Mississippi State Department of Health

Fiscal Years 2017- 2021

Strategic Plan

Prepared in Accordance with the
Building a Better Mississippi Instructions
August 2015

Mississippi State Department of Health

Mission Statement

The Mississippi State Department of Health mission is to promote and protect the health of the citizens of Mississippi.

Agency Philosophy

The MSDH strives for excellence in government, cultural competence in carrying out its mission, and local solutions to local problems. The MSDH identifies its values as applied scientific knowledge, teamwork, and customer service.

Relevant Statewide Goals and Benchmarks

Statewide Goal #1: Protect Mississippians from risks to public health and provide them with the health-related information and access to quality health care necessary to increase the length and quality of their lives.

The Mississippi State Department of Health administers more than 200 programs, providing a broad range of services. Programs addressed in this plan include:

- Health Services – made up of Maternal and Child Health, which works to reduce maternal and infant mortality and morbidity, and Preventive Health, which collaborates with many other agencies and organizations to improve environments and policies that support and reinforce healthful behaviors and practices across the life span;
- Health Protection – made up of Environmental Health, which regulates the public water supply, food service and processing establishments, onsite wastewater disposal systems, and other areas of environmental concern to help prevent adverse health effects from environmental hazards, and Mississippi's Trauma Care System, which is a coordinated system to ensure that patients with traumatic injuries are transported as quickly as possible to the hospital most appropriate for their injury;
- Communicable Disease, which works to reduce the rate of premature death and the spread of various diseases;
- Tobacco Control, which administers programs designed to decrease the use of tobacco among youth and adults in Mississippi;
- Public Health Emergency Preparedness and Response, which develops and tests plans and procedures to respond to any public health threat or emergency;
- Primary Care Development, which helps to assure access to primary care services for underserved areas of the state; and
- Local Governments and Rural Water Systems Improvements Loan Program and Emergency Loan Program, which uses grants from the federal Environmental Protection Agency to offer low-interest loans to public water systems to help them achieve and maintain compliance with federal and state Safe Drinking Water Acts.

In addition, the agency operates such programs as WIC (Women, Infants, and Children), which provides supplemental foods to eligible women and children up to age five; Early Intervention, which provides services for children with disabilities from birth to age three to prepare them to enter the educational system; and Licensure programs, which work to assure that emergency medical services, designated health care facilities, child care facilities, and certain types of practitioners meet minimum standards and comply with state and federal laws and regulations.

As the MSDH continues to evaluate all of its programs and services, along with needs in the state as a whole and its communities, additional goals and objectives will be developed and existing ones affirmed based on priorities identified through the multi-year strategic planning process discussed in the following section.

Statewide Goal #2: Protect the public's safety, including providing timely and appropriate responses to emergencies and disasters.

The Mississippi State Department of Health Office of Emergency Preparedness and Response, while focusing on public health threats and emergencies, also coordinates with the Mississippi Emergency Management Agency and integrates its efforts with federal, state, local, and tribal governments; the private sector; and non-governmental organizations. Activities are based on and support the National Response Plan, the National Incident Management System, and the Homeland Security Exercise and Evaluation Program. Use of these systems ensures that all entities required to respond to a mass casualty event are equipped and prepared to do so. The program provides technical assistance, training, and exercises to ensure the response capabilities for regional, district, and local response teams as well as the Governor's State Emergency Response Team. Measures for the MSDH Office of Emergency Preparedness and Response are included under Statewide Goal #1.

Overview of Strategic Plan

In 2014, the Mississippi State Department of Health began the first-ever State Health Assessment to determine the state's greatest health needs. This year-long process was a collaborative effort that engaged more than 19,000 residents, public health professionals, and community partners across the state. The assessment provided insights on the health and quality of life of Mississippians and is the basis for *Building a Healthier Mississippi*, the first-ever statewide health improvement plan being developed during 2015.

Through this process, MSDH is seeking to encourage and stimulate quality and performance improvement, promote greater accountability and transparency, identify opportunities, evaluate the allocation of resources, enhance relationships within Mississippi's communities and with other organizations, and increase cooperation and collaboration with other agencies and organizations. A State Health Assessment and Improvement Committee (SHAIC) is advising and assisting MSDH throughout the process and is now developing a State Health Improvement Plan, to be completed during 2015, that will lay out a comprehensive roadmap for improving the health of Mississippians over the next five years. A revised Mississippi State Department of Health Strategic Plan based on priorities identified during the assessment process will then be developed.

As the health assessment and planning processes are ongoing, the strategic direction of the agency must be in sync with the current community environment that affects health in the state. While Mississippi public health has provided safety net services in clinics for decades, including prenatal care, family

planning, well baby care, and STD services, and plans to continue doing so, MSDH must also look to engaging communities outside the walls of the clinic. Community engagement in health and the inclusion of health as a consideration in all policies, both locally and statewide, can provide a healthy environment to allow healthy choices to be more easily made.

Primary prevention of chronic diseases will require that community engagement, and MSDH will facilitate community changes to improve health. While this primary prevention strategy is evidence-based and will affect health in the long term, it will take decades to reverse the trends that have led to Mississippi's high rates of chronic disease and to see changes in the death rates due to or even incidence of these chronic diseases. Short term and intermediate term goals will have to include objectives related to the risk factors associated with chronic diseases, such as rates of appropriate exercise and tobacco use.

