

## **NATIONAL CENTER FOR EMERGING AND ZOOONOTIC INFECTIOUS DISEASES (CVL)**

The National Center for Emerging and Zoonotic Infectious Diseases (NCEZID) works to prevent and control a broad range of infectious diseases through public leadership, partnerships, science, and systems. In carrying out these activities, NCEZID: (1) Works collaboratively across CDC and with external partners to conduct, coordinate, support, and evaluate public health efforts to prevent and minimize morbidity and mortality due to infectious diseases, promoting a One Health approach involving the interface of animal, human, and environmental factors; (2) develops, evaluates, and advances science, programs, management, and operations toward meeting the agency's infectious disease-related mission and goals; (3) conducts epidemiologic and laboratory science and applied research aimed at identifying risk factors and disease burdens and developing and implementing public health programs, practices, and policies for infectious disease prevention and control; (4) works with domestic and global partners to provide technical and subject matter expertise in responding to outbreaks and in establishing, maintaining, and evaluating disease control and prevention programs; (5) supports a broad range of cross-cutting and collaborative programs aimed at enhancing public health capacity at the local, state, and national levels; (6) works to improve the quality and safety of healthcare through efforts to reduce healthcare associated infections and antimicrobial resistance and to ensure the safety of medical products, including vaccines; (7) conducts activities to improve the safety of food and water and reduce related enteric illnesses; (8) administers a national quarantine program to prevent U.S. importation and spread of infectious diseases; (9) works with CDC colleagues and external partners to improve public health preparedness at the local, state, and national levels; and (10) works to increase public health prevention efforts for populations at increased risk for infectious diseases. (Approved 7/9/2010)

### Office of the Director (CVL1)

(1) Provides leadership in developing, prioritizing, advancing, and evaluating the center's science, programs, management, and operations toward meeting agency mission and goals; (2) advises the CDC Director and Deputy Director for Infectious Diseases on priority issues affecting the center; (3) identifies and facilitates synergies within NCEZID, across CDC, and with external partners for addressing emerging and zoonotic infectious diseases domestically and globally; (4) enhances collaborations and partnerships across multiple disciplines, including human and animal health; (5) provides leadership, guidance, and technical assistance on policy and communication issues affecting the center; (6) serves as liaison with CDC counterparts, CDC/OD, other government agencies, and external partners on policy, program, legislative, communication, and budgetary issues related to NCEZID; (7) recruits and supports a strong center-wide workforce and builds leadership at the division and branch levels; (8) ensures that programmatic goals are achieved with measurable impact; and (9) ensures effective administrative services for NCEZID as well as effective cross-cutting scientific and program services for all CDC's infectious disease national centers. (Approved 09/20/2016)

## Division of Foodborne, Waterborne, and Environmental Diseases (CVLB)

The mission of the Division of Foodborne, Waterborne, and Environmental Diseases (DFWED) is to improve public health nationally and internationally through the prevention and control of disease, disability, and death caused by foodborne, waterborne, and environmentally-transmitted infections. In carrying out its mission, DFWED: (1) Conducts surveillance, investigations, and studies of foodborne bacterial diseases, waterborne bacterial and parasitic diseases, and mycotic diseases to define disease etiology and develop effective methods for diagnosis, prevention, and control; (2) conducts or participates in clinical, field, and laboratory research to develop, evaluate, and improve laboratory methodologies, materials, and therapeutic practices used for environmental detection, diagnosis, treatment, investigation, and control of foodborne bacterial diseases, waterborne bacterial and parasitic diseases, and mycotic diseases; (3) fosters and coordinates environmental microbiology research activities at CDC through the Environmental Microbiology Workgroup, partnerships, and advocacy activities to promote research on preventing infectious disease transmission from the environment to humans; (4) provides epidemic aid and epidemiologic consultation, upon request, to state and local health departments, other federal agencies, and national and international health organizations; (5) provides reference/diagnostic services for foodborne bacterial diseases, waterborne bacterial and parasitic diseases, and mycotic diseases to state and local health departments, other federal agencies, and national and international health organizations; (6) provides scientific and technical assistance to other CDC components when the work requires unique expertise or specialized equipment not available in other components; (7) provides intramural and extramural technical expertise and assistance in professional training and proficiency testing activities; (8) serves as appropriately designated national and international reference centers for various foodborne bacterial diseases, waterborne bacterial and parasitic diseases, and mycotic diseases and disease groups; and (9) develops clear health promotion strategies, campaigns, and messages to promote prevention. (Approved 7/9/2010)

## Office of the Director (CVLB1)

(1) Directs and manages the programs and activities of DFWED; (2) provides leadership and guidance on policy, program planning and development, program management, and operations; (3) coordinates or assures coordination with the appropriate CDC and NCEZID offices on administrative and program matters; (4) reviews, prepares, and coordinates congressional testimony and briefing documents related to foodborne bacterial diseases, waterborne bacterial and parasitic diseases, and mycotic diseases, and analyzes programmatic and policy implications of legislative proposals; (5) represents CDC and NCEZID programs and prevention policies in meetings with governmental, private, and international organizations; (6) advises CDC and NCEZID on policy matters concerning DFWED programs and activities; (7) provides statistical methodology and participates in the DFWED's outbreak investigations and disease reporting systems for ongoing surveillance; (8) develops new methods or adapts existing methods for statistical applications in epidemiologic or laboratory research studies for the division; (9) provides statistical consultation for epidemiologic and laboratory research studies conducted by the division; (10) assists researchers with statistical aspects of report writing and prepares statistical portions of papers, protocols, and reports written by staff of the division, and trains division professional staff in statistical methods; (11) provides oversight for CDC involvement in the WHO Global Foodborne Infections Network and training in food, water, and

zoonotic infection control and prevention; and (12) provides subject matter expertise on environmental research, and promotes and coordinates related research activities at CDC and with collaborative partners. (Approved 7/9/2010)

#### Food Safety Office (CVLB13)

(1) Provides leadership in preventing and controlling foodborne illness by coordinating related activities within CDC and with other local, state, federal, and international organizations; (2) directs the activities related to development of long-term NCEZID, OID, and CDC strategies, policies, and budgets for foodborne disease prevention activities; (3) allocates and tracks interagency resources within CDC for foodborne disease surveillance, outbreak response, applied research, education and training; (4) administers and tracks resources for foodborne disease prevention and control activities of state and local health departments and other organizations; (5) represents NCEZID and CDC programs and prevention policies in meetings with governmental, non-governmental, private, and international organizations; (6) reviews, prepares, and coordinates congressional testimony and briefing documents related to foodborne diseases, and analyzes programmatic and policy implications of legislative proposals; and (7) provides direction and administrative support to the World Health Organization (WHO) Collaborating Center for Foodborne Disease Surveillance. (Approved 4/7/2014)

#### Enteric Diseases Epidemiology Branch (CVLBB)

(1) Conducts surveillance, investigation, analyses, and research on bacterial enteric diseases and provides consultations to state and local health departments, other federal agencies, and national and international health organizations on pathogens transmitted by food, water, and contact with animals or their environments, and from one person to another; (2) conducts surveillance for and analyses of summary data on outbreaks of acute enteric illness in the United States (U.S.); (3) devises methods and conducts analyses to measure the burden of and trends in bacterial enteric diseases, with a special focus on those transmitted by food; (4) devises methods and conducts analyses to attribute bacterial enteric illnesses to specific food commodities; (5) conducts surveillance, investigation, analyses, and research on antimicrobial resistance in bacterial enteric organisms, including measurements of trends; (6) performs studies to determine risk factors for, and host and etiologic agent factors related to, bacterial enteric diseases; (7) coordinates and collaborates in national and international enteric disease surveillance, training, and studies; (8) coordinates the investigation and control of enteric diseases with other CDC groups and with other U.S. federal and local government agencies, state health departments, and foreign health agencies; (9) participates with other CDC groups, state health departments, regulatory agencies, industry, and other groups in determining and assessing the effectiveness of prevention strategies for acute bacterial enteric diseases; (10) provides training to Epidemic Intelligence Service (EIS) officers, fellows, students, staff, and visiting scientists from the United States and abroad; (11) prepares and disseminates health communication materials on the prevention of acute bacterial enteric diseases; and (12) provides information and expert advice to policy makers about bacterial enteric diseases and their acute and long-term health effects. (Approved 7/15/2010)

