



Working Position of Health Staff and their Opinion on Public Healthcare Infrastructure¹

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Introduction

Infrastructure has a major role in delivering health services through the public health system. And the evolution of the public healthcare system has not been successful to the expected level due to various issues such as lack of physical infrastructure, lack of qualified personnel, quality of care etc., which ultimately resulted in the evolution of the private healthcare system. It increases the cost of healthcare, which ultimately has a direct bearing on the economically weaker sections of the society.

Karnataka is one of the states which started to establish primary health centres for providing comprehensive healthcare even before it was conceived by the Government of India. Further, an independent health department was established in 1929 under the Director of Public Health. It should be noted that Karnataka is a pioneering state in establishing birth control clinics as early as in the 1930s (Rayappa and Sekher, 1998), one at Vani Vilas Hospital in Bangalore and another at Cheluvamba Hospital in Mysore and also a pioneering state in implementing the Universal Health Coverage Scheme. After the formation of the Mysore state in 1956, the medical services of different states such as Mysore, Coorg, Madras, Bombay and Hyderabad were brought under the Department of Health and Family Planning Services and the Directorate of Health and Family Welfare Services was established in 1977 (Kamble, 1984). Subsequently, five year plans focused on various developments in the health sector.

In the present policy brief, an attempt has been done to understand the position of health staff in Bagalkot district of Karnataka in terms of their professional background, demographic and social status on the one hand, and their opinion on the public healthcare infrastructure which was available during the time of field work in Bagalkot district of Karnataka on the other. The analysis is done for both rural and urban backgrounds for the study. In order to understand the existing healthcare infrastructure in terms of physical as well as human resource, the health officials at different levels in the selected healthcare facilities have been interviewed for the study. The problems being faced by the public

healthcare facilities and suggestions offered by them on various aspects were recorded by using a questionnaire that was designed exclusively for the purpose.

Data and Methods

In order to reveal the opinions of health officials on the public health infrastructure, primary investigation was done in 2018. The sample size was drawn from Bagalkot district and its taluks and general hospitals which represent the urban healthcare facilities. The rural healthcare centres were drawn from Community Health Centres (CHCs), Primary Health Centres (PHCs) and Sub Centres (SCs). Selected health facilities in Bagalkot district are seen in Fig 1. The opinions of the health staff and suggestions on various aspects were collected from 127 health staff members who include medical officers, paramedical staff, technicians, administrative staff and Group D employees. This can be seen in Table 1.

Opinions were sought mainly on six aspects of physical infrastructure regarding space availability, maintenance of building, cleanliness at hospitals, availability of essential health and laboratory equipments, availability of drugs and finally the workload of the health staff. However, before revealing the opinion of the health staff on public healthcare infrastructure, the demographic and social background of the respondents has been stated in the following section.

Fig 1: Selected Health Facilities in Bagalkot District

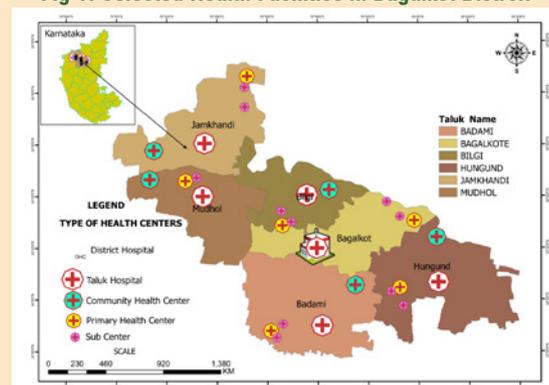


Table 1: Category-wise and Type of Hospital-wise Number of Staff

SN	CATEGORY	No. OF STAFF IN URBAN HOSPITALS				No. OF STAFF IN RURAL HOSPITALS				Urban plus Rural
		District Hospital	Taluk Hospital	GH	Total Urban	CHC	PHC	SC	Total Rural	
1	Medical officers	7	10	0	17	6	5	0	11	28
2	paramedical staff	1	9	2	12	13	13	19	45	57
3	Technicians	0	6	1	7	6	6	2	14	21
4	Administrative staff	1	0	0	1	0	3	0	3	4
5	Group D	0	3	3	6	5	6	0	11	17
	TOTAL	9	28	6	43	30	33	21	84	127

Source: Field work conducted in Bagalkot District in 2018.

