

**A GEOGRAPHICAL STUDY OF HEALTH CARE  
FACILITIES IN NANDED CITY OF MAHARASHTRA  
(INDIA)**

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**ABSTRACT**

This paper introduces a Geographical study of health care facilities in Nanded city. There are total 604 hospitals available in Nanded city and health services in the city are located in different areas of Nanded city. A zone is located at middle of the Nanded city where most of the health care facilities are situated. The number of health care facilities in zone A is about 335 just because of the railway station, bus stop(Maharashtra State Transport) and city bus stand is located in the A zone, most of the traffic is also in the A zone. In this area people from Nanded itself and people from the villages around the Nanded city come for their economic and health care reasons. Because of this most of the crowd gather in A zone which creates traffic and patient needs immediate health care or health facility it becomes very difficult to reach their immediately in less time and it is only because most of the crowd gather in this area only. The reason behind many people come for treatment at A zone for health care is most of the health care facilities are located in the same place and less around the areas of Nanded city. So, the city's syntax is need to change and the ratio of population in this area and hospital facilities is more. Because of that the ratio of population in other areas and hospital facilities in other zones of Nanded city is 102 in zone B, 142 in zone C, 19 in zone D respectively and only 03 in zone E and F. As the health care facilities are rare in these areas, the people in these areas require more time and money to reach to the hospitals. As well as the number of beds in the hospitals is 2756

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only and very less according to the numbers of population in the Nanded city. Therefore it needs to raise number of beds in the hospitals according to the number of population in the Nanded city. The number of medical stores is observed more in the zone A as the number of hospitals also more in the same area and in the zone C, B and F respectively and very less number of medical stores in zone E. So, in this way it is understood that the ratio of number of health care facilities and medical stores is not according to the need of population of Nanded city. It must have changed and balanced according to the different zones of Nanded city.

**KEY WORDS:** Health care, population Ratio, City Zones, Bed, Medical stores. Hospital, Doctor, Specializations

### INTRODUCTION:

Form the last decades of the 20<sup>th</sup> century, the situation of the Indian people about the health is improved in big proportion e.g. in 1991, the average life expectancy year for male was 59.7 and for female was 60.9 years it increase up to 63.7 and 66.98 years in 2008. Health is a crucial component of human wellbeing (Philips 1990). It is defined with reference to world health organization (WHO 1947, 1948) as not merely the absence of disease or infirmity, but also as a state of complete physical, psychological and social well being. 'National Vector Borne' Disease Control Programmers' some of the Directorate of disease prevention and public health, importance for the control of the national system is black malaria, dengue, disease, tuberculosis, swine flu, rakstrawa, constraints and control the disease, blindness and AIDS work in the Directorate Health Education and Health promotion activities in India, the Union Health Education department stated 6<sup>th</sup> December 1956, poor and needy people in the national health fund, established in 1997 to help finance. From mid centuries so many attempts was made to keep human being healthy and disinfected. To maintain their health day by day number of low comes in life and this laws helps them to keep healthy and also protects from various things, which promotes unhealthy environment in their life. Ultimately by using these laws, whenever there is human society or life, at each and every place medical facilities and health care facilities are provided. Due to increase in population from last two three decades it looks like to be deficiency in medical facilities. They have done lots of efforts for the availability of medical facilities in each and every village, Taluka Districts and each place. The study has to be done for

the what kind of health care facilities are available in each place, because it should be available for the poor people who are living in poor place, that is unhygienic condition and available on the proper time. The reason for the study on the Nanded city health care facility is that the people living over there and surrounded villages people the facility should be cost effective and simple way available. Here structure of city and in hospitalized area what kind of health care facilities are available for this get know, the study of Nanded city will be in different zone. According to Nanded city population there is health care facilities whether enough or not and how much proportion is there, this study can be done.

**STUDY AREA:**

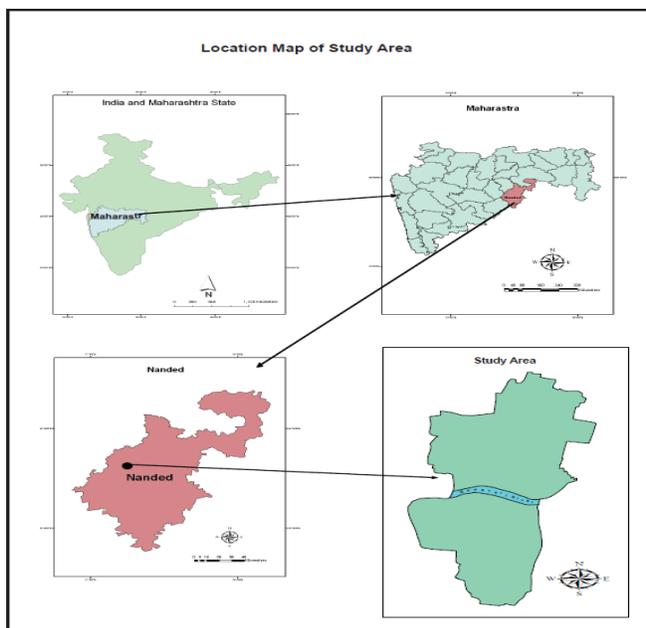


Fig.1. Geographical Location of Study Area

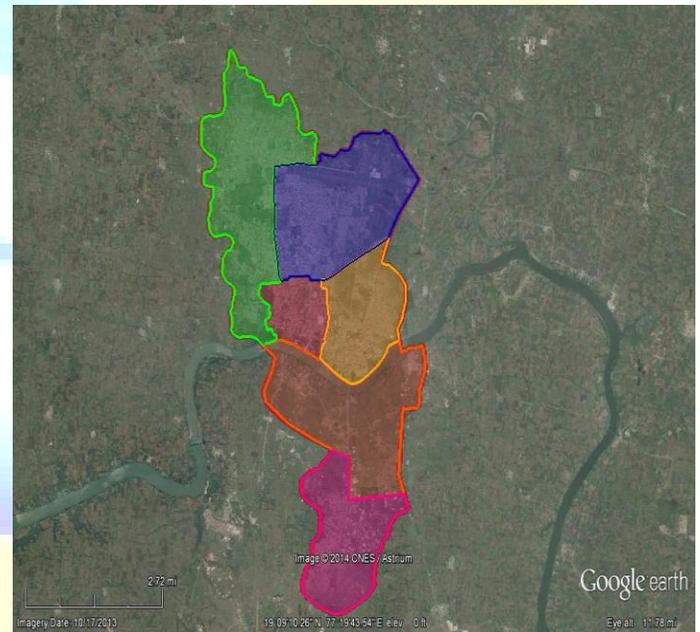


Fig.2. Nanded City Zones

Nanded district is part of Marathwada Region in Maharashtra. For the present study in and around area of Nanded city is selected. Nanded city is situated on the bank of Godavari River. Nanded district has a geographical area of 10,528 Sq. Km., which forms 3.41% of the total geographical area of Maharashtra State. The district is situated in the Deccan Plateau. The district of Nanded has between 18°.15' and 19°.55' North latitude and 77°.7' to 78°.15' east longitudes. The total area under the Nanded Waghala City Municipal Corporation jurisdiction is 51.76 sq. km. Nanded city is situated on the bank of Godavari River. Nanded city is divided in two parts i.e. Old Nanded 20.62 sq. km. North of the Godavari river (on the left bank) and New Nanded 31.14 sq. km. Comprising of Waghala and six other newly merged villages and CIDCO area, South of the Godavari river (on the right Bank).