In conjunction with this effort, MSDH plans to implement a performance management system to measure its progress toward meeting targeted goals and objectives. Quality improvement initiatives will address areas of need as they are identified.

These activities are part of the MSDH's steps toward accreditation by the national Public Health Accreditation Board, which is an effort to improve and protect the health of the public by advancing the quality and performance of the nation's public health departments. Achieving accreditation will document that MSDH meets the standards included in each of 12 domains and is a multi-year process.

The Department is realigning its resources along federal grant requirements and reimbursement philosophies of the Mississippi Division of Medicaid, which has switched to a managed care system that does not support services currently provided by the Department. Because of these changes, the Department must refocus its effort to population-based public health preventive services and regulatory activities. Future requests from the Department will be more focused to address salary inequities for staff who perform these functions and the authority to set regulatory fees to rates that cover the services.

One priority of great concern is Mississippi's infant mortality rate, which remains higher than the national average. The Legislature has provided $1 million in state general funds to address the most pertinent drivers of infant mortality: prematurity, Sudden Infant Death Syndrome and sleep-related death, tobacco use in pregnancy, interconception care, and low breastfeeding rates. These funds will add to funds from Title V, the Centers for Disease Control Preventive Health block grant, and grants received from the Association of Maternal and Child Health Programs to address infant mortality. MSDH intends to maintain an ongoing effort to reduce infant mortality with these funding sources and is focusing on several evidence-based strategies, in a collaborative effort between the public and private sector.

External/Internal Assessment

Numerous factors may influence the agency's ability to reach its goals and objectives. MSDH is strongly affected by changes in federal and state laws, regulations, and funding. As MSDH funding is from many sources, and only 11% of the budget is from the state general fund, activities are often driven by funding stream requirements, regardless of the state needs and priorities. In addition, the agency must respond to changes in the health care system, an arena that remains volatile.

During 2014 the MSDH, along with numerous partners, conducted a comprehensive statewide assessment of the health and social wellbeing of Mississippians and the issues affecting our public health system. The

assessment was a collaborative effort that engaged a diverse range of public health partners, stakeholders, and residents.

The Assessment consisted of four parts: (1) a Health Status Assessment through an epidemiological analysis of demographic, social, and health indicators from a variety of data sources; (2) a State and Community Themes and Strengths Assessment through a statewide survey, community conversations, and focus groups; (3) a Forces of Change Assessment through an advisory council comprising experts, stakeholders, and representatives across the state public health system; and (4) a State Public Health System Assessment through dialog from over 100 representatives of government, business, academic institutions, health care providers, and a variety of community-based, non-profit, and advocacy organizations.

The Assessment has resulted in the identification of priority issues in a public health *system*-focused approach rather than an agency-focused approach. Its purpose is a shared understanding of health and quality of life issues, a common vision for a healthy future, and a collective investment in implementing strategies to address priority issues.

The following represent a summary of major external factors that the Department must consider in its planning:

Demographic

- High poverty and unemployment rates, creating greater demands for public services
- Very rural population, creating transportation and service delivery problems
- Low education levels in the general population
- Poor local tax base; diminishing state dollars
- Increasing Spanish-speaking population

Health Status

- High mortality and morbidity rates
- High rates of behavioral risk factors
- High teen birth rates

Service Delivery System

- Increased attention to bioterrorism and other public health threats and emergencies
- Maldistribution of health care providers, especially physicians
- Shortages of nurses and other health care providers
- Lack of Community Health Centers statewide
- Uncertain third party and federal reimbursement levels
- Continuing excessive cost increases in the medical care arena: staff, equipment, and contractual items
- Changes in standard medical practice and malpractice insurance concerns
- Changes in program operations and practices mandated by state and federal legislation

Internal Management

Quality improvement is an essential part of the agency's accreditation process and will be an ongoing effort to ensure that concepts of quality improvement are a permanent part of all MSDH activities. It will ultimately include the practice of actively using performance data to evaluate how well programs are meeting established targets and standards.

The MSDH has established a Quality Improvement Council and drafted a Quality Improvement Plan to guide the development, implementation, monitoring, and evaluation of cross-divisional efforts to build a culture of continuous quality improvement through the agency. It provides a framework for an ongoing effort to achieve measurable improvements in the efficiency, effectiveness, performance, accountability, outcomes, and other indicators of quality in services or processes which achieve equity and improve the health of the community.

As a part of performance management and quality improvement, plans are under way to evaluate and revise the MSDH process to monitor program and service delivery activities carried out by local health departments within the centralized organizational structure. Activities will include all dimensions of the agency – counties, districts, programs, disciplines, and related or support units. The desired result is a continuous improvement in the quality of services delivered to the state's citizens.

In addition, state audit and federal program reviews are a significant part of the agency's operations. These reviews assure compliance with federal rules and regulations, as well as quality and performance standards.

Complaints from the public or from staff are relayed to the MSDH Office of Field Services for investigation. Coordination with other offices is planned as required by the nature of the complaint. A written report is filed on each complaint received.

