



Food Safety Matters

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ICD/SEAMEO FOOD SAFETY GAZETTE

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D.N. Iswarawanti
(ICD/SEAMEO-TROPMED,
Indonesia)

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(ICD/SEAMEO-TROPMED,
Indonesia)

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KEEPING IN TOUCH

Dear alumni and readers,

The world was shocked by earthquake and tsunami disaster in South East Asia on December 26, 2006. Hundreds of thousands people were killed and an even greater number lost their homes and had to be relocated to IDP camps or other temporary housing. Many have crowded in with family or friends.

In response to the challenges of food safety problems after the disaster in the affected areas, ICD-SEAMEO, WHO and MOH carried out a food safety mission to Nanggroe Aceh Darussalam Province. The results of the mission are presented in this edition.

Hope you enjoy the reading.

*Warmest regards
The editors*



CONTACT ADDRESS

D. N. Iswarawanti
ICD/SEAMEO Cooperative Program
P.O. Box 3852. Jakarta 10038.
Indonesia.

Phone + (62 21) 390 9205, 391 3932
Fax + (62 21) 391 3933
E-mail: icd@cbn.net.id
Website: <http://www.icd-online.org>;
www.seameo-rccn.org

Change of address should be notified to the editors covering new data on postcode, telephone and e-mail address.

ALUMNI COLUMN

We have great news from **Dr. Umi Fahmida, MSc**, the FSC 1996 alumna and SEAMEO faculty member; she gave birth to her second baby boy on 5 April 2005 (2.6 kg and 48 cm).

Congratulations to **Dr. Drupadi Dillon, MSc** the SEAMEO faculty member. She received her PhD degree from

Wageningen University on April 5, 2005 with study entitled "Nutritional Health of Indonesian Adolescent Girls: the role of riboflavin and vitamin A on iron status".

The editors would like to express their condolences to **Luh Ade Wiradyani, MSc** 2003 FS alumni for her stillborn baby on February 2005.

ROLL OUT FOOD SAFETY COURSE

Food Safety Course for Nutritionists and other Health Professionals SEAMEO TROPED RCCN UI, Jakarta

The 13th Food Safety Course was conducted on January 24 - February 4, 2005 in SEAMEO-TROPED RCCN University of Indonesia. D.N. Iswarawanti and Dadi H. Maskar, ICD/SEAMEO associates, coordinated the course. There were 19 participants; 4 of them were Master's students, 4 from academia, 2 from government institutions, 3 from the food industry, and 6 from non-governmental organizations (NGOs).

The course was delivered in English using the English version of ICD/WHO manual "Food Safety for Nutritionists and Other Health Professionals". Besides the student manual, the participants received some WHO and ILSI publications.

Various experts from the Microbiology Department of the University of Indonesia, the Bogor Agricultural Institute, the Indonesian Science Organization (LIPI), the National Agency for Drug and Food Control and SEAMEO TROPED RCCN UI delivered the topics.

The experts from the ICD local companies also shared their experiences. Ms. Yvonne Handajani from PT. Nestle Indonesia gave lectures on GMP, and Mr. Eddy Kemenady from PT. Unilever Indonesia presented

the cleaning and disinfection lecture. The ICD SEAMEO Project manager, Dr. Yasmine Motarjemi gave a half-day lecture on Food Safety for Health Workers.

The video "Food Safe Food Smart" was used to illustrate the implementation of HACCP principles in industry. The participants observed GHP application of the street food vendors surrounding SEAMEO and presented the results in the class. The visit to a nata de coco factory was organized so that participants could understand the implementation of GMP and HACCP system in the food industry.



