

Geomedical Study of Health Care Facilities in Rajasthan

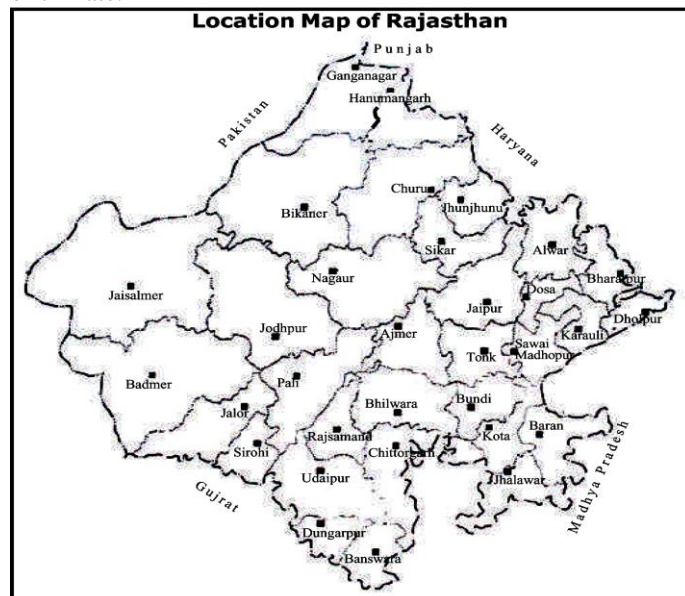
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Abstract: Rajasthan state is located in the north-west direction of our country. It neighbouring states in north is Panjab, Gujrat and Madhya Pradesh are located in the south, Utter Pradesh and Madhya Pradesh are located in the east direction. From geographical extension point of view the state lies from 23°3' to 30° 12' north latitude and from 69° 30' to 78° 17' east longitude.

Keywords: Rajasthan, neighboring state, state lies .

1. Study Area

Rajasthan state is located in the north-west direction of our country. It neighbouring states in north is Panjab, Gujrat and Madhya Pradesh are located in the south, Utter Pradesh and Madhya Pradesh are located in the east direction. From geographical extension point of view the state lies from 23°3' to 30° 12' north latitude and from 69° 30' to 78° 17' east longitude. In north-east of the state centrally governed Delhi State is located with new Delhi as a capital of our country. In south of the state, the "tropic of cancer" passes through Banswara and Dungarpur districts at 23° 30' north latitude the state has shape of an uneven letrangle the State has different kinds of topographical features, physical conditions and types of climate.



Most of the part of Rajasthan State falls under sub-tropical and temperate zone. Its western part falls under the 'Thar Desert' which covers a large portion of Rajasthan State and known as 'Great Indian Desert'. This portion of the desert falls under the arid and semi-arid climatic conditions. The state of Rajasthan is divided in to two parts—western Rajasthan and eastern Rajasthan by Aravalli ranges of hills which is spreading from south-west to north-east in direction. Thus Rajasthan has three obvious physiographical features—western Rajasthan, aravallis mountaines and eastern Rajasthan. In south of the state in

aravalli ranges of south aravalli Mount Abu is located which falls under humid and sub-humid climatic conditions in south-east part of Rajasthan the Hadoti Division is located which is actually a large plateau. This Division falls under sub-humid type of climate in the state of Rajasthan.

Presently, Rajasthan is a largest state of our country from area point of view and by thus it stands at first place by covering 10.74 percent area of the country's total. In comparison with Srilanka, the state of Rajasthan is five times more in area. Hence, due to its large and vast area it has several geographical disformatics.

2. Objectives

To illustrate the inter-relationship in between the distribution of Incidence at one side and the distribution of Medical and Health Care Public facilities at the part of number of Health Centres (Hospital, CHC, PHC, Dispensaries and number of Beds) and number of Medical Staff Persons (Doctors, Compounders, Nurses, Sweepers, Laboratory technicians etc.) at another side.

