



A STUDY ON IMPACT OF FACTORS INFLUENCING WATER BORNE DISEASES LIKE TYPHOID WITH RESPECT TO EPIDEMICS IN VISAKHAPATNAMANDHRA PRADESH

CH. Asha Kiran Raju

Guest Faculty, Department of Social Work, A.U College of Arts and Commerce, Andhra University, Visakhapatnam-530003, Andhra Pradesh, India

Received: 04 Aug 2023 Revised: 27 Aug 2023 Accepted: 15 Sept 2023

Abstract

The economy is impacted by a variety of variables that may be grouped into five main categories known as health determinants. These include Water resources, Salary, Type of house, Education, and Treatment Centers. The wider economic factors are referred to as these. The study makes use of secondary data obtained in rural areas. ANOVA and multivariate methods were used to examine the data. We determine the contributing factors to maternal health in rural lifestyles, the root causes of health problems, and risk factors for individuals. The present study includes a survey in the region of the rural Visakhapatnam district.

Keywords: Health Determinants, Rural Economy, Maternal Health, Visakhapatnam District, Multivariate Analysis, Secondary Data

This article is licensed under a Creative Commons Attribution-Non-commercial 4.0 International License. Copyright © 2023 Author retains the copyright of this article.



*Corresponding Author

Dr. Ch. Asha Kiran Raju

Produced and Published by
[South Asian Academic Publications](#)

Introduction

Community development (CD) is a development approach that places a strong emphasis on people's collective efforts to improve their living conditions, with as much reliance as possible on their initiative and action [1-2]. The economic growth potential of communities, regions, and, more recently, societies and nations [3-4]; the creation and maintenance of conditions favorable to the evolution of institutions and practices that support lifelong learning; and the maintenance and improvement of social cohesion, social integration, and political stability are all aspects of CD. Property rights are the manifestation of economic capital, while cultural capital can be manifested in a variety of ways, including the internalization of behaviors, attitudes, knowledge, and habits learned through socialization, or the accumulation of capital through investments in education, training, or the acquisition of cultural items [5].

Aim

The goal of the current study was to emphasize the socioeconomic shift and lifestyle changes that are causing severe health issues for most tribal communities.

Methodology

Research scientists have collected a variety of Indian tribal people in this study. By comparing the tribes from different geographic regions and discovering the cause of poverty and undernutrition among them, even after receiving aid and cash from the government and other groups.

Results/Findings

There was a change from their first occupation to the one that now upsets the balance of the tribes. For them, switching from agriculture or hunting gathering to daily wagers was a major shock that might have contributed to their declining health. The majority of the tribal population had mean values below 18.5 kg/m², which is considered underweight according to WHO recommendations.

Results and Discussion

Water Resources

The graph in Fig. 01 is plotted against various water resources and the percentage of the population of people. The majority of the people use municipal water (62.90%), as seen in this graph, which is a higher second one is bore water (1.35%), and last one is, well water (17.74%). The % of people is represented by the different colors in this diagram. The reason and rationale might be that the use of untreated or inadequately filtered water raises the risk of infection due to the absence of waste treatment facilities

and toilets. Furthermore, individuals may not grasp the necessity of hand washing or boiling water [6].

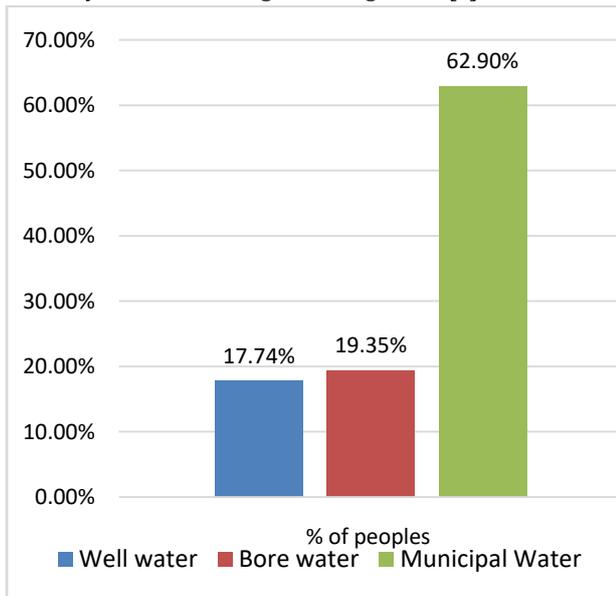


Fig. 01 water resources

Monthly Salary

The number of individuals and the percentage of the population are graphed in Fig. 02 against the monthly income of different types of people. The majority of people's monthly salary is 7500 pm, which is shown in this graph, and it has a higher percentage (40.00%) compared to the monthly salaries of 5000 pm. (21.82%) and 9000 pm. (38.18%). The proportion of people and different income levels is represented by different colors in this illustration. Low income or poverty may indirectly contribute to the cause and explanation, as well as an inability to purchase clean water, lack of access to healthcare, and a shortage of hygiene goods [7].

