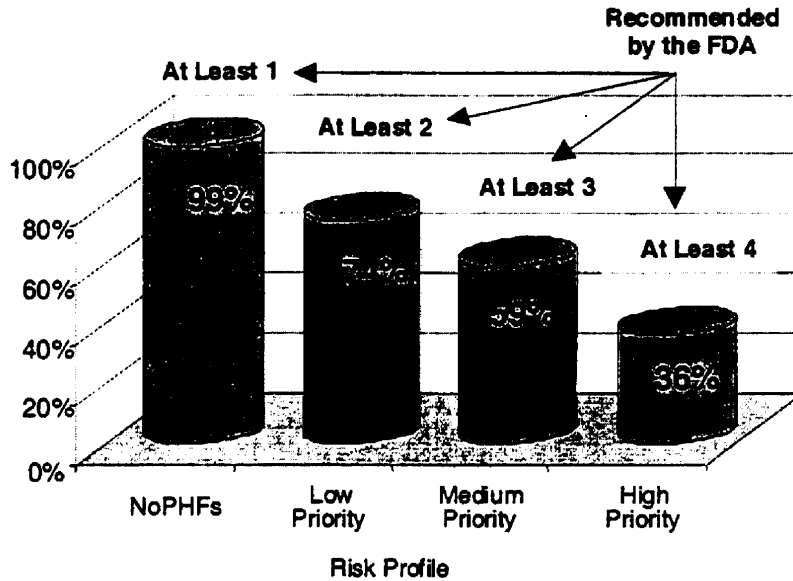


Notes: The total number of observations, 630, are weighted. Establishments with missing information are not included in the total. Sampling errors and statistical tests for these estimates are reported in Appendix B.

Source: JLARC staff file reviews at 13 local health departments.

Figure 18

Percent of Establishments with the Number of Inspections Per Year Recommended by the FDA



Source: JLARC staff analysis of file reviews at 13 local health departments.

departments may sometimes inspect an establishment more than once a year because of complaints or follow-up inspections to verify compliance.

As previously stated, the *Code of Virginia* requires one annual inspection. However, states bordering Virginia require up to four inspections annually, as summarized in Table 11. Maryland links the number of inspections to an establishment's priority class as recommended by the FDA. For example, establishments with a high priority class must have three inspections per year, of which one is a routine inspection and two are HAACP inspections.

In interviews with local staff regarding Virginia's program, environmental health specialists stated that one inspection per year is simply not sufficient to properly police food service establishments. VDH local offices could be required to link the number of inspections per year to an establishment's risk profile. The following case example illustrates the type of inspection work that is needed when dealing with high-risk food service establishments:

Over the last year, an establishment in the Charlottesville area was cited for several serious violations. There was a dishwashing machine that did not maintain a temperature hot enough to properly sanitize dishes. Live roaches were observed in the kitchen. Chicken was being thawed improperly and raw chicken was found to be 24 hours old at a temperature above the required 45 degrees. Workers were eating and smoking while preparing food. Metal tongs used in preparation of food were hung from an electrical conduit pipe a foot off the floor. Raw meat was being stored in a pan on the floor of the walk-in refrigerator. Bags of rice were stored on the floor. An employee preparing food had an infected cut on his right hand. There was no soap available in the employee restroom. In the first three-quarters of 1999, VDH staff inspected this restaurant 13 times. Only

Table 11

**Mandated Number of Inspections Required Per Year
for States Bordering Virginia**

State/City	Mandated Inspections Per Year
District of Columbia	4
Maryland	½ to 3*
North Carolina	4
Kentucky	2
Tennessee	2
West Virginia	2
*Varies based on an establishment's priority class.	
Source: JLARC staff phone interviews with food inspection program staff.	

one of these inspections was considered routine. Eleven of the inspections were considered follow-up and one was based on a patron's complaint.

The offices could also be required to add more HAACP inspections rather than increasing the number of extensive routine inspections. Combined, these program changes would allow VDH staff to focus resources on the establishments that are more of a risk to public health and the most critical parts of the food handling and preparation process. However, some additional staff resources may be needed to more consistently provide for the number of inspections recommended by the FDA.

Recommendation (5). The General Assembly may wish to amend Section 35.1-22 of the *Code of Virginia* to link the number of annual inspections of a food service establishment to the risk profile of the establishment. The number of annual visits required should reflect the recommendations made in the 1997 FDA Food Code.

Recommendation (6). The Virginia Department of Health should do a workload analysis to assess the need for additional environmental health staff in the local health departments. Staffing levels should reflect the need to inspect establishments based on their risk assessment. This analysis should be completed by October of 2000.

Impact of Food Service Establishment Inspection Program. The goal of the food service establishment inspection program is to decrease the possibility of foodborne illness caused by unsafe food preparation practices. The number and nature of violations cited by environmental health specialists are indicators of how well establishments adhere to safety standards. A decrease in the number of critical or non-critical violations over time would indicate that the food service establishment inspection program is effectively reducing the risk of foodborne illness.

Critical violations are violations that pose an immediate health hazard, and most localities require these violations to be fixed immediately. Non-critical violations are less of a health hazard and rarely need to be corrected while the specialist is on-site. Exhibit 5 list examples of critical and non-critical violations.

To assess the impact of the State's food service inspection program, JLARC staff measured the number and nature of violations from inspection information collected during file reviews. There were 407 establishments that had at least ten inspections since the first permit was issued to the current owner. For these inspections, JLARC staff determined whether each inspection had more, fewer, or the same number of violations as the previous inspection. Those inspections with the same number of violations as the previous inspection were further broken down into those with zero violations in both inspections and those with a positive number of violations in both inspections. If the inspection program is effective, there should be an increase in the percent of inspections with zero violations.

Exhibit 5

Examples of Critical and Non-Critical Violations

Examples of Critical Violations

- Food is held or cooked at unsafe temperatures.
- There are rodents or insects in the establishment.
- Necessary toxic items are improperly stored or marked.
- Personnel with infections are not restricted.

Examples of Non-Critical Violations

- Thermometer is not provided and is not conspicuous.
- Containers or receptacles for garbage are not covered.
- Food contact surfaces of equipment and utensils are dirty.
- Lighting fixtures are not covered.

Source: Rules and Regulations of the Board of Health Commonwealth of Virginia Governing Restaurants Food Service Establishment Inspection Report

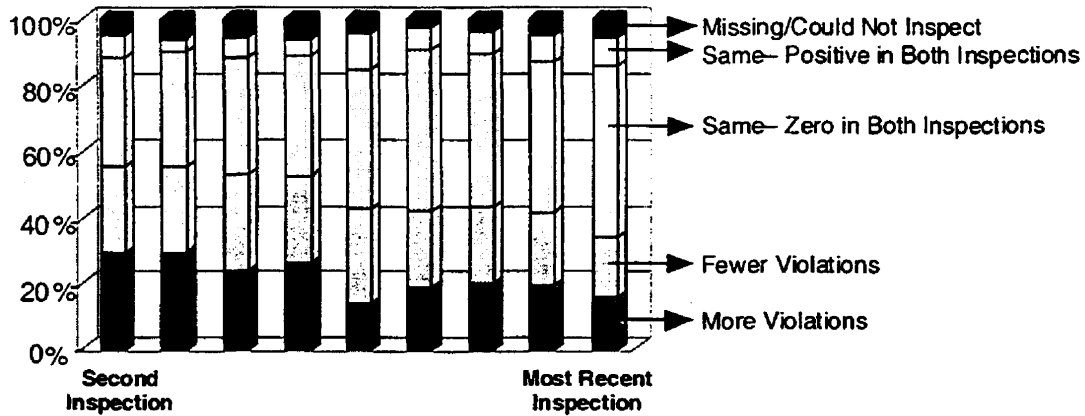
Figure 19 (page 52) shows the result of this analysis for critical violations. Over time, fewer establishments are cited for critical violations that could endanger public health. There is a clear increase in the inspections that have zero critical violations in both the inspection and the previous inspection (white portion of bars).

Figure 20 (page 52) shows the direction of change for non-critical violations. Unlike for critical violations, there is no clear increase in the percent of inspections with zero non-critical violations. The lack of an improvement may be due in part to the adoption of the 1997 FDA Food Code by three of the localities in this sample. In 1998, the local health departments in these localities began using the 1997 FDA Food Code, which is more stringent and has more possible violations than State regulations. This may have caused an increase in non-critical violations cited.

Need For Civil Fines. Another reason for the lack of improvement in non-critical violations may be the lack of enforcement power of the local health departments. Currently, the only way local health departments can enforce food safety regulations is by closing an establishment, irrespective of the nature of the violation. When an imminent health risk exists, it is reasonable that the health department should close the establishment immediately. But for violations that are not immediate risks but could become health risks over time, there is no way to enforce compliance unless the local health director revokes the establishment's permit. As health district directors reserve what they refer to as the "death penalty" for chronic and egregious violations of public health, they, in effect, have no mechanism to effectively sanction operators that repeatedly violate "non-critical" but nonetheless meaningful provisions of the food code.

Figure 19

Direction of Change in Critical Violations as Compared to the Previous Inspection for Establishments with at Least Ten Inspections

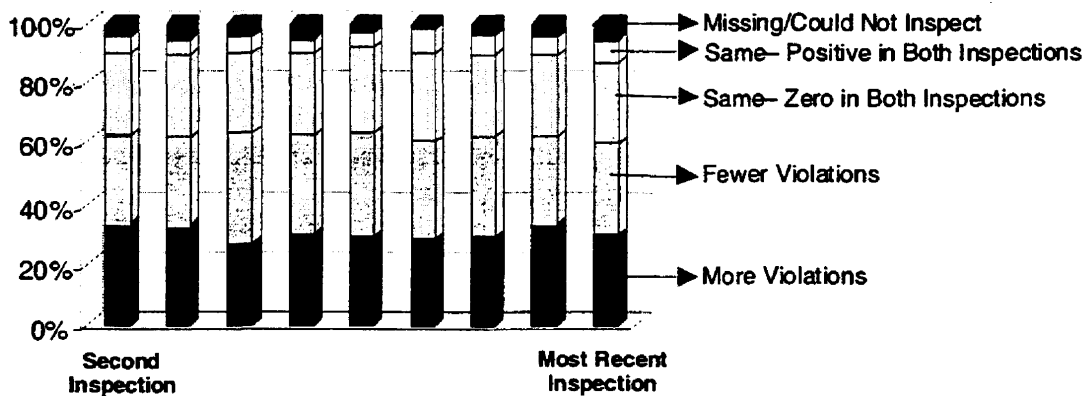


Notes: Ten inspections for 407 food service establishments are included in this analysis. The observations are weighted. Sampling errors and statistical tests for these estimates are reported in Appendix B.

Source: JLARC staff file reviews conducted at 13 local health departments.

Figure 20

Direction of Change in Non-Critical Violations as Compared to the Previous Inspection, for Establishments with at Least Ten Inspections



Notes: Ten inspections for 407 food service establishments are included in this analysis. The observations are weighted. Sampling errors and statistical tests for these estimates are reported in Appendix B.

Source: JLARC staff file reviews conducted at 13 local health departments.

One possible remedy for this problem is to allow inspectors to assess civil fines for repeated violations of the food code. Alexandria and Virginia Beach each passed an ordinance allowing civil fines to be assessed for repeated food violations. Alexandria's ordinance went into effect in September of 1997. The first violation in

Alexandria results in a warning, the second consecutive violation results in a \$50 fine, and each additional consecutive violation results in a \$100 fine. The money collected from fines is deposited into the city's general fund. The city attorney's office handles the collection of the fine and enforcement of delinquent fines. In FY 1999, Alexandria issued 208 tickets, adding up to almost \$17,000.

The following case example illustrates a scenario in which civil penalties would have been appropriate:

In March, 1999, a high-risk establishment was cited for holding pizzas at unsafe temperatures before serving them to customers. This was the third such offense in four consecutive inspections. The pizzas were thrown out while the inspector was on-site. The establishment also had a history of leaving the doors open without screens to protect the establishment from rodents and insects.

Under State regulations, the only enforcement option for the local health department would have been to revoke the operator's license, after throwing out the pizzas that were held at unsafe temperatures. Clearly this would have been a drastic penalty given the nature of the violations. In Alexandria, fines could be assessed for the repeated violations as a penalty for endangering public health.

Imposing civil fines on establishments for repeated violations gives local health departments a way to enforce regulations that are not egregious enough to require closure. As with the fines imposed by building inspectors or police officers, owners in Alexandria can appeal the fine, first to the director of the local health department and then to the circuit court.

Recommendation (7). The General Assembly may wish to amend the *Code of Virginia* by granting local health inspectors the authority to assess civil fines on establishments for repeated violations of the State's food code.

Promoting the Presence of a Certified Food Manager During Operating Hours. Several localities, including those in Northern Virginia and Virginia Beach, have passed ordinances requiring a certified food manager to be on duty during an establishment's operating hours. To become certified, a food manager must complete a course and pass a test on the proper handling of food. Alexandria contracts with a company in Northern Virginia to provide training and testing for food manager certification. This requirement, which guarantees that establishments will have individuals who have been trained in food sanitation, can reduce the number of code violations that routinely occur because food service staff lack a basic understanding of sanitary practices.

Recommendation (8). The General Assembly may wish to direct that VDH assess the impact of the certified food manager requirement that is contained in some local ordinances. The impact of the ordinances on the management of establishments of various types and sizes and their inspection

outcomes should be considered, to help determine the advisability and feasibility of making this a state requirement. The General Assembly may also wish to direct that VDH develop one or more contracts with training providers to offer training courses on a regional basis at a minimal or low charge to establishments who commit to having an individual with such training on-site during all operating hours.

Local Health Departments Do Not Process Applications for Septic System Permits in a Timely Manner

The *Code of Virginia* grants the State Board of Health the authority to supervise and control the “collection, conveyance, transportation, treatment, and disposal of all sewage...” In addition, to protect aquifers, the General Assembly requires VDH to ensure the proper construction of private wells. Five staff members in the Division of Onsite Sewage and Water Services handle the programs at the State level. Located in the Office of Environmental Health Services, the division’s work includes policy development, technical evaluations, appeals, enforcement, and review of experimental systems.

Current regulations state that no septic system or private well can be constructed without a permit. Local health departments grant construction permits for septic systems after local environmental health specialists (or sometimes inspectors from the private sector) have made a thorough examination of the land’s characteristics in a site work-up. Applications for a private well or repairs to existing systems do not require such a work-up. Important factors that are considered in these assessments include soil permeability, depth from the system to the water table, and landscape positioning. A site work-up is really a miniature hydrologic study to evaluate how water flows from the system. Once the permit is granted and construction is complete, local staff returns to the site to issue an operating permit after ensuring that the actual installation of the septic system or private well meets established standards.

VDH processes 30,000 to 40,000 applications each year through its 119 local health departments. Usually, the department issues around 20,000 permits annually; the remaining applications result in denials or certification letters. Certification letters can be transferred with the land and a construction permit can be granted from the letter without an additional site work-up. Most recently, the denial rates for permits have dropped because the instruments and techniques used by evaluators from both the public and private sectors have become more accurate and sites can be better assessed.

Because of the long-standing concern about the length of time it takes VDH staff to process permits for septic systems, this section of the report focuses mostly on the timeliness of the permitting process. To conduct this analysis, JLARC staff collected permitting information for a random sample of applications at 10 local health

departments. These file reviews were also used to assess whether local health departments comply with separation distance requirements when issuing permits for septic systems.

Legislatively Established Performance Standards. Within the last few years, the General Assembly has passed legislation changing the septic system and well permitting process. The main issues addressed by the legislation are the timeliness of the permitting process and the resulting backlog of applications. For years, VDH has struggled with complaints about a backlog in the permitting process. Much of the backlog was attributed to requests from customers who have no interest in building on a site but, for valuation purposes, want to determine if the land is suitable for a septic system. In such cases, the department would work to approve the site for construction and issue a permit, only to have the permit expire before any construction was started. Once the land was finally sold, the new landowners would have to reapply for a permit since permits are not transferable, and department staff would have to re-evaluate the land.

To address the problem, the General Assembly passed Senate Bill 415 in 1994, allowing certification letters to be issued instead of construction permits in some cases (Section 32.1-164 of the *Code of Virginia*). Certification letters can be transferred with the property and a permit can be issued based on the letter as long as there has been no "substantial, intervening change in the soil or site conditions." Issuing certification letters reduces the number of applications for which local staff must design and approve an onsite sewage disposal system.

In addition, the new law established a standard of timeliness for the permitting process by requiring the health department to contract with an authorized on-site soil evaluator (AOSE) for applications that are not processed within 15 working days (Section 32.1-163.4 of the *Code of Virginia*). An AOSE is a qualified professional who has demonstrated the skills necessary to complete soil evaluations and systems designs. The new law charged the health department with developing and implementing a training and approval system for AOSEs. According to the director of the Division of Onsite Sewage and Water Services, local health departments are not funded for this function so AOSEs are rarely used in this capacity.

In 1999, the General Assembly defined a new role for the AOSE in the permitting process. Senate Bill 963 requires the health department to accept the soil evaluation of an AOSE when an applicant submits the evaluation along with an application for a permit (Section 32.1-163.5 of the *Code of Virginia*). The health department is not required to complete a soil evaluation for these applications. A permit, certification letter or a written explanation of denial must be issued within 15 working days of receiving an application with an AOSE evaluation attached (Section 32.1-163.5 of the *Code of Virginia*). If the department does not act within 15 working days, the soil evaluation is considered approved and the permit is issued. When construction is complete, the health department staff still has to inspect the site to issue an operating permit, after determining that the installation complies with established standards.

The benefit to the applicant of hiring an AOSE to complete the soil evaluation is the time saved, especially for developers who have many lots to be evaluated. According to the division director, the health department would need several months to complete the soil evaluations for a project involving 50 to 100 lots, each of which will have a septic system. An AOSE, working consistently on the project, could complete the work much sooner.

There are two distinct benefits of the new law to local health departments. First, the liability for the septic system shifts to the private sector when a soil evaluation is accepted from an AOSE. Second, local environmental health specialists do not have to conduct soil evaluations for applications with an AOSE soil evaluation attached. This could potentially reduce the workload allowing health department staff to complete other work that has been delayed to process permits in a timely manner.

For example, according to the director of the Division of Onsite Sewage and Water Services, environmental health staff should more consistently monitor systems that discharge into State waters. Staff should follow up on more innovative technology and complete program evaluation. Also, staff should be collecting data on existing systems to determine how long septic systems last and why.

However, because the program has only been in effect since July of 1999, it is too early to determine how the use of AOSE soil evaluations have impacted workload. Factors that will influence the magnitude of effect are the willingness of applicants to pay for AOSE soil evaluations and the availability of AOSEs to applicants. As of September 23, 1999, there were only 20 AOSEs registered with the State.

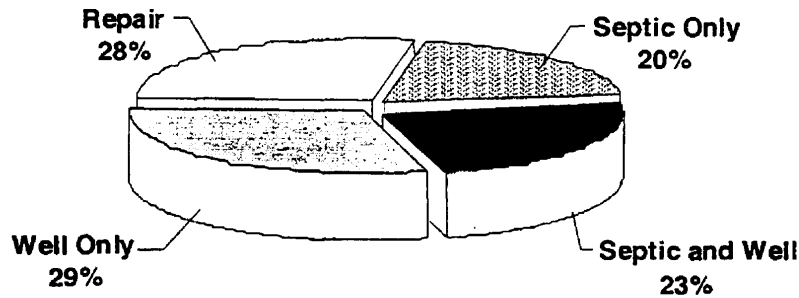
Timeliness of the Permitting Process. Presently, local health departments receive applications for new wells and septic systems, as well as for repairs to existing systems. If the application is being made for a well or a repair to an existing system, local staff need not conduct a soil evaluation. As shown by the data in Figure 21, 43 percent of all applications received by the local offices in the JLARC study sample were for septic systems or both septic systems and private wells. A key question is whether these applications were processed within the time frame established by the General Assembly.

To address the issue of timeliness, JLARC staff examined the "processing" time for each application. In this analysis, an application is considered processed if the local staff issues a construction permit or certification letter, denies the application, requests information, or declares the application inactive. An application can be declared inactive for a number of reasons including failure by the applicant to meet soil evaluation appointments.

