MICRO-SCALE HEALTH SERVICES PLANNING FOR THE DANGS DISTRICT OF GUJARAT

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ABSTRACT

"Health is wealth" is a famous proverb applicable to all people. However even after decades of independence, India has yet to achieve its optimum goal in health sector. Although public awareness regarding government initiatives is increasing, the health infrastructure remains inefficient. The planning of healthcare and welfare services is becoming increasingly significant due to profound social and economic impact of addressing public health challenges. Efficient utilization of personnel, materials and financial resources is guaranteed by effective health planning. Improving health services efficacy, accessibility and quality is its main objective. Health is fundamental right of every individual and because public health is within a state control, the responsibility for providing medical aid to people of every class and group fall in state administration. Several flagship schemes have been launched to strengthen healthcare system, ensuring that everyone has access to equitable, affordable and high quality care. However, India continues to see substantial discrepancies between rural and urban areas, notably in tribal areas and Gujarat's The Dangs district is no exception.Guidelines for establishing Primary Health Centre (PHC) and Sub Centre have been issued across country in compliance with the established norms. The current study seeks to determine if the Primary Health Centre and Sub Centre in the area achieve these standards.

Introduction

The Primary Health Centre serves as the foundation of rural healthcare utilities. The preliminary phase of treatment and typically the initial interaction a person experiences with the healthcare network. PHC assists families as well as individuals in making the healthiest choices possible. It offers guidance on disease prevention and health advocacy, health evaluations, the diagnosis coupled with intervention and management of both long-term and episodic illnesses and supportive and rehabilitative care. Healthcare facilities are fundamentally linked to human well-being. To provide widespread access to medical treatment, the central government has set precise guidelines for the establishment of Primary Health Centres (PHCs) and Sub Centres.

Objective

1. To illustrate the anticipated population for the year 2021.
2. To analyses the gap between the available and required PHC in 2011.
3. To assess the adequacy and inadequacy of health care services in The Dangs district.

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Study Area

The Dangs district is located in southern part of Gujarat between the parallel of latitude 20⁰33' and 20⁰5' and meridians of longitude 73⁰27' and 73⁰57'. The district covers 1,764 square kilometers. It is bounded by Surat of Gujarat state and Dhule district of Maharashtra state in the Northern part, adjacent to Nasik district in the East, Valsad in the West. The Dangs ranked 25th in the state based on area. The

Dangs is the sole district with dense forest across the state. It is a section of Eastern Hilly region and is further divided into two distinct sub micro geographical units- Lower Dangs which is characterized by low hills and thick vegetation whereas Upper Dangs comprises a hilly track with thick vegetation. Entire region is composed of Deccan Trap. The total population figure of district is reported as 2,26,769 by the census 2011. About 94% population is tribal population. 73.84% of total population falls under the category of BPL.