In addition, Internal Audit staff conduct financial, compliance, electronic data processing, and operational and efficiency audits of the agency. Internal Audit staff also evaluate internal controls over accounting systems, administrative systems, electronic data processing systems, and all other major systems to ensure accountability. Internal Audit is independent of the Department of Health; the Internal Audit director is hired by and reports directly to the State Board of Health.

Program Plans

Program 1: Health Services

Sub-Program: Maternal and Child Health

Goal A: Reduce maternal and infant mortality, morbidity, and low birthweight through prenatal and postnatal care; reduce the incidence of unplanned pregnancies; provide assistance to children with special health care needs; and minimize the effects of genetic disorders through early detection and timely medical evaluation, diagnosis, and treatment. [MS Code 1972 Annotated §41-3-15, 41-42-1, 41-21-201, 41-21-203; U.S. Code 106-354, and MCH federal block grant]

Objective A.1: Reduce maternal and infant mortality and morbidity and ensure access to comprehensive health services that affect positive outcomes for women through risk-appropriate prenatal care.

Outcome: Infant mortality rate (infant deaths per 1,000 live births)

Outcome: Incidence rate of low birthweight births (less than 5 pounds, 8 ounces)

Outcome: Percentage of women who received prenatal care in the first trimester

Outcome: Percentage of live births delivered prior to 37 weeks of gestation

A.1.1. Strategy: Serve as a "safety net" provider of prenatal care for pregnant women, particularly those in high-risk categories, by offering maternity services through county health departments, targeting women whose income is at or below 185 percent of the federal poverty level.

Output: Number of maternity patients served

Output: Number of maternity visits by type of health care professional: nurse, physician, nurse practitioner, social worker, nutritionist, field nursing visits

Efficiency: Cost per maternity clinic visit (lab work not included)

A.1.2. Strategy: Continue the Perinatal High Risk Management/Infant Services System (PHRM/ISS) to help decrease premature birth, low birthweight, and infant mortality, as well as counsel on birth spacing and work toward healthy pregnancies and beginning of life outcomes. PHRM/ISS provides enhanced services to Medicaid-eligible pregnant/postpartum women with high-risk pregnancies and infants at high risk for health problems. Services include case management; home visits; nursing, psychosocial, and nutritional counseling; and health education provided through a multi-disciplinary team of a nurse, social worker, and nutritionist.

Output: Number of PHRM/ISS maternity patients served and number of professional visits received

Output: Number of PHRM/ISS infant patients served and number of professional visits received

Efficiency: Cost per patient for PHRM/ISS monthly case management

Objective A.2: Prevent unintended pregnancies and reduce the incidence of teenage pregnancy.

Outcome: Teenage birth rate age 15-19 years (live births per 1,000 women age 15 to 19)

Outcome: Births to unmarried women as a percentage of total live births (age-adjusted)

A.2.1. Strategy: Work through county Health Department clinics and other local providers under contract with MSDH to maximize and improve the delivery of high quality, evidence-based family planning and related preventive services such as medical exams, education, and counseling (including abstinence) and to ensure that a broad range of acceptable and effective family planning methods are available to clients in the target population (low-income individuals ages 13-44, with priority given to sexually active teenagers [19 and younger] at or below 100% of the federal poverty level).

Output: Number of unduplicated Comprehensive Reproductive Health Program users

Output: Number of teen Comprehensive Reproductive Health Program users (19 years of age or younger)

Output: Number of family planning waiver clients served by MSDH

Efficiency: Average cost per patient enrolled in Comprehensive Reproductive Health

Efficiency: Percentage of program funds used for providing comprehensive reproductive health services

A.2.2. Strategy: Increase awareness of and promote the availability of family planning services to the priority population through use of social marketing, promotional strategies, teen focus groups and conferences, and community outreach, as well as educational presentations and materials to the priority population and to providers and community partners who provide services to this population.

Output: Number of providers and community partners receiving education on evidence-based Comprehensive Reproductive Health strategies and program services

Output: Number of Comprehensive Reproductive Health educational materials distributed through local providers and community partners

Efficiency: Average cost per Comprehensive Reproductive Health educational material distributed through local providers and community partners

Objective A.3: Prevent premature death and undue illness through early detection and treatment of breast and cervical cancer.

Outcome: Female breast cancer incidence rate per 100,000 population (age-adjusted)

Outcome: Rate of female breast cancer deaths per 100,000 population (age-adjusted)

Outcome: Cervical cancer incidence rate per 100,000 population (age-adjusted)

Outcome: Rate of cervical cancer deaths per 100,000 population (age-adjusted)

A.3.1. Strategy: Use federal funding and non-profit funds to contract with providers to screen eligible women through mammography, clinical breast exams, pelvic exams, and Pap smears, and provide diagnostic testing and treatment for women whose screening exams reflect abnormalities. (Eligible women are those with incomes below 250% of the federal poverty level who are uninsured or under-insured, age 50-64 for mammograms and 40-64 for cervical screenings.)

