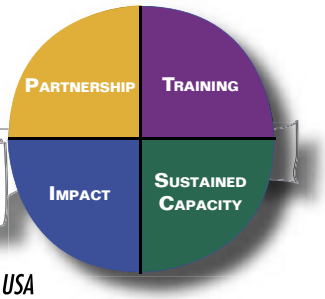
Partnerships in Excellence

Charting the Future in Global Health

Summer 2003

Yearly Update from the Centers for Disease Control and Prevention, Division of International Health, Epidemiology Office, Atlanta, Georgia, USA



Partnerships in Excellence ***(PIE) is a yearly newsletter that aims to inform U.S. and global partners in public health training programs about activities of the international community at the Centers for Disease Control and Prevention.***

Current and past issues of *PIE* ***can be viewed at our Web site: http://www.cdc.gov/epo/dih.***

Centers for Disease Control and Prevention, Epidemiology Program Office, Division of International Health

Management and Production Staff for *Partnerships in Excellence:*

Mark E. White, MD, Director

Edmond Maes, PhD, MS
Assistant Director for Science

Rubina Imtiaz, MBBS
Chief, Public Health Systems Development Branch

Douglas Klaucke, MD, MPH
Chief, Training, Evaluation, and Surveillance Branch

Elliott Churchill, MS, MA
Managing Editor

Juliette Mannie
Technical Specialist

Dear Colleagues in Public Health:

Welcome to this summary of the work of the Division of International Health's (DIH's) activities over calendar year 2002. Our goal is to improve the health of the public in our partner countries and institutions. In the short term, we use on-the-job training to help epidemiologists and other public health practitioners improve their ability to respond to acute problems in real time. In the longer term, we work with ministries of health (MOH) to build and strengthen administrative structures and train cadres of health workers competent in evidence-based public health who can work together to strengthen surveillance, outbreak response, program implementation, evaluation, communications, and advocacy. DIH's products include crafting tailor-made training programs for health staff in many countries, creating training modules, delivering training, and designing and using principles of instructional design and modular and computer-assisted learning.

Sometimes top managers or donors assume that evidence-based capacity exists or that the most efficient method of training is to concentrate on the skills needed for a program designed to deal with only a single disease or other type of threat to the public's health. Unfortunately, it is often difficult for someone who is oriented to a single disease entity to shift gears and deal effectively with new or changing situations. In contrast to the more traditional, so-called "vertical" approach to public health practice, in-service training of public health practitioners in surveillance and emergency response in the Brazil National Center for Epidemiology (CENEPI) and its new Brazilian Field Epidemiology Training Program (FETP) offers a good example of how applied epidemiology can be used successfully to respond to specific and often extremely complex problems. In March of 2002, the Brazil FETP learned of two deaths from severe bleeding and hypotension following routine, elective surgery at a hospital in the state of Pernambuco. FETP-Brazil rapidly responded to a request for assistance, and a team including national, state, and local health officials; university experts; clinicians; and administrators in both public and private hospitals was mobilized.

Investigation showed that all 28 persons in six hospitals who had been reported to have adverse reactions, including hemorrhage, had received intravenous fluids produced by the same company. Laboratory analysis did not find any bacteria in the products from this company, but high concentrations of an endotoxin, which can be highly toxic, were identified and thought to have been introduced into the fluids during the manufacturing process. All of the intravenous fluids from this company were removed from the market, and the manufacturing plant was closed. Simultaneously with the recall, Pernambuco State implemented a quality control program that called for routine, ongoing testing of random lots of parenteral solutions and medications to assure a safe supply for private and public hospitals and clinicians.

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The Brazilian FETP investigation shows how public health practitioners can work together using evidence-based public health methods to identify, analyze, and take appropriate action rapidly in order to minimize a potential national health risk. as well as to prevent future adverse reactions (including death) during surgery or following administration of parenteral medications contaminated with endotoxin.

The Brazilian FETP is one of over 25 members of TEPHINET (Training Programs in Public Health and Interventions Network), which also includes CDC and WHO. TEPHINET's goal is to improve the effectiveness and efficiency of public health programs in the world. The China FETP, which recently did the first investigations of severe acute respiratory syndrome (SARS), is one of TEPHINET's newest members.

