

SPATIAL PATTERN OF HEALTH CARE IN NALGONDA DISTRICT OF TELANGANA

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Abstract

The purpose of this study is to build up capacity for developmental planning in Nalgonda district of Telangana State through application of the Geoinformatic tools. The study area comprises a total of 39 settlements (villages and hamlets), has a total population of 16,767 and a total of 4,443 households (based on Field survey). This work covers part of two Mandals - Devarakonda and Chandampet. The three villages of Mynampally, Tatikole and Kacharam fall in Devarakonda Mandal. The four villages of Guntipalle, Polepalle, Gagillapuram and Mudidandla which form part of the study area fall in Chandampet Mandal. A total (Census) survey of the households in the study area (4,443 households) is carried out, based on a structured questionnaire to generate attribute data for the 39 settlements. The data thus collected covers 15 variables which relate to Health care and Health facilities. The present study area is intended to build a strong database for a cluster of seven villages and their adjunct hamlets (32 in numbers) to create easy information retrieval system to serve as a Decision Support system for the planners and administrators to facilitate G Governance-specifically pertaining to Health care and Health facilities. A reform of village institutions with appropriate technological inputs will help in arriving at quick decisions and help with planning and problem solving with a clear perspective. It is a demonstration of a socio-economic application of GIS.

Keywords: G Governance, Decision Support system, GIS

Introduction

The present study area is intended to build a high tenacity data base for a cluster of seven villages and their adjunct hamlets (32 in numbers) to create easy information retrieval system to serve as a Decision Support system for the planners and administrators to facilitate G Governance-specifically pertaining to Health care and Health facilities. A reform of village institutions with appropriate technological inputs will help in arriving at quick decisions and help with planning and problem solving with a clear perspective. It is a demonstration of the application of GIS to socio-economic issues.

Study Area

The study area (Fig.1) is located between 78.48°25'E to 78.57°13'E and 16.31°59'N to 16.31°59'N. It comprises 7 villages in the most backward area of Nalgonda, district of Telangana State along with their adjunct hamlets-32 in number. A majority of these hamlets are tribal in nature. The study area comprising a total of 39 settlements (villages and hamlets), has a total population of 16,767 and a total of 4,443 households (based on Field survey).

This work covers parts of two Mandals - Devarakonda and Chandampet. The three villages of Mynampally, Tatikole and Kacharam fall in Devarakonda Mandal. The four villages of Guntipalle, Polepalle, Gagillapuram and Mudidandla fall in Chandampet Mandal.

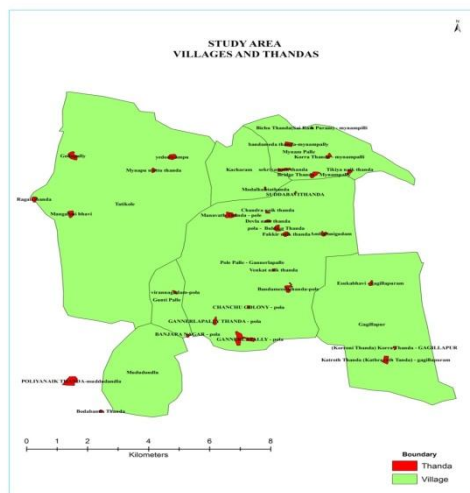


Figure 1. Study area.

Objectives

It is intended to study the Health care and Health facilities of people in these backward settlements.

Methodology

A total (Census) survey of the households in study area (4,443 households) is carried out, based on a structured questionnaire to generate attribute data for the 39 settlements. The data thus collected covers 15 variables which relate to Health care and Health facilities. This data is plotted and maps generated for spatial interpretation of variables and establishing correlations in space.

Findings

Spatial pattern of child nutrition

The nutritional status of children has been measured in terms of three anthropometric measures, i.e. stunting, wasting and underweight. Another form of nutritional deprivation is iron deficiency, and vitamin A deficiency.

