



SARAWAK STATE HEALTH DEPARTMENT EPIDEMIOLOGICAL NEWS

**VOLUME 15/FOLIO 10/September,
2007**

¹Food Poisoning Outbreaks In Malaysia and Sarawak in Particular

Summary

The food poisoning outbreaks is still a public health problem in the nation and the state in particular. Outbreaks occurs every year and are mainly institutional.

Food Poisoning

Food Poisoning is defined as “ any case that fulfilled the clinical case definition of food poisoning is considered confirmed case of food poisoning”.

Clinical case means “acute onset of vomiting and/or diarrhea and/or other symptoms associated with ingestion of food”.

Notification of food poisoning to the nearest health office is mandatory within 24 hours.

Inside This Issue	Page
Food Poisoning Outbreaks In Malaysia And Sarawak In Particular	1 - 6
Food Safety And Quality Section	7
Notifiable Diseases in Sarawak by Districts for September,2007	8
Notifiable Diseases in Sarawak	9

Food Poisoning Situation in Malaysia as at 15 September, 2007.

A total of 294 episode were reported of which 188 (64%) occurred in schools. For those involving the schools, 80% are from the school canteens, 11.2% due to UHT (Program Susu Sekolah), 4.3% from subsidized food (Rancangan Makanan Tambahan), 3.2% from function/gathering organized at the schools and 3.7% due to food brought from outside.

Of all the food poisoning in the schools, secondary schools contribute 62% and 38% from the primary schools.

Risk Factors Contributing to Food Poisoning In Schools, as at 15th September, 2007 In Malaysia

No	Risk Factor	No Contributing	Percentage
1	More than 4 hrs holding time	80	31.0
2	Unsatisfactory personal hygiene and environment	65	25.2
3	Poor preparation including processing and cooking	36	14.0
4	Improper storage of raw material	28	10.9
5	UHT Milk	22	8.5
6	Improper selection of raw material	14	5.4
7	Cross contamination	13	5.0

Note : One outbreak may have more than one risk factor.

Risk Factors identified in UHT Milk.

- i. Spoilt packaging.
- ii. Improper storage at the store and handling during transportation.
- iii. First-In First-Out (FIFO) system in the store is not being practiced.
- iv. Labeling of batch number and expiry date.
- v. No proper in-house quality inspection.

Food Poisoning In Sarawak.

Food poisoning outbreaks causing a public health problem in Sarawak is also no exception with the incidence rate per 100,000 population shows a fluctuating trend for the last ten years (1997 – 2006) as shown below;

Year	Incidence Rate per 100,000 population
1997	62.89
1998	22.66
1999	98.1
2000	34.36
2001	27.18
2002	68.53
2003	40.52
2004	44.53
2005	0.02
2006	8.27

Food Poisoning In Sarawak as at 25th October, 2007

35 episodes of food poisoning outbreaks were reported throughout the state. The breakdown according to institutions are as follows;

No	Institution	Total outbreak	%	Exposed person	Sick	%
1	Primary school	16	46	1624	472	29
2	Secondary Schools	7	20	2225	417	19
3	Other Institution	8	23	2389	246	10
4	Private residential	4	11	300	53	18
5	Public	0	0	0	0	0
Total		35	100	4538	1188	26

