28th July is celebrated every year as the World Hepatitis Day.

World Hepatitis Day

World Hepatitis Day is one of the eight official global public health campaigns marked by the World Health Organization (WHO). Celebrating this year’s World Hepatitis Day, the WHO encourages countries to act now to reduce deaths from viral hepatitis. In order to achieve this, it is important to improve knowledge and improve access to testing and treatment services.

Viral Hepatitis

Viral hepatitis can be caused by hepatitis A, B, C, D and E viruses. Infection with some of these viruses, particularly hepatitis B and C can lead to cirrhosis and liver cancer.

Incubation period for hepatitis A is 14 to 28 days and hepatitis A virus (HAV) primarily transmits through faeco-oral route. Although uncommon, water borne outbreaks can also occur. Apart from this, close physical contact with an infected person can also cause infection.

In areas with high endemicity of the disease where sanitary facilities are poor, 90% of the children have been infected with HAV. In these areas, epidemics are uncommon as most of the older children and adults are generally immune. Countries with variable sanitary conditions have intermediate level of endemicity so that children usually escape getting infected. Therefore, adult population is relatively uninfected and lacks immunity thus higher disease rates and large outbreaks can occur in adult population. Countries with low level of endemicity where sanitation and hygienic practices are good, disease usually occurs in high risk groups. High risk factors include poor sanitation, lack of safe water, use of recreational drugs, close contact with infected persons and travelling to areas with high endemicity. However, in low endemic areas, outbreak risk is less as person to person transmission is less. Children with HAV infection is usually asymptomatic. However, adults can experience symptoms from mild to severe which includes anorexia, malaise, jaundice, fever, diarrhoea, nausea and abdominal discomfort. Even though hepatitis A can relapse, it does not give rise to chronic liver disease. However, some patients can experience acute liver failure which is often fatal. Detection of HAV immunoglobulin (IgM) and RT–PCR for HAV RNA aid in diagnosis.

A person can get infected with hepatitis B virus (HBV) via several routes which include spread from mother to child at birth, exposure to infected blood, mucosal or percutaneous exposure to infected blood and other body fluids like seminal fluid, vaginal secretions, saliva and sexual transmission. Therefore, health care workers and others who may get exposed to blood and blood products as a part of their occupation, people who require blood or blood products regularly, recipients of solid organ transplant, dialysis patients, prisoners, injectable drug users, people with multiple sexual partners are at increased risk of acquiring the infection. Most
people with acute infection is asymptomatic. However, some can develop jaundice, dark urine, extreme fatigue, vomiting and abdominal pain. A proportion of patients can develop acute liver failure which is often fatal. Hepatitis B infection can also cause chronic liver infection which can lead to cirrhosis and liver cancer. Likelihood of developing chronic infection has a significant association with age of the patient. 80-90% of children who get infected before the first year of life and 30–50% of children who get infected before 6 years of life carry the risk of developing chronic infection. However, in the adult population less than 5% develop chronic infection. But 20-30% of adults with chronic infection can develop cirrhosis and/or liver cancer. Hepatitis B surface antigen (HBsAg) and IgM to Hepatitis B core antigen (HBcAg) are present in the body in acute infection. In the initial phase, presence of HBeAg indicates that blood and body fluids of the patient is highly contagious since HBeAg is a marker of high rate of viral replication. HBsAg is present for at least 6 months in chronic hepatitis infection. Persistence of HBsAg is a risk factor for developing cirrhosis and liver cancer.

Hepatitis C virus (HCV) can cause both acute and chronic infection. HCV, which is a blood borne virus transmits through transfusion of unscreened blood and blood products, sharing of needles by injectable drug users, inadequate sterilization of medical equipment particularly needles and syringes, sexual transmission and transmission from mother to baby. Incubation period for Hepatitis C infection is 2 weeks to 6 months. Nearly 80% of people with acute infection are asymptomatic. In the remaining 20% there can be fever, fatigue, jaundice, anorexia, nausea, vomiting, abdominal discomfort and joint pain. Most of the time, chronic infection is also asymptomatic where symptoms become apparent secondary to serious liver damage. Initial investigation to detect the infection is to demonstrate anti HCV antibodies. However, 15-45% of people who are infected, spontaneously clear the infection by strong immune response. Therefore, after detecting anti HCV antibodies, it is important to demonstrate the presence of HCV RNA to confirm the chronic infection. Additionally, it is important to assess the degree of liver damage by liver biopsy and to detect the genotype of the hepatitis C strain. Different genotypes respond differently to treatment.