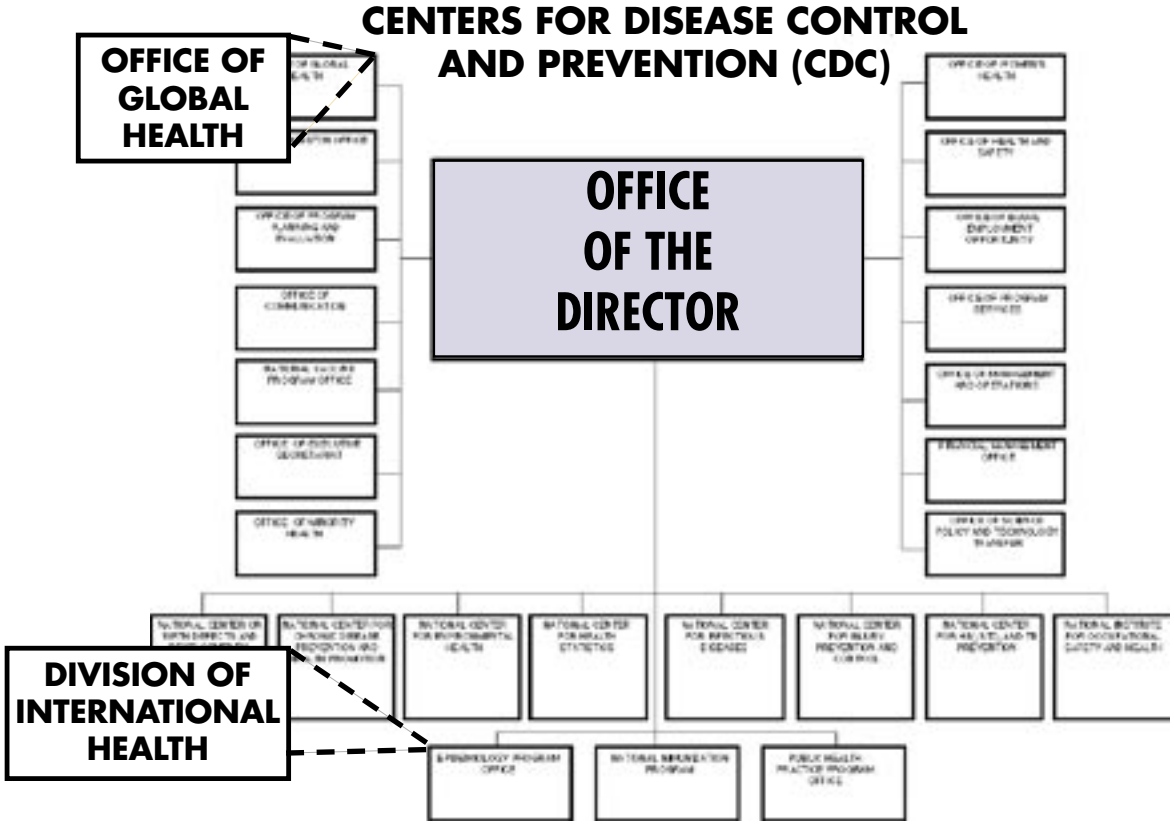
We hope this update about the Division of International Health and its activities will be useful to you as you plan and implement your programs to improve health.

With sincere best wishes,

Mark E.White, MD, FACPM
Director, Division of International Health
Epidemiology Program Office
Centers for Disease Control and Prevention

Photo courtesy of Steve Stewart, CDC, NIP

Public health surveillance takes many forms...



The Organization and Strategy Behind CDC's Global Health Work

Stephen B. Blount, Associate Director for Global Health, CDC and Director, Office of Global Health

Ever mixed up CDC's Office of Global Health (OGH) and Division of International Health (DIH)? That has happened more than once to both CDC insiders and outside colleagues and partners. The Division of International Health is a unit of the Epidemiology Program office (EPO). EPO is one of the twelve CDC Centers, Institutes, and Offices (CIOs) of CDC. The Office of Global Health, on the other hand, is positioned in the CDC Office of the Director, and is a coordinating office working to support and coordinate the global health work across the many parts of CDC. The attached organization chart may help you sort this out!