### Enteric Diseases Laboratory Branch (CVLBC)

(1) Provides expert identification and laboratory-based disease surveillance activities for agents of foodborne and diarrheal diseases; (2) supports enteric pathogen identification and characterization at the state, federal, and international levels through reference identification, consultation, and training; (3) develops, validates, and implements new or improved methods for enteric pathogen identification and characterization; (4) maintains expertise in microbiology, molecular biology, immunology, and microbial pathogenesis of organisms that cause foodborne and diarrheal diseases; (5) provides expert identification, laboratory-based disease surveillance, and outbreak investigation activities for agents of botulism; (6) provides expertise in developing and validating new methods to enhance U.S. laboratory capacity for preparedness and response to bioterrorism events involving Botulinum toxins; (7) conducts laboratory surveillance and provides epidemic aid and consultation on the investigation of foodborne and diarrheal diseases occurring naturally in outbreaks or as a result of acts of bioterrorism; (8) develops, evaluates, and implements enteric pathogen subtyping methods for cluster identification and for facilitating the identification of sources of foodborne and diarrheal disease outbreaks; (9) establishes and maintains libraries of DNA ‘fingerprints’ of enteric pathogens to facilitate early recognition and investigation of foodborne disease outbreaks; and (10) coordinates, collaborates, and provides expertise in regional, national, and international surveillance studies of foodborne and diarrheal disease including microbial source tracking and attribution of foodborne illnesses to specific food types. (Approved 7/15/2010)

### Outbreak Response and Prevention Branch (CVLBD)

(1) Provides epidemic aid, investigation, analysis, and consultation on foodborne and diarrheal diseases outbreaks to state and local health departments, other federal agencies, and national and international health organizations; (2) coordinates Enteric Diseases OutbreakNet, a national network of epidemiologists and other public health officials who investigate outbreaks of foodborne, waterborne, and other enteric illnesses in the U.S.; (3) coordinates the OutbreakNet Sentinel Sites program, which works with health departments to improve detection of and response to foodborne disease outbreaks and improve collaboration between federal, state, and local partners during foodborne disease outbreak investigations; (4) coordinates the investigation and control of enteric health problems with other CDC groups, and within other U.S. federal and local government agencies, state health departments, and foreign health agencies; (5) develops and evaluates prevention strategies for foodborne and waterborne diseases in consultation with regulatory agencies, the food industry, and other health agencies; (6) develops, evaluates, and supplies outbreak investigation tools and training materials for state and local health departments; (7) supervises EIS field investigations both domestically and internationally; (8) provides training to EIS officers, fellows, students, and visiting scientists from the U.S. and abroad; (9) prepares and disseminates health communications materials on the control and prevention of foodborne and diarrheal diseases outbreaks; and (10) provides information and expert advice to policy-makers and regulatory authorities on the control and prevention of foodborne and diarrheal diseases outbreaks. (Approved 7/15/2010)

### Waterborne Disease Prevention Branch (CVLBE)

(1) Identifies, tracks, and assesses risk factors, causes, and sources of water, sanitation, and hygiene (WASH)-related disease; (2) provides assistance with outbreak investigation and

emergency preparedness; (3) develops appropriate sampling, detection, tracking, and assessment methods for clinical, water, and other environmental specimens; (4) develops and evaluates methods for pathogen inactivation or removal; (5) develops, monitors, and evaluates existing and new public health interventions; (6) develops clear health promotion strategies, campaigns, and messages; (7) provides partners with technical and capacity building assistance; and (8) collects data for public health policy development and evaluation. (Approved 7/15/2010)

#### Mycotic Diseases Branch (CVLBG)

(1) Conducts laboratory studies and provides epidemic aid, surveillance, and consultation on the control of emerging, reemerging, and opportunistic mycotic diseases; (2) provides reference and diagnostic activities for agents causing these diseases and for the identification of unknown mycotic isolates associated with human disease; (3) coordinates and collaborates in national and international studies and surveillance for mycotic diseases; (4) develops and evaluates methods for the diagnosis of emerging, reemerging, and opportunistic mycotic diseases; (5) develops, implements, and evaluates prevention strategies for these diseases; and (6) collaborates with other CDC Centers/Institute/Offices (CIO), NCEZID divisions, state and federal agencies in addressing reemerging mycotic diseases. (Approved 7/15/2010)

#### Division of Global Migration and Quarantine (CVLC)

(1) Administers a national quarantine program to protect the U.S. against the introduction of diseases from foreign countries and the transmission of communicable disease between states; (2) administers an overseas program for the medical examination of immigrants, refugees, and as necessary, other migrant populations destined for legal entry to the U.S., with inadmissible health conditions that would pose a threat to public health and impose a burden on public health and hospital facilities; (3) conducts surveillance, research, and prevention programs to prevent minimize morbidity and mortality among the globally mobile populations entering and leaving the U.S.; (4) maintains liaison with other federal agencies, state and local health departments, and other stake holders, and provides information on global migration and quarantine matters to them; (5) provides liaison with international health organizations and participates in the development of international agreements affecting quarantine; (6) evaluates and provides technical support on the development and enforcement of policies necessary for implementation of federal quarantine authority; (7) conducts studies to provide new information about health hazards abroad, measures for their prevention, and the potential threat of disease introduction into the U.S.; and (8) provides logistic support to other programs of the CDC in the distribution of requested biological agents and movement of biological specimens through U.S. ports of entry. (Approved 7/9/2010)

#### Office of the Director (CVLC1)

(1) Manages, directs, and coordinates the activities of the division; (2) provides leadership in development of division policy, program planning, implementation, and evaluation; (3) identifies needs and resources for new initiatives and assigns responsibilities for their development; (4) coordinates liaison with other federal agencies, state and local health departments, and interested industries; (5) coordinates liaison with international health organizations; and (6) reviews and evaluates all administrative services for both headquarters and quarantine stations and provides policy procedures and guidance on such matters. (Approved 7/9/2010)

### Quarantine and Border Health Services Branch (CVLCB)

(1) Develops and implements strategies to monitor for diseases of public health interest arriving persons, animals, cargo, and conveyances at ports of entry to the U.S. and its possessions; (2) evaluates and revises public health preparedness activities at airports, seaports, and land crossings in the U.S. and its possessions; (3) reviews operations to assure the effective application of scientific data in implementing programs to monitor the importation of quarantinable and other specified diseases; (4) develops and initiates surveillance and other public health activities at sea, air, and land ports of entry to the U.S. and its possessions; (5) trains and supervises field staff in the epidemiological, technical, management, and administrative aspects of quarantine operations; (6) works cooperatively with other agencies and organizations in the U.S. and abroad to implement, improve, and enhance division activities at ports of entry to the U.S. and its possessions; (7) provides technical consultation and public health training to federal inspection services to implement the division's activities, apply CDC regulations on quarantine, and ensure appropriate occupational safety and health protection for their staff; (8) collaborates with state and local health departments to prevent transmission and spread of quarantinable diseases and other diseases of public health significance associated with travel; (9) monitors arriving immigrants and refugees at ports of entry to the U.S. and its possessions and notifies state health departments on identified health conditions; (10) provides logistic support to other CDC programs and expedites the movement of persons, clinical specimens, lifesaving medications, and other materials through federal security; (11) serves as CDC's representative at U.S. ports of entry for operational issues related to bio security and emerging infections; and (12) administers Deratting Certification program.