As shown by Figure 22, 57 percent of septic system applications met the time requirement. Local staff's inability to process all septic system applications within 15 working days may be due to delays caused by the applicant or staffing issues. The process for collecting information during file reviews was limited by the lack of uniform "tag sheets." Tag sheets indicate when an application was received, when a site

Figure 21

Purposes of Septic and Well Applications Received by Local Health Departments

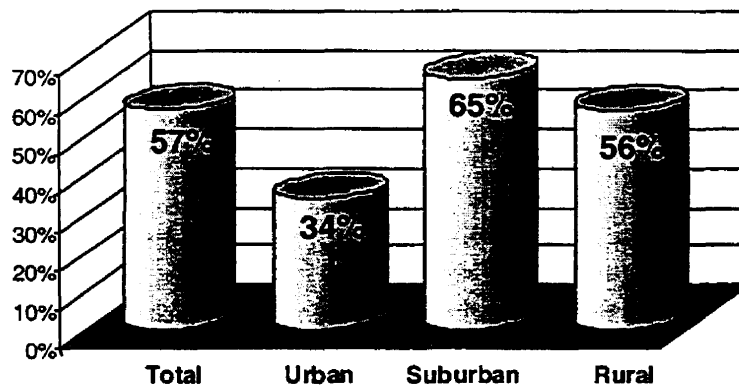


Notes: Total number of observations, 738, are weighted. Applications with missing information are not included in the total. Sampling errors and statistical tests for these estimates are reported in Appendix B.

Source: JLARC staff file reviews at ten local health departments.

Figure 22

Percent of Septic System Applications that Were Processed within 15 Working Days



Notes: The total number of observations, 429, are weighted. Applications with missing information are not included in the total. Sampling errors and statistical tests for these estimates are reported in Appendix B. Designation of local health departments as "urban," "suburban," or "rural" is based on JLARC staff analysis of population density for the jurisdictions served by those local health departments.

Source: JLARC staff file reviews at ten local health departments.

evaluation was conducted, and the timing of any changes in the status of the application. For those health departments that used tag sheets, it was clear why processing for an application was delayed. It was also clear when local staff simply could not get to the application within 15 working days. For those health departments that did not use tag sheets, such determinations could not be made.

However, based on results from the JLARC survey of local health departments, limited staffing may be a cause for some of the delays observed in processing applications. At least 28 percent of local health departments in urban areas and 54 percent of local health departments in suburban and rural areas responded that they were unable to always meet the 15 working day processing time requirement. In this same survey, over half of local health departments indicated limited staffing as a barrier to meeting the mandate while only a quarter listed the applicant delays as the problem.

The new law requiring local health departments to accept soil evaluations from an AOSE may alleviate some of the staffing problem. Workload will be decreased if applicants choose to hire an AOSE to complete soil evaluations instead of relying on health department resources. This would free up local health department staff to complete the remaining soil evaluations that are submitted without a private evaluation. However, as this law went into effect in July of 1999 and there are currently only 20 registered AOSEs in Virginia, it is too soon to determine whether the acceptance of AOSE evaluations will reduce the workload enough to eliminate the timeliness problem in the permitting process. After the law is in effect for a period of time, VDH should do a workload analysis to determine if the workload decreased and if the timeliness of conducting evaluations improved due to accepting private evaluations.

Recommendation (9). **The Virginia Department of Health should complete a workload analysis in a year to determine the effect of Section 32.1-163.5 of the Code of Virginia on the workload of environmental health staff at the local health departments. This analysis should be completed by December of 2000.**

Separation Distance. To prevent contamination of ground water, the *Virginia Administrative Code* requires a minimum separation distance as a qualification for a septic system permit. Separation distance is defined as the distance between the bottom of the trench (dug to lay absorption pipes) and the seasonal water table. The required separation distance is between 2 and 18 inches depending on the type of soil in which the trenches are dug. Soil is classified into one of four texture groups. In the JLARC study sample, all but three septic systems were constructed in soil of texture types II and III.

While questions have been raised about the adequacy of the separation distance that has been required by VDH — the Environmental Protection Agency, or EPA, recommends a minimum separation distance of 24 inches for all types of soil in coastal states — two points should be noted. First, an analysis of soil evaluation records indicates that health departments have helped ensure that the existing separation distance requirements have been met. JLARC staff analysis of these records found that of the applications processed, 96 percent complied with the requirements. As summarized in Table 12, the compliance rate applies to all three texture types for which there were septic system applications. There were no applications for septic systems in soil of texture type IV. Second, effective October, 1999, the *Administrative Code of Virginia* requires that all new septic systems have at least 18 inches in separation for all types of soil.

Table 12

Separation Distance from Trench Bottom to Seasonal Water Table

Soil Type	Minimum Separation Distance Requirement	Percent Meeting Requirement
Texture Group I Sand and Loamy Sand) (n=3)	2 inches	100%
Texture Group II Sandy Loam, Loam and Sandy Clay Loam (n=121)	3 inches	96%
Texture Group III Silt Loam, Clay Loam, Silty Clay Loam (n=185)	12 inches	96%
Texture Group IV Sandy Clay, Silty Clay, and Clay (n=0)	18 inches	--
Notes: The total number of observations, 309, are weighted. The applications with missing information are not included in the total. Sampling errors and statistical tests for these estimates are reported in Appendix B.		
Source: The Virginia Administrative Code (12VAC5-610-950). Table 4.5 and JLARC file reviews at ten local health departments.		

III. Funding the State's Public Health System

A major issue for VDH concerns the funding of the community health programs operated through the local health departments. Since 1954, the State and local governments have agreed to share in the costs of local community health programs. In 1988, JLARC staff developed a formula to address a long-standing concern that the required local shares were based on the estimated true value of locally taxable real property, which: (1) by itself, was no longer an accurate measure of local ability to generate revenues to pay for services, and (2) had been driven up by inflation, so that a majority of localities were required to pay the maximum local share (45 percent) of the program budget. The new formula, which was based on the capacity of each locality to generate revenue rather than the estimated value of local personal property, was adapted by a previous administration in the early 1990s and effectively resolved the debate about the required local shares. It is referred to throughout this chapter as the "VDH funding formula." In addition, a VDH task force also developed another formula to assess the needs of local health departments (the costs to be funded).

This chapter examines how the resource allocation process for the cooperative budget has been implemented. Special attention is given to how the needs for the system are identified and funded and whether program funding has kept pace with the workload in community public health. If State funding resources are not adequate or are not equitably distributed, then some Virginia localities may bear a disproportionate cost burden and some local health departments may not receive resources that are commensurate with their workload.

This analysis revealed several problems with the cooperative budget and resource allocation process that have undermined efforts to achieve appropriate and equitable funding levels for local community health programs across the State. First, despite a long-standing objective to establish a needs-based formula that identifies both the public health needs and associated costs in each locality, VDH has yet to implement such a system. While the agency has conducted some work towards this goal, it has stopped short of completing a systematic assessment of need for community public health.

Second, although the VDH funding formula was developed to reduce inequities in the amount of public health funding that each local health department receives, the formula was only partially implemented and funded, and the disparity in local funding for public health services has actually increased. This has imposed a special burden on local health departments in urban and rural areas.

Finally, the process used by district directors to allocate State funds to the local health departments is largely unsystematic. This, combined with the limits imposed on the State funding of community public health, has undermined efforts by health directors to achieve equity in the allocation of staff to the health departments in their districts. Results from this study indicate that the cost of correcting this particular aspect of the problem would be more than \$7 million.

VDH'S EFFORTS TO IDENTIFY FUNDING NEEDS OF THE COMMUNITY HEALTH SYSTEM

In assessing the State's system of funding for local health departments, a key issue concerns the methods and outcomes of VDH's effort to identify the resource needs of community public health. Approximately 12 years ago, the importance of determining the magnitude of community health needs and the costs associated with meeting those needs were identified as major priorities of the Commissioner of VDH.

Since that time, through the use of a Task Force, the agency has identified key workload measures that could provide the basis for a needs assessment of community public health services. However, this effort did not incorporate the task of identifying the resources needed to meet local community public health needs. This means that local community health budgets are still primarily shaped by distorted historical funding trends that perpetuate long-standing equity problems in the community health budget.

VDH Has Yet to Identify Community Public Health Resource Needs

In 1987, JLARC reviewed the system of funding for the cooperative health department and concluded that the system lacked objective measures of need. Further, the report indicated that "[a] systematic, rational system which recognizes the costs to meet the needs for the CHD [community health] program in each locality is essential." In responding to the 1987 JLARC report, the health commissioner stated that "the determination of need and the subsequent allocation of resources must be made by the Health Department based on morbidity and mortality data which we already possess and on the six year plans developed by localities." This section of the chapter examines the progress VDH has made in this area.

Task Force Appointed to Develop Needs-Based Formula. The department's efforts to identify community public health needs began with the appointment of a 12-member Task Force in 1996. This Task Force was required by the General Assembly to recommend a formula for a needs-based allocation of State funds to local health departments through the cooperative budget process. This task force met five times in 1996 and concluded its work with a series of recommendations concerning the funding of public health. Most notably, the Task Force developed a formula that was erroneously referred to as needs based, and recommended that VDH implement this formula in FY 1998.

To develop this needs-based formula, the Task Force asked district health directors for an estimate of the portion of funding in FY 1997 that was allocated to environmental health services, population based health services, and individual health care services. Next, and presumably as a proxy for need, the Task Force identified numerous workload indicators in each of these functional areas.

Based on the district directors' responses, the Task Force determined that 25 percent of the funding would be based on environmental health indicators, 30 percent would be based on population-based factors, and the remaining 45 percent of funding would be based on the indicators affecting individual health care services. Allowances would be made for a 12 percent increase for each Northern Virginia locality to help cover personnel costs. In addition, the amount a locality spent for facility costs, including rent and janitor costs, would be added back in for each locality.

However, the needs based allocation would not address the total amount of funding necessary to support public health in Virginia. Moreover, VDH has not developed a system to determine the Statewide need and cost of community public health. Instead, VDH requested additional funding of \$9 million for FY 1999 and another \$9 million for FY 2000 as part of its 1998 - 2000 Biennium budget submission in 1997. Finally, the former VDH director of budget services has stated the agency tentatively plans on requesting additional funding for the local cooperative budgets from DPB this fall.

Equity Problems Caused by Current System. From the standpoint of funding, the lack of a true, needs-based approach means that the current State and local shares of community public health costs are still determined using spending data that are based on historical trends. This poses a number of equity problems for the current public health system. Most notably, as the 1996 Task Force pointed out, the current funding trends for community health were established many years ago as local health departments enrolled in the public health system. At that time, significant variation existed in the types and levels of public health services in local communities. However, this variation had more to do with local differences in the resources available to fund public health programs and therefore did not necessarily reflect the needs of a particular district or community. As these differences were incorporated in the cooperative budget process, initial inequities in per capita funding for public health activities began to emerge. In later years, these original differences were augmented through special funds included in the community health budget up until the late 1980's.

Finally, and perhaps the most significant threat to the equitable funding of local public health programs, was the decision VDH made to reallocate State funds from localities that could not afford the required match to those that could. Given these occurrences, VDH will not be able to address inequities in local funding for community health until the needs and costs of health services are identified on a statewide basis.

By modifying the workload criteria that the Task Force established for the major functional areas of public health, VDH could develop staffing standards and identify the number of staff that would be needed in each locality to meet that workload. Exhibit 6 illustrates how this methodology could be employed for a fictitious locality. In this example, hypothetical workload amounts and staffing standards are applied to VDH activities regarding patient healthcare, the regulation of food service establishments, and the implementation of the septic system and private permitting process. As

Exhibit 6

Illustration of How to Determine Number of Staff Needed to Meet Community Health Needs of a Locality				
<i>Column A</i>	<i>Column B</i>	<i>Column C</i>	<i>Column D</i>	<i>Column F (C/D)</i>
Locality	Program	Workload	Staffing Standard	Total Staff Needed
County X	Individual Healthcare	1,065	110 Patients Per Worker	9.68
	Food Service Establishments	14	200 Establishments Per Worker	0.07
	Septic Systems And Wells	110	100 Applications Per Worker	1.10
Total Staff Needed				10.85
Source: JLARC staff example based on potential measures, and hypothetical workload amounts and staffing standards.				

Once a staff level is determined for each local health department in the State, this figure could be converted to dollars based on the average salary for the staff providing services in the respective program area. These figures could then be inflated periodically to reflect cost-of-living adjustments.

The advantages of this system would be numerous. First, VDH would be able to base future budget requests on the actual workload of the local health departments as recognized by the State. Second, the VDH funding formula for determining local shares could then be applied to the estimate of the total resource needs for the system, and local health departments would pay their share of the costs of community public health. Third, local governments would be free to enhance the level of public health service in the community completely independent of the State funding formula. Fourth, VDH would be able to pursue State public health policy goals by customizing the workload standards for local jurisdictions. For example, VDH could decide to exclude workload measures for non-mandated primary healthcare services in many local jurisdictions in an effort to reduce the role of public healthcare in the provision of these services. However, local governments would still be free to fund their own clinics independent of the State funding formula. Fifth, cost factors not related to staffing such as building and equipment costs could be added to the total budget after the staffing costs have been identified.

Obviously the integrity of this system is greatly dependent upon the proper identification and use of workload measures and staffing standards. In refining or building upon the measures identified by the Task Force, VDH should consider the following guidelines:

- The workload measures selected must have a hypothesized relationship to staffing that is supported by sound and rational theory.

- The variables for the factors must not be easily subject to manipulation on the local level (for example, number of times a staff person inspected a restaurant).
- Data for the variables must be objective, easily quantifiable, and available for each local office.
- Staffing standards should reflect an achievable but efficient level of resources relative to the workload to be accomplished.

***Recommendation (10).* Virginia Department of Health should develop staffing standards for each major community public health program and present a preliminary estimate of the resources required to meet statewide local public health needs based on these standards. The Department of Health should present this methodology and associated estimate to the House Appropriations and Senate Finance committees by October 2000.**

FUNDING THE STATE SHARE OF COMMUNITY PUBLIC HEALTH

In 1988, the debate concerning how the cost of public health should be apportioned between the State and localities was resolved by the newly developed VDH funding formula. However, the expressed objective of this formula — create intergovernmental equity in the allocation of public health cost — has yet to be realized. Instead, the historical local disparities in public health funding have persisted because the formula has not been fully funded. Rather than fund the full amount of the State share for public health, the General Assembly chose to phase in the use of the new formula over three years. However, revenue shortfalls in the early 1990's caused the General Assembly to shelve the plan after the first year and the increased State share was never appropriated.

Because the formula was never fully implemented, VDH chose not to redistribute funding based on updated local revenue capacity measures. This has created a disparity between the local funding shares required by the formula and the localities' actual ability to pay. Equally significant, these funding disparities have undermined efforts by health directors to achieve equity in the allocation of staff to the health departments in their districts. As a result, in many local offices within health districts, there appears to be only a slight relationship between the workload of the office and the number of positions that are allocated.

State Funding of Cooperative Agreement Should Be Revisited

The inter-governmental nature of the State's public health program creates several fundamental expectations about the funding and staffing of this system. While localities face clear mandates to provide certain services, properly implemented, these

programs produce benefits that accrue to both local jurisdictions and the State as a whole. Given this program mandate and the associated program spillover effects, the public health funding system is expected to embrace the basic concept of equity in establishing the cost responsibility for the system.

When the General Assembly endorsed the use of the VDH funding formula for public health, the debate about the appropriate State and local funding shares for community public health was resolved. Presently, each local share of the community health budget is based on the jurisdiction's revenue capacity rather than the estimated value of local personal property. As a result of the VDH funding formula, the State always pays the majority share. The local share varies between 18 percent and a maximum or capped rate of 45 percent. On average, the State pays for six out of every ten dollars spent on community public health in Virginia, if the formula is fully utilized.

However, as currently implemented, the VDH funding formula is not achieving its original intentions of providing equal access and equity across the State. In fact, the majority of localities are paying a greater share now than would be required if the VDH funding formula had been fully implemented. There are several reasons for this outcome. Most importantly, due to the recession of the early 1990s, the General Assembly never fully funded the original formula. As a result of decreasing State revenues, only about one-third of the funding required to fully implement the funding formula was provided in FY 1990. Table 13 reveals that as a result of this problem, approximately 60 percent of the localities in Virginia now pay a larger percentage of community health costs than would be recommended if the VDH funding formula were updated and fully funded. This excess burden appears to fall disproportionately on rural and urban localities.

In light of this finding, the following question is raised: How much would it cost the State to fully implement the funding formula? To answer this question, JLARC staff applied an updated formula to current funding data. In addition, in keeping with the General Assembly's original plans to avoid a simple re-allocation of the existing

Table 13

**Comparison of Funding Requirements of JLARC Formula
With Local Shares Paid by Local Governments**

Locality Funding Status	Type of Locality			
	Total	Urban	Suburban	Rural
Locality Pays Recommended Share	13%	24%	31%	1%
Locality Pays More Than Recommended Share	61%	71%	41%	69%
Locality Pays Less Than Recommended Share	25%	5%	28%	29%

Sources: JLARC staff analysis of data from the Commission on Local Government and VDH.

budget for community health services, jurisdictions that experienced increases in their local shares under a fully implemented formula were held harmless for that increase.

As shown by Table 14, if the VDH funding formula were to be fully funded based upon FY 1997 revenue data and FY 1996 median adjusted gross income data, there would be no change in the local shares for 18 localities. However, a total of 83 localities would have their local shares reduced necessitating an increase in the State share for these jurisdictions totaling \$7.3 million. In addition, the local shares of 34 localities would increase as part of full implementation of the VDH funding formula. Therefore, the State would be required to provide more than \$400,000 in additional funding to these localities in order to guarantee the aforementioned hold harmless provision. Thus, the General Assembly would need to appropriate more than \$7 million in additional funding for Community Health Services to fully implement the VDH funding formula. Appendix C presents the impact of updating the formula for each local government.

It is important to reiterate that the purpose and expected impact of most of the more than \$7 million in increased State funding would be to fully fund the State's share of existing costs – and thereby reduce the burden upon localities, particularly those with low ability to pay. Aside from the \$400,000 in hold harmless funding, the remaining funding (the \$7.3 million) would be provided to lessen the local funding burden. Therefore, the net funding or resources available to the system would not increase due to the \$7.3 million, unless some of the localities choose to voluntarily maintain a higher level of support for health department programs than is technically required by their newly-calculated, lesser local share. A separate funding increase might therefore be required, if the State wished to enhance the service levels provided across the local health department system, reduce the workloads borne per staff member, and address other resource issues.

Impact of Lost Revenue from Patient Fees and Payments. Historically, local health departments have delivered a number of mandated and non-mandated primary healthcare services to both the uninsured and persons who are insured through Medicaid. Through patient's fees and payments from Medicaid, local health depart-

Table 14

Fiscal Impact of Updating Funding Formula to Determine State and Local Shares for Community Public Health Services

Change in State Shares	Number of Localities	Total Funding Amounts
No Change	18	\$ 0
Increase State Share	83	\$ 7,301,514
Increase Local Share (Hold Harmless)	34	\$ 414,143
Total	135	\$ 7,715,657

Source: JLARC staff analysis of data from the Commission on Local Government and VDH.

ments have been able to generate a significant amount of revenue. As late as 1997, patient revenues accounted for 15 percent of local health department budgets (Table 15, below). For those health departments in areas defined as "suburban," patient revenues accounted for one-quarter of their total budget.

However, in recent years, patient revenues as a source of funding has declined due to efforts by local health departments to privatize some of the health care services they were providing and the growth of managed care for Medicaid recipients. Figure 23 (page 69) illustrates the decline that has occurred in patient revenue as a source of funding for local health departments. From 1997 to 1999, the percent decline in revenue, as a portion of local health department budgets was just over six percent. For rural and urban localities, the decline averaged nearly ten percent. The major source of this drop in patient revenues has been the loss of Medicaid funds. In "suburban" local health departments for example, payments from Medicaid as a portion of the local health department budgets dropped by almost 25 percent. Moreover these declines have not been offset by increases in State general fund contributions. Some health directors contend that without additional resources, staff layoffs are inevitable. This, they suggest, will make it more difficult to keep pace with the workload changes occurring in public health.

