TALKING POINTS FOR LUNCHEON PRESENTATION NATIONAL COUNCIL FOR INTERNATIONAL HEALTH GOVERNING BOARD FEBRUARY 24, 1983

I. INTRODUCTION:

- A. Despite the considerable publicity in the international health community about "destruction" of the international health program within the Public Health Service, I am here to tell you that the program is alive and well.
- B. TO ILLUSTRATE THAT POINT, THE FOLLOWING ARE THE AREAS I PLAN TO INCLUDE IN THIS PRESENTATION:
 - 1. THE BUDGET FOR INTERNATIONAL HEALTH IN PHS.
 - 2. How international Health is organized in PHS.
 - 3. OUR MULTILATERAL PROGRAM INVOLVEMENT
 - 4. BILATERAL PROGRAMS OF THE PHS
 - 5. ACTIVITIES THAT MAY BE OF PARTICULAR INTEREST TO THIS GROUP -- SELECTED INTERNATIONAL ACTIVITIES OF THE NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES, NIH, AND OF THE CENTERS FOR DISEASE CONTROL.

II. THE BUDGET FOR INTERNATIONAL HEALTH IN PHS

B. PHS DOES NOT HAVE A BUDGET FOR INTERNATIONAL

HEALTH AS SUCH. MOST OF THE PHS' INTERNATIONAL OR INTERNATIONALLY RELATED ACTIVITIES ARE FUNDED THROUGH:

Funds appropriated for domestic research and related salary and expense Items. This has always been the case with funds provided directly from PHS appropriations and it reflects the fact that the PHS agencies have a legislated mandate to conduct international research and related activities which will advance the status of the health sciences and thereby the health of the American people. Indeed, for the past several years, between \$50 and \$70 million (depending on how you define international activities) has been spent each year from PHS appropriations for international activities.

(Note: ESTIMATES FOR FY 1983 ARE NOT AVAILABLE AND, FRANKLY, WE DO NOT NOW KNOW WHAT IMPACT THE OVERALL BUDGET CUTS WILL HAVE ON OUR EXPENDITURES FOR INTERNATIONAL HEALTH ACTIVITIES. THE IMPACT WILL PROBABLY BE MODEST, INASMUCH AS MOST OF THE EXPENDITURES ARE FOR GRANTS AND CONTRACTS SUPPORTED UNDER THE NIH RESEARCH PROGRAM.)

ANOTHER SIGNIFICANT SOURCE OF FUNDING IS THE AGENCY FOR INTERNATIONAL DEVELOPMENT. EXAMPLES HERE INCLUDE CDC WORK IN AFRICA TO IMPROVE PROGRAMS FOR CHILDHOOD IMMUNIZABLE DISEASES, AND NIH ACTIVITIES TO ESTABLISH REGIONAL CAPABILITIES FOR MAINTENANCE OF RESEARCH LABORATORY EQUIPMENT. AT

THE PRESENT TIME, THERE ARE ABOUT TWENTY ACTIVE INTERAGENCY AGREEMENTS BETWEEN AID AND THE PHS. THESE RANGE FROM SMALL PARTICIPATING AGENCY SERVICE AGREEMENTS TO PROVIDE FOR THE SERVICES OF A PARTICULAR EXPERT TO LARGE RESOURCES SUPPORT SERVICES AGREEMENTS WHICH PROVIDE FOR TECHNICAL ASSISTANCE IN SUCH AREAS AS PLANNING FOR NUTRITION INTERVENTIONS IN PRIMARY HEALTH CARE PROGRAMS.

- PROGRAMS WITH KUWAIT AND NIGERIA FALL INTO THIS CATEGORY. WE ARE NOW IN OUR SECOND YEAR OF THE PROGRAMS WITH THESE TWO COUNTRIES AND THE EXPERIENCE WE ARE GAINING MAY WELL SERVE AS MODELS FOR SIMILAR COOPERATIVE ARRANGEMENTS WITH OTHER COUNTRIES. INDEED, WE HAVE RECEIVED INQUIRIES FROM AT LEAST TWO OTHER GOVERNMENTS (UNITED ARAB EMIRATES AND SAUDI ARABIA) ABOUT THE POSSIBILITY OF REIMBURSABLE PROGRAMS.
- O REIMBURSEMENTS FROM THE WORLD HEALTH ORGANIZATION FOR PHS STAFF WHO WORK IN VARIOUS WHO PROGRAMS. ALSO, WHO PROVIDES FINANCIAL SUPPORT TO SEVERAL COMPONENTS OF THE PHS, ESPECIALLY CDC AND NIH, WHICH SERVE AS WHO INTERNATIONAL COLLABORATING CENTERS (E.G. IN THE AREAS OF INFLUENZA AND OTHER RESPIRATORY DISEASES, HEPATITIS, OTHER VIRAL DISEASES, IMMUNOLOGY, LEPROSY, TO NAME A FEW).