(Approved 7/15/2010)

### Immigrant, Refugee, and Migrant Health Branch (CVLCC)

(1) Develops and maintains surveillance systems for infectious diseases among resettlement in the U.S.; (2) conducts infectious disease surveillance and epidemiological investigations in communities along the U.S.-Mexico border; (3) recommends appropriate, effective intervention, and prevention strategies to decrease morbidity and mortality among globally mobile populations and to prevent entry of disease into the U.S.; (4) performs epidemiologic investigations and scientific research projects related to health issues for immigrant, refugee, and migrant populations; (5) develops, reviews, and evaluates operations in the U.S. and abroad involving immigrant and refugee medical examination activities; (6) conducts enhanced refugee medical screening examinations; (7) responds to refugee resettlement emergencies; (8) conducts a continuing review of medical screening procedures to assure the most effective application of current medical practices; (9) administers and monitors activities related to the overseas and domestic medical examinations of immigrants and refugees, convening boards of medical officers to reexamine immigrants and refugees, when necessary, and preparing, publishing, and distributing manuals for examining physicians; (10) works cooperatively and in concert with other federal and international agencies, voluntary agencies, and foreign governments, both in the U.S. and abroad, in administering the immigrant and refugee medical screening program; (11) establishes, maintains, and evaluates medical inspection and notification procedures regarding immigrants and refugees, providing coordination and liaison with local and state health departments on the follow-up of those with serious disease or mental problems, in particular

notifiable diseases such as tuberculosis; (12) establishes and maintains procedures to process requests for waivers of inadmissible medical conditions; (13) provides scientific and technical support to the operation and regulatory responsibilities of the division; and (14) provides liaison and coordination of efforts with counterparts in other divisions and centers of CDC, as well as national and international agencies involved in addressing and preventing infectious diseases among globally mobile populations. (Approved 7/15/2010)

#### Geographic Medicine and Health Promotion Branch (CVLCD)

(1) Develops geographic-specific infectious disease risk profiles among mobile populations through the GeoSentinel Network; (2) coordinates and provides immunization data and recommends appropriate and effective intervention and prevention strategies to decrease morbidity and mortality among international travelers; (3) develops and issues vaccination documents and validation stamps in accordance with the International Health Regulations (IHR); (4) conducts surveillance for and assists in investigations of adverse events following administration of traveler vaccines; (5) alerts appropriate disease-specific CDC programs about possible imported cases of disease and supports the relevant program to investigate these events; (6) monitors and analyzes reports of health threats overseas and issues travel notices, alerts, and advisories when appropriate; (7) notifies the WHO of the incidence of quarantinable diseases in the U.S., as required by the IHR; (8) inspects shipments of nonhuman primates to ensure compliance with CDC regulations regarding quarantine, conditions of shipment and occupational safety and health of employees exposed to primates; (9) works to decrease the risk of importing zoonotic diseases of public health significance to humans via animals and cargo; (10) performs epidemiologic investigations and scientific research projects among U.S. travelers and imported animals; (11) periodically conducts active surveillance for infectious diseases among imported animals; (12) provides scientific and technical support to the operation and regulatory responsibilities of the division; and (13) provides liaison and coordination of efforts with counterparts in other divisions of CDC, state and local health authorities, the travel industry, as well as national and international agencies involved in addressing and preventing infectious diseases among international travelers and translocated animals. (Approved 7/15/2010)

#### Division of Healthcare Quality Promotion (CVLD)

Protects patients and healthcare personnel, and promotes safety, quality, and value in both national and international healthcare delivery systems. In carrying out its mission, Division of Healthcare Quality Promotion (DHQP): (1) Measures, validates, interprets, and responds to data relevant to healthcare-associated infections (HAI); antimicrobial use and resistant infections, sepsis, adverse drug events, blood, organ and tissue safety, immunization safety, and other related adverse events or medical errors in healthcare affecting patients and healthcare personnel; (2) investigates and responds to emerging infections, antimicrobial resistance, and related adverse events among patients and healthcare personnel; (3) develops and maintains the National Healthcare Safety Network (NHSN), a tool for monitoring healthcare-associated infections, antimicrobial use and resistance, measuring healthcare outcomes and processes, and monitoring healthcare worker vaccination and selected health measures in healthcare facilities; (4) assesses local, regional, national scope and burden of infections caused by resistant-bacteria in the U.S. through surveillance and special studies, review of national healthcare data sets, and laboratory surveillance programs; (5) conducts epidemiologic, and basic and applied laboratory research to identify new strategies to monitor and prevent infections/antimicrobial resistance, and related adverse events or medical errors, especially those associated with medical or surgical procedures, indwelling medical devices, contaminated products, dialysis, healthcare environment, and water; (6) collaborates with academic and public health partners to design, develop, and evaluate new

approaches to monitoring infections and the efficacy of interventions for preventing infections, improving antibiotic use, and reducing antimicrobial resistance, and related adverse events or medical errors; (7) develops and disseminates evidence-based guidelines and recommendations to prevent and control HAI, antimicrobial resistance (AR), and related adverse events or medical errors; (8) collaborates with Federal, state, and local public health and private partners to promote nationwide implementation of CDC guidelines and other evidence-based interventions to prevent HAI, antimicrobial resistance, and related adverse events or medical errors among patients and healthcare personnel; (9) evaluates the impact of evidence-based recommendations and interventions across the spectrum of healthcare delivery sites; (10) serves as the Designated Federal Official for the Healthcare Infection Control Practices Advisory Committee (HICPAC); (11) serves as the National Reference Laboratory for the identification and antimicrobial susceptibility testing of staphylococci, anaerobic bacteria, non-tuberculous mycobacterial, and those gram-negative bacilli causing healthcare-associated infections; (12) serves as the technical reference laboratory for detection and characterization of other pathogens related to healthcare, and for characterizing the contribution of the healthcare environment to HAI and antimicrobial resistant infections; (13) serves as a global resource for HAI, antimicrobial resistance, and device-associated HAI; (14) coordinates guidance and research related to infection control across CDC and with national and international partners; (15) monitors vaccine safety and conducts research to evaluate the safety of available and new vaccines; (16) trains EIS Officers and other trainees; (17) coordinates antimicrobial resistance activities at CDC; (18) works in a national leadership capacity with public and private organizations to enhance antimicrobial resistance prevention and control, surveillance and response, and applied research; (19) coordinates blood, organ, and other tissue safety at CDC; and (20) provides expertise and assistance to HHS, other Federal agencies, and global partners on efforts and activities related to safe healthcare. (Approved 9/20/2016)

#### Office of the Director (CVLD1)

(1) Manages, directs, and coordinates the activities of DHQP; (2) provides leadership and guidance on policy impacting patient and healthcare safety; (3) leads targeted patient safety communication campaigns coordinated with release of CDC surveillance data, infection control guidelines, research publications, and prevention tools; (4) fosters strategic partnerships with clinical professional organizations to advance implementation of CDC's recommendations and best clinical practices; (5) leads communication/media outreach to include social media platforms and CDC's patient and healthcare safety websites, (6) works with Federal agencies, international organizations, and other partners on activities related to safe healthcare; (7) coordinates state and local activities to monitor and prevent HAI and antimicrobial resistance; (8) coordinates activities related to infection control in healthcare and related settings including, guideline development and maintenance, interim guidance development, training, consultation, and international activities across DHQP, CDC, and with national and international partners; (9) coordinates DHQP activities and collaborates with the CDC EOC for emergency response to emerging infections in healthcare; (10) coordinates DHQP activities and collaborates with other CIOs and Federal agencies to prepare healthcare to respond to emerging threats; (11) oversees the quality of DHQP research activities and identifies research gaps; (12) leads CDC's activities on blood, organ, and other tissue safety; (13) represents CDC on the Advisory Committee on Blood Safety and Availability, and the Advisory Committee on Organ Transplantation; (14) works with other Federal agencies, state governments, and other public and private organizations to enhance blood, organ, and other tissue safety through coordination of investigation, prevention, response, surveillance, applied research, health communication, and public policy; (15) provides leadership and guidance for program planning and development, program management, and operations; (16) provides DHQP-wide administrative and program services, and coordinates or ensures

coordination with the appropriate CIOs and CDC staff offices on administrative and program matters including, budget formulation and execution, and human resource management; (17) oversees the coordination of Federal and state programs and new initiatives to prevent HAI and antimicrobial resistance; (18) interprets general program and administrative policy directives for implications on management and execution of DHQP's programs; (19) serves as lead, primary contact, and liaison with relevant CDC Staff Offices on all matters pertaining to DHQP's procurement needs and activities; (20) provides management and coordination for DHQP-occupied space and facilities including laboratory space and facilities; (21) provides oversight and management of the distribution, accountability, and maintenance of CDC property and equipment including laboratory property and equipment; (22) provides program and administrative support for HICPAC; and (23) advises the Director, NCEZID, on science, policy and communication matters concerning DHQP activities. (Approved 9/20/2016)

