

Program Evaluation

Department of Human Resources

DIVISION OF PUBLIC HEALTH

Governance and General Grant-in-Aid



GOVERNOR'S OFFICE OF PLANNING AND BUDGET

April 2008



"The intention is to implement a new type of evaluation that will focus on creating workable solutions with agency participation."

For additional information, please contact the Office of Planning and Budget's Planning, Research and Evaluation Division at 404-656-3820

INTRODUCTION

Project Scope

This report is one in a series of program evaluations conducted by the Governor's Office of Planning and Budget (OPB) in 2007. The Budget Accountability and Planning Act of 1993 created a program evaluation function in OPB. Program evaluations are a critical component of Prioritized Program Budgeting practices, and give decision-makers information they need to appropriately allocate resources and ensure programs and services are responsive to the changing needs of the people of Georgia.

The public health program area was selected for such an evaluation. This evaluation reviews the governance of the county public health departments, and documents and analyzes the utilization of general grant-in-aid (GGIA) funding.

Process

The intention of this process was to implement a new type of evaluation focused on creating workable solutions. Consequently, the evaluation team used a collaborative evaluation model to ensure program managers are the joint owners of any proposed changes.

The evaluation was conducted by OPB staff from the Human Development Division and the Planning, Research, and Evaluation Division. As in a traditional evaluation, OPB staff conducted the initial data collection primarily through one-on-one interviews with district program staff. This primary research occurred in the following areas:

- Interviews of district and county staff in the 18 health districts;
- Surveys of county nurse managers and Board of Health members;
- Collection of financial data from the district administrative offices; and,
- Reviews of documents and financial data from the Division of Public Health.

This report is divided into four sections:

- 1. **Summary** Overview of the issues and recommendations.
- 2. **Governance** Description of the organization and services.
- 3. **General Grant-in-Aid** Review of the history and impact of GGIA.
- 4. **Recommendations** Discussion of the recommendations.

EXECUTIVE SUMMARY

These findings address two themes: 1) organizational governance of public health functions, and 2) General Grant-in-Aid funding. The primary recommendation addresses the need for a sustainable methodology for equitable fund distribution among county health departments.

Organizational Governance

Responsibility for public heath in Georgia is shared between state government and county boards of health, with the primary enforcement authority residing in the counties.

The District Health Director position is the organizational lynchpin allowing Georgia's hybrid public health governance system to work. District directors balance the needs and roles of both the counties and the state by representing the interests of the County Boards to the Division of Public Health, and similarly, the Division's to the Boards.

The Master Agreement contract between the Department of Human Resources and the county Boards of Health is the primary management tool for public health in Georgia. Although the Boards are independent entities, the Master Agreement directs the majority of their activities and funding.

County health departments vary widely in size from a full-time staff of two to nearly 500 employees. The difference in the size and scope of the 159 county health departments may cause statewide financial or operational decisions to result in a different impact on the individual departments. Consequently, operational and program adjustments that work well for large departments may result in unintended negative outcomes in smaller health departments.

Most targeted clinical services described by the Master Agreement are related to population health issues. Direct clinical services for individuals address infectious or communicable disease, infant mortality and morbidity, unplanned pregnancy, child health, and several common types of cancer.

County health departments are not limited to providing services defined by the Master Agreement. Some departments provide an array of additional services, and most participate in a wide variety of partnerships aimed at improving the health of Georgia's citizens.

Public health nurses spend considerable effort referring clients to a local network of community providers and other services.

Surge capacity refers to the ability of a health care system to expand quickly beyond normal services to meet an increased demand for medical care in the event of bioterrorism or other large-scale public health emergencies. Critical emergency support functions include providing vaccinations or medications and staffing American Red Cross (ARC) shelters.

There is significant value added to the state's public health initiatives because of the collaborative partnerships that county health departments maintain with other community organizations. For example, fifty-seven percent of the nurses responding to a survey are on the board of the local Family Connection community collaborative in their county.

General Grant-in-Aid (GGIA)

A county health department's largest expenditure is salaries, and most of the GGIA received by departments supports the necessary staffing level required to perform the activities in the Master Agreement.

An initial attempt to implement a population based funding formula resulted in a disproportionate impact on some counties. This formula was never successful in addressing problems of population growth or disparity based on wealth, and was ended after three years (1967-1970).

The current proportion of GGIA going to the various counties around the state is based on population and relative wealth as measured in 1970. This has lead to the *per capita* share of GGIA decreasing in counties that have experienced significant population growth over the past 40 years.

The match requirement does not reward counties contributing a higher *per capita* amount to their health department, nor does it create an incentive to county commissions to dedicate additional local resources to the health department.

There is no fund allocation formula specified in Georgia code. The Department of Human Resources is empowered to select the GGIA fund distribution methodology through the general powers granted to the department.

Due to the increases in cost and decreases in revenue, county health departments are facing a *de facto* reduction in funding, and GGIA is being used to fill the gap. Consequently, there is less funding available to provide general support to maintain county health department staffing levels.

A survey of the county health department nurse managers indicated that 38 percent of departments are holding positions vacant to address funding constraints, or preparing to reduce staffing in some manner within the next two fiscal years.

The staffing reductions associated with increased costs and decreased funding have resulted in reduced caseloads in several programmatic areas for some county health departments.

Recommendation

The Office of Planning and Budget and the Division of Public Health should form an inclusive team to develop a new GGIA fund distribution methodology. This project team should include representation from all 18 districts.

A team effort that included the districts, counties, and a private consultant worked exceptionally well in developing a public health cost allocation model in 2004.¹ One of the stated benefits of this effort was better cooperation and communication between the central office, districts, and the counties. A similar team should work to develop a sustainable and equitable fund distribution methodology for county health departments. To adequately address county health department funding, it is important to determine the true cost of providing a unit of service in the various program areas included in the Master Agreement. Accurate cost data will also allow the

¹ Local Public Health Cost Study in Georgia, Journal of Public Health Management Practice, 2004, pages 400-405.

state, district, and local offices to develop agreed upon workload and performance expectations to improve accountability.

Area for Further Study

Review the effectiveness of Perinatal Case Management (PCM) in ensuring healthy birth outcomes under the Care Management Organizational (CMO) model. Per the district program staff, public health is no longer being reimbursed for this PCM function. Interviews indicate that the CMOs are managing these cases in-house, with most cases now being managed by phone rather than via home visits as provided by public health nurses. While case management via telephone may be adequate for other population groups, phone contacts for this Medicaid client group may not be adequate to ensure full-term positive birth outcomes. Analyzing this issue in depth was not possible during this evaluation, but it appears the area merits further review.