Output: Number of providers contracted to deliver mammography services

Output: Number of providers contracted to deliver breast and cervical cancer screening services

Output: Number of women screened for breast or cervical cancer

Output: Number of women referred to Medicaid for treatment of breast or cervical cancer

Output: Number of breast biopsies

Output: Number of cervical biopsies

Output: Number of colposcopies

Output: Number of breast and cervical cancer prevention education programs conducted

Efficiency: Cost per screening mammogram

Efficiency: Cost per colposcopy/cervical biopsy

Efficiency: Percentage of women with abnormal breast findings who received complete follow-up services and diagnosis within 60 days of screening

Efficiency: Percentage of women with a diagnosis of breast cancer who received treatment within 60 days

Efficiency: Percentage of women with abnormal cervical findings who received complete follow-up services and diagnosis within 90 days of screening

Efficiency: Percentage of women with a diagnosis of cervical cancer who received treatment within 90 days

Objective A.4: Reduce morbidity and mortality of Mississippi newborns with genetic disorders through early detection and treatment, accompanied by counseling and appropriate referrals.

Outcome: Percent of newborns screened
(Number diagnosed with a genetic disorder)

Outcome: Percentage of newborns with positive and inconclusive genetic screens who received recommended follow-up

A.4.1. Strategy: Use program fees to contract with laboratory to conduct screening tests and provide training to newborn screening submitters (hospital staff and public health nurses); identify infants with disorders and provide follow-up for evaluation, diagnosis, and treatment.

Output: Number of newborns screened for genetic disorders

Output: Number of genetic screens with positive or inconclusive results

Efficiency: Cost per newborn genetic screening

Efficiency: Percentage of newborns who received a repeat genetic screen due to inadequate or rejected specimens

Sub-Program: Preventive Health

Goal B: Promote healthy lifestyles through population and evidence-based interventions including policy, systems, and environmental changes in worksites, schools, and diverse community settings at the local and statewide level. [MS Code 1972 Annotated §41-3-15 (5) (a); Preventive Health and Health Services Block Grant; CDC 1305: State Public Health Actions to Prevent and Control Diabetes, Heart Disease, Obesity and Associated Risk Factors, and Promote School Health (CDC-RFA-DP13-1305)]

Objective B.1: Implement population and evidenced-based interventions to reduce the incidence, complications, and burden of such diseases as diabetes and cardiovascular disease.

Outcome: Percentage of population diagnosed with diabetes

Outcome: Premature death rate due to cardiovascular disease (death less than 75 years, per 100,000 population)

B.1.1. Strategy: Increase access to and promote the use of programs in community settings to help people prevent and manage diabetes and other chronic diseases:

Lifestyle Change Programs (for the primary prevention of Type 2 Diabetes);

"*Motivated to Live a Better Life*", a Stanford licensed Chronic Disease Self-Management Program for people living with a long-term health condition, and Diabetes Self-Management Program for people living with diabetes, along with their family member or caregiver;

Education courses for Certified Diabetes Educators to teach diabetes self-management to others in the community.

Output: Number of Lifestyle Change Programs implemented in the community

Output: Number of Chronic Disease Self-Management Program and Diabetes Self-Management Program workshops conducted

Output: Number of Certified Diabetes Educator preparation courses conducted

Efficiency: Cost per patient enrolled in Lifestyle Change Program

Efficiency: Cost per participant of Chronic Disease Self-Management and Diabetes Self-Management Program workshops conducted

Efficiency: Cost per participant enrolled in Certified Diabetes Educator preparation course

B.1.2. Strategy: Increase use of quality improvement processes, such as electronic health records to manage high blood pressure, among health care providers (federally qualified community health centers, rural health clinics, and private practices); increase use of team-based/multi-disciplinary care for patients with high blood pressure.

Output: Number of training sessions conducted for healthcare providers on how to effectively use electronic health records to manage high blood pressure

Output: Number of training workshops on team-based care/multi-disciplinary approach to treating patients with high blood pressure

Efficiency: Cost per healthcare provider trained on the effective use of electronic health records to manage high blood pressure

Objective B.2: Reduce the obesity rate among adults in Mississippi.

Outcome: Percentage of adults who are obese (defined as a Body Mass Index of 30 or more, regardless of sex)

Outcome: Adult compliance with recommended levels of aerobic physical activity (percentage of adults who report participating in 150 minutes or more of aerobic physical activity per week)

B.2.1. Strategy: Provide technical assistance to state agencies on establishing a worksite wellness committee.

Output: Number of active state agency worksite wellness committees

Efficiency: Average time spent providing technical assistance to state agency worksite wellness committees

B.2.2. Strategy: Provide training and technical assistance for schools and community sites to formalize shared-use agreement policies with an emphasis on physical activity.

Output: Number of shared-use agreement policies in schools and community sites that enhance opportunities for physical activity within these sites

Efficiency: Average time spent providing technical assistance to schools and communities to implement shared-use agreement policies that enhance opportunities for physical activity within these sites

Objective B.3: Reduce deaths and disabilities that occur as a result of non-use or incorrect use of a child restraint device in the event of a motor vehicle crash.

Outcome: Deaths of persons ages 0-4 years by motor vehicle injuries (number of deaths and rate per 100,000 population per year)

Explanatory: MSDH has a small grant aimed at increasing the use of child safety seats, but no programs or funding to address other causes of death, such as unintentional injuries, homicide, and suicide.

B.3.1. Strategy: Distribute child safety seats; conduct one-on-one training with parents, guardians, or other individuals on best child passenger safety practices; and conduct checkpoints for the correct usage of child safety seats.

