

An analysis of public health and sanitation: A case study of Bapatla rural Mandal of Guntur district in Andhra Pradesh

Dr. Ericharla Raju

Post-Doctoral fellow, Dept of Economics, Acharya Nagarjuna University, Guntur, Andhra Pradesh, India.

Abstract

In this overview paper, Health is considered as a fundamental human right and a worldwide social goal. It is essential to the satisfaction of basic human needs and to improve the quality of life. The majority of the people in India living in rural areas are poorly served. NSSO (2005) is estimated that in India every year about 1.5 million children under five years die of water related diseases. The present article examined public health and sanitation: a case study of Bapatla Mandal rural of Guntur district in Andhra Pradesh, The present study conducted in 2008. The study analysis of the health and situation in the study area. Majority 91 (75.8 per cent) of the respondent families are consuming milk and its products daily. Only 3 (2.5 per cent) are never taking milk products. Majority 77 (64.2 per cent) of the respondent families are consuming eggs weekly at once. Which is very cheap to purchase and containing high percentage of minerals. 30 (25.0 per cent) of the respondents utilizing the coarse salt, which is not pure and not healthy. Out of 120 respondent, 98 (81.7 per cent) get water from public tap. About 27 per cent deliveries were attended by a relative or a dai. Only 26 per cent of the deliveries are attended by the doctor, which are safe. The study reveals that a big majority of the respondents provided immunization to their children, which is a healthy symptom for healthy life. 20 (16.7 per cent) felt it is good. Hence there is every need to improve health and sanitation in these villages. The study shows that pucca drainage system is a rare phenomenon in rural areas. There is a need to provide pucca drainage system in rural areas also which will help improve the sanitary situation in the village. Only 27 (25.0 per cent) are satisfied with the drainage system and another 20 (18.5 per cent) did not satisfied with the type of drainage system prevailing in the area. The study reveals that 17 (22.7 per cent) respondents felt that improving toilet facility will improve sanitation. 16 (21.3 per cent) of the respondent felt that improving water facility will improve the sanitation. These measures are adopted they will improve sanitation situation in these villages. Most of the respondents are only using open field for defecation there is every need to educate the people to use more sanitary toilet in order to maintain good sanitary situation in and around the house and the village. Only 15 (12.5 per cent) use outside space area to keep the cattle. There is very need to educate the people so that the use outside house area keeps the animals. On the whole we can say that the health and sanitation situation in India had improved in general over a period of time. The expectation of life which was only around 40 at the time of independence reached a level of 65 at present. There is an improvement in other mortality indicators also.

Keywords: History of Public Health, Health and Sanitation facilities

1. Introduction

Health is considered as a fundamental human right and a worldwide social goal. It is essential to the satisfaction of basic human needs and to improve the quality of life. The Government of India's concern since independence has been raising the quality of life and the health of its people. General health condition of the people of India was very poor before independence. Health of the people has been recognized as a valuable national resource and the government's endeavor has been to develop the health (potential) of the people to enable them to contribute to the enhancement of the nation's productivity.

In spite of the best efforts, the majority of the people in India living in rural areas are poorly served and at best receive only rudimentary health care. According to the latest report (2005) of the National Sample Survey Organization (NSSO) three out of every thousand rural household do not get enough to eat. It is estimated that in India every year about 1.5 million children under five years die of water related diseases.

The Government of India adopted a National Health Policy in August, 1983. It reiterates India's commitment to the target of health for all by 2000 A.D. Recognizing the importance of

Health in the process of economic and social development and improving the quality of life of our citizens, the Government of India has resolved to launch the National Rural Health Mission to carry out necessary architectural correction in the basic health care delivery system in 1999. The National Health Policy came into existence in 2002.

Availability of drinking water is another important component of health and sanitation. Efforts are made to improve the availability of potable drinking water ever since independence. But there are many problem villages which faces severe water shortage during summer. Sanitation is more of health related activity. Failure to provide low cost sanitation options, alternative delivery systems and low priority given by the policy makers seems to have led to the present bleak scenario of sanitation.

One of the primary functions of the village panchayat is public health. It is needless to mention that the health of the people depends upon the performance of the public health maintained by the local body.

A good number of studies are available on health and sanitation in the country. But there are not many studies specializing on the rural areas. Hence, we need more area

specific studies in the rural areas of the country. This present study is in this direction as it deals with health and sanitary situation in Bapatla Rural mandal area of Guntur District, A.P. The present Survey was conducted during November – December 2007 among 3 villages of Bapatla Mandal, Guntur district of AP state. In each village about 40 households were selected randomly to generate both quantitative and qualitative data on select parameters and indicators.

