

AD HOC GROUP OF THE STATES PARTIES  
TO THE CONVENTION ON THE PROHIBITION  
OF THE DEVELOPMENT, PRODUCTION AND  
STOCKPILING OF BACTERIOLOGICAL  
(BIOLOGICAL) AND TOXIN WEAPONS  
AND ON THEIR DESTRUCTION

BWC/AD HOC GROUP/CRP.4  
12 July 1995

ENGLISH only

---

Second session  
Geneva, 10-21 July 1995

US AGENCY FOR INTERNATIONAL HEALTH ACTIVITIES

Non-Paper submitted by the United States of America

The activities and programs listed in this paper represent some of the programs in which the United States has current involvement. They have been extracted from the Annual Report FY 1994, International Health Activities, as prepared and distributed by the Centers for Disease Control and Prevention of the Public Health Service, Department of Health and Human Services dated June 1, 1995. This paper will summarize those United States programs being conducted for selected countries believed to be pertinent to the problem of technology transfer under Article X of the Biological Weapons Convention.

**Argentina:** Provided diagnostic reagents, consultation and training for hantavirus; collaboration on immunogenicity and efficacy study of group B meningococcal vaccines; and provided reference materials for cholesterol and neonatal screening.

**Brazil:** Participated in immunopathologic studies of chagas disease; continued collaborative studies to genetically characterize dengue virus strains; identified the first case of hantavirus in South America; intensified joint projects and long term scientific exchange on histoplasmosis and malaria; continued collaborative studies on measles, parasitic diseases, emerging pathogens, poliovirus, rabies, rickettsia, schistosomiasis and tuberculosis. Collaboration continued on a variety of health related studies in ergonomics, hearing loss, metal exposure, neonatal screening, occupational exposures HIV services and tobacco control.

**Burundi:** Provided epidemiological assistance in assessing public health and nutrition areas and an outbreak of dysentery in the country as well as development of medical screening of refugees and control measures for cholera.

**Central African Republic:** Provided materials and training for screening to prevent syphilis; initiated a study on chlamydia prevalence; provided assistance through the Child Survival Team for health information systems and AID and HIV prevention and control programs as well as vaccine safety.

**Chile:** Provided consultation on diagnosis of syphilis; broadened scope and collaboration on meningitis and meningococcal vaccine; collaboration on study of treatment of acute respiratory syncytial virus. Collaborated on other health issues to include air pollution, lead poisoning, metal exposure and neonatal screening.

**China:** Provided consultation and advice on arboviruses; collaborating on a study in the US and in the PRC to assess the role of various metabolic polymorphisms in occupational bladder cancer; provided lipid standardization services in support of cholesterol research; collaborated with neurology clinics to determine the actual impact of cysticercosis in terms of neurologic pathology; completed development of a new assay for adult diarrhea rotavirus; serotyped seven diarrhea strains; provided assistance to public health officials in development of epidemiology bulletins; provided technical support to the folic acid study computer network at the university; a visiting scientist from Shanghai worked at the CDC to characterize hantavirus strains from China; collaborated in studies of haemorrhagic fever with renal syndrome; continued scientific exchanges under the US/PRC bilateral agreement in the area of hepatitis E where significant progress has been made; continued collaborative work on hydatid disease; provided consultants in the area of childhood immunizations; continued support of a national influenza surveillance program in China; provided diagnostic reagents and reference service on lyme disease; continued collaborative work on plague surveillance, control and epidemiology; continued work on polio surveillance and poliovirus; trained a Chinese scientist in poxvirus large scale sequencing; and continued collaboration on schistosomiasis, HIV and syphilis control. Continued a wide variety of other public health programs including aerosol research, health surveys, a health information system, management training, molecular biology, nutrition programs, neonatal screening, neural tube defects and sampling and analytical methods.

**Colombia:** Collaboration on dengue prevention programs, leishmaniasis programs, evaluation of environmental sampling for wild polioviruses, training in malaria research and control. Collaborated on other health issues including field epidemiology training, hearing loss, neurotoxicity and workplace exposure of workers to solvents.

**Cote d'Ivoire:** Participated in studies to determine hosts of Buruli ulcer; provided technical support and training on HIV testing and epidemiology; completed a large study on tuberculosis in HIV infected and uninfected personnel; conducted a pilot therapy trial for two drugs against mycobacteria; and provided technical consultation on tuberculosis treatment.