Food Safety Train the Trainers (TOT) Workshop SEAMEO TROPED RCCN UI, Jakarta

The TOT Workshop was conducted on February 4, 2005. The Participants were Mr. Abdul Baktiansyah from the Occupational health doctor association, Siti Mutia Rahmawati from the Nutrition Academy Jakarta; Laili Rachmawati and Annas Buanasita from the Nutrition Academy Surabaya; Hikmawati Mas'ud from the Nutrition Academy, Makassar; Sulistiyani from the Public Health Faculty, Diponegoro University; Semarang and Airin Roshita from SEAMEO TROPED RCCN UI. In the workshop, the participants developed a food safety course plan that will be implemented with ICD/SEAMEO assistance in their institutions. The workshop was facilitated by Dr. Yasmine Motarjemi, Siti Muslimatun PhD, D.N. Iswarawanti and Dady Maskar.

Food Safety Course for Caterers Hasanudin University, Makassar

Dr. Suryani A. Army, the 1999 Food Safety trainer, organized the first Food Safety course for caterers using the Indonesian version of Nestle ProGastronomia package module "Safe Food: Everyone's Responsibility" on November 26-27, 2004. The course was conducted in collaboration with Regional Health Office of Makassar and delivered in the Indonesian language. About 25 caterers and food handlers attended the course. Transparencies and videos with simple and clear illustrations were used to deliver the messages. A visit was made to Aeroprime Catering Services to improve the understanding of hygiene and sanitation practices in the hospitality industry. The modules were delivered by ICD associates D.N. Iswarawanti and Rina Agustina. The Local Food and Drug Control Agency (Balai POM) and the Regional Health Office, Makassar, delivered existing regulations on Food Safety.

Food Safety Course for Medical Students Atmajaya University, Jakarta

Dr. Liling Pudji Lestari, the 2000 Food Safety Trainer, organized the third Atmajaya Univ. Food Safety Course on Dec 18-22, 2004. About 35 medical students participated the course, which was delivered in the Indonesian language. The modules were delivered by various experts from the University of Catholic Atmajaya, PT. Bogasari and ICD/SEAMEO Associates. A visit to noodle home industries was made to learn about the implementation of GMP. The participants also learned about GMP and HACCP in small-scale industries, especially in noodle factories.



Food Safety Course for Student & Academia in Food Technology and Catering Industries Sahid University, Jakarta

Ir. Giyatmi, MSi, ICD trainer in year 1999, organized a 2-day Food Safety Course on February 24-25, 2005. Most of the 40 participants were students at the Food Technology faculty of Sahid University and the other participants came from government institutions, food catering establishments and other universities. The course was delivered in the Indonesian language, using some modules from the Indonesian version of the "FS for Nutritionists" manual; by experts from the Microbiology Department of the University of Indonesia, ICD-SEAMEO as well as from local ICD companies.

CALENDAR - FOOD SAFETY COURSES

Food Safety Training for Canteen Supervisors and Food handlers	Jakarta, 16 April 2005
Food Safety Course for Food Catering Establishment	Makasar, July 2005
Food Safety Course for Hospital Nutritionists	Jakarta, August 2005
Seminar on Food Safety	Surabaya, August 2005
Food Safety Course for Elementary & Junior High School Teachers	Semarang, September 2005

**The International Food Safety Authorities Network
(INFOSAN)**

The summary notes of INFOSAN Information Note No. 2/2005,
March 1st 2005 - Acrylamide

- Acrylamide is formed during the frying, roasting, or baking of a variety of foods, including potatoes, cereal products and coffee, generally at temperatures above 120° C.
- Acrylamide causes cancer in long term feeding studies in rats.
- Since 2002, FAO and WHO have been involved in the risk assessment of acrylamide in foods, including a special consultation in 2002 and a recent meeting of the FAO/WHO Joint Committee on Food Additives (JECFA).
- As part of efforts to improve risk assessment advice, JECFA has used an approach (Margin of Exposure) that can provide information for risk managers, particularly for substances for which there may be no completely safe level of exposure, and can be used in comparing risks.
- JECFA has determined that the estimated intake of acrylamide from certain foods may be a human health concern.
- Consumers who eat large amounts of certain fried, roasted or baked foods may have an increased risk of cancer.
- Efforts to reduce acrylamide levels in foodstuffs should continue, and, specifically, the food industry and other researchers should be encouraged to share information about new technologies that can achieve this goal. Consumers should eat a balanced and varied diet, which includes plenty of fruit and vegetables.