OGH has articulated an overall strategy for CDC's global health efforts (available at http://www.cdc.gov/ogh/publications/strategy.htm), which emphasizes five strategic areas:

- Public health surveillance and response
- Infrastructure and capacity-building
- Disease and injury prevention and control
- Applied research for effective health policies, and
- Exchange of information and lessons learned.

The Division of International Health conducts programs addressing each of these areas, particularly the first and second ones, through its major programs such as Applied Epidemiology Training, DDM, National Epidemiology Bulletins, and Integrated Disease Surveillance.

OGH does not directly conduct programs. In fact, we use the phrase, "Helping CDC Help the World," to explain that ours is a facilitating and supporting role. Using the Division of International Health as an example, here are some of the key ways OGH provides support:

- by securing funding for DIH's important efforts including the FETPs in India, Brazil, and Central America
- by advocating and promoting DIH's programs to CDC leadership
- by helping to promote partnerships and encourage linkages for DIH efforts, for example, the Integrated Disease Surveillance collaboration between DIH, WHO-AFRO, the

UN Foundation, USAID, and NCID

- by providing services and assistance to DIH staff working around the world on global health assignments or moving overseas for long-term assignments. Among CDC's nearly 200 overseas positions, ten are DIH assignments. Visit http://www.cdc.gov/ogh/presence.htm to see a map showing the locations of CDC's global health assignees.

OGH also coordinates sharing of information on DIH's, and all of CDC's, global health activities. For instance, OGH publishes the CDC Global Health Activities Report, available at http://www.cdc.gov/ogh/ghar99/index.htm. The Activities Report catalogs and describes in detail the work of DIH and all the other parts of CDC conducting global health programs. The activities can be reviewed by country, by topic, by partner organization, and by CDC CIO.

Working with DIH and all of you working in public health programs around the world, makes OGH's job of "Helping CDC Help the World" that much more meaningful and enjoyable. OGH looks forward to continuing to support your efforts!

Helping CDC help the world

A Gathering of the Colleagues: Central Asia Comes to Atlanta

Elliott Churchill, DIH Senior Communications Officer

At the beginning of the 1990s, as the former Soviet Union was beginning to come apart, CDC entered into a partnership with the U.S. Agency for International Development to implement a technical assistance program for emergency public health surveillance systems in the former USSR. Early on, a major area targeted for assessment and assistance was public health surveillance, which encompasses the collection, analysis, and dissemination of health-related information to all persons, including the general public, who need such information in making informed decisions and in setting policy.

The dissemination and effective use of timely and accurate health information is critical to public health practice throughout the world.

This summer, in August and September, DIH will host the 11th iteration of a 5-week training course, "Epidemiology, Biostatistics, and Scientific Communications," which was developed specifically to meet the needs of public health practitioners from the former Soviet Union. In past sessions, trainees have represented the public health structure of 12 of the 15 republics from the vast expanse of 11 time zones that used to be the USSR. These republics include Russia, Belarus, Moldova, Ukraine, Georgia, Armenia, Azerbaijan, and the "Stans" (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan). This time, we will host colleagues from four of the five Stans (Turkmenistan is unable to participate). The course begins and ends in Atlanta, with trainees housed at the CDC-Emory Community's Villa International, on Clifton Road.

This 5-week training program includes a) a 4-week classroom course that covers descriptive

epidemiology and biostatistics, analytic epidemiology, scientific communications, public health surveillance, the conduct of field outbreak investigations, principles of disease control and prevention, and strategies to control and prevent problems that are of concern to the public health systems of the participating countries; and b) a 1-week internship in a state health department.