#### Antimicrobial Resistance Coordination and Strategy Unit (CVLD13)

(1) Oversees the coordination of AR activities at CDC to meet national goals; (2) represents CDC in interagency activities on AR including the President's Advisory Committee for Combatting Antibiotic Resistant Bacteria (PAC-CARB); (3) coordinates with other agencies, state governments, medical societies, and other public and private organizations to enhance AR prevention and control, surveillance and response, and applied research; (4) represents CDC at the Transatlantic Task Force on Antimicrobial Resistance (5) oversees CDC AR budget to implement AR activities as part of the Federal Action Plan to Combat Antibiotic Resistant Bacteria; (6) coordinates policies and communications associated to CDC-wide programs related to AR; (7) ensures coordination with appropriate CIOs and CDC staff offices on AR program matters, including budget formulation and execution; (8) provides updates and reports about CDC AR activities and progress to the CDC Director, HHS, and the White House; and (9) oversees coordination of CDC collaborations and new Federal initiatives to detect, respond and prevent antimicrobial resistance. (Approved 9/20/2016)

#### International Infection Control Activity (CVLD14)

(1) Leads, in collaboration with the appropriate CIO and CDC components, global health activities related to the prevention of HAI, antimicrobial resistance, and related adverse events or medical errors; (2) coordinates international efforts to establish and improve infection prevention and control policies, programs, and coordination; (3) assists countries to improve infection prevention and control capacity toward prevention and control of HAI disease outbreaks and device-associated HAIs; (4) collaborates with ministries of health, CDC country offices, and implementing partners, to develop country-specific national policies and action plans to reduce the global burden of antimicrobial resistance associated with healthcare delivery; and (5) provides technical assistance to partners in building antimicrobial resistance laboratory capacity and surveillance systems. (Approved 9/20/2016)

#### Clinical and Environmental Microbiology Branch (CVLDB)

(1) Leads national laboratory characterization of HAI-related threats in partnership with state and regional laboratories; (2) provides comprehensive laboratory support and expertise for investigations of recognized and emerging pathogens in healthcare settings, such as methicillin-resistant *S. aureus*, carbapenem-resistant Enterobacteriaceae (CRE), and *Clostridium difficile*; (3) provides laboratory response to outbreaks and emerging threats associated with infections/antimicrobial resistance and related adverse events throughout the healthcare delivery

system; (4) develops methods to assess contamination of environmental surfaces; (5) investigates novel and emerging mechanisms of antimicrobial resistance among targeted pathogens found in healthcare settings; (6) conducts research in collaboration with partners to develop new, accurate methods of detecting antimicrobial resistance in bacteria and to improve reporting of antimicrobial susceptibility test results to physicians to improve antimicrobial use; (7) conducts laboratory research to identify new strategies to prevent infections/antimicrobial resistance, related adverse events, and medical errors, especially those associated with invasive medical devices, contaminated products, dialysis, and water; (8) maintains capacity to evaluate commercial microbial identification, antimicrobial susceptibility testing systems and products, and facilitates their improvement to provide accurate patient test results; (9) investigates the role of biofilms, particularly those detected in indwelling medical devices and medical water systems, in medicine and public health, and identifies novel methods to eliminate colonization and biofilm formation on foreign bodies; (10) investigates the role of microbiome in the prevention of infections and antimicrobial resistance; (11) investigates the role of the water distribution systems in healthcare facilities in order to understand and prevent transmission of healthcare-associated infections due to water; and (12) provides expertise, research opportunities, training, and laboratory support for investigations of infections and related adverse events to other CDC CIOs and to our partners in areas related to quality clinical microbiology laboratory practices, investigation of emerging pathogens, and environmental microbiology. (Approved 9/20/2016)

#### Prevention and Response Branch (CVLDC)

Across the healthcare continuum, including acute, long-term, ambulatory, and chronic care settings: (1) develops, promotes, and monitors implementation of evidence-based recommendations, standards, policies, strategies and related educational materials to prevent and control HAI, and related adverse events, and healthcare personnel safety events associated with antibiotic resistance, device, and procedure associated infections, poor adherence to quality standards and safety, and emerging infectious diseases; (2) develops, promotes, and monitors implementation of and adherence to evidence-based recommendations, standards and related educational materials, policies and strategies to increase adherence to appropriate antimicrobial use and stewardship; (3) uses data from the National Healthcare Safety Network (NHSN) and other sources to target and improve the prevention and control healthcare-associated infections and antimicrobial resistance in the U.S. in specific regions, settings and institutions; (4) supports local, state, and national efforts to prevent HAI, antimicrobial resistance, and related adverse events by providing leadership and consultative services, including monitoring adherence to CDC-recommended practices; (5) provide leadership and epidemiologic support for the investigation, monitoring, and control of both recognized and emerging healthcare pathogens, including antimicrobial resistant bacteria; (6) leads response and control of outbreaks and emerging threats involving HAI and related adverse events, contaminated medical products and devices, and adverse drug events; (7) communicates the results of response activities with Federal and state agencies, healthcare providers, and the public, with recommendations to prevent similar adverse events in the future; and (8) provides leadership and expert consultation, guidance, and technical support to and collaborates with other CDC CIOs and divisions, other HHS Operating Divisions, and extramural domestic partners, on the epidemiology, prevention, and control of HAI, AR, and related adverse events; (9) implements state activities to prevent HAI and AR across healthcare; and (10) leads CDC activities to promote antimicrobial stewardship in all healthcare settings. (Approved 9/20/2016)

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### Surveillance Branch (CVLDD)

(1) Monitors and evaluates on the national level the extent, distribution, and impact of HAI, antimicrobial use and resistance, adverse drug events, healthcare worker safety events, and adherence to clinical processes and intervention programs designed to prevent or control adverse exposures or outcomes in healthcare; (2) provides services, including leadership, consultation, and analysis support, for statistical methods and analysis to investigators in the branch, division, and other organizations responsible for surveillance, research studies, and prevention and control of HAI and other healthcare-associated adverse events; (3) works with the Centers for Medicare and Medicaid Services and other partners to develop new metrics and support maintenance of National Quality Forum-approved metrics (4) collaborates with public and private sector partners to further standardize, integrate, and streamline systems by which healthcare organizations collect, manage, analyze, report, and respond to data on clinical guideline adherence, HAI, including transmission of multi-drug resistant organisms, and other HAI; (5) coordinates, further develops, enables wider use, and maintains NHSN to obtain scientifically valid clinical performance indices that promote healthcare quality and value at the facility, state, and national levels; (6) develops and implements new NHSN modules and provides enrollment and user support for NHSN; (7) improves surveillance systems by utilizing new technology; (8) generates and provides NHSN surveillance reports and analyses, which include collaborative analytic projects with partners; and (9) leads CDC's national adverse drug events surveillance activities and seeks to translate population-based surveillance data into evidence-based policies and targeted, innovative and collaborative interventions. (Approved 9/20/2016)

### Immunization Safety Office (CVLDE)

Assesses the safety of new and currently available vaccines received by children, adolescents and adults using a variety of strategies: (1) conducts ongoing surveillance for the timely detection of possible adverse events following immunization (AEFI) in collaboration with the Food and Drug Administration (FDA), through coordination and management of the Vaccine Adverse Event Reporting System, the national reporting system that acts as an early-warning system to detect health conditions that may be associated with immunization; (2) coordinates, further develops, maintains and directs activities of the Vaccine Safety Datalink (VSD), a collaborative effort with integrated healthcare organizations, to conduct surveillance and investigate possible AEFI to assess causality and determine risk factors; (3) conducts epidemiologic research on causality of AEFI using the VSD and other data sources, and provides national estimates of incidence of AEFI and background rates of health conditions; (4) leads the nation in developing biostatistical methods for research of AEFI using large linked databases and other data sources, and shares methods for use by other Agencies and public and private entities; (5) conducts clinical research to identify causes of adverse events after immunization, specific populations susceptible to specific adverse events, and prevention strategies through the Clinical Immunization Safety Assessment network, a national network of medical research centers, and other efforts; (6) applies findings from epidemiologic and clinical studies to develop strategies for prevention of AEFI; (7) provides global consultation and leadership for the development, use, and interpretation of vaccine safety surveillance systems, and for the development of shared definitions of specific health outcomes through participation in the Brighton Collaboration and other international organizations; (8) provides data for action to HHS, the Advisory Committee on Immunization Practices, the FDA's Vaccine and Related Biological Products Advisory Committee, Health Resources and Services Administration's Advisory Commission on Childhood Vaccines, and

collaborators around the globe including the WHO Global Advisory Committee on Vaccine Safety; and (9) provides timely, accurate communication and education to partners and the public on vaccine safety concerns. (Approved 9/20/2016)