**Cuba:** Participated in meetings on prevention and control of dengue; performed an analysis of risk factors for epidemic optic neuropathy in Cuba; and participated in epidemiologic study on peripheral neuropathy and blindness.

**Ecuador:** Trained personnel in isolation and identification of dengue virus; provided diagnostic reagents and reference service on yellow fever and malaria; published studies on cholera epidemic and diarrhea; performed epidemiologic study and intervention trial against intestinal helminth infections and cysticercosis. Provided hardware and software for contraceptive tracking system and assistance in reproductive health survey.

**Egypt:** Participated in study to define the burden and prevalence of diabetes in Egypt; collaborated on study to estimate incidence of Q fever in the Nile River delta; established a diagnostic center for schistosomiasis; provided technical assistance on hepatitis B vaccine program and characterized rotavirus strains for Egypt. Provided field epidemiological training for physicians; completed a system to automate health survey data; initiated in-depth examination of injuries; evaluated a national nutritional surveillance project and provided on-site laboratory training and consultation in sexually transmitted diseases.

**Ethiopia:** Collaborated on the use of oral fluid as a source specimen for measles; reviewed polio vaccination programs and characterized isolates; completed an assessment of human rabies and provided recommendations on improvements; completed a study to determine the importance of louse borne typhus; provided assistance in family planning and medical screening of refugees.

**The Gambia:** Completed a collaborative study on persistence and characterization of measles virus and collaborated in a study on meningococcal vaccine.

**Ghana:** Participated in a study of the magnitude of infection with nematodes in northern Ghana; conducted an HTLV serosurvey in southern Ghana; assisted in various health surveys; provided materials for quality control of neonatal screening and assisted in a course on detection of yellow fever.

**Guinea-Bissau:** Launched an epidemiologic investigation of epidemic cholera in Gaza.

**Guyana:** Provided assistance to public health officials in the development of epidemiology bulletins.

**India:** Collaborated in a program to define the impact of cysticercosis on neurologic diseases and to determine the sensitivity of the immunoblot assay for patients infected with a single cyst of T. solium; participated in a meeting on dengue haemorrhagic fever; transferred technology for the indigenous production of plasma-derived hepatitis B vaccine to India; participated in an assessment of the surveillance system for vaccine preventable diseases and assisted the MOH in developing a plan of action and budget; evaluated monoclonal antibodies produced indigenously for use in typing and subtyping of influenza viruses; continued collaborative research on the expression of malarial antigens in a baculovirus expression system and the development of nucleic acid based diagnostic tools for malaria; CDC identified a number of emerging pathogenic filamentous fungi and yeasts and published four papers on these strains; CDC is analysing isolates of buffalopox virus obtained from an outbreak in India; completed a collaborative study of rotavirus strains circulating in newborns that demonstrated a shift in strains over time and that these strains are different from those circulating in the community; assisted in the assessment of sexually transmitted diseases/HIV prevention project and conducted clinical training for diagnosis and treatment; provided viable treponemes of syphilis to researchers in India for training purposes; provided technical assistance and conducted a training workshop on the development of national

tuberculosis control and studies to evaluate methods of improving physician knowledge of treatment; performed a collaborative study to assess exposure and determine risk of workers exposed to benzidine and benzidine based dyes.

**Indonesia:** Collaborated with national workers to develop a protocol for surveillance and control of taeniasis and cysticercosis in Bali; continued a collaborative program to develop community based mosquito control; provided assistance to public health officials in the development of epidemiology bulletins; provided assistance in conduct of studies directed to IV drug users and their sexual partners; participated in development of a field epidemiology training program for Indonesian workers; provided technical assistance in the conduct of a study to determine HIV prevalence; continued a collaborative study to determine prevalence of gonococcal and chlamydia infections in high-risk populations; assisted in an HIV/sexually transmitted diseases study including data analysis; and provided consultation services on tuberculosis drug research. In addition, provided quality control materials for neonatal screening; provided laboratory training in nutrition studies; provided technical assistance in performance of a large and varied sexual behaviour study to assist in future control methods; and developed collaborative ties to implement disaster preparedness programs.