For the middle week of the 5-week course, participants will visit in pairs in state health departments. Experience shows that this is one of the most important aspects of the training program we can provide to our colleagues from the East. Most of them have never been exposed to a setting in which decisions about health care and public health practice are made and implemented at the state and local level. The system under which they have worked for most of their careers has been a strong, top-down system in which required information rose upward through the system to the top, and orders came downward. Almost no emphasis was placed on providing feedback for decision making to the local levels of the system, and it was rare that public health officials at various levels of the system were encouraged to network and collaborate on matters relating to health. They have been told about the U.S. model of public health, which says that the power of public health is at the state and local level, but most of them have never seen it. The state visits during this course provide that opportunity.

Feedback from members of past groups of trainees in this course indicates that their Atlanta-based training has had a positive, sustained effect on their ability to practice public health more efficiently and effectively. Granted, since we have only had access to approximately 250 of the health officials in the 12 republics with which we have worked, we have not managed to change the health system of the former Soviet Union to make it appear to be a clone of Western public health practice. However, we are told that our trainees are able to lobby for — and often succeed in their efforts — changes in the way investigations are conducted (analytic versus descriptive epidemiology), in the way information is disseminated and used (a circular and horizontal flow of information rather than an "information up; orders down" model), and in the way the public is approached and dealt with on matters related to health (efforts to enlist the public in the concept of staying well rather than waiting to be cured of something; providing the information needed for the public to make informed decisions about their own health).

We believe this qualifies as an impact that is worth continuing.

Training effective managers in public health practice

Partnerships in Excellence

Division of International Health Co-Hosts International Night

Edmond F. Maes, DIH Associate Director for Science

Since the late 1980s, the Division of International Health (DIH) has co-hosted International Night during the Annual Epidemic Intelligence Service (EIS) Conference. In 2003, trainees in the international applied epidemiology and training programs followed their predecessors by competing to give a scientific presentation at the EIS conference. The second co-host of International Night is TEPHINET (Training in Applied Epidemiology and Public Health Interventions Network). This network represents 30 programs, including some regional programs, located around the world, that provide service to ministries of health during training in applied epidemiology. Abstracts are invited from trainees in all of these programs, to be screened and evaluated by staff from DIH and TEPHINET.

This year the theme of the International Night program was: "Evidence-based decision making in international health: a tool to increase impact." As has been the pattern in recent years, DIH received more than 80 abstracts (representing 17 programs) to consider for five openings in the International Program. Each abstract was reviewed by three epidemiologists and evaluated on the same basis as abstracts from CDC's EIS candidates to the conference. One important requirement for gaining points in the ranking process was a clear statement of the health impact of recommendations made on the basis of the study being reported on.

The five abstracts selected for 2003 International Night were submitted from programs in Brazil, China, Jordan, Spain, Zimbabwe, and the United States. They dealt with a broad variety of health problems, including safety of medical products (Brazil, Spain), injection safety (China), food-borne disease (Jordan), HIV prevention (Zimbabwe), and typhoid fever surveillance (EIS). The presentations were moderated by Dr. Eugene Gangarosa (EIS 1964) of Emory University, and Dr. Dionisio Herrera of the Spain Applied Epidemiology Training Program, Chairman of TEPHINET.

One special feature on International Night is the presentation of the William Foege Award. Each year since 1998, the Foege Award has been presented to a speaker and program for the presentation that best illustrates the impact of applied epidemiology on the process of improving health. The 2003 Foege Award was presented to Dr. Ulrike Durr and colleagues of Spain for their presentation entitled "Outbreak of aseptic peritonitis among peritoneal dialysis patients associated with the use of icodextrin, January-April, 2002." This presentation highlighted the need for rapid investigation of outbreaks, particularly when they are associated with medical products and the increasing international distribution of those products.

International Night provides a great opportunity to highlight some of the best investigations done by Applied Epidemiology Training Programs from all over the world. The presentations listed above illustrate how AETPs produce immediate benefits to their nations while training the next generation of leaders in field epidemiology. DIH is pleased to co-host this important program and encourages trainees and staff from all TEPHINET member programs to submit their best work for consideration for this event.