**ICD/WHO Food Safety Document Translation
The Food Safety for Nutritionists and Other Health
Professionals Module - Thai version**

Good news coming from Thailand, the editors had received a package of Food Safety for Nutritionist and Other Health Professionals module in Thai version on April 12, 2005. We are grateful to Ms. Naiyana Chaitiemwong, a 2002 FS trainer from Ministry of Public Health Thailand who has translated the module to the Thai language. The package is available on CD, teacher handbook as well as student handbook.

The UK manufacturer Premier Foods announced that its Branston Hot and Spicy Sweet Pickle and Branston Rich and Fruity Sauce are being recalled from UK Supermarket shelves. The recall was sparked off after chili powder contaminated with the illegal Sudan 1 color, was detected in the firm's Worcester sauce brand. Sudan 1 to IV are classified as carcinogens by the International Agency for Research on Cancer and are banned under European Union rules. Looking into how the contamination entered the food chain, Premier Foods has said that it had certificates from its suppliers that guaranteed the chili used was free of Sudan 1. It is possible that the stocks used in these formulations pre dated the EU ban. Source : www.FoodNavigator.com and www.foodproductiondaily.com/news.

ICD/MOH/WHO Food Safety Mission To Aceh

The earthquake and tsunami on 26 December 2004 has had a severe effect on food safety-related program activities in the public health sector in Nanggroe Aceh Darussalam (NAD) Province. Many commercial establishments, including markets, food and water processing facilities, and restaurants were also disrupted.

In concerning to the food safety problems in the affected areas, ICD-SEAMEO, WHO and MOH carried out a food safety mission to NAD Province on February 5-24, 2005. The team was undertaken by team consisting of Dadi Maskar, ICD/SEAMEO Associate; Bill Keene, WHO/SEARO STC; and Hendro Martono, Ministry of Health.

The current risks of foodborne disease in NAD Province were present to a large extent before the tsunami. Hygiene levels in general are fair to poor, and knowledge or concern about food safety concepts appears to be poor among the general population. These are chronic problems requiring a long-term commitment to educational and infrastructural improvement to address. Given the costs of and limited access to quality curative medicine, preventive public health high measures can be a more efficient and equitable use of resources.

The mission identified actions for food safety improvement as follows:

1. Improving food safety in refugee camps and resettlement areas through provision of improved hand and dish washing facilities in food preparation and latrine areas, addressing solid waste disposal issues, instituting a program of food safety and hygiene inspections in camps, and providing food safety training to logisticians and other relevant staff at camps.
2. Improving the capability of local and provincial health office staff to conduct food safety activities by offering basic and mid-level training, including training a subset of staff to be able to conduct non-technical training of laypersons. Including epidemiological investigation training for health officers in municipal or district levels.
3. Designing and producing educational materials for use by health educators with the lay public and food establishment workers.
4. Organizing food safety and hygiene education campaigns.
5. Application of good management on food storage systems in the refugee shelter and mass feeding centers.

The New Zealand Food Safety Authority Conference 2005 will be conducted in 11-12 October 2005 in the Duxton Hotel, Wellington.