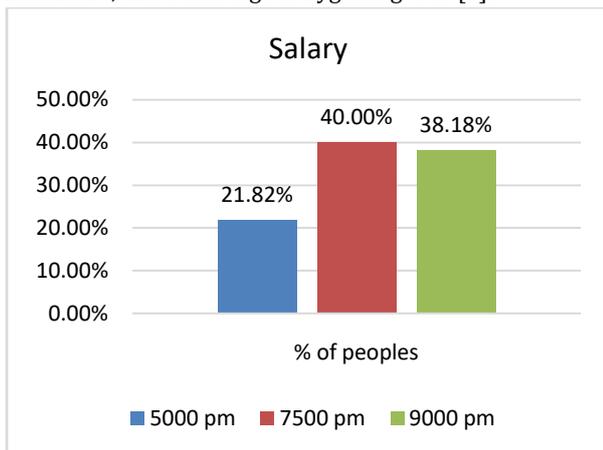


Fig. 02 Monthly Salary

Type of House

The % of the population is plotted against the type of people's residence in Fig. 03. The highly rented home has a larger percentage (55.00%) than the leased home (15.00%) and the owned house (30.00%), according to this graph. The proportion of various house types is

represented by different colors in this figure. Lack of piped water, absence of restrooms, inadequate garbage disposal, and flood susceptibility may be the causes and underlying logic [8].

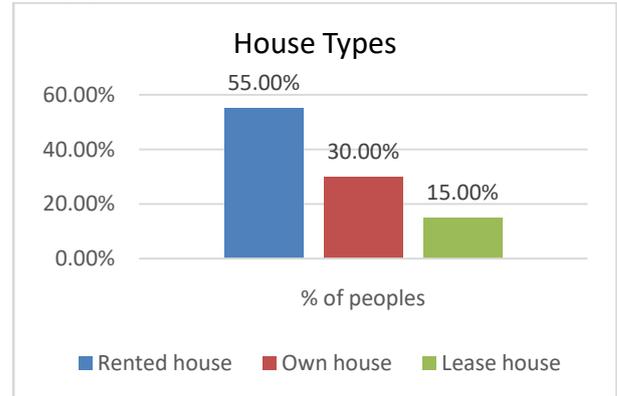


Fig. 03 Types of House

Education

The graph from Figure 04 shows the relationship between the percentage of people and the kind of education they have. The majority of individuals' intermediate is primarily determined by their education, as seen in this graph, which shows a high percentage (51.16%) when compared to tenth grade (41.86%) and degree (6.98%). The percentage of people's education is represented by various hues in this figure. Particularly for typhoid, which is mostly transmitted by inadequate hygiene, sanitation, and food safety procedures, education is essential to illness prevention. Poor handwashing and hygiene practices, a lack of understanding of how diseases spread, and an understanding of symptoms and treatments [9] could all be reasons and justifications.

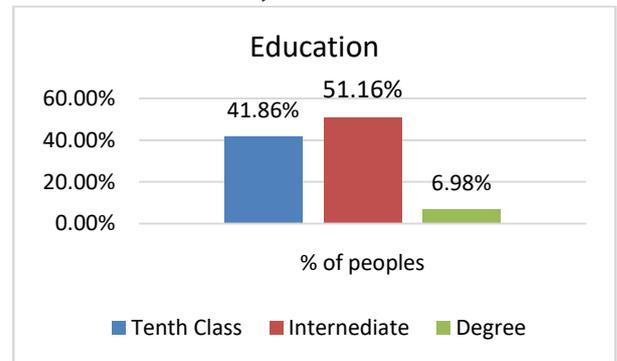


Fig. 04 Education types

Treatment Centers

The graph of Fig 05 shows the percentage of people and the treatment centers. According to this graph, the majority of respondents favored government hospitals for their treatment, with a higher percentage (44.90%) than those who used PHC (30.61%) or private clinics for their health (24.49%). The proportion of treatment facilities for individuals is shown by the various colors in this figure. The cause and rationale may be that government hospitals provide free outpatient treatment, and primary health

centers may have significantly lower or free costs for therapy, lab tests, and medications [10].