This section describes the manner in which public health is organized, and the services it provides to Georgia's citizens. It includes an analysis of the significant variation in the size of health departments that must be considered when making financial or operational decisions. Similarly, it contains discussion of the different sections of public health operations which respond to outbreaks of disease and other emergencies.

History

In 1875, the General Assembly created the first health-related agency in state government, the State Board of Health. Its purpose was to protect the life and health of Georgia citizens, prevent the spread of diseases, assist local officials and doctors with information, supervise hospitals, and oversee the registration of births, deaths, and marriages.

There have been several reorganizations of the public health function over the years: the State Board of Health was abolished, and responsibility for the function was transferred to a newly created Department of Public Health under the Executive Reorganization Act of 1931. Two years later, the Board was recreated to oversee and control the Department. In 1936, the Department began providing traveling nurses to counties which had no health services of their own. By 1939, regional health agencies had developed, and the process of providing state grants to counties for nursing services had begun.

In 1964, state health laws were extensively revised and codified under the Department of Public Health, which continued as a separate department until 1972. Under the Executive Reorganization Act of 1972, the Department of Human Resources (DHR) was established, and all health department functions were transferred to this newly formed organization, eliminating the Department of Public Health and reestablishing it as a division of DHR.

Organizational Overview

Responsibility for public heath in Georgia is shared by state government and county Boards of Health, with the primary enforcement authority residing in the counties. County Boards of Health are given the power to implement and enforce state health laws and regulations. As part of the general authority of the department, DHR is empowered to employ all legal means to safeguard and promote the health of the people of this state.

As a result of this shared responsibility, the current public health system in Georgia allows for local control, with regional coordination as well as state level leadership, funding, and oversight. Each of the 159 counties in Georgia has a Board of Health and a health department. The 18 health districts serve as a managerial link between the state and the counties. There are two primary methods for managing and coordinating Georgia's public health system:

• The 18 District Health Directors serve as the executive director of the county Boards of Health in their districts, and are responsible for county and district plans and functions.

• The funding and contractual requirements described by the Master Agreement (MA) with DHR result in the department directing 70 to 90 percent of the services and functions performed at the county level.

Figure 1.1 gives an overview of the public health system's governance structure and organizational relationships.



Source: Governor's Office of Planning and Budget, 2007

Department of Human Resources - Division of Public Health

The Division of Public Health provides leadership, oversight, and program support to the health districts, who work directly with the county health departments. The Division consists of a central office in Atlanta and 18 district offices. Some of the specific areas where support is provided to the districts and counties include the following:

- Nursing Support
- WIC (nutrition food voucher program)
- Epidemiology
- Prevention
- Chronic Disease
- Family Health
- Pharmacy (pharmaceuticals for the public health system)
- Environmental Health
- Laboratory Services
- Vital Records
- Emergency Preparedness and EMS/Trauma
- Administrative and IT support
- Health Analysis Support and Disease Surveillance

To improve efficiency and communication, the division's central office recently completed a reorganization of their activities into functional areas.



Source: Department of Human Resources – Division of Public Health, 2007

The current mission of the division¹ is to promote and protect the health of people in Georgia wherever they live, work, and play. Public health unites with individuals, families, and communities to improve their health and enhance their quality of life. This is accomplished by:

- Developing sound health policies and plans;
- Monitoring and assessing community health status and needs;
- Creating partnerships with communities and organizations;
- Providing personal and population-based services and education;
- Enforcing laws and regulations that protect health and safety;
- Providing population-based data, vital statistics, and registries;
- Gathering information through surveillance and investigation;
- Disseminating wellness and health information;
- Evaluating the effectiveness, accessibility, and quality of services;
- Assuring a competent, sensitive, and responsive public health work force;
- Providing a public health laboratory capacity; and
- Carrying out research for innovative solutions to public health problems.

Program Budget and Staffing

Public Health has 12 programs in their Prioritized Program Budget (PPB). The table in figure 1.3 lists the FY 2008 appropriation by program.

		Figure 1.3			
Public Health					
FY 2008 Appropriation by Program					
	State Funds	Total Funds			
Adolescent and Adult Health Promotion	\$20,734,163	\$47,312,253			
Adult Essential Health Treatment Services	\$10,709,061	\$12,043,673			
Emergency Preparedness/Trauma System Improvement	\$13,347,797	\$14,495,308			
Epidemiology	\$6,116,285	\$6,488,636			
Immunization	\$11,725,931	\$20,543,828			
Infant and Child Essential Health Treatment Services	\$38,961,028	\$50,457,508			
Infant and Child Health Promotion	\$20,972,559	\$115,950,632			
Infectious Disease Control	\$39,203,771	\$50,498,415			
Injury Prevention	\$1,217,701	\$1,329,714			
Inspections and Environmental Hazard Control	\$15,025,089	\$15,568,826			
Substance Abuse Prevention	\$1,128,009	\$11,640,500			
Vital Records	\$2,830,465	\$3,191,169			
Total funds - Division of Public Health	\$181,971,859	\$349,520,462			

Source: Governor's Office of Planning and Budget, 2007

¹ Department of Human Resources, Division of Public Health: <u>http://health.state.ga.us/visionmission.asp</u>

At the close of FY 2007, there were over 1,100 filled state employee positions in the Division of Public Health. In addition to the state employees, there were approximately 5,500 employees in the county health departments around the state.²

The primary focus of this evaluation is the traditional public health programs funded with GGIA that impact the county health department operations. Consequently, some program functions like coordination of the state trauma system are noted but not discussed in detail.

Health Districts and District Program Staff

Georgia's 18 health districts offer a regional model that provides an element of managerial consistency over the state's 159 counties. There is considerable variation in district size. demographic makeup, and structure:

- Three districts have only one county: Clayton, DeKalb and Fulton;
- Two districts have three or fewer counties: Cobb (2) and Gwinnett (3); and, •
- The remaining thirteen districts have an average of 11.6 counties, ranging from six to 16 • counties per health district.