2. Objectives

The main objectives of the present study are:

1. To examine the health situation through a sample study conducted in Bapatla Mandal, Guntur District, and AP.
2. To examine the sanitation situation through a sample study conducted in Bapatla Mandal, Guntur District, and AP.

3. Methodology

The various social science research methods and techniques were used to collect primary and secondary data from different sources with a view to gain insight and document the existing perceptions and conditions relating to drinking water and sanitation situation in rural areas of the Guntur District in A.P. Three villages were selected using random number table from the list of villages. Initially, complete household enumeration was undertaken and from the list of Households in the villages, 30 household were selected using random number table. The selected village varied in terms of their location, size of population and infrastructural facilities. In the sampled villages efforts were made to identify various public water sources, their health and sanitation condition.

3.1. Selection of Sample

For the present study, Guntur district of A.P and Bapatla Mandal of Guntur District, was selected purposively. In Bapatla Mandal, there are 25 villages. Out of them three villages were purposively selected comprising 12 per cent of the total villages of the mandal. Three villages selected are, Narasayapalem, Kankatapalem and Jammulapalem. There are 3460 households in these 3 villages and again, 120 households (3.4 per cent) were selected for the study and the study conducted in 2008.

4. History of Public Health and Sanitation

India has one of the most ancient civilizations in recorded history. In 1952 the community development programme, in 1953 the national malaria control programme, in 1955 the national filaria control programme were started. The health services and programmes were based on the recommendations of several committees constituted by the government from time to time. Health survey and planning committee (the Mudaliar Committee) was set up in 1959. It made several measures to improve health. Subsequently, three other committees were set up to review the various aspects of health care services in India. The multipurpose workers committee headed Kartar Singh came into existence in 1972. The Committee on Health Services and Medical Education under the chairmanship of the Srivastava was appointed in 1974. In 1978 at Alma Ata, the governments of the world came together to sign the Alma Ata Declaration that promised "Health for All by 2000". However this promise was never

taken very seriously and was subsequently marginalised in health policy discussions.

In recent years, one can see deterioration in healthcare access in most parts of the country because of reduced public investments and expenditures, which is compelling people to increasingly access healthcare from the private sector which is expanding rapidly. Recognizing the importance of Health in the process of economic and social development and improving the quality of life of our citizens. The Government of India has resolved to launch the National Rural Health Mission to carry out necessary architectural correction in the basic health care delivery system in 1999. The National Mission adopts a synergistic approach by relating to health determinants of good health viz. segments of nutrition, sanitation, hygiene and safe drinking water.

India has built up a vast health infrastructure and manpower at primary, secondary, and tertiary sectors in government, voluntary and private sectors. There are 22,975 Public Health Centres (PHCs) spread across the country. If all these centres were functioning to their optimal capacity, then certainly the healthcare scenario would not have been as dismal as it is today.

We can also observe an improvement the health infrastructure. The number of dispensaries and hospitals increased from 9209 in 1951 to 23555 in 1981 and 43322 in 2000. A beds in private and public hospitals together were 117198 in 1951 and increased to 569495 in 1981 and 870161 in 1995-96. The number of doctors (Allopathy) increased from 61800 in 1951 to 268700 in 1981 and 503900 in 1995-96. The numbers of nursing personal were 18054 in 1951 and 143887 in 1981 and 737000 in 1999. This shows clear improvement in terms of health infrastructure concerned.

The government had set a target of bringing down infant Mortality Rate to less than 60 by the year 2000 although this target has been achieved the year 2003. At all India level infant mortality was 57. The highest infant mortality was observed in UP and the lowest in Kerala. In Andhra Pradesh rate is 54.

At all India level the neonatal mortality was 39. The highest was 51 in Chhattishgarh and lowest was 9, Goa. In AP it was 40. The post-neonatal mortality at All India level was 18. The highest rate was observed in MP (25) and lowest Kerala (4). In A.P. it was 13. The under-five mortality was 74 at all India level. The highest was being 96 in UP and 16 in Kerala. In AP rate was 63.

In India as a whole, 70 per cent of the children have some anaemia. A shocking revelation is that the prevalence of anaemia has increased from 74 per cent as per NFHS-2 (1998-99) to 79 per cent according to NFHS-3 (2005-06).

The prevalence of chronic diseases is very high in India. The major reasons for the persistence of communicable diseases are non-health determinants such as unsafe drinking water, environmental pollution, poor sanitation and lack of hygiene. Outbreaks of communicable diseases continue to pose a major challenge for public health in India. The incidence of diarrhoea, malaria, cholera, Japanese encephalitis, dengue, and hepatitis occur in large numbers year after year.