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A-1: Composition of Sex

The health staff include both males and females. However, interestingly, all the selected health institutions have both male and female workers, which is seen in all categories excepting Group D employees. There were absolutely no female Group D employees in any of the hospitals. In other groups of staff, the proportion of males and females varied across different category of staff (Table 2). It is a general belief that qualified doctors, paramedical staff and technicians - especially female - prefer to serve in urban areas. Under this prevailing thought, it is pertinent to observe from Table 2 that a larger number of female medical officers and paramedical staff are working in rural hospitals as compared to the number in urban areas.

Table 2: Classification of Staff of Rural and Urban Hospitals by Sex

(As percentage of respective totals)

Sl. No.	Category of Staff	URBAN HOSPITALS		RURAL HOSPITALS		TOTAL	
		Male	Female	Male	Female	Male	Female
1	Medical officers	70.59	29.41	36.36	63.64	57.14	42.86
2	Paramedical staff	66.67	33.33	44.44	55.56	49.12	50.88
3	Technicians	85.71	14.29	57.14	42.86	66.67	33.33
4	Administrative staff	100.00	0.00	33.33	66.67	50.00	50.00
5	Group D	100.00	0.00	100.00	0.00	100.00	0.00
	TOTAL	76.74	23.26	52.38	47.62	60.63	39.37

Source: Field work conducted in Bagalkot District in 2018.

A-2: Age and Marital Status

The average ages of different category of staff working in urban areas and in rural areas are given in Table 3. Considering 60 years as the retirement age, the medical officers and paramedical staff, in a normal situation, would continue for another 16 to 20 years. A more or less similar situation can be observed in Table 3 on other groups of staff with respect to the number of years of service that they can expect to put in before their retirement. Around 18 per cent of the total number of staff is in the age group of 21 to 30 years which can be visualised in Figure 2.

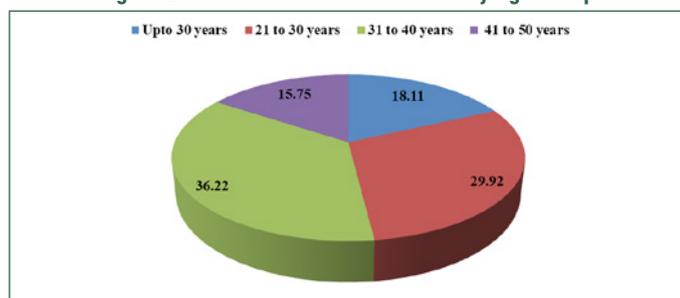
Table 3: Average Age of Health Staff

(Years)

SN	CATEGORY	URBAN HOSPITALS	RURAL HOSPITALS	TOTAL
1	Medical officers	44.00	44.00	44.00
2	Paramedical staff	43.58	38.67	39.70
3	Technicians	41.57	38.36	39.43
4	Administrative staff	43.00	40.33	41.00
5	Group D	34.33	40.82	38.53
	TOTAL	42.12	39.65	40.49

Source: Field work conducted in Bagalkot District in 2018.

Figure 2: Classification of Health Staff by Age Group



It can be seen from Table 4 that more than a quarter of the Group D workers of the rural area were unmarried. At the time of field work, the research team was given to understand that many of the Group D workers are working on a temporary basis; it is likely that pressure to regularise their appointments would increase further in the coming years. It is essential that the government initiates appropriate action to absorb the temporary staff working in the healthcare system of Karnataka.

Table 4: Marital Status of the Respondent Staff

(As a percentage of respective totals)

Sl. No.	Category of Staff	URBAN HOSPITALS		RURAL HOSPITALS		TOTAL	
		Married	Unmarried	Married	Unmarried	Married	Unmarried
1	Medical officers	100.00	0.00	100.00	0.00	100.00	0.00
2	Paramedical staff	100.00	0.00	91.11	8.89	92.98	7.02
3	Technicians	85.71	14.29	85.71	14.29	85.71	14.29
4	Administrative staff	100.00	0.00	100.00	0.00	100.00	0.00
5	Group D	83.33	16.67	72.73	27.27	76.47	23.53
	TOTAL	95.35	4.65	89.29	10.71	91.34	8.66

Source: Field work conducted in Bagalkot District in 2018.

A-3: Educational Backgrounds of Health Staff

A majority of the responding medical officers had a minimum qualification of a MBBS degree. A few medical officers of district and taluk hospitals had acquired even MS or MD degrees and they were specialised in various subjects such as Orthopedics, Pathology, Pediatrics, Gynaecology, Dental Sciences etc. As evident in Table 5, almost all the nurses, grouped under paramedical staff, were holding either nursing degree or nursing diploma. All the pharmacists, who are also a part of paramedical staff, were qualified for their profession as they have a degree or diploma in pharmaceutical sciences. Many of the administrative and Group D staff were educated up to SSLC level. Education level below high school was observed only in the case of Group D employees.