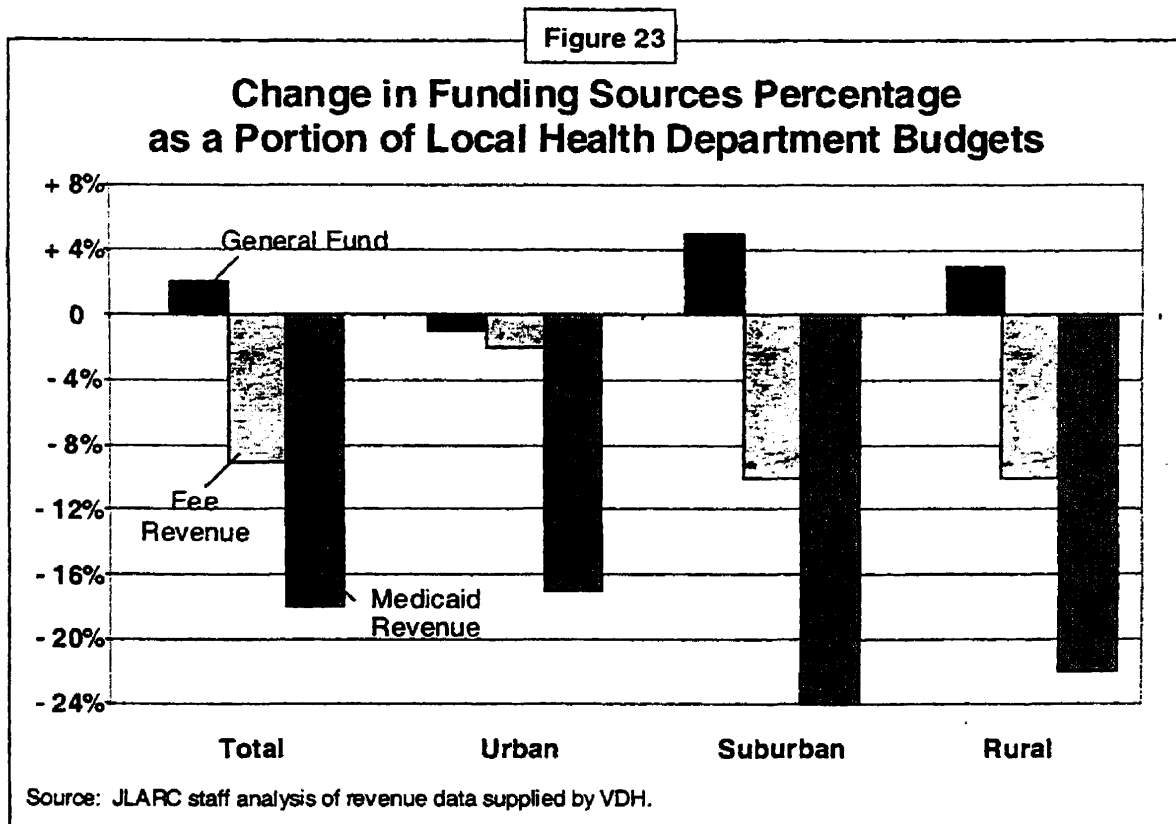
An analysis of data on recent trends in workload and staffing patterns for local health departments appears to validate these claims. To conduct this analysis, two separate workload measures were developed for FY 1994 and FY 1998. One measure represented workload for environmental services. This variable was constructed by adding the total number of applications received by the local office for permits to build or repair septic systems and private wells, with the total number of restaurants in the locality. The workload variable for the second measure is based on the total number of patients (unduplicated) that receive healthcare-related services through the local health departments. Both of these workload indicators were divided by the total number of full-time equivalent positions that were allocated to perform work in these respective areas for fiscal years 1994 and 1998.

Table 15

Portion of Local Health Department Funding Supported by General Fund Dollars and Patient Revenues in 1997

Revenue Measures	Type of Locality			
	Total	Urban	Suburban	Rural
Patient revenue as a portion of total funding in 1997	15%	12%	25%	21%
General Funds as a portion of total funding in 1997	44%	48%	41%	42%

Source: Virginia Department of Health, Office of Budget Services.



As shown by the data in Table 16 below, local health departments have experienced modest increases in the amount of workload per staff since FY 1994. Statewide, the median ratios of workload to staff for both environmental services and medical care have increased by five percent. However, when the results are examined according to the population density of the area served by the health departments, the in-

Table 16

Change in Workload to Staff Ratios for Environmental and Healthcare Services, FY 1994 to FY 1998

	Total	Urban	Suburban	Rural
Environmental Services				
1994 Median	287.7	80.0	251.6	317.8
1998 Median	304.2	73.9	286.4	347.0
Percent Change	+5%	-8%	+13%	+9%
Primary Healthcare				
1994 Median	328.9	267.2	346.0	328.9
1998 Median	344.6	281.1	386.2	344.6
Percent Change	+5%	+5%	+11%	+4%

Note: Changes were calculated from median values because of outliers in the workload data.

Sources: Local health department staffing data and data on the number of restaurants in each local jurisdiction was collected through a JLARC staff survey of 35 health district directors. The Virginia Health Department, Office of Information Management provided patient data for each local health department.

creases for "suburban" local health departments are more substantial. Obviously any significant staff reductions in these local health departments will exacerbate this problem.

Inequities Exist in Allocation of Resources by District Directors

As noted earlier, the cooperative budgets for localities are comprised of State general funds, local matching funds, and local earned revenue. According to the Associate Commissioner for Community Health Services, VDH first determines the general fund allocation to each locality. Localities contribute the required match and, in some cases, make additional local funding available to support optional community health problems. Earned revenue is then projected for each locality. The sum of these funding streams represents the resources available to operate local health departments.

Once this allocation is made, the health directors in those districts with more than one local health department determine the amount of State funding each jurisdiction will receive. While VDH encourages the district offices to base their staffing decisions on locality workload, no uniform method is prescribed for doing so. Without a policy governing the distribution of positions among the various localities, there is a possibility that staff allocations may not reflect actual workload. Therefore, because of the direct relationship between the availability of staff and the ability to adequately carry out the public health functions of the office, a key issue in this study is whether health directors are making equitable decisions when allocating State positions to the local offices in their districts.

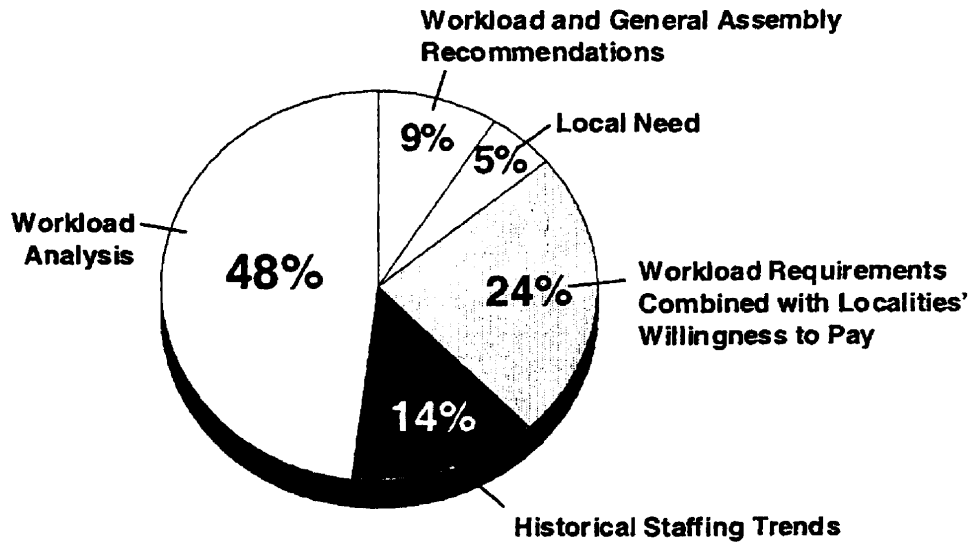
To examine this issue of staffing allocations, JLARC staff surveyed each director of a district with more than one locality regarding his or her perception of the staff allocation process for their district. In addition, data on staffing and workloads within the health districts were examined to assess whether allocation decisions appear to be based on the workload of local offices.

Although each of the 21 directors with more than one locality in their district believe the process they use to allocate staff to the local health departments is equitable, the survey results indicate that the directors use seven different approaches when making these decisions (Figure 24). Less than half of the directors rely completely on workload (48 percent). Nearly one-quarter of the directors consider workload but take into account the localities' willingness and ability to provide funding. Others rely on historical funding trends (14 percent), consider local need (5 percent), or account for workload in conjunction with staffing recommendations from the General Assembly (9 percent).

The next two tables presented in this analysis provide several illustrations of discrepancies that appear to exist between the staffing that local health departments received in FY 1998 and their workloads for that year. The first table reveals some of the staff allocation problems in the area of environmental health (Table 17). Charlottesville Health Department had nearly five more staff in this area than Louisa County despite a minimal difference in the total workload between the two localities.

Figure 24

Methods Used by Health Directors to Allocate Staff to Local Health Departments within Their Districts



Source: JLARC staff survey of district directors.

Table 17

Comparison of Local Health Departments' Staffing for Environmental Services

District	Locality	Total Workload	Total Staff	Workload-To-Staff Ratio
Thomas Jefferson	Charlottesville	1,246	7.70	161.8
	Louisa County	956	2.90	329.7
Central Virginia	Amherst	662	3.30	200.6
	Appomatox County	453	1.35	335.6
Cumberland	Tazewell County	654	4.22	154.9
	Russell County	663	2.78	238.5
Danville	Danville	323	4.65	69.5
	Pittsylvania County	1,171	4.35	269.2
Mount Rogers	Washington County	775	3.25	238.5
	Carroll County	857	2.25	380.9
Chesterfield	Chesterfield County	1,341	11.42	117.4
	Powhatan County	475	2.15	220.9

Source: Workload data represents number of restaurants in locality and number of applications received by local health departments for wells and septic systems in 1998. This information, along with the staffing data, was collected through a survey of district directors.

Also, Pittsylvania County, which reported nearly four times the workload of Danville, received roughly the same number of positions to staff its environmental health programs.

Similar, and in some cases, greater discrepancies between workload to staff ratios were observed for healthcare-related services (Table 18). For example, the Frederick-Winchester Health Department received about one less medical staff person than the Page County Department although they had over three times the workload. Similarly, the patient workload for the Southampton County Health Department was 16 percent higher than Isle of Wight, but this office received 45 percent less staff. Additionally, the Bristol and Wythe County health departments had medical workloads that were nearly identical yet Wythe County had more than two times the staff.

Some of the district directors interviewed by JLARC staff indicated that they would prefer to base staff allocation decisions purely on workload but face constraints that are beyond their control. Most notable are the differences that exist in the willingness and ability of local governments to meet the State match requirement or secure special grants. Under such circumstances, directors explain that it is not politically feasible to shift positions from one locality that funds a significant portion of its public health cost to those that do not have the resources or interest to pay similar shares. This problem is clearly magnified when local health departments do not receive the appropriate State share for the public health costs they face.

If the budget amendment proposed by VDH as part of its 1998 – 2000 Budget submission had been adopted, the State would have been expected to increase its share of the funding for the cooperative budgets by more than \$7 million for two consecutive years. Fully funding this formula would reallocate the local shares of the cooperative

Table 18

Comparison of Local Health Department Staffing for Healthcare-Related Services

District	Locality	Total Workload	Total Staff	Workload-To-Staff Ratio
Lord Fairfax	Page County	2,975	5.40	550.9
	Frederick-Winchester	10,627	6.11	1,739.2
Alleghany	Alleghany-Covington	2,325	10.5	221.4
	Roanoke-Salem	5,412	8.7	622.0
West Piedmont	Henry-Martinsville	7,781	20.5	383.9
	Franklin County	3,542	4.52	783.7
Mount Rogers	Wythe County	5,839	20.57	283.8
	Bristol	5,486	9.50	577.5
Western Tidewater	Isle of Wight County	3,677	12.33	298.25
	Southampton County	4,364	8.83	494.30

Source: Workload data represents an unduplicated count of patients served in the local health departments in FY 1998. The Virginia Department of Health, Office of Information Management provided this information. The staffing data was collected through a survey of district directors.

budgets, and consequently the State shares. However, this additional funding will not address the overall funding needs of the community health services function.

Recommendation (11). The Virginia Department of Health should develop and implement a policy for allocating the State's share of the cooperative budget. The policy should build upon and extend the needs-based formula and staffing standards for use in making allocations of positions and funds to the local health departments. Staffing standards developed in the statewide needs assessment should be applied to workload data from the local health departments to determine staffing levels and funding. The State share to meet those costs should be calculated using the VDH funding formula, but with the use of updated data for local revenue capacity and median adjusted income. The Department of Health should present this policy to the Board of Health prior to September 2000.

IV. VDH's Performance of Central Office Regulatory and Health Service Functions

In addition to the community public health programs provided at the local level, VDH provides certain regulatory functions and public health services from its central office and through satellite or field offices. The regulatory functions include oversight of the shellfish industry, long-term care facilities, managed care health insurance programs, emergency medical services, and drinking water. In terms of specific program services, VDH is responsible for the staffing and operation of the Chief Medical Examiner's Office, the State's Newborn Screening Program, the Office of Emergency Medical services, the Division of Shellfish Sanitation, and the Center for Quality Health Care Services and Consumer Protection.

This chapter presents the results of JLARC's staff review of several key regulatory programs and public health activities that are organized at the State level. There are three major findings from this review. First, regulatory activity in both shellfish sanitation and long-term care has slowed in recent years. These lags have begun to surface because of a combination of staffing shortages which were created through staff losses as a result of the Workforce Transition Act, and the growing workload faced by the remaining staff in these programs.

Second, with the exception of the Newborn Screening Program, the public health programs that are centrally organized are experiencing problems. The problems are most severe for the Chief Medical Examiner's office. Due to VDH's inattention to the staffing and workload trends in this office, there has been a sharp drop in the number of autopsies performed and the office has suffered a loss of professional staff.

Third, VDH appears to have implemented the new requirements for the certification of the quality of care provided by managed care organizations. However, the agency needs to implement a number of activities to improve its oversight of these organizations and assume a greater role in educating consumers about their rights under newly developed State regulations.

PERFORMANCE OF CENTRALLY LOCATED REGULATORY AND PUBLIC HEALTH PROGRAMS

As a part of its broad scope of activities, VDH regulates certain industries to protect the health of the public, operates the Chief Medical Examiner's office, and coordinates, delivers, and regulates emergency medical services. Following the implementation of the Workforce Transition Act in 1995, VDH's leadership made a conscious effort to preserve health services at the local level by reducing management and other central office staff positions.

In recent years, some concern has been expressed about the impact of this strategy on the regulatory and public health programs that are centrally located. Nearly 70 percent of the division directors in the State office indicate that their divisions are not appropriately funded or staffed to meet primary functions. Performance data from several of the VDH's regulatory programs seem to confirm their position. In shellfish sanitation, there have been sharp declines in laboratory analysis work and in the oversight of production plants, shoreline surveys, and shellstock. Additionally, staffing reductions have delayed federally-required inspections for both nursing homes and to a lesser extent acute care facilities.

In terms of services, both the Chief Medical Examiner's Office and the Office of Emergency Medical Services have problems meeting workload requirements. In the case of the Chief Examiner's Office, long-standing staffing shortages have caused the State Medical Examiner's Office to refuse to accept some autopsy requests from local medical examiners who believed the cause of death in these cases warranted investigation.

Problems Exist With Several Key State Regulatory Functions

The offices and divisions organized in VDH's central office primarily provide guidance, technical assistance, and information to the districts and localities. However, there are a number of activities performed directly by office and division staff. Exhibit 7 indicates some of the functions performed by centrally located office or division staff at VDH and whether they have satellite offices. As noted, although the office or division is organized at the central office level, it may still operate field offices to perform its functions. For example, the Division of Shellfish Sanitation has three field offices located along the Chesapeake Bay in Accomack, Norfolk, and White Stone. Furthermore, there are three satellite medical examiner's offices around the State, which perform all autopsies in the Commonwealth.

By providing these services from a centralized or regional locations, VDH is often able to produce a more efficient use of resources than if the services were provided from the districts or localities. For example, rather than require each local health department to have a State Medical Examiner on site to perform autopsies, the State can produce significant economies by requiring local medical examiners to forward requests for autopsies to a regional or satellite office. This section of the chapter examines some of the issues surrounding State-level regulatory and public health programs.

Concern About Funding and Staffing Problems. In light of the staffing changes that have occurred at VDH over the last five years, JLARC staff surveyed each division director to determine their perceptions of whether they were appropriately funded and staffed to perform the primary functions of their units. As illustrated in Table 19, a significant percentage of directors indicated their divisions were neither funded nor staffed appropriately. In addition, among the directors indicating that their division had less funding than necessary, over 83 percent stated they would provide additional public health services if provided more funds.

Exhibit 7

Selected Regulatory Functions Provided by VDH Central Office Personnel		
Office or Division	Regulatory Functions	Number of Field Offices
Chief Medical Examiner	Responsible for the investigation of violent, suspicious, or unnatural deaths.	3
Division of Shellfish Sanitation	Performs classification of shellfish growing areas for harvesting and ensures molluscan shellfish and crustacea processing facilities meet sanitation standards.	3
Office of Emergency Medical Services	Responsible for planning and implementing a Statewide emergency medical care system as well as the licensing of providers of emergency medical services.	None
Division of Long Term Care Services	Responsible for State licensure and federal certification of nursing homes and home health agencies.	None
Division of Acute Care Services	Responsible for State licensure and federal certification of acute care facilities, including hospitals and outpatient surgical hospitals.	None
Division of Women's and Infants' Health	Responsible for administering the Newborn Screening Program.	None

Source: Information supplied by VDH.

Table 19

Division Directors' Perceptions of the Appropriateness of Funding and Staffing for their Divisions

Survey Question	Survey Response	
	Yes	No
Is the division appropriately funded to perform its primary functions? (n=19)	32%	68%
Is the division appropriately staffed to perform its primary functions? (n=19)	32%	68%

Source: JLARC staff survey of VDH division directors.

Given these perceptions, a key question for this study was whether the staffing changes in the central office had any impact on the regulatory or public health functions provided through the central and field offices. Because of the broad scope of the agency's functions, JLARC staff focused its research activities on only those programs or services that VDH staff contends have been impacted by resource shortages. These included the divisions of shellfish sanitation, long term care, acute care services, and the Chief Medical Examiner's Office.

Division of Shellfish Sanitation. The shellfish sanitation program is designed to protect public health by ensuring shellfish and crabmeat products are safe for consumption. Since 1997, DSS has operated with a maximum employment level of

31 and has been level funded for the last several biennia. The division had three vacancies during FY 1999, which reportedly took two to three months to fill.

For the Division of Shellfish Sanitation (DSS), workload measures were developed identifying a number of the division's primary activities performed in FY 1995 and FY 1999. As indicated in Table 20, the Division of Shellfish Sanitation has experienced substantial decreases in a number of the key regulatory activities performed by the shellfish specialists. For example, inspections for plant sanitation, during which potable water samples are taken and product samples are collected when present, have dropped by 31 percent. There has been a 58 percent decline in technical service support and double-digit decreases in all of the laboratory inspection activity.

Document reviews and interviews with the director of the Division of Shellfish Sanitation indicate that the imposition of additional, but unfunded federal requirements for the National Shellfish Sanitation Program (NSSP) has forced the division to reduce its workload to accommodate the new changes. The federal Food and Drug Administration (FDA) has revised the requirements governing the sanitation activities of processing plants and entered into an agreement with the DSS to have the division provide certain inspections. As a result of the new federal requirements, the time that is required for DSS staff to perform an inspection has increased. In addition, DSS staff are now required to obtain special training and certification in the new process.

Table 20

Number of Activities Performed by Shellfish Sanitation Specialists, FY 1995 and FY 1999

Activities	FY 1995	FY 1999	Percent Change FY 95 - FY 99
<i>Plant Sanitation Activities</i>			
Inspections	2,548	1,768	-31%
Enforcement	83	44	-47%
Plans	42	19	-55%
Technical Services	201	84	-58%
<i>Growing Area Classification Activities</i>			
Shoreline Surveys	6,981	5,763	-17%
Shellstock (metals, pesticides)	30	17	-43%
Shellstock (biotoxins)	0	0	No change
Phytoplankton	0	0	No change
<i>Laboratory Activities</i>			
Seawater Analysis	24,834	22,427	-10%
Drinking Water Analysis	3,956	3,239	-18%
Meat Analysis	2,169	1,592	-27%

Note: Figures for plant sanitation activities and laboratory activities include functions related to shellfish and crustacea functions. Figures for growing area classifications include activities related to shellfish functions only.