3. Introduction

It is a well known fact health of any area or state's population depends upon the most important factor of distribution of medical health facilities. As we are concern with the population Division-wise description of health facilities distribution. Health facilities distribution in some Division is not at satisfactory position due to the reason that it includes the health centers facilities like number of hospitals, number of dispensaries, Primary health center Communities health centers etc. Besides this the number of medical staff facilities like number of Doctors, Nurses, Compounders, Lab Technician, Sweepers etc. further in this context the number of Beds facilities available in any health centers is also one of the most important factor.

At the part of "medical and health care facilities" in Rajasthan following components have their role from study point of view in the field of "Medical Geography" - assessment of work load factor of public health centres from population and area point of view, population / doctor and persons / bed point of view for the area under study i.e. Rajasthan.

Every country has its own health service system to meet the health needs of its citizen. The kind of health service system differs from one country to another depending on the value system of the society and its political philosophy. Since health

service is an essential part of social welfare, the health service system of the capitalistic pattern of society differs substantially from a socialistic pattern of society.

Primary Health care and the "National Health Policy" of the Government gave a new direction to health planning in India, making primary health care the central function and main focus of its national health system. The goal of national health planning in India now is to attain "Health for All" by the year 2000. Including Bhore Committee (1946), total Ten committees under national health planning were established accordingly their time period.

1.3.1. Rural Health Scheme :

The most important recommendation of the Shrivastav Committee was that primary health care should be provided within the community itself through specially trained workers so that the health of the people is placed in the hands of the people themselves. The basic recommendations of the committee were accepted by the Government (1977), which led to the launching of the "Rural Health Scheme". The programme of training of community health workers was initiated during (1977-78). Steps were also initiated

(a) For involvement of medical colleges in the total health care of selected PHC with the objective of reorienting medical education to the needs of rural people

(b) Reorientation training of multipurpose workers engaged in the control of various communicable disease programmes into unipurpose workers.

This 'Plan of Action' was adopted by the joint Meeting of the Central Council of Health and Central Family Council held in New Delhi (April 1976).

As far as, the maintenance of Health Environment at State Level. The Government of India Act.,1935 gave further autonomy to the States. The health subjects were divided into three groups: federal, concurrent and state. The "state" list which became the responsibility of the State included provision of medical care, preventive health services and pilgrimages within the State. The position has largely remained the same, even after the new Constitution of India came into force (1950). The State is the ultimate authority responsible for all the health services operating within its jurisdiction. State Health Administration. At present there are 26 States in India, and as many types of health administration. In all the States, the management sector comprises the State Ministry of Health and a Directorate of Health. In this aspect it involves two public function areas and State Health Directorate.

1.3.2. Health for All by 2000 AD :

Report of the Working Group (1981). A working group on Health was constituted by the Planning Commission (1980) with the Secretary, Ministry of Health and Family Welfare, as its Chairman, to identify in programme terms, the goal for Health for All by 2000 AD and to outline with that perspective, the specific programmes for the sixth Five Year Plan. The Working Group, besides identifying and setting out the broad approach to health planning during the sixth Five Year Plan, has also evolved fairly specific indices and targets to be achieved in the country by 2000 AD.

1.3.3. Rural Development Programme :

Rural Development terms such as village improvement, rural uplift, rural reconstruction and community development have been in vogue for many years to denote certain aspects of rural development. It is only during the last three decades that they have become comprehensive in content. It involve community

