



# WEEKLY EPIDEMIOLOGICAL REPORT

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Ministry of Health

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## Hepatitis: Know it. Confront it ( Part I)

This series of articles is published to mark the first official World Hepatitis Day which fell on the 28th of July 2011. The slogan for this first year is

**"Know it. Confront it. Hepatitis affects everyone, everywhere".**

Hepatitis is an inflammation of the liver, most commonly caused by viral infections. There are five main hepatitis viruses, referred to as types A, B, C, D and E. These five types are of greatest concern because of the burden of illness and death they cause and the potential for outbreaks and epidemic spread. In particular, types B and C lead to chronic disease in hundreds of millions of people and, together, are the most common cause of liver cirrhosis and cancer.

### Global disease burden

- Hepatitis A-1.4 million estimated cases of hepatitis A occur annually.
- Hepatitis B -2 billion people (estimated) worldwide have been infected with the virus.
- Hepatitis C-130 million people at least are chronically infected with hepatitis C virus.

### Key facts

- Hepatitis A is a viral liver disease that can cause mild to severe illness.
- It is spread by faecal-oral transmission when a person ingests food or drink contaminated by an infected person's stools.
- The disease is closely associated with poor sanitation and lack of personal hygiene habits, such as hand washing.
- An estimated 1.4 million cases of hepatitis A occur annually.
- Epidemics can be explosive in growth and cause significant economic losses: 300 000 were affected in one Shanghai outbreak in 1988.
- Improved sanitation and the Hepatitis A vaccine are the most effective ways to combat the disease.

### Mode of spread

Hepatitis A and E are typically caused by ingestion of contaminated food or water. Hepatitis B, C and D usually occur as a result of parenteral contact with infected body fluids. Common modes of transmission Hepatitis B, C and D viruses include receipt of contaminated blood or blood products, invasive medical procedures using contaminated equipment and for hepatitis B transmission from mother to baby at birth, from family member to child, and also by sexual contact.

Acute infection may occur with limited or no symptoms, or may include symptoms such as jaundice (yellowing of the skin and eyes), dark urine, extreme fatigue, nausea, vomiting and abdominal pain.

**This article is the first in a series of 3 articles. Hepatitis A and E are described in this article (food and water borne Hepatitis infections)**

### Hepatitis A

Hepatitis A is a liver infection caused by the hepatitis A virus (HAV). The virus is spread when an uninfected (or unvaccinated) person eats or drinks something contaminated by stools of an HAV-infected person: this is called faecal-oral transmission. The disease is closely associated with inadequate sanitation and poor personal hygiene. Unlike hepatitis B and C, hepatitis A infection does not cause chronic liver disease and is rarely fatal, but it can cause debilitating symptoms.

Hepatitis A occurs sporadically and in epidemics worldwide, with a tendency for cyclic recurrences. Epidemics related to contaminated food or water can erupt explosively.

The disease can wreak significant economic and social consequences in communities. It can take weeks or months for people recovering from the illness to return to work, school or daily life. The impact on food establishments identified with the virus and local productivity in general can be substantial.

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**Symptoms**

The symptoms of hepatitis A range from mild to severe and can include fever, malaise, loss of appetite, diarrhoea, nausea, abdominal discomfort, dark colored urine and jaundice (a yellowing of the skin and whites of the eyes). Not everyone who is infected will have all of the symptoms. Adults have signs and symptoms of illness more often than children and the severity of disease and mortality increases in older age groups. Infected children under six years of age do not usually experience noticeable symptoms, and only 10% develop jaundice. Among older children and adults, infection usually causes more severe symptoms, with jaundice occurring in more than 70% of cases. Most people recover in several weeks - or sometimes months - without complications.

**Who is at risk?**

Anyone who has not had been infected previously or been vaccinated can contract hepatitis A. People who live in places with poor sanitation are at higher risk. In areas where the virus is widespread, most HAV infections occur during early childhood.

**Transmission**

HAV is usually spread from person to person when an uninfected person ingests food or beverages that have been contaminated with the stool of a person with the virus. Blood borne transmission of HAV occurs, but is much less common. Waterborne outbreaks, though infrequent, are usually associated with sewage contaminated or inadequately treated water. Casual contact among people does not spread the virus.