**OBJECTIVE:**

- 1) To study the health centers in Nanded city.
- 2) To study the beds availability in health centers in Nanded City.
- 3) To analysis the medical stores facility in Nanded city.

**DATA COLLECTION:**

In the present study the required data is collected from various sources. Primary and secondary data collection, the secondary data collected from Health Centers, medical stores, Nanded Doctor, Association. The primary data collected from field survey by observation.

**METHODOLOGY:**

**A) Use of GIS:**

In this we are used the GIS software that are used for prepare the hospital location map and all the hospital location map in the zone of A, B, C, D, E, F, in Nanded city. Nanded city is divided into six zones by using the Google Earth. These six zones are designated as A, B, C, D, E, and F with the help of path and polygon we indicated the boundary of Area and zone along with we have added the place mark of hospitals.

**B) Statistical Method:**

In the present work, various methods have been used. The collected data have been analysis and presented with the help of various tables. According to health care facilities of zones we are prepared the different Graphs with the help of Microsoft office Excel. With the help of collected data we are calculated the Ratio of population to the Health care facilities in Nanded city along with that we have calculated the ratio of Maharashtra, India and world.

**C) City Zones:**

Nanded city is divided into different zones. In this we have prepared a map and indicated as A, B, C, D, E, F zones. However in each and every zone we indicated the total number of Doctors, Hospitals, Bed, and Medical stores.

**DISCUSSION AND ANALYSIS:**

The Table no.1 Explain Health Care Facilities in Nanded city there are 31 specializations are available in the doctors and hospitals. Among them the Gynecologists

Specializations are more hence the number of doctors, hospitals, beds is also more. Which are respectively 142, 108, 626 likewise Rheumatics Arthritis specialization , Nauru Surgeons, Retina Surgeons, Test Tube Baby Center, Eye Bank, Blood Bank, Ambulance, Kath Lab these specializations are present in less number. That why number of doctor, hospitals and bed also less numbers.