- O OTHER SPECIAL FUNDING ARRANGEMENTS THE JOINT FUNDS WITH POLAND AND YUGOSLAVIA ARE EXAMPLES.

 SIMILARLY, WE HOPE TO PARTICIPATE IN THE NEW S & T FUND THAT IS BEING ESTABLISHED WITH SPAIN UNDER THE TREATY OF FRIENDSHIP AND COOPERATION.
- B. THE ONLY SPECIFICALLY INTERNATIONAL LINE ITEMS IN THE BUDGET OF THE PHS AT THIS TIME ARE:
 - 1. The Special Foreign Currency Appropriation, which is administered by the Office of International Health on Behalf of the entire PHS. (FYI the current excess currency countries are India, Pakistan, Guinea and Poland. You should be aware that while Poland just went back on the excess currency list, we are not now being permitted to use the money for diplomatic reasons. Also, there have been indications that Taiwan may become an excess currency country.)
- 2. THE BUDGET FOR THE FOGARTY INTERNATIONAL CENTER OF THE NATIONAL INSTITUTES OF HEALTH IS THE SECOND INTERNATIONAL LINE ITEM IN THE BUDGET.
- 3. THE ONLY INTERNATIONAL HEALTH LINE ITEM THAT HAS BEEN ELIMINATED FROM THE PHS BUDGET IS THE OFFICE OF INTERNATIONAL HEALTH, OASH. YET, THE OIH CONTINUES TO EXIST AS A LEANER YET VERY ACTIVE OFFICE.

WITHIN THE OFFICE OF THE ASSISTANT SECRETARY FOR HEALTH. THE REDUCTION IN THE OFFICE OF INTERNATIONAL HEALTH HAS APPARENTLY GIVEN RISE TO A BELIEF, IN SOME CASES, THAT PHS HAS REDUCED ITS COMMITMENT TO INTERNATIONAL HEALTH. THAT SIMPLY IS NOT CORRECT. THE PHS HAS A NUMBER OF IMPORTANT LEADERS, STARTING WITH DR. BRANDT AND INCLUDING BILL FOESE, BUD MAYER, JIM WYNGAARDEN, ART HAYES, AND BOB GRAHAM WHO ARE STRONGLY COMMITTED TO INTERNATIONAL HEALTH COOPERATION.

III. How is international health organized within the PHS?

- A. THE OFFICE OF INTERNATIONAL HEALTH, OASH, CARRIES OUT SOME VERY IMPORTANT FUNCTIONS WITHIN THE OFFICE OF THE ASSISTANT SECRETARY FOR HEALTH. THESE INCLUDE:
 - The official liaison function, on behalf of the Public Health Service, for the U.S. Government with the World Health Organization and the Pan American Health Organization. Indeed, the Office of International Health was established in 1945 to deal with the growing international health involvement of the U.S. Government, but particularly for drafting "charters and position papers" for the proposed United Nations international health organization -- what is now the WHO -- and for cooperation with such agencies as the Pan American Sanitary Bureau.

- O OVERALL HEALTH POLICY DEVELOPMENT WITHIN THE DHHS, AND OVERSIGHT AND COORDINATION OF THE INTERNATIONAL HEALTH ACTIVITIES OF THE FIVE PHS AGENCIES -- NIH, HRSA, FDA, ADMAHA, CDC -- AND OF THE VARIOUS PROGRAMMATIC COMPONENTS OF THE OFFICE OF THE ASSISTANT SECRETARY FOR HEALTH (E.G. NCHS).
- O OFFICIAL REPRESENTATION TO FOREIGN GOVERNMENTS ON PHS BILATERAL HEALTH PROGRAM MATTERS.
- O STAFF SUPPORT TO THE SECRETARY AND ASH ON INTERNATIONAL HEALTH MATTERS.
- B. There are international program offices within each of the PHS agencies. These range from rather small offices playing a policy, coordination and representation role for their agency (e.g. ADMAHA) to organizations, such as the Fogarty International Center at NIH, which conduct a variety of programs, such as studies of international health research policy issues, sponsorship of international conferences, and provision of international fellowships.
- D. WITHIN THE PHS, IT IS THE AGENCIES WHICH ARE KEY TO PLANNING AND IMPLEMENTATION OF INTERNATIONAL ACTIVITIES. ACTIVITIES. ALL OF THE PHS INTERNATIONAL ACTIVITIES REFLECT THE DOMESTIC RESPONSIBILITIES AND CAPABILITIES OF THE AGENCIES. INDEED, THE PREVAILING VIEW WITHIN THE DEPARTMENT IS THAT INTERNATIONAL COOPERATION IS CRITICAL TO THE FULFILLMENT OF OUR MISSION. WITHOUT SUCH COOPERATION, OUR PROGRAM OF BIOMEDICAL RESEARCH WOULD NOT BE WHAT IT IS TODAY; WE WOULD BE FACED WITH FAR