**Treatment**

There is no specific treatment for hepatitis A. Recovery from symptoms following infection may be slow and take several weeks or months. Therapy is aimed at maintaining comfort and adequate nutritional balance, including replacement of fluids that are lost from vomiting and diarrhoea.

**Prevention**

Improved sanitation and Hepatitis A immunization are the most effective ways to combat the disease. Adequate supplies of safe drinking water, proper disposal of sewage within communities and personal hygiene practices such as regular hand washing reduce the spread of HAV.

Several hepatitis A vaccines are available internationally. All are similar in terms of how well they protect people from the virus and their side effects.

Nearly 100% of people will develop protective levels of antibodies to the virus within one month after a single dose of the vaccine. Even after virus exposure, one dose of the vaccine within two weeks of contact with the virus has protective effects. Still, manufacturers recommend two vaccine doses to ensure longer-term protection of about 5 to 8 years after vaccination. Millions of people have been immunized with no serious adverse events. The vaccine can be given as part of regular childhood immunizations programmes and with vaccines commonly given for travel.

**Where is the disease found?**

• **High:**

In developing countries with very poor sanitary conditions and hygienic practices, the lifetime risk of infection is greater than 90%. Most infections occur in early childhood and those infected do not experience any noticeable symptoms. Epidemics are uncommon because older children and adults are generally immune. Disease rates in these areas are low and outbreaks are rare.

• **Intermediate:**

In developing countries, countries with transitional economies and regions where sanitary conditions are variable, children escape infection in early childhood. Ironically, these improved economic and sanitary conditions may lead to higher disease rates, as infections occur in older age groups and large outbreaks can occur.

• **Low:**

In developed countries with good sanitary and hygienic conditions infection rates are low. Disease may occur among adolescents and adults in high-risk groups, such as injecting-drug users, homosexual men, persons travelling to high-risk areas, and in isolated populations, e.g. closed religious communities.

**Recommendations for Hepatitis A Vaccination**

Vaccination in outbreaks should also be site specific, including the feasibility of rapidly implementing a widespread immunization campaign. Vaccination to control community wide outbreaks is most successful in small communities, when the campaign is started early and when high coverage of multiple age groups is achieved. Vaccination efforts should be supplemented by health education to improve sanitation and hygiene practices, as well as by improvements in sanitary conditions such as safe water and sanitary latrines etc.

**Hepatitis E**

Hep E, like HAV, is transmitted through consumption of contaminated water or food. HEV is a common cause of hepatitis outbreaks in developing parts of the world and is increasingly recognized as an important cause of disease in developed countries. Safe and effective vaccines to prevent HEV infection have been developed but are not widely available.

*Sources*

Hepatitis, available from <http://www.who.int/topics/hepatitis/en/>

Hepatitis, available from <http://www.who.int/features/qa/76/en/index.html>

Hepatitis A Fact sheet, available from <http://www.who.int/mediacentre/factsheets/fs328/en/index.html>

**Compiled by Dr. Madhava Gunasekera of the Epidemiology Unit**

**Table 1: Vaccine-preventable Diseases & AFP**

16th– 22nd July 2011 (29th 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	01	01	00	00	00	00	00	00	02	04	52	52	0.0 %
Diphtheria	00	00	00	00	00	00	00	00	00	-	-	-	-	-
Measles	02	00	00	00	00	00	00	01	00	03	00	86	56	+ 53.6 %
Tetanus	00	00	00	00	00	00	00	00	00	00	00	12	14	- 14.3 %
Whooping Cough	00	00	00	00	00	00	00	00	00	00	00	24	17	+ 141.2 %
Tuberculosis	185	00	08	19	16	71	50	09	47	405	113	5069	4832	+ 04.9 %

**Table 2: Newly Introduced Notifiable Disease**

16th– 22nd July 2011 (29th 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	09	10	15	01	06	03	04	03	05	56	42	2653	2044	+ 29.8 %
Meningitis	01 GM=1	02 KD=1 ML=1	02 HB=1 MT=1	00	00	01 KN=1	00	00	02 KG=2	08	11	504	1045	- 51.8 %
Mumps	05	05	18	00	28	07	01	02	06	72	19	1652	592	+ 179.1 %
Leishmaniasis	00	00	00	00	01 TR=1	00	13 AP=12 PO=1	00	00	14	00	417	166	+ 151.2 %