Development Programme the community development was defined as "a process designed to create conditions of economic and social progress" for the whole community with its active participation and the fullest possible reliance upon the community with its active participation and the fullest possible reliance upon the community's initiative .The United Nations defined community development as "the process by which the efforts of the people themselves are united with those of governmental authorities to improve the economic , social and cultural conditions of communities, to integrate those communities with the life of the nation and to enable them to contribute fully to national progress." A beginning was made in India (1952) during the First Five Year Plan to involve the rural population in the process of planning their own welfare measures. A Programme known as the Community Development Programme was launched on 2nd October 1952 for the all-round development of the rural areas, where nearly 80 percent of India's population live. The programme was hailed as a programme "of the people, for the people, by the people" to exterminate the triple enemies of poverty, illhealth and ignorance. Under the Community Development Programme, the rural area of the country have been organized into community Development Blocks - each Block comprising approximately 100 villages and population of one lakh. There are about 6,000 Community Development Blocks in the country, each Block headed by a Block Development Officer. Over the year the C.D. Block has emerged as a permanent unit of rural planning and development. The Community Development Programme was envisaged as a multipurpose programme covering the following main activities improvement of agriculture, improvement of communications, education, health and sanitation (through the establishment of primary health centres and sub centres), improvement of housing through self-help, social welfare and training, in rural arts, crafts and industries to local people.Each Block passed through two stages of development Stage I to 5 years intensive development following by stage II of another 5 years. The Central Government supported the programme substantially by providing funds to the tune of Rs. 12 lakhs during stage I and Rs. 5 lakhs Stage II phase of development. At the end of 10 years, the Blocks entered post-stage II phase and their financial arrangements become the sole responsibility of the State Governments. The Block continues to be the permanent infrastructure of rural planning and development.

Although the "Community Development Programme" has made its own contribution to rural development, it has not succeeded in brining about an all-round improvement in rural area and in eliminating rural poverty and unemployment. The hope that people would unite their efforts with those of the Government to build the village community on a pattern in which disparities in income and wealth would disappear was not realised. In short, the benefits of the programme did not reach the weaker sections of the community. Rural Development Programme also includes the aspect of village level services. The village level worker (Gram Sevak) is the key person responsible for transforming the economic and social life of the people. Each Gram Sevak is in charge of 10 villages and attends to 5 or 6 thousand people. He lives with the people and keeps in close touch with them and their families. He probes into their "felt-needs" and seeks to arouse in them interest in all-round family and village development. In short, he functions as a multipurpose worker and a link between the people and governmental agencies.

1.3.4. Health Care Services

The purpose of health care services is to improve the health status of the population. In the light of Health for All by 2000 AD, the goals to be achieved have been fixed in terms of mortality and morbidity reduction, increase in expectation of life, decrease in population growth rate, improvements in nutritional status, provision of basic sanitation, health manpower requirements and resources development and certain other parameters such as food production, literacy rate, levels of poverty, etc.

The scope of health services varies widely from country to country and influenced by general and ever changing national, state and local health problems, needs and attitudes as well as the available resources to provide these services. A comprehensive list of health services may be found in the Report of the WHO Expert committee (1961) on "Planning of Public Health Services". There is now broad agreement that health services should be (a) comprehensive (b) accessible (c) acceptable (d) provide scope for community participation, and (e) available at a cost the community and country can afford. These are the essential ingredients of primary health care which forms an integral part of the country's health system, of which it is the central function and main agent for delivering health care

In 1977, the Government of India launched a Rural Health Scheme, based on the principle of "placing people's health in people's hands". It is a three tier system of health care delivery in rural areas based on the recommendation of the Shrivastav Committee (1975). Close on the heels of these recommendations an international conference at Alma-Ata (1978), set the goal of an acceptable level of "Health for All" the people of the world by the year 2000 through primary health care approach. As a signatory to the Alma-Ata Declaration, the Government of India is committed to achieving the goal of Health for All through primary health care approach which seeks to provide universal comprehensive health care at a cost which people can afford.

Keeping in view the WHO goal of "Health for All" by 2000 AD, the Government of India evolved a National Health Policy based on primary health care approach. It was approved by Parliament (1983). The National Health Policy has laid down a plan of action for reorienting and shaping the existing rural health infrastructure with specific goals to be achieved by 1985, 1990 and 1995 within the framework of the Sixth (1980-85) and Seventh (1988-90) Five Year Plans and the new 20 point Programme. Steps are already under way to implement the National Health Policy objectives towards achieving Health for All by the year 2000.