The District Health Director position serves as the organizational lynchpin that allows Georgia's hybrid public health governance system to function. This managerial role is critical to the function of the public health system in Georgia. In essence, the district director balances the needs and roles of both the counties and the state by representing the interests of the county Board to the Division of Public Health, and conversely, the interests of the Division to the Board. The District Health Director is an employee of the state, but has the following statutory authority over the county Boards of Health:

"The scope of services, operating details, contracts, and fees approved by the county board of health shall also be approved by the district director of health."³

Accordingly, the selection of the District Health Director is a shared responsibility of the state and local community. The director is appointed by the DHR Commissioner, but the county Board of Health must approve the selection. In single county districts, the Board must approve the selection.⁴ In multi-county districts, each Board is authorized to appoint one of its members to represent the county at a joint meeting.

One of the District Health Director's primary functions is the management of the staff and resources of the Boards of Health. In addition to the director's role in Board activities, the health directors also are responsible for supervising the staff and directing the activities of the assigned district office, which were established to help achieve county and state health goals and objectives by offering support to the county health departments.

District staff provide guidance, training, and other administrative support to each county health department. Program staff in the districts provide the link between the central office program staff and the counties. The district functional areas provide direct technical program support to

² Fulton County is structured differently and their employees are not included in the statewide accounting system's position county

O.C.G.A. §31-3-4 (a) (6)

⁴ Fulton County is an exception and the health department is managed slightly differently with more direct authority residing in the county commission.

the counties. In addition, most of the district offices provide substantial accounting, information technology, and billing support to the smaller county health departments. For example, during the implementation of the Care Management Organization Medicaid model, the district administrative offices developed specialized billing units and a multi-district work group to assist county health departments in developing and administering this complex billing task.

Public Health District's Lead County

Multi-county district initiatives are coordinated by the district office, but, in many instances, these activities are implemented by the lead county in the district. Each district has a lead county, which generally has the largest population. Funding for a number of district-wide health initiatives goes to the lead county as part of the MA. Consequently, the state and the district office may set policy and provide oversight, but employees of the lead county funded through the MA will implement the district-wide program. It is important to remember that the staff members performing these district activities are housed within the lead counties.

County Boards of Health and Health Departments

County Boards of Health were created by and recognized through state law. ⁵ The power to implement and enforce state health laws and regulations is vested within the county Boards of Health. ⁶ County Board of Health membership is set by law, and includes community representatives and local elected officials. The Board sets policy and provides oversight to the county health department. ⁷ As noted previously, the state-funded position of District Health Director acts as the executive director of the county Board, supervises the district staff, and, directly or indirectly, the county health department staff. The Director also represents the organizational link between the state and county governments.

The role of the county Board in county health department operation varies, depending on the relative wealth of the county. In counties with limited resources, the activities and associated funding in the MA may constitute almost all of the health department's resources. Thus, these Boards do not have the resources to deliver unique county specific services. Conversely, counties that are relatively wealthy may have resources that can be used to address other specific health issues in that county.

Master Agreement with DHR

The MA is a contractual agreement between DHR and the county boards of health which serves as the primary management tool for public health in Georgia. Even though the county Boards of Health are independent entities, the MA directs the majority of their activities. This contractual connection provides federal and state funding to the county health departments. If the Boards do not sign the agreement, they will not receive funding from the state. In addition to state funding deliverables, the county contribution requirement is specified in this document. Components of the MA cover most of the primary areas of public health in Georgia's health departments.

⁵ O.C.G.A. §31-3-1

⁶ Georgia Attorney General's Opinion Number 74-19

⁷ Fulton County is managed slightly differently with more direct authority residing in the county commission.

Figure 1.4



Public Health: An Integrated Community Based System

The components of county health departments and districts work together as an integrated system in responding to disease outbreaks, disasters, and other emergencies. The district staff works with county nurses, epidemiologists, and environmentalists when necessary.

While conducting interviews with district and county staff around the state, the evaluation team identified several events to illustrate this important function. The following subsections document a Bacterial Meningitis outbreak, a food related illness outbreak, and an emergency evacuation and sheltering event.

Infectious Disease Outbreak⁸

A child in Chatham County was diagnosed with bacterial meningitis, a disease which can result in death, brain damage, hearing loss, or a learning disability. However, if treated early, antibiotics can be effective against bacterial meningitis. Antibiotics can also prevent close contacts from getting the disease.

The Chatham County Health Department (CCHD) was notified, and determined the child attended summer camp at the West Chatham YMCA in Pooler. Staff from the YMCA worked closely with the CCHD to identify and treat the 270 children and 30 counselors who may have been exposed. In addition to the original case, two other children who attended the summer camp were treated as suspect cases.

Both the Chatham and Effingham County Health Departments provided antibiotics and education to any person who came in close contact with the children. The health department set up a clinic at the West Chatham YMCA in Pooler to begin giving the first of four doses of antibiotics, and to talk with parents. At this temporary clinic, 232 patients were treated in three hours.

Some of the children who attended the camp were from Effingham County and recently began school, so the Effingham County Health Department worked with school nurses to ensure those children were also treated.

The response to this outbreak involved staff from two county health departments and the Coastal Health District. In total, 330 individuals from two counties were treated with antibiotics.

⁸ Coastal Health District, After Action Evaluation, September 4, 2007.

Fast Food Restaurant Salmonella Outbreak⁹

The salmonella outbreak was identified by the Georgia Public Health Lab from samples sent by the local hospital for testing. The lab notified the Notifiable Diseases Epidemiology Section (NDES) in Atlanta that the samples had a common genetic source. The local hospital also contacted the South Georgia Health District Epidemiologist, who initiated an investigation to determine if this represented an outbreak, and if there was a common source.

To investigate this, patients with food poisoning (salmonella) were contacted by investigators from the South Georgia Health District (SGHD) and the NDES, and interviewed regarding possible sources of exposure. The investigation identified 72 cases of food poisoning between August 21 and November 15. Eighty-two percent of those interviewed indicated they probably ate at restaurant "A" before their illness. Environmental Health Specialists from the district and the county inspected the restaurant and found no major violations.

A team visited the restaurant including the NEDS Outbreak Coordinator, a representative from the U.S. Centers for Disease Control, an Epidemic Intelligence Service Officer, and two environmentalists from the county health department. The team interviewed restaurant staff and took samples from the food preparation equipment and surfaces. The restaurant equipment was in good shape and the policies and procedures for food preparation were proper. One of the test samples on a new meat slicer came up positive for Salmonella, and the machine was removed from service.

The slicer was cleaned and sanitized, and both the machine and the sliced meat were tested again. The test was again positive for salmonella. The slicer was cleaned per the manufacturer's instructions, and samples were taken from various components. Salmonella was found under a plastic handle that should have been sealed at the factory with a silicone gasket, but the gasket was not on the slicer.