Figure 1: Geographical Map of Study Area
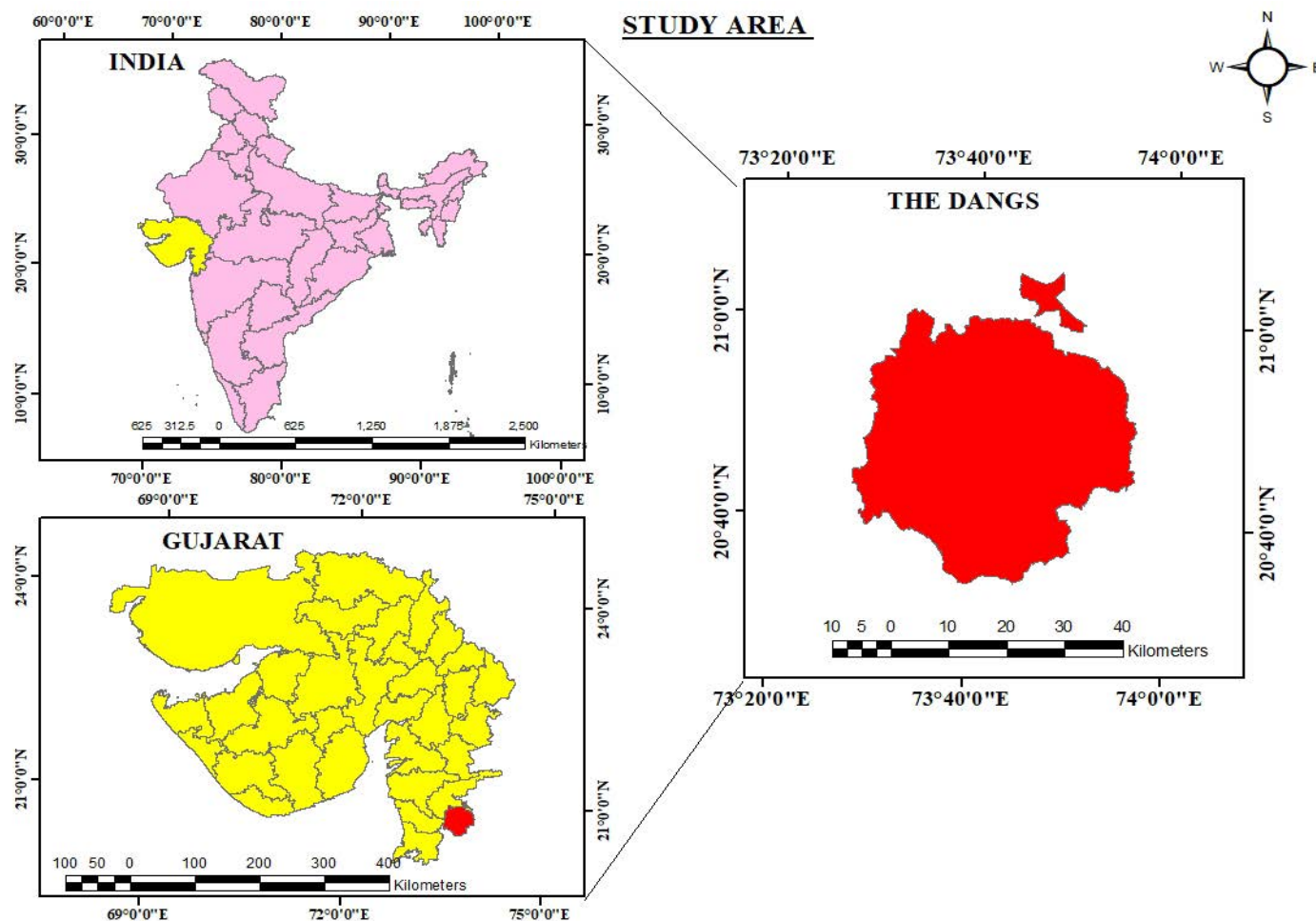
Data and analytical framework:

The primary source of information used for the present study is secondary data. The majority of d ata is predominantly obtained from the District Census handbook of The Dangs, 2011 and health data is collected from the health department of Dang Jilla Panchayat Bhavan-Ahwa. Population projection is calculated to determine the number of health facilities needed in the near future.

$Pn=Po*(1+r)^n$
Primary Health Centre and Sub Centres:

In India, the concept of a Primary Health Centre is well

established. In 1964, the Bhore Committee put forward the idea of a PHC as a core health unit to cater the rural communities comprehensive curative, preventive as well as primitive component of clinical care, as near to the community as feasible. India's health planners have envisioned the PHC and its Sub-Centres as the ideal infrastructure for delivering healthcare services to the country's rural residents.

For more efficient coverage norms were formed under 6th Five-year plan (1983-1988) which suggested reorganizing PHCs, such as 1 PHC facility for every 20,000 individuals in mountainous, tribal and backward zones and 1 PHC facility for every 30,000 individuals in rural plain areas subsequently Sub Centre for population of 3000 in tribal and hilly area and 5000 in plain area.

Table 1: Proportional Distribution of Primary Health Centre to Population

S. No.	Taluka	Total Population (2011)	Present no. of PHC (2011)	Population Covered by PHC 1:20000
1	Waghai	70027	3	1:23342
2	Ahwa	102559	4	1:25640
3	Subir	55705	3	1:18568
	Total	228291	10	1:22829

Source Information: Census of India, 2011

Table 1 clearly shows relatively higher burden on Waghai and Ahwa taluka as compared to Subir taluka this implies burden on health services, likely affecting the quality of care as well as accessibility. On the other hand, Subir taluka has better serving ratio, which indicates favorable distribution of health facility. The overall ratio of district PHCs to population is higher than the recommended guideline implies requirement of additional centers to meet the need.