MORE DIFFICULT PROBLEMS IN THE FOOD AND DRUG CONSUMER PROTECTION AREA; WE WOULD BE AT A GREAT DISADVANTAGE AS WE ATTEMPT TO CARRY OUT OUR RESPONSIBILITIES FOR PROTECTING THE U.S. POPULATION FROM COMMUNICABLE DISEASES, ETC.

IV. MULTILATERAL PROGRAM ACTIVITIES

- A. THE UNITED STATES IS ONE OF 158 MEMBERS OF WHO AND WE PARTICIPATE IN ACTIVITIES AND DECISIONS OF THE ORGANIZATION THROUGHOUT THE YEAR IN FULFILLMENT OF THE HEALTH RESPONSIBILITES AND OBLIGATIONS AS A MEMBER GOVERNMENT. MANY OF THESE DECISIONS ARE EFFECTED AT THE SESSIONS OF WHO'S GOVERNING BODIES, THE WORLD HEALTH ASSEMBLY AND EXECUTIVE BOARD, AND AT THE PAHO DIRECTING COUNCIL, PAN AMERICAN SANITARY CONFERENCE, EXECUTIVE COMMITTEE.
- B. WE DEVELOP, IN COOPERATION WITH THE DEPARTMENT OF STATE, POLICY REGARDING HEALTH ISSUES WHICH COME BEFORE THE GOVERNING BODIES OF THE OTHER UN AGENCIES, INCLUDING (IN ADDITION TO WHO) UNICEF, UNDP, THE NARCOTIC COMMISSION, THE UN FUND FOR DRUG ABUSE CONTROL, THE UN ECONOMIC AND SOCIAL COUNCIL, THE UN FUND FOR POPULATION ACTIVITIES, THE UN Environment Program, THE UN FOOD AND AGRICULTURE ORGANIZATION, AND THE UN EDUCATIONAL SCIENTIFIC AND CULTURAL ORGANIZATION.
- C. IMPORTANT MULTILATERAL ISSUES WHICH WE HAVE DEALT WITH IN RECENT MONTHS OR ARE DEALING WITH AT THIS TIME INCLUDE:
 - 1. THE RECOMMENDATORY CODE FOR MARKETING OF INFANT

- FORMULA. CURRENTLY, A PHS TASK FORCE IS REVIEWING SCIENTIFIC EVIDENCE CONCERNING THE RELATIONSHIP BETWEEN INFANT FEEDING AND INFANT HEALTH AS WELL.
- 2. International drug scheduling This is a recurring issue regarding the international scheduling of abuse-potential drugs, including, for example, Benzodiazephine drugs.
- 3. HEALTH FOR ALL BY THE YEAR 2000 AS A MEMBER GOVERNMENT, WE HAVE A RESPONSIBILITY TO DEVELOP A NATIONAL STRATEGY FOR HFA AND TO REPORT PERIODICALLY ON PROGRESS TOWARD ITS ACHIEVEMENT. WE ARE CURRENTLY WORKING ON THE REPORT ON THE MONITORING OF OUR NATIONAL STRATEGY, TO BE SUBMITTED TO WHO IN MARCH 1983.
- 4. EFFORTS TO PROMOTE EFFECTIVE DIALOGUE BETWEEN WHO AND U.S. INDUSTRY ON PHARMACEUTICAL MATTERS AND PARTICULARLY ON WHO'S ACTION PROGRAM ON ESSENTIAL DRUGS.