The slicer was returned to the manufacturer, and the manufacturer requested all other customers operating the slicer inspect the blade covers to ensure the silicone gasket is properly seated. The company also recommended that this seal be re-inspected every six months as part of the routine maintenance plan.

The aggressive and coordinated response of the various components of Georgia's public health system stopped the food poisoning outbreak. This investigation not only stopped the sickness in Georgia, it potentially stopped outbreaks around the country related to this brand of slicer.

⁹ Source: DHR Division of Public Health, Notifiable Diseases Epidemiology Section

Wildfire Evacuation and Sheltering

At 6:45 p.m., the nurse manager in Waycross received a phone call from the local Emergency Management Director. A fire had started on Sweat Farm Hill Road, and had quickly gotten out of control. The Red Cross had been notified and was on their way from Brunswick, but a shelter was needed immediately for the residents.

On the way to Waycross Middle School, the nurse manager radioed the Board of Education contact to be sure the school was open. She then called her backup nurse so she could begin calling individuals on the emergency response contact list per county and district emergency procedures.

Law enforcement officers had escorted or transported the families to the shelter. The families had been evacuated so quickly that they brought nothing with them. Most of the evacuees were elderly and many were on medication, but left their medicine at home. There were also several infants without formula.

When Red Cross volunteers arrived, the evacuees had already been registered and provided with food and formula. The public health nurse made a phone call to a local restaurant to explain the situation, and this resulted in meals for the evacuees. The following morning, the nurses called pharmacies to acquire refills on prescription medication for shelter occupants.

The nurse spent the night with other Division of Public Health staff, Department of Family and Children Services staff, and evacuees at the shelter. The health department and the other emergency response organizations in the community recently finished developing a pandemic flu plan, and met regularly to review situations and roles during an emergency. This emergency planning and preparation helped in responding to the wildfires.

Public health staff began public service announcements in the newspapers, radio and cable station. As part of the county emergency plan, flyers were printed in English and Spanish informing people of the dangers of the smoke, and the locations of Red Cross Shelters. These were distributed at local retail outlets.

The county environmentalists inspected all of the Red Cross shelters twice every day – checking food temperatures, bathrooms, and other hazard prone areas. The environmentalists also inspected food handling in the firefighter staging area to prevent the possibility of a food borne disease problem among the firefighters.

The public heath nurse noted that firefighters were coming in from the blaze with cuts and abrasions on their arms, hands, and necks. In response, the Board of Health offered free tetanus shots to the firefighters. During the firefighting operations, nurses from the county and district inoculated firefighters with more than 500 tetanus shots.

Evaluation team interviews made it clear there is significant value added to the state's public health initiatives developed by the collaborative partnerships that county health departments have with other community organizations. To document the scope of these partnerships, a survey was conducted of the 159 county senior nurse managers. Figure 1.5 lists the responses to the question: "List the entities that your office has worked with in a collaborative partnership."



Figure 1.5

Source: Governor's Office of Planning and Budget, 2007

In addition to the partnerships noted above, nearly 60 percent of the public health nurses responding to a questionnaire indicated membership on the board of the local Family Connection community collaborative in their county. A further 37 percent reported they contribute a significant amount of time with the initiative – interviews indicated this is often "volunteer" time spent after regular working hours.

In addition to the other benefits, these partnerships leverage state and county dollars by bringing in additional funding. A survey indicated at least \$1.3 million dollars in outside funding for health related activities was generated through health department partnerships and collaborations in FY 2007.

An example of this type of partnership occurred in Toombs County. The health department conducted an assessment of the above average diabetes rates in their county, and identified a need for education, drug programs, cooking classes, and support groups. A community partnership was formed of health providers, consumers, businesses, and advocacy groups to implement a community plan. This group identified and obtained a \$295,000 Rural Health Network Grant used to fund education and access to diabetes care in four counties in the Southeast Health District.

Health Department Services and Functions

Clinical services for individuals included in the MA address population health issues. The targeted clinical services relate directly to issues such as infectious or communicable disease, infant mortality and morbidity, and several common types of cancer.

The majority of these public health clinical services are provided for the following client groups:

- Pregnant women with limited resources;
- Infants and children with limited resources;
- Infants and children with serious developmental problems;
- Women with limited resources at risk for common cancers;
- At-risk young women and teenagers in need of family planning;
- Men and women with various infectious diseases; and,
- Immunizations for any child or adult on a sliding fee scale.

The services and functions performed by health departments fall into three major categories:

- County health department services and functions included in the MA;
- District-wide services and functions included in the MA administered by the lead county for the district; and,
- County functions funded at the local level, including a variety of services and functions that address county priorities.

In addition to these services, health education, environmental health, and emergency preparedness activities also take place at the state, district, and county level. These growing program areas are consuming more of district and county public health department resources. Disaster response has evolved beyond natural disasters and now includes the specter of bioterrorism and pandemic flu. The focus of this report is public health programs that impact county health department operations. Consequently, areas that are not directly related to county health departments like oversight of the emergency medical services system and coordination of the state trauma system are not discussed in detail.

The following two tables list most of the discrete functions dictated by the Master Agreement at the county and district level.¹⁰

- Figure 1.6 lists the targeted clinical services to individuals.
- Figure 1.7 lists services that relate to population groups.

¹⁰ A more comprehensive overview of public health programs is available at: <u>http://health.state.ga.us/programs/</u>

