



## AN ANALYSIS OF DIARRHEAL DISEASE IN KUMBAKONAM TOWN, TAMIL NADU, INDIA

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### **Abstract**

*Diarrhea is loose, watery stools, occurring more than 3 times in 1 day. Diarrhea can be a serious and the threatening condition. However, some forms of diarrhea can be prevented. There are also certain things people can do to lessen the symptoms of diarrhea. Acute diarrhea is defined as abnormally frequent discharge of semisolid or fluid fecal matter from the bowel, lasting less than 14 days. There are many causes of infectious diarrhea, which include viruses, bacteria and parasites. Norovirus is the most common cause of viral diarrhea in adults, but rotavirus is the most common cause in children under five years old. The Adenovirus types 40 and 41, and astroviruses cause a significant number of infections. Enzyme deficiencies or mucosal abnormality, as in food allergy and food intolerance. Diarrhea can be caused by chronic ethanol ingestion. Ischemic bowel disease. This usually affects older people and can be due to blocked arteries. Diarrhea has occurred without appreciable changes in the water supply, sanitation, or personal hygiene and this can be attributed largely to improved case management prevailing poor living conditions and insignificant improvement in water, sanitation, and personal hygiene, despite some improvement in nutrition, is perhaps important in explaining the lack of impact on the incidence.*

**Key Words:** *Diarrhea, Viruses, Bacteria, Food Allergy, Hygiene.*

### **Introduction**

At present, there is pronounced awareness of the importance of understanding the geographic aspects of problems of human health. This awareness is a part of an overall attempt within the discipline of geography to strengthen conceptual horizons. We become afflicted with a disease when there is an upset of the complex delicate balance that normally exists between our bodies and the environment. The upset may result from factors in the physical environment (air, water, food or sun). The biological environment (bacteria, viruses, plants and sun). The biological environment (bacteria, viruses, plants and animals including human).

### **Aims and Objectives**

The present study aim is to global strategy for future reducing the Diarrhea and Diarrheal control Activities. Which has been 'Temple town' Kumbakonam. In order to achieve the above mentioned aim, the following are taken into consideration.

1. To study the geographical distribution of Diarrhea in kumbakonam town.
2. To know the environmental conditions under which the disease spread in Kumbakonam.
3. To find the affected Diarrheal patients of kumbakonam town.
4. To find the temporal changes of the male and female Diarrheal patients incidents rate in kumbakonam town.

### **Methodology**

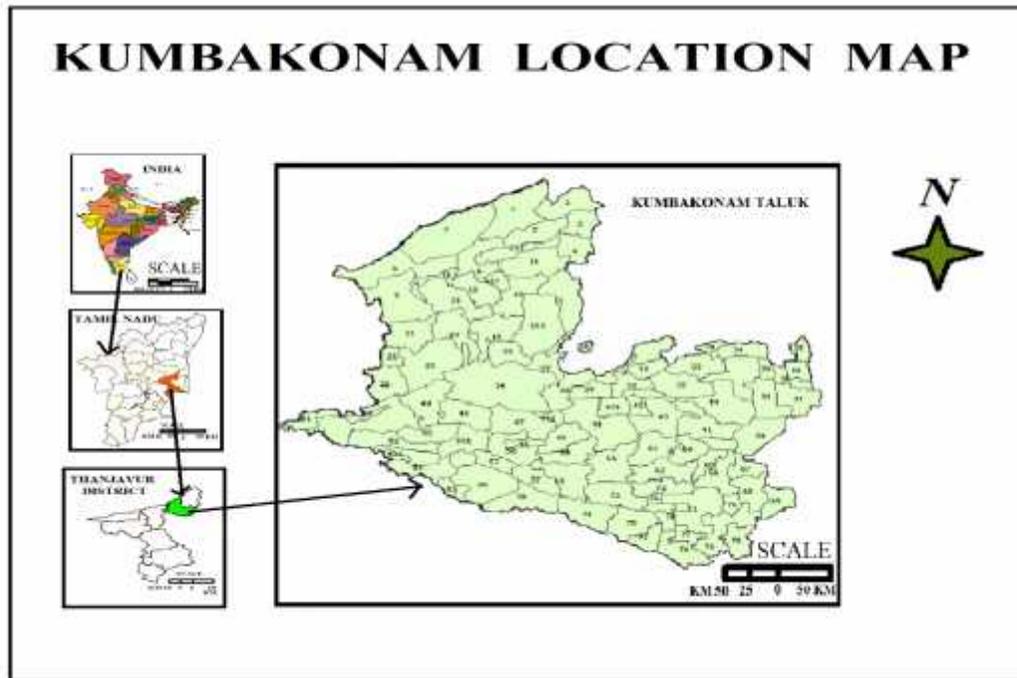
To study the incidence rate of Diarrheal patient simple statistical techniques had been used. To find the relationship between population density and number of Diarrheal patients kumbakonam town, co-efficient technique are used. The study area comprise of all the sub units Kumbakonam town., Kumbakonam.