Hepatitis D virus (HDV) cannot replicate in the absence of HBV. Therefore, HDV cause super infection or co infection with HBV and vaccination against HBV can prevent hepatitis D infection also. Routes of transmission are also similar to HBV. HDV infection can be diagnosed by demonstration of high titers of IgG and IgM anti HDV antibodies. Diagnosis can be confirmed by detecting HDV RNA in serum.

Faecal contamination of drinking water is the usual method of transmission of hepatitis E virus (HEV). Incubation period for hepatitis E infection is 2 to 10 weeks. Usually symptomatic infection is seen in adult population. In children, infection usually goes undiagnosed as they are mostly asymptomatic. The initial phase of the infection consists of constitutional symptoms like fever, anorexia, fatigue followed by jaundice and tender hepatomegaly. Most of the time the disease is self limiting. But rarely patients can develop fulminant hepatitis especially during pregnancy. Hepatitis E infection can be diagnosed by detecting HEV specific IgM antibodies in blood.

**Burden of viral hepatitis**

Although there had not been an accelerated strategy to combat viral hepatitis until recently, it has posed a major disease burden which is comparable to the disease burden posed by Tuberculosis, Malaria and HIV.

Annually, 1.4 million people die of acute viral hepatitis, hepatitis related cirrhosis and liver cancer world wide. Out of these deaths, 47% an 48% are due to hepatitis B and hepatitis C infection respectively. Hepatitis has also become a cause of death among people infected with HIV where 2.9 million and 2.6 million of them are co infected with HCV and HBV respectively. Further to the disease burden, 240 million are infected with HBV and 130-150 million are infected with HCV globally. However, less than 5% of them are aware of their status and this as a fact shows the importance of improving access to testing.

**Opportunities to reduce disease burden**

Over the past years, some effective steps have been taken to combat the threat posed by viral hepatitis, which include preventive strategies such as vaccination, ensuring injection, blood and surgical safety, prevention of mother to child transmission, harm reduction for people who inject drugs and improving treatment methods.

**Sources**

1. World Health Organization official web site

Compiled by Dr. S.A.I.K. Sudasinghe of the Epidemiology Unit
### Table 1: Selected notifiable diseases reported by Medical Officers of Health

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<tr>
<th>Division</th>
<th>Dysentery</th>
<th>Typhus Fever</th>
<th>Meningitis</th>
<th>Leptospirosis</th>
<th>Food Poisoning</th>
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**Notes:**
- **RDHS Division:** Division of Rapid Disease Health Surveillance.
- **Dengue Fever:** Cases reported during the current week.
- **Typhus Fever:** Cases reported during the current week.
- **Meningitis:** Cases reported during the current week.
- **Leptospirosis:** Cases reported during the current week.
- **Food Poisoning:** Cases reported during the current week.
- **Encephalitis:** Cases reported during the current week.
- **Dysentery:** Cases reported during the current week.

- **Source:** Weekly Return of Communicable Disease (WRCRD) - Table 1
- **A:** Number of reporting units.
- **B:** Cumulative cases for the year.
- **C:** Number of reporting units adjusted for the current week.
- **C:** Cumulative cases for the year.

**Table Notes:**
- **Kandy:** Includes Matale.
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## Table 2: Vaccine-Preventable Diseases & AFP

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<tr>
<th>Disease</th>
<th>No. of Cases by Province</th>
<th>Number of cases during current week in 2016</th>
<th>Number of cases during same week in 2015</th>
<th>Total number of cases to date in 2016</th>
<th>Total number of cases to date in 2015</th>
<th>Difference between the number of cases to date in 2016 &amp; 2015</th>
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### 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**: Katuwa, **KD**: Kandy, **NE**: Nuwara Eliya, **GL**: Galle, **HB**: Hambantota, **MT**: Matara, **JF**: Jaffna, **KN**: Kilinochchi, **MN**: Mannar, **VA**: Vavuniya, **MU**: Mullaithivu, **BT**: Batticaloa, **AM**: Ampara, **TR**: Trincomalee, **KM**: Kalmunai, **KR**: Kurunegala, **PU**: Puttalam, **AP**: Anuradhapura, **BD**: Badulla, **MO**: Moneragala, **RP**: Ratnapura, **KG**: Kegalle.

**Data Sources:**
- 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**

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**ON STATE SERVICE**

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