



WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
Ministry of Health

231, de Saram Place, Colombo 01000, Sri Lanka
Tele: + 94 11 2695112, Fax: +94 11 2696583, E mail: epidunit@sltnet.lk
Epidemiologist: +94 11 2681548, E mail: chepid@sltnet.lk
Web: <http://www.epid.gov.lk>

Vol. 42 No. 20

09th – 15th May 2015

Food Safety

What is food Safety?

Assurance that food will not cause harm to the consumer when it is prepared and/or eaten according to its intended use.

Major foodborne illnesses and causes

Foodborne illnesses are usually infectious or toxic in nature and caused by bacteria, viruses, parasites or chemical substances entering the body through contaminated food or water.

Foodborne pathogens can cause severe diarrhoea or debilitating infections including meningitis. Chemical contamination can lead to acute poisoning or long-term diseases, such as cancer. Foodborne diseases may lead to long-lasting disability and death. Examples of unsafe food include uncooked foods of animal origin, fruits and vegetables contaminated with faeces, and raw shellfish containing marine biotoxins.

Bacteria:

• **Salmonella, Campylobacter, and Enterohaemorrhagic Escherichia coli** are among the most common foodborne pathogens that affect millions of people annually sometimes with severe and fatal outcomes. Symptoms are fever, headache, nausea, vomiting, abdominal pain and diarrhoea. Examples of foods involved in outbreaks of salmonellosis are eggs, poultry and other products of animal origin. Foodborne cases with Campylobacter are mainly caused by raw milk, raw or undercooked poultry and drinking water. Enterohaemorrhagic Escherichia coli is associated with unpasteurized milk, undercooked meat and fresh fruits and vegetables.

haemorrhagic Escherichia coli is associated with unpasteurized milk, undercooked meat and fresh fruits and vegetables.

• **Listeria** infection leads to unplanned abortions in pregnant women or death of newborn babies. Although disease occurrence is relatively low, listeria's severe and sometimes fatal health consequences, particularly among infants, children and the elderly, count them among the most serious foodborne infections. Listeria is found in unpasteurised dairy products and various ready-to-eat foods and can grow at refrigeration temperatures.

• **Vibrio cholerae** infects people through contaminated water or food. Symptoms include abdominal pain, vomiting and profuse watery diarrhoea, which may lead to severe dehydration and possibly death. Rice, vegetables, millet gruel and various types of seafood have been implicated in cholera outbreaks.

Antimicrobials, such as antibiotics, are essential to treat infections caused by bacteria. However, their overuse and misuse in veterinary and human medicine has been linked to the emergence and spread of resistant bacteria, rendering the treatment of infectious diseases ineffective in animals and humans. Resistant bacteria enter the food chain through animals (e.g. Salmonella through chickens). Antimicrobial resistance is one of the main threats to modern medicine.

Viruses:

Norovirus infections are characterized by nau-

Contents

Page

1. <i>Leading Article – Food Safety</i>	1
2. <i>Summary of selected notifiable diseases reported - (02nd – 08th May 2015)</i>	3
3. <i>Surveillance of vaccine preventable diseases & AFP - (02nd – 08th May 2015)</i>	4

WEEKLY
SRI LANKA - 2015

sea, explosive vomiting, watery diarrhoea and abdominal pain. Hepatitis A virus can cause long-lasting liver disease and spreads typically through raw or undercooked seafood or contaminated raw produce. Infected food handlers are often the source of food contamination.

Parasites:

Some parasites, such as fish-borne trematodes, are only transmitted through food. Others, for example *Echinococcus* spp, may infect people through food or direct contact with animals. Other parasites, such as *Ascaris*, *Cryptosporidium*, *Entamoeba histolytica* or *Giardia*, enter the food chain via water or soil and can contaminate fresh produce.

Prions:

Prions, infectious agents composed of protein, are unique in that they are associated with specific forms of neurodegenerative disease. Bovine spongiform encephalopathy (BSE, or "mad cow disease") is a prion disease in cattle, associated with the variant Creutzfeldt-Jakob Disease (vCJD) in humans. Consuming bovine products containing specified risk material, e.g. brain tissue, is the most likely route of transmission of the prion agent to humans.

Chemicals:

Of most concern for health are naturally occurring toxins and environmental pollutants.

- **Naturally occurring toxins** include mycotoxins, marine biotoxins, cyanogenic glycosides and toxins occurring in poisonous mushrooms. Staple foods like corn or cereals can contain high levels of mycotoxins, such as aflatoxin and ochratoxin. A long-term exposure can affect the immune system and normal development, or cause cancer.
- **Persistent organic pollutants (POPs)** are compounds that accumulate in the environment and human body. Known examples are dioxins and polychlorinated biphenyls (PCBs), which are unwanted byproducts of industrial processes and waste incineration. They are found worldwide in the environment and accumulate in animal food chains. Dioxins are highly toxic and can cause reproductive and developmental problems, damage the immune system, interfere with hormones and cause cancer.
- Heavy metals such as lead, cadmium and mercury cause neurological and kidney damage. Contamination by heavy

metal in food occurs mainly through pollution of air, water and soil.