**Kenya:** Provided consultation and training on epidemiologic studies of viral haemorrhagic fever; initiated a study on host immune responses for filariasis; conducted a study to evaluate the transmission of HIV by blood transfusion; conducted a study demonstrating the efficacy of two drugs for the treatment of malaria; continued a collaborative study to define the immunologic determinants of malaria infection; participated in a course by providing lectures on malaria and molecular methods and laboratory training; carried out a multifaceted program of malaria research at a field station in Kenya; participated in a polio surveillance study; provided staff assistance in follow-up investigations of yellow fever transmission and provided consultation on surveillance, epidemiology and laboratory diagnosis of yellow fever; provided arbovirus diagnostic reagents and reference testing; provided reference support for possible yellow fever outbreaks in refugee camps. Provided technical assistance in the refugee assessment program; established surveillance of severe anaemia among children and conducted studies to examine risk factors for death as well as establishing improved intervention methods; participated in the child survival program; monitored the progress of an on-going research project to assess the nutritional status of children and collaborated in the program to evaluate a clinical algorithm of the health facility management of sick children.

**Korea:** Collaborated on haemorrhagic fever pathogenesis to define the pathogenesis of haemorrhagic fever with renal syndrome in man.

**Malawi:** Continued a collaborative program for malaria related activities including publication of a series of scientific articles; continued investigation of schistosomiasis investigations at Cape Maclear.

**Malaysia:** Provided laboratory training in techniques for analysis and related issues in nutrition and nutritional biochemistry.

**Mali:** Continued collaborative programs in sexually transmitted diseases/HIV and child survival activities; provided consultation on malaria research and provided consultation on programs to prevent vitamin A deficiency.

**Morocco:** Conducted a training course in contraceptive logistics management and coordinated echinococcosis research program.

**Nicaragua:** Continued the child survival program support; provided technical assistance in the contraceptive logistics management program; conducted an assessment of the HIV/AIDS surveillance program and assisted in the development of a workshop in the prevention of maternal mortality.

**Niger:** Continued support of the child survival program by development of nutritional improvement programs.

**Nigeria:** Continued long-term assistance to the development of family planning and contraceptive management programs; provided assistance to public health officials in the development of epidemiology bulletins; consulted with technical representatives regarding the occurrence of Lassa Fever in Nigeria and testing of strains recovered; completed an impregnated bed net study to evaluate the effect on malaria transmission; provided consultation on vitamin A analysis; and continued collaboration on the program to combat yellow fever outbreaks.

**Pakistan:** Consulting to develop a national diabetes control program; continue to provide technical assistance in staff training, quality control, data processing and analysis of a national health survey; assisted in preparation of a nationwide immunization program and continued collaboration in a research study to evaluate the effectiveness of a clinical algorithm in the health facility management of sick children.

**Peru:** Participated in various studies regarding interventions to prevent cholera outbreaks; collaboration in studies to develop an effective control project for human and pig cysticercosis; provided technical assistance to support the operation of the field epidemiology training program; collaborated on intervention strategies to control malaria; provided diagnostic assistance during a measles outbreak; performed testing of sera from persons suspected to have been involved in a plague outbreak; set up a national reference diagnostic laboratory for plague; provided technical assistance in the area of contraceptive logistics management; provided consultative services to the maternal mortality surveillance project; and provided technical assistance to the public health surveillance and the water chlorination programs.

**Philippines:** Continued collaboration to evaluate types of dengue virus strains isolated from patients; developed a national plan for the prevention and control of dengue virus with the Ministry of Health; continued collaboration to establish laboratory based surveillance for dengue; ended the long term cooperation program of field epidemiology training program;

worked to develop a pilot project to conduct sputum testing for tuberculosis; collaborated to conduct a mass canine rabies vaccination campaign as part of the rabies control program; collaborated with Ministry of Health to develop data for decision making project; provided quality control materials as part of the neonatal screening project.

**Sierra Leone:** Provided epidemiological assistance to assess the problem of cervical cancer in Freetown; continuing the nationwide Lassa Fever antibody prevalence study; and continued epidemiological studies.