Contact Haidee Matheson for more information on haidee.matheson@nzfsa.govt.nz

An international conference, "Food Safety Risk Communication - The Message and Motivational Strategies," will be held in Gothenburg, Sweden on May 19th and 20th, 2005. This conference is organized by Teagasc - The National Food Centre, Ireland in collaboration with SIK - The Swedish Institute for Food and Biotechnology, Sweden, as part of the European Union Risk Analysis Information Network (EU-RAIN) concerted action project (www.eu-rain.com). For the complete article, please go to <http://www.foodsafetycentre.com.au/fsh/fshbull38.htm>

AGENDA OF THE SEAMEO TROPMED RCCN-UI

Opening registration for Master Program in Community Nutrition SEAMEO -TROPMED RCCN UI

OTHER SHORT COURSES OFFERED BY SEAMEO TROPMED RCCN UI

International Course on Applied Epidemiology with Special Reference to Nutrition 25 April - 3 May 2005

For further information please contact Ms. Susy

Phone: 62-21-31930205 ext 201. 391 3932 fax 62-21 391 3933. email : education@seameo-rccn.org

FOOD SAFETY IN AN EMERGENCY SITUATION

If an earthquake, hurricane, winter storm or other disaster strikes a community, people might not have access to food, water and electricity for days, or even weeks. Crops may be destroyed in the fields, animals may be drowned, food supply lines may become disrupted, and people may be forced to flee to areas where they have no access to food. Moreover, the safety of whatever food there is may be affected, resulting in a greater risk of epidemics of foodborne disease.

Food safety problems vary in nature, severity and extent, and depend on the situation during the emergency or disaster. For example, during floods and hurricanes, food may become contaminated by surface water that has itself been contaminated by sewage and wastewater. Flood waters often pick up large quantities of wastes and pathogenic bacteria from farms, sewer systems, latrines and septic tanks. The crowding of survivors after disasters may magnify the situation, particularly if sanitary conditions are poor.

In emergencies and disasters, food safety authorities should review all stages of the food supply, from production, processing and manufacturing, transport, distribution, and sale, to food service preparation, catering establishments and households. It is essential to assess how the food supply may have been adversely affected, and to identify the priority measures (including education of the public) needed to protect consumers. Suitable locations for mass feeding as well as their equipment, supplies and training facilities, should be identified as part of emergency preparedness planning.

Recently, the world was shocked by the earthquake and tsunami disaster in South East Asia on December 26, 2006. Hundreds of thousands of people were killed and even more people lost their homes and had to be relocated to IDP camps or other temporary housing; many crowded in with family or friends elsewhere. Many commercial establishments, including markets, food and water processing facilities and restaurants were also disrupted. The earthquake and tsunami had a severe effect on food safety-related program activities in the public health sector in Aceh, destroying or damaging local (district), provincial, and national offices.

In response to the challenges of food safety problems in the affected areas, ICD-SEAMEO, WHO and MOH carried out a food safety mission to NAD Province. The mission was undertaken to assess the impact of the disaster on food safety conditions and the potential risks foodborne disease, and to make recommendations to solve the problems accordingly. To summarize the lessons learned from this experience, there are six areas that have to be considered in emergency situations to ensure that food safety measures are implemented to prevent the occurrence of the foodborne diseases:

1. Layout of temporary refugee camps, including:
 - Adequate clean water supply
 - Latrines
 - Liquid waste drainage systems
 - Hand washing facilities
 - Public kitchen and food utensils
 - Garbage disposal systems, and
 - Far from sources of environmental pollution / disaster.
2. Food distribution system, including sources of food, storage management prior to distribution to the beneficiaries, inspection / selection of received / distributed foods, application of FIFO in the storage system.
3. Food hygiene and sanitation practices, through health education, especially for food handlers of food establishments and refugee families / households. It is necessary to provide sufficient and appropriate health education materials.
4. Strengthening of food safety activities of local stakeholders by providing training, food safety manuals, guidance, and technical equipment.
5. Rapid assessment of food safety conditions, especially related to food safety measures, availability of resources, and food establishment conditions.
6. Regular food borne disease surveillance, including environmentally-based diseases. Perform epidemiological investigation of food borne outbreaks.

Tips related to food and water safety during emergency situation

Disasters take many forms. They are caused by windstorms, sudden floods, releases of deadly chemicals, fire, ice, even upheavals of the earth itself. When disaster strikes, the best protection is knowing what to do.