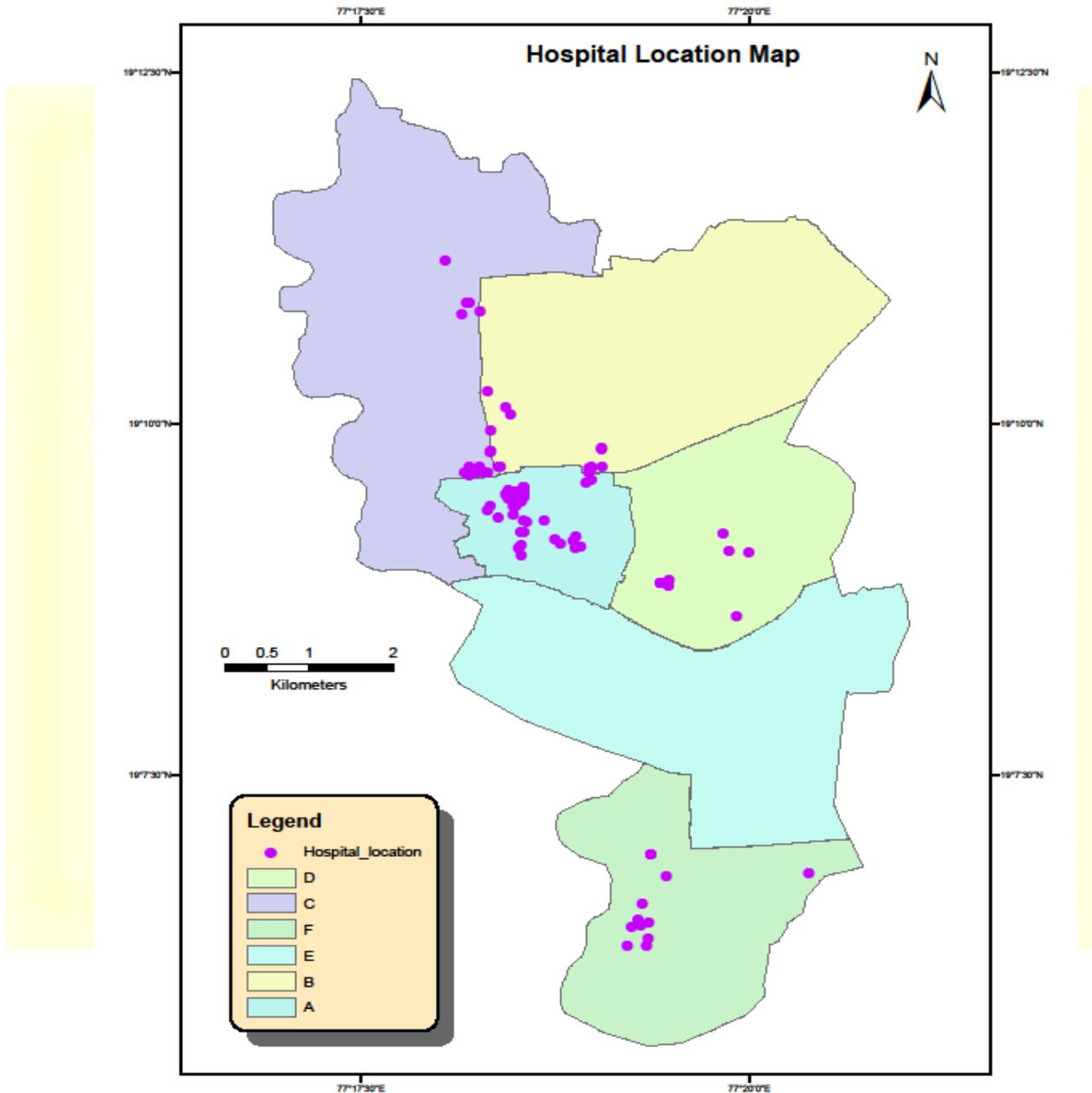


Fig.3. Nanded City Hospital Location Map in A, B, C, D, E, F Zone

Sr. No.	SPECILAZATION	NUMBER OF DOCTER	NUMBER OF HOSPITAL	NUMBER OF BED
1.	Ayurvedic specialist	79	50	09
2.	General physician specialist	53	48	489
3.	Rheumatics Arthritis Specialist	01	01	-
4.	Neuro Physician	02	02	-
5.	Cardiologist Spec.(Asthma ,T .B ., Allergy)	17	14	111
6.	Diabetics Specialist	06	05	13
7.	Kidney Disease Specialist	10	08	60
8.	Surgeons	22	18	213
9.	Urologist	09	08	130
10.	Cancer Surgeons	03	02	156
11.	Plastic Surgeons	03	03	140
12.	Pedriyatic Surgeons	01	01	04
13.	Nauru Surgeons	03	02	100
14.	Gynecologists	142	108	626
15.	Orthologist Specialist	40	31	249
16.	Ophthalmic Specialist ,Phecho Surgeons ,Special Eye Specialist, Laser Spec.	39	30	51
17.	Retina Surjeon	01	01	-
18.	Child Specialist	75	60	326
19.	Psychiatrists	10	08	25
20.	Ear ,Nose ,Throat Specialist	30	24	42
21.	Radiologist	22	16	-
22.	Pathologist	35	20	-
23.	Skin ,Cosmetology ,Laser &V. D. Specialist, Leprosy	19	09	06
24.	Anesthesiologist Specialist	53	27	-
25.	Test Tube Baby center	02	01	-
26.	Eye bank	-	01	-
27.	Dentist Specialist	63	48	06
28.	Physiotherapist Specialist	10	04	-
29.	Homeopathic Specialist	53	37	-
30.	Unani Specialist	35	12	-
31.	Blood bank, Ambulance, Lab	01	05	-
32.	TOTAL=	<b>839</b>	<b>604</b>	<b>2756</b>