Spain and Jordan receiving awards at International Night 2003

A Snapshot of the Public Health System Development Branch (PHSDB)

Rubina Imtiaz, Chief

Who We Are:
The mission of PHSDB is to assess, negotiate, and manage international capacity-building projects. This broad base of responsibilities includes the development and support of Applied Epidemiology Training Programs (AETPs). The branch staff includes experienced field epidemiologists, public health advisors, administrators, and managers. Several field epidemiologists are based as long-term resident advisors in developing AETPs overseas. They work closely with their country counterparts to provide mentoring and training for AETP officers, help develop faculty for the programs, and assist with transferring skills to the host country staff. The aim is that, when the resident advisors leave after a few years, the country can maintain the program largely through its own resources. These in-country consultants help their hosts develop epidemiologic training and public health capacity.

PHSDB staff based in Atlanta work as closely knit teams of epidemiologists, public health advisors, instructional designers, and program analysts. They travel to project areas to provide technical support for training, as needed. They also develop work plans in close partnership with the host country and donors. In addition, they facilitate AETPs to develop skills in teaching program management

PHSDB staff also work very closely with the other branches of the Division of International Health (as cross-cutting teams) to develop appropriate curricula for AETPs. We also collaborate extensively with partners in other parts of CDC and with external partners nationally and internationally in support of the AETPs.

In the past 2 years, India and China have joined the growing list of countries that are starting AETPs. These two countries account for over 50% of the world's population (more than 2 billion people). PHSDB is placing a very experienced field epidemiologist as resident advisor in the India program, based in Chennai,

continued on page 9

Training at the national level for benefit at the local level

A Quick Look at the Competency-Based Training, Evaluation, and Surveillance Branch

Douglas Klaucke, Chief

Who We Are:

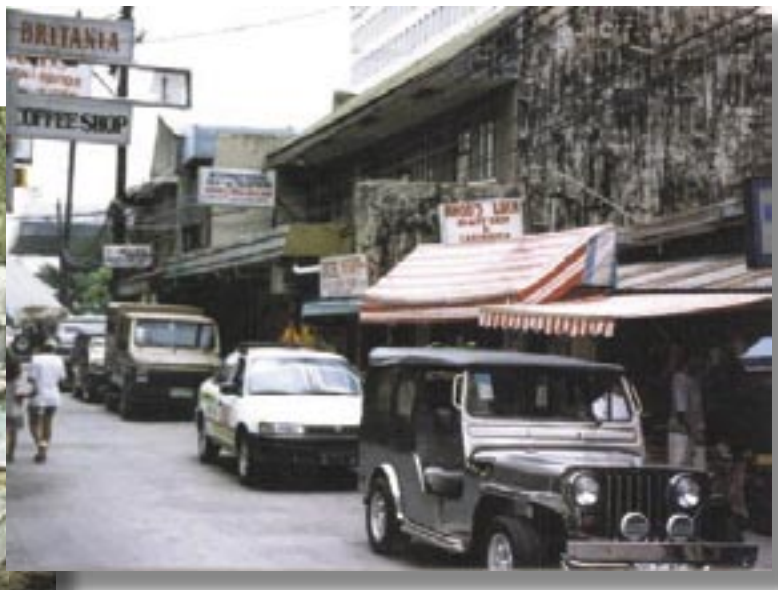
The mission of our branch is

- to develop and evaluate new training methods and materials in support of Applied Epidemiology Training Programs (AETPs), Data for Decision-Making projects, and other applied public health training activities
- to develop and apply methods to evaluate both training materials and AETPs
- to help ministries of health develop their capacity to set up and manage surveillance systems and to use surveillance data for disease control, policy formulation, resource allocation, and public health management

In the area of evaluation we are working closely with TEPHINET, a network of training programs in epidemiology and public health, to develop guidelines for quality improvement to be used by Applied Epidemiology Training Programs. A draft of the quality improvement framework has been recently applied in Egypt. We are also linking training materials to specific learning objectives and competencies in part so that the effectiveness of these materials can be evaluated.

In the area of surveillance, the branch is working with the National Center for Injury Prevention and Control to write a manual that can be used as the basis for a modular training course on how to design, establish, manage and evaluate surveillance systems for injuries. This manual will be especially useful to developing countries who are establishing new systems. We are also helping the ministries of health in Ethiopia, Ghana, Tanzania, Uganda and Zimbabwe to improve their capacity to analyze surveillance data and to identify and respond effectively to epidemics. In Ghana, Uganda and Zimbabwe this is being done in partnership with the local Public Health School without Walls.