Output: Number of child safety seats inspected at child safety checkpoints

Output: Number of child safety seats distributed

Efficiency: Average time to inspect child safety seats at child safety checkpoints

Efficiency: Cost per child safety seat

Program 2: Health Protection

Goal A: Prevent adverse health effects from environmental hazards that can spread disease. [MS Code 1972 Annotated §41-26-1 – 103 and 42 U.S.C. § 300(f) et seq]

Objective A.1: Assure that public water supplies routinely provide safe drinking water to the citizens of Mississippi.

Outcome: Percentage of Mississippi population receiving water from a public water supply

Outcome: Percentage of Mississippi population receiving water from a public water supply which has had no water quality violations of the Safe Drinking Water Acts in the past year.

A.1.1. Strategy: Annually survey/inspect all community public water supplies to eliminate operational and maintenance problems that may potentially affect drinking water quality.

Output: Number of public water systems surveyed/inspected annually:
Community systems
Non-transient non-community systems
Transient non-community systems

Efficiency: Cost per unit for water system surveys/inspections

Efficiency: Percentage of water systems surveyed/inspected

A.1.2. Strategy: Monitor drinking water quality for compliance with Safe Drinking Water Acts.

Output: Number of water quality samples analyzed for compliance with Safe Drinking Water Acts (SDWA):
Microbiological
Radiological
Chemical

Efficiency: Percentage of acute water quality violations corrected within five days

Efficiency: Percentage of non-acute water quality violations corrected within 90 days

A.1.3. Strategy: Negotiate with consulting engineers on the final design of engineering plans and specifications for all new or substantially modified public water supplies.

Output: Number of reviews of engineering plans and specifications for new or modified public water supply projects

Efficiency: Cost per unit for review of engineering plans and specifications

Efficiency: Percentage of engineering plans and specifications reviewed and commented on within 10 working days of receipt

A.1.4. Strategy: Enforce standards through issuing mandatory boil water notices when necessary and assisting public water systems with voluntary boil water notices.

Output: Number of "Boil Water Notices" issued on public water systems: State issued, Self imposed, and State assisted

Efficiency: Cost per boil water notice issued

Efficiency: Percentage of boil water notices issued within 24 hours of sample results or receipt of a request

A.1.5. Strategy: Certify water works operators to ensure operation of the water supply in compliance with Safe Drinking Water Acts.

Output: Total number of certified water works operators
Number of new certified operators
Number of recertifications issued

Efficiency: Cost per water works operator certification

Efficiency: Percentage of community public water supplies with an MSDH-certified operator

A.1.6. Strategy: Provide training to water works operators.

Output: Total number of training sessions conducted by MSDH staff for water works operators

Efficiency: Cost per water works operator training session

Goal B: Improve the oral health of Mississippians through the proven preventive strategy of community water fluoridation. [MS Code 1972 Annotated §41-26-2]

Objective B.1: Increase the proportion of Mississippi's population receiving optimally fluoridated water.

Outcome: Percentage of Mississippi population receiving optimally fluoridated water

B.1.1. Strategy: Encourage and assist communities to adjust the fluoride content that occurs naturally in a community's water to the best level for preventing tooth decay.

Output: Number of public water systems that implemented a new water fluoridation program

Output: Number of training presentations conducted by MSDH staff on water fluoridation

Efficiency: Percentage of public water systems that fluoridate or have naturally optimal fluoride levels

Goal C: Assure that trauma patients arrive at the facility most appropriate for the treatment of their injury as quickly as possible. [MS Code 1972 Annotated §41-59-5 and State Trauma Plan]

Objective C.1: Transfer trauma patients from initial receiving hospitals to higher levels of care as rapidly as possible.

Outcome: Transfer time (in minutes) from Level III and IV Trauma Centers to appropriate facilities for treatment

Strategy: C.1.1: Audit Trauma Registry records annually for Levels I-III trauma centers (including pediatric and burn centers) to ensure accuracy and completeness of data.

Output: Number of trauma records audited annually

Efficiency: Cost of Trauma Registry audit per facility

Strategy: C.1.2: Conduct initial and recurring training for at least one Trauma Registrar from each reporting hospital annually.

Output: Total number of trauma registrars from reporting hospitals receiving training

Efficiency: Cost per quarterly trauma registrar training session

Program 3: Communicable Disease

Goal A: Reduce the morbidity and premature mortality due to communicable diseases among Mississippians. [MS Code 1972 Annotated §41-23-1 – 41-23-5]

Objective A.1: Reduce the number of outbreaks of reportable diseases by implementing appropriate disease interventions to prevent further spread of secondary cases.

Outcome: Number of cases of mosquito-borne illness (West Nile virus) and associated number of deaths

Explanatory Note: While MSDH provides public information regarding the current occurrence of cases in the state and how to prevent the disease, and this assists in assuring that individuals participate in prevention activities such as using mosquito repellent and getting rid of standing water in which mosquitoes may breed, there is no state funding for mosquito control programs, which are the mainstay of prevention in communities with ongoing West Nile virus transmission. In addition, as West Nile virus illness has been in this country for more than 10 years now, the occurrence in humans in any given year is more affected by the epidemiology of the virus in birds and other hosts than on public health intervention.

Outcome: Number of outbreaks of food-borne illness (salmonella) and case rate per 100,000 population

A.1.1. Strategy: Conduct disease surveillance and investigation on reported cases and target prevention messages to public.