**TABLE NO. 1. HEALTH CARE FACILITIES IN NANDED CITY**

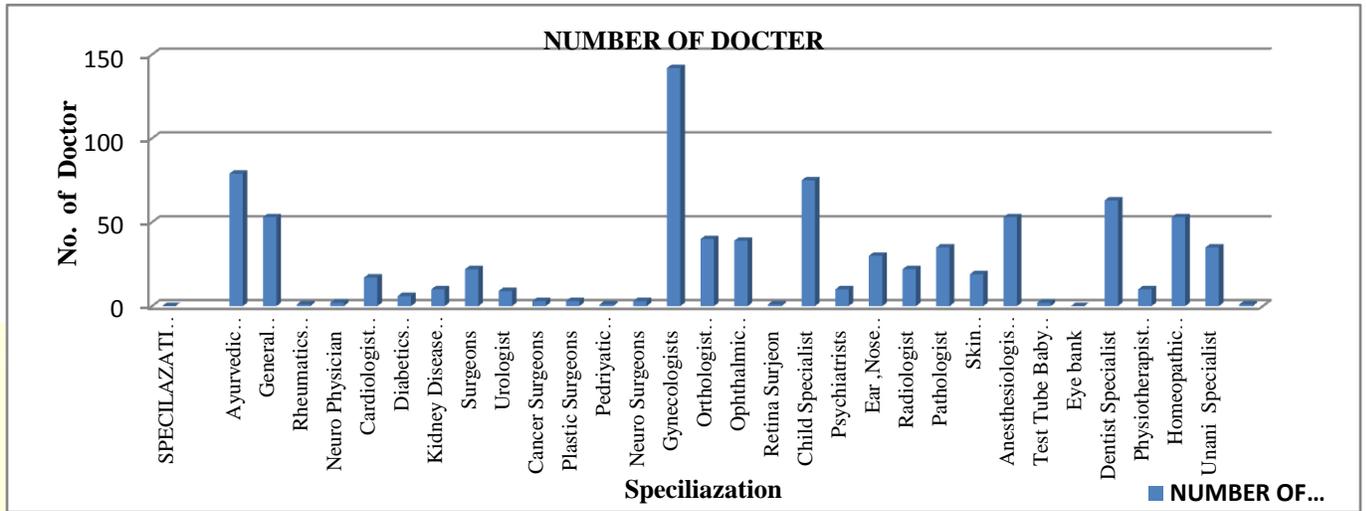


Fig.4. Number of Doctors

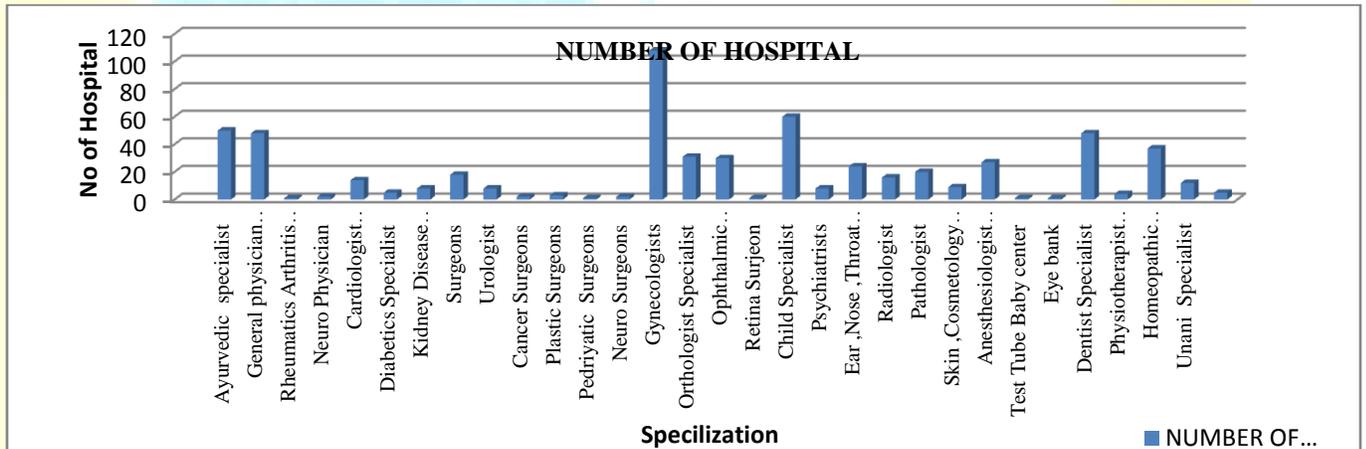


Fig.5. Number of Hospitals

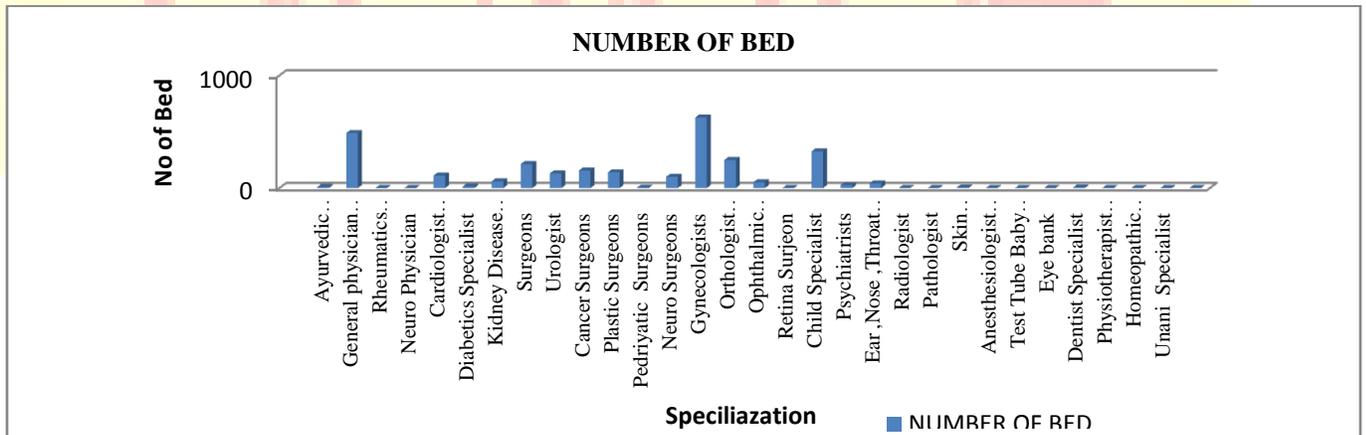


Fig. No.6. Number of Beds in hospitals

TABLE NO .2. ZONEWISE HEALTH CARE FACILITIES IN NANDED CITY

NO. OF ZONE	NO. OF DOCTOR	NO.OF HOSPITAL	NO. OF BED	NO. OF MEDICAL STORE
A ZONE	456	335	1943	556
B ZONE	141	102	631	198
C ZONE	201	142	124	229
D ZONE	34	19	44	56
E ZONE	4	3	0	28
F ZONE	3	3	14	56
<b>TOTAL</b>	<b>839</b>	<b>604</b>	<b>2756</b>	<b>1123</b>

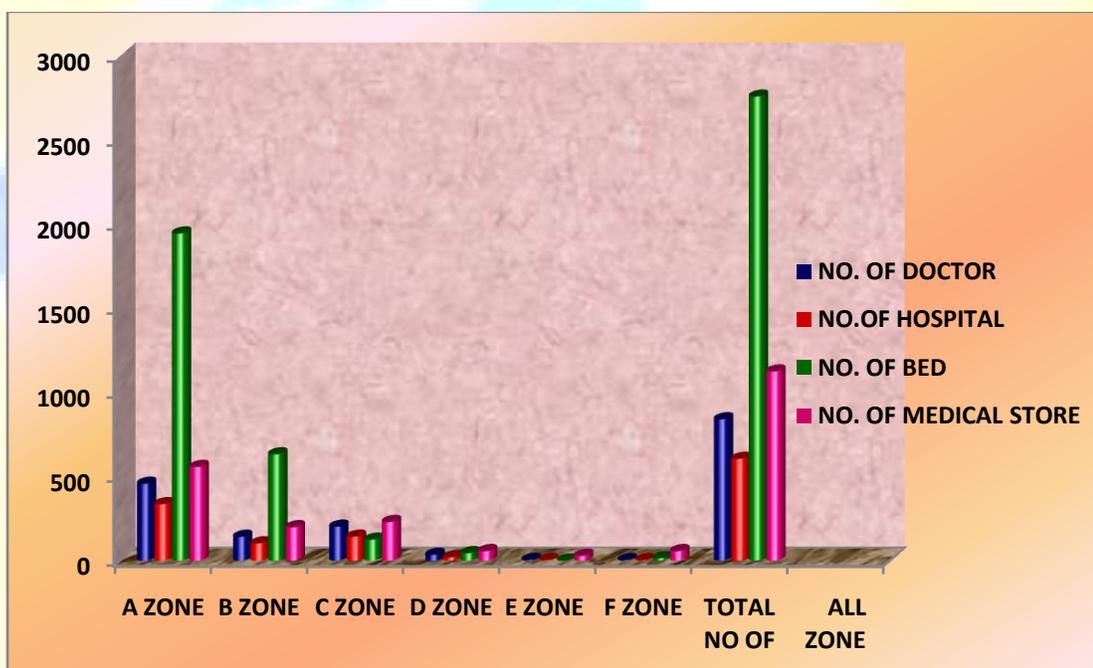


Fig.7.Health Care Facilities in Nanded City A, B, C, D, E, F, Zone

The Table no.2 explain zone wise Health Care Facilities in Nanded city Among the six zone there is an more health facilities available in A zone, because A zone is located at center of Nanded city and near to the Bus stand Area, railway station and city Bus stand. Which is easy for the transportation likewise A zone having 456 Doctors, 335 hospitals, 1943 beds, 556 medical store likewise less facilities found in E zone, because E zone is situated fare away from the city and also it is newly development area. So the distance between A and E zone is to much for the patient to the transportation. E zone having 4 doctors, 3 hospitals, 0 beds and 28 medical stores. Both Fig. shown in the graph and table total number of doctors, hospitals, beds, and medical stores of all zones are respectively 839, 604, 2756 and 1023.

TABLE NO.3.RATIO OF POPULATION TO HEALTH CARE FACILITIES IN NANDED CITY

NO.	HEALTH CARE FACILITIES	TOTAL	POPULATION OF 2011	RATIO
1	DOCTOR	839	719188	1:857
2	HOSPITAL	604	719188	1:1191
3	BED	2756	719188	1:261
4	MEDICAL STORE	1123	719188	1:640