Table 5: Educational Status of Health Staff by category

(Number of staff members)

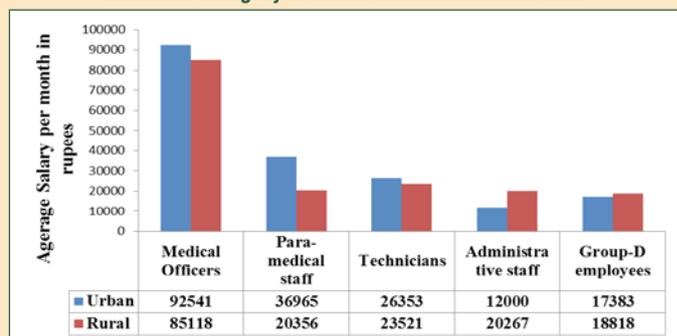
Sn	Category	MS/MD/MBBS/BAMS	D-Pharma/B-Pharma/M-Pharma	Degree/Diploma in Nursing or Health Related Courses	General Degree	SSLC/PUC	Below SSLC	Total
1	Medical officers	28	0	0	0	0	0	28
2	Paramedical staff	0	17	21	1	12	6	57
3	Technicians	0	1	12	4	4	0	21
4	Administrative staff	0	0	2	0	2	0	4
5	Group D	0	0	0	0	10	7	17
	TOTAL	28	18	35	5	28	13	127

Source: Field work conducted in Bagalkot District in 2018.

A-4: Salary status of Health Staff

Compilation and analysis of data pertaining to the salary of staff indicated that the amount of salary has a direct relation with designation. This is in line with the salary structure that could be seen in any government department or government set-up. The monthly average salary drawn by urban staff and rural staff is given in Figure 3.

Figure 3: Average Monthly Salary of Different Category of Urban and Rural health Staff



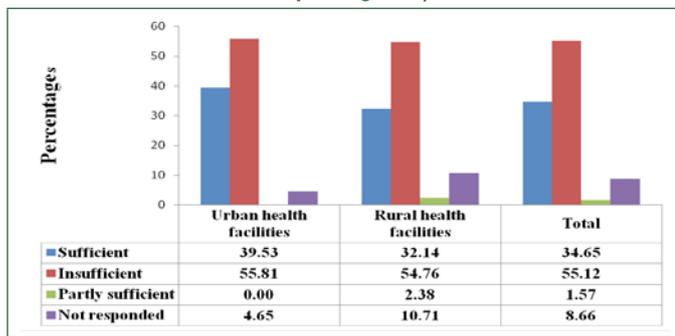
However, compensation or salary to government employees is a factor of the duration of service rendered, educational qualification and experience. Hence, it may not be apt to arrive at a conclusion of whether the staff is overpaid or underpaid or properly paid. Still, one observation that could be highlighted is that the medical officers, paramedical staff and technicians who are the core of healthcare systems have no incentive to serve in rural areas. It is a fact that the health service staff is reluctant to place themselves in rural areas. Hence, it is essential that the government encourages them to serve the rural population by increasing their salaries.

B: Opinion on the Public Healthcare Infrastructure

B-1: Space Availability

Space constraint and poor maintenance were the two most important problems that were noticed at first sight by the research team during the field visits to various health facilities. In order to reconfirm the situation, the staff members were specifically asked about space and building problems. Inadequacy of space was mentioned by around 55 per cent of the total staff. The opinion of urban staff and rural staff about space is given in Figure 4 with the corresponding table.

Figure 4: Opinion about Space (% to Respective Total Number of Responding Staff)

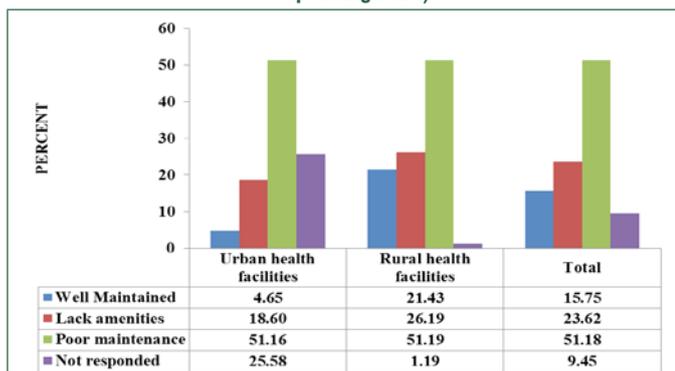


The staff of a few hospitals mentioned that they feel that space is not sufficient at places like drug storage or seating area for out-patients, The space was described as wholly or partly insufficient by some. On the other hand, some staff members, especially temporary staff, did not offer their opinion and hence they are grouped under 'not responded'.