Finally, the epidemiologists, public health advisors, health education specialists and information technology specialists of the branch also work very closely with the Public Health Systems Branch of DIH to support AETPs.



Surveillance tools can cover a wide range of health problems

Focus on the Creation of Aids to Training:

A major activity of the branch is the development of a new tool called "mini-modules" for teaching difficult or confusing topics in epidemiology and biostatistics. A mini-module is a small computer-based learning module that addresses a specific need in epidemiology training. Each module is approximately 10 pages long and addresses only one or two specific learning objectives. These mini-modules can also be given to trainees as files on compact disks or as files transmitted electronically through the Internet. Recipients can use them as job aids to reinforce previous learning or as just-in-time tutorial devices for needed critical skills. These modules can be used as interactive exercises that complement lectures, as mini-lessons, or as "drills" within a case study to practice a skill. For example, if trainees have difficulty grasping the concept of confidence intervals, they can consult a mini-module to read or hear information about confidence intervals, see examples of how confidence intervals are computed, and, most importantly, they are given the opportunity to practice interpreting confidence intervals. We are also in the process of producing a simple tool that will allow national and sub-national health trainers to create training modules appropriate to their own situations.

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continued from *A Snapshot of PHSDB*

in the summer of 2003. We are working to help secure funding for a resident advisor position for China. We have also received requests for assistance in starting new programs in Pakistan and Romania, and we are assisting the Pacific Islands Health Officers' Association in conducting a needs assessment for similar projects.

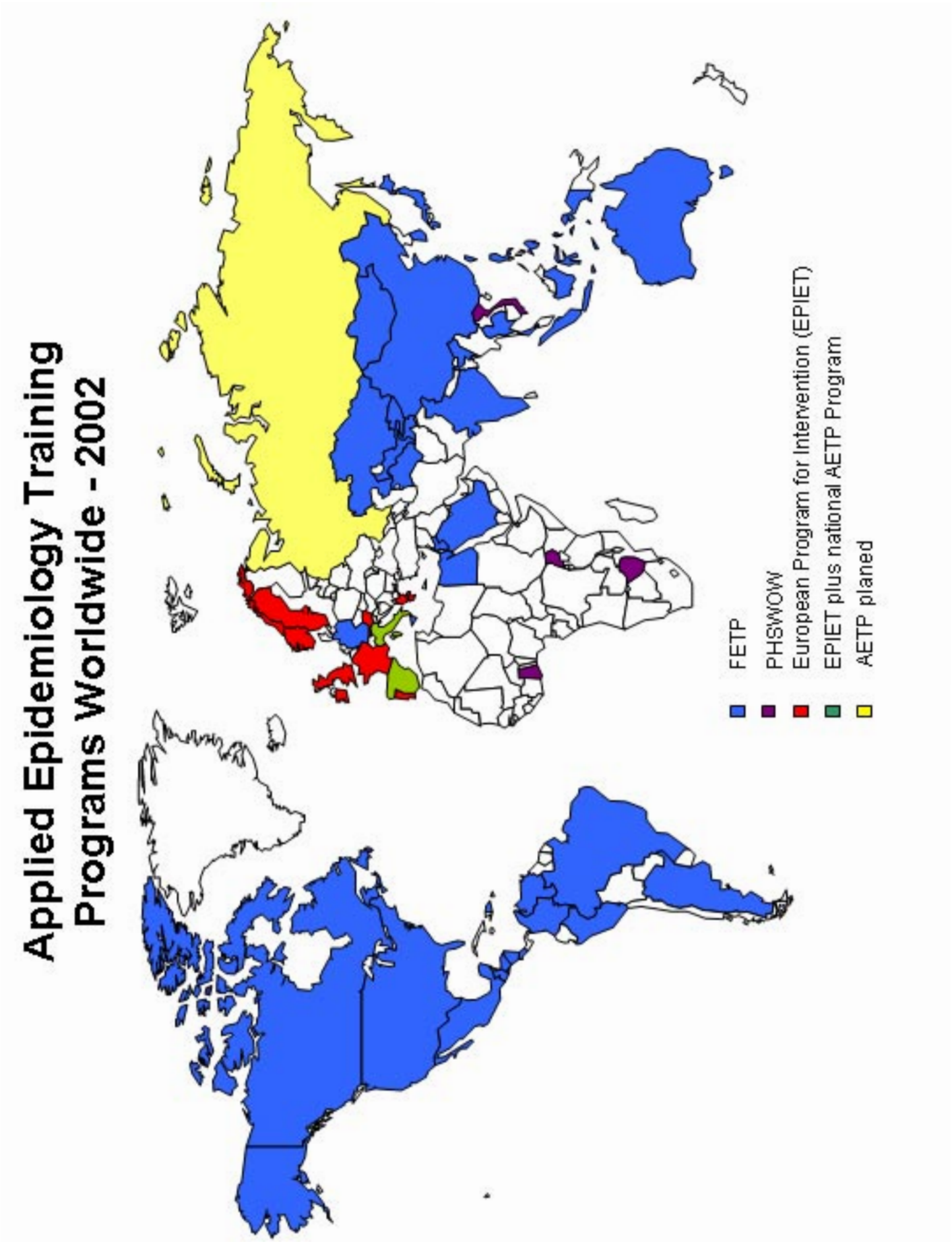
Focus on Strengthening Chronic Disease Surveillance in the Americas:
(contributed by Paola Marrero, Public Health Specialist, National Center for Chronic Disease Prevention and Health Promotion, CDC)

