



# Planning Strategy for Medical Facilities in Rural Settlements of Dharwad District, Karnataka State.

1Dr Yallappa Honnappanavar, 2Dr Aravind Mulimani

1Guest Faculty, Department of Geography., 2Professor and Chairman Department of Geography, Karnatak University, Dharwad. Karnataka, India.

1Karnatak University, Dharwad, Karnataka State, India.,

2 Karnatak University, Dharwad. Karnataka, India.

## Introduction

Health is a basic requirement of every citizen of any geographical space in the world. Health is a healthy sign of a nation for progress and contributing for future development and also reflects the forthcoming generation. The strong health base is an indication of overall development. Adequate and appropriate health facilities are essential for an individual as well as a society for its future prospects. The assured health helps to the modern civilized community to maintain the quality of life, which in term dependable on the infrastructural facilities provided in the given geographical space in the world, where India is also not an exception. No society will not survive for a long journey without paying an attention and to provide health facilities.

“Health is Wealth” is one quote which proved an importance of health for human beings. The modern civilized community life is depends upon the quality of Healthy life, which in term dependable on the infrastructural facilities provided in the given geographical space in the world, where India is also not an exception. No one country will not survive for a long journey without good medical facilities.

Therefore, it is the need of the juncture to provide the medical facilities to the people. The better medical facility base of any country in that matter will have better prospect for its overall development. Today, in the modern world health facility is developing from one decade to another decade with the help of Science and Technology with Information Technology provides better medical facilities with new experiments of scientists in the world and it is continue process for a better health conditions for to the people in the world. As a result, it is intended for everyone must get better and quality medical facilities to lead their life not only for a particular one country the existing in the world but also entire human beings in the world and also for future generation.

Medical facilities are regarded to be of utmost significance and individuals, belonging to all mankind age groups and backgrounds need these facilities. Rural health care services in India are mainly based upon primary health care, which envisages healthy status and well-being for all. Also being holistic in nature, it aims to provide preventive, and promote curative and rehabilitative care services. The different health policies and programs within the country aim at achieving an acceptable standard for health for the general population of the country. With the main purpose of achieving this comprehensive objective, a widespread approach was advocated, which included improvements in health care, public health, sanitation, clean drinking water, proper diet and nutrition and knowledge of hygiene and feeding practices. Significance was accorded to cause a decline in the health care facilities across the regions. There should not be any disparities between regions and these facilities should be provided to individuals, belonging to rural and remote areas as well (**Kapur 2019**).

**Study Area:**

Dharwad district being the area under investigation and extended its geographical area between 15°02' north latitude to 15°42' north latitude and 74°43' east longitude to 75 ° 35' east longitudes. It has an area of 4263 square kilometres, with a population of 18, 47,023 (2011) and the density of the population is 433 persons per square kilometres. The district is bound by Belgaum District in the north, Haveri District in the south, Gadag District in the east and Uttara Kannada district in the south west. As compared to the state it has the average literacy rate 80 percentage as per as the Census 2011 which is higher than the state average i.e., 68.73 percentage. Dharwad being the District Headquarter and all kind of administrative offices have been set up for its administrative point of view and accordingly functioning. There are 352 settlements with six urban centres having Municipality (TMC) status have been distributed five talukas of study area. There are of 14 Hoblies, 144 Gram Panchayats have been serving the rural settlements. The Navalagund is being largest taluka in terms of area and Hubballi being the smallest one. As far as population is concerned, Dharwad taluka being highest one and Hubballi taluka has the lowest population (Table No.1 Fig.1).

**Table 1. Showing the Area, Population, Settlements of Dharwad District.**

Sl. No	Name of the Taluka	Area (Sq.Kms)	No.of Settlements	No.of Gram Panchayath	Population	Hobli	CMC/ TMC/TP
01	<b>Dharwad</b>	1032	107	39	249993	4	1
02	<b>Hubballi</b>	631	46	26	142807	3	1
03	<b>Kalaghtgi</b>	682	83	28	154659	3	1
04	<b>Kundgol</b>	648	59	26	165568	2	1
05	<b>Navalgund</b>	108	57	25	190208	2	2
06	<b>H.D.M.C</b>	190	---	---	943788	---	--
<b>Total</b>		<b>4263</b>	<b>352</b>	<b>144</b>	<b>1847023</b>	<b>14</b>	<b>06</b>

Source: Compiled from Dharwad District Census 2011.