B-2: Maintenance of Building

Poor maintenance of building was another problem mentioned by more than half of the staff who were interviewed. The problem was common in urban areas as well as in the rural hospitals. This can be seen from Figure 5. Although around 23 per cent of the staff, at aggregate level, mentioned that the buildings were reasonably well maintained, they were facing a problem of amenities like water, electricity and ventilation. Lack of amenities was more prevalent in CHCs, PHCs and SCs which were located in the rural part of Bagalkot district. Some urban hospitals were judged as neither good nor bad by the staff. Hence, they did not offer any comment on the status of the building.

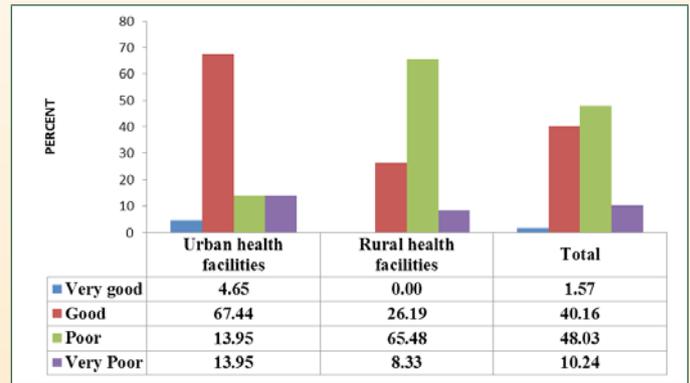
Figure 5: Opinion on Building (% to Respective Total Number of Responding Staff)



B-3: Cleanliness at Hospitals

Cleanliness in hospitals was rated as 'poor' by around two-thirds of the rural staff and around 8 per cent of rural staff described cleanliness as 'very poor'. Only a few urban hospitals were considered as 'very good' by the staff. Figure 6 would help us to understand the ratings of staff about cleanliness in their hospitals. A rating of 'Very Good' was given by the staff of those hospitals which are clean in all respects. Many hospitals were rated only as 'Good' for the reason that the toilets and washrooms were very bad, though other facilities were very good.

Figure 6: Opinion on Cleanliness (% to Respective Total Number of Responding Staff)



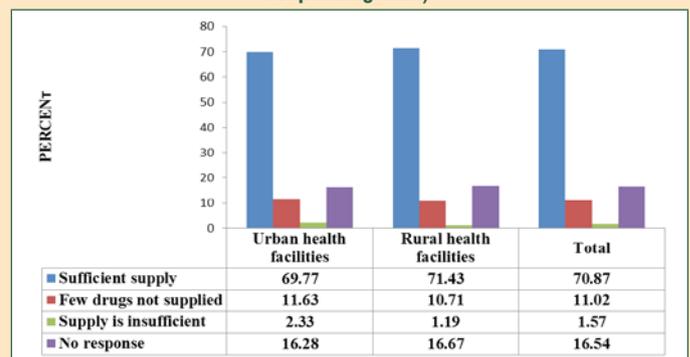
B-4: Availability of Essential Equipment

The availability of essential equipment was not a problem according to a little more than half of the staff at aggregate level. There was no dearth of equipment in urban hospitals as almost all the staff mentioned they have access to all the necessary equipment. However, repair and maintenance of the equipment was found to be an issue in urban hospitals. Non-availability of some types of equipment was observed in rural hospitals. If the repair and maintenance issue is taken care of, then the issue pertaining to equipment would be wiped out to a very great extent.

B-5: Availability of Drugs

The staff expressed a high level of satisfaction as far as the supply of drugs was concerned. Surprisingly, in percentage terms, the percentage of rural staff who mentioned that the drugs were easily available was slightly higher than the urban staff. This can be observed in Figure 7. Antibiotics, blood sugar testing kits, pain-killers and diabetes medicines were the most important drugs which were not available. The staff who were not directly connected with drug supply did not comment on drug availability. Hence, they were recorded as no response.