Table 2: Anticipated population taluka wise and required PHCs in 2011 and 2021

S. No.	Taluka	Total Population (2011)	Anticipated Population (2021)	Present no. of PHC (2011)	PHC prerequisite (2011)	PHC anticipated (2021)
1	Waghai	70027	85613	3	7	5
2	Ahwa	102559	125387	4	6	7
3	Subir	55705	68104	3	4	4
	Total	228291	279104	10	14	16

Source: Computed by author

Table 2 addresses the consistent shortfall of PHC in 2011 in Waghai taluka, only 3 PHC were available and the requirement was 7. Although the anticipated need decreased to 5 in projected PHC but Waghai still lacking in healthcare facilities. In Ahwa taluka requirement was 6 and available PHC were 4 indicates shortage of 2 PHC, the requirement increase to 7 in projected PHC meaning three more centres must be established in order to meet the healthcare demands. In Subir taluka existing PHC were 3 and requirement in future remains constant which is 4 indicate shortage of 1 PHC. Overall district shows shortage of 4 PHCs. By 2021, the demand increased to 16 PHCs exacerbating the shortfall of 6 PHCs with reference to existing PHCs.

Table 3: Proportional Distribution of Sub Centres to population

S. No.	Taluka	Total Population (2011)	Present no. of Sub Centre (2011)	Population Covered by Sub-Centre 1:3000 (2011)
1	Waghai	70027	22	1:3183
2	Ahwa	102559	27	1:3798
3	Subir	55705	19	1:2931
	Total	228291	68	1:3357

Source Information: Census of India, 2011

Table 3 outlines the availability and population served by Sub Centres. Waghai taluka shows adequate coverage. Ahwa taluka showing higher burden exceeding the recommended norm, which implies need for additional facilities whereas Subir taluka serving ratio meeting the norms indicating fair distribution as compared to other two talukas. The district average is slightly above than the suggested guideline, indicating moderate shortage of Sub Centres.

Table 4: Anticipated population taluka wise and required Sub Centres in 2011 and 2021

S. No.	Taluka	Total Population (2011)	Anticipated Population (2021)	Present no. of Sub Centre (2011)	Sub Centre pre-requisite (2011)	Sub Centre anticipated (2021)
1	Waghai	70027	85613	22	24	29
2	Ahwa	102559	125387	27	35	42
3	Subir	55705	68104	19	19	23
	Total	228291	279104	68	78	94

Source: Computed by author

Table 4 indicates Waghai taluka experienced a shortfall of 2 Sub Centers in 2011. Given the anticipated population projected for 2021, 29 Sub Centres will be required, necessitating the construction of an additional 7 Sub-Centres to fulfill the demand. Ahwa taluka had shortage of 8 Sub Centres in 2011 and as per population growth in 2021 the required number increased to 42 indicating a need for additional 15 Sub Centres. In Subir taluka, the number of Sub Centres was sufficient in 2011. However, the demand increased to 23, indicating the need for 4 additional healthcare facilities. Across the district in 2011, a shortage of 10 Sub Centres was noticed and in 2021, the population growth demanded 94 Sub Centres meaning total 26 additional Sub Centres were required to address the growing population adequately.

Conclusion

The study concludes that there is a significant shortage of Primary Health Centres and Sub Centres in both 2011 and projected healthcare infrastructure for 2021. The highest burden as well as the substantial shortage of facilities is faced by Ahwa taluka where the population burden is maximum. In 2011, the district has a shortfall of 4 PHCs and by 2021 the shortfall grown to 6 PHCs with the most significant gaps noticed in Ahwa and Waghai talukas. Similarly, a gap of 10 Sub Centres exists in 2011, which rose to 26 by 2021, emphasizing the growing need for improved primary healthcare infrastructure. The proportion of health care centres and population residing are not fulfilling the required criteria. To address these shortcomings, there is urgent need to establish additional healthcare units. Fair distribution of these units and proper allocation of resources are needed to enhance the accessibility and proper coverage throughout the district. Regular monitoring and expansion of infrastructure are required to meet the present and future healthcare demands effectively.

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