IV. BILATERAL PROGRAMS

A. THE PHS HAS AGREEMENTS OR PROGRAMS WITH THIRTY FIVE COUNTRIES. THE AGREEMENTS RANGE FROM AGENCY-TO-AGENCY LEVEL AGREEMENTS (E.G. FDA AGREEMENTS WITH COUNTERPART ORGANIZATION IN A FOREIGN GOVERNMENT ON INSPECTION STANDARDS FOR LOW ACID CANNED FOODS OFFERED FOR EXPORT TO THE UNITED STATES) TO GOVERNMENT-TO-GOVERNMENT HEALTH AGREEMENTS WHICH IDENTIFY PRIORITIES FOR COOPERATION AND PROVIDE FOR A JOINT STRUCTURE FOR OVERSIGHT OF THE BILATERAL PROGRAM. ADDITIONALLY, THE PHS COOPERATES WITH

SEVERAL COUNTRIES UNDER THE TERMS OF UMBRELLA SCIENCE AND TEHCHOLOGY AGREEMENTS OR CULTURAL AGREEMENTS ENTERED INTO BY THE DEPARTMENT OF STATE.

B. WE CURRENTLY HAVE FORMALIZED BILATERAL HEALTH PROGRAMS WITH THE FOLLOWING COUNTRIES:

EGYPT
PEOPLE'S REPUBLIC OF CHINA
FEDERAL REPUBLIC OF GERMANY
FINLAND
FRANCE
HUNGARY
INDIA
ISRAEL
ITALY
JAPAN
KUWAIT
NIGERIA
POLAND
YUGOSLAVIA

C. HIGHLIGHTS OF SOME OF THE PRINCIPAL BILATERAL PROGRAMS
ARE THE FOLLOWING:

1. EGYPI

O THE PROGRAM IS ACTUALLY MORE THAN TWENTY YEARS OLD, HAVING BEEN INITIATED IN 1952 AS PART OF OUR SCIENTIFIC ACTIVITIES OVERSEAS (SPECIAL FOREIGN CURRENCY) PROGRAM. IT IS NOTEWORTHY THAT, EVEN DURING TIMES WHEN DIPLOMATIC RELATIONS BETWEEN THE

- U.S. AND EGYPT WERE SUSPENDED IN THE EARLY 1970s, THE PROGRAM OF HEALTH COOPERATION CONTINUED TO FUNCTION.
- O THE U.S.-EGYPT HEALTH AGREEMENT WAS SIGNED IN 1975 AND RENEWED IN 1981.
- O THE PROGRAM IS OVERSEEN BY A U.S.-EGYPT JOINT WORKING GROUP ON HEALTH COOPERATION. MEMBERS OF THE JOINT WORKING GROUP ON THE U.S. SIDE ARE THE ASSISTANT SECRETARY FOR HEALTH, THE DIRECTOR, OFFICE OF INTERNATIONAL HEALTH, THE U.S. AMBASSADOR TO EGYPT, THE DIRECTOR OF THE AID MISSION IN CAIRO, AND THE COMMANDING OFFICER OF NAMRU 3.
- O THIS HAS BEEN A HIGHLY SUCCESSFUL PROGRAM,
 INCLUDING MANY PROJECTS OF MUTUAL INTEREST AND
 BENEFIT -- SCHISTOSOMIASIS, ARTHROPOD BORNE
 DISEASES, PREVENTION OF BLINDNESS, HEPATITIS
 RESEARCH, ETC.
- O FUNDING IS NOW A CRITICAL PROBLEM.

2. INDIA

- O PROGRAM INITIATED IN EARLY 1950S UNDER THE PHS Special Foreign Currency Program, Although
 - THE PHS PROVIDED TECHNICAL ASSISTANCE TO INDIA DURING THE 1950s AS WELL.
- O THE PROGRAM ENCOMPASSES THE FULL RANGE OF INTERESTS OF THE PHS AGENCIES, BUT THERE IS SPECIAL EMPHASIS

ON INFECTIOUS AND PARASITIC DISEASES, REPRODUCTIVE PHYSIOLOGY AND PREVENTION OF BLINDNESS.

- O WE DO NOT HAVE A HEALTH AGREEMENT WITH INDIA, BUT FUNCTION UNDER THE TERMS OF AN UMBRELLA S & T AGREEMENT. A HEALTH AND MEDICAL SCIENCES WORKING GROUP MEETS DURING THE APPROXIMATELY ANNUAL MEETINGS OF THE U.S.-INDO S & T SUBCOMMISSION.
- O A RECENT DEVELOPMENT WAS THE ESTABLISHMENT OF A "BLUE RIBBON" PANEL OF OUTSTANDING SCIENTISTS TO DEVELOP PLANS TO EXPAND COOPERATION IN SEVERAL AREAS BIOMASS FOR ENERGY, SELECTED HEALTH AREAS (IMMUNOLOGY, PREVENTION OF BLINDNESS, AND CONTROL OF LEPROSY), AND FOOD PRODUCTION. PHS IS COOPERATING IN THE INITIATIVE, INCLUDING PARTICIPATION ON THE "BLUE RIBBON" PANEL. DR. RICHARD KRAUSE IS A MEMBER OF THAT PANEL. THEIR REPORT IS EXPECTED TO BE GIVEN TO THE PRESIDENT IN MARCH.