Food Poisoning Outbreaks in Sarawak – as at 25th October, 2007

No	Date	Place of occurrence	Person sick	Suspected Food	Symptoms
1	04.01.07	SMK(BM) SARATOK	64	IKAN GELAMA GORENG	diarrhoea, diziness, fever
2	11.01.07	SMK LAKE	44	SOTONG	diarrhoea, nausea, diziness, fever
3	10.01.07	SK DATO TRAOH, KOTA SAMARAHAN	57	SOSEJ AYAM	diarrhoea, nausea, diziness, fever
4	13.01.07	PUSAT LATIHAN KHIDMAT NEGARA, BUKIT SABAN	42	KORDIAL SARSI BERAIS	diarrhoea, nausea, fever
5	11.01.07	SK PARISH, BALINGIAN, MUKAH	22	SOSEJ GROENG	diarrhoea, headache
6	18.01.07	SK ABANG MOH, SESSANG, SARATOK	18	NASI PUTIH	diarrhoea, headache, diziness,
7	30.01.07	SMK AGAMA MIRI, JLN BAKAM, MIRI	112	AYAM MASAK KARI	diarrhoea, nausea, diziness, fever
8	23.03.07	SRI AMAN, Primary School 7 aside Football Competition	21	undetermined	diarrhoea,
9	21.04.07	SM TEKNIK SEJINGKAT, 93050, KUCHING	34	COCONUT SHOOT MASAK LEMAK	diarrhoea,
10	27.04.07	POLITEKNIK KUCHING, JLN MATANG	34	NASI LEMAK	diarrhoea, nausea
11	25.04.07	PLKN, KEM BUMIMAS, JLN LANANG, SIBU	29		diarrhoea, nausea, fever
12	16.05.07	SK KUALA MATU, 96250 MATU	50	ROTI BANTAL & KAYA	diarrhoea, nausea
13	17.05.07	SMK(BM) SARATOK	17		diarrhoea, diziness,
14	17.05.07	SK PAJAR SEJINGKAT, KUCHING	68	SUSU UHT BERPERISA COKLAT	headache, diziness
15	22.05.07	SMK AUGUSTINE, BETONG	8	IKAN BAWAL MASAK SOS	diarrhoea, nausea, headache, fever
16	02.06.07	LOT 13 & 453, SIMANGGANG TOWN DISTRICT	3	KULAT BERACUN	diarrhoea, headache,
17	04.06.07	RUMAH REHAT, PERSATUAN PERTUBUHAN WANITA	13	AYAM MASAK KICAP	diarrhoea
18	18.06.07	SK NG TAU, TATAU, BINTULU	10	TIDAK DAPAT DIKENALPASTI	diarrhoea, headache,
19	25.06.07	SJK (CINA CHEE MUNG BATU NIAH & SK BATU NIAH	96	Final Reports not yet received (undetermine)	diarrhoea,

No	Date	Place of occurrence	Person sick	Suspected Food	Symptoms
20	03.07.07	KOLEJ SAINS BERSEKUTU, KUCHING	6	Final Reports not yet received (undetermine)	diarrhoea,
21	04.07.07	SK ST ANTHONY KAWAN, BUNAN GEGA	17	SRI KAYA PANDAN	diarrhoea,
22	05.07.07	SK EMPILA, KOTA SAMARAHAN	6	Final Reports not yet received (undetermine)	diarrhoea,
23	05.07.07	UNIMAS, KOTA SAMARAHAN	54	Final Reports not yet received (undetermine)	diarrhoea,
24	09.07.07	BIRO TATANEGARA, BUKIT SABAN RESORT, BETONG	38	AYAM GORENG & TEMBIKAI	diarrhoea, nausea, fever
25	11.07.07	SK LUAK, MIRI	28	Final Reports not yet received (undetermine)	diarrhoea,
26	14.07.07	KPG SINJOK, BT 18, JLN KCH/SERIAN	33	NASI GORENG	diarrhoea,
27	28.07.07	KOLEJ ABDILLAH, PETRA JAYA	39	AYAM GORENG	diarrhoea, nausea, headache, fever
28	30.07.07	SK KITA, SEPUPUT, NIAH, MIRI	4	NASI LEMAK	diarrhoea,nausea, diziness
29	07.08.07	SK HJ BUJANG, RANGGAWAN PUTIT, SADONG JAYA, S'HAN	11	Final Reports not yet received (undetermine)	diarrhoea
30	09.08.07	SK ST PATRICK, TANGGA SERIAN	2	SUSU UHT	diarrhoea
31	06.09.07	SK ST TERESA SERIAN	37	PACKED FOOD	diarrhoea
32	14.09.07	SMK (BM) SARATOK	133	DAGING LEMBU GORENG	diarrhoea,heacache, diziness
33	20.09.07	SK NANGA ABU, SARATOK	25	Final Reports not yet received (undetermine)	diarrhoea,
34	26.09.07	NO 98, KPG SG UD, DALAT	4	IKAN GORENG JAMAH	diarrhoea,headache, diziness
35	01.10.07	INSTITUT PERGURUAN REJANG, BINTANGOR	9	Final Reports not yet received (undetermine)	diarrhoea, nausea

Out of the 19 final reports received from the 35 outbreaks, 12 outbreaks were confirmed positive for food poisoning bacteria, namely *Staphylococcus aureus* (9 out of 12 or 75% of positive sample) and *Bacillus cereus* (2 out of 12 or 17%) and one *Streptococcus*. The rest were based on sign and symptoms and incubation periods.

