



WEEKLY EPIDEMIOLOGICAL REPORT

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Ministry of Health

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

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Sexually transmitted infections

Importance of Sexually transmitted infections (STIs)

According to 2005 WHO estimates, 448 million new cases of curable STIs (syphilis, gonorrhoea, chlamydia and trichomoniasis) occur annually throughout the world in adults aged 15-49 years. This does not include HIV and other STIs which continue to adversely affect the lives of individuals and communities worldwide. In developing countries, STIs and their complications rank in the top five disease categories for which adults seek health care.

Key facts

- 448 million new infections of curable sexually transmitted (syphilis, gonorrhoea, chlamydia and trichomoniasis) infections occur yearly.
- Some sexually transmitted infections exist without symptoms.
- In pregnant women with untreated early syphilis, 25% of pregnancies result in stillbirth and 14% in neonatal death.
- Sexually transmitted infections are the main preventable cause of infertility, particularly in women.

Sri Lankan Situation

There has been 9798 new clinic attendees infected with STIs in the year 2010 according to National STD/AIDS Control Programme of Sri Lanka. Twenty three (23) percent of them had Herpes simplex virus infection and twenty two (22) percent had Candidiasis.

Infection and transmission

STIs are infections that are spread primarily from person-to-person through sexual contact. There are more than 30 different sexually transmissible bacteria, viruses and parasites. STIs such as HIV and syphilis, can also be transmitted from mother to child during pregnancy and childbirth. These two infections can be transmitted through blood products and tissue transfer as well.

Common bacterial infections

- *Neisseria gonorrhoeae* (causes gonorrhoea or gonococcal infection)

- *Chlamydia trachomatis* (causes chlamydial infections)
- *Treponema pallidum* (causes syphilis)
- *Haemophilus ducreyi* (causes chancroid)
- *Klebsiella granulomatis* (previously known as Calymmatobacterium granulomatis causes granuloma inguinale or donovanosis).

Common viral infections

- Human immunodeficiency virus (causes AIDS)
- Herpes simplex virus type 2 (causes genital herpes)
- Human papillomavirus (causes genital warts and certain subtypes lead to cervical cancer in women)
- Hepatitis B virus (causes hepatitis and chronic cases may lead to cancer of the liver)
- Cytomegalovirus (causes inflammation in a number of organs including the brain, the eye, and the bowel).

Parasites

- *Trichomonas vaginalis* (causes vaginal trichomoniasis)
- *Candida albicans* [causes vulvo-vaginitis in women; inflammation of the glans penis and foreskin (balanoposthitis) in men].

STIs without symptoms

Some STIs exist without symptoms. For example, up to 70% of women and a significant proportion of men with gonococcal and/or chlamydial infections experience no symptoms at all. Both symptomatic and asymptomatic infections can lead to the development of serious complications as mentioned later.

Adverse effects on the health of women

Untreated STIs can have critical implications for reproductive, maternal and newborn health. STIs are the main preventable cause of infertility, particularly in women. For example, 10 - 40% of women with untreated chlamydial infection develop symptomatic pelvic inflammatory disease. Post-infection tubal damage is responsible for 30 - 40% of cases of female infertility. Furthermore, women who have had pelvic inflammatory disease are 6 - 10 times more likely to develop an ectopic (tubal) pregnancy than those who have not, and 40 - 50% of ectopic pregnancies can be attributed to previous pelvic inflammatory disease.

Infection with certain types of the human papilloma virus can lead to the development of genital cancers, particularly cervical cancer in women.

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Adverse outcomes in pregnancy

Untreated STIs are associated with congenital and perinatal infections in neonates, particularly in regions where rates of infection remain high.

In pregnant women with untreated early syphilis, 25% of pregnancies result in stillbirth and 14% in neonatal death – an overall perinatal mortality of about 40%. Up to 35% of pregnancies among women with untreated gonococcal infection result in spontaneous abortions and premature deliveries, and up to 10% in perinatal deaths. In the absence of prophylaxis, 30 - 50% of infants born to mothers with untreated gonorrhoea and up to 30% of infants born to mothers with untreated chlamydial infection will develop a serious eye infection (Ophthalmia neonatorum), which can lead to blindness if not treated early. Worldwide, 1000 - 4000 newborn babies become blind every year because of this condition.

STIs and HIV

The presence of untreated STIs (both those which cause ulcers or those which do not) increase the risk of both acquisition and transmission of HIV by a factor of up to 10. Prompt treatment for STIs is thus important to reduce the risk of HIV infection. Controlling STIs is important for preventing HIV infection, particularly in people with high-risk sexual behaviours.

STI syndromes

Although many different pathogens cause STIs, some display similar or overlapping signs (what the individual or the health-care provider sees on examination) and symptoms (what the patient feels such as pain or irritation). Some of these signs and symptoms are easily recognizable and consistent, giving what is known as a syndrome that signals the presence of one or a number of pathogens. For example, a discharge from the urethra in men can be caused by gonorrhoea alone, chlamydia alone or both together.

