

EPIDEMIOLOGY SURVEY REPORT

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OBJECTIVES OF SURVEY

- This Epidemiological survey conducted for Pandemic to focus on source of infection.
- Major mode of transmission
- Major symptoms and its treatment

Systemic classification of Diarrhea

Escherichia coli

Kingdom – Bacteria

Subkingdom - Negibacteria

genus – Escherichia

phylum - Proteobacteria.

Class – Gammaproteobacteria

order - Enterobacteriales

family - Enterobacteriaceae

Species – E.coli

Rotavirus

Kingdom - *Orthomavirae*

Phylum - Duplornaviricota

Class - *Resentoviricetes*

Order - *Reovirales*

Family - *Reoviridae*

Subfamily - *Sedoreovirinae*

Genus - Rotavirus

Symptoms -

- Abdominal cramps or pain.
- Bloating.
- Nausea.
- Vomiting.
- Fever.
- Blood in the stool.
- Mucus in the stool.
- Urgent need to have a bowel movement.

Infection: Diarrhoea is a symptom of infections caused by a host of bacterial, viral and parasitic organisms, most of which are spread by faeces-contaminated water. Infection is more common when there is a shortage of adequate sanitation and hygiene and safe water for drinking, cooking and cleaning. Rotavirus and *Escherichia coli*, are the two most common etiological agents of moderate-to-severe diarrhoea in low-income countries. Other pathogens such as *cryptosporidium* and *shigella* species may also be important. Location-specific etiologic patterns also need to be considered.

Malnutrition: Children who die from diarrhoea often suffer from underlying malnutrition, which makes them more vulnerable to diarrhoea. Each diarrhoeal episode, in turn, makes their

malnutrition even worse. Diarrhoea is a leading cause of malnutrition in children under five years old.

Source: Water contaminated with human faeces, for example, from sewage, septic tanks and latrines, is of particular concern. Animal faeces also contain microorganisms that can cause diarrhoea.

Other causes: Diarrhoeal disease can also spread from person-to-person, aggravated by poor personal hygiene. Food is another major cause of diarrhoea when it is prepared or stored in unhygienic conditions. Unsafe domestic water storage and handling is also an important risk factor. Fish and seafood from polluted water may also contribute to the disease.

Prevention and treatment

Key measures to prevent diarrhoea include:

- access to safe drinking-water;
- use of improved sanitation;
- hand washing with soap;
- exclusive breastfeeding for the first six months of life;
- good personal and food hygiene;
- health education about how infections spread; and
- rotavirus vaccination.

Systemic classification of Typhoid

Kingdom - Bacteria
Phylum - Proteobacteria
Class - Gammaproteobacteria
Order -Enterobacterales
Family - Enterobacteriaceae
Genus -*Salmonella*

Introduction-

Typhoid fever is also called enteric fever. It is a prospectively, multisystemic illness that has been a public health problem, especially in the developing world. It is caused by *Salmonella typhi* and *Salmonella paratyphi*. [1] Enteric fever is a cumulative term that illustrates both typhoid and paratyphoid fever.

Symptoms –

- Fever that starts low and increases daily, possibly reaching as high as 104.9 F (40.5 C)
- Headache

- Weakness and fatigue
- Muscle aches
- Sweating
- Dry cough
- Loss of appetite and weight loss
- Stomach pain
- Diarrhea or constipation
- Rash
- Extremely swollen stomach

Prevention

Safe drinking water, improved sanitation and adequate medical care can help prevent and control typhoid fever. Unfortunately, in many developing nations, these may be difficult to achieve. For this reason, some experts believe that vaccines are the best way to control typhoid fever.

Treatment

- **Ciprofloxacin (Cipro).** In the United States, doctors often prescribe this for adults who aren't pregnant.

Another similar drug called ofloxacin also may be used. Unfortunately, many *Salmonella typhi* bacteria are no longer susceptible to antibiotics of this type, particularly strains picked up in Southeast Asia.

- **Azithromycin (Zithromax).** This may be used if a person is unable to take ciprofloxacin or the bacteria are resistant to ciprofloxacin.
- **Ceftriaxone.** This injectable antibiotic is an alternative in more-complicated or serious infections and for people who may not be candidates for ciprofloxacin, such as children.

These drugs can cause side effects, and long-term use can lead to the development of antibiotic-resistant bacteria.

Systemic classification of MALARIA

Malaria is a serious and sometimes fatal disease caused by a parasite that commonly infects a certain type of mosquito which feeds on humans. People who get malaria are typically very sick with high fevers, shaking chills, and flu-like illness. Four kinds of malaria parasites infect humans: Plasmodium falciparum, P.

Classification –

Kingdom- Animalia

Phylum -Arthropoda

Class -Insecta

Order -Diptera

Family -Culicidae

Subfamily -Anophelinae

Genus - *Anophele*

Symptoms and Diagnosis-

Symptoms of malaria include fever and flu-like illness, including shaking chills, headache, muscle aches, and tiredness. Nausea, vomiting, and diarrhea may also occur. Malaria may cause anemia and jaundice (yellow coloring of the skin and eyes) because of the loss of red blood cells. If not promptly treated, the infection can become severe and may cause kidney failure, seizures, mental confusion, coma, and death.

Treatment

Malaria is treated with prescription drugs to kill the parasite. The types of drugs and the length of treatment will vary, depending on:

- Which type of malaria parasite you have
- The severity of your symptoms
- Your age
- Whether you're pregnant

Medications

The most common antimalarial drugs include:

- **Chloroquine phosphate.** Chloroquine is the preferred treatment for any parasite that is sensitive to the drug. But in many parts of the world, parasites are resistant to chloroquine, and the drug is no longer an effective treatment.
- **Artemisinin-based combination therapies (ACTs).** ACT is a combination of two or more drugs that work against the malaria parasite in different ways. This is usually the preferred treatment for chloroquine-resistant malaria. Examples include artemether-lumefantrine (Coartem) and artesunate-mefloquine.

Other common antimalarial drugs include:

- Atovaquone-proguanil (Malarone)
- Quinine sulfate (Qualaquin) with doxycycline (Oracea, Vibramycin, others)
- Primaquine phosphate

Epidemiological survey report on Diarrhea, Typhoid & Malaria

Information provided by the hospital record register
and Patients trough contact

Sr. No.	1	2	3	4
Name of patient	Raghunath Pandharinath Agale	Jayavantabai Chavda Gangurde	Hitesh Devram Pawar	Vimal Nandu Kadale
Age	82	65	5	39
Place	Devpur	Nandurdi	Nandurdi	Nandurdi
Profession	Farmer	Housewife	At school	Housewife
Habits	None	None	At school	None
Duration	10 days	14 days	6 days	8 days
Symptoms	Fever & Bodyache	High Fever	Blood in stool	Headache & Muscle arches
Recovery	Recovered	Recovered	Recovering	Recovering
Disease	Malaria	Malaria	Diarrhea	Typhoid

Sr. No.	5	6	7	8
Name of patient	Sarika Gulabrao Suryavanshi	Asha Kishor Pagare	Prashant Gajiram Shinde	Ujjwala Sharad Khaire
Age	4	37	30	35
Place	Panchkeshwar	Devpur	Brahmangaon	Nandurdi
Profession	-	Housewife	Government Servent	housewife
Habits	None	None	Tobacco Chewing	None
Duration	4 days	8 days	13 days	6 days
Symptoms	Vomiting	Sweating & stomach pain	High fever & vomiting	Headache
Recovery	Recovering	Recovering	Recovered	recovering
Disease	Diarrhea	Typhoid	Malaria	typhoid

Patients