Services	s to Individuals
Program and Services	Primary Activities
Infant and Child Health Treatment Servic	es
Children's Medical Services	Diagnostic and treatment services to children with disabilities and chronic disease
Infant & Child Oral Health	Examinations, cleanings, sealants
Perinatal/Maternal Health	Assists pregnant women with Medicaid - monthly contacts and follow-up 60 days after birth. CMO's no longer fully reimbursing health depts. for this service
Genetics/Sickle Cell	Screen and treat newborns and children
Babies Can't Wait	Identify children with developmental delays and coordinate services
Babies Born Healthy	Provides financial assistance for perinatal / hospital care for low income pregnant women not eligible for Medicaid
Infant and Child Health Promotion	
Nutrition - Women Infants and Children (WIC)	Provides nutrition education, supplemental food vouchers to low income participants. Monitor vendors
Comprehensive Child Health	Children 1st program identifies children at risk and link them to services or other programs
ICHP Lab Services	Perform 28 newborn screening tests
Adolescent and Adult Health Promotion	
Adolescent and Youth Development	Provides a network of community-based support
Family Planning	Counseling on postponing sexual involvement and, if needed, education on birth control
Tobacco Use Prevention	Coordinating strategy in tobacco use prevention
Cancer Screening and Prevention	Breast and cervical cancer screening and testing
Health Promotion	Community health promotion/risk reduction programs
Adult Essential Health Treatment Service	
Hypertension Management	Provides blood pressure medications to those in need and monitors clients
Cancer State Aid	Cancer treatment to uninsured and under-insured
Refugee Health Services	Health screening and follow-up
Infectious Disease Control	
HIV/AIDS	Prevention, education, individual testing and treatment
Laboratory - Infectious Disease	Perform HIV, STD and TB tests
Sexually Transmitted Disease Treatment / Control	Prevention, education, individual testing and treatment
Tuberculosis Treatment and Control	Prevention, education, individual testing and treatment
Immunizations	
Children and Adults.	Provides immunization
Training and management	Consultations, training, stockpile management

Population Services			
Epidemiology			
Assess, Monitor and Evaluate community health status	Conduct surveillance activities, identify disease trends and investigate outbreaks		
Laboratory Services - Health Assessment	Testing for bacterial, viral, parasitic agents and rabies		
Injury Prevention			
Activities related to tracking, analyzing causes and preventing injury	Numerous educational programs and distribution of Child Safety Seats, Smoke Detectors and Bicycle Helmets		
Environmental Health			
Inspections	Inspection of: restaurants, public pools, septic tanks		
Animal Disease	Collection of West Nile and Rabies specimens		
Laboratory - Environmental Health	Water sample test and microbiologic tests		
Vital Records			
Vital Records	Register, archive and provide records to the public		

Counties are not limited to providing services listed in the MA. Some provide an array of additional services, and most participate in a wide variety of partnerships aimed at improving the health of Georgia's citizens. Some specific examples illustrating this range of services include the following:

- Operating a home health care agency;
- Operating primary care clinics;
- Providing complete oral health services to children ages 18 years and younger, pregnant women, and individuals infected with HIV;
- Operating a certified laboratory providing blood lead testing;
- Providing a care navigator program to assist uninsured and underinsured patients with chronic health conditions with access to primary healthcare;
- Providing affordable lab services to underinsured and low-income populations;
- Conducting a free annual diabetes screening day;
- Operating a coumadin clinic;
- Placing an Automated External Heart Defibrillator in every school, and soliciting funds from the community to provide for these machines;
- Conducting diabetes education clinics; and,
- Operating a rape aftercare program. ¹¹

Staff in county health departments often go beyond basic requirements in caring for citizens in their programs. These extra activities are extremely beneficial to the health of Georgia's most at-risk citizens, but are generally not captured in standard workload data. Interviews in the districts conducted as part of this study also indicated county health department employees spend considerable effort in referring clients to their network of community providers and other services.

¹¹ Eleven of the health districts responded to the survey: Of those, Spalding, Hall, Lowndes and DeKalb indicated that they operate primary care clinics.

To document some of these activities, the evaluation team asked the state director of nursing to identify and report on a few of these occurrences. Two of the responses are summarized in the following:

Universal Newborn Screening Follow-up

The county health department received a call from the state lab reporting a baby with an abnormal test result. There was not a specific address for the infant other than a local trailer park. The county nurse manager drove to the trailer park and went door to door searching for the infant. She eventually found the baby and re-tested her.

A few days later, Emory University reported that the baby did have biotinidase deficiency, an inherited metabolic disorder of biotin (vitamin B) recycling that often leads to developmental delays, speech problems, and vision and hearing problems. The treatment is a daily dose of Vitamin B for the rest of this baby's life. Follow-up contacts indicate that the infant is taking supplements and is without symptoms.

Perinatal Case Management

A pregnant 17-year-old girl came to the health department for help. She appeared emaciated and was living in a camper without electricity. The public health nurse was very concerned since she was living in substandard conditions, and at extremely high risk of delivering prematurely. The young woman was referred to an obstetrician and enrolled in the WIC program for nutritious food vouchers.

The substandard living conditions were a serious concern, so the nurse counseled the young woman and guided her in the decision to move back in with her mother. This placed her in adequate living conditions with someone to help take care of her. The young woman responded positively to this assistance and counseling by delivering a full-term and healthy six-pound baby.

Public Health Registered Nurses

To understand the public health system's targeted clinical services role, it is useful to illustrate how public health registered nurses (RN) differ from RNs in most other medical settings. Professional RNs who are agents or employees of a county Board of Health or the Division of Public Health are authorized to practice certain medical acts or procedures under nurse protocols.¹² Under this statutory authority, a physician may delegate the performance of certain medical acts. These medical acts, which are not performed by RNs in other settings, may include any of the following:

- Ordering and dispensing dangerous drugs;
- Ordering medical treatments; and,
- Ordering diagnostic studies.

The delegated medical acts must be performed by the RN in accordance with a current nurse protocol that has been signed by the RN and the delegating physician, and in accordance with a drug dispensing procedure. Some treatment categories and examples of related ailments include the following:

- High Blood Pressure (Primary Hypertension in Adults)
- Diabetes (Diabetes Mellitus in Adults)
- Tuberculosis (Uncomplicated Pulmonary Tuberculosis)
- Sexually Transmitted Diseases (Chlamydia, Gonorrhea, Syphilis)
- Child Health (Impetigo, Head Lice, Scabies, Pin Worms)
- Women's Health (Oral Contraceptives)
- HIV/AIDS-Related (Continuation of Antiretroviral Therapy, and others)
- Other Infectious Diseases (Meningitis, Preventive Treatment of Contacts)

The severity or criticality of these illnesses, disorders, and other health services offer further indication that public health's clinical services to individuals all relate directly to population health issues such as infectious disease rates, infant mortality and morbidity rates, and common chronic diseases.

The following example of a public health nurse providing clinical service under protocols for infectious disease control and treatment demonstrates the significance of the relationship between the public health nurse services and Georgia citizens.

Public Health Nurse Protocols

A nurse performing a physical exam on an adult family planning client in the county health department discovered a suspicious rash. Using the additional authority delegated under the public health nurse protocols, the nurse determined it was a syphilis rash. This initiated an investigation that identified 13 contacts in the community with active syphilis, and eliminated one source of this disease.