#### Epidemiology Research and Innovations Branch (CVLDG)

(1) Identifies and evaluates the efficacy of interventions to prevent HAI and related adverse events or medical errors across the spectrum of healthcare delivery sites including acute and long-term inpatient care, dialysis, and ambulatory settings; (2) identifies gaps in HAI-related knowledge, and conducts prevention research through the Prevention Epicenters cooperative agreements program and Safety and Healthcare Epidemiology Prevention Research Development research contracts; (3) conducts and supports research and evaluates impact of public health practices to prevent HAI, antimicrobial resistance, and related adverse events; (4) improves methods and enables wider use of clinical performance measurements by healthcare facilities and public health entities for specific interventions and prevention strategies designed to safeguard patients and healthcare workers from risk exposures and adverse outcomes through collaborations with extramural partners; (5) conducts applied research to identify and develop innovative methods to detect and monitor HAI and antimicrobial resistance; (6) conducts special studies to identify key risk factors for and provides national estimates of targeted, healthcare-associated adverse events, antimicrobial use and resistance patterns, and the extent to which prevention and control safeguards are in use to protect at-risk patients across the spectrum of healthcare delivery sites; (7) develops new ways to assess the impact of HAI prevention programs; (8) conducts analysis of the return on investment and costs related to prevention efforts and impact of HAI prevention programs; and (9) works with the Emerging Infections Program (EIP) and other partners to identify emerging issues. (Approved 9/20/2016)

#### Division of High-Consequence Pathogens and Pathology (CVLE)

The Division of High-Consequence Pathogens and Pathology (DHCPP) maximizes public health and safety nationally and internationally through the diagnosis, prevention, and control of disease, disability, and death caused by suspected and known viral, bacterial, prion, and related infections. In carrying out its mission, DHCPP: (1) Conducts surveillance, investigations, and studies of viral and bacterial diseases, including bioterrorism agents, as well as of transmissible spongiform encephalopathies, or prion diseases, and severe diseases of unknown, but suspected infectious, etiology to define their etiology and epidemiology, and to develop effective methods for diagnosis, treatment, control, and prevention; (2) conducts or participates in clinical, field, and laboratory research to develop, evaluate, and improve laboratory methods, materials, and therapeutic practices used for diagnosis, treatment, control, and prevention of viral, bacterial, and prion diseases, including bioterrorism agents; (3) conducts research on virus and bacterial transmission to develop effective control and prevention strategies and on vaccine effectiveness to assess prevention potential; (4) conducts laboratory, clinical, and epidemiologic studies of highly hazardous disease agents that require biosafety level 3 or biosafety level 4 security for their safe handling; (5) conducts ecological studies to develop and evaluate disease control and prevention measures; (6) provides epidemic aid, epidemiologic consultation, reference and diagnostic services, and technical assistance to state and local health departments, other federal agencies, and national and international health organizations; (7) provides scientific and technical assistance to other CDC components when the work requires unique expertise or specialized equipment not available in other components; (8) provides routine and specialized laboratory

training in the diagnosis, isolation, and characterization of viral and bacterial agents to personnel from state and local health departments and other national and international organizations; (9) provides training opportunities for EIS officers and others in CDC sponsored programs, including postgraduate students, postdoctoral fellows, and other public health and laboratory scientists; (10) provides expert pathological support for various infectious diseases to other groups at CDC, state and local health departments, other Office of Infectious Diseases (OID) components, and national and international organizations; and (11) serves as appropriately designated national and WHO Collaborating Centers for viral and bacterial diseases. (Approved 7/9/2010)

#### Office of the Director (CVLE1)

(1) Directs and manages the programs and activities of DHCPP; (2) provides leadership and guidance on policy, program planning and development, program management, and operations; (3) coordinates or assures coordination with the appropriate CDC, OID, and NCEZID offices on administrative and program matters; (4) reviews, prepares, and coordinates congressional testimony and briefing documents related to high-consequence viral, bacterial, and prion diseases, and analyzes programmatic and policy implications of legislative proposals; (5) represents CDC, OID, and NCEZID programs and prevention policies in meetings with other governmental, private, and international organizations; (6) serves as CDC, OID, and NCEZID's primary internal and external communications contact regarding high-consequence viral, bacterial, and prion disease issues; and (7) advises CDC, OID, and NCEZID on policy matters concerning DHCPP programs and activities. (Approved 7/9/2010)

#### Prion and Public Health Office (CVLE12)

(1) Serves as the lead federal office for monitoring the occurrence of human prion disease in the U.S.; (2) conducts epidemiological investigations, studies, and multiple methods of surveillance to increase understanding of human prion diseases and selected diseases of unknown etiology (e.g., Kawasaki syndrome) for the purpose of informing disease control policies; (3) facilitates the study of brain autopsies by skilled pathologists of clinically diagnosed and suspected cases of human prion disease in the U.S. to enable early recognition of the emergence of any new prion disease (e.g., variant Creutzfeldt-Jacob Disease and possibly human chronic wasting disease); (4) provides prion disease consultations to clinicians, state and local health departments, other federal agencies, and national and international organizations, including epidemic aid support as needed; (5) disseminates information and advice to the public on preventing or reducing the negative public impacts of prion diseases and selected diseases of unknown etiology; (6) serves as a DHCPP statistical analysis unit, collaborating with and supporting studies, investigations, and surveillance activities of epidemiologists and laboratory researchers; (7) provides statistical consultations and collaborates with researchers on local, national, and international public health morbidity and mortality studies that require expertise in manipulating and understanding large public health datasets; and (8) provides statistical and epidemiologic training opportunities for EIS officers and other personnel in CDC sponsored programs. (Approved 7/9/2010)

#### One Health Office (CVLE13)

(1) Serves as the agency focal point and provides the programmatic home for activities on One Health, an integrated approach to optimizing human and animal health that considers the interrelatedness among humans, animals, and their environments; (2) builds and organizes a portfolio of One Health activities, plans, and accomplishments and leads the efforts to promote and accomplish the activities through NCEZID and CDC programs and partnerships; (3) builds

partnerships and facilitates collaboration both within and external to CDC; (4) manages and allocates NCEZID extra-budgetary resources from the Department of State/USAID, the Department of Defense/BTEP, the National Center for Environmental Health/Climate Change, and others, as appropriate; and (5) facilitates the exchange of information and enhances communication across disciplines by sponsoring visiting scientists and fellows, lectures, and meetings. (Approved 7/9/2010)

#### Viral Special Pathogens Branch (CVLEB)

(1) Provides epidemic aid and conducts epidemiologic studies on the detection, prevention, and control of highly hazardous viral diseases; (2) provides primary isolation, identification, and characterization of highly hazardous disease agents that require biosafety level 3 or biosafety level 4 laboratory conditions for their safe handling; (3) develops, evaluates, and improves methods for treatment, prevention, and laboratory diagnosis of hazardous disease agents; (4) conducts laboratory, clinical, and epidemiologic investigations on the pathogenesis, pathophysiology, and prevention of viral infections caused by highly hazardous viruses; (5) provides consultation on the clinical and epidemiologic management of suspected cases and/or epidemics of these diseases; (6) consults with national and international scientists on the design, staffing, and efficient operation of a high hazard pathogen laboratory program; (7) serves as a WHO Collaborating Center for Virus Reference and Research for Viral Hemorrhagic Fevers; and (8) develops and evaluates health education programs for educating the general public and health professionals about infection, treatment, infection control in clinical settings, prevention, and laboratory diagnosis of highly hazardous viral diseases. (Approved 7/15/2010)