1.3.5. Village Level :

One of the basic tenets of primary health care is universal coverage and equitable distribution of health resources. I.e., health care must penetrate into the farthest reaches of rural areas, and that everyone should have access to it. To implement this policy at the village level, the following schemes are in operation :

- (a) Village Health Guides Scheme
- (b) Training of Local Dais
- (c) ICDS Scheme

A Village Health Guide is a person with an aptitude for social service and is not a government functionary. The Village Health Guides Scheme was introduced on 2nd October 1977 with the idea of securing people's participation in the care of their own health. The scheme was launched in all States except

Kerala, Karnataka, Tamil Nadu, Arunachal Pradesh and Jammu and Kashmir which had alternative systems of providing health services at the village level. It is still not appropriately as well proportionately adopted in the State of Rajasthan.

The Health Guides are now mostly women, A circular was issued by Government of India in May 1986 that male Health Guides would be replaced by female Health Guides. The Health Guides come from and are chosen by the community in which they work. They serve as links between the community and the governmental. After selection, the Health Guides undergo a short training in primary health care. The training is arranged in the nearest primary health centre, sub-centre or any other suitable place for the duration of 200 hours, spread over a period of 3 months. During the training period they receive a stipend of Rs. 200 per month. On completion of training, they receive a working manual and a kit of simple medicines belonging to the modern and traditional systems of medicine in vogue in that part of the country they belong. Broadly the duties assigned to health guides include treatment of simple medical ailments and activities in first aid, mother and child health including family planning, health education and sanitation. The manual or guidebook gives them detailed information about medical care of common illnesses - of what they can and cannot do. In practical terms, they know exactly what should be done when confronted with a situation, when they can begin treatment by themselves and when they should refer the patient immediately to the nearest health centre.

Most deliveries in rural areas are still handed by untrained dais who are often the only people immediately available to women during the perinatal period. An extensive programme has been undertaken, under the Rural Health Scheme, to train all categories of local dais (traditional birth attendants) in the country to improve their knowledge in the elementary concepts of maternal and child health and sterilization, besides obstetric skills. The training is for 30 working days. Each Dai is paid a stipend of Rs. 300 during her training period. Training is given at the PHC, sub-centre or MCH centre for 2 days in a week, and on the remaining four days of the week they accompany the Health worker (Female) to the villages preferably in the Dai's own area. During her training each Dai is required to conduct at least 2 deliveries under the guidance and supervision of the HW(F), ANM or HA(F). The emphasis during training is on asepsis so that home deliveries are conducted under safe hygienic conditions thereby reducing the material and infant mortality. After successful completion of training, each Dai is provided with a delivery kit and a certificate. She is entitled to receive an amount of Rs. 2 per delivery provided the case is registered with the sub-centre/PHC. To each infant registered by her, she will receive Rs.3. These dais are also expected to play a vital role in propagating small-family norm since they are more acceptable to the community. Although the national target is to train one local Dai in each village, the Eight Five Year Plan's objective is to train all untrained dais practising in the rural areas. The total number of dais trained from the year 1974 to September 1993 is 609750 (44).

1.3.6. Anganwadi Worker :

Anganwadi literally means a courtyard. Under the ICDS (Integrated Child Development Services) Scheme, there is an Anganwadi worker for population of 1000. There are about 100 such workers in each ICDS Project. As of date over 1600 ICDS blocks are functioning in the country. The 'Anganwadi' worker is selected from the community she is expected to serve. She undergoes training in various aspects of health, nutrition, and

child development for 4 months. She is a part-time worker and is paid an honorarium of Rs. 200-250 per month for the services rendered, which include health check-up, immunization, supplementary nutrition, health education, non-formal pre-school education and referral services. The beneficiaries are especially nursing mothers, other women (15-45 years) and children below the age of 6 years. Along with Village Health Guides, the Anganwadi workers are the community's primary link with the health services and all other services for young children.