More information pertaining to the disease and its occurrence were collected from the primary health centre.

The age and sex wise Diarrhea affected people is analysed with the help of Bar diagram and the spatial temporal variation of disease distribution is analysed with the help of geographical representation of disease parameter like micro Diarrhea rate, disease rate, and endemicity rate. The inter-relationship of and analysed with help of correlation.

### **Location**

Generally kumbakonam town is located at the North-East of the Thanjavur District. The river CAUVERY passes through the northern town and its following east and west. In the south of the river Arasalar passes and acts as the southern boundary of the town cauvery is well connected with important towns and cities in Tamil Nadu through transport facilities. The town is exactly extends from 10° 5' North to 11°4' North Latitude and 79°17' East to 79° 45' East longitudes.



### Climate

The climate of Kumbakonam town is hot during summer and pleasant in winter. In general the climate through out the year is moderate

### Soil

The soils of the kumbakonam town are alluvial in nature. The river cauvery and its tributaries have been replacing the soil in the taluk with its sediments. The soil in general are rich is potash and lime but different in nitrogen and humus.

### Drainage

The river cauvery is known as Dakshin Ganga and Ganges of the south cauvery and its tributaries how through this town from west and east direction. Cauvery and its tributary Arasalar traverse in the middle. Kumbakonam town is drained by both these river. These rivers are not perennial in nature.

### Landuse

Landuse refers to the utilization of land under different catogories. The land use of Kumbakonam town can be divided into a major group and they are, Forests, Uncultivable Wasts, Non agricultural buildings, Roads, Railway lines, canals, check Dams, Swamp areas, Social Forests and others land uses dominates following by the scattered diagrams. The total geographical area of the district is 18857.885 hectares.

### Population

According to 2011 census the population of the Taluk in 4,36,592. The pattern of distribution of population in different indicate that the belt of high density gradually decrease as one move away from the river banks.

S. No	Rural	Urban	Total
Population	213009	223583	436592
Male	105989	110474	216463
Female	107020	113109	220129

Sex ratio refers to the ratio of models and females. The percentage of sex composition during the year from 2011depict, almost the female and male population are equal among the total population According to 2011 the sex ratio is male literatures is 176821 the Female literatures is 160083, the male total persence 216463, female persence 220129. The illiteratures of male is 39642 and female is 60046.



### Transportation Facilities

The Kumbakonam town is located 40 km away from Thanjavur town the district head quarter. The broad gauge rail way line Thanjavur to Madras run through this town. This town is not served by national highway. The important district roads of this town are Thanjavur to Myiladuthurai road and Kumbakonam to Nagappattinam road. TNSTC is located in Kumbakonam town Major roads radiating from Kumbakonam town is all direction. Kumbakonam town is well connected with surrounding village by road ways. The bus service flow shows the pattern of transport service. The service low intensity is high in the central part of this town in east west direction then North-South.