#### Poxvirus and Rabies Branch (CVLEC)

(1) Provides epidemic aid, consultation, surveillance, and epidemiologic and/or ecologic investigations of poxvirus and rabies associated diseases both domestically and internationally; (2) conducts research studies on the microbiology, molecular biology, and pathogenesis of poxvirus and rabies infections; (3) provides reference/diagnostic services domestically and internationally; (4) develops, evaluates, and improves methods for diagnosing poxvirus and rabies associated diseases; (5) serves as one of two WHO Collaborating Centers for Smallpox and other Poxvirus Infections and as a WHO Collaborating Center for Reference and Research on Rabies; (6) provides consultation and laboratory training to state and local health departments, and other national and international organizations; (7) responds to requests for information and assistance regarding poxvirus and rabies associated diseases and their prevention, control, and treatment from CDC, health care providers, academic institutions, state and local health departments, other government agencies, and the general public; (8) collaborates with government agencies, domestic and international academic institutions, and the private sector in developing novel diagnostic assays and vaccines for poxvirus and rabies associated diseases; and (9) maintains the CDC Bioterrorism Laboratory for poxvirus response and research. (Approved 7/15/2010)

#### Infectious Diseases Pathology Branch (CVLED)

(1) Provides histopathology, molecular pathology, and ultra structure reference/diagnostic support and epidemic aid to state and local health departments, other federal agencies, and national and international health organizations; (2) collaborates with other CDC and non-CDC infectious disease laboratories to investigate outbreaks of infectious diseases of unknown etiologies and identify new pathogens; (3) develops, improves, evaluates, and applies special immunohistologic, ultrastructural, and/or nucleic acid probe technologies for detecting microbial agents and/or

expressed gene products in tissue specimens or tissue culture; (4) conducts basic and applied research into the pathogenesis of infectious diseases; (5) provides intramural and extramural technical and professional expertise for assistance in training in infectious disease pathology and molecular approaches to the identification of specific nucleic acid sequences and special antigens in tissue specimens; and (6) serves as the WHO Collaborating Center for Reference Pathology of Hemorrhagic Fevers and other Infectious Diseases. (Approved 7/15/2010)

#### Chronic Viral Diseases Branch (CVLEE)

(1) Conducts surveillance and hypothesis-driven clinical studies of chronic fatigue syndrome (CFS); (2) develops novel genomic and proteomic laboratory assays to be used in studies of CFS; (3) develops bioinformatics techniques to elucidate the pathophysiology of CFS and similar medically unexplained illnesses; (4) develops, executes, and evaluates medical and public education programs to decrease morbidity associated with CFS; (5) conducts laboratory-based epidemiologic studies of human papillomavirus (HPV) infection and cervical cancer to enable effective control and prevention; (6) conducts research concerning human immune responses to HPV, CFS, and other related unexplained or chronic illnesses; (7) develops, evaluates, and improves reagents/methods for rapid diagnosis of HPV, CFS, and other related unexplained or chronic illnesses; (8) provides epidemiology, molecular biology, bioinformatics, diagnostic serology/virology, and immunology consultation and collaboration to national and international organizations concerning control and prevention of CFS, cervical cancer, and related chronic or medically unexplained illnesses; and (9) provides expert assistance and consultation to national and international investigators and organizations regarding sequelae of viral infections. (Approved 7/15/2010)

#### Bacterial Special Pathogens Branch (CVLEG)

(1) Provides assistance in control of endemic and epidemics disease, and exploits opportunities to improve control and prevention of bacterial zoonotic diseases and mycobacterium infections other than tuberculosis; (2) provides subject matter expertise for preparedness and emergency response for anthrax, brucellosis, melioidosis, and glanders; (3) provides reference and diagnostic activities for agents causing these diseases and for the identification of unknown bacterial isolates associated with human diseases; (4) conducts laboratory research for improved laboratory identification and subtyping of bacterial zoonoses and identification of novel bacterial pathogens; (5) develops, implements, and evaluates domestic and international prevention strategies for these diseases; (6) maintains WHO Collaborating Centers for epidemiology and laboratory research of bacterial zoonotic diseases; and (7) collaborates with other CDC CIOs, NCEZID divisions, state and federal agencies, Ministers of Health, WHO, Pan American Health Organization, private partners and other governmental organizations involved in public health. (Approved 7/15/2010)

#### Division of Preparedness and Emerging Infections (CVLG)

The Division of Preparedness and Emerging Infections (DPEI) works to build and strengthen public health capacity by enhancing the ability of CDC and its public health partners to prepare for, prevent, and respond to infectious diseases, including outbreaks, bioterrorism, and other public health emergencies, through cross-cutting and specialized programs, technical expertise, and public health leadership. In carrying out these activities, the DPEI: (1) Advocates for CDC programs, health departments, and other partners on issues related to emerging infections, bioterrorism, and public health resources; (2) develops and implements infectious disease surveillance, laboratory, and capacity-building activities in collaboration with other CDC

programs and external partners; (3) works with infectious disease programs on processes for developing, awarding, managing, and evaluating infectious disease grants and cooperative agreements; (4) provides scientific and programmatic leadership, as well as management, administrative, and technical support for broad infectious disease cooperative agreements such as the Emerging Infections Program (EIPs) and the Epidemiology and Laboratory Capacity for Infectious Diseases (ELC) program; (5) collaborates across CDC and with national and international partners to address the scientific and response planning and preparedness issues for bioterrorism, emerging infections, and other infectious disease emergencies; (6) provides the agency's initial rapid response capabilities (including 24-hour on-call emergency response coordination and epidemiologic and laboratory support) for bioterrorism and other infectious disease public health emergencies; (7) conducts, supports, and evaluates activities aimed at identifying and reducing risk factors for infectious diseases among residents of the Arctic and Subarctic regions; (8) maintains primary responsibility for development and management of the nation's Laboratory Response Network (LRN), including supporting the development, deployment, and quality control of diagnostic reagents for the LRN laboratories; (9) defines and promotes good laboratory practice standards, including providing consultation and training and improving communication and collaborations among public and private sector laboratories nationally and internationally; (10) serves as a primary screening laboratory for CDC for specimens that may contain threat agents; (11) analyzes the economic impact of infectious diseases in collaboration with other CDC infectious disease programs and collaborators outside the agency; (12) leads and coordinates infectious disease fellowships and training programs; (13) provides technical assistance and training on biosafety/biosecurity and bioterrorism agent detection and response to internal and external partners, including assistance with related public health and law enforcement investigations and planning for high profile national and international events; and (14) assists in medical countermeasures response and utilization coordination. (Approved 7/9/2010)

#### Office of the Director (CVLG1)

(1) Manages, directs, and coordinates the activities of DPEI; (2) provides leadership and guidance on division policy, program planning, program management, and operations; (3) provides division-wide administrative and program services and ensures coordination with the appropriate CIO or staff offices on administrative and program matters; (4) provides liaison with other governmental agencies, international organizations, academic institutions and other outside groups; (5) ensures coordination of cross-cutting division activities with appropriate NCEZID divisions, the Office of Public Health Preparedness and Response, the Office of Surveillance, Epidemiology, and Laboratory Services (OSELS), and other CDC CIOs and offices; and (6) advises the NCEZID Director, the Deputy Director for Infectious Diseases, and leadership in other CDC units on division policy matters. (Approved 7/9/2010)

#### Arctic Investigations Program (CVLGB)

(1) Conducts, supports, and evaluates activities to improve the health of people of the Arctic and Subarctic regions, with special emphasis on infectious diseases of high incidence and concern among Alaska Natives and American Indians; (2) collaborates with programs across CDC; local, state, and tribal partners; the Indian Health Service; and other national and international partners in conducting infectious diseases surveillance, ensuring public health preparedness, providing

and evaluating prevention services, and conducting applied epidemiologic and laboratory research; (3) works with public health partners to eliminate health disparities among indigenous populations; and (4) provides leadership to improve health in the Circumpolar region. (Approved 7/15/2010)