Source: VDH Office of Water Programs.

Documents prepared by the office and division highlight the tradeoffs DSS has made in its sanitation program to meet the new federal requirements. For example, the Office of Water Program's work plan for fiscal year 2000 states that the "shoreline survey is the backbone of the [federal program promulgating regulations for shellfish sanitation]." (This activity involves the inspection of properties located on the watershed of shellfish growing areas that are not serviced by sewerage systems; sanitary and other waste disposal facilities are inspected and failing systems are reported to local health departments for corrections, and other types of pollution sources are noted as well.) The draft work plan for the division states that in response to shrinking resources, the division is:

redesigning the shoreline survey protocol to eliminate portions of the growing area watersheds from study areas and increasing the length of time between surveys for selected areas. Though the revised protocol meets minimum federal requirements, it does sacrifice the routine blanket coverage we were able to provide in the past.

To account for this change, specialists performing shoreline surveys have had to increase the amount of time between site visits from every five years to between six and eight years in an attempt to realize efficiencies.

According to the division's work plan, normal activities will still be carried out under current conditions. However, the director of the Office of Water Programs and the director of the Division of Shellfish Sanitation, have both indicated that increases in State salaries and the rising maintenance costs of the division's laboratory and other equipment is greatly impacting the division's ability to provide those services. The director of the Division of Shellfish Sanitation indicated that if additional funds were provided, they would be primarily used to cover salaries and the purchase of additional equipment such as boats, trailers, and laboratory instruments.

Long Term Care and Acute Care Services. In 1950, the General Assembly established an inspection program for hospitals and nursing homes. The objective of this legislation with the supporting regulations was to establish a set of minimum standards to protect the health and safety of nursing home residents and hospital patients. The Division of Long Term Care Services issues licenses to nursing homes on an annual basis and conducts inspections on a biennial basis. The Division of Acute Care Services provides onsite inspections and complaint investigations of the State's managed care organizations and acute care medical facilities.

The director of the Division of Long Term Care Services indicated to JLARC staff that funding and staffing issues have impacted the ability of that division to adequately perform inspections of the State's long term care facilities. As a result of enhanced federal requirements that took effect in August 1998, medical facilities inspectors in the division can no longer waive revisits to a facility if there is a complaint of actual harm, as they were able to previously do. This has increased the number of revisits made by staff while limiting the number of times inspection visits can be made

at other facilities. According to the director, the Division of Long Term Care was unable to conduct the biannual State licensure inspections for eight nursing homes within the appropriate time frame during 1997 and 1998.

In addition, several other enhanced federal regulations took effect in July 1999 that require inspectors to spend significantly more time at each long term care facility. For example, an additional survey task was added which the federal Health Care Financing Administration (HCFA) predicted would require additional time to the length of a survey beyond the 40 percent increase in survey time since 1995. Staff in the Division of Long Term Care are finding the new survey process takes approximately six to eight hours to complete.

In evaluating staffing and workload trends for the Division of Long Term Care, JLARC staff developed workload measures based on the number of facility inspections performed for each inspector during fiscal years 1997 and 1999. Although the number of medical facilities inspectors remained constant from FY 1997 to FY 1999, the number of facilities visited per inspector decreased by about eight percent. These results suggests that the increased federal requirements combined with the divisions' stable staffing levels, may have impacted the number of facility inspections that are being conducted. A recent report completed by a consultant for VDH also found that long term care staffing may be inadequate. The consultant reported that:

Consideration should be given to hiring additional surveyor, clerical, and supervisory staff, particularly in the Long Term Care Division, and to increasing internal staff capabilities in policy development and analysis.

It is important to note that these programs are largely driven by federal requirements governing the certification of medical care providers for Medicare, Medicaid, and Clinical Laboratory Improvement programs. According to the business manager for the Center for Quality Health Care Services and Consumer Protection (CQHCSCP), HCFA funds approximately 65 percent of the both of these divisions. The State provides matching grants for activities related to Medicaid certification, but not Medicare certification activities.

In recent years, the federal requirements for certification have increased the amount of time necessary to complete an inspection, according to CQHCSCP staff. For example, as part of new regulations, inspectors will have to investigate complaints against a facility within 10 days of the complaint. Previously, inspectors had between 10 to 45 days to perform those inspections depending on the seriousness of the allegations. Both division directors have raised concerns about the adequacy of the staffing they have available to meet these new requirements.

As part of HCFA's participation in the certification process, the State's responsibilities are specified, including survey frequency. To ensure that these timeframes are met, the federal government can enact a financial penalty against the State.

In addition, it appears the Division of Acute Care Services has also been impacted by staffing and workload trends. Although the division has added four new positions since FY1997, it is not evident that these positions are available to perform acute care facility inspection and certification activities. Instead, these positions appear dedicated to the provision of services for the managed care health insurance programs (MCHIPS). According to the division director, the current level of staffing is insufficient to properly investigate the number of complaints against acute care facilities the division receives. Also, staffing for managed care plans may still be inadequate, as CQHCS CP has developed a budget submission to be included in the agency's 2000 - 2002 biennium budget addressing the need for additional investigative staff in the managed care regulatory program.

VDH Appears to Have Implemented New Requirements for Certification of Quality Care

The mandate for this review of VDH (HJR 137, 1999) directed JLARC staff to include a "study of the monitoring and oversight responsibilities of the Department of Health's Center for Quality Health Care Services and Consumer Protection in health care provided quality assurance." The 1998 General Assembly also directed VDH to hire a consultant to complete a study of the quality assurance oversight responsibilities for managed care, as well as the contractual obligations of VDH and the Health Care Financing Administration (HCFA) for implementation of Medicare/Medicaid certification. These two reviews were concurrent with VDH's efforts to implement its new responsibilities to regulate managed health care insurance plans.

Regulation of Managed Care Mandated in 1998. In recent years the growth of managed care (such as HMOs) has resulted in significant changes to the health care system, both in Virginia and nationally. Concerns about the quality of care provided by managed care plans have been raised by consumers, health care professionals, and health care regulators. In response to these concerns, the General Assembly implemented new requirements for the regulation of managed care providers in 1998 (SB 712). The Board of Health is required under this new legislation to promulgate regulations related to the quality of care provided to covered persons by managed care plans by December 1, 1999.

All managed care health insurance plans must be licensed by the SCC Bureau of Insurance (BOI). In addition, sections 32.1-137.1 through 137.17 of the *Code of Virginia* require managed health care insurance plans to obtain a certificate of quality assurance from VDH by July of 2000 in order to be licensed by BOI. BOI has identified approximately 100 insurers as operating managed health care insurance plans.

The VDH Center for Quality Health Care Services and Consumer Protection administers the Certificate of Quality Assurance program. The quality assurance program consists of the initial issuance of the certificate to managed care plans, biennial renewals of certificates, investigations of complaints by consumers, and enforcement of

managed care regulations. A comprehensive, on-site examination of each managed care plan is to be conducted at least once every three years, or when deemed necessary by VDH.

To receive a certificate of quality assurance, managed care plans must meet 10 criteria for quality as set out in § 32.1-137.2 of the *Code of Virginia*. The criteria are related to areas such as the handling of complaints, access to care, preventive services, credentialing of providers, confidentiality of patient records, and utilization review.

Development of New Regulations Is Nearing Completion. Development of the Board of Health regulations for the quality of care provided by managed care plans has been the responsibility of the Center for Quality Health Care Services and Consumer Protection. To help it prepare the draft regulations, the Center established an advisory committee composed of provider, consumer, and advocate representatives. Draft regulations written by Center staff were reviewed and revised by the advisory committee in several open sessions. The Board of Health approved the proposed regulations for initiation of the APA process in April 1999. The proposed regulations were mailed to 300 interested parties, and public hearings were held in August 1999. The public comment period for the proposed regulations ended October 15, 1999. Twenty-six comments were received, and the Center is now making revisions to the proposed regulations in preparation for final approval by the Board of Health. Center staff expect final approval by the board by December, as required by SB 712.

In addition to managing the regulatory process, the Center has hired staff to investigate complaints and to conduct surveys of the managed care plans. It also has begun to certify Private Review Agents and hired a consultant to develop interpretive guidelines to assist managed care plans in complying with the regulations. The Center has also conducted outreach activities with consumer groups.

Consultant Identified Need for Improvements in Managed Care Oversight. As directed by SJR 95 (1998), the Center hired a consultant to review its contractual relationships with HCFA relative to Medicare and Medicaid certification activities, and its oversight of managed care plans. As noted earlier in this report, the consultant found that the Center should consider hiring additional staff, particularly in the Long Term Care Division. Based on its review of the Center's oversight of managed care quality assurance, the consultant also made several recommendations for expansion of the Center's role in ensuring quality among managed care plans.

According to the consultant, "VDH could assume a greater role in educating consumers about managed care in general and about their rights under new state regulations." The consultant's report cites research indicating that consumers lack a basic understanding of managed care and are unprepared to make informed choices. The efforts in selected other states are outlined in the consultant report, including public release of health plan performance data, or so called "HMO report cards." The consultant also points to the VDH web site as a cost-effective mechanism for dissemination of managed care information.

In a second area of concern, the consultant noted that VDH requires submission of various reports and plans, but "it is not clear how this information is used by VDH..." According to the consultant, VDH could make more effective use of its reporting requirements.

In addition, the consultant recommended that VDH "explore ways to finance anticipated increases in operational expenses." The strategies used in several other states are outlined in the consultant report, and a more detailed study of state fees and financing mechanisms is suggested. Some states use application fees, recovery of staff costs related to the review and approval process, and monetary penalties for filing reports late.

Finally, the consultant recommends that VDH "encourage interagency communication and public-private collaboration." Among the possibilities here are expanded roles for accreditation entities, consumer advocacy groups, and trade associations.

Recommendation (12). The Virginia Department of Health should prepare a written plan to address the areas of needed improvement identified by a consultant in the report "Senate Study of the Center for Quality Health Care Services and Consumer Protection." The Department should present its plan to the Joint Commission on Health Care by July 1, 2000.

VDH's Newborn Screening Programs Works Well, But Workload Problems Have Weakened the Chief Medical Examiner's Office and the Office of Emergency Medical Services

In addition to oversight or regulatory functions, VDH also provides public health services for the State's Newborn Screening Program, operates the Office of the State Medical Examiner's, and plans and coordinates the State's emergency medical care system. This section of the chapter focuses on the performance of these programs and services.

Newborn Screening Program. According to §32.1-65 of the *Code of Virginia*, VDH is required to screen every infant born in the Commonwealth for a series of seven genetic traits and inborn errors of metabolism. So that these screenings can be completed, a blood sample is taken at the time of the infant's birth by the attending physician and sent to the State's Division of Consolidated Laboratory Services for screening. If no abnormality is found, no action is taken. However, if an abnormality is detected, the results of these screenings are then forwarded to the Division of Women's and Infants' Health and also the physician or nurse in attendance at that birth. This division is required to follow-up on the case to confirm the diagnosis and determine if the infant is being treated for the defect.

As indicated by Table 21, it appears that both the screening and the follow-up processes are being performed consistently for all infants with an abnormality. In

Table 21

Percentage of Infants Identified with Abnormalities Receiving Follow-up

Activity	Time Period October to December 1998
Total number of babies born in Virginia	23,933
Percent of babies screened	100%
Number of abnormal results	1,781
Percentage of abnormal cases receiving follow-up	100%
Notes: JLARC staff sampled 320 records of instances where an abnormal result was detected.	
Source: Virginia Department of Health, Division of Women's' and Infant's Health.	

terms of the screening, the results show that 100 percent of all infants born during the last quarter of 1998 were screened for genetic defects. Depending on the type of abnormality found, the division tries to determine whether a retest of the infant has been performed and puts the physician in touch with metabolic consultants located at UVA and MCV to assist the doctor in diagnosis. The data in Table 21 reveal that follow-up activity of this nature was conducted for all infants in the study sample that were found to have an abnormality. In conclusion, based on the JLARC staff analysis, it appears that VDH follow-up on infants determined to have an abnormality is being performed consistent with the State requirements.

Office of the Chief Medical Examiner. The office of the Chief Medical Examiner is established by sections 32.1-277 - 32.1-288 of the *Code of Virginia*. The *Code* mandates four primary activities:

- the investigation of violent, suspicious, or non-attended deaths, as well as those deaths occurring in a prison, jail, or police custody;
- educational services to institutions of higher learning;
- administration of the State anatomical services program; and
- administration of the child fatality team.

The office of the Chief Medical Examiner is organized into four regional offices (Richmond, Fairfax, Norfolk, and Roanoke), with nine pathologists, including two Board certified forensic pathologists in each regional office plus the Chief Medical Examiner. Among other activities, the forensic pathologists are responsible for performing autopsies of those deaths described by the *Code of Virginia*. In addition to the regional offices, a physician in each locality serves as the local medical examiner who

acts as the first point of contact after a death has been established. The local medical examiner also collects the medical history, talks with the attending authorities, and examines the body. As of August 1999, there were over 5,400 investigations performed by local medical examiners and more than 2,500 autopsies performed by the forensic pathologists for the year.

Each locality's medical examiner has the authority to order an official post-mortem examination when an autopsy is, in his opinion, advisable to determine the cause of death and is in the public interest. However, according to the chief medical examiner (CME), local medical examiners have been urged not to accept apparently non-violent deaths as medical examiner cases and not to request an autopsy for a sudden or unexpected death unless there are clear signs that the death was the result of a violent act. The office has taken this position, the CME stated, as a result of budgetary constraints and pathologists workload. According to the CME, rather than enforcing a policy which violates the discretionary authority that the *Code of Virginia* grants medical examiners, some local medical examiners have resigned.

Based on this information, it appears that legislative intent requiring that autopsies be performed on sudden or unexpected deaths is not being carried out primarily as a result of an extremely high caseload and associated costs. This increased workload for the State's nine forensic pathologists has been fueled by two factors: (1) an inadequate number of established positions for forensic pathologists and support staff; and (2) inadequate funding for activities such as salaries, transportation of bodies, and reimbursement for local medical examiners.

To further examine this issue, JLARC staff calculated a workload measure for the office of the Chief Medical Examiner based on the number of investigations performed by the local medical examiners and the number of autopsies performed per pathologists for 1994 and 1998. As indicated in Table 22, the average number of autopsies performed per pathologist decreased by ten percent for this time period. This decline represents the decision by the State Medical Examiner to limit the number of autopsy requests by the local medical examiners. In addition, because the State medical examiners are refusing to accept certain autopsy requests from local examiners, the state medical examiner is unable to document the actual number of deaths that may have required review.

Funding for CME. Funding for the Office of Chief Medical Examiner has been a problem since 1991. As a result of the shortfall in budget revenues, the office cut ten percent, or \$70,000, from its budget by eliminating payments for travel and cars for the doctors and decreased caseload to reduce the cost of medical examiner fees, transportation costs, and autopsy supplies. According to the chief medical examiner, the office often ends the fiscal year over budget and has to rely on VDH to transfer funds from other functions to cover their costs.

The former director of VDH's office of budget services stated that funding for the chief medical examiner's office is problematic because of the high salaries required to hire and maintain the pathologists. For example, the office attempts to hire candi-

Table 22

Average Caseload of Local Medical Examiners and State Pathologists

	1994	1998
Average number of investigations performed per local medical examiner	14	12
Average number of autopsies performed per pathologist	319	286
Notes: Number of forensic pathologists includes the chief medical examiner who performs activities other than those related to autopsies.		
Source: Information provided by the office of the chief medical examiner.		

dates who are Board certified in anatomical pathology, clinical pathology, and forensic pathology. Persons with these credentials can command a higher salary in other states. The former director added that since the General Assembly originally funded positions for medical investigators to assist in cases, the Department of Personnel and Training (DPT) established the new classes for these positions and determined the compensation level be set at grade 14. These four positions were filled as of October of this year.

Staffing Issues. Staffing has also caused problems for the office. For example, in May 1999, the chief medical examiner sent an electronic message to the State health commissioner concerning the staffing situation at that time in the Roanoke office. The message reads in part:

[T]he autopsy tech staffing situation in Roanoke has gone from bad to worse. The office recently endured several days when the one full time autopsy technician was absent for illness... Roanoke performed 638 autopsies in 1998. In order to alleviate the full-time [autopsy technician position] afternoon/per week shortage I can shut the office down on Saturdays but this will not resolve the problem of cases being delayed because of the restricted hours of the [part-time position] nor will it resolve the problems precipitated by the full-timer's annual leave and sick leave absences. Closing the office on [S]aturdays means that all cases arriving after 12 noon on Friday will be held over until Monday.

Moreover, as a result of serious illnesses, the regional offices in Roanoke and Northern Virginia each operated with only one pathologist from March 1999 to September 1999. This required the remaining pathologists to deny accepting certain autopsy requests because of caseload, according to the chief medical examiner.

In addition to the amount of time forensic pathologists spend on each autopsy, which may average two to five hours per case, a significant portion of their time is spent away from the office performing other activities, such as testifying in court proceedings. According to the chief medical examiner, in 1998, the two pathologists in the Western regional office spent a total of 307 hours (almost eight weeks) in the courts.

Finally, the pathologists are also required to serve as educational resources at the State's medical colleges.

Current staffing standards established by the National Association of Medical Examiners (NAME) appear to indicate that Virginia's Office of the Chief Medical Examiner is understaffed in certain functions. Based on minimum personnel requirements, the four CME regional offices are all staffed below standards for the positions of Assistant Chief Medical Examiner, Autopsy Technician, and Medical Photographers. For example, the CME's Eastern Regional Office is understaffed according to national standards by one Assistant Chief Medical Examiner, two Autopsy Technicians and one Medical Photographer.

VDH should move quickly to resolve these problems and reaffirm the authority of the local medical examiners to perform investigations and to request autopsies at the State level.

Recommendation (13). **The Department of Health should conduct a workload analysis to identify the staffing levels needed in the Office of the Chief Medical Examiner to meet the autopsy requirements in the *Code of Virginia*.**

The Office of Emergency Medical Services. Currently, the Office of Emergency Medical Services (OEMS) is responsible for planning and developing a State-wide comprehensive, coordinated emergency medical care system. This system incorporates facilities, transportation, manpower, communications, and other components as integral parts of a unified system designed to improve the delivery of emergency medical services in the State. In addition, OEMS provides regulatory services including certification of emergency medical personnel, permitting of emergency medical vehicles, and the licensing of emergency medical services agencies. Finally, OEMS provides technical assistance to the emergency medical services community.

Among OEMS' duties are responsibilities for developing a plan and for regulating providers of air medical evacuation (medevac) services. The air medevac system is supposed to deliver a high level of medical care to the site of an accident or medical emergency, and rapidly transport (fly) seriously ill and injured patients to higher levels of medical care. A separate review by JLARC staff of air medevac services in Virginia found that OEMS performance in plan development and regulating providers has been weak. For example, although there is a statutory requirement that the statewide Emergency Medical Services plan be revised every three years, the existing plan has not been revised for 16 years. The JLARC review concluded that OEMS needs to play a stronger role in the planning and coordination of air medevac services in Virginia.

For this study of VDH, a different type of issue was identified regarding another OEMS responsibility – patient transportation services, commonly referred to as wheelchair transportation services. There are indications that this responsibility is misplaced. Wheelchair transportation services involve non-emergency transportation of patients to and from their homes to doctor's offices, hospitals, or other facilities for

regular appointments. In fact, according to 12 VAC 5-30-200 E.1.b of the Virginia Administrative Code, wheelchair transportation services are not to be used for emergencies or the transportation of patients who require any level of medical care. OEMS staff have stated that having to regulate wheelchair transportation services interferes with OEMS' ability to deal with the other emergency related activities they are required to perform.