¹² Information in this section was provided by the Division of Public Health nursing staff. For a summary of the public health nurse protocols is available at: <u>http://www.health.state.ga.us/programs/nursing/nursepublications.asp</u> .

Surge Capacity: Disease Outbreak and Disaster Response

Surge capacity refers to a health care system's ability to expand quickly beyond normal services to meet an increased demand for medical care in the event of a large-scale public health emergency such as bioterrorism. Local county health departments provide leadership for emergency preparedness planning for pandemic flu, bioterrorism, natural disasters, and other events. These emergency services require partnerships with community agencies. Both the County Nurse Manager and County Environmentalist positions provide local leadership on pandemic flu and other bioterrorism planning as part of the State and County Emergency Operations Plan.

In addition to providing planning support, health department staff also respond to emergencies. One of the critical emergency support functions is staffing Red Cross shelters. The Department of Human Resources signed a Memorandum of Understanding (MOU) with the American Red Cross (ARC) covering health services within shelters. This MOU includes health and medical services for the congregate shelters, special needs shelters, and other settings where emergency care may be provided. The ARC standard practice requires a trained nurse in each approved emergency shelter.

Representatives from the ARC contacted for this evaluation indicated in large urban areas, they can usually find nurses, but in counties outside of metro areas, public health is the primary source for shelter nurses. Interviews with the district staff identified shelter staffing as another area where the impact and role of public health differs based on the relative size and wealth of the county.

The need for emergency shelters can be caused by any emergency that displaces a fairly significant portion of a community, or brings a significant number of people into a community. Depending upon the severity of the hurricane season in the Southeast, public health staff can be called upon any number of times to assist ARC evacuation shelters. Some examples of major incidents that have required sheltering include the following:

- 1994: Hurricane Alberto-related floods in Albany and southwestern Georgia
- 1999: Hurricane Floyd-related flooding
- 2005: Flash-flooding in Jonesboro
- 2007: Wildfires in Waycross
- 2007: Tornado in Americus

For a variety of reasons, including the reductions in GGIA funding, the public health nurses available to staff ARC shelters has decreased. In non-metro-Atlanta areas of the state, the availability of public health nurses to assist shelters has limited the number of adequately staffed facilities that can be opened during an emergency.

This section reviews the history of general grant-in-aid (GGIA) funding to county Boards of Health. As part of this discussion, an overview of the revenue loss associated with the transition to the Care Management Organization (CMO) model of Medicaid reimbursement is provided. Finally, the evaluation team estimated the impact GGIA funding has on county health department operations and service delivery models.

History of General Grant-in-aid Funding

Grant funding passed from the state to county Boards of Health has existed since the late 1930s, and was significantly expanded in the 1950s. The original purpose of this funding was to assist local health departments in "... conducting an acceptable and well rounded public health program under the general supervision of the Director of the Georgia Department of Public Health through the director of local health operations."¹³

As the name indicates, GGIA funding is used as general support for the programs in the county health departments. Unfortunately, current accounting expenditure reports do not separate GGIA dollars from other fund sources at the local level.

The impact of GGIA funding on services is dependant on the size and wealth of the county health department. The impact of an increase or decrease in GGIA on counties based on their size and financial resources will be explored further in subsequent sections.

To begin the discussion of fund allocation methods, it is useful to understand there is no fund allocation formula specified in the Georgia code. Rather, DHR is empowered to select the GGIA fund distribution methodology through the general powers granted to the department. In reality, there are political and other restrictions that limit the department's ability to permanently alter the existing fund distribution methodology without legislative and executive consent.

A fund allocation formula that based general grant-in-aid funding on the population size and relative wealth of counties was developed in 1966, and first used in 1967. From the very beginning, there was a disproportionate impact on counties when a population-based funding model was used, one which prevented the formula from being fully implemented. Thus, to prevent smaller and poorer counties from being severely impacted, they were allowed to maintain funding at the 1966 level. In 1968, there was a special provision for counties with populations of 7,500 or less to remain on the base year (1966) allocation.

It is clear the original formula was never completely successful in addressing problems of ongoing population growth and disparity based on county wealth, and 1970 was the last year in which funds were allocated per this formula calculation. According to internal department documents, "An irreducible level of funding for state and local funds was established by the State Board of Health based on the FY 1970 budget. Thus, 1970 became the base year upon which 1971 allocations were computed, with modifications".¹⁴

¹³ Plan for Financial Assistance to Public Health Districts and Local Health Departments, Georgia Department of Public Health, Atlanta, Georgia (May 16,1955), Section VII. Program and Supervision

¹⁴ DHR-DPH Internal Document: Chronology of Health Formula Allocations, General Health 1967-1979.

Modifications to GGIA funding are generally made in an effort to provide for personnel costs such as funding for salary increases, funding to cover the employer's share of state benefits and assessments, and across the board increases or decreases to statewide public health programming.¹⁵

Consequently, the proportion of GGIA going to the various counties around the state is based on population and relative wealth as they existed in 1970. ¹⁶ This has lead to the *per capita* share of GGIA decreasing in counties that have experienced significant growth since 1970.

There was a temporary change in the distribution methodology for new funds in FY 1994 when the base allocation was frozen at the FY 1993 level, and the balance of funds was allocated on a *per capita* basis.¹⁷ Currently, any new funds are distributed based on the relative amounts that existed in 1970. The following chart gives the history of GGIA funding for the past eight years.



Source: Department of Human Resources - Division of Public Health, 2007

Decreases in state revenue resulted in austerity reductions to the Division of Public Health's GGIA budget. The decrease in GGIA funding over five years resulted in a significant staffing challenge in local health departments. There was a decline in the number of nurses and in other critical staffing areas. In FY 2008, GGIA funding was increased to \$72 million. This increase was used to offset county health departments cost increases associated with increasing the public health nurse salaries, and increased costs associated with the employer's share of employee benefits.

¹⁵ County Board of Health (CBOH) employees are employed by the CBOH per the state merit system rules and regulations. County health departments depend on GGIA to help offset merit increases and benefit plan cost increases, but such increases typically are based on state employees of DHR, and do not fully cover county employees of the CBOH.

employees of the CBOH. ¹⁶ 1967 Formula: ½ funds allocated based on population and ½ funds allocated based on population as weighted inversely by the county real property index (relative wealth).