### Location Map of the Dharwad District

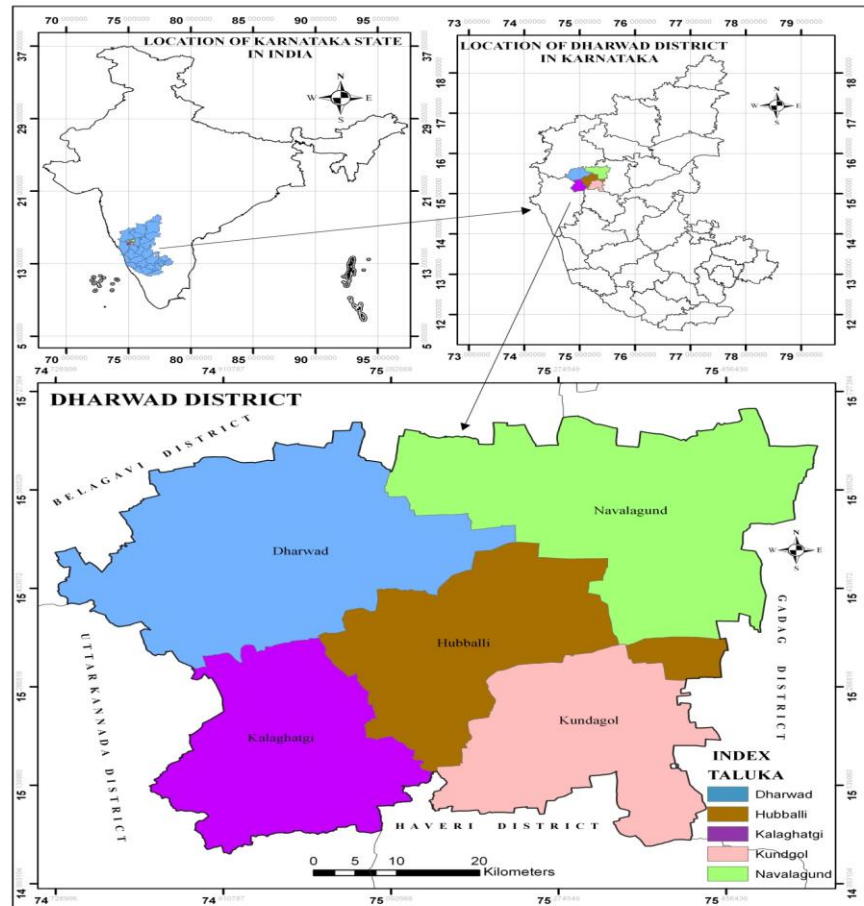


Fig.01

#### Review of Literature:

There are scholars who have discussed the priority of medical facilities in different geographical space in the world accordingly discussed in this context in brief. **World Health Organization (2010)** instructed that, increasing access to health workers in remote and rural areas through improved retention.

**Farmer J, et, al (2012)** concluded with help of theoretical approach in rural health that, To move beyond its present stage, rural health needs to look to other disciplines theories along with ideas specially, it needs a more contemporary understanding of what place means so that, health status and service provision can be improved by more thoughtful research. **Jaysawal (2015)** an overviewed on Challenges for Rural Health System in India and analyzed with the help of Inefficient Physical Infrastructure, Underutilization of existing rural hospitals, Inadequate human resources, Apathetic attitude of medical professionals, High Neonatal Mortality, Dominance of unregulated Private medical professionals, Non-

Preparedness to fight with Epidemic in rural areas, etc., **Rechela, ed.al (2016)** an explained about hospitals in rural or remote areas an exploratory review of policies in 8 high-income countries(Australia, Canada, United States, Italy, Spain, United Kingdom, Croatia and Estonia) with health policy.

### **Objectives:**

The main objective of the study is to discuss the existing the medical facilities of rural settlements in the study area mainly confined to study the medical facilities of rural settlements in the study area and to planning strategy for medical facilities to the settlements which have been denied.

### **Hypothesis:**

The study has framed following hypothesis and it is hypothesized that...

1. The medical facilities are not reachable to the interior of rural population

### **Database and Methodology:**

Present study has confined based on the available information obtained from each Gram Panchayath visited and compiled along with information supplied from District Heath Office (DHO) Dharwad. All the district level offices of all parameters are visited and compiled the information and accordingly discussed with analytical method. Primary Health Unit and Primary Health Centres are to be analyzed with the help of map in the study area. The simple statistical method has used for the preparation of the tables and showed on the map for spatial location point of view.