Note : 3 outbreaks occurring in the same school this year, i.e SMK (BM) Saratok. Letters had been sent to the State Director of Education, PPB and PPD

In this case, a combination of unsatisfactory environment, personal hygiene, improper storage and cross contamination had been identified as the risk factors.

The risk factors contributing to the outbreaks are the same being identified by the ministry as follows;

More than 4 hrs holding time
Unsatisfactory personal hygiene and environment
Poor preparation including processing and cooking
Improper storage of raw material
UHT Milk
Improper selection of raw material
Cross contamination

Source Date :

1. Presentation by Dr Hanif Zailani & Dr Mansor Hamzah from KKM
2. Reports received and compiled by JKNS.

FOOD SAFETY AND QUALITY SECTION

The Health Department in its effort to curb food poisonings arising in schools, have collaborated with the Education Department in implementing “Self Assessment Programme” which will be carried out in schools and school kitchens. This is a joint activity whereby the Department offers technical support and training to the school teachers and canteen operators in carrying out self assessments of the cleanliness of school canteens and kitchens.

The canteen operators will be trained to do assessment of their food preparation areas by filling in a checklist given to them. The assessment will include grading of the degree of hygiene in the premises and food operators. The canteen operators will be responsible to submit the daily assessment checklists to the teacher in charge in schools. The teacher in charge from each school will carry out monthly assessment of the school canteen and kitchen to verify the hygiene of the food premises. In cases of non-conformance, demerits will be given to them. Each school will have a compilation of results in the form of percentage to be submitted to the Divisional Education Officer and to reach the Director of Education ultimately.

The self assessment programme started this year with different stages of implementation in various states. The department has provided technical training to carry out assessment of canteens and school kitchens to the canteen operators and teachers in Sibuluan. Another similar training will be held at Miri in next year.

The Food Safety and Quality Section has carried out food safety talks in schools. The main objective of the talks is to empower the students with the knowledge on how to choose and prepare safe food. It also covers the hygiene practices that food handlers should practice in preserving the quality and safety of prepared food. The section has covered schools in Bako, Bau, Matang and Sejingkat. Due to the great number of schools in Sarawak, the focus will be on rural area schools and those schools with hostels. Other than that, emphasis will be given to schools with histories of food poisonings.

In cultivating food safety awareness among school children, the Health and Education Department have collaborated in organizing a road-show by artists on 2 November 2007 at Kuching Civic Center. The joint promotion was attended by 480 primary school children from 12 schools. The activity was officiated by our State Health Director, Dr. Andrew Kiyu and attended by officers from the local councils and health offices. There was a sketch presented by artists (*Pak Uda, Sabri Yunus, Angeline Tan, Rama, Ayie*) which was approximately 30 minutes and followed by a quiz session. The half day activity also included a mini exhibition on food safety at the foyer of the hall.