Stunting and wasting in children

Stunting is a cumulative indicator of nutritional deprivation from birth onwards. It is relatively independent of immediate circumstances since height does not change in short term. Wasting captures the thinness of children and indicates the prevalence of acute malnutrition. Statistics reveal that in Bodabanda Thanda part of Mudidandla village children are suffering from low height and also low weight. As far as weight for height (wasting) is concerned, about 10 percent were malnourished. Table 1 below shows very low percent of Poliyanayak Thanda part of Mudidandla village, Tatikole village, Katroth Thanda part of Gagilapuram village, Manavath Thanda part of Polepally villages children are suffering from stunting and wasting. Chandra nayak Thanda part of Polepally village has 4 percent of children suffering

from stunting and wasting. In the study area remaining villages and Thandas have not suffered from stunting and wasting.

Table 1. Nutritional levels of children in study area: 2012-2013(under 5 years)

	Health Indicator Villages and Thandas	Percent Children
1	PoliyaNayakThanda(Mudidandla)	0.85
2	BodabandaThanda(Mudidandla)	9.67
3	Tatikole village	0.28
4	KatrothThanda(Gagilapuram)	0.48
5	TikiyanayakThanda(Mynampally)	1.61
6	Chandra nayakThanda(Polepally)	3.70
7	ManavathThanda(Polepally)	0.56

Under nutrition in Children

Under nutrition captures elements of both stunting and wasting, that is chronic as well as acute under nutrition. Under nutrition directly affects many aspects of children development. In particular, it retards their physical and cognitive growth. The consequences of child under nutrition for morbidity and mortality are enormous. Spatial distribution of nutrition level shows that incidence of under nutrition is 3 percent of children spread in BodabandaThanda part of Mudidandla village (Table 2).In the table below, a very low percentage of such children is spread in villages like Mudidandla and Tatikole.1 percent of children spread in Kacharam, MangaloniBhavi and RagaliThanda part of Tatikole village, Shekriya Thanda part of Mynampally village. In the study area, the remaining villages and Thandas have not suffered from malnutrition.

Table 2. Nutritional levels of children in study area: 2012-2013(under 5 years)

	Health Indicator Villages and Thandas	Percent Children
1	Kacharam Village	1.20
2	Mudidandla Village	0.74
3	PoliyanayakThanda (Mudidandla)	2.24
4	BodabandaThanda (Mudidandla)	3.22
5	Tatikole village	0.14
6	MangaloniBhavi (Tatikole)	1.33
7	RagaliThanda (Tatikole)	1.35
8	ShekriyaThanda (Mynampally)	1.11

Health conditions of the population

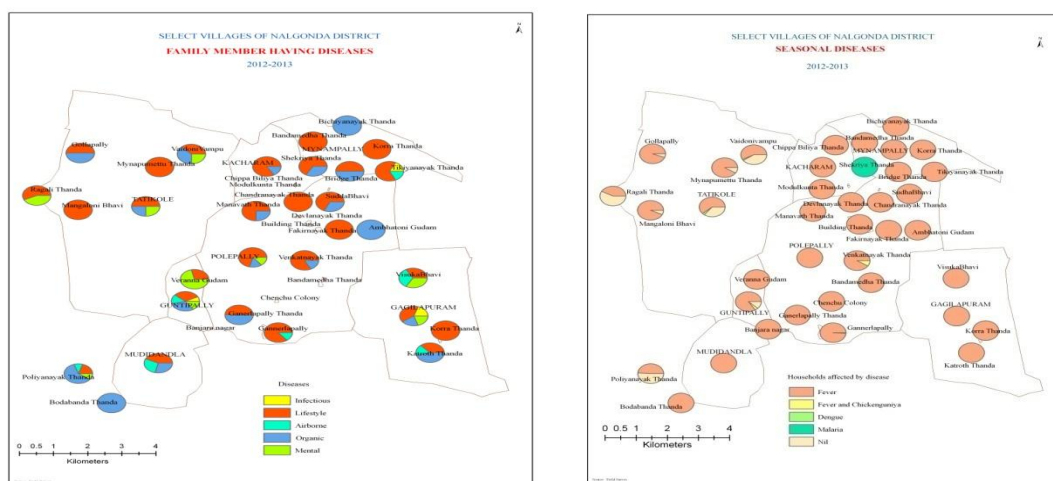
Family planning

Family planning practices are mostly related with the two types of variables, the ownership of land and literacy level of the households. The general rural structure of the society, where minimum variation exists is revealed by the family size, general literacy, workers, occupation and the health care delivery system utilization in terms of family planning practices. India was the first country in the world to introduce a Government sponsored programme during 1951-1952 with the aim to reduce the birth rate from 32 to 20 per 1000 by the year 2000 AD. Only, data regarding sterilizations was collected in study area. Sterilization includes Vasectomy and Tubectomy. During the year 2012-2013, (Fig.2) about 65 percent of the

people followed family planning operations performed in the study area. In this study area, 35 percent of the people do not follow the family planning operations.

