Welcome to the 30 Year Anniversary of the Taiwan FETP

Overview

• Origin of FETPs – historical context
• Common challenges faced by all FETPs
• Unique contributions of the Taiwan FETP
• Opportunities for the future of Taiwan’s FETP
Mission of the FETP

1. Rapid response to investigate outbreaks
2. Provide evidence-basis for decision-making
3. Strengthen public health workforce capacity
4. Expand the global public health knowledge base
EIS Officers in Action

- 1950: Threat of Biological Warfare
- 1955: Polio Epidemic
- 1957: Asian Flu

1950s
Key Features of EIS

- One month intensive course in epidemiology and biostatistics
- 23 months of mentored field work
- Interact with local public health officials and the news media
- Publish and present papers at scientific meetings
- No academic degree or certification

Smallpox eradication program
EIS Officers working internationally

Increasing number of international applicants to EIS in 1970’s
Thailand – first Global EIS Program established in 1979

By 1983....

- Global EIS renamed FETP
- Programs started in Thailand, Saudi Arabia, Indonesia, and Mexico
- Each program faced a number of similar challenges
Some of the common challenges faced in starting all the FETPs

- Funding for CDC Resident Advisor
- Where to locate the FETPs administratively
- Finding qualified mentors and instructors
- Developing a career path for graduates

So how did Taiwan become the 5th member of the FETP family in 1984?
Island-wide polio epidemic of 1982 – the motivation for the FETP
Taiwan and the United Nations - Withdrawal in 1971 was an historic turning point

Whether one regards it as a pull out or an expulsion, the loss of Taiwan's UN seat in 1971 was the result of a decades-long loss of international support for the ROC regime.

By Monique Chu / STAFF REPORTER

The day after the Republic of China lost its UN seat, Frederick Chien, the foreign ministry's director-general of the Department of North American Affairs, received a phone call from an American boy at Taipei's UN mission located on Second Avenue in New York City.

"He said, 'I heard my father say that you lost your seat at the UN. You must be very sad. If you have no place to go, we have rooms at our home. Please come and join us,'" recalled Chien, now president of the Control Yuan, yesterday morning in his office.

Taiwan's loss of the China seat at the UN 30 years ago was the culmination of a slow
CDC EIS Teaching Case

Oswego – An Outbreak of Gastrointestinal Illness Following a Church Supper

Learning Objectives

After completing this case study, the participant should be able to:

- Define the terms “cluster,” “outbreak,” and “epidemic.”
- List the steps in the investigation of an outbreak.
- Draw, interpret, and describe the value of an epidemic curve.
- Calculate and compare food-specific attack rates to identify possible vehicles.
- List reasons for investigating an outbreak that has apparently ended.

This case study is based on an investigation conducted by the New York State Department of Public Health Division. The case study was developed by Wendell Ames, MD; Stafford Wheeler, MD; and Alexander Langmuir, MD in the early 1940s. It has been substantially updated and retitled since then by Philip Brachman, Michael Gregg, and Richard Dinkin, with input from the many instructors who have reviewed and taught “Oswego” as part of the EIS Summer Course each year.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service

CDC
200 students, staff have dengue fever symptoms

Reports say two students have died

More than 200 students and teachers at Kaohsiung high school are suspected to have contracted dengue fever as an epidemic of the disease quickens its spread in southern Taiwan.

Newspaper reports said two students at Jui Feng junior high school in Kaohsiung died from dengue fever, but the reports could not be confirmed by municipal health authorities.

As of Thursday, 191 students and 24 teachers at Jui Feng junior high school had come down with what physicians believed was dengue fever.

The victims felt pain all over and ran high temperatures. In more serious cases, patients bled in their nose and eyes, a school spokesman said.

The fear of getting bitten by mosquitoes—the main vector of dengue fever—has prompted students and teachers to light mosquito coils in class and to wear long-sleeve shirts.

Some 20 to 30 students have been asking for sick leave everyday in recent days, the school spokesman said.

The spokesman said suspected cases of dengue fever broke out at the school in January, but he did not give the number of students who had been hospitalized with symptoms of the fever.

The southern port city of Kaohsiung has been worst-hit by a dengue fever epidemic which began last year. The city recorded 1,561 suspected dengue fever patients in September, the highest monthly figure this year.

Kaohsiung's municipal Education Department has given schools the authority to suspend classes if they believe dengue fever is endangering their students and staff.

The Bureau of Disease Control of the National Health Administration has attributed the spread of the disease to poor sanitation which makes it easier for mosquitoes to breed.

Symptoms of dengue fever are backache, fatigue, loss of appetite, ruddy cheeks and a fever that may run as high as 40 C. First-time victims are likely to develop hemorrhages, and dengue fever has a mortality rate of 15 percent.

Survey shows 51% of males running serious health risks

Some 51 percent of males and 24 percent of females living in Taiwan are subject to at least 3 of a number of major health risks prevalent here, the National Health Administration (NHA) announced yesterday.