DISTRICTS	AIDS	Cholera	Dengue Fever	Dengue H. Fever	Dysentery	Food Poisoning	Gonorrhoea	Hand, Foot & Mouth	Leprosy	Malaria	Whooping Cough	Measles	Syphilis, Congenital	Syphilis (All Forms)	Tuberculosis (All forms)	Typhoid & Paratyphoid Fever	Typhus, Scrub	Hepatitis A	Hepatitis B	Hepatitis C	Other Hepatitis	Viral Encephalitis	TOTAL
Lundu	0	0	0	0	0	0	1	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	6
Bau	0	0	0	1	0	0	0	2	0	2	0	0	0	0	4	0	0	0	0	0	0	0	9
Kuching	0	0	33	0	4	1	10	48	0	1	0	2	0	8	31	0	0	0	1	1	0	4	144
Samarahan	0	0	2	0	1	0	1	3	0	0	0	1	0	0	7	0	0	0	0	0	0	0	15
Serian	0	0	0	0	0	0	0	1	0	3	0	0	0	0	6	0	0	0	0	0	0	0	10
Simunjan	0	0	0	0	1	4	0	2	0	0	0	0	0	4	7	0	0	0	1	0	0	0	19
Sri Aman	0	0	2	0	0	0	0	7	0	0	0	0	0	0	10	0	0	0	0	0	0	0	19
L/ Antu	0	0	1	0	1	0	2	0	0	0	0	0	0	1	6	0	0	0	0	0	0	0	11
Betong	0	0	5	0	0	0	0	0	0	1	0	0	0	0	4	0	0	0	0	0	0	0	10
Saratok	0	0	0	0	0	35	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	37
Sarikei	0	0	4	0	0	0	3	4	0	0	0	0	0	0	6	0	0	0	0	0	0	0	17
Julau/Pakan	0	0	2	0	0	1	0	1	0	3	0	0	0	0	2/1	0	0	0	0	0	0	0	10
Meradong	0	0	1	0	0	0	0	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	6
Daro	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
Sibu/S'gau	0	0	6	0	1	0	0	9	0	4	0	0	0	0	5/4	0	0	0	0	0	0	0	29
Kanowit	0	0	2	0	0	0	1	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	13
Mukah	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	6
Dalat	0	0	1	0	0	4	0	20	0	0	0	0	0	0	2	0	0	0	0	0	0	0	27
Kapit	0	0	2	0	0	0	0	15	0	8	0	0	0	0	5	0	0	0	0	0	0	0	30
Song	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Belaga	0	0	1	0	0	0	0	0	0	8	0	0	0	0	1	0	0	0	0	0	0	0	10
Bintulu	0	0	4	0	0	0	4	17	0	3	0	0	1	1	11	0	0	0	1	0	0	0	42
Tatau	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
Miri	1	0	0	0	1	0	1	3	0	5	0	1	0	2	23	0	0	0	2	2	0	0	41
Marudi	0	0	1	0	1	0	0	1	0	2	0	0	0	2	4	0	0	0	0	0	0	0	11
Limbang	0	0	2	0	0	0	3	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	13
Lawas	0	0	0	0	0	0	0	10	0	0	0	0	0	0	2	0	0	0	0	0	0	0	12
TOTAL	1	0	71	0	12	44	26	155	0	45	0	4	1	18	163	0	0	0	5	3	0	4	552

ICD CODE	DISEASES	Median 2002-2006	Month Ending		Cumulative Total	
			30/09/2006	30/09/2007	2006(Annual)	2007
B20 - B24	HIV/AIDS (Death)	2	2	1	114/69(1)(20)	13
A57	Chancroid	0	0	0	0	0
A00.9	Cholera	0	0	0	0	0
A90	Dengue Fever	73	73	71	1799	1357
A91	Dengue Haemorrhagic Fever	1	1	0	22	24
A36.0-A36.9	Diphtheria	0	0	0	0	0
A06.0,A09	Dysentery All Types	10	11	12	86	102
A05,T61-T62	Food Poisoning	20	20	44	187	485
A54.0-A54.9	Gonococcal Infections(All Forms)	31	27	26	383	278
A54.3	Ophthalmia Neonatorum	0	0	0	0	0
A30.9	Leprosy	0	0	1	16	6
B54	Malaria	143	52	45	1371	520
B05	Measles	9	9	4	186	72
A20	Plague	0	0	0	0	0
A80.9	Poliomyelitis, acute	0	0	0	0	0
A82	Rabies	0	0	0	0	0
A68	Relapsing Fever	0	0	0	0	0
A50	Congenital Syphilis	0	0	1	0	7
A51-A53	Syphilis(All forms)	26	26	19	298	209
A33	Tetanus Neonatorum	0	0	0	2	0
A35	Tetanus (adults)	0	1	0	2	2
A16-A19	Tuberculosis(All forms)	106	91	163	1632	1294
A01	Typhoid and Paratyphoid fevers	1	1	0	14	17
A75	Typhus, epidemic	0	0	0	0	0
A75.2	Typhus, flea-borne	0	0	0	0	0
A75.3	Typhus, scrub	0	0	0	0	3
A83,A84,A85,A86	Viral Encephalitis	1	2	4	35	18
B15.0-B15.9	Viral Hepatitis A	0	0	0	2	0
B16.0 - B 16.9	Viral Hepatitis B	5	4	5	34	72
B 18.2	Viral Hepatitis C	3	1	3	15	31
B19.0 - B19.9	Viral Hepatitis (unspecified)	0	0	1	4	4
A37	Whooping cough	0	0	0	8	1
A95	Yellow Fever	0	0	0	0	0

Prepared by: Epidemiology Unit (CDC) & Information and Documentation Unit,
Sarawak State Health Department,
Jalan Tun Abang Hj. Openg,
93590, Kuching, Sarawak, MALAYSIA
Tel: (6) 082-256566, Fax: (6) 082-428682/424959 - Email: .shd@sarawak.health.gov.my
Website : www.sarawak.health.gov.my