The main syndromes of common STIs are:

- Urethral discharge
- Genital ulcers
- Inguinal swellings (bubo, which is a swelling in the groin)
- Scrotal swelling
- Vaginal discharge
- Lower abdominal pain
- Neonatal eye infections (conjunctivitis of the newborn).

STI syndromic approach to patient management

The traditional method of diagnosing STIs is by laboratory tests. However, these are often unavailable or too expensive. Since 1990 WHO has recommended a syndromic approach to diagnosis and management of STIs in patients presenting with consistently recognized signs and symptoms of particular STIs. The syndromic approach uses flowcharts to guide diagnosis and treatment is more accurate than diagnosis based on clinical tests alone, even in experienced hands. The syndromic approach is a scientific approach and offers accessible and immediate treatment that is effective. It is also more cost-effective for some syndromes than use of laboratory tests. The pathogens causing any particular syndrome need to be determined locally and flow charts adapted accordingly. Furthermore, regular monitoring of the organisms causing each syndrome should be conducted on a regular basis to validate the treatment recommendations.

Prevention

The most effective means to avoid becoming infected with or transmitting a sexually transmitted infection is to abstain from sexual intercourse (i.e., oral, vaginal, or anal sex) or to have sexual intercourse only within a long-term, mutually monogamous relationship with an uninfected partner. Male latex condoms, when used consistently and correctly, are highly effective in reducing the transmission of HIV and other sexually transmitted infections, including gonorrhoea, chlamydial infection and trichomoniasis.

Summary

448 million new cases of curable STIs (syphilis, gonorrhoea, chlamydia and trichomoniasis) occur annually throughout the world in adults aged 15-49 years, excluding HIV. There are about 30 different sexually transmissible bacteria, viruses and parasites. HIV and syphilis and some other STIs can

be transmitted from mother to child during pregnancy and childbirth. These two infections can be transmitted through blood products and tissue transfer also. STIs can have critical implications for reproductive, maternal and newborn health, causing infertility, symptomatic pelvic inflammatory disease, tubal pregnancy, still births, neonatal deaths and eye infections that can lead to blindness in addition to cervical cancers. The presence of untreated STIs (with or without ulcer) increases the risk of both acquisition and transmission of HIV by a factor of up to 10, and can be prevented by restricting sexual activities to a faithful single partner or the use of a latex condom.

Sources

Sexually transmitted infections, available from <http://www.who.int/mediacentre/factsheets/fs110/en/index.html>
 STI Data from National STD/AIDS Control Programme of Sri Lanka, available from http://www.aidscontrol.gov.lk/nsacp/index.php?option=com_content&view=article&id=38&Itemid=52&lang=en

Compiled by Dr. Madhava Gunasekera of the Epidemiology Unit

**Table 3 : Water Quality Surveillance
 Number of microbiological water samples - June / 2011**

District	MOH areas	No: Expected *	No: Received
Colombo	12	72	11
Gampaha	15	90	10
Kalutara	12	72	27
NIHS	2	12	NR
Kandy	23	138	0
Matale	12	72	12
Nuwara Eliya	13	78	11
Galle	19	114	NR
Matara	17	102	0
Hambantota	12	72	16
Jaffna	11	66	15
Kilinochchi	4	24	1
Mannar	5	30	3
Vavuniya	4	24	NR
Mullativu	4	24	NR
Batticaloa	14	84	NR
Ampara	7	42	NR
Trincomalee	11	66	26
Kurunegala	23	138	NR
Puttlam	9	84	NR
Anuradhapura	19	114	NR
Polonnaruwa	7	42	20
Badulla	15	90	19
Moneragala	11	66	NR
Rathnapura	18	108	NR
Kegalle	11	66	30
Kalmunai	13	78	NR

* No of samples expected (6 / MOH area / Month)
 NR = Return not received

Table 1: Vaccine-preventable Diseases & AFP

18th – 24th June 2011(25th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2011	Number of cases during same week in 2010	Total number of cases to date in 2011	Total number of cases to date in 2010	Difference between the number of cases to date in 2011 & 2010
	W	C	S	N	E	NW	NC	U	Sab					
Acute Flaccid Paralysis	00	00	00	00	00	00	01	00	00	01	02	46	44	+ 04.5 %
Diphtheria	00	00	00	00	00	00	00	00	00	-	-	-	-	-
Measles	00	00	00	00	00	01	01	00	00	02	04	72	50	+ 44.0 %
Tetanus	00	00	00	00	00	00	00	00	00	00	00	12	12	%
Whooping Cough	00	00	00	00	00	00	00	00	00	00	00	17	14	+ 21.4 %
Tuberculosis	38	05	01	08	13	09	00	19	08	101	209	4160	4414	+ 05.7 %