The NHA listed the major health risks as: obesity, physical inactivity, hypertension, smoking, heavy drinking, drunken driving, poor motor vehicle safety, and indulgence in betel nut chewing. The NHA surveyed 2,500 Taipei residents, over 15 years old, to compile its statistics.

Health officials revealed that 19 percent of males and 14 percent of females interviewed were overweight. Based on a standard of 20 minutes of exercise, five days a week, it was concluded that 70 percent of males and females do not get enough physical exercise. Furthermore, 3 percent of the males and 2 percent of the females interviewed were aware that they had high blood pressure but 57 percent did not take regular medication.

The NHA added that smokers, 40 percent males and 35 percent females, ran higher health risks than non-smokers. Some 15 percent of the males drank at least 3.5 bottles of beer in one sitting compared with 1 percent of the females.

Ten percent of male beer drinkers consumed an average of 1.5 bottles of liquor daily.

Dr. Kang Shian-lin of the NHA was hopeful that these figures will encourage people to look after their health and improve the quality of life. He revealed that the survey, based on U.S. models, is part of the NHA's efforts to promote "preventative medicine": a branch of medicine already common in advanced societies.

Kung pointed out that in recent years, the health threat of these 10 risks has increased rapidly. He explained that many types of cancer are caused by excessive smoking while strokes are often attributed to hypertension, alcoholism and obesity.
June 15, 1958
Vol. 1, No. 1

Contents

1. New Short-Term Training Program in the Department of Health.
2. Outbreak of Poliomyelitis in Kaohsiung City.
3. Polio Survey of Smoking Behavior and Activities among Taipei City Residents.
4. Outbreak of Gastroenteritis among a Tour Group of Junior High School Students - Taiwan.

Announcement

Welcome to the first issue of the Taiwan Epidemiology Bulletin. The bulletin is published monthly by the Bureau of Disease Control, Department of Health, Executive Yuan, in collaboration with the City and Provincial Health Departments. The objective of this newsletter is to disseminate information on diseases and health issues to all levels of the Department of Health. The bulletin will feature reports of current outbreak investigations, as well as ongoing reports on programs like Immunization and Control. Public health reports relevant to the country will also be included.

The central pages of each issue contain a tabulation of the number of cases of selected communicable diseases and notifiable conditions by county. Since the bulletin was published on the 15th of each month, and data collection is delayed due to the natural lag of the information, the reports reflect data from the previous month. Prompt reporting by all Health Stations and County Health Departments is essential to ensure prompt publication deadlines. Your cooperation is greatly appreciated.

Comments and suggestions are welcome to improve future issues of the bulletin. We welcome and encourage your feedback.

R.O.C. EXECUTIVE YUAN DEPARTMENT OF HEALTH

Epidemiology Bulletin

August 10, 1958
Vol. 1, No. 8

Contents

1. Outbreak of Scombroid Fish Poisoning - Kaohsiung City.
2. Immunization Survey - Hayden County.
3. Expansion of Hepatitis B Immunization Program.

Outbreak of Scombroid Fish Poisoning - Kaohsiung City

On July 4, 1958, 41 employees of a Kaohsiung City department store were hospitalized shortly after eating lunch at the employee cafeteria. At least 30 of them had been out of town earlier and consumed untreated scombroid fish. Two patients showed characteristic symptoms of fish poisoning: nausea, vomiting, headache, malaise, and abdominal distension. One of them developed convulsions and died.

On July 6 and July 7, 296 kilos of scombroid fish were purchased by a department store from a fishing vessel in Kaohsiung Harbor. The fish was caught near the previous day and iced on ice. The fish was distributed to kiosks of two stores owned by the same company. In both stores, the fish was placed in large walk-in refrigerators and left overnight at 4°C. In store A (the store in which the outbreak occurred), fish was removed from the refrigerator at 7 a.m. on July 4, 4:00 a.m., and soaked in salt water for 20 minutes. After standing at room temperature for approximately 3 hours, fish was sold at 1:30 and served to employees from 10:30.

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R.O.C. EXECUTIVE YUAN DEPARTMENT OF HEALTH
Taiwan FETP Year 1 Achievements

- Trainees investigating 2-3 outbreaks/month
- Each trainee working on a long-term project
- Rapid response to public health emergencies
- Collaboration with local health authorities
- Thoroughness/transparency of investigations
- Recommendation based on scientific evidence
Investigations published in the *EB* by the FETP in Vol 1 (1984-85)