Primary health centre level. The concept of "primary health centre" is not new to India. The Bhore committee (1946) gave the concept of a primary health centre as a basic health unit, to provide, as close to the people as possible, an integrated curative and preventive health care to the rural population with emphasis on preventive and promotive aspects of health care. The Bhore Committee aimed at having a health centre to serve a population of 10,000 to 20,000 with 6 medical officers, 6 public health nurses and other supporting staff. But in view of the limited resources, the Bhore Committee recommendations could not be fully implemented, even after a lapse of 40 years.

The health planners in India have visualized the primary health centre and its sub-centres as proper infrastructure to provide health services to the rural population. The Central Council of Health at its first meeting held (January 1953) had recommended the establishment of primary health centres in community development blocks to provide comprehensive health care to the rural population. The number of primary health centres established since then had increased from 725 during the First Five Year Plan to 5484 by the end of the Fifth Plan (1975-1980) - each PHC covering a population of 100,000 or more spread over some 100 villages in each community development block. These centres were functioning as peripheral health service institutions with little or no community involvement. Increasingly, these centres came under criticism as they were not able to provide adequate health coverage, partly because they were poorly staffed and equipped, and partly because they had to cover a large population of one lakh or more. The Mudaliar Committee in 1962 had recommended that the existing primary health centres should be strengthened and the population to be served by them to be scaled down to 40,000.

At present, Staffing pattern of PHC in each community development block, there is one PHC which covers 30,000 rural population in the new set-up each PHC will have the following staff: At the PHC level: Medical Officer -1; Pharmacist -1; Nurse Mid-wife-1; Health worker (female) /ANM-1; Block extension Educator -1; Health assistant(male)-1; Health assistant(female)/LHV -1, U.D.C. -1; L.D.C.-1; Lab. Technician -1; Driver(subject to availability of vehicle) -1; Class IV.-4. At the sub-centre level: Health worker (female)/ANM -1; Health worker(male)-1; Voluntary worker (paid Rs.50 per month as honorarium).

1.3.7. Community Health Centres :

As of date (September 1993) 2293 community health centres have been established by upgrading the primary health centres, each community health centre covering a population of 80,000 to 1.20 lakh (one in each community development block) with 30 beds and specialists in surgery, medicine, obstetrics and gynaecology, and paediatrics with X-ray and laboratory facilities. For strengthening preventive and promotive aspects of health care, a new non-medical post called community health

officer has been created at each community health centre. The community health officer is selected from amongst the supervisory category of staff at the PHC and district level with minimum of 7 years experience in rural health programmes. Some states have not accepted this scheme and have opted for a second medical officer.

The specialists at the community health centre may refer a patient directly to the State level hospital or the nearest/appropriate Medical College Hospital, as may be necessary, without the patient having to go first to the sub-divisional or District Hospital.

The present organization of health services by the Government sector consists of rural hospitals, sub-divisional/taluka hospitals, district hospitals, specialist hospitals and teaching Institutions.

1.3.8. Rural Hospitals :

It is now proposed to upgrade the rural dispensaries (allopathic/traditional system of medicine) to primary health centres. At present a good number of PHC are located at tehsil/sub-divisional/taluka headquarters which also have hospitals. Such PHC may be shifted to the interior rural area. It is proposed to convert the Sub-divisional hospitals into Sub-divisional Health centres so as to cover a population of 5 lakhs. These centres will have an epidemiological wing attached to them.

1.3.9. District Hospitals :

There are proposals to convert the district hospital into District Health Centre. A hospital differs from a health centre in the following respects :

- (a) In a hospital, services provided are mostly curative; in a health centre, the services are preventive, promotive and curative- all integrated
- (b) A hospital has no catchment area, i.e. it has no definite area of responsibility. Patients may be drawn from any part of the country. A health centre, on the other hand, is responsible for a definite area and population
- (c) The health team in a health centre is a optimum "mix" of medical and paramedical workers; in a hospital, the team consists of only the curative staff, i.e. Today, the role of the hospital in the community is being debated.