In addition, there are two other agencies involved with the regulation of wheelchair transportation services. The Department of Motor Vehicles (DMV) is responsible for determining how the vehicles are to be registered. The Department of Medical Assistance Services (DMAS) provides reimbursement to the transportation services providers based on the number of trips made. As indicated in Table 23, the number of agencies providing wheelchair transportation services has increased by 157 percent since 1996. This is the largest percentage increase of all agencies regulated by OEMS. In addition, the percentage of vehicles permitted for wheelchair transportation services has increased by more than 300 percent over this same time. According to OEMS staff, operators of wheelchair transportation services are often unprepared to meet the criteria required for licensing. A position paper prepared by the office in April 1999 states:

Unlike the vast majority of EMS agencies, wheelchair transportation services applying for licenses typically require multiple inspections before successfully complying with minimum basic requirements. Frequently, this inefficiency is due to the owner/representative's inability to understand basic concepts inherent in the standard practices of medical transportation.

Table 23

Number of Agencies Permitted by the Office of Emergency Medical Services

Type of Service	Calendar Year			
	1996	1997	1998	1999
Emergency Ground Transport – Advanced Life Support (Cardiac/Paramedic)	331	352	384	422
Emergency Ground Transport – Advanced Life Support (Shock Trauma)	50	54	43	34
Emergency Ground Transport – Basic Life Support	64	75	57	42
Fixed Wing Transport	2	4	4	4
Wheelchair Transport Services	46	62	67	118
Total	493	547	555	620

Note: Data for 1999 is through October. 1996 data may be incomplete.

Source: Information provided by VDH's office of emergency medical services.

In fact, OEMS inspectors have to return to these operations more frequently because the agency vehicles do not pass the inspections. The office's position paper continues, "[a]lthough these agencies comprise only 14% of the total number of agencies licensed. They account for as much as 50% of the time and effort of licensure staff."

Recommendation (14). The Department of Health and the Department of Medical Assistance Services should jointly develop a formula for reimbursing the Office of Emergency Medical Services for the inspection and licensing of wheelchair transportation services agencies.

Conclusion: Staffing Issues Require Attention

Across the divisions of shellfish sanitation, long-term care services, and the Office of the Chief Medical Examiner, there are concerns regarding the adequacy of existing resources to meet program expectations. In the divisions of shellfish sanitation and long-term care, the demands of federal requirements are making it difficult for staff to meet previous workload levels. In order to manage workload, the Office of the Chief Medical Examiner is not accepting certain types of cases authorized by the local medical examiners pursuant to legislative intent. The Department of Health needs to address the resource needs of these activities.

Recommendation (15). The Virginia Department of Health should determine whether current staffing levels for its regulatory programs are adequate to meet program requirements. VDH should identify the resources needed to adequately carry out the regulatory functions and present its findings to the House Appropriations and Senate Finance Committee by September 2000.

V. State-Level Management of the Virginia Department of Health

In 1995, the Commissioner of Public Health charted a new and ambitious course for public health that was later articulated in the agency's 1997 strategic plan. Two years later, under a new administration and acting commissioner, VDH submitted a slightly modified version of this plan to the Secretary of Health and Human Services. In part, this plan outlines the agency's future strategies for addressing critical weaknesses in the system, ranging from eliminating disparities in local funding to changing the health department's role as a healthcare provider of last resort.

The responsibility for successful implementation of this plan rests with the agency's current commissioner and her team of senior managers. However, because of a series of problems associated with the management of this agency, there is some concern about the ability of VDH to carry out its strategic plan. The impetus for these concerns has been instability in the commissioner's office, high staff turnover among senior management, and problems the agency has experienced with the implementation of its new integrated online network or data system. This chapter presents findings from JLARC staff's examination of the State-level management of VDH.

The data examined for this review indicate that the management of VDH has been adversely impacted by a number of factors. Paramount among these has been the frequent turnover among health commissioners. Since 1991, there have been five health commissioners at VDH. Furthermore, the fact that the current commissioner is still considered "acting" has fostered an atmosphere of instability among central office staff and raised questions in the field about the consistency and clarity of VDH's mission for public health.

More damaging, the fluid nature of the leadership in the commissioner's office appears to have contributed to unusually high turnover among senior managers at VDH. This has severely weakened the internal planning process and may have perpetuated funding problems for a number of the agency's divisions. These organizational problems have been especially harmful to the operation of the Office of Information Management (OIM) and its plans to modernize the agency's computer system. Unless these problems are addressed, it is unlikely that the agency will achieve many of the goals outlined in its 1999 strategic plan.

THE IMPACT OF CHANGING LEADERSHIP

To carry out its wide and diversified range of public health activities, VDH employs a large professional staff, headed by a Commissioner of Public Health. Approximately one quarter of VDH staff work in the central office or at a satellite or regional facility. Since the majority of the public health services are provided through the local health departments, management staff at the VDH central office are respon-

sible for setting the course for public health through planning and policy development. Other staff at the State office function primarily as a source of technical assistance for the health districts and local health departments.

To guide the work of the system, over the last five years, VDH has established a strategic plan that identifies 14 goals for public health, nearly 50 objectives, and more than 200 strategies that must be implemented to meet those objectives. While it is still too early to assess the agency's performance for such a long-term plan, there are several major problems within the organization which have adversely impacted VDH's initial efforts to implement this plan.

Specifically, this study found that change and instability have marked the operations at VDH. Since 1991, five different commissioners have been appointed to VDH, serving an average term of less than two years. Among senior managers, there have been seven deputy commissioners of public health in three years, three directors of the Office of Epidemiology in two years, and four directors of the Office of Information Management since December 1997.

This instability has impacted the agency's ability to obtain the resources needed to address numerous issues. Despite the funding shortages documented in previous chapters for community public health services, the public health regulatory function, and basic public services such as performing autopsies, the agency has not had a consistent voice to advocate for needed resources. As a result, VDH has been slow to put forth plans to remedy these problems.

Equally important has been the impact of these staff changes on the agency's internal planning process. Without consistent leadership, development of the articulated vision for the agency and its role in the health policy arena has been weakened. Most notably, a major initiative undertaken in 1995 to redirect public health resources away from the provision of primary healthcare has since lost momentum. This has left local health departments uncertain as to VDH's future goals for public health, especially as it relates to their role in the provision of healthcare services to the indigent population.

Vacuum in Agency Leadership Has Produced a Host of Problems

As the central management unit for the Commonwealth's vast program of public health, senior managers at VDH face a number of responsibilities related to management of this system. Through the articulation of a clear mission and a sound strategic plan, management is responsible for outlining the course of public health statewide. Senior staff are expected to accurately assess the needs of the system and implement a plan to ensure that those needs are met. Also, the central office is expected to provide the required technical assistance and training to improve the operation and effectiveness of public health services across the State.

This section of the chapter documents the magnitude of staff turnover in senior VDH management positions and discusses the impact of these changes at a broad level. Then, some specific consequences of this turnover are discussed, including a lack of progress by VDH on its strategic plans, inadequate attention to funding central office functions, and a lack of clarity as to VDH's role with regard to the provision of primary healthcare services.

VDH Management Staff Turnover and its Broad Impact on the Management of Public Health. Since 1996, frequent turnover and the use of 'acting' rather than permanent replacements have marked VDH senior management positions, including the State Health Commissioner. In fact, the average length of tenure for the commissioner has been less than a year and a half since 1994. Table 24 illustrates this turnover. As indicated, there have been five commissioners since December 1991. Moreover, of those five, three have served as acting commissioners, including the present commissioner who has served in that capacity since December 1998.

Since the health commissioner sets policy for the entire agency, the importance of consistent and stable leadership, especially in a large agency, cannot be underestimated. As part of VDH's 1996 - 1998 budget submission to the Secretary of Health and Human Resources, the commissioner described the importance of stable leadership in an agency with a large set of functional responsibilities such as VDH in this way:

As an agency with myriad programs and locations, having central leadership to establish the overall themes and policy direction for health care service provision and related issues which are then tai-

Table 24

Tenures for Commissioners of Public Health

Commissioner	Length of Service	Permanent or Acting
Dr. E. Anne Peterson	11/99 – Present	Permanent
Dr. E. Anne Peterson	12/98 – 11/99	Acting
Dr. William Nelson	8/98 – 12/98	Acting
Dr. Randy Gordon	11/95 – 8/98	Permanent
Dr. Donald Stern	6/94 – 11/95	Acting
Dr. Robert Stroube	12/91 - 6/94	Permanent
Dr. Robert Stroube	9/91 – 12/91	Acting
Dr. C. M. B. Buttery	7/86 – 9/91	Permanent

Source: Document provided by VDH.

lored to local conditions in their implementation at the district / local health department level is essential for quality assurance, unity of purpose, and consistency of operations.

VDH has also experienced significant turnover among senior management positions since 1996 (Table 25). For example, the position of deputy commissioner for public health has turned over seven times since July 1997. In addition, the directorship of VDH's Office of Information Management has changed hands four times since November 1994, and the Office of Epidemiology has had three directors since September 1997.

Even though these management positions are not responsible for any direct provision of public health services, they perform critical functions. For example, new State initiatives or policies regarding family health, epidemiological services, or environmental health, must flow through the office of the Deputy Commissioner of Public

Table 25

Tenures for Senior Managers at the Virginia Department of Health

Position	Employees Serving In the Position	Acting or Permanent	Dates
Deputy Commissioner for Public Health	Dr. Bob Stroube Dr. Clydette Powell Dr. E. Anne Peterson Dr. Curtis Thorpe Dr. Grayson Miller Dr. William Nelson Dr. Carl Armstrong Dr. Donald Stern	Acting Acting Acting Acting Acting Acting Acting Acting	9/1/99 – Present 12/23/98 – 8/31/99 11/16/98 – 12/22/98 10/5/98 – 11/15/98 8/24/98 – 10/2/98 4/25/98 – 8/4/98 7/10/97 – 4/24/98 11/1/95 – 7/10/97
Deputy Commissioner for Health Policy and Health Care Delivery	Dr. Clydette Powell	Permanent	10/19/98 – Present (Position did not exist prior to 10/19/98)
Deputy Commissioner for Administration	Helen Tarantino Helen Tarantino	Permanent Acting	11/16/96 – Present 3/11/96 – 11/15/96
Associate Commissioner for Community Health Services	Jeffrey Lake	Permanent	12/1/96 – Present
Office of Epidemiology	Dr. Robert Stroube Dr. Suzanne Jenkins Dr. Grayson Miller	Permanent Acting Permanent	10/1/98 – Present 9/10/97 – 10/1/98 10/1/86 – 9/10/97
Office of Family Health Services	Dr. Donald Stern Margaret Tate	Permanent Acting	7/10/97 – Present 4/1/96 – 7/10/97
Data Processing Director	Mark Neidinger Eletta Heath-Hansen Dr. Jared Florance Gary Blankenbecler	Consultant Acting Acting Permanent	6/23/99 – Present 8/10/98 – 5/9/99 12/16/97 – 7/21/98 11/14/94 – 12/01/97

Source: Document provided by VDH.

Health. More importantly, with such frequent turnover the effectiveness of management is perceived by other VDH staff to be sharply limited. As one VDH office director stated regarding VDH senior management:

[t]here is a tendency not to do anything significant. No one is in the deputy's or commissioner's positions long enough to learn the system. It's not that they don't want to do anything, but no one is there long enough to make informed decisions.

The *Code of Virginia* states that the protection, improvement, and preservation of public health are essential to the general welfare. To foster VDH's mission, the agency has a state-appropriated budget in FY 2000 of over \$400 million and has over 3,700 authorized positions. The agency needs greater continuity in leadership to effectively guide the department into the future and ensure the most effective use of resources.

Recommendation (16). A permanent commissioner for the Virginia Department of Health should be appointed. (Note: The acting commissioner's appointment was made permanent shortly before this report went to press.)

Ability of VDH to Execute Strategic Plans Has Been in Doubt. In 1997, after an extensive planning process, the Commissioner of Public Health submitted an aggressive strategic plan for VDH. A key part of this plan involved attacking the major weaknesses in the State's public health system. These included the following:

- lack of funding to implement the JLARC funding formula and inequities in the cooperative budget,
- the evolution of the local health departments as the providers of last resort,
- increased dependence of the health department on revenue from the healthcare services provided to the indigent population, and
- insufficient resources devoted to program assessment, data analysis and strategic planning.

After some initial activity following the 1997 strategic planning process, little was done to implement many of the identified activities. Senior management staff were able to initiate the work required to quantify inequities in the cooperative budget and document the declining revenue base of local health departments. In fact, as a result of the frequent turnover in the State Health Commissioner's position, work on implementation of much of the strategic plan appears to have been held in abeyance until the current commissioner was appointed.

Since then, it seems the strategic planning process has been re-started using the 1997 plan as a baseline, including giving the district directors the opportunity to identify and address issues in their districts. This plan re-stated many of the weak-

nesses of the system while reiterating the plans to move public health in a different direction. However, as the current commissioner's comments included in the agency's 1999 strategic plan indicate, the agency has not devoted a sufficient amount of time to the effort:

...the compressed time frame in which we carried out this important activity since arriving late last year and the subsequent heavy General Assembly session have not allowed us to spend as much time as is appropriate and as I would have liked for such a critical part of shaping this agency's future.

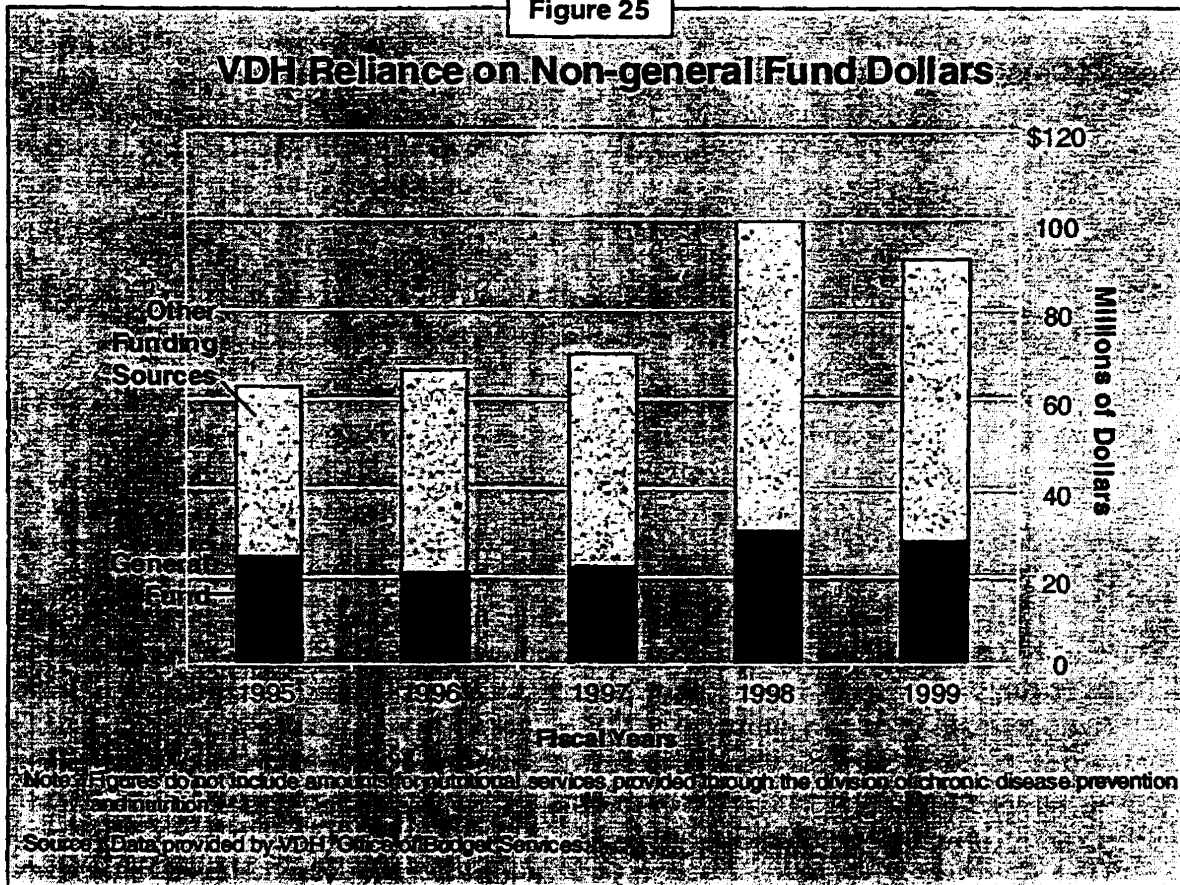
Unless greater continuity is brought to the management of the department, the ability of the department to execute any strategic plan elements that require a long-term commitment is in doubt.

Inadequate Attention Has Been Given to Funding Central Office Functions. A number of the division directors interviewed by JLARC staff traced problems with the funding of public health functions at the State level to turnover among the commissioner and senior managers. In fact, only eleven percent of these directors stated that this turnover had no effect on their divisions. Most noted that due to turnover and lack of communication between senior managers and the division directors, a proactive approach to determining the needs and priorities of their functional areas no longer exists. Previously, senior management would request each program office to submit a budget request and then management would decide whether or not to include that request in VDH's overall budget, according to a current office director. Now, while VDH offices are not prohibited from submitting a request, management no longer solicits specific budget requests.

As a consequence, 13 of the 19 division directors (almost 70 percent) that responded to a JLARC survey regarding the operation of their division indicated that their units were not appropriately funded. Yet, only three of these directors actually requested additional funding through the VDH budget process. According to some directors, the decision not to submit requests was based on the constant changes in agency leadership, the internal breakdown in the process for assessing resource needs, and the perceived absence of an effective voice at the commissioner's level to advocate for additional funding.

In the absence of additional funding, the majority of the 19 VDH divisions rely heavily on non-general fund dollars to provide public health functions in Virginia. For example, survey data reveal that over 69 percent of all division funds were received from sources other than the State general fund in FY 1999 (Figure 25). This amounted to approximately \$62 million for that year. Non-general fund revenue sources include grants from the federal government as well as philanthropic organizations. In addition, some divisions receive funding from user's fees. Still, these dollars have not been sufficient to adequately support key regulatory functions at VDH, the Chief Medical Examiner's Office, and the division of HIV/STD.

Figure 25



The need for additional funding has impacted the divisions' ability to provide their core functions. Ten of the 19 division directors indicated on a JLARC survey that the core services they provide were most impacted by the current level of funding. For example, both directors of the division of Tuberculosis Control and HIV/STD stated that funding has impacted their ability to purchase and provide medications to those in need. In the case of Tuberculosis Control, little attention appears to have been paid by senior managers to the need for providing TB medication free of charge to the uninsured despite the implications of non-compliance with this program. The division director of Tuberculosis Control explained that:

...currently there is no provision to provide anti-TB medications for treatment of disease and preventive therapy for patients free of charge. These drugs are expensive and must be taken over long periods of time. The cost may create barriers to adherence to drug regimens which may lead to drug resistance.

Given the contagious nature of the disease, the benefits of responsibly addressing these therapy needs extends beyond those who actually receive the treatment, and meets public health standards.

VDH Policy Direction and Guidance for Health Districts Regarding the Provision of Primary Healthcare Services Has Been Unclear. When management at VDH began work on the strategic plan in the mid 1990s, there was a growing sentiment among many in the public health field that health departments have moved away from the basic purpose of public health to become more involved in the provision of primary healthcare services for the indigent population. This shift, it was argued, has led to an emphasis on medical care and movement away from the original goals of the system. This, some contend, has weakened prevention activities and resulted in an erosion of the basic health infrastructure, making it difficult to focus on controlling diseases stemming from activities such as poor food handling.

According to a number of senior members of VDH and several district directors, the department established a clear course to move public healthcare services away from primary healthcare to the poor and towards more population-based services in 1995. This approach was also in keeping with the department's plan to reduce the public's reliance on local health departments as a provider of last resort.

As a part of this plan, the agency applied for and received in 1997 a grant from the W.K. Kellogg and Robert Wood Johnson foundations for the Turning Point program. The program provides VDH with the resources and opportunity to consider and plan for organizational and programmatic changes necessary to strengthen VDH's capacity to provide essential public health services in the upcoming century. Among the many issues being addressed through Turning Point is the roles and responsibilities of local health departments related to the delivery of primary health care services. Concurrent with the statewide activity, each of three local public health partnerships have received approximately \$60,000 to support local planning and implementation.

Since that time, turnover in the commissioner's office, according to some staff, has "crippled" the agency's ability to articulate the public health mission. As a result of this, local health departments are confused about the State's plans in this critical area. One local director stated:

We used to understand the mission of the agency and where the department was moving on key public health issues; now we simply have no clue.