#### Scientific and Program Services Branch (CVLGC)

(1) Facilitates appropriate cross-cutting collaborations and capacity-building programs across CDC's infectious disease centers, other CDC programs, and external partners such as state and local health departments; (2) provides program expertise, linkages, and evaluation for infectious disease informatics; (3) analyzes the economic impact of infectious diseases in collaboration with other CDC infectious disease programs; (4) leads and coordinates infectious disease fellowships and training programs; (5) serves as an advocate for health departments and other public health partners on issues related to infectious disease activities and resources; (6) provides scientific and programmatic leadership, as well as management, administrative, and technical support for broad infectious disease cooperative agreements such as the EIPs and the ELC program; (7) participates in the development of performance measurements for infectious diseases cooperative agreement programs; and (8) serves as a liaison/point of contact to assist grantees in identifying appropriate technical assistance from CDC personnel. (Approved 7/15/2010)

#### Emergency Preparedness and Response Branch (CVLGD)

(1) Provides 24/7 on-call support for public health threat assessments and alerts from federal bioterrorism agent environmental monitoring systems; (2) rapidly responds to bioterrorism events, public health threats, or infectious disease emergencies in collaboration with division and other agency clinical and laboratory partners and federal law enforcement partners; (3) provides coordination, management, and scientific support for acute response phases of infectious disease emergencies; (4) provides surveillance and response planning assistance to states and other partners through training, technical support, joint public health/law enforcement investigation strategies, and enhancements in surveillance tools; (5) provides subject matter expertise, recommendations and guidelines, and a scientific basis for CDC and national epidemiologic response protocols and surveillance methods; (6) assists in the development and maintenance of investigational new drug protocols and emergency use authorizations for vaccinations, treatments, and prophylaxis of selected bioterrorist agents; (7) assists in medical countermeasures response and utilization coordination including identification, prioritization, and monitoring of deployed countermeasures, and collaboration with subject matter experts in regulatory affairs, Strategic National Stockpile logistics and distribution, and information technology; (8) develops, updates, evaluates, and maintains response planning documents; (9) provides primary scientific input into the identification and prioritization of CDC biological agents of public health concern for bioterrorism; (10) assists in the development of response guidance for federally-managed environmental monitoring systems; (11) provides education and training to local, state, federal, and international partners on bioterrorism and infectious disease emergency response and surveillance; and (12) identifies and analyzes preparedness and response gaps in policies, technologies, and procedures for events involving biological threat agents. (Approved 7/15/2010)

### Laboratory Preparedness and Response Branch (CVLGE)

(1) Provides LRN strategic guidance, leadership, and operations support; (2) provides leadership for the development of national priorities and policies involving bioterrorism laboratory issues; (3) coordinates and/or develops and evaluates rapid testing capabilities to address detection gaps and enhanced or engineered (multi-drug resistant) agents in support of HHS and Department of Homeland Security threat priorities; (4) provides technical input for assay development for federally managed environmental monitoring systems and guidelines developed through U.S. government collaborations for the validation and use of environmental detection devices; (5) develops and disseminates LRN protocols for specimen handling and testing for bioterrorism agents; (6) produces and manages inventory of high-quality reagents available to LRN laboratories and expedites shipping of products to support emergency response needs; (7) develops and conducts diagnostic and biosafety training courses appropriate for laboratory workers at both Sentinel and Reference LRN levels; (8) implements a proficiency testing program for critical agents for LRN member laboratories; (9) evaluates and validates advanced technology for the identification and characterization of agents of bioterrorism and other emerging infectious diseases; and (10) provides laboratory triage capability at CDC for unknown biological and chemical agents. (Approved 7/15/2010)

### Division of Scientific Resources (CVLH)

The Division of Scientific Resources (DSR) provides products, services, and specialized expertise to CDC staff and activities in support of research and service activities: In carrying out its mission, DSR: (1) provides animals, laboratory supplies, animal and human blood products, glassware, mammalian tissue cultures, microbiological media, special reagents, and other laboratory materials in support of research and service activities to laboratories and investigators at CDC; (2) develops and implements applied research programs to expand and enhance the use of animal models necessary to support research and diagnostic programs and to improve breeding and husbandry procedures; (3) conducts applied research in cell biology and in the expansion of tissue culture technology as a research and diagnostic tool for infectious disease activities; (4) provides services for laboratory investigators in protein and DNA synthesis and sequencing, genomic sequencing, microarrays, proteomics, and molecular modeling; (5) maintains a bank of serum and other biological specimens of epidemiological and special significance to CDC's research and diagnostic activities; (6) obtains and distributes experimental and orphaned vaccines, drugs, antisera, antitoxins, and immune globulins; (7) manages and distributes the inventory, maintains the computerized system database, and provides general technical service support for the dispensing, lyophilizing, capping, and labeling of CDC reference reagents; (8) receives, triages, processes, and distributes specimens to CDC laboratories for reference diagnostic testing, research studies, and epidemics and reports diagnostic test results to submitting organizations; (9) manages all CDC exports and ensures compliance with regulations and serves as CDC liaison with the Department of Commerce for export related issues; (10) produces and distributes specialized reagents and kits for the detection of select agents to members of the Laboratory Response Network; (11) provides services and expertise in development of quality systems to support compliance with the Food and Drug Administration regulations on production, distribution, and use of laboratory diagnostic reagents; (12) provides liaison activities, resources, and expertise for inquiries related to animals and zoonotic diseases; and (13) provides a centralized activity for tracking requests for and distributing select agents to investigators outside of CDC in compliance with federal regulations. (Approved 10/06/2016)

### Office of the Director (CVLH1)

(1) Manages, directs, and coordinates the activities of DSR; (2) provides leadership and guidance on policy, budget, program planning and development, program management, and operations; (3) provides DSR-wide administrative and program services and coordinates or ensures coordination with the appropriate CIOs, OID, and CDC staff offices on administrative and program matters; (4) provides liaison with other governmental agencies, international organizations, and other outside groups; (5) coordinates, in collaboration with the appropriate CIOs, OID, and CDC components, laboratory activities relating to support of outbreak investigations or laboratory-based research including but not limited to specimen management, biological reagents, and laboratory supplies; (6) maintains a formulary of investigational and licensed drugs and biologicals that are distributed to approved physicians for the prevention, control, and/or treatment of rare, tropical, or exceptional diseases; (7) advises the Director, NCEZID, on policy matters concerning DSR activities; and (8) coordinates technical services for laboratory activities of CDC programs including procurement of glassware and laboratory supplies. (Approved 10/06/2016)

### Comparative Medicine Branch (CVLHB)

(1) Acquires and distributes laboratory animals for research; (2) provides appropriate housing, husbandry, and psychological enrichment for all research animals; (3) provides veterinary services, including clinical and surgical support, for the laboratory animals; (4) develops standard operating procedures for animal care and use in accordance with the policies established by the American Association for Accreditation of Laboratory Animal Care, the Animal Welfare Act, The Guide for the Care & Use of Laboratory Animals, and the CDC International Animal Care & Use Committee; (5) conducts applied research to improve the care and use of animals in research and collaborates on research projects that use laboratory animals; (6) provides consultation and laboratory animal technology training to investigators, technical staff and animal care personnel; (7) provides oversight, support and investigator training for the graphical animal information technology protocol development and animal tracking database; (8) coordinates technical services for laboratory activities of CDC programs including processing and distribution of glassware and related items, laboratory waste decontamination and disposal, laundry services, and materiel management; and (9) provides autoclave label production services. (Approved 10/06/2016)

### Biotechnology Core Facility Branch (CVLHD)

(1) provides state-of-the-art next-generation genomic sequencing and metagenomics analysis of infectious and biothreat agents; (2) provides optical mapping to produce high resolution whole-genome maps for strain typing, molecular epidemiology, comparative genomics, and quality control for whole genome sequence assembly; (3) provides computational analysis of genomics sequencing data, bioinformatics, and biological computing; (4) provides qualitative and quantitative proteomic analyses (identification of expressed proteins by mass spectrometry); analysis of functionally-relevant post-translational modifications of proteins; (5) provides mass spectrometry-based positive identification of bacteria and fungi (BioTyper™, Bruker Daltonics); (6) provides synthetic oligonucleotide chemistry in support of development of rapid diagnostic tests and characterization of pathogens and their hosts; (7) provides synthetic peptide chemistry in support of studies of immune response and antigen-antibody interactions; (8) provides biotechnology seminars and methods evaluation; (9) provides laboratory equipment design and repair services to all CDC; and (10) collaborates on research related to STD transmitted infections as chronic infectious diseases. (Approved 10/06/2016)