Efforts to improve sanitation and hygiene behaviour are not a new development in India. After Independence, the government has made attempts for the safe disposal of human excreta by cesspools, open ditches, bucket system, etc. Today, it involves adoption of flush latrine, hygienic practices in

personal and domestic life, waste water disposal, solid waste disposal, etc.

In 1954, sanitation programme was introduced as part of the health programme of Government of India. In India, until the Sixth Plan, systematic efforts for improving sanitation in rural areas did not acquire the importance they deserved. The Eighth Five-Year Plan sought to cover 5 per cent of the rural population with sanitation services by the end of the period. The Ninth Five-Year Plan (1997-2002) emphasized the need for undertaking all possible measures for rapid expansion and improvement of sanitation facilities in urban and rural areas.

The TSC is designed as a comprehensive programme with an aim to improve sanitation facilities in rural areas and eradicate the practice of open defecation. Zilla Panchayat or alternatively the District Water and Sanitation Mission (DWSM) is the implementing agency for TSC. The key intervention areas are Individual household latrines (IHHL), School Sanitation and Hygiene Education (SSHE), Community Sanitary Complex, Anganwadi toilets supported by Rural Sanitary Marts (RSMs) and Production Centres (PCs). However, the start-up activities and IEC are equally important components that provide the base for implementing the project.

The unprecedented sanitation challenge requires new strategies and methods to improve and promote sanitation, which should be accessible to everyone in rural areas. Through the creation of demand and behaviour change instead of awareness generation to improve physical quality of life in rural areas, sanitation coverage among rural population will be accelerated. Toilet facilities, especially in all the primary and upper primary schools, and integrated sanitary complexes, exclusively for women, would certainly create a kind of ownership among the needy segment of the community. Suitable, cost effective, local based affordable multiple designs of individual household toilets should be encouraged.

5. General Characteristics of the Respondents in the Study Area

The study reveals that the majority of respondents in the sample (53.2 per cent) belong to the age group of 25 to 40 years. The average age of the respondent is 40.37 years. Majority of the respondents are educated upto Primary level. On the whole, it is observed that 60.8 per cent are literates and 39.2 per cent illiterates.

An analysis of the occupation of the respondents shows that the majority 69.08 per cent of respondents, that is fall under the category of agricultural labourers.

The average age of the respondents is 40.37 years with a minimum of 18 years and maximum of 70 years. However, there are no ST population in the study area that comes under the sample. Even among other educational categories the education standards are better among SCs as compared to OCs which is a peculiar situation prevailing in this area. The OCs the family income is more and among SCs and BCs the family income is less. Higher the community higher the family income and so on.

There are no families having expenditure above 60,000 among BCs. Among SCs 8 (50 per cent) are spending between 10,000 and 20,000 and families spending more than 30,000 is only 2 (12.5 per cent) shows that the total expenditure is more among OCs as compared to BCs and

SCs. The saving potential is more among OCs as compared to BCs and SCs. The study reveals that debt is more among OCs as compared to BCs and SCs.

On the whole, 40 per cent of the respondents studied up to intermediate level only. Thus, the level of education possessed by the respondents is at moderate level. As education increases the number of people approaching the private doctor also increases.

Among the illiterates only 9 (18.4 per cent) approached private doctor this goes to 50 per cent among graduates. Among graduates 50 per cent cases doctor attended the delivery. The study shows that higher the education qualification the more the percentage of people approached the doctor. Thus there is a positive relationship between educational standard and purification of drinking water. It is also observed that higher the educational level more the use of own flesh toilets. Thus educational qualifications and use of own flesh toilets are positively correlated.

The concept of nuclear family has not received much attention among rural folk. The general notion is that as development takes place, people prefer nuclear family in the place of joint family. It indicates that the present generation are mostly residing in the nuclear type of family system, which is a modern trend. The family is not small. It is at a moderate level. In the modern society most of the people are adopting small family norm, and there is sex discrimination.

Only 104 respondent families are having children may be male or female. The average number of children born to the respondent families is 2.15 with a minimum of 1 child and maximum of 6 children. As compared to the older generations, this number is less. The average number of surviving children is 2.14 with a minimum of 1 child and maximum of 6 children.

It reveals that most of respondents belong to the same area and staying the place for long time. Respondents out of 120 respondents a big majority 114 (93.4 per cent) are currently married and there is no respondents who fall in the category of widowed, divorced or separated. The average age of marriage is 19.5 years, with a minimum of 15 and maximum of 40 years.