**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**

**Reduce, Reuse or Recycle the plastic and polythene collected in your home and help to minimize dengue mosquito breeding**

**Table 4: Selected notifiable diseases reported by Medical Officers of Health**  
16<sup>th</sup>-22<sup>nd</sup> July 2011 (29<sup>th</sup> 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	341	5454	1	129	0	6	3	83	1	47	9	266	0	6	1	36	0	2	<b>92</b>
Gampaha	201	2031	4	92	0	11	1	34	1	26	6	364	0	19	20	131	0	4	<b>80</b>
Kalutara	31	767	7	95	0	4	4	36	0	20	2	182	0	1	0	5	0	0	<b>67</b>
Kandy	52	461	8	280	0	4	0	22	4	36	4	113	2	75	2	40	0	0	<b>91</b>
Matale	8	204	2	103	0	3	1	20	0	1	3	147	0	12	0	5	0	0	<b>92</b>
Nuwara	15	110	3	275	0	3	1	34	0	89	0	34	2	50	0	15	0	1	<b>77</b>
Galle	40	453	4	56	0	5	0	7	0	6	2	106	5	27	0	7	2	5	<b>100</b>
Hambantota	5	300	3	29	0	4	0	3	1	19	2	413	3	43	1	7	0	0	<b>100</b>
Matara	15	298	3	49	0	2	1	10	1	13	3	200	2	49	0	14	0	1	<b>94</b>
Jaffna	4	191	9	131	0	3	2	172	2	64	0	2	1	186	0	19	0	1	<b>91</b>
Kilinochchi	0	36	0	12	0	3	0	7	0	12	0	2	0	8	0	3	0	0	<b>25</b>
Mannar	0	23	1	13	0	0	1	19	0	78	0	12	0	30	0	2	0	0	<b>100</b>
Vavuniya	3	62	0	24	0	10	0	8	0	39	2	38	0	2	0	1	0	0	<b>75</b>
Mullaitivu	0	15	2	36	0	1	1	3	0	8	0	5	0	1	0	2	0	0	<b>100</b>
Batticaloa	10	651	8	497	0	4	0	5	0	21	0	21	1	3	0	2	0	4	<b>86</b>
Ampara	2	90	6	76	0	1	0	8	0	28	0	54	0	1	0	7	0	0	<b>71</b>
Trincomalee	3	123	11	522	0	2	0	3	1	8	2	84	0	4	0	6	0	0	<b>92</b>
Kurunegala	20	528	15	229	0	8	1	63	21	68	2	1361	3	51	1	23	0	4	<b>78</b>
Puttalam	6	322	3	123	0	0	1	22	0	9	4	96	1	17	0	6	0	1	<b>67</b>
Anuradhapu	5	176	4	85	0	1	0	2	0	24	2	232	0	16	0	9	0	1	<b>89</b>
Polonnaruw	4	203	3	87	0	1	0	9	0	12	1	74	0	1	1	14	0	0	<b>86</b>
Badulla	28	364	7	220	0	5	1	43	0	7	5	53	1	50	1	38	0	0	<b>94</b>
Monaragala	7	147	4	61	0	4	0	21	0	10	3	168	0	49	1	41	0	0	<b>82</b>
Ratnapura	25	551	18	352	0	5	0	32	0	16	4	346	0	24	0	25	0	2	<b>89</b>
Kegalle	24	389	3	79	0	12	0	51	0	22	2	250	2	21	10	100	0	0	<b>82</b>
Kalmune	2	26	15	447	0	0	0	0	1	16	0	5	0	2	0	2	0	1	<b>92</b>
<b>SRI LANKA</b>	<b>851</b>	<b>13975</b>	<b>138</b>	<b>4102</b>	<b>00</b>	<b>102</b>	<b>18</b>	<b>717</b>	<b>32</b>	<b>716</b>	<b>58</b>	<b>4628</b>	<b>23</b>	<b>748</b>	<b>38</b>	<b>560</b>	<b>02</b>	<b>27</b>	<b>86</b>

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 22<sup>nd</sup> July , 2011 Total number of reporting units =327. Number of reporting units data provided for the current week: 247

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

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**ON STATE SERVICE**

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