The evolving world and food safety

Safe food supplies support national economies, trade and tourism, contribute to food and nutrition security, and underpin sustainable development.

Urbanization and changes in consumer habits, including travel, have increased the number of people buying and eating food prepared in public places.

These challenges put greater responsibility on food producers and handlers to ensure food safety. Local incidents can quickly evolve into international emergencies due to the speed and range of product distribution.

Food safety: a public health priority

Unsafe food poses global health threats, endangering everyone. Infants, young children, pregnant women, the elderly and those with an underlying illness are particularly vulnerable.

What happens in Sri Lanka?

National Food Safety Programme

In considering the safety of food, many food-related industries consider introducing Food Safety Management Systems (FSMS) as a safeguard of their business interests.

Food Act No 26 of 1980

The act controls manufacture, importation, transport, sale, distribution, advertisement & labelling of food. Medical Officer of Health, Public Health Inspector and Food and Drug inspectors are the Authorized Officers under the food act.

Powers of the Authorized Officers

They can; Seize & detain any article, Institute Prosecutions, Arrest persons who commit offences under the Act (without a warrant).

Sources:

Food safety, available at <http://www.who.int/mediacentre/factsheets/fs399/en/>

Food safety, available at http://www.qualityassociation.org/info_center.html#National_Food_Safety_Programme

Compiled by Dr. C U D Gunasekara of the Epidemiology Unit.

Table 1: Selected notifiable diseases reported by Medical Officers of Health 02nd - 08th May 2015 (19th Week)

RDHS Division	Dengue Fever		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Human Rabies		Chickenpox		Meningitis		Leishmaniasis		WRCD	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	T*	C**
Colombo	81	3954	6	84	0	4	0	32	0	54	3	109	1	5	0	16	0	3	11	215	2	19	0	0	81	19
Gampaha	22	1829	1	32	0	3	1	14	0	12	5	190	0	6	2	73	0	0	2	82	0	9	0	2	60	40
Kalutara	28	675	4	43	0	4	1	17	1	66	4	130	0	0	0	14	0	1	5	132	1	18	0	0	92	8
Kandy	15	597	0	50	0	5	0	15	0	25	2	32	2	32	3	72	0	0	0	96	1	8	1	2	91	9
Matale	1	304	1	22	0	0	0	4	0	3	4	26	1	5	0	19	0	0	2	9	0	3	0	3	54	46
NuwaraEliya	2	84	10	131	1	3	0	9	0	0	1	11	2	33	0	39	0	0	6	39	2	27	0	0	100	0
Galle	0	285	0	24	0	1	0	2	0	6	0	57	0	22	0	4	0	0	0	62	0	13	0	0	5	95
Hambantota	2	145	0	11	0	0	0	4	0	7	2	37	1	22	3	22	0	0	2	55	0	4	8	113	83	17
Matara	4	203	1	33	0	3	0	4	0	44	4	80	1	18	1	16	0	0	10	114	0	10	4	29	100	0
Jaffna	6	1006	14	267	0	8	1	133	0	35	0	11	7	487	1	8	1	2	13	110	0	6	0	0	92	8
Kilinochchi	0	32	0	39	0	0	0	5	0	26	0	1	12	0	0	0	0	1	0	11	0	0	0	0	75	25
Mannar	1	71	0	4	0	1	0	5	0	1	0	8	0	16	0	0	0	0	1	5	0	0	0	0	100	0
Vavuniya	2	66	0	10	2	6	3	32	0	3	0	11	1	12	0	1	0	2	0	32	0	3	0	2	100	0
Mullaitivu	3	74	0	11	0	2	0	5	0	1	0	3	0	6	0	2	0	0	0	1	0	2	0	4	80	20
Batticaloa	29	1068	2	114	0	4	0	12	1	109	1	3	2	2	0	0	0	0	0	18	0	10	0	0	86	14
Ampara	0	22	0	21	1	1	0	1	0	2	0	7	0	0	0	0	2	0	6	107	1	4	0	0	71	29
Trincomalee	14	393	1	19	0	0	0	17	4	31	0	11	1	7	0	6	0	1	2	38	0	3	0	1	92	8
Kurunegala	13	704	3	70	0	2	0	3	1	13	6	113	1	15	3	21	0	1	10	200	2	11	1	45	93	7
Puttalam	5	400	1	15	0	3	0	2	0	6	2	20	0	9	0	1	0	0	0	28	0	12	0	1	54	46
Anuradhapura	2	249	0	26	0	1	0	2	0	48	6	135	0	15	0	8	0	0	1	86	0	12	3	117	68	32
Polonnaruwa	0	117	0	24	0	2	0	7	0	3	0	42	0	1	0	3	0	0	0	68	0	12	0	46	29	71
Badulla	1	319	2	54	0	3	0	4	0	6	1	28	1	49	3	73	0	2	2	64	0	33	0	6	82	18
Monaragala	2	100	1	44	0	1	0	9	0	2	0	113	1	34	1	31	0	1	5	42	0	7	1	12	91	9
Ratnapura	25	469	4	116	0	4	0	22	0	1	3	136	1	28	1	122	0	0	1	52	1	18	0	4	83	17
Kegalle	14	256	1	35	0	7	4	39	0	4	11	125	1	25	0	50	0	0	10	101	3	26	0	0	91	9
Kalmune	5	375	1	56	0	0	0	1	0	28	0	2	0	0	0	0	0	0	0	56	0	4	0	0	77	23
SRILANKA	277	13797	53	1355	4	68	10	400	7	536	55	1441	25	861	18	603	1	14	89	1823	13	274	18	387	77	23