3. PEOPLE'S REPUBLIC OF CHINA

- O THE HEALTH PROTOCOL WITH THE PRC WAS SIGNED IN 1979.
- O AGREED AREAS OF COOPERATION ARE:
 - INFECTIOUS AND PARASITIC DISEASES
 - CANCER
 - CARDIOVASCULAR DISEASES
 - PUBLIC HEALTH AND HEALTH SERVICES RESEARCH, CHILD

HEALTH AND NUTRITION, AND ENVIRONMENTAL AND OCCUPATIONAL HEALTH

- MEDICAL INFORMATION SCIENCE
- IMMUNOLOGY
- MEDICAL GENETICS
- MENTAL HEALTH
- FOODS AND DRUGS, INCLUDING PHARMACOLOGY
- REPRODUCTIVE PHYSIOLOGY AND FAMILY PLANNING.
- O THE LAST JOINT HEALTH COMMITTEE MEETING WAS HELD IN BETHESDA IN NOVEMBER 1982.
- O AN EXAMPLE OF WORK WITH THE PRC WAS THE JOINT STUDY OF PUBLIC HEALTH PROGRESS IN SHANGHAI COUNTY. THE RESULTS OF THAT STUDY AND OF A FOLLOW-UP SYMPOSIUM WERE PUBLISHED AS A SPECIAL SUPPLEMENT TO THE SEPTEMBER 1982 ISSUE OF THE AMERICAN PUBLIC HEALTH ASSOCIATION JOURNAL.

4. ISRAEL

- O ALTHOUGH THE PROGRAM OF HEALTH COOPERATION WITH ISRAEL IS MORE THAN TWENTY YEARS OLD, A FORMAL HEALTH AGREEMENT WAS NOT SIGNED UNTIL 1980.
- O THE PRINCIPAL EMPHASIS IS CURRENTLY

IN POLICY RELATED STUDIES AND CONSULTATIONS -- E.G. REGIONALIZATION OF HEALTH SERVICES, THE LINKAGE BETWEEN EPIDEMIOLOGY AND HEALTH POLICY, AND FOOD AND DRUG CONSUMER PROTECTION ISSUES.

5. KUWAIT

- O AGREEMENT PROVIDING FOR REIMBURSABLE TECHNICAL ASSISTANCE IN HEALTH FIELD SIGNED IN MAY 1981.
- O SUBAGREEMENTS FOR COOPERATION IN FIVE AREAS SIGNED IN 1982:
 - EMERGENCY MEDICAL SERVICES
 - HYPERTENSION CONTROL
 - REDUCTION OF INFANT MORBIDITY AND MORTALITY
 - HEALTH MANPOWER DEVELOPMENT AND UTILIZATION
 - VITAL AND HEALTH STATISTICS

5. NIGERIA

- O HEALTH AGREEMENT SIGNED IN 1981 WITH FEDERAL MINISTRY OF HELATH OF NIGERIA.
- O AGREED AREAS OF COOPERATION INCLUDE:
 - HEALTH PROFESSIONS DEVELOPMENT
 - HEALTH STATISTICS

- FOODS AND DRUGS
- COMMUNICABLE DISEASES CONTROL
- O THE SECOND MEETING OF THE U.S.-NIGERIA JOINT TASK FORCE ON HEALTH COOPERATION WAS HELD THIS WEEK IN LAGOS AND WE ARE AWAITING A REPORT ON THAT MEETING. IT IS NOT KNOWN WHETHER CURRENT ECONOMIC DIFFICULTIES IN NIGERIA WILL HAVE AN IMPACT ON THIS PROGRAM.