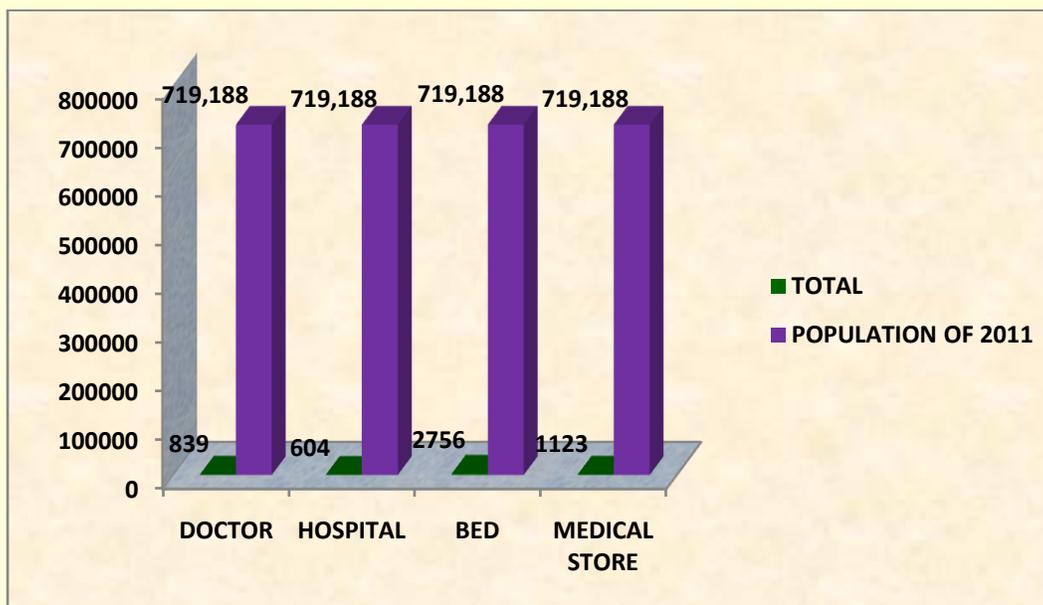


Fig.8. POPULATION TO HEALTH CARE FACILITIES IN NANDED CITY

The table no.3 explains Ratio of Population to health care facilities in Nanded city. In 2011 population to health care facilities ratio has been calculated and population doctors ratio is 1: 857.19666 likewise population hospital ratio, bed ratio, medical ratio are 1:1190.7056, 1:260.95356, and 1:640.4167 respectively.

A Zone is located at middle of the Nanded city where most of the health care facilities are available The number of health care facilities in zone A is about 335 hospitals, doctors 456 with beds 1943 and 556 medical stores are provide the services of all required medicines in this area. Just because of the railway station, bus stop, and city bus stand is located in the A zone, most of the traffic is also in the A zone. In this area people from Nanded itself and people from the villages around the Nanded city come for their economic and health care reasons.