Another health policy expert agreed that Turning Point is a "strong initiative" but stated that the efforts of VDH staff to bring about the shift away from primary care are being made in a "vacuum of leadership."

The following statement from one senior manager who shared this view highlights the problems this has created for the system:

After initially proposing that VDH would get out of primary care, there has been no movement to actually do it, because there is no clear plan. [In the meantime,] the fiscal bases of the local health departments are crumbling as a result of the decreasing revenues.

Formerly, a local health department had three main sources of revenue: 1) the State, 2) the local governments, and 3) revenue sources (of which the big contributor was home health services). Since home health services has been privatized to a large extent, a third of their funding sources are gone. Meanwhile the State has made no adjustment to compensate for that loss. In fact, locals are now getting hit by inflation and things such as salary increases.

Survey data examined by JLARC staff seem to support this statement. These data show that there has been no significant shift in the number of local offices that provide non-mandated healthcare over the last eight years. In 1990, 99 percent of local health departments were in the business of primary healthcare. Eight years later, 95 percent of local health departments were still providing these services. Furthermore, nearly 90 percent of the health departments in the State indicated that they plan to provide these types of services in the future. These health departments remain in the business because they need the revenue (even if it has begun to decline) and because some of their clients have no other options for services (usually in rural areas).

Through a survey of local health departments, information was collected on the types of services provided by these offices in 1990 and 1998 (Table 26). These data begin to reveal certain trends in local service delivery. While the number of local health departments that provide gynecological services, blood lead level testing, and baby care services increased, the most substantial trends were negative. For services such as sick child care, home health care, personal care, and adult dental care, the number of local health departments that no longer provide these services dropped by at least 30 percent. For home health care, a major revenue source for the local offices, the decline was steepest at 59 percent.

Nonetheless, this has not been an organized retreat from primary care service for the local health departments. While many local offices have developed referral agreements with other providers, 30 percent have not. Among rural localities this percentage is nearly 40 percent. For many of the local health departments, there was an expectation that the revenues lost to privatization would be replaced by the State because these funds were used to support the basic infrastructure of the mandated public health programs.

However, since the position was established, the burden of many administrative support duties previously carried out by the regional office structure have fallen to the Associate Commissioner, particularly since staffing levels for VDH central administrative offices have decreased in the last five years. In addition to the expected management responsibility associated with supervising the district directors and serving as the main point of contact with local governments, the Associate Commissioner has, until very recently, been the second or third step manager in grievances for 2,900 employees in local health departments. The workload associated with such grievances has reduced the opportunities the Associate Commissioner has had to set policy direction for and communicate with health district management and their staffs.

Table 26

Trends in the Type of Non-Mandated Primary Healthcare Services Provided by Local Health Departments

Type of Healthcare Service Provided	1990	1998	Percent Change
Babycare services	72%	86%	+19
Sick childcare	19%	13%	-31
Blood lead level testing	68%	82%	+17
School health services	47%	44%	-6
Treatment and referral for gynecological problems	61%	70%	+15
Home health services	74%	30%	-59
Personal care services	40%	25%	-38
Pharmacy services	30%	30%	0
Hypertension screening, referral, and counseling	92%	80%	-13
Dental services - children and adolescents	66%	71%	+8
Dental services - adults	27%	19%	-30
Indigent care - children and adolescents	63%	52%	-17
Indigent care - adults	29%	23%	-20
Well women's care services	57%	57%	0

Notes: A total of 117 of the 119 local health departments responded to the JLARC survey.

Source: JLARC staff survey of local health department staff.

The Associate Commissioner for Community Health Services is the agency's primary point of contact between the directors in the district health departments and the State, and hence the central office's advocate for Turning Point. As such, the Associate Commissioner is responsible for keeping the districts and localities apprised of policy decisions made by the central office. However, the position of Associate Commissioner has evolved into a more managerial position as time has passed. Currently, the Associate Commissioner has direct responsibility for all 35 district directors, including performance evaluations, is the second step in the grievance process for 2,900 agency employees, and monitors and maintains the agency's relationship with the local governments. Therefore, the Associate Commissioner has fewer opportunities to shape policy direction to the districts.

Recommendation (17). The Virginia Department of Health should reduce the administrative duties of the Associate Commissioner to allow this position to focus on broader issues of policy direction and communication.

Changing Requirements for the Commissioner's Position. One factor that significantly impacts the process for appointing commissioners is the position qualifications that are codified in State statute. Although the commissioner is appointed by and serves a concurrent term with the Governor, statute requires that the commissioner be a licensed physician in Virginia and also:

...certified by the American Board of Preventive Medicine, experienced in public health duties, sanitary science and environmental health,

and otherwise qualified to execute the duties incumbent upon him by law.

Questions have been raised about the appropriateness of requiring the State's health commissioner to be certified by the American Board of Preventive Medicine (ABPM). In 1996, less than one percent of all physicians nationwide met this criteria. While this may not explain the excessive turnover that Virginia has experienced in that position, this requirement may be overly restrictive upon the pool of available candidates. In fact, some physicians who have served as the United State's Surgeon General would not qualify to be Virginia's health commissioner. The 1999 General Assembly considered two legislative attempts to expand the commissioner's qualifications to allow certification by ABPM or "a recognized board in a primary care specialty." Both of these bills were defeated.

Recommendation (18). The General Assembly may wish to consider revising §32.1-17 of the *Code of Virginia* to broaden the requirements for State Health Commissioner to include membership in any recognized board in a primary care specialty.

VDH'S MANAGEMENT OF VISION AND Y2K ISSUES

One of VDH's major projects during the last three years has been the work conducted on the development of a new, complex computer system. The objective of the agency in designing this system was to integrate the many different data systems that VDH was operating into an online network. Referred to as the Virginia Information System Online Integrated Network (VISION), the agency hoped the new system would reduce the inefficient uses of resources, create a public health information warehouse accessible to all appropriate public health decision makers, and serve as the agency's vehicle for Year 2000 compliance (Y2K).

However, many of the factors that have plagued the operation and management of VDH' central office functions — absence of leadership, staff turnover, poor project management, and inadequate funding — have undercut work on VISION as well. As a result, the project development process has been protracted and the Office of Information Management (OIM) has not been able to establish a completion date for the system. This has created considerable tension between OIM and the other divisions within the agency and prompted the Century Date Change Initiative Project Office (CDCI) to take over the day to day operations of VDH's Office of Information Management.

To ensure that VDH achieves Y2K compliance in a timely manner, CDCI has relied heavily on contract employees. Moreover, CDCI has provided VDH with substantial funding during FY 1999 and FY 2000 that has been used for both Y2K issues and to work on the development of VISION. However, CDCI completed its Y2K work in

September 1999. Unless VDH secures additional funding, the agency may not have the resources to continue development of VISION.

Development of New Computer System Hampered by Poor Planning, Inadequate Project Management, and Staff Turnover

VDH has been developing a computer system since 1996 to integrate all of the public health data collected by its functional programs into a central location that is accessible by appropriate public health officials. This system, known as VISION, is a software application system designed to run in a Windows 95 client/server environment. When fully implemented, the day to day maintenance of the system is planned to occur from the VDH's central office. Because much of the public health information kept on the system is confidential, the encrypted data will travel within VDH's secure Wide Area Network. The system is being designed to provide access to the agency's data for the State's public health officials at the central, district, and local levels.

VISION was originally conceived as a means for the agency to achieve Year 2000 compliance while also creating uniformity among the different information systems functioning within the agency at the time. A report by the Auditor of Public Accounts (APA) examining the project management for VISION in FY 1997 stated that the agency was operating approximately 65 separate systems to administer an extremely broad and diverse scope of services from health clinics and disease prevention to food inspections. Furthermore, these systems had been developed individually for each specific division or program. Therefore, while much of the data collected through the systems were the same, communication between systems was impossible.

Integrating the department's computer systems was believed to be a primary benefit of VISION because of the opportunities it presented. According to VDH:

...the goal of the VISION project is to integrate all disparate information systems within VDH. This will ensure timely access to comprehensive information for decision support and to avoid redundancy in data collection. The data element, which is needed by multiple users, is collected only one time. Aggregate data is then stored in a data warehouse, and becomes available to any user with the appropriate security access.

In addition, the department views VISION as an entire enterprise system that will also affect its business actions, vendor relationships, and other activities. In recognition of this substantial change, the VISION system consists of an established hardware and software infrastructure, a supporting engineering staff, a data administration staff (including quality assurance and security), an array of applications and supporting development staff, and an operations staff (including other quality assurance and security).

Planning the Development of VISION. As a precursor to initiating work on a project of this magnitude, a considerable amount of formal planning is needed. To ensure that the planned project will be developed on time and within the funding constraints faced by the agency, managers need to assess the financial, technical, and strategic risks before proceeding. Moreover, documenting the specific products that will be produced by the project and the timeframe for their production are essential elements of the planning process. It is equally important to assess whether there is sufficient staff expertise to carry out the project tasks and to determine whether the required amount of funding is available to meet identified project deadlines.

Based on document reviews and interviews with agency staff, JLARC staff found that these critical elements of the process appear to have been largely neglected by OIM managers when VISION was initiated in 1996. Specifically, OIM did not produce the planning documentation necessary to realistically complete a project the size and scope of VISION. For example, there was no formal needs-assessment completed to determine whether sufficient expertise existed within the agency to develop the software applications to run VISION and to perform quality assurance and configuration management. In addition, OIM did not initially produce a project plan that could have served as a roadmap for the future project development.

Finally, and perhaps most damaging, OIM did not develop a budget document indicating the amount of funding that would be required to develop and implement VISION and what the source of that funding would be. According to VDH staff, the initial development and planning for VISION occurred during a period of austerity in State funding stemming first from decreasing budget revenues and second from a general downsizing of State government employees. At the time, VDH and OIM management staff acknowledged that they would be unable to ask for a general fund appropriation to fund a new, large information system within that environment. Therefore, no formal budget was ever developed for a project that the Auditor of Public Accounts (APA) estimates will cost over \$9 million to complete. VDH staff stated that the OIM director in 1997 was mostly responsible for the project planning at the time, including formulating a budget, but his work was never documented. This was an especially significant problem for the agency as this director left the VDH in December 1997.

Funding Problems for VISION. In order to pay for VISION, VDH pursued two funding sources. The first was through non-general revenue funds such as federal grants. In fact, the telecommunications infrastructure and part of the hardware and software were obtained through the use of federal grants for the immunization and WIC programs. However, as the APA pointed out in its review of the agency's work on VISION, these are conditional short-term funding sources that changed the agency's priority for systems development in ways that were not conducive to completing the project. For example, if a public health program such as immunization had funding available, OIM work on that module would become a priority. However, as that funding dried up and another program, like WIC, had available funds, additional work on the immunization module would be held in abeyance, while staff worked on the module supported by WIC funds.

For the second source of funding, VDH decided to use its system of standardized cost recoveries. Like many large agencies, VDH funds a portion of the cost of its OIM by charging other divisions in the agency for the computer services they receive. According to OIM, standard cost recoveries are assessed against each program activity's budget and are intended to support the provision of information management services that all units use or can be expected to use.

Prior to the initiation of VISION, the cost recovery charges for the functional areas within VDH averaged \$44,320 for FY 1995. However, as Table 27 reveals, following the start-up for VISION, these charges increased sharply for FY 1997. In six of the eight divisions selected, the increase in the amount for cost recoveries or charge backs was more than 30 percent and was over 100 percent for two more.

The use of standard cost recoveries in this way has created a substantial amount of intra-agency tension at VDH. A number of division directors interviewed for this study expressed anger over the VISION project and OIM's administration of the project. For example, one manager cited an instance in which OIM collected "a substantial amount of funding" from their program area but produced no final, working products to show for it. Another director stated:

...the charge backs have no rhyme or reason to them. Two years ago, [the office] called the help desk at OIM for one issue. When they got the bill, the office had been charged \$54,000. One year [the office] got a \$75,000 grant. All that money went to OIM and they got nothing to show for it.

These perceptions about the inappropriateness of the cost recovery charges and lingering questions about the final product has engendered a loss of confidence in

Table 27

Percentage Change of Selected Division Budgets Spent on Cost Recoveries for the Office of Information Management

Division	Percentage Change of Division's Cost Recovery Charges		
	FY 1995	FY 1997	Percent Change FY 1995 - FY 1997
Division of Women's and Infants' Health	\$75,880	\$80,793	6.47
Division of Child and Adolescent Health	\$20,825	\$38,088	82.90
Division of Dental Health	\$ 1,181	\$ 2,432	105.93
Division of STD / AIDS	\$57,642	\$77,425	34.32
Division of Immunization	\$21,882	\$67,226	207.22
Division of Tuberculosis Control	\$ 9,098	\$14,113	55.12
Division of Water Supply Engineering	\$42,025	\$40,239	-4.25
Division of Shellfish Sanitation	\$ 7,639	\$10,173	33.17

Note: The STD and AIDS programs were charged separately for cost recoveries in FY 1995.

Source: JLARC study team analysis of data provided by VDH.

OIM by the division directors at VDH and raised doubts about the future efficacy of VISION. Table 28 summarizes the division responses to a list of statements concerning OIM and VISION.

Impact of Staff Conflict and Turnover. Two other key factors that have impeded progress in the development of VISION have been conflict among staff and the subsequent turnover that followed. During the early phases of the project, the State Health Commissioner at the time requested the Council on Information Management (CIM) to conduct a management review of VISION to identify any areas of concern within OIM that had the potential to adversely impact the timely completion of VISION.

CIM's November 1997 report identified several issues but singled out personal conflicts within OIM as "a far more significant threat to the success of the VISION project than the collective impact of the other issues addressed in our review." Accordingly, a number of recommendations were made in the CIM report. These recommendations focused on the project's development, methodology, staffing, and project management. However, the report specifically did not provide recommendations for the personal conflicts it identified.

According to VDH staff, these conflicts, which hampered communications within OIM, developed as a result of senior OIM management's inability to produce deliverables

Table 28

Perception of Division Directors on the Reliability and Quality of Support Provided by the Office of Information Management

Statement	Strongly Agree	Agree	Disagree	Strongly Disagree
This division relies heavily on OIM for information and data management. (n=19)	11%	11%	53%	26%
OIM provides this division with adequate information management and support. (n=19)	0	21%	47%	32%
OIM is timely in responding to this division's information management needs. (n=19)	0	16%	58%	26%
OIM has been helpful in developing information systems to track and report public health activities for this division. (n=18)	0	11%	50%	39%
The VISION system will help this division perform its mandated requirements. (n=18)	17%	17%	39%	28%
OIM has stated that this division's computer system will be Year 2000 compliant by the end of 1999. (n=18)	22%	67%	6%	6%

Source: JLARC mail survey of VDH division directors.

from the VISION project. In addition to the CIM report, the Auditor of Public Accounts in its FY 1997 audit report, identified the VISION project as being nine months behind schedule. When confronted with these factors, the OIM director chose to leave VDH, precipitating a loss of key OIM staff. Specifically, within one year following the release of the report, seven key senior staff involved with the project had resigned. The positions they held included the following: OIM director, VISION project manager, manager of applications development, manager of engineering and support, and systems engineer. Because these individuals failed to properly plan and develop planning documents and project roadmaps for VISION, their departures, in the words of one staff member, were "devastating."

CDCI Has Taken Control of the OIM Unit to Address Y2K Issues

It is the responsibility of the Century Date Change Initiative Project Office (CDCI) to ensure that the State's computer systems are brought into compliance with Y2K before the end of the 1999. Because VDH viewed VISION as the vehicle through which the agency would achieve this compliance, the project delays with VISION provided the impetus for CDCI to assume responsibility for VISION and eventually the management and operation of the entire OIM unit.

Current Status of VDH's Year 2000 Compliance Efforts. The Department of Health has been identified by the Governor as one of the agencies for which Y2K compliance must be assured. As a result of the agency's many different functions and multiple locations, VDH maintains a large variety of equipment and relationships that may be affected by Y2K issues. For example, more than 3,900 pieces of equipment and 900 software packages had to be analyzed for Year 2000 compliance, along with 82 custom applications and 29 associated data exchanges. Moreover, Year 2000 compliance also requires an identification of possible disruptions in business activities. Therefore, VDH has had to also ascertain the degree of compliance among 300 mission critical vendors with whom it does business.

In May 1999, after VDH failed to provide CDCI with documentation to mitigate staff concerns about VDH's possible lack of progress in addressing the Y2K problem, CDCI assumed all responsibility for the agency's Y2K compliance activities. This escalation followed an initial limited involvement by the project office beginning in June 1998, which involved non-VISION activities. According to CDCI and VDH staff, this takeover was caused largely by OIM's inability to provide a detailed plan indicating how the department would achieve Y2K compliance within the required timeframes.

When CDCI initiated work on VDH's computer problems, one of its first actions was to reprioritize the agency's activities towards achieving Y2K compliance. The OIM director at that time focused the office's work on completing and implementing VISION in time to allow for any necessary Y2K remediation activities. However, as part of its authority, CDCI required each State agency to produce a detailed plan identifying project milestones and indicating how the agency planned to meet those milestones. Despite OIM's attempts to implement VISION, CDCI was concerned with the

agency's inattention to its plan requirements and therefore, decided to escalate their involvement with the project.

As a part of this escalation, CDCI focused on remediating the agency's legacy computer systems that were separate from VISION in order to be able to implement, test, and correct any problems that may occur with these products prior to the end of the year. Therefore, aside from those VISION modules that were implemented and still working as part of the Phase I development of the system (which at that time were Registration, Immunization, Encounter, Community Events, and EMS Trauma Registry), no more VISION modules would be added to the system before 2000. Originally, Phase II of VISION (comprising the environmental services modules) was scheduled to be implemented and operating in time for 2000. However, after evaluating the likelihood of implementing all of Phase II, CDCI decided to divide the project into two parts — Y2K compliance and VISION development — and focus its resources on compliance. This means that the following modules will not be added to VISION in the foreseeable future: Sewage and Water Services, Food and General Environmental Services (including restaurant inspections), Rabies, Complaints, and Activities.

VDH created an advisory committee in January 1998 to oversee the agency's information management projects. The Agency Information Management Advisory Committee (AIMAC) is comprised of approximately ten members drawn from staff among the VDH central office and district offices. AIMAC was originally tasked with recommending priorities and funding mechanisms for the department's information management needs and also providing oversight of on-going information projects and initiatives. In this role the committee is briefed on agency projects, including VISION, and occasionally provides recommendations to the State Health Commissioner. Despite this relationship with information management projects, AIMAC has not prescribed any timetable concerning when the remaining VISION modules should be completed.

CDCI Use of Contract Positions. As a result of its involvement with OIM, the project office has increased the number of contract positions working on VISION and the department's Y2K issues. This decision was spurred by reports from two consulting groups that provided assessments of OIM's activities. The resulting reports concluded that OIM was not adequately staffed to provide the necessary amount of attention a project the size and scope of VISION required. CDCI has primarily relied upon these contract employees to perform many of the tasks previously performed by OIM staff and also to fill the additional positions recommended by two consulting reports. CDCI has maintained a monthly average of approximately 33 contract staff to work in the OIM area, peaking at more than 45 positions during the summer of 1999.

Overall CDCI spent more than \$3 million of almost \$7 million in funding available from Item 548 in the 1999 Virginia Acts of Assembly on VISION and Y2K work for VDH in FY 1999. CDCI's total expenditures for contract staff in FY 1999 were more than \$600,000. Given the staff resignations at VDH and CDCI's heavy reliance on contract staff to complete its work, there are concerns that OIM will not have the technical expertise or resources needed to continue the VISION project when CDCI

withdraws its resources by the end of the year. These concerns are heightened when the appropriations and expenditure history for VDH's OIM unit are examined. The funding amounts appropriated to OIM have been decreasing since FY 1993 while expenditures for those activities have increased (Table 29). For example, VDH has received an average computer services appropriation of approximately \$615,000 annually beginning in FY 1993 through FY 2000. However, from FY 1993 to FY 1998, the agency's average expenditures were more than \$4 million per year, creating a funding gap of more than \$3.5 million.