Output: Number of mosquito-borne illness reports (West Nile virus) received and investigated

Efficiency: Costs of mosquito-borne illness (West Nile virus) per case investigated (estimated staff time plus cost of test)

Explanatory: MSDH does not have funding for a mosquito-control program; efforts are directed to disease surveillance and public awareness and prevention messages.

A.1.2. Strategy: Analyze and conduct surveillance of food-borne illness reports for potential outbreak to prevent further spread.

Output: Number of food-borne illness (salmonella) case reports investigated

Efficiency: Costs of food-borne illness (salmonella) per case investigated (estimated staff time plus cost of test)

Objective A.2: Reduce the incidence of TB in Mississippi.

Outcome: Number of Tuberculosis cases per year and case rate per 100,000 population

A.2.1. Strategy: Conduct surveillance and investigation of TB cases and suspects, provide treatment and follow-up through completion of therapy, conduct investigation of exposures, and provide treatment for those found to be infected.

Output: Number of newly-reported verified tuberculosis (TB) cases starting therapy

Output: Number of contacts identified to verified smear-positive TB cases

Output: Number of newly-reported tuberculosis infection patients starting therapy

Output: Number of TB suspects

Efficiency: Percentage of newly-reported verified tuberculosis (TB) cases who completed therapy

Efficiency: Percentage of identified contacts to verified smear-positive TB cases who are evaluated

Efficiency: Percentage of newly-reported tuberculosis infection patients who completed therapy

Explanatory Note: A TB case is someone with active TB disease; this person can be infectious and requires multi-drug antibiotic therapy for at least six months. A person with tuberculosis infection is not infectious to others and needs preventive antibiotic therapy to prevent progression to active TB.

Objective A.3: Reduce the prevalence and incidence of sexually transmitted disease among Mississippians.

Outcome: Number of new cases of Chlamydia and case rate per 100,000 population per year

Outcome: Number of new cases of Primary and Secondary Syphilis and case rate per 100,000 population per year

Outcome: Number of new cases of Gonorrhea and case rate per 100,000 population per year

A.3.1. Strategy: Interrupt the natural course of STDs in individuals and communities by (1) detecting and preventing new infections through comprehensive epidemiology; (2) interviewing and counseling; (3) screening at-risk populations for asymptomatic STD infections and ensuring that all positive laboratory tests are followed and adequately treated; (4) implementing educational programs directed towards people at risk for STDs; and (5) ensuring that uniform standards of health care are available to all persons in both the public and private medical communities.

Output: Number of MSDH patients screened for Gonorrhea and Chlamydia using DNA technology

Output: Number of STD diagnostic, treatment, and follow-up services (nursing encounters only)

Efficiency: Percentage of new primary and secondary syphilis cases interviewed within 14 days of specimen collection

Efficiency: Percentage of new primary and secondary syphilis contacts treated within 14 days of interview

Objective A.4 Reduce the incidence of HIV Disease in Mississippi, and assist in the provision of care and services to people living with HIV Disease.

Outcome: Number of new cases of HIV Disease and case rate per 100,000 per year

A.4.1. Strategy: Reduce HIV infection rates by conducting surveillance activities; providing counseling, testing, referral, and partner notification services; and implementing culturally-competent strategies to modify risk-associated behaviors. Administer funds provided by Part B of the Ryan White CARE Act for care and services to people living with HIV Disease.

Output: Number of HIV antibody screening tests conducted by MSDH

Output: Number of persons served by AIDS Drug Program

Efficiency: Average cost of AIDS Drug Program per person served (affected by patient rotation)

Efficiency: Percentage of HIV partner notification reports completed and returned within 14 days

Efficiency: HIV Contact Index (number of contacts named divided by number of original patients)

Objective A.5: Eliminate morbidity and mortality due to vaccine-preventable diseases in children, adolescents, and adults.

Outcome: Number of reported cases of vaccine-preventable communicable diseases and case rates per 100,000 population: Hepatitis A, Measles, Mumps, Pertussis

Outcome: Rate of two-year children fully immunized (National Immunization Survey: 4:3:1:3:3:1:4 series, age 19 to 35 months)

Explanatory: The CDC and the National Immunization Survey report the immunization rates of children ages 19 to 35 months old as a key benchmark because recommended vaccinations for two year olds may be administered as appropriate at any time during this time frame.

This objective depends in large part upon the continuation of the current Mississippi immunization law (Miss. Code Ann. § 41-23-37), which allows for the provision of vaccine exemptions for medical reasons, but does not allow religious (found to be unconstitutional in 1979) or philosophical exemptions for immunizations required for school. The current law is very much supported by the scientific evidence regarding the safety and efficacy of vaccines.

Outcome: Adolescent immunization rates (age 13 to 17 years), by recommended vaccine: [meningococcal, combined tetanus, diphtheria, and pertussis (Tdap), human papillomavirus (HPV) (females)]

Explanatory: Tdap became a required immunization for students entering seventh grade beginning with the 2012-2013 school year. Meningococcal and HPV are not currently required immunizations for Mississippi adolescents.

A.5.1. Strategy: Monitor immunization levels, administer vaccinations, distribute education and informational materials, enforce immunization laws, and administer the Vaccines for Children program (VFC). This federally-funded program supplies vaccines to VFC-enrolled public and private providers to immunize eligible children at no cost who might not otherwise be immunized because of a family's inability to pay.