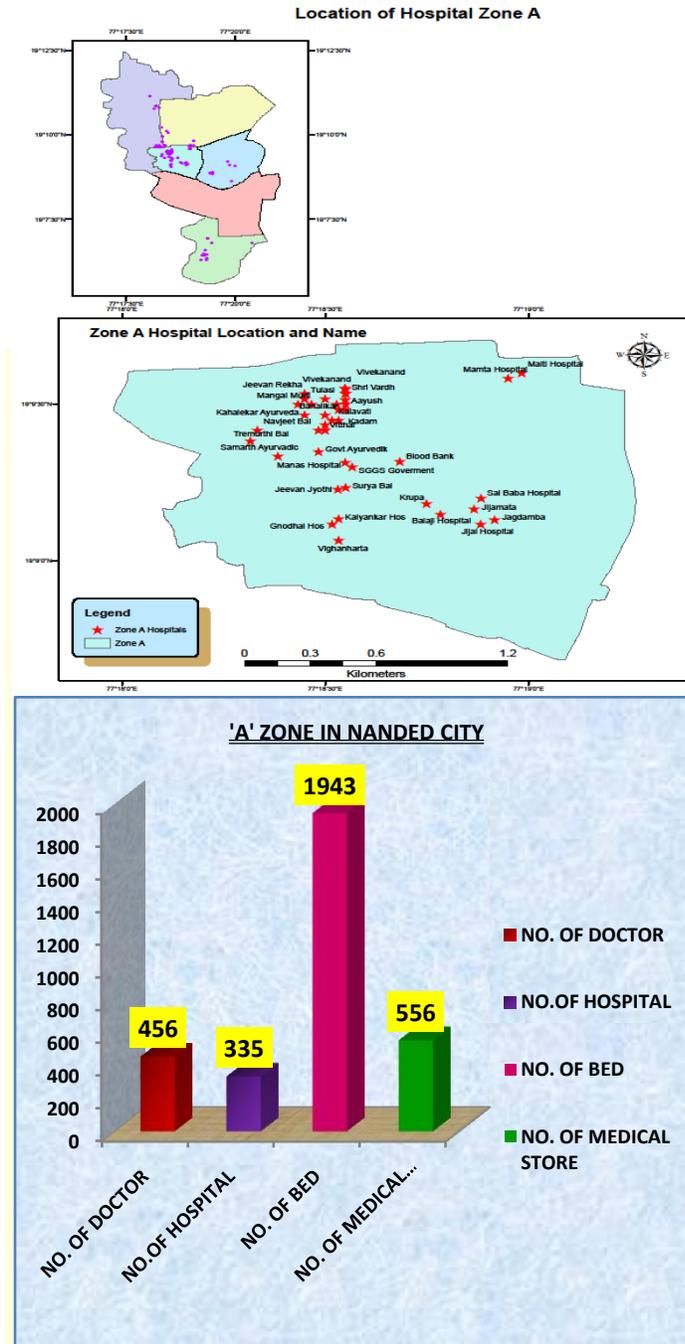


Fig.9.Location of Hospital Zone A Nanded City



Fig.10.A Zone In

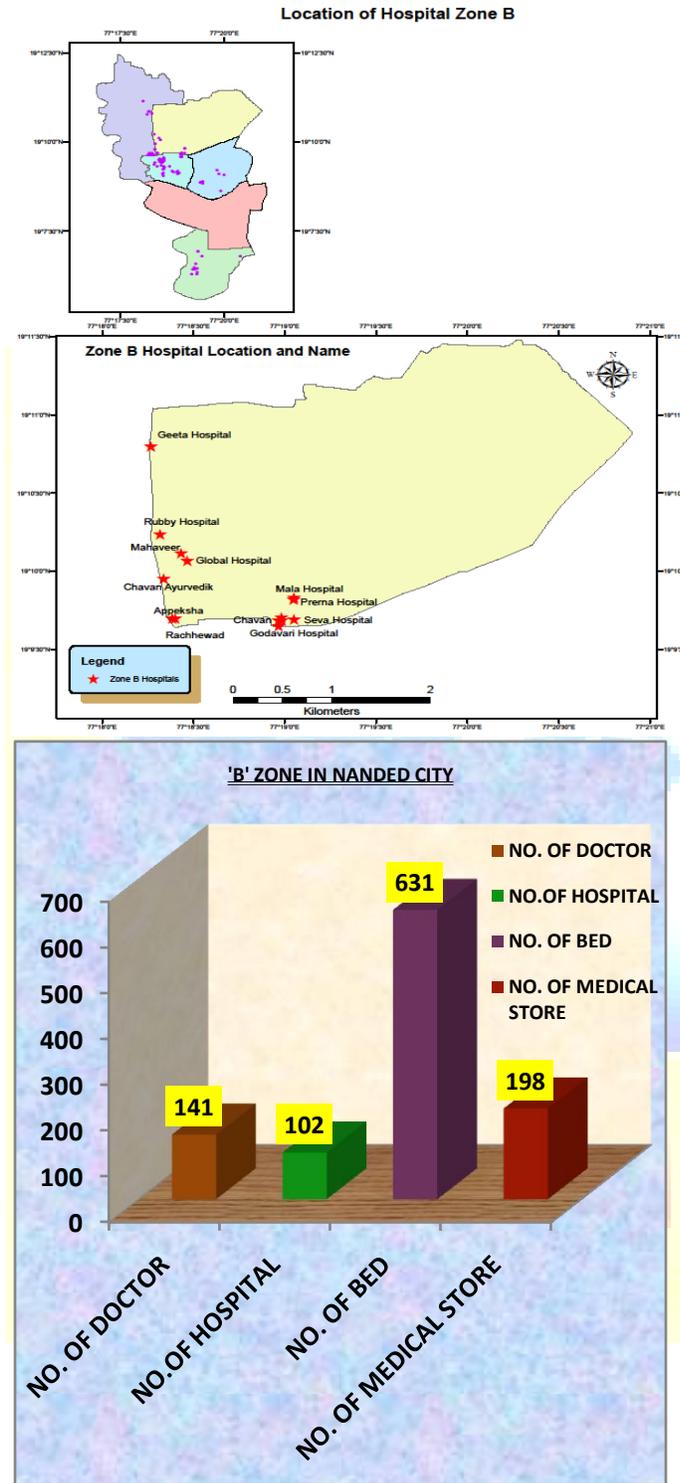


Fig.11. Location of Hospital Zone B City

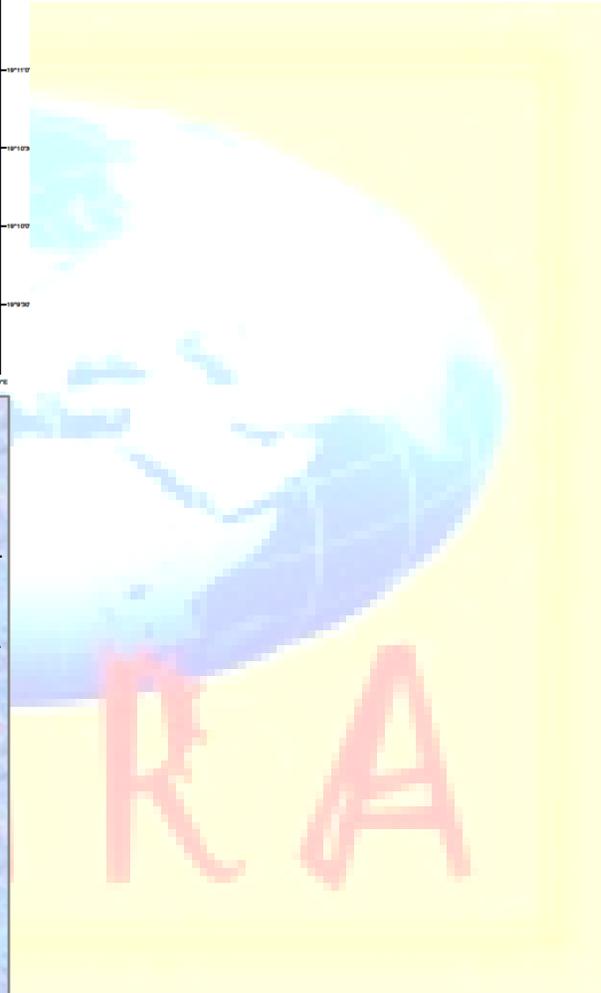


Fig.12. B Zone in Nanded

Railway station, Gokul nagar, Vasant Nagar, Shrinagar, and Raj Corner, this area include in 'B' zone. The total number of hospital in this zone is 102 with 531beds.and this hospital is organized about 141 doctors and 198 medical store's are provide the services of all required medicines in this area.

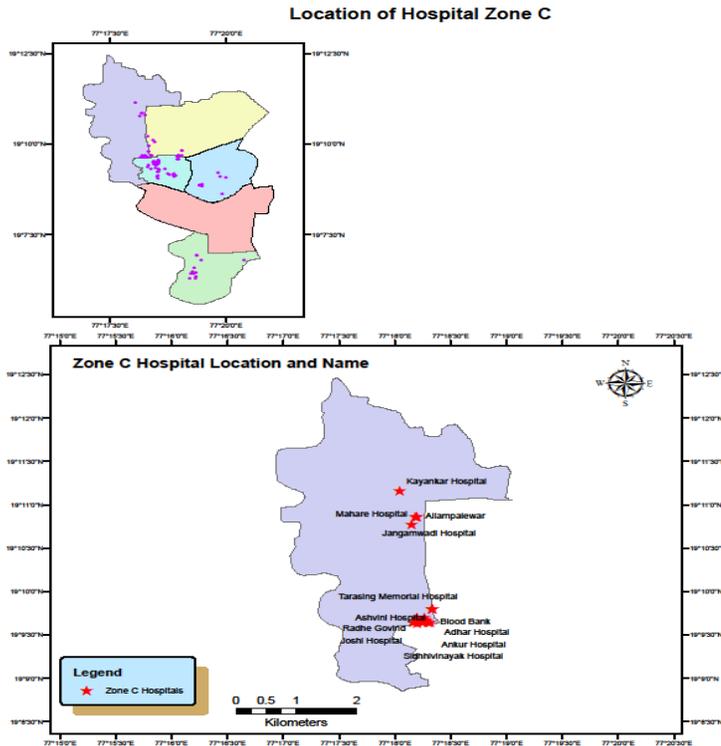


Fig.13. Location of Hospital Zone C

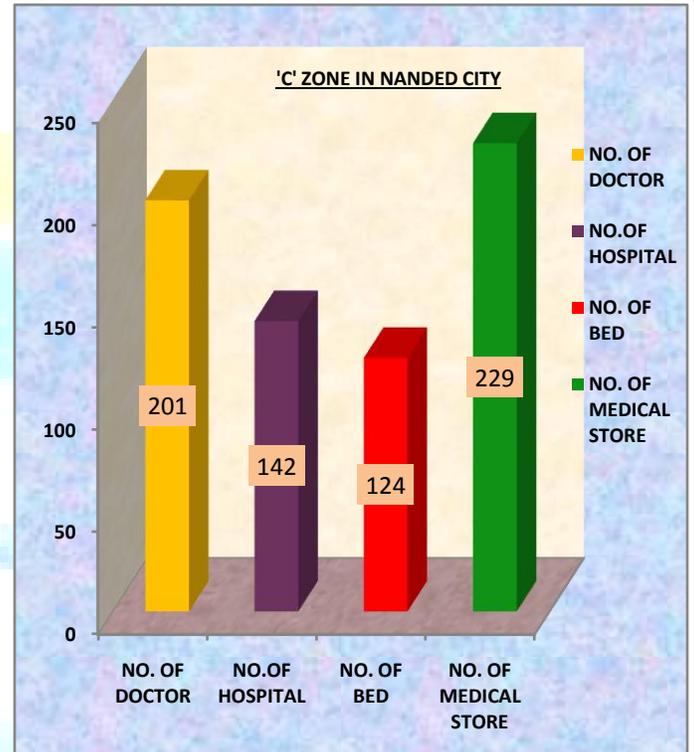


Fig.14. C Zone in Nanded City

Bhavsar Chowk, Raj Corner, Anand Nagar, and Bhagya nagar this area include in 'B' zone. . The total number of hospital in this zone is 142 with 124 beds. And this hospital is organized about 201 doctors and 229 medical stores are proved the services of all required medicines in this area.