The study reveals that out of 120 respondents 49 (40.8 per cent) do not possess land at all. 24 (33.8 per cent) respondents are having 1 acre of land and another 19 (26.7 per cent) are having 2 acres of land. The average acre of land possessed by the respondents is 2.85 acres which is very low. This shows the poor economic position of the respondents.

Out of 120 respondents 108 (90.0) are having house and the remaining 12 (10.0 per cent) are residing in the rented house. A big majority 117 (97.5 per cent) of the respondents are utilizing electricity for lighting and only 3 (2.5 per cent) are using kerosene lamps for lighting. The average number of rooms among the houses possessed is 2.81 with a minimum of 1 room and a maximum of 8 rooms.

Out of 120 respondents majority 87 (72.5 per cent) of the respondents are not having separate kitchen room. The average number of animals possessed by the respondents is 1.94 only.

Thus agriculture is the main or major occupation of the respondents. The average income earned by respondent's family is Rs. 39,075/- with a minimum of Rs. 10000/- and a maximum of Rs. 2,00,000/- The average annual expenditure by the respondents family is Rs. 34,616/- with a minimum of

Rs. 8,000 and a maximum of Rs. 1,50,000/- The average annual savings of the respondent's family is Rs. 10,628/- with a minimum of Rs. 1,000/- and maximum of Rs. 50,000/- An attempt is made in the present study to examine the nature of loans taken by the respondents and to assess the present state of debt condition. It shows that even though the high percentage of the respondent families are having debt, but the amount of debt is nominal.

In brief we can say that most of the respondents of the present study belong to low economic and social category and possess all the characteristics that are found among the rural population in general.

6. Health and Sanitation Analysis

The study analysis the health situation in the study area. Majority 91 (75.8 per cent) of the respondent families are consuming milk and its products daily. Only 3 (2.5 per cent) are never taking milk products. Majority 77 (64.2 per cent) of the respondent families are consuming eggs weekly at once, which is very cheap to purchase and containing high percentage of minerals. 30 (25.0 per cent) of the respondents utilizing the coarse salt, which is not pure and not healthy.

The study reveals that majority of the respondents are not having the bad health habits such as chewing tobacco, smoking and taking alcohol, etc.

There is a positive co-relationship between reading newspaper and maintaining good health. Out of 120 respondents, a big majority 102 (85.0 per cent) are having the habit of reading newspaper at least once in a week, and the remaining 18 (15.0 per cent) are not having this habit.

29 (24.2 per cent) of the respondents are taking treatment from Government Hospital. It indicates that are very much interested to consult local RMP doctor or private doctor and not very much interested to go to government hospitals even though treatment is available free of cost in the government hospitals.

The study shows the main source of drinking water for the house. Out of 120, 98 (81.7 per cent) get water from public tap. Further 20 (16.7 per cent) possess own pipe water for the purpose. The average time taken to get water for a single trip is 17.74 minutes. It shows that lot of time is wasted in getting water to the family. Surprisingly 23 (19.2 per cent) do not use anything to purify the water.

Out of 120 respondents a big majority 111 (92.5 per cent) clean their cloths nearby well area or out of the well area which is a hygienic practice to wash the cloths. Out of 120 respondents majority 115 (95.8 per cent) use soap which is a modern product used in the present day society.

There are different diseases in the society, important among them being malaria, diarrhea, etc. The government of India had made good efforts to eradicate the malaria from Indian scenario. But even now, about 9.2 per cent of the people suffered with malaria in the study area, which is a serious matter. The eradication of the diseases is closely associated with clean environment. Every individual in the society should feel responsible and maintain clean environment around them, the disease can be easily eradicated.

Majority of the respondent who suffered with jaundice used traditional method of hand burning with an iron circle to cure the disease, which is associated with side effect of tetanus. There is a need to eradicate this disease by supply of safe drinking water.

The study reveals that about 11 per cent of the respondents households are suffering with some chronic diseases. By making them healthy through health care, so, that they can become productive members of the society.

Only 5 (4.2 per cent) respondents revealed that there is the incidence of death in the family during last one year.

In the present study large number of respondents households had still birth. By taking pre-natal care this can be prevented. A part from governmental efforts the individual public efforts are very much needed to eliminated the high incidence of still births. Majority 84 (93.4 per cent) told that there is no abortion in their households and only 6 (6.7 per cent) answered that they faced abortion in the household. It is surprising to know that out of 6 abortions that were observed in the present study most of them are spontaneous in nature and if we are able to improve health condition of the mother, these can be reduced.

In the modern society, technological development were improved, transportation facilities has increased and there is every scope for a mother to have safe delivery in the hospital, but this proportion is only 30.6 per cent. So, there is every need to educate the women and create proper awareness to have deliveries in the hospital which are safe.