The current opinion is that the hospital should not remain. "an ivory tower of disease" in the community, but should take an active part in providing health services to the community. Experience has shown that the health of the community cannot be improved by multiplying hospitals alone.

4. Health Centres and Their Distribution

Presently, as other districts of Rajasthan also covers a medium sized group of total number of medical health care centres. As far types of health care centres is concerned, Rajasthan includes both type i.e. private hospitals and also limited number of public health centres. There are about ten types of health care centre as reported in Rajasthan, as informations supplied by the office of C.M.H.O., Department of Health, Ganganagar, Rajasthan. There are about - 04 Hospitals, Homeopathic Hospitals, Dispensaries, C.H.C. and P.H.C. etc. they are unevenly distributed tehsil wise in Rajasthan. In medical facility aspect, private sector covers about 40 percent of district's total.

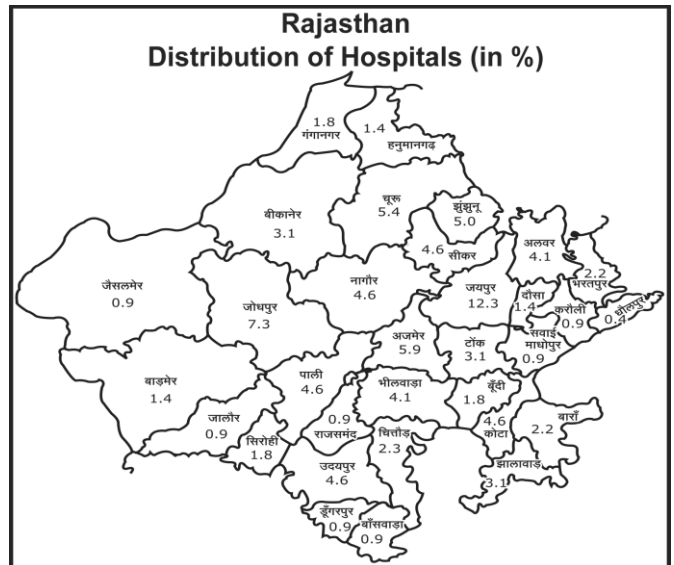
There is Prakartik Chikitshalaya Hospital in Rajasthan is of worth importance for the people of this State for their specific treatment and cure. In Public Sector, the present position at

block level distribution in Rajasthan. In medical facility aspect the public sector covers about 60 percent of the State's total. There are community Health Centres (C.H.C) and Primary Health Centres (P.H.C.) in Rajasthan have their distribution in each tehsil at its tehsil head quarter. There are Primary Health Centres (P.H.C.) which have their uneven distribution in each tehsil of Rajasthan.

Table-1.1. Distribution of Medical Health Services in Rajasthan

S.No.	Health Services	Total
1	Hospitals	219
2	Dispensary	268
3	Child Mother Centre	118
4	P.H.C.	1703
5	Add Post	13
6	Sub Centre	9926
Grand Total		12247

There is General Hospital in Rajasthan, 1703 primary health centres in Rajasthan. There is a large number of Public Dispensaries which also have their uneven tehsil-wise distribution in Rajasthan and makes 268 in total. Here the more emphasis is given on the distribution of health centres which fall under the public sector at tehsil level distribution for the area under study i.e. Rajasthan.