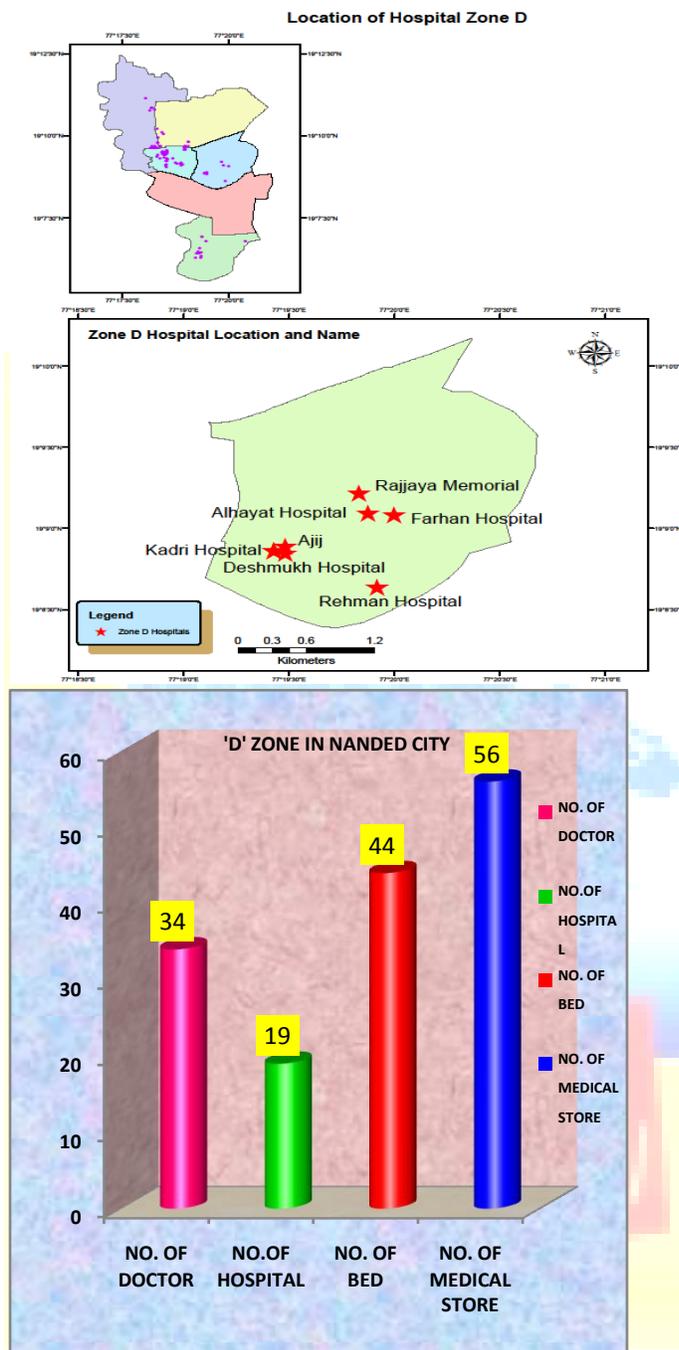


Fig.15. Location of Hospital Zone D Nanded City

Fig.16. D Zone in

DSP office, old Mondha, this areas include in 'D' zone. The total number of hospital in this zone is 19 with 44 beds and these hospitals are organized about 34 doctors and 56 medical stores are provided the services of all required medicines in this area.

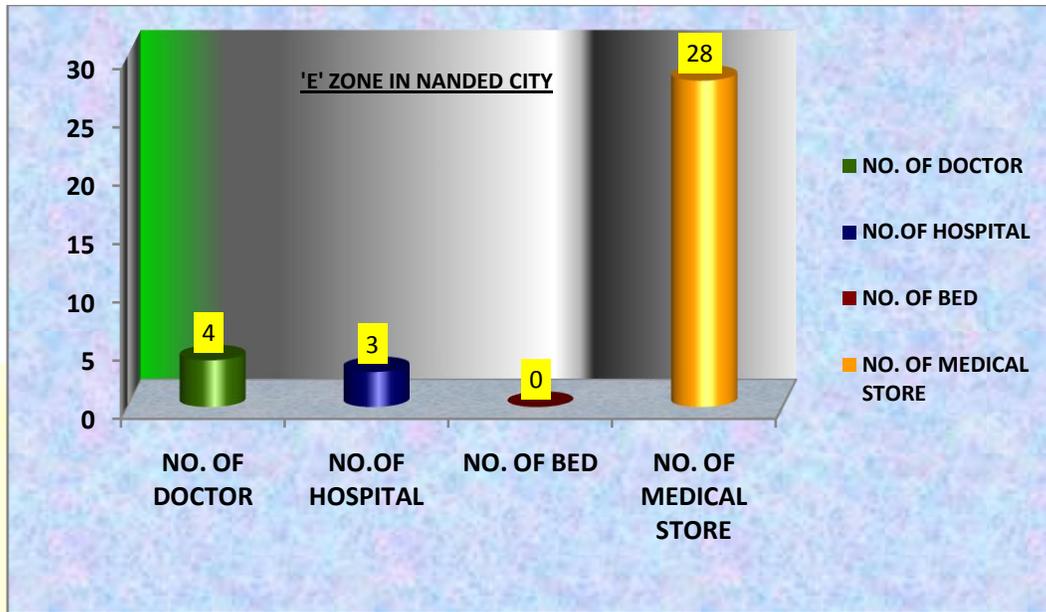


Fig. No.17. E zone in Nanded city

The E zone is covered with 3 private hospitals, 3 doctors and there is no bed facility. But as compared to the number of hospitals, the medical stores are more observed in this area, e.g. 28. The availability of only private hospitals and the greater distance to government hospitals is one negative point about economically poor people in this area because it is a newly habited area.