Table 2: Newly Introduced Notifiable Disease

18th – 24th June 2011(25th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2011	Number of cases during same week in 2010	Total number of cases to date in 2011	Total number of cases to date in 2010	Difference between the number of cases to date in 2011 & 2010
	W	C	S	N	E	NW	NC	U	Sab					
Chickenpox	08	02	06	09	04	08	06	05	12	60	26	2428	1840	+ 31.9 %
Meningitis	04 GM=2 KL=2	00	00	00	01 BT=1	03 KN=3	03 PO=3	00	02 KG=2	13	33	447	917	- 51.2 %
Mumps	06	22	07	00	05	06	02	02	09	59	09	1280	483	+ 165.0 %
Leishmaniasis	00	00	13 HB=13	00	00	00	09 AP=9	00	00	22	01	347	156	+ 81.7 %

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.
 DPDHS 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, Whooping Cough, Chickenpox, Meningitis, Mumps.

Special Surveillance: Acute Flaccid Paralysis.

Leishmaniasis is notifiable only after the General Circular No: 02/102/2008 issued on 23 September 2008. .

Dengue Prevention and Control Health Messages

You have a duty and a responsibility in preventing dengue fever. Make sure that your environment is free from water collections where the dengue mosquito could breed.

Table 4: Selected notifiable diseases reported by Medical Officers of Health
18th-24th June 2011(25th Week)

DPDHS Division	Dengue Fever / DHF*		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Human Rabies		Returns Received Timely**
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	%
Colombo	306	3745	2	107	0	5	0	70	0	9	8	228	0	6	1	27	0	2	77
Gampaha	91	1263	5	76	1	11	0	28	1	17	13	332	0	16	6	60	0	3	73
Kalutara	46	623	10	89	0	4	0	28	3	18	16	161	0	0	0	4	0	0	100
Kandy	28	279	16	231	0	4	1	17	1	30	5	96	5	67	0	32	0	0	100
Matale	15	151	5	71	0	3	3	17	0	8	8	131	0	12	0	4	0	0	100
Nuwara	5	75	15	219	0	3	0	31	0	89	0	28	3	47	0	12	0	1	100
Galle	28	303	1	45	0	5	1	5	0	5	0	93	0	16	0	7	1	2	63
Hambantota	9	254	0	22	0	4	0	2	0	14	8	393	1	31	0	5	0	0	83
Matara	10	229	1	44	0	1	0	8	0	10	5	191	2	44	0	12	0	1	94
Jaffna	4	160	6	107	0	3	7	151	0	47	0	2	6	180	0	16	0	1	100
Kilinochchi	0	35	1	12	0	3	2	7	0	10	0	2	0	8	0	3	0	0	25
Mannar	1	22	0	10	0	0	2	16	0	78	0	11	0	29	0	2	0	0	60
Vavuniya	2	54	0	22	0	10	0	8	0	39	1	35	0	2	0	1	0	0	100
Mullaitivu	3	13	1	29	0	1	0	2	0	0	0	5	0	1	0	2	0	0	75
Batticaloa	19	607	12	457	0	4	0	5	0	10	0	20	0	1	0	2	0	4	86
Ampara	1	72	7	62	0	0	0	7	0	24	0	53	0	1	0	7	0	0	57
Trincomalee	4	104	8	486	0	1	0	2	0	8	0	80	1	4	0	6	0	0	92
Kurunegala	24	395	9	183	0	6	1	54	5	42	9	1335	0	47	0	16	0	3	91
Puttalam	4	277	3	104	0	0	0	17	3	9	0	86	0	14	0	6	0	1	50
Anuradhapu	15	144	2	76	0	1	0	2	0	22	1	228	0	16	0	8	0	1	95
Polonnaruw	6	169	3	74	0	1	0	9	0	12	1	71	0	1	0	9	0	0	86
Badulla	11	183	11	138	0	5	1	40	1	7	1	36	2	39	2	26	0	0	76
Monaragala	7	122	14	47	0	4	0	21	0	10	2	160	1	46	4	39	0	0	91
Ratnapura	11	426	8	293	0	4	1	29	3	16	5	304	0	22	0	24	0	2	83
Kegalle	42	286	4	66	1	12	4	49	2	22	23	231	2	18	13	68	0	0	100
Kalmunai	0	19	15	408	0	0	0	0	2	15	0	4	0	2	0	2	0	1	85
SRI LANKA	692	10010	159	3478	02	95	23	625	21	571	106	4316	23	670	26	403	01	22	85

Source: Weekly Returns of Communicable Diseases WRCD).

*Dengue Fever / DHF refers to Dengue Fever / Dengue Haemorrhagic Fever.

**Timely refers to returns received on or before 24th June , 2011 Total number of reporting units =320. Number of reporting units data provided for the current week: 279

A = Cases reported during the current week. B = Cumulative cases for the year.

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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.

ON STATE SERVICE

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