5. USSR

- O THE PROGRAM WITH THE USSR HAS BEEN ACTIVE SINCE THE LATE 1950s, ALTHOUGH THE AGREEMENT FOR COOPERATION IN MEDICAL SCIENCE AND PUBLIC HEALTH WAS NOT SIGNED UNTIL 1972. A SECOND AGREEMENT ON ARTIFICIAL HEART R & D WAS SIGNED IN 1974. DESPITE THE DIPOMATIC DIFFICULTIES IN RECENT YEARS, BOTH AGREEMENTS WERE RENEWED IN EARLY 1982.
- O AGREED AREAS OF COOPERATION ARE:
 - CANCER
 - CARDIOVASCULAR DISEASE
 - ARTIFICIAL HEART
 - ENVIRONMENTAL HEALTH
 - ARTHRITIS
 - INFLUENZA, ACUTE RESPIRATORY DISEASE AND VIRAL HEPATITIS

- MENTAL HEALTH
- EYE DISEASES
- BIOMEDICAL COMMUNICATIONS
- INDIVIDUAL SCIENTIST EXCHANGE
- DESPITE THE GENERAL SLOWDOWN IN S & T COOPERATION BETWEEN THE U.S. AND THE SOVIET UNION, THIS PROGRAM HAS REMAINED QUITE ACTIVE (AT ABOUT 90% OF THE PREAFGHANISTAN LEVEL).
- O RECENT BENEFITS TO THE U.S. HAVE INCLUDED:
 - JOINT CLINICAL TRIALS OF THE Q-SWITCHED LASER FOR THE TREATMENT OF GLAUCOMA. WITH THE ADVICE AND ASSISTANCE OF THE SOVIETS, A LASER HAS BEEN CONSTRUCTED IN THE UNITED STATES AND IS BEING USED IN THESE STUDIES.
 - USEFUL EXCHANGES OF PERSONNEL, INFORMATION AND VIRUS STRAINS FOR JOINT STUDIES, OF INFLUENZA AND ACUTE RESPIRATORY DISEASES ARE CONTINUING. INFORMATION ON A SOVIET FLU EPIDEMIC SEVERAL YEARS AGO ENABLED THE CDC TO MAKE AN ASSESSMENT OF THE DISEASE'S POSSIBLE EPIDEMIC IMPACT IN THE UNITED STATES.
- V. OTHER AREAS OF INTEREST TO THE NCIH (SELECTED NIAID AND CDC PROGRAM ACTIVITIES)
 - A. As part of its international activities, the PHS is engaged in or supporting important research on diseases that are prevalent in developing countries. Included are

STUDIES SUPPORTED BY THE NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES, NIH; THE CENTERS FOR DISEASE CONTORL; AND THE NATIONAL HANSEN'S DISEASE CENTER OF THE HEALTH RESOURCES AND SERVICES ADMINISTRATION.

B. NIAID

- 1. NIAID CONTINUES TO ASSIGN SPECIAL PRIORITY IN ITS TROPICAL MEDICINE PROGRAM TO FILARIASIS, LEISHMANIASIS, LEPROSY, MALARIA, SCHISTOSOMIASIS AND TRYPANOSOMIASIS, THE SIX DISEASES TARGETED FOR INTENSIVE RESEARCH BY THE WHO/UNDP SPECIAL PROGRAM ON RESEARCH AND TRAINING ON TROPICAL DISEASE. THE FY 1982 COMMITMENT TO THE SIX DISEASES IN THE NIAID TROPICAL DISEASE PROGRAM WAS APPROXIMATELY \$12 MILLION.
- 2. THE NIAID PROGRAM ALSO INCLUDES OTHER INFECTIOUS DISEASES IN WHICH INTERNATIONAL COLLABORATION IS ESSENTIAL TO COMPLEMENT THE DOMESTIC RESEARCH EFFORT. THESE ACTIVITIES INCLUDE WORK IN THE GENERAL CATEGORIES OF PARASITOLOGY; TROPICAL BACTERIOLOGY, MYCOLOGY AND VIROLOGY; RICKETTSIOSES; AND VECTOR PATHOGENS.
- 3. HIGHLIGHTS OF RECENT NIAID SUPPORT OF TROPICAL DISEASE AND INTERNATIONAL RESEARCH, INCLUDE THE FOLLOWING:
- O FILARIASIS RECENT RESEARCH HAS FOCUSED ON THE DEVELOPMENT OF ANIMAL MODELS, IN VITRO CULTIVATION, IMPROVED METHODS OF DIAGNOSIS, AND IMMUNOLOGIC

RESPONSES TO FILARIAL INFECTION. SIGNIFICANT
DEVELOPMENTS INCLUDE THE AXENIC IN VITRO CULTURE AT
THE UNIVERSITY OF NOTRE DAME OF THIRD STAGE LARVA OF
DIPETALONEMA VIAEAE FROM TICKS. THIS TECHNIQUE SHOULD
INCREASE THE PRODUCTION OF ANTIGENS FOR DIAGNOSTIC OR
IMMUNIZATION PURPOSES AND THE POTENTIAL TO SCREEN
CHEMOTHERAPEUTIC AGENTS.