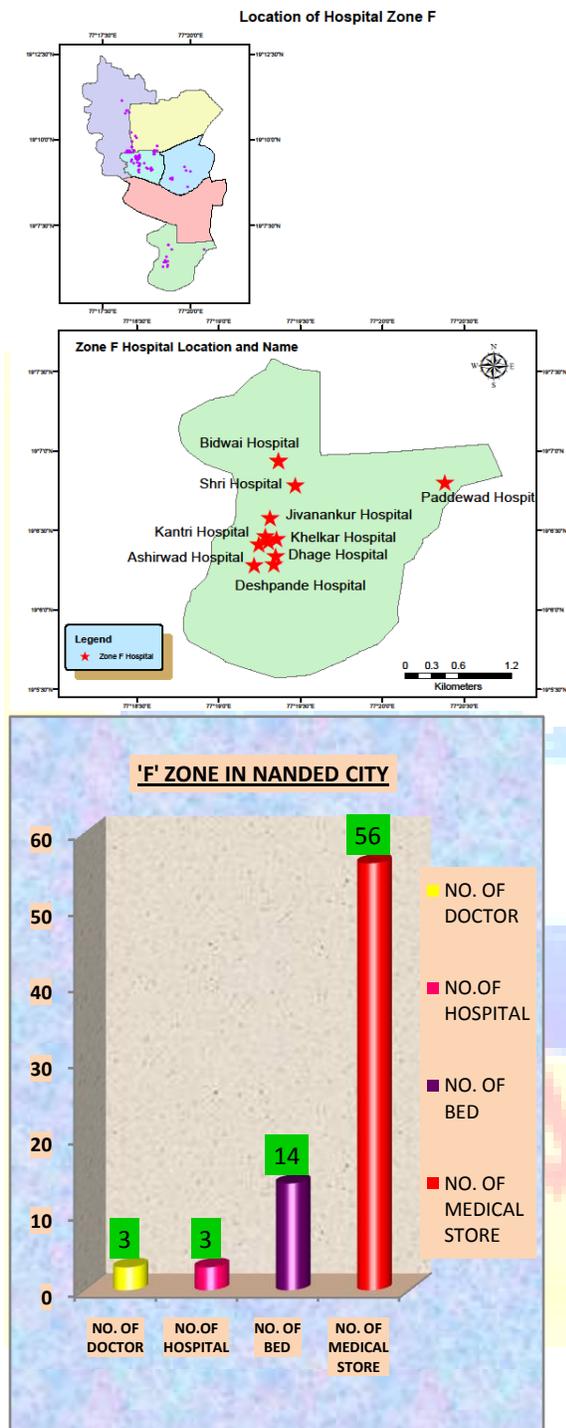


Fig.18. Location of Hospital Zone F Nanded City

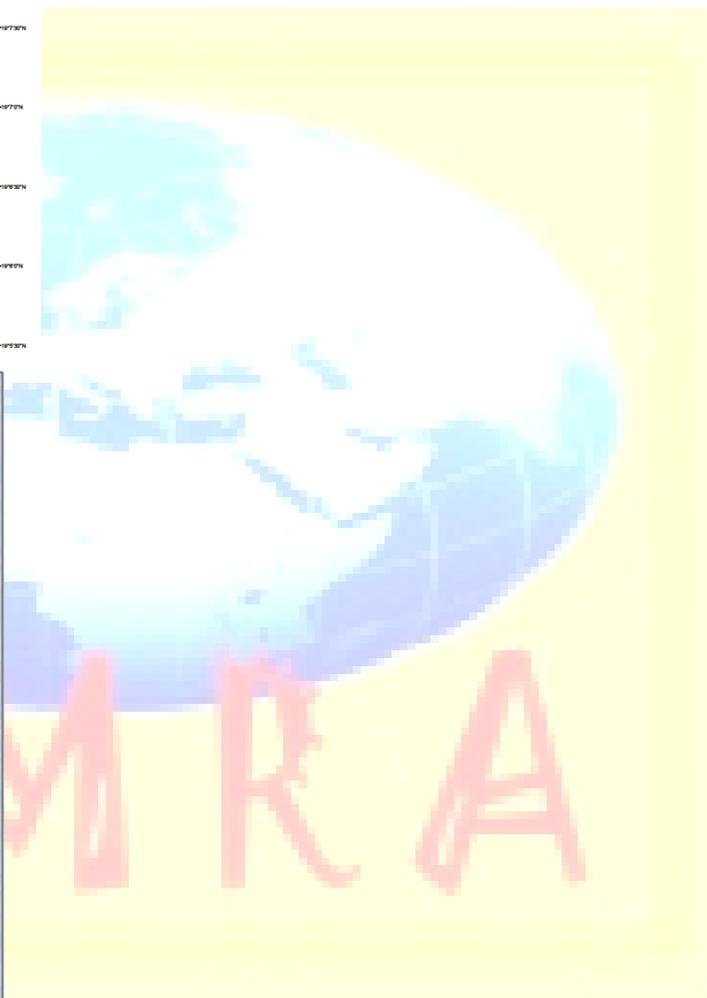


Fig. 19. F Zone in

The total number of hospital in this zone is 03 with 14 beds. And this hospital is organized about 03 doctors and 56 medical stores are provided the services of all required medicines in this area.

## CONCLUSION

There are total 604 hospitals available in Nanded city and health services in the city are located in different areas of Nanded city. A zone is located at middle of the Nanded city where most of the health care facilities are situated. The number of health care facilities in zone A is about 335 just because of the railway station, bus stop(Maharashtra State Transport) and city bus stand is located in the A zone, most of the traffic is also in the A zone. In this area people from Nanded itself and people from the villages around the Nanded city come for their economic and health care reasons. Because of this most of the crowd gather in A zone which creates traffic and patient needs immediate health care or health facility it becomes very difficult to reach their immediately in less time and it is only because most of the crowd gather in this area only. The reason behind many people come for treatment at A zone for health care is most of the health care facilities are located in the same place and less around the areas of Nanded city. So, the city's syntax is need to change and the ratio of population in this area and hospital facilities is more. Because of that the ratio of population in other areas and hospital facilities in other zones of Nanded city is 102 in zone B, 142 in zone C, 19 in zone D respectively and only 03 in zone E and F. As the health care facilities are rare in these areas, the person in these areas requires more time and money to reach to the hospitals. As well as the number of beds in the hospitals is 2756 only and very less according to the numbers of population in the Nanded city. Therefore it needs to raise number of beds in the hospitals according to the number of population in the Nanded city. The number of medical stores is observed more in the zone A as the number of hospitals also more in the same area and in the zone C, B and F respectively and very less number of medical stores in zone E. So, in this way it is understood that the ratio of number of health care facilities and medical stores is not according to the need of population of Nanded city. It must have changed and balanced according to the different zones of Nanded city.

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