Water

Having a sufficient supply of clean water is a top priority in an emergency. A normally active person needs to drink at least two quarts of water each day. Hot environments can double that amount. Children, nursing mothers and ill people will need even more. You will also need water for food preparation and hygiene. Store a total of at least one gallon per person, per day. You should store at least a two - week supply of water for each member of your family. If supplies run low, never ration water. Drink the amount you need today, and try to find more for tomorrow. You can minimize the amount of water your body needs by reducing activity and staying cool.

How to Store Water

Store your water in thoroughly washed plastic, glass, fiberglass or enamel-lined metal containers. Never use a container that has held toxic substances. Plastic containers, such as soft drink bottles, are best. You can also purchase food-grade plastic buckets or drums. Seal water containers tightly, label them and store in a cool, dark place. Rotate water every six months.

Food

Use the following guidelines when deciding which foods to discard and which to save.

Food to Discard

1. Opened containers and packages that have come in contact with flood waters, include: opened jars and bottles, Containers of spices, seasonings and flavorings, and packed food such as flour, grains, rice, sugar and coffee in canisters.
2. Paper, cloth, fiber or cardboard boxes, even if the contents seem dry. This includes salt, cereals, pasta products, rice and any "sealed" packages of crackers, cookies or mixes within a larger paper box.
3. Commercially canned foods that are dented, bulging, rusty or leaking. Cans that have been tossed about and are found far from their normal storage spot. Seams on these cans may have been weakened or their seals broken, causing contamination or spoilage.
4. Jam or jelly sealed with paraffin.
5. Containers with non-sealed, fitted lids, such as cocoa or baking powder.
6. Commercially bottled carbonated beverages. If the cap is crusted with silt, don't attempt to wash since pressure in bottles may cause an explosion.
7. Foil or cellophane packages.
8. All fresh fruits and vegetables.
9. Fresh meat, fish and poultry that have been in contact with floodwaters.
10. Home-canned foods.
11. Foods in containers with pull-tops, corks or screw caps.
12. All foods that were covered by water that may have been contaminated with industrial waste, even those foods sealed in unopened cans.
13. If floodwater has entered your freezer or refrigerator, dispose of all food not sealed in metal cans.

Food to Save

Commercially canned foods are usually safe after being in floodwaters if the metal can appears undamaged. But discard cans if they are rusty, creased, dented, crushed, bulging or have ends that spring in and out. The contents may be contaminated. DO NOT TASTE.

All cans must be washed and sanitized before they are opened.

Short - Term Supplies

Even though it is unlikely that an emergency would cut off your food supply for two weeks, you should prepare a supply that will last that long. The easiest way to develop a two-week stockpile is to increase the amount of basic foods you normally keep on your shelves.

Storage Tips

- Keep food in a dry, cool spot-a dark area if possible.
- Keep food covered at all times.
- Open food boxes or cans carefully so that you can close them tightly after each use.
- Wrap cookies and crackers in plastic bags, and keep them in tight containers.
- Empty opened packages of sugar, dried fruits and nuts into screw-top jars or airtight cans to protect them from pests.
- Inspect all food for signs of spoilage before use.
- Use foods before they go bad, and replace them with fresh supplies, dated with ink or marker. Place new items at the back of the storage area and older ones in front.

Nutrition Tips

During and right after a disaster, it will be vital that you maintain your strength. So remember:

- Eat at least one well-balanced meal each day.
- Drink enough liquid to enable your body to function properly (two quarts a day).
- Take in enough calories to enable you to do any necessary work.
- Include vitamin, mineral and protein supplements in your stockpile to assure adequate nutrition.

Sources:

1. B. Wisner and J. Adams, Environmental health in emergencies and disasters
2. DH. Maskar and H. Martono, report of ICD/MOH/WHO mission to Aceh 5-24 February, 2005
3. <http://www.ag.uiuc.edu/~disaster/facts/contamin.html> (retrieved March 28, 2005)
4. <http://www.redcross.org/static/> (retrieved March 28, 2005)