As the global burden of chronic diseases grows, there is a clear and increasing need for public health professionals with knowledge and experience in chronic disease surveillance. In order to assist ministries of health in the Americas that want to improve their ability to measure the burden to society represented by chronic diseases and their related risk factors, CDC's National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), in collaboration with the Epidemiology Program Office (EPO), Division of International Health, recently held a chronic disease epidemiology and surveillance training course for epidemiologists responsible for non-communicable disease surveillance from 14 Latin American countries and AETP trainees.

The 1-week course – held in Atlanta, Georgia, USA , August 5-9, 2002 – provided participants with the theoretical principles and practical tools necessary to design and implement effective chronic disease surveillance programs. The participants' enthusiasm in strengthening capacity in their countries to address the public health threat represented by chronic disease led to the formation of a "Chronic Disease Network of the Americas" as a mechanism for exchanging information and experiences in establishing chronic disease surveillance systems.

CDC is collaborating with TEPHINET to assist this newly created network to establish itself within the global public health community. Next on the agenda for the Chronic Disease Network of the Americas is a scientific conference that is tentatively planned to be held within the next year in Colombia, South America.

To learn more or participate in this network, please contact Dr. Miguel Gonzalez at mgonzalezcol@yahoo.com.


Applied Epidemiology Training
Programs Worldwide - 2002
FETP
PHSWOW
European Program for Intervention (EPIET)
EPIET plus national AETP Program
AETP planed