Output: Doses of vaccine administered (includes all vaccines administered in MSDH clinics)

Output: Number of providers enrolled in Vaccines for Children Program

Efficiency: Cost per child of age-appropriate immunizations administered for children 19 to 35 months of age

Efficiency: Cost per adolescent of age-appropriate immunizations administered for adolescents 13 to 17 years of age

Program 4: Tobacco Control [MS Code 1972 Annotated §41-113-1 – 41-113-11]

Goal A: Reduce the prevalence of tobacco use among youth and adults in Mississippi.

Objective A.1: Refine and implement a statewide comprehensive tobacco education, prevention, and cessation program in accordance with the CDC's "*Best Practices for Comprehensive Tobacco Control Programs*" as periodically amended.

Outcome: Percentage of current smokers among public middle school students

Outcome: Percentage of current smokers among public high school students

Outcome: Percentage of current smokers among adults 18 years and older

A.1.1 Strategy: Establish and support tobacco-free coalitions in each Mississippi county to implement evidence-based programs consistent with CDC's "*Best Practices for Comprehensive Tobacco Control Programs*".

Output: Number of counties with tobacco-free coalitions implementing evidence-based programs consistent with CDC best practice guidelines

Efficiency: Per capita funding for community interventions (MS Tobacco Control Program Fund)

A.1.2 Strategy: Support organizations that provide tobacco cessation services to Mississippians.

Output: Number of unduplicated individuals who contacted Office of Tobacco Control (OTC)-funded tobacco cessation treatment programs

Output: Number of unduplicated individuals who have completed the intake process for OTC-funded tobacco cessation treatment programs

Efficiency: Per capita funding for cessation interventions (MS Tobacco Control Program Fund)

Program 5: Public Health Emergency Preparedness and Response

Goal A: Ensure readiness for any public health threat or emergency at the state and local/regional levels. [MS Code 1972 Annotated §41-3-15 (5) (a); §319-C-1 and 319-C-2, U.S. Public Health Service Act as amended by the Pandemic and All-Hazards Preparedness Act of 2006; Presidential Directive 8]

Objective A.1: Establish, maintain, and test plans and procedures to protect Mississippians in the event of natural or human-caused disasters.

Outcome: Mississippi's score on the National Health Security Preparedness Index overall and by domain: health surveillance, community planning and engagement, incident and information management, healthcare delivery, countermeasure management, and environmental and occupational health.

Explanatory: The Office of Public Health Emergency Preparedness and Response does not utilize the National Health Security Preparedness Index as a means of measuring its performance. While the Index provides an overall score for the state, along with individual scores for domains, the individual measures which lead to these scores require data from sources outside of the MSDH and include numerous indicators that are not part of MSDH. CDC and ASPR (Office of the Assistant Secretary for Preparedness and Response) verify that certain performance measures contained in grants funded by these agencies are met each year; however, these measures do not receive scores.

Outcome: Mississippi's score on CDC's Technical Assistance Review of Mississippi's Strategic National Stockpile Plan (of possible 100)

Explanatory: The CDC did not conduct the Technical Assistance Review in FY 2015 and is changing this measure to a Medical Countermeasure Operational Readiness Review for 2016. The new scoring method has not yet been announced.

Outcome: Time required for command staff to report to Emergency Operations Center in response to a natural or man-made disaster

A.1.1. Strategy: Review and update emergency operation plans of licensed medical facilities and MSDH emergency preparedness plans and procedures according to established schedule.

Output: Number of licensed medical facility emergency operation plans and MSDH emergency response plans and procedures reviewed and updated

Efficiency: Percentage of emergency preparedness and response plans and procedures reviewed and approved

A.1.2. Strategy: Provide technical assistance, training seminars, workshops, and exercises to improve processes for mass dispensing efforts of Strategic National Stockpile (pharmaceutical supplies) during an incident.

Output: Number of emergency preparedness and Strategic National Stockpile (pharmaceutical supplies) training sessions

Output: Number of personnel trained to provide mass prophylaxis to the citizens of Mississippi in an emergency

Output: Number of Cities Readiness Initiative training sessions (number of people trained)

Output: Number of Closed Points of Dispensing pre-identified to provide mass prophylaxis during an event (thus increasing the speed of dispensing prophylaxis to all citizens)

Efficiency: Percentage of population able to receive mass prophylaxis in closed points of dispensing rather than open points of dispensing during an incident (thus reducing the number of citizens in the general population standing in line to receive prophylaxis and increasing the speed of dispensing to all citizens)

Explanatory: This measure is significant because Closed Points of Dispensing (PODs) provide their own staff to dispense prophylaxis. Without the pre-arranged closed PODs, MSDH would need 80 additional open PODs, requiring staff of 250 each, to serve the same number of people.

A.1.3. Strategy: Maintain a statewide volunteer program to support health care organizations with medical preparedness and response to incidents and events.

Output: Number of volunteers registered and credentialed in Mississippi Responder Management System to provide additional support when resources at the local and state resources are limited during an incident

Efficiency: Average cost savings to the state per staff person per day by using volunteers pre-registered and credentialed in Mississippi Responder Management System to support local resources during an incident versus using paid staff

A.1.4. Strategy: Plan for the shelter needs of at-risk populations with special medical needs during a time of disaster.