In the present study, about 27 per cent deliveries were attended by a relative or a dai. Only 26 per cent of the deliveries were are attended by the doctor, which are safe. There is a need for creating for better awareness to have safe deliveries.

Since, about 70 per cent of the respondent's households did not taken pre-natal care which is essential for safe motherhood and healthy baby. There is every need to educate the mothers in the study area, so, that they can take prenatal care in near future. In the present the large number 69 per cent did not availed post-natal care. It indicates lack of awareness among the mothers with regard to post-natal care. There is every need to create proper awareness about prenatal and postnatal care, so that infant and child mortality can be reduced to the minimum.

Majority 27 (42.9 per cent) of the respondent households had given breast fed to their children for 9 months. Another 12 (19.0 per cent) of the respondents households had given breast fed to their children for 6 months. This will have severe implications on the health of child. There is every need to create better awareness among the women so that, the number of women who breastfed their child for long time say more than one year. This will help to improve the health of the child in future.

The Government of India is trying its best to provide family planning services for the people and motivate them towards small family norm. There is every need to create awareness about the growing population in the country and motivate the people to use family planning to control the family size.

The study reveals that a big majority of the respondents provided immunization to their children, which is a healthy symptom for healthy life.

20 (16.7 per cent) felt it is good. Hence there is every need to improve health and sanitation in these villages.

Out of 85 respondents who answered this question a big majority 27 (31.8 per cent) felt that better food is needed to improve the health of the respondent.

A large majority of the respondents feeling environment around them is neat and clean, which is an indicator of health

in the society. Out of 32 respondents, 16 (50.0 per cent) felt that only one person attending the sanitary work and the remaining 50 per cent felt that two persons are attending the sanitary work. In general, most of the villages sanitary workers are only on paper but not in facts. There is every need to put it in practice. Out of 60 respondents, a big majority 55 (91.7 per cent) reported that the drainage system was constructed with mud and 8.3 per cent reported that the drainage system was constructed with cement. It shows the poor level of drainage system in the villages.

The study shows that pucca drainage system is a rare phenomenon in rural areas. There is a need to provide pucca drainage system in rural areas also which will help improve the sanitary situation in the village. Only 27 (25.0 per cent) are satisfied with the drainage system and another 20 (18.5 per cent) did not satisfied with the type of drainage system prevailing in the area.

Since, majority of the respondents felt that there are mosquito problem in their area, the government should come forward to eradicate mosquito problem in the villages.

There is every need to create awareness among the respondents so that they can dispose the garbage at the proper place meant for the purpose. The study shows that water tanks are not well maintained by the authorities. There is every need to take proper step for better maintenance of overhead tanks in the village.

The study reveals that 17 (22.7 per cent) respondents felt that improving toilet facility will improve sanitation. 16 (21.3 per cent) of the respondent felt that improving water facility will improve the sanitation. These measures are adopted they will improve sanitation situation in these villages.

Out of 9, only 4 (44.5 per cent) of the respondents possess fencing to the well. Fencing is very important for the well in order to keep the water purified.

Out of 9, only 7 (77.7 per cent) of the respondents answered as positive and the remaining 2 (22.3 per cent) answered as negative.

50 (41.7 per cent) of the respondents are using Liquid Petroleum Gas for the preparation of food. Only 1 (0.8 per cent) respondent utilizing Bio-gas, which is very cheap and non-polluted. So there a need to create awareness for use of Bio-gas by the respondents.

Since, most of the respondents are only using open field for defecation there is every need to educate the people to use more sanitary toilet in order to maintain good sanitary situation in and around the house and the village.

Only 15 (12.5 per cent) use outside space area to keep the cattle. There is very need to educate the people so that the use outside house area keeps the animals.

7. Conclusion

On the whole we can say that the health and sanitation situation in India had improved in general over a period of time. The expectation of life which was only around 40 at the time of independence reached a level of 65 at present. There is an improvement in other mortality indicators also. There is a decline in infant mortality, neo-natal mortality, maternal mortality and so on. The availability of drinking water, which is a crucial component in health has improved over a period of time.

There is an improvement in drainage system. People are more aware about garbage disposal and maintains of environmental

cleaning, etc. Most of the communicable diseases are eradicated to a larger extent. More or less the similar phenomenon is noticed in the sample study also. However, there is every need to improve health and sanitation in the rural areas by providing special schemes in this areas. Every panchayats should give special importance to health and sanitation since, the quality of depends upon health and sanitation of the people in that particular locality. Since, the present study was conducted in the rural areas, the findings of the study is very much useful to planner and policymakers.