### **Analysis:**

Medical facility is one of the prime indicator depends upon the socio- cultural as well as economic growth of any region in the world if people healthy then everything comes to the next. There is a close relationship between Medical facilities development and the man power planning in the given area. Thus, a spatial analysis of medical facilities is very much important in order to analysis in the study area.

**Medical Facilities:**

Health is an important for any kind of human beings if is human right to have healthy health conditions or facilities are shown the Human Development. The health facilities play a vital role in maintaining the body of human resources it is an important indicator in Human Development Index (HDI). In terms of availability of health facilities of Dharwad District government does not reached that level which compared to the developed State or Country.

**Table No 2. Medical Facilities in Rural Settlements of Dharwad District.**

Sl. No	Name of the Taluka	Number of Settlements	Primary Health Unit			Primary Health Centre		
			Total No	No.of Settlements Having	No.of Settlements not having	Total No	No.of Settlements having	No.of Settlements not having
1	<b>Dharwad</b>	107	20	20	87	06	06	101
2	<b>Hubballi</b>	046	16	16	31	07	07	39
3	<b>Kalaghatgi</b>	083	15	15	68	06	06	77
4	<b>Kundagol</b>	059	11	11	48	06	06	53
5	<b>Navalagund</b>	057	09	09	48	05	05	52
<b>District Total</b>		<b>352</b>	<b>71</b>	<b>71</b>	<b>282</b>	<b>30</b>	<b>30</b>	<b>322</b>

Source: field survey and personal computation 2019.

Primary Health Unit is plays a vital role in the study region. In the Dharwad District there are 71 primary health units are distributed in 71 settlements out of 352 settlements. If taluka wise concerned, Dharwad taluk has 20 primary health units followed by Hubballi taluka of (16), Kalaghatgi of (15), Kundagol of (11) and Navalagund of (09) primary health units. (Table No: 03)

Table No 3: Settlement wise list of Primary Health Units.

Sl. No	Name of the taluka	Location Code No.	Name of the Primary Health Unit
01	<b>Dharwad</b>	01	Amminabhavi
02		13	Dever Hubballi
03		31	Horobelvadi
04		36	Kalakeri
05		42	Kavalgeri
06		46	Karadigudda
07		47	Kyarkoppa
08		48	Chikkamalligavad
09		53	Kotur
10		56	Krubagatti
11		61	Madanabavi
12		64	Managundi
13		65	Mansur
14		70	Maradagi
15		77	Mugud
16		79	Narendra
17		81	Nigadi
18		86	Ramapur
19		93	Tegur
20		103	Yadwad
21	<b>Hubballi</b>	119	Sherwad
22		122	Achitgeri
23		133	Kurdkeri
24		134	Kusugal
25		135	Koliwad
26		136	Chebbi
27		137	Nulvi
28		138	B-Arlikatti
29		139	Byhatti
30		144	Mantur
31		148	Varur
32		150	Shirguppi
33		151	Sulla
34		152	Hebsur
35		153	Haliyal
36	<b>Kalaghatgi</b>	154	Beeravalli
37		160	Tumrikoppa
38		168	Dastikoppa
39		175	Dummavad
40		176	G.Basavankoppa
41		180	Gambypur
42		183	Ganjigatti
43		184	Galagi
44		192	Hirehonnalli
45		194	Jinnur
46		196	Malakanakoppa
47		203	Mukkal
48		206	Muttagi
49		217	Shurshettikoppa
50		221	Tambur
51		226	Tavarger

52	<b>Kundagol</b>	239	Bh-taralgatta
53		242	Goudgeri
54		251	Malali
55		254	Harlapur
56		256	Hiregunjal
57		261	Hirenarhi
58		264	Ingalagi
59		266	Kalas
60		278	Rottigawad
61		288	Yerebhudihal
62		291	Chakalabbi
63	<b>Navalagund</b>	296	Algawadi
64		299	Amargol
65		303	Gudisagar
66		312	Hallikeri
67		314	Javur
68		316	Kalwad
69		326	Shelawadi
70		328	Hansi
71		338	Tirlapur

Source: Personal Computation 2019.