### Reagent and Diagnostic Services Branch (CVLHG)

(1) maintains laboratory water treatment systems to ensure quality of CDC reagent grade laboratory water; (2) produces, develops, evaluates and distributes custom microbiological and cell culture media, buffers and chemical reagent, mammalian and insect cell cultures, hybridomas, monoclonal and polyclonal antibodies, and in vitro diagnostic products for diagnostic research purposes, proficiency testing, pandemic preparedness, outbreak response and surveillance activities; (3) collaborates with subject matter experts in regulatory compliant development, production, packaging, storing and distribution of BSL2/BSL3 reagents, select agents, novel immuno- chemical reagents and reference diagnostic reagents; (4) provides dispensing, lyophilizing, label production, and device assembly services; (5) improves the process of bench-top development and in-house pilot scale production providing immediate availability for distribution, preventing backorders and streamlining commercialization; (6) maintains CDC's Biological Reference Reagent Inventory, mammalian cell line repository and a serviceable inventory at the DSR Continuity of Operations storage facility; (7) provides centralized specimen management services for diagnostic, reference, and outbreak investigations; maintains a bank of biological specimens of epidemiological significance to CDC's research and diagnostic activities; manages and tracks systems of specimen collections; (8) receives, triages, processes, stores and distributes specimens to CDC laboratories for reference diagnostic testing, research studies, and reports diagnostic and surveillance test results to submitting organizations; (9) serves as central facility for acquisition and distribution of fresh human blood, blood products, and serum in bulk; (10) packages and ships infectious substances and other materials, ensuring compliance with regulations for shipping clinical specimens, infectious substances, and other materials; (11) manages all CDC exports and ensures compliance with regulations and serves as CDC liaison with Department of Commerce for export related issues; and (12) provides consultation in all of the above technical services. (Approved 10/06/2016)

### Division of Vector-Borne Diseases (CVLJ)

(1) Conducts surveillance, investigations, and studies of vector-borne viral, rickettsial, and bacterial diseases to define disease etiology and to develop effective methods and strategies for diagnosis, prevention, and control; (2) conducts investigations on the biology, ecology, and control of arthropod vectors of viral, rickettsial, and bacterial diseases as a basis for development of new and/or modification of existing measures for more effective prevention and control; (3) conducts or participates in clinical, field, and laboratory studies to develop, evaluate, and improve laboratory methods, materials, and therapeutic practices used for diagnosis, prevention, and treatment of vector-borne infectious diseases; (4) provides epidemic aid and epidemiologic consultation, upon request, to state and local health departments, other federal agencies, and national and international health organizations; (5) provides reference/diagnostic services for vector-borne viral, rickettsial, and bacterial diseases to state and local health departments, other federal agencies, and national and international health organizations; (6) conducts research and collaborates on development and evaluation of vaccines; (7) provides scientific and technical assistance to other CDC components when the work requires unique expertise or specialized equipment not available in other components; (8) provides intramural and extramural technical expertise and assistance in professional training activities; and (9) serves as designated national and international reference centers for vector-borne viral, rickettsial, and bacterial diseases. (Approved 7/9/2010)

### Office of the Director (CVLJ1)

(1) Directs and manages the programs and activities of the Division of Vector-Borne Diseases (DVBD); (2) provides leadership and guidance on policy, program planning and development, program management, and operations; (3) coordinates or assures coordination with the appropriate CDC, OI, and NCEZID offices on administrative and program matters; (4) reviews, prepares, and coordinates congressional testimony and briefing documents related to vector-borne infectious diseases, and analyzes programmatic and policy implications of legislative proposals; (5) represents CDC and NCEZID in meetings with other governmental, private, and international organizations; (6) serves as CDC and NCEZID's primary internal and external communications contact regarding vector-borne infectious disease issues; and (7) advises CDC and NCEZID on policy matters concerning DVBD programs and activities. (Approved 7/9/2010)

### Arboviral Diseases Branch (CVLJB)

(1) Conducts surveillance, field investigations and laboratory studies of vector-borne viral agents and their vectors; (2) defines disease etiology, ecology, and pathogenesis in order to develop methods and strategies for disease diagnosis, surveillance, prevention and control; (3) provides diagnostic reference consultation, epidemic aid and epidemiologic consultation to state and local health departments, other components of CDC, other federal agencies, and national and international health organizations; (4) provides technical expertise and assistance in professional training activities to national and international health workers and scientists; and (5) functions as a WHO Collaborating Center for Reference and Research on Arboviruses. (Approved 7/15/2010)

### Bacterial Diseases Branch (CVLJC)

(1) Conducts national surveillance of plague, tularemia, Lyme disease, and tick-borne relapsing fever; (2) conducts multidisciplinary, public health-oriented research aimed at developing effective disease prevention and control measures for vector-borne bacterial zoonoses; (3) provides diagnostic reference consultation, epidemic aid, and epidemiologic consultation, upon request, to state and local health departments, other components of CDC, other federal agencies, and national and international health organizations, and performs relevant duties for the LRN; (4) functions as WHO Collaborating Centers for Plague, Tularemia, and Borreliosis; (5) investigates disease outbreaks of vector-borne bacterial zoonoses in both national and international settings; (6) provides science-based guidance and recommendations for prevention and control of vector-borne bacterial zoonoses, in both natural and potential terrorism-related outbreaks; (7) provides training on the diagnosis, prevention, and investigation of vector-borne diseases; and (8) collaborates with universities, industry, and public health partners in promoting sound disease prevention policies and practices for vector-borne bacterial zoonoses. (Approved 7/15/2010)

### Dengue Branch (CVLJD)

(1) Conducts national and international surveillance, field investigations, and laboratory studies of dengue and dengue hemorrhagic fever; (2) provides diagnostic reference consultation, epidemic aid and epidemiologic consultation, upon request, to state and local health departments, other components of CDC, other federal agencies, and national and international health organizations; (3) functions as a WHO Collaborating Center for Reference and Research on Dengue Hemorrhagic Fever; (4) provides epidemic aid and investigates dengue epidemics; (5) conducts field and laboratory research on the biology, behavior, and control of *Aedes aegypti* and other mosquito vectors of dengue; (6) conducts research and provides consultation and

assistance to local, state, national, and international health agencies on improved methods for surveillance, prevention, and control of epidemic dengue; (7) provides training in laboratory and clinical diagnosis, and on surveillance, prevention, and control of dengue; and (8) develops, implements, and evaluates new intervention strategies for prevention of epidemic dengue. (Approved 7/15/2010)

#### Rickettsial Zoonoses Branch (CVLJE)

(1) Conducts national surveillance and epidemiologic investigations of rickettsia, bartonella, and coxiella-associated diseases; (2) performs laboratory studies on the microbiology, molecular biology, and pathogenesis of rickettsia, bartonella, and coxiella infections; (3) provides reference/diagnostic services domestically and internationally; (4) develops, implements, and evaluates standardized methods and reagents for diagnosing rickettsia, bartonella, and coxiella-associated diseases; (5) serves as a WHO Collaborating Center for Rickettsial and Bartonella-associated diseases; (6) provides consultation and laboratory training to state and local health departments and other national and international organizations; (7) responds to requests for information regarding rickettsia, bartonella, and coxiella-associated diseases and their prevention from CDC, health care providers, academic institutions, state and local health departments, other government agencies, and the general public; (8) collaborates with government agencies, domestic and international academic institutions, and the private sector in development, evaluation, and utilization of novel diagnostic assays and vaccines for rickettsia, bartonella, and coxiella-associated diseases; and (9) maintains the Bioterrorism Response Laboratories for *Coxiella burnetii* (Q fever) and rickettsia (*R. rickettsii* and *R. prowazekii*). (Approved 7/15/2010)