For FY 1999 and FY 2000, CDCI has spent almost \$9 million for the express purpose of completing VDH's Year 2000 compliance activities. Of that total, CDCI has transferred almost \$7 million for FY 1999 from the project office's available funds and more than \$1 million for FY 2000. Both agencies expended a total of almost \$3.5 million in FY 1999 for VDH Y2K compliance activities. As a result of the unexpended funds that carried over into FY 2000, VDH now has more than \$4 million to complete its Y2K activities. However, CDCI reported to the Secretary of Health and Human Services in July 1999 that actual costs would be more than \$6 million, producing a shortfall of approximately \$2 million.

Recommendation (19). **The Office of Information Management in the Virginia Department of Health should develop a detailed project plan for the remaining modules of VISION. This project plan should include a detailed budget plan, staffing requirements, and scheduled completion dates for each module. The Department of Health should present the VISION project plan to the Senate Finance and House Appropriations Committees by February 1, 2000.**

Table 29

**VDH's Computer Services Appropriations and Expenditures
FY 1993 - FY 2000**

Fiscal Year	Computer Services Appropriation	Total OIM Expenditure
1993	\$ 709,782	\$ 2,267,454
1994	\$ 709,782	\$ 2,601,468
1995	\$ 586,288	\$ 3,055,194
1996	\$ 588,106	\$ 3,570,431
1997	\$ 445,506	\$ 5,409,809
1998	\$ 445,506	\$ 8,086,017
1999	\$ 493,698	NA
2000	\$ 510,526	NA

Note: "Computer services" refers to the amount appropriated for the OIM program. "OIM expenditures" refers to the amount of funding required by OIM to operate the office, including intra-agency transfers known as charge backs.

Source: VDH's 1999 Budget Submission, amendment number 304.

Appendixes

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Appendix A:
House Joint Resolution No. 137
1998 Session

Directing the Joint Legislative Audit and Review Commission to study the functional area of Health and Human Resources.

WHEREAS, the Joint Legislative Audit and Review Commission is empowered by Chapter 7 (§30-58.1 et seq.) of Title 30 of the *Code of Virginia* to study operations of state agencies to ascertain that such agencies are expending appropriated funds in an efficient, economical, and effective manner; and

WHEREAS, no comprehensive review of the functional area of Health and Human Resources has been undertaken by the Commission since its studies of the individual and family services budget function, pursuant to Senate Joint Resolution No. 133 (1979); and

WHEREAS, the Virginia Department of Health's Center for Quality Health Care Services and Consumer Protection is responsible for ensuring that federally certified health care providers comply with state and federal laws regarding quality of care; and

WHEREAS, the Commissioner of Health will conduct a study of the contractual obligations of the Virginia Department of Health with the federal Health Care Financing Administration (HFCA) for the implementation of Medicare/Medicaid certification activities, the state facility licensing program resources, and the quality assurance oversight responsibilities for managed care health insurance plans; and

WHEREAS, the area of Health and Human Resources encompasses over 17,000 employees and expenditures exceeding \$4.7 billion a year, and the magnitude of governmental services in this area makes it incumbent that the Commonwealth provide such services in the most efficient, economical, and effective manner possible; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Joint Legislative Audit and Review Commission be directed to study the functional area of Health and Human Resources; and be it

RESOLVED FURTHER, That the review and evaluation of this area include an operations and management study of the agencies of the Secretariat of Health and Human Resources, including, but not limited to, the Departments of Health, Medical Assistance Services, Social Services, Rehabilitative Services, and Mental Health, Mental Retardation and Substance Abuse Services. Such studies shall include reviews of the potential for overlap or duplication of services, unnecessary expenditures, and appropriate coordination with local agencies; and, be it

RESOLVED FURTHER, That the review of and the evaluation of this area include the study of the monitoring and oversight responsibilities of the Department of Health's

Center for Quality Health Care Services and Consumer Protection in health care provided quality assurance; and, be it

RESOLVED FURTHER, That the review and evaluation of the functional area of Health and Human Resources be initiated by the Commission in 1998 and be conducted as sufficient Commission resources are designated for these studies. The Commission shall coordinate its review efforts with the House and Senate standing committees of purview and with existing legislative studies in the relevant areas. The Commission shall provide a copy of its interim and final reports to the Joint Commission on Health Care; and be it

RESOLVED FINALLY, That the Commission submit an interim report to the Governor and the 1999 Session of the General Assembly and submit its final report to the Governor and the 2000 Session of the General Assembly as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents.

Item 16 L - 1999 Appropriation Act Cross-Cutting or Client-Based Issues

Pursuant to House Joint Resolution 137 from the 1998 Regular Session, the Joint Legislative Audit and Review Commission shall examine (i) cross-cutting or client-based issues within the Health and Human Resources Secretariat and (ii) the organization, management and performance of the Department of Health, including a review of the Department's monitoring of health maintenance organizations. The review of cross-cutting or client-based issues shall address study resolutions directed to the Joint Legislative Audit and Review Commission by the 1999 General Assembly that relate to services provided by agencies of the Health and Human Resources Secretariat. As resources are available, the review of cross-cutting or client-based issues shall also include issues that are relevant to multiple agencies in the secretariat, such as potential overlap or duplication of services. The Commission shall complete its work and submit its findings to the Governor and the General Assembly no later than the 2001 Session.

Appendix B

Sampling Errors and Results of Significance Testing for Data Tables Presented in This Report

This appendix provides the sampling error for each of the estimates used in Chapter II of this study. When working with sample proportions, a key issue is how precise the statistic is an estimate of the population proportion. Sampling errors define the level of precision around the sample proportion and they are based on the size of the sample from which the proportion is calculated. The lower the sampling error, the closer is the true population parameter to the sample proportion.

Reasons for Visit to Food Service Establishments	Percentage	Sampling Error
Routine Inspection	75%	1%
Follow-up Inspection	6%	1%
Complaint Investigation	6%	1%
Hazard Analysis & Critical Control Point	1%	0.2%
Foodservice Critical Procedures Report	1%	0.2%
Other	3%	0.4%
Reason Not Specified	9%	1%

Table B-2**Sampling Error Associated with Figure 16**

Priority Class of Establishments	Percentage	Sampling Error
No PHFs	2%	1%
Low Priority Class	26%	3%
Medium Priority Class	38%	3%
High Priority Class	34%	3%

Table B-3**Sampling Error Associated with Figure 17****Establishments with the Recommended Inspections Per Year**

	<u>As Recommended</u>	<u>Sampling Error</u>	<u>Not As Recommended</u>	<u>Sampling Error</u>
No PHFs	99%	1%	1%	1%
Low Priority Class	74%	3%	26%	3%
Medium Priority Class	59%	3%	41%	3%
High Priority Class	36%	3%	64%	3%

Note: Between group differences in percentages and means are statistically significant at the following levels:

*the .01 Level

**the .05 Level

***the .10 Level

Table B-4

Sampling Error Associated With Figure 19

	<u>Insp</u> <u>#2</u>	<u>Sampling</u> <u>Error</u>	<u>Insp</u> <u>#3</u>	<u>Sampling</u> <u>Error</u>	<u>Insp</u> <u>#4</u>	<u>Sampling</u> <u>Error</u>	<u>Insp</u> <u>#5</u>	<u>Sampling</u> <u>Error</u>	<u>Insp</u> <u>#6</u>	<u>Sampling</u> <u>Error</u>
Direction of Change for Critical Violations										
Missing/Could Not Inspect	5%	2%	6%	2%	6%	2%	6%	2%	5%	2%
Same Violations – Positive	7%	3%	4%	2%	6%	2%	5%	2%	11%	3%
Same Violations – Zero	33%	5%	35%	5%	35%	5%	36%	5%	42%	5%
Fewer Violations	26%	4%	26%	4%	30%	5%	27%	4%	29%	4%
More Violations	29%	4%	29%	4%	24%	4%	26%	4%	14%	3%
	<u>Insp</u> <u>#7</u>	<u>Sampling</u> <u>Error</u>	<u>Insp</u> <u>#8</u>	<u>Sampling</u> <u>Error</u>	<u>Insp</u> <u>#9</u>	<u>Sampling</u> <u>Error</u>	<u>Insp</u> <u>#10</u>	<u>Sampling</u> <u>Error</u>		
Missing/Could Not Inspect	3%	2%	4%	2%	5%	2%	6%	2%		
Same Violations – Positive	7%	3%	6%	2%	8%	3%	9%	3%		
Same Violations – Zero	50%	5%	46%	5%	45%	5%	52%	5%		
Fewer Violations	23%	4%	23%	4%	22%	4%	18%	4%		
More Violations	19%	4%	20%	4%	20%	4%	16%	4%		

B-3

Table B-5

Sampling Error Associated with Figure 18

	<u>Insp</u> <u>#2</u>	<u>Sampling</u> <u>Error</u>	<u>Insp</u> <u>#3</u>	<u>Sampling</u> <u>Error</u>	<u>Insp</u> <u>#4</u>	<u>Sampling</u> <u>Error</u>	<u>Insp</u> <u>#5</u>	<u>Sampling</u> <u>Error</u>	<u>Insp</u> <u>#6</u>	<u>Sampling</u> <u>Error</u>
Direction of Change for Non-Critical Violations										
Missing/Could Not Inspect	5%	2%	5%	2%	5%	2%	5%	2%	3%	2%
Same Violations – Positive	6%	2%	5%	2%	5%	2%	5%	2%	4%	2%
Same Violations – Zero	27%	4%	28%	4%	27%	4%	28%	4%	29%	4%
Fewer Violations	29%	4%	29%	4%	37%	5%	33%	5%	35%	5%
More Violations	34%	5%	33%	5%	27%	4%	30%	5%	29%	4%
	<u>Insp</u> <u>#7</u>	<u>Sampling</u> <u>Error</u>	<u>Insp</u> <u>#8</u>	<u>Sampling</u> <u>Error</u>	<u>Insp</u> <u>#9</u>	<u>Sampling</u> <u>Error</u>	<u>Insp</u> <u>#10</u>	<u>Sampling</u> <u>Error</u>		
Missing/Could Not Inspect	2%	1%	4%	2%	5%	2%	5%	2%		
Same Violations – Positive	8%	3%	6%	2%	6%	2%	7%	3%		
Same Violations – Zero	29%	4%	27%	4%	27%	4%	27%	4%		
Fewer Violations	32%	5%	33%	5%	29%	4%	30%	5%		
More Violations	28%	4%	29%	4%	33%	5%	30%	5%		

Table B-6		
Sampling Error Associated with Figure 20		
Purpose for Applications Received by Local Health Departments	Percentage	Sampling Error
Well Only	29%	3%
Septic Only	20%	3%
Septic and Well	23%	3%
Repair Only	28%	3%

Table B-7								
Sampling Error Associated with Figure 21								
	Total	Sampling Error	Urban	Sampling Error	Suburban	Sampling Error	Rural	Sampling Error
Applications Processed in a Timely Manner								
Processed within 15 Working Days **	57%	5%	34%	4%	65%	4%	56%	5%
Not Processed within 15 Working Days **	43%	5%	66%	4%	35%	4%	44%	5%
Note: Between group differences in percentages and means are statistically significant at the following levels: *the .01 Level **the .05 Level ***the .10 Level								

Table B-3

Sampling Error Associated with Table 12

	<u>Type I</u>	<u>Sampling Error</u>	<u>Type II</u>	<u>Sampling Error</u>	<u>Type III</u>	<u>Sampling Error</u>	<u>Type IV</u>	<u>Sampling Error</u>
Separation Distance								
Meets Minimum Separation Requirement	100%	0%	96%	4%	96%	3%	--	--
Does Not Meet Minimum Separation Requirement	--	--	4%	4%	4%	3%	--	--

Note: Between group differences in percentages and means are statistically significant at the following levels:
 *the .01 Level
 **the .05 Level
 ***the .10 Level

Appendix C

Fiscal Impact of Updating VDH Funding Formula for Cooperative Health Budgets

<u>Locality</u>	<u>Actual Local Share Percent FY 1999</u>	<u>FY 1999 Actual State Share Budgeted</u>	<u>FY 1999 Actual Local Share Budgeted</u>	<u>FY 1999 Actual State and Local Shares Budgeted</u>	<u>JLARC Projected Shares Using Local Revenue Capacity with Income Adjustment Ratio</u>	<u>Projected State Share Using VDH Formula</u>	<u>Projected Local Share Using VDH Formula</u>
Accomack County	0.3757	\$529,568	\$318,664	\$848,232	0.2266	\$656,007	\$192,225
Albemarle County	0.4500	\$467,900	\$382,827	\$850,727	0.4500	\$467,900	\$382,827
Alleghany County	0.3230	\$150,619	\$71,861	\$222,480	0.4215	\$128,695	\$93,785
Amelia County	0.2976	\$200,834	\$85,087	\$285,921	0.3601	\$182,954	\$102,967
Amherst County	0.4000	\$356,838	\$237,932	\$594,770	0.3071	\$412,145	\$182,625
Appomattox County	0.3091	\$205,258	\$91,843	\$297,101	0.3077	\$205,694	\$91,407
Arlington County	0.4500	\$2,430,850	\$1,988,877	\$4,419,727	0.4500	\$2,430,850	\$1,988,877
Augusta County	0.4278	\$456,132	\$340,967	\$797,099	0.4480	\$439,978	\$357,121
Bath County	0.3828	\$93,354	\$57,888	\$151,242	0.3726	\$94,886	\$56,356
Bedford County	0.4392	\$435,824	\$341,365	\$777,189	0.4500	\$427,454	\$349,735
Bland County	0.2224	\$112,319	\$32,122	\$144,441	0.2777	\$104,335	\$40,106
Botetourt County	0.4311	\$309,569	\$234,604	\$544,173	0.4500	\$299,295	\$244,878
Brunswick County	0.3038	\$225,798	\$98,536	\$324,334	0.2070	\$257,207	\$67,127
Buchanan County	0.3977	\$304,999	\$201,408	\$506,407	0.2417	\$384,005	\$122,402
Buckingham County	0.3105	\$145,646	\$65,594	\$211,240	0.2346	\$161,684	\$49,556
Campbell County	0.4115	\$434,390	\$303,791	\$738,181	0.3366	\$489,694	\$248,487
Caroline County	0.3973	\$302,789	\$199,574	\$502,363	0.3409	\$331,125	\$171,238
Carroll County	0.3371	\$260,247	\$132,312	\$392,559	0.2493	\$294,697	\$97,862
Charles City County	0.2691	\$197,725	\$72,779	\$270,504	0.4094	\$159,769	\$110,735
Charlotte County	0.2911	\$187,146	\$76,853	\$263,999	0.2398	\$200,694	\$63,305
Chesterfield County	0.4500	\$1,666,967	\$1,363,882	\$3,030,849	0.4500	\$1,666,967	\$1,363,882
Clarke County	0.3961	\$160,195	\$105,090	\$265,285	0.4426	\$147,871	\$117,414
Craig County	0.2404	\$112,589	\$35,634	\$148,223	0.3618	\$94,596	\$53,627
Culpeper County	0.4352	\$309,773	\$238,673	\$548,446	0.4248	\$315,450	\$232,996
Cumberland County	0.2574	\$200,043	\$69,346	\$269,389	0.2777	\$194,587	\$74,802
Dickenson County	0.3936	\$215,620	\$139,954	\$355,574	0.2166	\$278,564	\$77,010
Dinwiddie County	0.3928	\$261,610	\$169,258	\$430,868	0.3133	\$295,872	\$134,996
Essex County	0.3432	\$175,578	\$91,749	\$267,327	0.3280	\$179,633	\$87,694
Fairfax County	0.4500	\$7,252,856	\$5,934,155	\$13,187,011	0.4500	\$6,890,391	\$5,934,155
Fauquier County	0.4500	\$421,463	\$344,833	\$766,296	0.4500	\$421,463	\$344,833
Floyd County	0.3316	\$165,685	\$82,205	\$247,890	0.3275	\$166,718	\$81,172
Fluvanna County	0.3898	\$181,000	\$115,609	\$296,609	0.4433	\$165,114	\$131,495
Franklin County	0.4060	\$327,453	\$223,805	\$551,258	0.3627	\$351,331	\$199,927
Frederick County	0.4426	\$308,437	\$244,873	\$553,310	0.4500	\$304,321	\$248,990
Giles County	0.3809	\$171,261	\$105,346	\$276,607	0.3189	\$188,402	\$88,205
Gloucester County	0.4500	\$318,152	\$260,306	\$578,458	0.3976	\$348,443	\$230,015
Goochland County	0.4496	\$173,993	\$142,122	\$316,115	0.4500	\$173,863	\$142,252

**Appendix C
(Continued)**

**Fiscal Impact of Updating VDH Funding Formula
for Cooperative Health Budgets**

<u>Locality</u>	<u>Actual Local Share Percent FY 1999</u>	<u>FY 1999 Actual State Share Budgeted</u>	<u>FY 1999 Actual Local Share Budgeted</u>	<u>FY 1999 Actual State and Local Shares Budgeted</u>	<u>JLARC Projected Shares Using Local Revenue Capacity with Income Adjustment Ratio</u>	<u>Projected State Share Using VDH Formula</u>	<u>Projected Local Share Using VDH Formula</u>
Grayson County	0.3039	\$167,124	\$72,955	\$240,079	0.2143	\$188,623	\$51,456
Greene County	0.2978	\$183,000	\$77,591	\$260,591	0.3979	\$156,909	\$103,682
Greensville County	0.2713	\$161,140	\$60,000	\$221,140	0.1867	\$179,850	\$41,290
Halifax County	0.3769	\$370,603	\$224,208	\$594,811	0.3148	\$407,573	\$187,238
Hanover County	0.4500	\$536,551	\$438,996	\$975,547	0.4500	\$536,551	\$438,996
Henrico County	0.4500	\$1,335,237	\$1,092,467	\$2,427,704	0.4500	\$1,335,237	\$1,092,467
Henry County	0.3992	\$367,899	\$244,399	\$612,298	0.2713	\$446,173	\$166,125
Highland County	0.2663	\$113,098	\$41,056	\$154,154	0.3189	\$104,997	\$49,157
Isle of Wight County	0.4457	\$418,901	\$336,801	\$755,702	0.4408	\$422,575	\$333,127
James City County	0.4500	\$176,235	\$144,192	\$320,427	0.4500	\$176,235	\$144,192
King and Queen County	0.2776	\$132,091	\$49,500	\$181,591	0.3522	\$117,643	\$63,948
King George County	0.3446	\$134,573	\$70,741	\$205,314	0.4500	\$112,923	\$92,391
King William County	0.3765	\$122,552	\$74,000	\$196,552	0.4500	\$108,104	\$88,448
Lancaster County	0.4175	\$199,410	\$142,901	\$342,311	0.3251	\$231,014	\$111,297
Lee County	0.3095	\$395,785	\$177,401	\$573,186	0.1800	\$470,013	\$103,173
Loudoun County	0.4500	\$866,694	\$709,113	\$1,575,807	0.4500	\$866,694	\$709,113
Louisa County	0.4500	\$272,000	\$222,545	\$494,545	0.3892	\$302,049	\$192,496
Lunenburg County	0.2671	\$207,740	\$75,713	\$283,453	0.1853	\$230,917	\$52,536
Madison County	0.3637	\$187,223	\$107,000	\$294,223	0.3720	\$184,784	\$109,439
Mathews County	0.3739	\$149,888	\$89,500	\$239,388	0.3828	\$147,753	\$91,635
Mecklenburg County	0.3837	\$349,480	\$217,545	\$567,025	0.2674	\$415,423	\$151,602
Middlesex County	0.3858	\$187,038	\$117,500	\$304,538	0.3475	\$198,697	\$105,841
Montgomery County	0.3831	\$561,646	\$348,816	\$910,462	0.2627	\$671,268	\$239,194
Nelson County	0.3912	\$181,000	\$116,282	\$297,282	0.3674	\$188,051	\$109,231
New Kent County	0.3620	\$185,181	\$105,090	\$290,271	0.4500	\$159,649	\$130,622
Northampton County	0.2758	\$673,389	\$256,488	\$929,877	0.2221	\$723,350	\$206,527
Northumberland County	0.3268	\$229,719	\$111,500	\$341,219	0.3307	\$228,381	\$112,838
Nottoway County	0.2875	\$183,090	\$73,882	\$256,972	0.2014	\$205,208	\$51,764
Orange County	0.4328	\$293,165	\$223,717	\$516,882	0.4033	\$308,444	\$208,438
Page County	0.3893	\$255,233	\$162,682	\$417,915	0.2855	\$298,597	\$119,318
Patrick County	0.3631	\$175,909	\$100,278	\$276,187	0.2660	\$202,718	\$73,469
Pittsylvania County	0.3797	\$712,339	\$436,039	\$1,148,378	0.2849	\$821,261	\$327,117
Powhatan County	0.3768	\$181,119	\$109,504	\$290,623	0.4500	\$159,843	\$130,780
Prince Edward County	0.3082	\$255,664	\$113,889	\$369,553	0.2316	\$283,974	\$85,579