O TROPICAL VIROLOGY

- SEVERAL NIAID AWARDEES ARE USING RECOMBINANT DNA TECHNOLOGY TO DETERMINE WHICH GENE SEGMENTS OF VIRUSES CODE FOR VIRULANCE.
- IN JUNE 1980, THE HUMAN DIPLOID RABIES VACCINE ORIGINALLY DEVELOPED WITH NIAID SUPPORT AT THE WISTAR INSTITUTE WAS LICENSED FOR GENERAL USE IN THE USA. CURRENT STUDIES THERE INCLUDE: (1) THE USE OF MONOCLONAL ANTIBODIES TO INVESTIGATE THE WORLD-WIDE DISTRIBUTION OF RABIES VIRUS STRAINS; AND (2) COLLABORATIVE ANALYSES OF STREET (WILD-TYPE) RABIES STRAINS FROM ANIMALS WHICH DIED IN SPITE OF PROPHYLACTIC VACCINATION AND OF HUMANS WHO DEVELOPED DISEASE DESPITE POST-EXPOSURE VACCINE TREATMENT. PRELIMINARY RESULTS INDICATE THAT NATURAL ANTIGENIC VARIANTS OF RABIES VIRUS, PROBABLY OF BAT ORIGIN, EXIST IN MANY AREAS. THUS, TRADITIONAL RABIES VACCINES CONFERRED LITTLE OR NO PROTECTION.

O VECTOR PATHOGENS

RESEARCH PROJECTS INVOLVING VECTORS OF PUBLIC HEALTH IMPORTANCE CUT ACROSS VIROLOGY, PARASITOLOGY AND

RICKFTTSIAL DISEASES.

Intramural and overseas projects (including work in Egypt) concentrated on the insect vectors of human diseases, particularly tick-borne diseases. This expertise within NIH is concentrated in the Epidemiology Branch of the Rocky Mountain Laboratories.

SEVERAL STUDIES HAVE FOCUSED ON INNOVATIVE APPROACHES, TO VECTOR CONTROL. A STUDY AT OHIO STATE UNVIERSITY, FOR EXAMPLE, IS INVESTIGATING STRATEGIES TO DISRUPT PREGNANCY IN THE TSETSE FLY VECTORS OF AFRICAN SLEEPING SICKNESS WHICH ONLY LAY ONE EGG AFTER EACH MATING.

O DIARRHEAL DISEASES

IN FY 1981, NIAID ESTABLISHED A NEW ENTERIC DISEASE STUDY CENTER WITH JOHNS HOPKINS AT THE WHITERIVER APACHE INDIAN RESERVATION IN ARIZONA. THE CENTER IS STUDYING THE EPIDEMIOLOGY OF DIARRHEA AND THE EFFECT OF POTABLE WATER SUPPLIES ON ENTERIC ILLNESS.

O VACCINE DEVELOPMENT

NIAID IS ALSO CONCERNED WITH VACCINE DEVELOPMENT. SOME OF THE MORE PROMISING WORK IS BEING DONE ON VACCINES FOR HEPATITIS B, MENINGOCOCCAL MENINGITIS, HEMOPHILUS MENINGITIS, CHICKENPOX AND TYPHOID FEVER.

O INTERNATIONAL COLLABORATION IN INFECTIOUS DISEASE RESEARCH

THE ICIDR (INSIDERS PRONOUNCE THIS AS "EYE CYDER")

PROGRAM INVOLVES AWARDS TO U.S. INSTITUTIONS TO ENABLE THEM TO HAVE A LINKAGE OF RESEARCH WITH INSTITUTIONS OVERSEAS. CURRENT AWARDEES INCLUDE:

- O HARVARD SCHOOL OF PUBLIC HEALTH WHICH IS COLLABORATING WITH THE FEDERAL UNIVERSITY OF BAHIA, BRAZIL ON SCHISTOSOMIASIS AND CHAGAS' DISEASE.
- O University of Illinois which is collaborating with the Chiang Mai University in Thailand on Immunobiology and Epidemiology of Leprosy.
- O MICHIGAN STATE UNIVERSITY WHICH IS WORKING WITH THE CENTRAL LABORATORY OF THE MINISTRY OF HEALTH IN SUDAN ON SCHISTOSOMIASIS, ONCHOCERCIASIS AND MALARIA.