Diseases

In the total study area, during the year 2012-2013 (Fig.3) people in about 1 percent of the households have infectious diseases in their family, those in 4 percent of households have family members with Life time diseases, 1 percent of households have airborne diseases, 3 percent of households have organ - related diseases and 2 percent of households have psychological diseases. Majority of the households have seasonal disease like viral fever, malaria, chicken Guniya and typhoid. 93 percent of households suffer from fever and 4 percent of households have Fever and Chicken Guniya. The diseases like Dengue and Malaria are present in Tatikole and Vaidonivampu Thandu and Shekriya Thanda respectively.



Mode of Treatment

In the study area during the year 2012-2013 (Fig.4), Bichiyanayak thanda and Tikiyanayak thanda part of Mynampally village, Tatikole, Gagilapuram, Visukabhavi and Katroth thanda part of Gagilapuram village, Poliyanayak thanda part of Mudidandla village, Guntipally households approach Government sources for treatment. Households in Gollapally, Vaidonivampu, Mynapumettu thanda, Shekriyathanda, Chandranayak thanda, Suddabhavi consult Private sources for treatment. Very less percentage of people use both private and Government sources.

Distance from house to Medical facilities

Distance from house to community health centre and veterinary clinic is less in Polepally, Bandamedha Thanda, Chenchu colony and Banjaranagar part of Polepally village. In Guntipally, Gannerlapally and Gannerlapally Thanda part of Polepally village, Visukabhavi and Korra Thanda part of Gagilapuram village only veterinary clinic is near to households. In Manavath Thanda part of Polepally village and Ragali Thanda part of Tatikole village only community health centre is near to households. In Polepally, Banjaranagar, Bandamedha Thanda and Chenchu colony part of Polepally village, Katroth thanda part of Gagilapuram

village hospitals are far from the houses. Distance from house to community health centre and Hospitals are more in Guntipally, Gannerlapally Thanda part of Polepally village, Visukabhavi and Korrathanda part of Gagilapuram village.

Conclusion

This study deals with Health care and Health facilities in one of the most backward areas in Nalgonda District of Telangana State. Most of these hamlets are tribal in nature. The study area covers part of two Mandals - Devarakonda and Chandampet.

Stunting is a cumulative indicator of nutritional deprivation from birth onwards. It is relatively independent of immediate circumstances since height does not change in short term. Wasting captures the thinness of children and indicates the prevalence of acute malnutrition. Statistics reveal that in BodabandaThanda part of Mudidandla village children are suffering from low height and also low weight. As far as weight for height (wasting) is concerned, about 10 percent have been found malnourished.

Under nutrition captures elements of both stunting and wasting, that is chronic as well as acute under nutrition. Under nutrition directly affects many aspects of children development. In particular, it retards their physical and cognitive growth. Spatial distribution of nutrition level shows that incidence of under nutrition is 3 percent of children spread in BodabandaThanda part of Mudidandla village. There is a need to seriously think over short term and long term measures in order to achieve nutritional security in specially BodabandaThanda part of Mudidandla village. The lack of education among women and awareness regarding balanced diet also have a telling impact on women and child health.

During the year 2012-2013, about 65 percent of the people under went family planning operations in study area. In this study area 35 percent of the people do not follow family planning. One percent of the households have infectious diseases in their family, 4 percent of households have family members with Life time diseases, 1 percent of households have airborne diseases, 3 percent of households have organ - related diseases and 2 percent of households have psychological diseases. Majority of the households have seasonal diseases like viral fever, malaria, chicken Guniya and typhoid.

In the study area villages and Thandas more households approach Government sources for treatment. People in Gollapally, Vaidonivampu, Mynapumettu thanda, Shekriyathanda, Chandranayak thanda, Suddabhavi consult Private sources for treatment. Very less percentage of people use both private and Government sources. Distance from house to community health centre and Hospitals are more in Guntipally, Gannerlapally Thanda part of Polepally village, Visukabhavi and Korrathanda part of Gagilapuram village.

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