- Pilot survey of smoking attitudes among Taipei City residents
- Outbreak of gastroenteritis – Taipei
- Nursery outbreak of Salmonella cerro
- Smoking KAP survey among high school students
- Measles immunization survey
- Influenza activity
- Gastroenteritis at a wedding party
- Tetanus morbidity and mortality
- Prevalence of polio among Taipei school children
- N-hexane polyneuropathy among press-proofing workers
- Suboptimal response to hepatitis B vaccination
- Foodborne gastroenteritis in Nantou County
- Outbreak of psychogenic illness in Taitung
- STDs in Taipei
- Adverse reactions to cholera vaccine
- Gastroenteritis due to *V. parahaemolyticus*
- Characteristics of women undergoing abortion
- Imported malaria among travelers
- Outbreak of hepatitis A in Ilan County
- Scrub typhus in Lan Yu Island
- Japanese encephalitis
- Methicillin-resistant *S. aureus* in a neonatal ICU
- Measles outbreak on Chi Mael Island
- Outbreak of gastroenteritis in Yun-Lin County
Signs and Symptoms of 7 ill Factory Workers

- Ptosis (7/7)
- Diplopia (6/7)
- Dysphagia (6/7)
- Dysarthria (5/7)
- Muscle weakness (5/7)
- Respiratory difficulty (3/7)

Onset of Illness

A strong association between illness and eating breakfast in the factory cafeteria on either 26 or 27 September: all of the 7 ill employees compared to 7 (22%) of 32 well employees ate breakfast in the factory cafeteria both days (relative risk = 4.57; 95% CI = 2.11, 9.90). The median incubation period was 25.5 hours, depending on which day exposure occurred. The same cooked peanuts and soy were specifically implicated as the cause. Steam-cleaned glass jars and the lids were hand-tightened. The filled jars were then stacked inside another open container, seasoned for about one hour, and allowed to cool at room temperature. The owner reported that after cooling, some jars occasionally developed bubbles, or other signs of spoilage, and had
Jar of preserved peanuts from printing factory kitchen positive for Type A botulism

Factory that produced the peanuts
No retort or other equipment required for canning low-acid foods like peanuts

Steamed jars in holding area
Modern labeling machine

Jars of recalled product
Lessons learned

1. Informal contacts important for surveillance
2. Clinicians unaware of botulism and didn’t suspect it
3. Food sanitation laws easily evaded
4. Training and supervision of local Food Sanitation Section staff needs to be improved
5. News media a vital partner in risk communications

An Outbreak of Type A Foodborne Botulism in Taiwan due to Commercially Preserved Peanuts

J H CHOU*, P H HWANG*, AND M D MALISON†

Until recently, botulism was not recognized as an important public health problem in Taiwan. In 1986, an outbreak of type A foodborne botulism resulted in nine cases, two of them fatal. The vehicle in this outbreak was commercially preserved peanuts processed by an improperly equipped, unlicensed cannery. A single batch of peanuts was implicated; however, we could not determine why this particular batch was contaminated. Efforts to recall the product were hampered by a lack of distribution records. Mass media announcements were used to warn the public about the outbreak, and preliminary data suggest the ensuing publicity improved botulism surveillance. The local preference for low-acid preserved foods, increasing consumerism, the shortage of adequately trained inspectors are factors which probably contributed to this outbreak. Stricter enforcement of food sanitation policies are needed to meet the changing situation in Taiwan.
Articles published in international peer-reviewed journals by FETP trainees

Taiwan in the early 1980’s

- Still under Marshall Law
- Politically isolated
- No internet or email service
- Travel and visa restrictions for govn’t officials

How to ensure that the Taiwan FETP could stay connected with CDC and other FETPs after the Resident Advisor went home?
Proposal – Hold the *First* International FETP Conference in Taiwan

- Held in Taipei in 1986
- Support from the National Science Council and the American Bureau for Medical Advancement in China (ABMAC)
- US/CDC served as the official organizing body
- All FETPs invited (Mexico, Saudi Arabia, Indonesia and Thailand)
### Papers presented by Taiwan at 1st International FETP Conference

1. Measles outbreak in Chi-Mei Island – Gau Jr-Peng
2. Immunization coverage survey in Taiwan Province – Wu Sheng-Bang
3. Outbreak of scombroid fish poisoning, Kaohsiung City – Chen Kow-Tong
4. Outbreak of paralytic shellfish poisoning – Yip Kowk-Kee
5. Occupational asthma due to toluene diisocyanate -- Huang Pin-Hung
6. Outbreak of acute hemorrhagic conjunctivitis – Chou Meng-Ying
7. Update on AIDS in the Taiwan Area – Wu Lu-Zen
8. National nosocomial infection survey – Chong Wan-Hwa
9. Suicide trends in Taiwan – Chang Ou-Ham
10. Trends in motor vehicle accident mortality – Wu Shiow-Ing
11. Behavioral risk factors among Taipei City residents – Koong Shin-Lan

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### Taiwan joins other FETPs at INCLEN and IEA meeting in Thailand, 1988
In 1997, CDC created TEPHINET

Countries with FETPs as of 2014

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Examples of Potential FETP-led Health Diplomacy Initiatives

• Host forum for Asian TEPHINET members on IHR compliance

• Organize scientific and policy meeting on topics of regional interest like HFM disease

• Promote bilateral exchanges of FETP staff to broaden experience base and share teaching materials and methods