### Affected Diarrheal Patient of Kumbakonam Town from 2010-2012

In kumbakonam town 2010-2012, patients who were affected by Diarrhea were 255 to 2341 in 2010 the affected patients were 255 in numbers, in this the male patients were 190 and female patients were 65 in the year 2011, 39% Of male patients and 39% of females were affected by Diarrhea. 2012 in this female (1267) patients were highly affected by Diarrhea than the male (1074) patients.

### Affected Diarrheal Patients According to Age Group from (2010-2012)

The Diarrheal patients of Kumbakonam town in 2010-2012 were grouped according to the age as 5-14,15-30,31-59,and above 60. In 2010 the age group 31-59 male diarrheal patients were 122 and the female diarrheal patients were 38 .When comparing to the another age group are 15-30 and above 60 was more in numbers of patients were affected.

In 2011 the same age groups in female Diarrheal patients were 420 and the male patients were 397. In which age group the female patients were more than male patients. When it compare to the another age groups and it was more.

In 2012 the same age groups 31-59 in female patients were 486. In which compared for the male patients were more than and it compared to another age groups were more than. In which compare the male and female patients totally for the 2010-2012 were the age group of 31-59 in male and female groups were highly affected for the Diarrheal infections in Kumbakonam Town. When it compares to all age group were more numbers were found in this Disease.

The age groups were male persons to eaten for the contaminated food items for a grocery store or restaurant. For an outbreak to occur, something must have happened to contaminated a batch of food that was eaten by the Environment in naturally caused by germs that live water, soil, contaminated foods.

### Diarrheal Reaction

One of the most common problems caused by diarrhea is dehydration. Dehydration means your body loses more water than it takes in. This prevents the body from carrying out its normal function. Dehydration causes many problems. Some common problems caused by dehydration include:

- Dry skin
- Headache
- Constipation
- Dizziness or lightheadedness
- Low blood pressure
- Rapid heartbeat
- Rapid breathing.

If you believe you have diarrhea, talk to a healthcare provider. When left untreated, ongoing diarrhea is not only uncomfortable; it can also be dangerous.

### Conclusion

Acute diarrhea is defined as an abnormally frequent discharge of semisolid or fluid fecal matter from the bowel, lasting less than 14 days. The loss of fluids through diarrhea can cause dehydration and electrolyte disturbances such as potassium deficiency or other salt imbalances. **Diarrhea** or **diarrhoea** meaning "flowing through" is the condition of having three or more loose or liquid bowel movements per day. The most common cause is gastroenteritis. The natural conditions of the man's habit is not doubt one of the aspects at ecology but if it is industrial society. It is transmitted from a Diarrheal affected to susceptible persons via mainly the stomach.



Generally Kumbakonam town is located at the North-East of the Thanjavur district. The river Cauvery passes through the northern town and its following east and west. Kumbakonam Town from 2010-2012, Patients were 255 to 2341. In the year 2012 merely 51% of male patients and 57% of female patients were affected by Diarrhea in Kumbakonam town. According to age group 31-59, there were 1005 male patients and 1074 female patients affected by Diarrhea compare than other groups. The female was more affected by Diarrhea in Kumbakonam Town.

This is due to alteration of the immunological status. This present study aim is to future reducing the Diarrhea (or) Diarrheal control in Kumbakonam town, Health care services rendered by the Government Hospitals. In Kumbakonam town, due to the medical development, new equipments, medicines are developed the Diarrhea compare than 2010- period to 2012. But our aim leads to completely not reduce the Diarrheal disease in temple town Kumbakonam.

### **Recommendation**

The recommendations emphasize family and community understanding of managing diarrhoea. When they become routine practice, caretakers will act quickly at the first sign of diarrhoea, rather than waiting before treating the male and female. The aim is that the recommendations become routine practice both in the home and health-care facility.

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