**Appendix C
(Continued)**

**Fiscal Impact of Updating VDH Funding Formula
for Cooperative Health Budgets**

<u>Locality</u>	<u>Actual Local Share Percent FY 1999</u>	<u>FY 1999 Actual Share Budgeted</u>	<u>FY 1999 Actual Local Share Budgeted</u>	<u>FY 1999 Actual State and Local Shares Budgeted</u>	<u>JLARC Projected Shares Using Local Revenue Capacity with Income Adjustment Ratio</u>	<u>Projected State Share Using VDH Formula</u>	<u>Projected Local Share Using VDH Formula</u>
Prince George County	0.3609	\$299,171	\$168,949	\$468,120	0.3682	\$295,751	\$172,369
Prince William County	0.4500	\$1,629,367	\$1,333,118	\$2,962,485	0.4500	\$1,629,367	\$1,333,118
Pulaski County	0.4014	\$318,164	\$213,358	\$531,522	0.2878	\$378,549	\$152,973
Rappahannock County	0.3534	\$140,917	\$77,022	\$217,939	0.4387	\$122,328	\$95,611
Richmond County	0.2889	\$226,438	\$92,000	\$318,438	0.2855	\$227,508	\$90,930
Roanoke County	0.4500	\$412,097	\$337,170	\$749,267	0.4500	\$412,097	\$337,170
Rockbridge County	0.4054	\$217,729	\$148,424	\$366,153	0.3612	\$233,906	\$132,247
Rockingham County	0.4150	\$474,941	\$336,882	\$811,823	0.3818	\$501,872	\$309,951
Russell County	0.3822	\$417,764	\$258,405	\$676,169	0.2246	\$524,277	\$151,892
Scott County	0.2683	\$534,993	\$196,211	\$731,204	0.2382	\$557,043	\$174,161
Shenandoah County	0.4197	\$284,943	\$206,076	\$491,019	0.3654	\$311,619	\$179,400
Smyth County	0.3733	\$544,316	\$324,158	\$868,474	0.2310	\$667,872	\$200,602
Southampton County	0.4094	\$344,519	\$238,799	\$583,318	0.2969	\$410,154	\$173,164
Spotsylvania County	0.4500	\$504,648	\$412,894	\$917,542	0.4500	\$504,648	\$412,894
Stafford County	0.4500	\$386,897	\$316,552	\$703,449	0.4500	\$386,897	\$316,552
Surry County	0.4500	\$187,946	\$153,774	\$341,720	0.3582	\$219,309	\$122,411
Sussex County	0.3437	\$245,077	\$128,368	\$373,445	0.2570	\$277,452	\$95,993
Tazewell County	0.3896	\$409,244	\$261,252	\$670,496	0.2524	\$501,289	\$169,207
Warren County	0.4277	\$243,670	\$182,073	\$425,743	0.4192	\$247,255	\$178,488
Washington County	0.3868	\$534,863	\$337,400	\$872,263	0.3138	\$598,542	\$273,721
Westmoreland County	0.3357	\$329,419	\$166,500	\$495,919	0.3088	\$342,756	\$153,163
Wise County	0.3955	\$571,510	\$373,853	\$945,363	0.2237	\$733,924	\$211,439
Wythe County	0.3830	\$391,452	\$242,951	\$634,403	0.2806	\$456,362	\$178,041
York County	0.4500	\$364,726	\$298,412	\$663,138	0.4500	\$364,726	\$298,412
Alexandria City	0.4500	\$2,604,985	\$2,131,351	\$4,736,336	0.4500	\$2,604,985	\$2,131,351
Bedford City							
Bristol City	0.3700	\$391,005	\$229,608	\$620,613	0.2780	\$448,090	\$172,523
Buena Vista City	0.2060	\$136,392	\$35,384	\$171,776	0.2360	\$131,235	\$40,541
Charlottesville City	0.4056	\$525,702	\$358,708	\$884,410	0.3201	\$601,295	\$283,115
Chesapeake City	0.4422	\$1,318,498	\$1,045,079	\$2,363,577	0.4500	\$1,299,967	\$1,063,610
Clifton Forge City	0.1964	\$109,916	\$26,863	\$136,779	0.1800	\$112,159	\$24,620
Colonial Heights City	0.3619	\$110,667	\$62,771	\$173,438	0.4316	\$98,580	\$74,858
Covington City	0.2929	\$156,848	\$64,983	\$221,831	0.2512	\$166,098	\$55,733

**Appendix C
(Continued)**

**Fiscal Impact of Updating VDH Funding
Formula for Cooperative Health Budgets**

<u>Locality</u>	<u>Actual Local Share Percent FY 1999</u>	<u>FY 1999 Actual State Share Budgeted</u>	<u>FY 1999 Actual Local Share Budgeted</u>	<u>FY 1999 Actual State and Local Shares Budgeted</u>	<u>JLARC Projected Shares Using Local Revenue Capacity with Income Adjustment Ratio</u>	<u>Projected State Share Using VDH Formula</u>	<u>Projected Local Share Using VDH Formula</u>
Danville City	0.3877	\$763,111	\$483,212	\$1,246,323	0.2337	\$955,034	\$291,289
Emporia City	0.2848	\$113,700	\$45,272	\$158,972	0.2154	\$124,727	\$34,245
Fairfax City							
Falls Church City							
Franklin City	0.2427	\$272,509	\$87,320	\$359,829	0.2625	\$265,387	\$94,442
Fredericksburg City	0.3796	\$353,253	\$216,170	\$569,423	0.3742	\$356,347	\$213,076
Galax City	0.2473	\$168,187	\$55,261	\$223,448	0.2559	\$166,264	\$57,184
Hampton City	0.4165	\$1,556,135	\$1,110,900	\$2,667,035	0.2855	\$1,905,661	\$761,374
Harrisonburg City	0.3783	\$255,779	\$155,613	\$411,392	0.3131	\$282,597	\$128,795
Hopewell City	0.3784	\$231,698	\$141,071	\$372,769	0.2583	\$276,467	\$96,302
Lexington City	0.2257	\$129,173	\$37,646	\$166,819	0.2352	\$127,584	\$39,235
Lynchburg City	0.4082	\$957,075	\$660,015	\$1,617,090	0.2898	\$1,148,397	\$468,693
Manassas City	0.4468	\$192,689	\$155,641	\$348,330	0.4500	\$191,582	\$156,749
Manassas Park City	0.2349	\$54,338	\$16,680	\$71,018	0.4500	\$39,060	\$31,958
Martinsville City	0.3566	\$253,070	\$140,232	\$393,302	0.2559	\$292,673	\$100,629
Newport News City	0.4147	\$2,608,879	\$1,848,457	\$4,457,336	0.2676	\$3,264,483	\$1,192,853
Norfolk City	0.3790	\$4,689,143	\$2,861,447	\$7,550,590	0.1981	\$6,054,788	\$1,495,802
Norton City	0.3970	\$62,448	\$41,111	\$103,559	0.2881	\$73,728	\$29,831
Petersburg City	0.3762	\$819,792	\$494,483	\$1,314,275	0.1800	\$1,077,706	\$236,570
Poquoson City	0.3255	\$83,571	\$40,320	\$123,891	0.4500	\$68,140	\$55,751
Portsmouth City	0.3871	\$1,503,037	\$949,219	\$2,452,256	0.1989	\$1,964,523	\$487,733
Radford City	0.2687	\$159,471	\$58,600	\$218,071	0.2031	\$173,782	\$44,289
Richmond City	0.4036	\$3,227,030	\$2,183,818	\$5,410,848	0.3227	\$3,664,969	\$1,745,879
Roanoke City	0.4036	\$1,399,172	\$946,858	\$2,346,030	0.2858	\$1,675,475	\$670,555
Salem City	0.4385	\$196,512	\$153,484	\$349,996	0.4040	\$208,607	\$141,389
Staunton City	0.3914	\$306,415	\$197,027	\$503,442	0.2957	\$354,599	\$148,843
Suffolk City	0.4063	\$761,041	\$520,799	\$1,281,840	0.3324	\$855,705	\$426,135
Virginia Beach City	0.4500	\$2,125,447	\$1,739,002	\$3,864,449	0.3874	\$2,367,364	\$1,497,085
Waynesboro City	0.4061	\$200,018	\$136,752	\$336,770	0.3247	\$227,414	\$109,356
Williamsburg City	0.3957	\$131,342	\$86,000	\$217,342	0.3089	\$150,213	\$67,129
Winchester City	0.4304	\$209,752	\$158,505	\$368,257	0.3363	\$244,398	\$123,859

Note: Figures and dollar amounts for Bedford City are included in those for Bedford County. Figures and dollar amounts for Fairfax City and the City of Falls Church are included in those for Fairfax County.

Appendix D

Agency Response

As part of an extensive data validation process, State agencies involved in a JLARC assessment effort are given the opportunity to comment on an exposure draft of the report. Appropriate technical corrections resulting from written comments have been made in this version of the report. Page references in the agency response relate to an earlier exposure draft and may not correspond to page numbers in this version.

This appendix contains the response from the Virginia Department of Health.



NOV 5 1999

COMMONWEALTH of VIRGINIA

Department of Health

P O BOX 2448
RICHMOND, VA 23218

TDD 1-800-828-1120

November 5, 1999

MEMORANDUM

TO: Philip A. Leone, Director
Joint Legislative Audit and Review Commission

FROM: E. Anne Peterson, MD, MPH
State Health Commissioner

SUBJECT: Comments on Exposure Draft Report Review of the Performance and Management of the Virginia Department of Health

Thank you for the opportunity to comment on the Exposure Draft of the JLARC report Review of the Performance and Management of the Virginia Department of Health. We appreciated meeting with the study team on November 2 and being provided clarification on items that were unclear to us.

As we indicated at the meeting, we have concerns about the comments in the report relating to VDH leadership and local health department funding. We disagree with the conclusion that current funding challenges experienced by VDH are due solely or even primarily to turnover in the commissioner position. There was consistent leadership (Randy Gordon) on board through the key budgeting and strategic planning efforts over the past two biennia. The only time there was an acting commissioner was during an off budget year when only small adjustment requests to the budget were submitted (4 months in the fall 1998). We are requesting fairer representation of the stability of director level staff not just a focus on executive management turnover.

The current funding challenges we face reflect the negative impact of federal policy changes in home health reimbursement and the implications for local health department funding of the continuing changes in the health care marketplace around the provision of personal health services. Despite these challenges and the areas of unmet

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need, we believe it is essential that disparities in ability to pay be corrected before investing additional general funds in local health departments. We concur with your recommendation that such an investment should be based on sound caseload standards and that it is critical to preserve our ability to consider local circumstances and community need as we make funding decisions.

We acknowledge that we have not initiated a statewide, systematic plan to address the role of local health departments as safety net providers. A number of circumstances, none of which have been related to leadership, have changed. Aggressively implementing such a policy change absent a more complete understanding of the changes in the marketplace would have been unwise and may have had a negative impact on vulnerable members of our communities. Among the issues we need to more fully explore are incentives for the private sector to care for the persons we currently serve and to identify ways to achieve the goals of VCMSIP. No universal coverage health plan is on the horizon and we need to be thoughtful and cautious about how we transition from safety net health care providers to more traditional public health programs. The solution will vary around the state. In some areas, we have identified other providers for the safety net and have moved away from providing primary care. In other districts, we have not yet assured that the private sector has the capacity to provide this care. It is unethical for us to abandon these patients without an alternative source of care. A statewide policy on our role in the safety net is important, but it is a complex issue. We have addressed this in our strategic plan and budget request to study thoroughly before we reset our direction in this arena.

For the OIM and VISION section, we ask for acknowledgement in the report of senior management's very active involvement during the last year as VDH's attempt to prevent previous problems from recurring.

A list of factual errors in the report was sent to your office. Also being sent to your office today is the electronic version of the report in which we have inserted suggested revised wording. Edits on the electronic version were not possible for pages i-xiii and 114-140. These suggested edits were included in those already faxed to you. The narrative on page 15 was updated to reflect the current Appropriations Act; the pie chart on that page also needs to be updated. Provided below are our comments on the report's twenty recommendations.

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Page 3

Performance Outcomes for State-Mandated and Locally Operated Public Health Programs

Recommendation (1). The Virginia Department of Health should collect the necessary data to contrast the demographics of persons who complete preventive drug therapy with those who do not. As a part of this effort, the department should determine the patient's reasons for failing to complete the therapy and take the appropriate actions to address this problem.

VDH Comment

VDH concurs with this recommendation.

Recommendation (2). The Virginia Department of Health should require that local offices which do not sample school records or directly contact parents/guardians of non-immunized children prepare an action plan to conduct these activities, and begin implementation no later than July, 2000.

VDH Comment

VDH concurs with this recommendation.

Recommendation (3). To increase the efficiency and effectiveness of the State's immunization program, the General Assembly may wish to consider mandating that private doctors enter immunization data for all children that they vaccinate onto the Virginia Health Department's online network when that system is completed. This requirement should include the necessary legal protections for physicians from any lawsuits that might arise from their participation in this program, but also clearly state the Virginia Department of Health's responsibility to ensure the integrity and confidentiality of the network information.

VDH Comment

VDH concurs with this recommendation.

Recommendation (4). To improve private physicians' awareness of the State's reporting requirements for communicable diseases, the Virginia Department of Health should initiate a statewide public awareness campaign. This campaign should stress the importance of timely reporting for communicable diseases, outline the statutory requirements for such reporting, and identify the possible penalties for non-compliance.

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VDH Comment

VDH regularly reminds physicians of their obligation to report. We do this whenever we work with individual physicians in the course of disease investigations. In addition, the monthly *Virginia Epidemiology Bulletin* compiled by the Office of Epidemiology is distributed to more than 10,000 licensed physicians in the Commonwealth, and we frequently include reminders of the importance of reporting. We do not believe that emphasizing the penalties for non-compliance (class six misdemeanor) will improve reporting and may indeed negatively affect the willingness of some providers to cooperate.

Recommendation (5). The General Assembly may wish to amend Section 35.1-22 of the Code of Virginia to link the number of annual inspections of a food service establishment to the risk profile of the establishment. The number of annual visits required should reflect the recommendations made in the 1997 FDA Food Code.

VDH Comment

VDH concurs with this concept, but we believe that regulation is the better way to address this rather than statutory changes.

Recommendation (6). The Virginia Department of Health should do a workload analysis to assess the need for additional environmental health staff in the local health departments. Staffing levels should reflect the need to inspect establishments based on their risk assessment.

VDH Comment

VDH concurs with the need for this study.

Recommendation (7). The General Assembly may wish to amend the Code of Virginia by granting local health inspectors the authority to assess civil fines on establishments for repeated violations of the State's food code.

VDH Comment

VDH concurs with this concept.

Recommendation (8). The General Assembly may wish to direct that VDH assess the impact of the certified food manager requirement that is contained in some local ordinances. The impact of the ordinances on the management of establishments of

Philip A. Leone, Director
November 5, 1999
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various types and sizes and their inspection outcomes should be considered, to help determine the advisability and feasibility of making this a state requirement. The General Assembly may also wish to direct that VDH develop one or more contracts with training providers to offer training courses on a regional basis at a minimal or low charge to establishments who commit to having an individual with such training on-site during all operating hours.

VDH Comment

VDH has experience with the food manager certification in some of its health districts and can analyze the impact of these. If the General Assembly directs VDH to contract for training courses on a regional basis, additional funding to support this is necessary. In some localities these courses are provided by community colleges or private organizations and fees charged participants support them.

Recommendation (9). The Virginia Department of Health should complete a workload analysis in a year to determine the effect of Section 32.1-163.5 of the Code of Virginia on the workload of environmental health staff at the local health departments. This analysis should be completed by August of 2001.

VDH Comment

VDH will conduct a workload analysis as recommended.

Funding the State's Public Health System

Recommendation (10). The Virginia Department of Health should develop staffing standards for each major community public health program and present a preliminary estimate of the resources required to meet statewide local public health need based on these standards. The Department of Health should present this methodology and associated estimate to the House Appropriations and Senate Finance committees by October 2000.

VDH Comment

We concur, but we believe that the development of these standards should be contracted to a private sector firm with considerable experience in health and governmental staffing studies. We also believe strongly that funding requests based on such staffing standards should be tied to eliminating the inequities that now exist in ability to pay. As noted by JLARC, nearly two-thirds of the Virginia's cities and counties currently pay more than

Philip A. Leone, Director
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the recommended local share. These localities include some of the most fiscally stressed in the state.

Recommendation (11). The Virginia Department of Health should develop and implement a policy for allocating the State's share of the cooperative budget. The policy should build upon and extend the needs-based formula and staffing standards for use in making allocations of positions and funds to the local health departments. Staffing standards developed in the statewide needs assessment should be applied to workload data from the local health departments to determine staffing levels and funding. The State share to meet those costs should be calculated using the VDH funding formula, but with the use of updated data for local revenue capacity and median adjusted income. The Department of Health should present this policy to the Board of Health prior to September 2000.

VDH Comment

VDH concurs with this recommendation. No shift in the allocation of state funds should take place without addressing the inequities in the current local matching shares.

VDH's Performance of Central Office Regulatory and Health Service Functions

Recommendation (12). The Virginia Department of Health should prepare a written plan to address the areas of needed improvement identified by a consultant in the report "Senate Study of the Center for Quality Health Care Services and Consumer Protection." The Department should present its plan to the Joint Commission on Health Care by July 1, 2000.

VDH Comment

VDH concurs with this recommendation.

Recommendation (13). The Department of Health should conduct a workload analysis to identify the staffing levels needed in the Office of the Chief Medical Examiner to meet the autopsy requirements in the Code of Virginia.

VDH Comment

VDH concurs with this recommendation.

Recommendation (14). The Department of Health and the Department of Medical Assistance Services should jointly develop a formula for reimbursing the Office of Emergency Medical Services for the inspection and licensing of wheelchair transportation services agencies.

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VDH Comment

VDH concurs with this recommendation.

Recommendation (15). The Virginia Department of Health should determine whether current staffing levels for its regulatory programs are adequate to meet program requirements. VDH should identify the resources needed to adequately carry out the regulatory functions and present its findings to the House Appropriations and Senate Finance Committee by September 2000.

VDH Comment

VDH concurs with this recommendation.

State-Level Management of the Virginia Department of Health

Recommendation (16). A permanent commissioner for the Virginia Department of Health should be appointed.

VDH Comment

Governor Gilmore has appointed me to the position of State Health Commissioner, and I will be sworn in on November 8, 1999.

Recommendation (17). The Virginia Department of Health should reduce the administrative duties of the Associate Commissioner to allow this position to focus on broader issues of policy direction and communication.

VDH Comment

VDH concurs with this recommendation and agrees with JLARC that there is a need for more emphasis on policy direction and communication. VDH will study these areas to identify ways to better support the Associate Commissioner in policy direction and communication.

Recommendation (18). The General Assembly may wish to consider revising §32.1-17 of the Code of Virginia to broaden the requirements for State Health Commissioner to include membership in any recognized board in a primary care specialty.

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VDH Comment

We strongly support this recommendation and are pleased to see that JLARC has endorsed the Governor's longstanding position on this matter.

Recommendation (19). The Office of Information Management in the Virginia Department of Health should develop a detailed project plan for the remaining modules of VISION. This project plan should include a detailed budget plan, staffing requirements, and scheduled completion dates for each module. The Department of Health should present the VISION project plan to the Senate Finance and House Appropriations Committees by February 1, 2000.

VDH Comment

The remaining modules have been prioritized by Agency Information Management Advisory Committee and Office of Information Management. Those modules that are highest priority and are due to be addressed in the next 12-18 months have detailed project plans under development and close to completion. Overall budget for staffing, maintenance and module development has been addressed during the strategic planning and budget development. We should be able to update and present to the Senate Finance and House Appropriations Committees by February 1, 2000 as requested.

Should additional information be needed, please contact me.

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