As far as Primary Health Centres are concerned, there are 30 primary health centres are functioning in five talukas out of this Hubballi taluka has 07 Primary health centres in that three P.H.Cs i.e., Arlikatti, Byhatti and Nulvi working for 24X7 and Followed by Dharwad of 06 in that Garag, Hebballi and Uppinabetageri P.H.Cs working for 24X7, Kalaghatgi of 06 in that Bammigatti, Mishrikoti, Mukkal and Sangameshwar P.H.Cs are working for 24X7, Kundagol of 06 in that Gudageri, Ingalagi, Sounshi, Yeraguppi and Yaliwal P.H.Cs are working for 24X7 and Navalagund of 05 in that Morab and Shelawadi P.H.Cs are working for 24X7 (Table No.04).



Table No 4: Settlement wise list of Primary Health Centre.

Sl. No	Name of the taluka	Location Code No.	Name of the Primary Health Centers
01	<b>Dharwad</b>		Amminabhavi
02			Garag (24x7)
03			Hebballi (24x7)
04			Kotur
05			Mugad
06			Uppinabetageri (24x7)
07	<b>Hubballi</b>		Adargunchi
08			Aralikatti (24x7)
09			Byhatti (24x7)
10			Ingalahalli
11			Koliwad
12			Nulvi(24x7)
13			Shiraguppi
14	<b>Kahaghatgi</b>		Bammigatti (24x7)
15			G.Hulakoppa
16			Ganjigatti
17			Mishrikoti(24x7)
18			Mukkal (24x7)
19			Sangameshwar (24x7)
20	<b>Kundagol</b>		Baradwad
21			Gudageri(24x7)
22			Ingalagi (24x7)
23			Sounshi(24x7)
24			Yaraguppi (24x7)
25			Yaliwal(24x7)
26	<b>Navalagund</b>		Alagawadi
27			Belahar
28			Javoor
29			Morab (24x7)
30			Shelawadi(24x7)

Source: Personal Computation 2019.