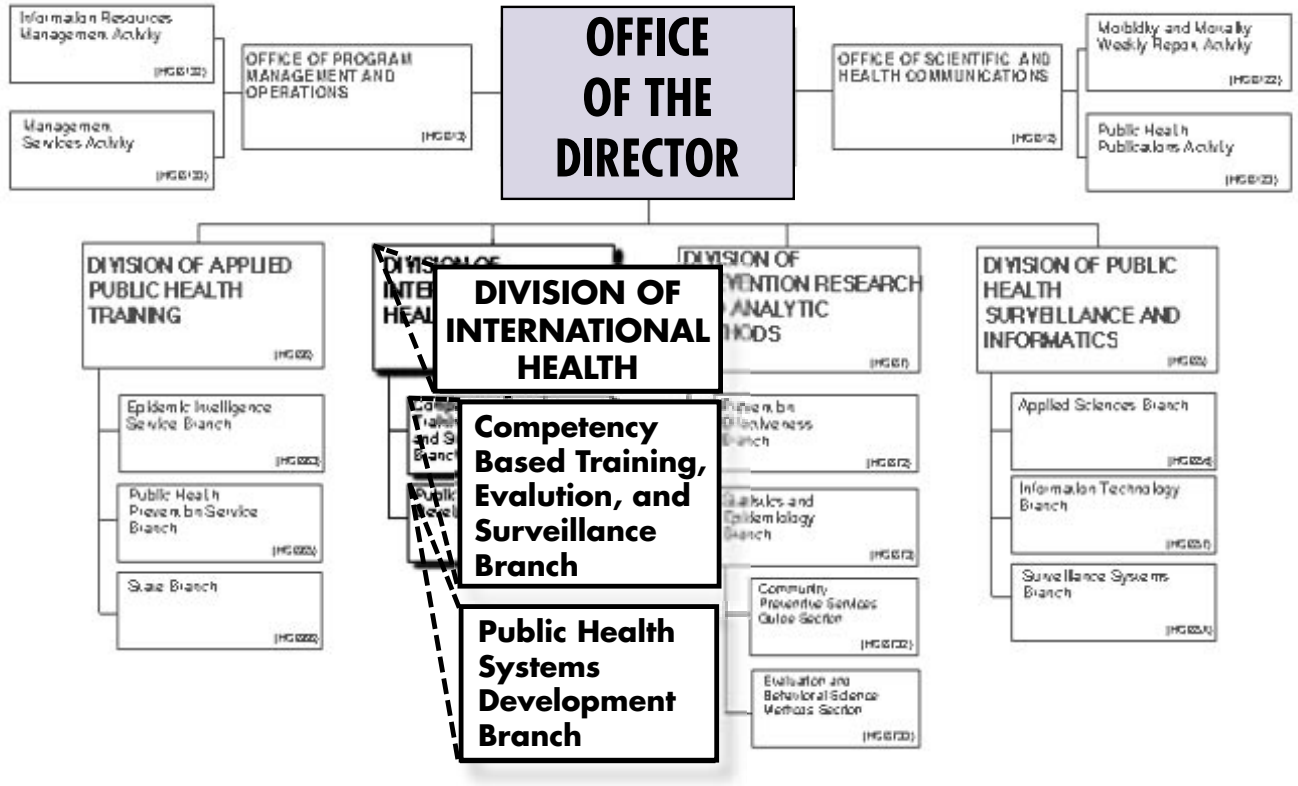
Members of TEPHINET (Training Programs in Epidemiology and Public Health Interventions Network), 2002

Country	Year Started	Current Trainees	Number of Classes to Date	Number of Graduates to Date
Argentina	2001	12	2	0
Brazil	2000	10	2	11
Canada*	1975	10	28	68
Central America	2000	36	3	20
Central Asian Republics	2003	7	1	0
China	2001	10	2	0
Colombia	1992	7	8	38
Egypt	1993	7	9	43
European Union (EPIET)*	1995	9		56
Germany*	1996	6		2
Ghana	1997	24	6	77
Hungary*	1995	0		9
India	2001	9	3	0
Indonesia*	1982	42		50
Italy*	1992	6	2	6
Japan	1999	2	4	9
Jordan	1999	6	3	13
Korea*	2001	10		0
Mexico	1984	28	19	111
Peru	1989	45		49
Philippines	1987	10	16	61
Saudi Arabia*	1989	5	14	58
Spain	1994	11	9	49
Taiwan*	1984	22	17	88
Thailand*	1980	13	20	110
Uganda	1994	50	9	80
United States	1951	132	53	2,400
Vietnam*	1997	42		24
Zimbabwe	1993	24	10	50

*Provisional data.

From the farm to the seacoast, field investigations get results

CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC)
EPIDEMIOLOGY PROGRAM OFFICE



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Partnerships in Excellence and to recopy the newsletter for sharing (HTTP://www.cdc.gov/epo/dih). We would appreciate your comments and value your suggestions for future articles and features. If you have questions, please call or e-mail us (Elliott at 770-488-8353, rec1@cdc.gov; Juliette at 770-488-8491, zno4@cdc.gov).

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