¹⁷ DHR-DPH Internal Document: Grant-in-aid Description, (February 20, 2000)

County Health Department Funding Overview

Funding for county health departments is delivered from several sources:

- **County Funds**: The county Board of Health receives an appropriation from the county government that includes a contribution specified in the MA with DHR, as well as additional county funds supporting the Board, and funding for facilities for the health department. This also includes funds for individual county health initiatives.
- State Funded General Grant-in-Aid: The state provides counties with funding to provide general support to the health departments¹⁸, which helps in maintaining the staffing levels necessary to perform the activities required in the MA.
- Mixed State and Federal Funding Programmatic Grant-in-Aid (PGIA): This funding supports specific program areas, and can be comprised of all state funds, all federal funds, or a mix of both.
- Fee Revenue: Counties charge fees for a number of their provided services, ranging from services for Medicaid patients billed to the Care Management Organizations (CMO) to fees charged for restaurant inspections.
- **Grants and Donations**: Some county Boards of Health receive funding through grants and other funding this is generally a small percentage of the budget.



Figure 2.2

Source: Department of Human Resources - Division of Public Health, 2007

¹⁸ The DHR-DPH administrative section uses a percentage of the GGIA funds to cover liability insurance, workers compensation and unemployment insurance for CBOH employees. Consequently, the GGIA expenditure in the counties is slightly lower than the total GGIA appropriation.

County Match Requirement

A county match requirement was part of the original GGIA fund allocation formula. This match requirement was structured much in the same way as the original formula. The 1967 guidelines indicated "All allotments... shall be matched by approved local public health expenditures." This match was tied to the *per capita* real property index of the county. Again, there were exemptions for small counties because of the disproportionate impact this wealth-based match would have posed to their health department's financial situation.¹⁹

Currently, the county match requirement is defined by the Master Agreement (MA). The amount is based on the match amount that existed in 1970, when the base level of funding was created from the allocation formula. As GGIA has increased throughout the past 37 years, the match has remained fairly constant. Consequently, the match requirement is relatively low as compared to the original ratios, and all counties fund more than the required amount.

The match requirement does not reward counties contributing a higher *per capita* amount to their health department, nor does it create an incentive for county commissions to provide more funding to the health department. Although all counties give more than the minimum, interviews indicate this low match requirement can be a disincentive for county commissions to provide additional funding to public health as they "already give more than is required in the Master Agreement," according to several health district staff members.

- The match requirement in the MA was \$12.2 Million.
- Counties actually gave \$41.5 Million in funds that would have qualified as MA matching funds.
- If funds for county health initiatives that would not otherwise count as MA matching funds are included, the total contribution from the counties is \$60.8 million.
- In addition, the total *per capita* county contribution ranges from \$1.12 to \$24.48.

GGIA Utilization

One of this evaluation's objectives was to document GGIA funding use in county health departments. However, separating GGIA expenditures from other costs was not possible, as the GGIA funds are mixed with other funds into a single account. The following describes current GGIA utilization practices:

- The majority of the services and functions performed by county health departments are included in the MA with DHR.
- District Health Directors estimate some areas of the MA do not have enough programmatic funding to cover the costs of performing the services.
- The statewide average indicates that 70 to 80 percent of a health department budget is allotted for salaries.
- Most of the GGIA allotted to health departments supports the staffing level necessary to perform the activities in the MA.
- Staffing levels associated with the routine activities described by the MA allow for surge capacity to address peak events like disaster response, disease outbreak response, and other emergency preparedness roles.

¹⁹ Georgia Department of Human Resources - Grant-in-Aid Description, February 20, 2000.

Due to cost increases and revenue decreases over the past several years, county health departments are facing a *de facto* reduction in funding, and GGIA is being used to fill the gaps. Consequently, there is less funding available to provide general support to maintain county health department staffing levels. Interviews in the district health offices indicate the reductions in GGIA funding over the past several years, when combined with normal cost increases and other revenue reductions, has placed minimum staff levels at risk.

Since GGIA expenditures are not separated from other funding sources, the evaluation team relied upon other indicators to determine the impact of GGIA on county operations. In addition, due to the decentralized nature of Georgia's public health system, obtaining consistent valid statewide workload data that can be used to document workload changes is challenging.²⁰

To address the issue of GGIA utilization, the evaluation team conducted 90 interviews with district program and financial staff in the 18 health districts. Finally, all 159 county health departments were surveyed to identify the impact of the funding changes on service delivery.

When reviewing the following sections, it will be useful to consider the recent increase in Georgia residents. Georgia's population increased 14.4 percent from 8.2 million in 2000 to 9.4 million in 2006.²¹ Very few of the public health program areas have kept pace with Georgia's ongoing population surge.

²⁰ Information technology was not a focus of our review, but the health districts do not use standardized IT systems – there are three major systems and numerous "ad hock" systems in use around the state.

US Census Bureau, Georgia Quick Facts: http://quickfacts.census.gov/gfd/states/13000.html

Estimated Impact on County Operations and Services

To determine how future GGIA funding will impact county operations, the evaluation team conducted interviews with district and county staff. The purpose of these interviews was to estimate how a slight increase or decrease in GGIA would impact operations.

The team asked the health district staff to differentiate between small and large health departments to account for the disproportionate impact of GGIA funding relative to the health department size. Figure 2.3 summarizes the most common answers.

	Decrease ~10%	Level GGIA Funding	Increase ~10%
Large Metro	 Staff reductions Severely limit access to some core services Decrease partnerships in the community 	 Partial hiring freeze Limit access to some core services Stop "extra" activities – Example: Full service dental clinic closure 	 Maintain staff and service levels Possible expansion in some programs
Small Rural	 Staff reductions and smallest departments might close Significant core service reductions 	 Staff reductions Limit access to some core services Decrease partnerships in the community 	 Prevent most of the staff reductions Maintain current level of service

Source: Governor's Office of Planning and Budget, 2007

In addition, a survey of the county health department nurse managers indicated that nearly 40 percent of the health departments are holding positions vacant to address funding constraints or considering the possibility of further reducing staffing levels during the next two fiscal years. Interviews with health district financial staff indicate in many county health departments, there will be continuing staff reductions, even if GGIA funding remains level.

To identify the recent changes related to funding or staffing reductions, the 159 county health department nurse managers were asked to list program areas where reductions in funding or staffing have resulted in a decrease in number of clients served.²² The results of this survey are displayed in Figure 2.4.

²² 73.2% of the respondents were from health departments with 25 or fewer employees, and 122 of 159 county nurse managers responded to the survey.