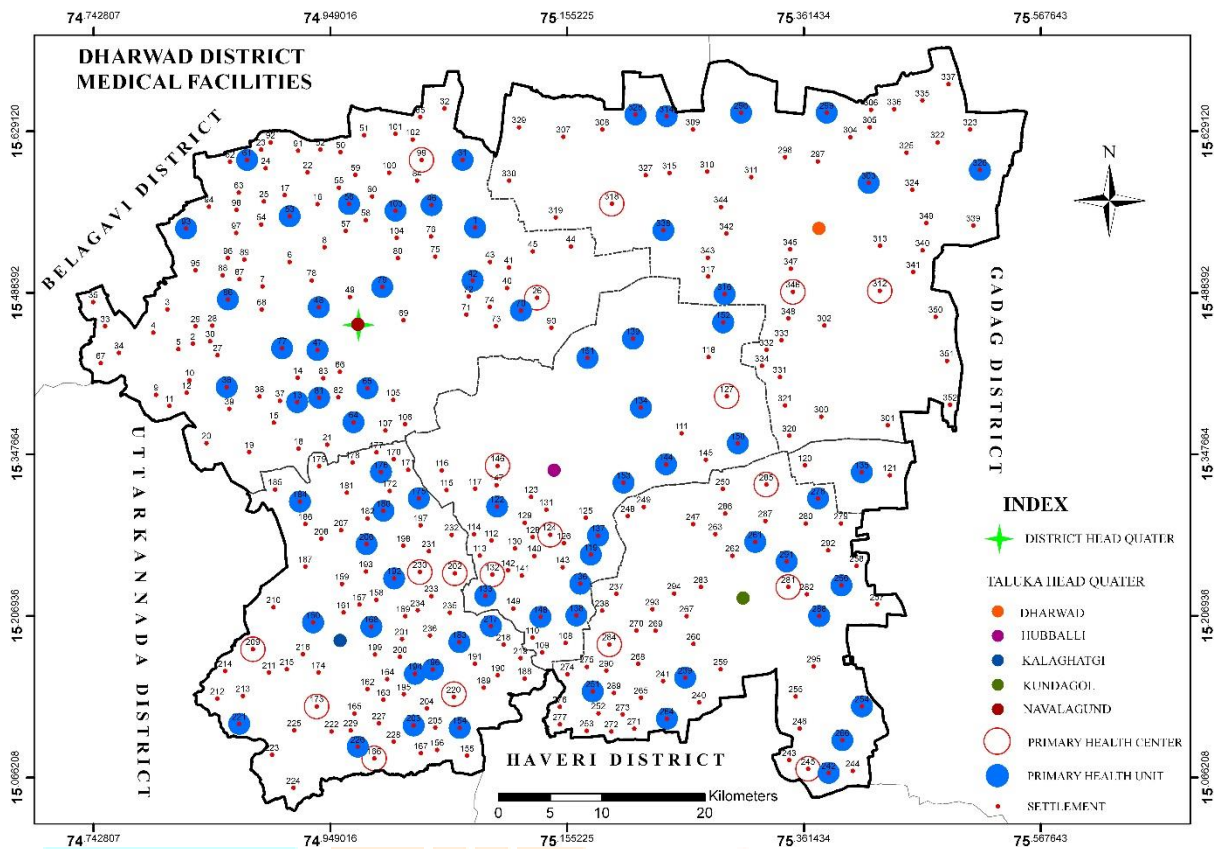


Fig 02

**Proposed Medical Facilities in Dharwad district**

The proposed facilities of each medical facilities in four taluka have been identified and proposed not only for the location of the settlement but also to be served the rural settlements as well as population by the medical facilities the table no 05 reveals that, the proposed medical facilities are distributed in four talukas namely Dharwad, Kalaghatgi, Kundagol and Navalagund talukas.

As far as Dharwad district is concerned, the medical facilities have been proposed. Honnapur of Dharwad taluka Kamadolli of Kundagol taluka and Halkusugal of Navalagund taluka settlements proposed for primary health unit where it will serves eight, six and four settlements with population of 12137, 18418 and 10531 receptively. Mugad and Kotur settlements need to enhance the existing infrastructural facilities and to be provided the status to work for 24X7 of P.H.C’s the settlements serves of 16 and 13 also population of 33138 and 26177 respectively. Managundi settlement of Dharwad taluka and Galagi settlement of Kalaghatgi taluka the medical facilities need to be upgrade from primary health unit to primary health centre where four Primary health units will get benefited with population of 12345 and 9530 respectively.

Table No 5: Proposed Medical Facilities in Dharwad district.

Sl. No	Name of the Taluka	Proposed Settlement	Proposed Medical Facilities	Number of Settlements to be served	Population to be served
01		Honnapur	Primary Health Unit	1.Aravatagi	1064
				2.Kumarkoppa	2073
				3.Kogilgeri	1371
				4.Amboli	956
				5.Honnapur	2546
				6.Kumbarkanavi	2110
				7.Jai bharti colony	1660
				8.Chandaragi	357
				<b>Total</b>	<b>12137</b>
02	Dharwad	Mugad	To enhance the existing infrastructural facilities and to be provided the status to work for 24X7 of P.H.C's	1.Dever Hubballi	2324
				2.Mallur	56
				3.Murakatti	1046
				4. Kalakeri	2544
				5.Lalagatti	481
				6.Devgiri	767
				7.Hunsikumari	482
				8.Kyarakoppa	2869
				9.Chikkamalliagawad	2389
				10.Managundi	4918
				11.Manasur	2808
				12.Salakinakoppa	1433
				13.Mugad	5085
				14.Nigadi	2295
				15.Benakatti	1580
				16.Baad	2061
				<b>Total</b>	<b>33138</b>
03		Kotur	To enhance the existing infrastructural facilities and to be provided the status to work for 24X7 of P.H.C's	1.Belur	3567
				2.K. M .Tadakod	723
				3.Shedbal	238
				4.Agasanahalli	168
				5.Kotur	4790
				6.Shinganahalli	3284
				7.Hosatti	1346
				8.Mugali	1236
				9.Madanabhavi	3690
				10.Tegur	3010
				11.Hale Tegur	1378
				12.Venekatapur	1588
				13.Bogur	1099
				<b>Total</b>	<b>26,117</b>
04		Managundi	The existing P.H.U to be upgraded into P.H.C's	No. of P.H.U to be served	
				1.Managundi	4918
				2.Manasur	2808
				3.Nigadi	2295
				4.Dever Hubballi	2324
				<b>Total</b>	<b>12345</b>
05	Kalaghatgi	Galagi	The existing P.H.U to be upgraded into P.H.C	1.G.Basavankoppa	1660
				2.Dummavad	3827
				3.Ganbhoytri	2588

				4.Muttagi	1455
				<b>Total</b>	<b>9530</b>
06	<b>Kundagol</b>	Kamadolli	To be proposed the Primary Health Unit	1.Kamadolli 2.Chikkharekuni 3.Hale Hanchinal 4.Shirur 5.Devanur 6.Bebebal	7931 438 2110 3495 3111 1333
				<b>Total</b>	<b>18418</b>
07	<b>Navalagund</b>	Halkusugal	To be proposed the Primary Health Unit	1.Halkusugal 2.Shynwad 3.Yamnur 4.Padesur	4147 1945 2211 2228
				<b>Total</b>	<b>10531</b>

Source: Personal computation 2019.