Output: Number of pre-identified shelters to house individuals with special medical needs requiring specialized care not obtainable in a general population shelter during an incident and number of people these shelters would be able to house

Efficiency: Average cost savings to the state per individual with special medical needs served in a specialized shelter versus hospitalization during an event

A.1.5. Strategy: Conduct National Incident Management System and Homeland Security Exercise and Evaluation Program preparedness exercises annually and respond to real-world incidents as necessary; evaluate response and complete after-action report as required by CDC.

Output: Number of National Incident Management System and Homeland Security Exercise and Evaluation Program preparedness exercises conducted and real-world incidents responded to

Efficiency: Average time required to produce after-action report improvement plan following an exercise or real-world emergency response

Program 6: Administrative and Support Services

Goal A: Help assure access to primary care services for underserved areas of the state. [MS Code 1972 Annotated §41-3-15 (5) (a)]

Objective A.1: Assist underserved communities to increase the number of primary care, dental, and mental health providers.

Outcome: Number of Health Professional Shortage Areas designated: primary care, dental, and mental health

Outcome: Number of entire counties designated as Health Professional Shortage Areas for primary care, dental, and mental health

Outcome: Percentage of Mississippi population living in an area designated as a Health Professional Shortage Area for primary care, dental, and mental health

Outcome: Number of practitioners needed to remove health professional shortage areas, by type of practitioner: primary care, dentists, and core mental health professionals

Explanatory: Health Professional Shortage Area (HPSA) designation reviews are conducted to assist the federal government with directing resources to areas of greatest need. HPSA designation qualifies an area for various federal resource incentives, including a 10% Medicare bonus payment for primary care providers, loan repayment programs through the National Health Service Corps, and site approval for J-1 Visa Waiver physicians.

Outcome: Number of approved National Health Service Corps sites

Explanatory: National Health Service Corps designation provides incentives to help attract physicians, such as federal loan repayment programs.

A.1.1. Strategy: Conduct annual health professional shortage area designation (HPSA) updates.

Output: Number of Health Professional Shortage Area designation reviews conducted: Primary Care, Dental, and Mental Health

Efficiency: Percentage of HPSA designation reviews completed by federal deadline (a calendar date that changes annually)

Explanatory Note: The federal Health Resources and Services Administration (HRSA) suspended HPSA reviews during the reporting period as HRSA transitioned to a new Shortage Designation Management System. HRSA also required states to submit a plan for updating HPSAs over the next three years. The plan submitted by the Primary Care Development office proposed to update one-third of the HPSAs each year. HRSA automatically designates all 21 Federally Qualified Community Health Centers as a HPSA; they do not receive a designation review.

A.1.2. Strategy: Coordinate physician recruitment incentive programs to increase the number of health care professionals in areas of need, including the recruitment of physicians for these areas.

Output: Number of National Health Service Corps site applications processed

Output: Number of J-1 Visa Waiver applications reviewed

Output: Number of National Interest Waiver applications processed

Output: Number of health care professionals placed in areas of need: Primary Care, Dentists, and Core Mental Health Professionals

Efficiency: Percentage of National Health Service Corps site applications processed within 21 days as required by federal Health Resources and Services Administration

Efficiency: Percentage of J-1 Visa Waiver physician placements completed within 180 days

Efficiency: Percentage of J-1 Visa and National Interest Waiver applications approved by U.S. Department of State

Program 7: Local Governments and Rural Water Systems Improvements Loan Program and Emergency Loan Program

Goal A: Ensure that the construction and maintenance of Mississippi's drinking water infrastructure is able to occur in a cost-effective manner to meet the needs of citizens and ensure reliability and sustainability of the state's public water systems. [MS Code 1972 Annotated §41-3-16 and 41-26-1 through 41-26-101; PL 104-182 (federal Safe Drinking Water Act, Section 130 Amended 1996); CFDA 66.468; and 40 CFR Parts 31 and 35 and Subpart L]

Objective A.1: Maintain a financially sound loan program; provide loan funds under an approved scoring system to meet drinking water needs as rapidly as funds allow in order of public health importance.

Outcome: Percentage of MS water systems (receiving funding during the given year) that were able to maintain compliance with Safe Drinking Water Act requirements as a result of low interest loan

Outcome: Percentage of MS water systems (receiving funding during the given year) that corrected a compliance deficiency as a result of low interest loan

Outcome: Estimated amount of money saved (during the given year) by public water systems as a result of low interest rate versus market rate

A.1.1. Strategy: Provide loans, on a priority basis, to public water systems that are required or desire to make significant capital improvements to protect public health by complying with the federal and state Safe Drinking Water Acts and provide technical assistance to public water systems through federal set-asides in the loan program.

Output: Number of improvement loans made to public water systems

Output: Number of emergency loans made to public water systems

Output: Total amount of loan awards

Output: Number of water systems receiving technical assistance

Efficiency: Percentage of loan documents received and commented upon within 10 working days

Efficiency: Percentage of available federal capital funds used for water system loans

Efficiency: Percentage of funds given to small water systems (those serving populations of 10,000 or less – federal benchmark of at least 25%)