C. CENTERS FOR DISEASE CONTROL

- 1. Each year CDC cooperates with as many as 100 countries, through various mechanisms, including:
 - O INVESTIGATION OF THE OUTBREAK OF DISEASE
 - O ASSISTANCE IN DISEASE SURVEILLANCE ACTIVITIES AND CONDUCTING HEALTH SURVEYS IN REFUGEE CAMPS
 - O CONDUCTING RESEARCH.
 - O PARTICIPATING IN OR CONDUCTNG COURSES AND WORKSHOPS ON SUCH TOPICS AS LABORATORY MANAGEMENT, HEMATOLOGY, IMMUNOLOGY, EPIDEMIOLOGY, FAMILY PLANNING, IMMUNIZATION, OCCUPATIONAL HEALTH, AND DIARRHEAL, PARASITIC AND VENEREAL DISEASES.

- O COLLABORATING ON OPERATION PROJECTS WITH AID AND WHO.
- 2. IMPORTANT LABORATORY ASSISTANCE AND SUPPORT IS PROVIDED THROUGH:
 - O PROVISION OF REFERENCE AGENTS (E.G. ARBOVIRUS) TO OTHER COUNTRIES FOR USE IN SURVEILLANCE OF DISEASES, DIAGNOSTIC REAGENTS, SETS OF CONTROL STRAINS, ETC.
 - O ESTABLISHMENT OF GUIDELINES AND STANDARDS FOR THE EVALUATION AND PRODUCTION OF REFERENCE PREPARATIONS AND TESTS.
- 3. CDC FACILITIES SERVE AS 27 DIFFERENT WHO COLLABORATING OR NATIONAL CENTERS. THESE INCLUDE COLLABORATING CENTERS FOR REFERENCE AND RESEARCH ON ARBOVIRUSES INFLUENZA, MYCOBACTERIUM LEPRAE, RABIES, RESPIRATORY VIRUS DISEASES, AND VIRAL HEPATITIS.

4. COOPERATION WITH AID:

O CDC'S FAMILY PLANNING EVALUATION STAFF PROVIDES SUPPORT TO AID TO IMPROVE THE MANAGEMENT AND EVALUATION OF CAPABILITIES OF FAMILY PLANNING AND MATERNAL-CHILD HEALTH PROGRAMS IN LESS DEVELOPED COUNTRIES. ACTIVITIES INCLUDE EVALUATIONS OF CONTRACEPTIVE DISTRIBUTION SYSTEMS, INCLUDING COMMUNITY BASED PROGRAMS; CONTRACEPTIVE PREVALENCE SURVEYS; EVALUATION OF THE COMPLETENESS AND QUALITY OF FAMILY PLANNING DATA SYSTEMS, ETC.

O SEVERAL CDC OFFICERS ARE NOW ASSIGNED OVERSEAS TO ASSIST IN THE DEVELOPMENT OF DISEASE SURVEILLANCE IN 20 COUNTRIES IN WEST AND CENTRAL AFRICA AND IN INDONESIA TO REDUCE MORBIDITY AND MORTALITY OF DISEASES PREVENTABLE BY IMMUNIZATION. COUNTRIES INVOLVED INCLUDE INDONESIA, ZAIRE, CONGO, IVORY COAST, CAMEROON, AND THE GAMBIA.

5. EPIDEMIC INTELLIGENCE SERVICE

Cooperating both bilaterally and through WHO, CDC is assisting other countries in the development of training programs for and Epidemic Intelligence Service type training program. Of particular note is the project now going in Thailand, under WHO auspices, to establish such a program for that region.

5. RESEARCH

CDC IS CONDUCTING A BROAD RANGE OF RESEARCH ON PROBLEMS OF INTERNATIONAL IMPORTANCE, INCLUDING:

- O DENGUE -- A COLLABORATIVE STUDY WITH MEXICO HAS INCREASED OUR ABILITY TO PREDICT AREAS OF HIGHER RISK DENGUE TRANSMISSION IN THE SOUTHEASTERN U.S. AND IN PUERTO RICO.
- O MALARIA CDC'S PARASITIC DISEASE DIVISION SERVES AS A REFERENCE LABOARATORY FOR WELL CHARACTERIZED STRAINS OF <u>Plasmodium falciparum</u> used in Laboratories worldwide.

8. TRAINING

CDC HAS AN IMPORTANT TRAINING PROGRAM DIRECTED TOWARD DOMESTIC AND INTERNATIONAL NEEDS. IN 1982, OVER 700 INTERNATIONAL HEALTH WORKERS FROM OVER 100 COUNTRIES CAME TO CDC TO ATTEND SPECIAL SEMINARS, CONFERENCES, AND COURSES OR TO RECEIVE INDIVIDUAL INSTRUCTION.