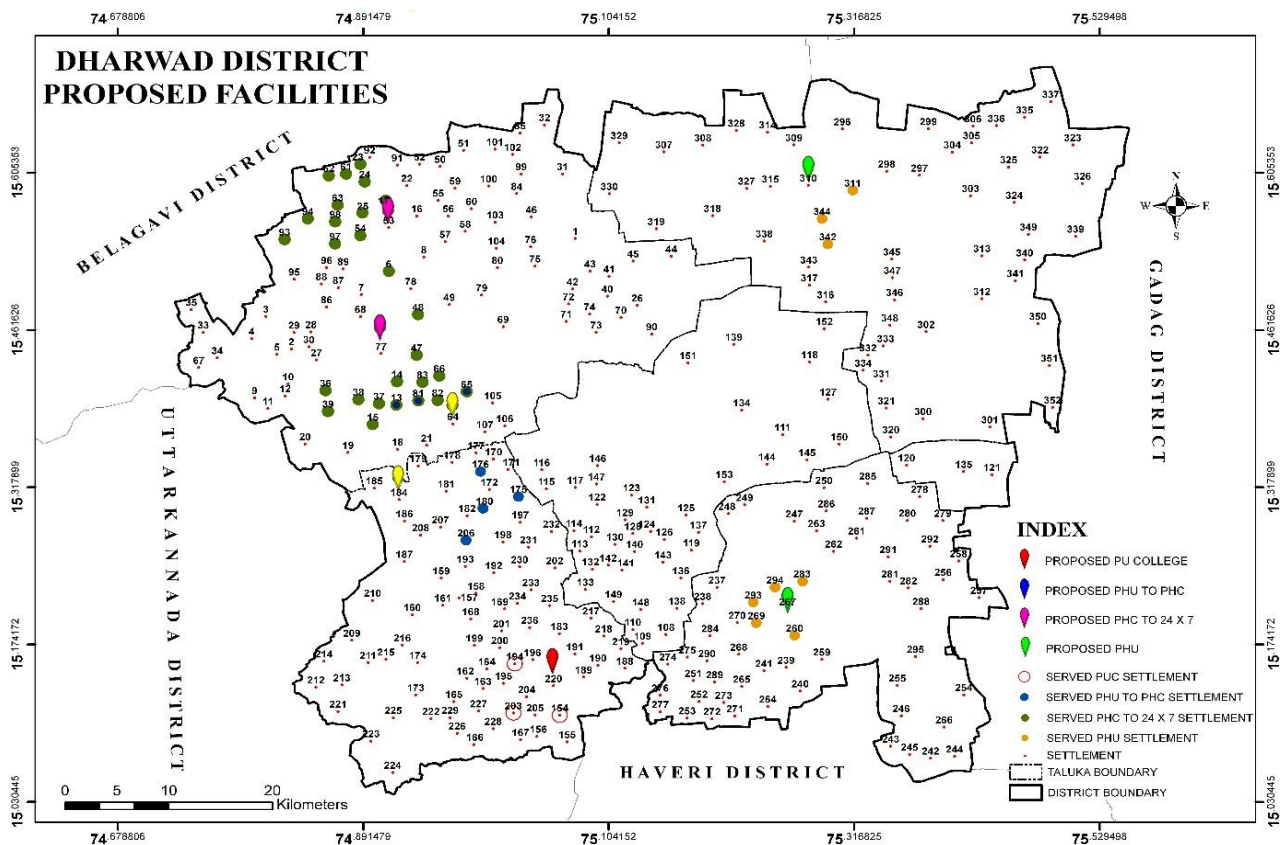


Fig.03

**Conclusion:**

The present study of the medical facilities in rural scenario of the Dharwad district is not up to the mark. The researcher identified that, the medical facilities are needful for the rural people and also settlements are need to upgrade and enhance the medical facilities in the Dharwad district. Hence, the study has brought out a planning strategies are to be implemented, then only the district may have the healthy life in the medical field.

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