Source: Governor's Office of Planning and Budget, 2007

Although we believe that the recent decreases in GGIA may be a significant contributor to many of these caseload reductions, our interviews in the health districts indicate these decreases in service levels have resulted from a variety of factors, including the following:

- A decreased demand for the service;
- Decreased program funding for the service;
- Private providers who now perform these functions under the CMO model; and,
- GGIA-related staffing reductions that limit the number of clients that could otherwise be seen or treated.

Impact of the County Government Financial Resources

Variations in the relative size and wealth of counties in Georgia result in different outcomes for any operational or funding decision.²³ Consequently, funding or operational decisions will impact a county with over 100 employees differently than counties with fewer than five employees. Funding decreases tend to affect disparate counties in a varying manner. For example, a wealthy county health department generally will reduce activities in an area unrelated to the MA, while a relatively poor health department may lay off a staff member involved in the primary functions listed in the MA.

²³ As previously noted, lead counties have employees that provide district-wide services. Consequently, the district's lead county's staffing levels are somewhat inflated.

Thirty-three county health departments have five or fewer employees (21%), and 22 departments have 50 or more employees (14%).^{24 25} Figure 2.5 categorized the 159 health departments into four groupings based upon the number of employees. The largest number of departments is classified within the more limited staffing size categories (137).





Source: Department of Human Resources, Division of Public Health, August 2007

The differences in demographic makeup and size will result in any standardized or statewide financial or operational decisions having a different impact on each grouping of counties. Thus, operational and program changes that work well in large departments may result in unintended and possibly suboptimal outcomes in smaller health departments.

²⁴ Filled positions as of August 23, 2007 – Source Division of Public Health

²⁵ A number of counties share nurses and environmentalists through contracts; this is not reflected in our employee counts. The shared nurse or environmentalist is listed under the county that employees them.

Other County Board of Health Funding Issues

Since GGIA acts as a supplement to the entire county health department, a discussion of the GGIA impact should include the funding challenges that counties have faced over the years. In FY 2007, the Georgia implemented a Care Management Organization (CMO) structure for Medicaid clients. The CMO model is designed to decrease expenditures associated with Medicaid. Accordingly, this new reimbursement process has resulted in lower revenue for county health departments as Figure 2.6 indicates.



Figure 2.6

Source: Public Health District Administrative Offices

A detailed discussion of issues resulting from the transition to managed care under the CMO model is beyond the scope of this evaluation, but four factors impacting county health department revenue can be considered as follows:

- 1. Lower reimbursements for services performed, resulting in an ongoing loss of revenue.
- 2. Services no longer reimbursable, also resulting in an ongoing loss of revenue.
- 3. Late registration of health departments as providers, representing a one-time loss in FY 2007.
- 4. Increased operating cost associated with billing CMOs, causing ongoing costs to increase.

The result is an overall reduction in non-programmatic funds available to support the operations of the county health departments, and an impact to both services and revenue. This represents a major change for county health departments.

The Office of Planning and Budget and the Division of Public Health should form an inclusive team to develop a new GGIA fund distribution methodology; and, this project team should include representation from all 18 districts.

This effort should focus on balancing statewide and county needs to develop a coordinated system capable of achieving state and county policy goals. The team should work to develop a sustainable and equitable fund distribution methodology for county health departments. A team effort that included the districts, counties, and a private consultant worked exceptionally well in developing a public health cost allocation model in 2004.²⁶ One of the stated benefits of this effort was better cooperation and communication between the central office, districts, and the counties.

The distribution methodology based on population and relative wealth developed in 1967 was unable to adequately address the wide demographic variations in Georgia. Small and poorer health departments serving relatively few citizens over a wide geographic area were at risk of closure due to limited funding. Consequently, a variety of alternatives should be considered, including the possibility of dividing the counties into tiers based upon their financial resources.

Extreme difference in the size and scope of the 159 county health departments will result in any "one size fits all" financial or operational decisions to impact counties in different ways. This can result in unintended suboptimal outcomes for some county health departments. Consequently, all funding and operational decisions impacting county Boards of Health should fully account for this disproportionate influence on health departments. The development of an alternative funding method should consider the following:

- Ensure all districts are included on the team in an effort to provide a balance between state and county needs and perspectives.
- Hire a consultant with experience in public health management and finance.
- Fully address the impact on statewide policy and local health departments.
- Consider the impact of any funding decision on the public health system's disaster surge capacity.
- Review the county match requirement to determine whether this should reward counties who appropriate more funding, or provide an incentive for counties to increase their funding levels.
- Determine whether counties and districts should be rewarded for efficiently managing resources and maximizing revenue as an incentive to economize.
- Continue the public health cost study effort to capture the cost of providing the various services and functions in the Master Agreement.
- Identify relevant performance measures, and tie them to health outcomes, workload, and funding.

To adequately address county health department funding, it is important to determine the cost of providing a unit of service in the various program areas included in the Master Agreement. Accurate cost data will also allow the state, district, and local offices to develop agreed upon workload and performance expectations to improve accountability.

²⁶ Local Public Health Cost Study in Georgia, Journal of Public Health Management Practice, 2004, pages 400-405.

Review the Effectiveness of Perinatal Case Management under the CMO Model.

The Perinatal Case Management (PCM) program identifies Medicaid eligible pregnant women, and assists them in finding a prenatal care provider, nutrition services, and other services that help ensure a healthy birth outcome. A public health nurse makes monthly visits to ensure that the individualized plan is being followed, and that the client keeps her prenatal appointments. The nurse conducts follow-up visits for up to 60 days after birth to ensure the client has a postpartum check-up, and that the newborn is linked to well-child care, immunizations, and WIC services.

Public health is no longer being reimbursed for the PCM function. District staff indicated CMOs are managing these cases in-house, with most cases now being managed by phone rather than the home visiting provided by public health nurses. While case management via telephone may be adequate for other population groups, interviews indicated phone contacts for this Medicaid client group may not be adequate to ensure full-term healthy births. Many of the clients do not have stable addresses or phone contact information.

Analyzing this program in depth was not possible during this initial evaluation, but it appears the area merits further review. Consequently, a study could be conducted in this area to determine whether the potential exists of an increase in suboptimal birth outcomes such as premature births and low birth weights. Infant mortality and morbidity rates are critical indicators of the health of a population, and reflect a complex mix of factors that shape the health of mothers, newborns, and infants.

We would like to acknowledge the staff members that contributed to this paper.

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In addition, staff members from the central office in Atlanta and all 18 health districts contributed a significant amount of time and effort to this evaluation.