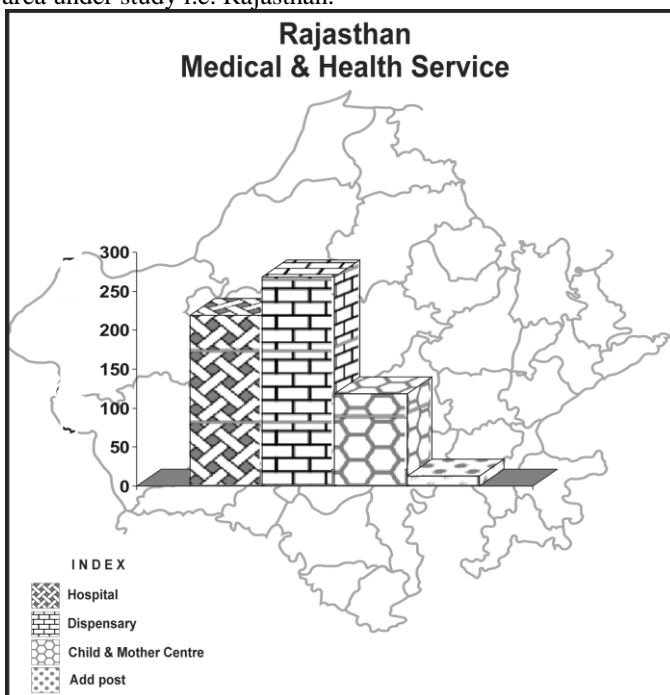


During course of study period the total number of Hospitals in Rajasthan are 219 in figures where as one can see the annual variation in the Patients/Hospitals Ratio, is 1:258023.

The availability of number of beds in Community Health Centre (C.H.C.) , or at any health centre specially in rural and urban areas is an important aspect whether it is considered at tehsil level or so far the district. Table-1.3 illustrates the variation of the number of patients with reference to number of beds in total. Rajasthan.

Table-1.3. Ratio of Beds and Population in Rajasthan

S.No.	State	Beds	Population	Ratio
1.	Rajasthan	37918	56507188	1 : 1490

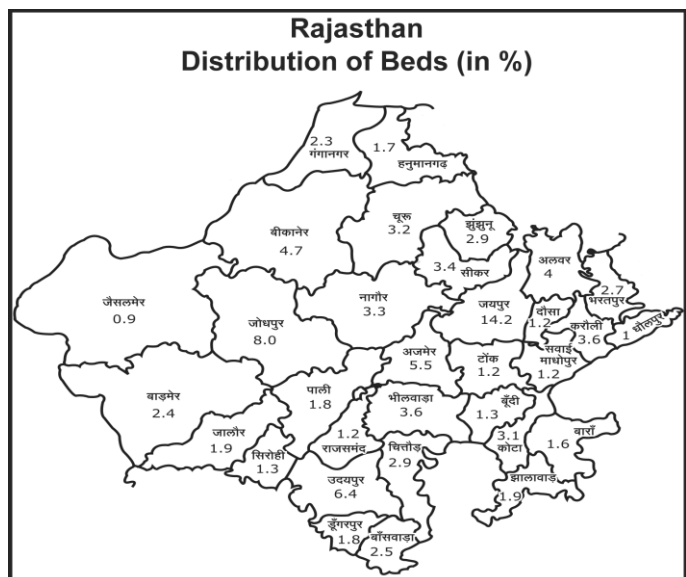


The total available Medical Health Services as a whole which revealed that in Rajasthan, Hospitals are 219, 268 Dispensary and Child-Mother Centre are 118, where as highest number i.e. 9926 is covered by the Sub Centre.

The availability of number of Hospitals specially in rural and urban areas is an important aspect whether it is considered at tehsil level or so far the district. Table-1.2 illustrates the variation of the number of patients with reference to number of Hospitals in total. Rajasthan.

Table-1.2. Ratio of Hospitals and Population in Rajasthan

S.No.	State	Hospitals	Population	Ratio
1.	Rajasthan	219	56507188	1 : 258023



During course of study period the total number of beds in all Health Centres of Rajasthan are 37918 in figures where as one can see the annual variation in the Patients/beds Ratio, is 1:1490.

The distribution of the availability of number of Doctors for the State population as a whole is an important aspect.

Table-1.4. Ratio of Doctors and Population in Rajasthan

S.No.	State	Doctors	Population	Ratio
1.	Rajasthan	5204	56507188	1 : 10858