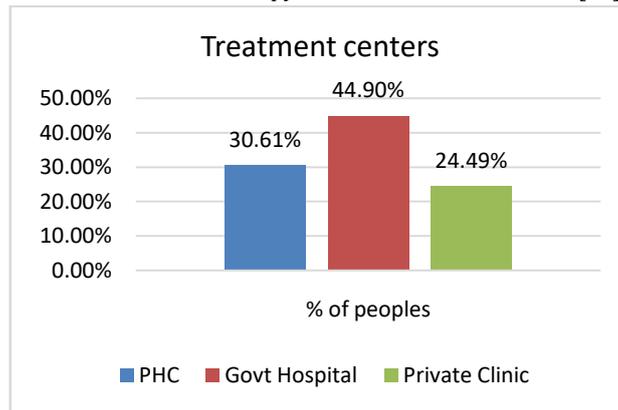


Fig. 05 Treatment centers
Table 01 ANOVA single factors

ANOVA: SINGLE FACTOR						
SUMMARY						
Groups	Count	Sum	Average	Variance		
Water resource	30	62	2.066667	0.822989		
Salary	30	55	1.833333	0.626437		
Type of house	30	40	1.333333	0.367816		
Education	30	43	1.433333	0.322989		
Treatment Centers availability	30	49	1.633333	0.516092		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	10.62667	4	2.656667	5.000649	0.000835	2.434065
Within Groups	77.03333	145	0.531264			
Total	87.66	149				

A formal F test for the single-factor effect is included in the ANOVA table [10]. ANOVA, or analysis of variance, is a statistical technique for comparing the means of two or more groups of values. When the p-value is true, the likelihood of obtaining an F statistic of 2.434065 or higher is 0.000835.

Conclusion

The current study clearly demonstrated the need for rural communities to identify, reorganise, and reallocate resources based on their needs. The design of development programmes, as well as the population's economic needs must be aimed to develop fastly. Many factors have an impact on the economy, which can be broadly classified into five broad categories known as economic determinants. These include salary wages, monthly expenses, extra expenses, daily expenses, and children's maintenance. These are referred to as the broader economic determinants. Despite several interventions, the current study confirms that the extent of the economy remains extremely low in people living in predominantly rural areas in Visakhapatnam district, AP, INDIA in defending against epidemic diseases.

Acknowledgements and Funding

The author is thankful to the Department of Social Work, Andhra University for providing all the facilities and also expresses deep sense of gratitude to ICSSR PDF fellowship for carrying out this research work with full financial support.

References

1. Forstinus NO, Ikechukwu NE, Emenike MP, Christiana AO. Water and waterborne diseases: A review. International Journal of Tropical Diseases and Health. 2016 Jan 10;12(4):1-4.
2. Craun GF. Waterborne diseases. Waterborne Diseases in the United States. GF Craun (ed.). CRC Press, Inc. BocaRaton, Florida. 1986:3-10.
3. Kunii O, Nakamura S, Abdur R, Wakai S. The impact on health and risk factors of the diarrhoea epidemics

- in the 1998 Bangladesh floods. *Public health*. 2002 Mar 1;116(2):68-74.
4. Levantesi C, Bonadonna L, Briancesco R, Grohmann E, Toze S, Tandoi V. Salmonella in surface and drinking water: occurrence and water-mediated transmission. *Food Research International*. 2012 Mar 1;45(2):587-602.
 5. Vollaard AM, Ali S, Van Asten HA, Widjaja S, Visser LG, Surjadi C, Van Dissel JT. Risk factors for typhoid and paratyphoid fever in Jakarta, Indonesia. *Jama*. 2004 Jun 2;291(21):2607-15.
 6. Lee JS, Mogasale VV, Mogasale V, Lee K. Geographical distribution of typhoid risk factors in low and middle income countries. *BMC infectious diseases*. 2016 Dec;16:1-0.
 7. Jenkins AP, Jupiter S, Mueller U, Jenney A, Vosaki G, Rosa V, Naucukidi A, Mulholland K, Strugnell R, Kama M, Horwitz P. Health at the sub-catchment scale: typhoid and its environmental determinants in Central Division, Fiji. *EcoHealth*. 2016 Dec;13:633-51.
 8. Thindwa D, Chipeta MG, Henrion MY, Gordon MA. Distinct climate influences on the risk of typhoid compared to invasive non-typhoid Salmonella disease in Blantyre, Malawi. *Scientific reports*. 2019 Dec 30;9(1):20310.
 9. Ram PK, Naheed A, Brooks WA, Hossain MA, Mintz ED, Breiman RF, Luby SP. Risk factors for typhoid fever in a slum in Dhaka, Bangladesh. *Epidemiology & Infection*. 2007 Apr;135(3):458-65.
 10. Dr. Ch. Asha Kiran Raju and Prof. T. Sobha Sri. Studies on awareness and protection of Epidemics-Typhoid: A study in Rural Village in Visakhapatnam District, Andhra Pradesh. *Journal of Critical Reviews*. 2020; 7(1): 1607-1615.