Source: Weekly Returns of Communicable Diseases (WRCD).

*T=Timeliness refers to returns received on or before 08th May, 2015. Total number of reporting units 337. Number of reporting units data provided for the current week: 264. C**=Completeness

Table 2: Vaccine-Preventable Diseases & AFP

02nd - 08th May 2015 (19th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2015	Number of cases during same week in 2014	Total number of cases to date in 2015	Total number of cases to date in 2014	Difference between the number of cases to date in 2014 & 2015
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	01	00	01	00	00	00	00	00	00	02	02	25	33	-24.2%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	%
Mumps	01	01	01	01	00	00	01	00	03	08	06	147	283	-48.1%
Measles	17	03	09	00	03	04	03	02	08	49	33	865	1649	-47.6%
Rubella	00	00	00	00	00	00	00	00	00	00	00	05	10	-50%
CRS**	00	00	00	00	00	00	00	00	00	00	00	00	03	%
Tetanus	00	00	00	00	00	01	00	00	00	01	00	06	08	-25%
Japanese Encephalitis	00	00	00	00	00	00	00	00	00	00	00	07	17	-59.1%
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	%
Whooping Cough	00	00	00	01	00	00	00	00	00	01	01	31	25	+24%
Tuberculosis	25	00	07	03	03	03	00	02	41	84	113	3345	3669	-9.1%

Key to Table 1 & 2

Provinces: W: Western, C: Central, S: Southern, N: North, E: East, NC: North Central, NW: North Western, U: Uva, Sab: Sabaragamuwa.
RDHS Divisions: CB: Colombo, GM: Gampaha, KL: Kalutara, KD: Kandy, ML: Matale, NE: Nuwara Eliya, GL: Galle, HB: Hambantota, MT: Matara, JF: Jaffna, KN: Killinochchi, MN: Mannar, VA: Vavuniya, MU: Mullaitivu, BT: Batticaloa, AM: Ampara, TR: Trincomalee, KM: Kalmunai, KR: Kurunegala, PU: Puttalam, AP: Anuradhapura, PO: Polonnaruwa, BD: Badulla, MO: Moneragala, RP: Ratnapura, KG: Kegalle.

Data Sources:

Weekly Return of Communicable Diseases: Diphtheria, Measles, Tetanus, Neonatal Tetanus, Whooping Cough, Chickenpox, Meningitis, Mumps, Rubella, CRS,

Special Surveillance: AFP* (Acute Flaccid Paralysis), Japanese Encephalitis

CRS** =Congenital Rubella Syndrome

AFP and all clinically confirmed Vaccine Preventable Diseases except Tuberculosis and Mumps should be investigated by the MOH

Dengue Prevention and Control Health Messages

Look for plants such as bamboo, bohemia, rampe and banana in your surroundings and maintain them

PRINTING OF THIS PUBLICATION IS FUNDED BY THE WORLD HEALTH ORGANIZATION (WHO).

Comments and contributions for publication in the WER Sri Lanka are welcome. However, the editor reserves the right to accept or reject items for publication. All correspondence should be mailed to The Editor, WER Sri Lanka, Epidemiological Unit, P.O. Box 1567, Colombo or sent by E-mail to chepid@sltnet.lk. Prior approval should be obtained from the Epidemiology Unit before publishing data in this publication

ON STATE SERVICE

Dr. P. PALIHAWADANA
 CHIEF EPIDEMIOLOGIST
 EPIDEMIOLOGY UNIT
 231, DE SARAM PLACE
 COLOMBO 10