**South Africa:** Tested collections of sera from healthy populations in various geographic areas for anti-hepatitis E; provided technical assistance in the area of HIV/AIDS prevention education; assisted the national AIDS council to develop program strategies and workplans; participated in the first international immunization review which included the nine newly formed provinces of South Africa; provided technical assistance in the area of maternal and child health; provided consultative assistance and cooperative surveillance training materials relevant to occupational health; provided consultation on the diagnostics of congenital syphilis; made presentations and provided consultations on the area of tobacco control; assisted in the development of clinical trials of new anti-tuberculosis medications and provided consultation on a national control strategy.

**Sri Lanka:** Continued collaboration to investigate the epidemiology of dengue haemorrhagic fever with the Medical Research institute.

**Taiwan:** Continued collaborative studies on the antigenic and biological characteristics of alphaviruses isolated from rodents; continued collaborative studies on dengue and dengue haemorrhagic fever; provided consultation and advice on diagnosis, prevention, surveillance and control of dengue and dengue haemorrhagic fever; continued the field epidemiological training program; collaborated on studies of transmission, distribution in rodents, antibody prevalence and pathogenicity in humans of hantavirus; advised on the national nosocomial infection control program; provided consultation on epidemiologic methods and surveillance to the Department of Health; provided an overview of methods to develop and characterize occupational exposures to bioaerosols; participated in a radiation assessment and a workshop.

**Tanzania:** Participated in an evaluation of the national tuberculosis program; and assisted in assessing and in development of a vaccine safety program.

**Thailand:** Investigated an outbreak of cholera among tourists and prepared a report; installed the patient tracking program and provided on-site training of personnel in its use; established a cooperative research program to use c-DNA technology to develop second generation dengue vaccines; continued pathophysiologic studies of dengue fever using PCR assays; provided assistance to public health officials in the development of epidemiology bulletins; provided assistance in conducting an epidemiology training course in sexually transmitted diseases; continued the field epidemiology training program; provide technical assistance in protocol development and review of HIV related tuberculosis; continued a collaborative study on heterosexual transmission of HIV under the HIV/AIDS collaboration

program; continued the herpes virus military recruit study; reviewed a program to evaluate the efficacy of Japanese encephalitis vaccine and provided advice on field studies and protocols; provided quality control materials for the neonatal screening program; offered technical assistance on serological testing of human rabies post vaccinal serum and initiated a study to evaluate success of different protocols; continue to investigate strains of rickettsia recovered from fatal cases of scrub typhus; continue to test samples collected in the AIDS/HIV epidemiologic study; provided primers and instructions to establish PCR diagnosis of chancroid in the laboratory; identified cultures of actinomycetes found locally; cooperative program to develop and improve methods for diagnosing penicilliosis; and continued to operate a regional program to monitor and evaluate the medical screening examinations provided to refugees.

**Togo:** Provided technical assistance in regionalising and expanding the computerized health information system; ended the long-term child survival program.

**Tunisia:** Coordinated the echinococcosis research program to develop a coordinated work plan and evaluated the immunization surveillance system.

**Turkey:** Provided software support for the contraceptive tracking system including demonstration of its merits and capabilities, staff training and data support and management; provided training in logistics and information management in family planning management development; assisted in investigation of a polio outbreak and in planning nationwide immunizations.

**Uruguay:** Coordination of echinococcosis working group on prevention and control.

**Venezuela:** Participated in meetings to present guidelines for the control and prevention of dengue and dengue haemorrhagic fever; tested collections of sera from healthy populations for anti-hepatitis E; collaborated on the causes of rash illness and the clinical case definition of measles; completed technical assistance in conducting neurobehavioral health studies; sequenced the core region of hepatitis B recovered from Indians after hepatitis delta infection; and provided input on an ergonomics program for a local oil company.

**Zaire:** Provided epidemiological assistance in investigating cases of cholera among refugees and made recommendations for surveillance, control and case management, confirmed antimicrobial resistance patterns for dysentery isolates and assisted in development of new treatment strategy; conducted rapid evaluation of cholera and dysentery in refugee camps; advised on the management of dysentery epidemic and conducted surveys to measure the magnitude of the problem; participated in the emergency nutrition and medical coordination efforts in the refugee camps; consulted to evaluate morbidity and mortality among refugee children; and assisted in assessment of malaria risk and setting up a computer based health information surveillance system for refugee camps.

---