Figure 7: Availability of drugs (% to respective total number of responding staff)



B-6: Workload of Health Staff

On an average, the working medical officers of the district hospitals attended to around 22 patients per day. The number of patients to be attended by each working medical officer at taluk hospitals, CHCs and PHCs was found to be even higher at 43 patients, 104 patients and 84 patients per day respectively. This work burden of a working medical officer naturally

percolates down to paramedical and technical staff. Hence, it is not beyond expectation if around 62 per cent of the total health staff mentioned that their workload is above justifiable limits. It is evident in Table 6.

Table 6: Number of Health Staff Feeling Workload is High

SN	CATEGORY	Total Number of sample working health staff	Health staff who feel the work burden is above justifiable limits	
			Number	Per cent to total staff
1	Medical officers	28	21	75.00
2	Paramedical staff	57	32	56.14
3	Technicians	21	13	61.90
4	Administrative staff	4	2	50.00
5	Group D	17	11	64.71
	TOTAL	127	79	62.20

Source: Field work conducted in Bagalkot District in 2018.

The wide gap between the sanctioned number of posts and the posts actually available is the main reason that makes the existing health staff feel that the workload is heavy for them. As much as around 65 per cent of the total interviewed health staff suggested filling-in of different category of health staff posts on a priority basis. Another 20 per cent of the health staff mentioned that the existing human resources are insufficient. However, they did not precisely specify any group of employees while mentioning the human resource shortage. Table 7 provides the number of health staff who felt the human resources are insufficient, those who felt they are sufficient, and the groups requiring appointments.

Table 7: Requirement of Staff as per the Responding Health Staff

Sl. No.	Shortage of staff	Presently working g	Requirement	Total	Percent to total
A	Staff is insufficient (Group mentioned)				
A.1	Medical officers	2	13	15	11.81
A.2	Pharmacists	2	6	8	6.30
A.3	Nurses	4	10	14	11.02
A.4	Technicians	1	1	2	1.57
A.5	Group D employees	5	27	32	25.20
A.6	ANM	0	3	3	2.36
A.7	JHW	0	9	9	7.09
	Total - A	14	69	83	65.35
B	Staff is insufficient (Group not mentioned)	10	15	25	19.69
	Total of staff insufficient (A+B)	24	84	108	85.04
C	Staff is sufficient	4	15	19	14.96
	GRAND TOTAL (A+B+C)	28	99	127	100.00

Source: Field work conducted in Bagalkot District in 2018.

All categories of staff offered their opinions on the sufficiency and insufficiency of human resources. However, more weight has to be accorded for the opinions of medical officers as they are the hospital controlling officers. As such, the HR insufficiency situation explained by 24 medical officers needs to be taken seriously and efforts should be made to fill-in the vacancies of all the posts.

Policy Implications

- By and large, public health facilities have all necessary health equipments. However, proper maintenance needs to be undertaken.
- Except in PHCs and CHCs, there is a space crunch, and hence, it was drawn attention to by the concerned health department.

- It is essential that the procedures for obtaining approvals for various levels must be shortened.
- It is also necessary to grant an adequate amount of funds to take up building related issues.
- Due to the heavy inflow of in-patients and out-patients at taluk hospitals, district hospitals and CHCs, cleanliness is an arduous task in the absence of staff appointed exclusively for cleanliness purpose. Hence, it is recommended that sweepers must be hired on a daily basis exclusively for cleaning purposes.
- The study also suggests the need to create a dining hall in the district hospital for the purpose of maintaining cleanliness in in-patient wards.
- Appointment of more doctors, especially specialist doctors, needs to be done in CHCs and SDHs.
- Most of the staff of health facilities are within the age group of 40 to 45 years. Hence, they still have many years of service left. Therefore, preference should be given for training to upgrade their knowledge and skills in public health.
- It is essential that the government take appropriate action to absorb the temporary staff working in the healthcare system to strengthen the human resources.
- It is a fact that the health staff is reluctant to place themselves in rural areas. Hence, it the government needs to encourage them to serve the rural population by increasing their salaries.
- Sufficient space needs to be provided for drug storage as well as the seating area for the out-patient department.
- A lack of amenities was more prevalent in CHCs, PHCs and SCs, which was brought to the attention of the government.
- Important drugs like antibiotics, pain killers and diabetes medicines are not in sufficient quantity in the selected health facilities, and need to be provided.
- The heavy work burden of a working medical officer naturally percolates down to paramedical and technical staff. Hence, necessary steps need to be taken to provide health staff at CHCs and PHCs.

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