# Inequality in the Distribution of Health Facilities in Rural Areas of Himachal Pradesh

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Abstract: In the present paper an attempt has been made to examine the inequality in the distributions of health facilities in rural areas of Himachal Pradesh by using secondary data. The results show that the CHC's, PHC's and Sub-Centre's are highly dominated in rural areas of Kangra, Shimla and Kullu districts of the State. Further ESI dispensaries/Institutions are dominated in Solan district and T. B institutions are in rural areas of Mandi and Kangra districts of the State.

Keywords: Inequality, Health Facilities, Himachal Pradesh

#### 1. Introduction

The availability and accessibility of health service is highly chaotic in nature with huge disparities, existing in the rural and urban, tribal and non-tribal areas among different states of India. Health is an important aspect of human well being. Human society is defined by World Health Organization as a state of complete physical, mental and social well being and not merely the absence of a disease or infirmity to lead a socially and economically productive life. This definition widely accepted among all nation-state, primarily implies conducive to lead a socio-economically and perspective good life. Regarding the significance, all the countries have assumed the responsibilities to provide quality health services to all the citizens to develop healthy society.

Health is a vital indicator of human development. Health standards in India have improved considerably since independence. The concerted efforts of the government and other agencies engaged in expanding that health infrastructure have paid off, as evidenced by the improvement in some of health indicators. Longevity has more than doubled since independence, infant mortality rate has fallen, malaria has been contained, small pox and guinea worn have been completely eradicated and leprosy and polio are nearing elimination.

Himachal Pradesh is a hilly and mountainous state, having difficult terrain and topography. Thus, it has maintained a marked and steady overall progress in all the socioeconomic sectors ever since it came into being in 1948. Health and education are the two important services where the state is doing quite well. A new era in health services started when Himachal attained statehood in 1971. About 19 per cent population of Himachal Pradesh settled in rural areas. The state Govt. has ensured that health services for effective prevention and treatment intervention care accessible to people and applied efficiently. Health and Family Welfare department is providing services which include curative, prevention, promoting and rehabilitative services. To providing better health services to the people the government is strengthening the existing infrastructure. Himachal Pradesh implemented of the National Health Policy and various National Health Programmes like National Rural Health Mission (NRHM), Reproductive and Child Health (RCH), Revised National Tuberculosis Control Programme (RNTCP), AIDS Control, National Blindness Programme, National Leprosy Control Eradication Programme (NLEP), Cancer Control Project, National Mental Health Programme and Health Care Component of the Employee's State Insurance Corporation (ESIC). Himachal Pradesh has been included among 18 State of the country for the implementation of National Rural Health Mission (NRHM). NRHM is a landmark for providing accessible and affordable health care to all citizens living in rural areas particularly to the poorer and weaker sections. It lays stress on reducing maternal and infant mortality, universal access to public health services, prevention and control of communicable and non-communicable disease, ensuring population stabilization, maintaining gender balance, revitalization of local health traditions and promotion of healthy life styles. Under the overall umbrella of NRHM a number of programmes especially the Reproductive and Child Health Programme (RCH-II), Immunization Programme, Janani Surksha Yojna (JSY) and Disease Control Programme has been included. The mission focuses on decentralized implementation of the activities and funneling of funds, it sets the stage for Distt. Management of Health and active community participation in the implementation of health programmes. The Himachal Pradesh Govt. has already constituted the State and District Health Mission and grass-root activities have been started with zeal and zest. In Himachal Pradesh, a socially developed state has done considerably well in social sector i. e. health and education. Himachal Pradesh is a mountainous state of north India which acquires special category states in Indian Territory. Although there are geographical barriers due to rugged and difficult terrain, however, the state of has a widespread network of health services facilities all over the state.

#### 2. Objectives

- 1) To examine the inequality in the distribution of health facilities in rural area of Himachal Pradesh.
- 2) To give a set of suggestion to improve the health services in rural area of Himachal Pradesh.

### Volume 11 Issue 3, March 2022

<u>www.ijsr.net</u>

#### **3. Research Methodology**

The secondary data on distributions of health institutions in rural areas of Himachal Pradesh have collected from directorate of Health services Government of Himachal Pradesh. Further, to get the basic knowledge about the present research problem, different journals, periodicals, books, published and unpublished thesis and dissertation were also consulted. In-order to achieve the objectives disparities in their distribution across the districts is worked out with the help of Lorenz curve.

#### 4. Results and Discussion

#### **4.1 Inequality in the distribution of Community Health** Centres in Rural Areas of Himachal Pradesh

The cumulative percentage of the number of Community health centres as well as the districts falling in each health facilities group in the rural areas of Himachal Pradesh has been presented in Table 1. The cumulative percentage of the Community Health Centres and the districts when plotted on the graph paper gives the resultant shape of the Lorenz Curve which is evident from Figure 1. This Figure clearly indicates that the bottom 30 per cent districts having only 14 per cent Community Health Centres, whereas the top 30 per cent districts having 60 per cent Community Health Centres.

Table 1:	Inequality	in the	distribution of	of Community	/ Health	Centre in	Rural Area	s of Himachal Pradesh

Community Health Centres	Community Health	Cumulative Value of	Cumulative	Districts	Cumulative Value	Cumulative	
Group (No.)	Centres (No.)	Community Health Centres	Percentage	(No.)	of Districts	Percentage	
0-5	21	21	24.70	6	6	50	
5-10	18	39	45.88	3	9	75	
10-15	11	50	58.82	1	10	83.33	
15 & Above	35	85	100	2	12	100	

Source: DHS, GoHP

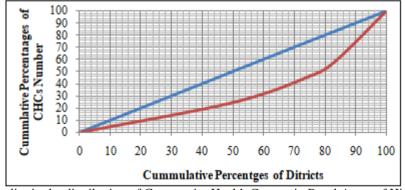


Figure 1: Inequality in the distribution of Community Health Centres in Rural Areas of Himachal Pradesh

## **4.2 Inequality in the distribution of Primary Health Centres in Rural Areas of Himachal Pradesh**

The cumulative percentage of the Primary Health Centres and the districts when plotted on the graph paper gives the resultant shape of the Lorenz Curve which is evident from Figure 2. This Figure clearly indicates that the bottom 30 per cent districts having only 14 per cent Primary Health Centres, whereas the top 30 per cent districts having 55 per cent Primary Health Centres.

Primary Health Centres	Primary Health	Cumulative Value of	Cumulative	Districts (No.)	Cumulative Value	Cumulative		
Group (No.)	Centres (No.)	Primary Health Centres	Percentage		of Districts	Percentage		
0-30	92	92	16.31	4	4	33.33		
30-40	107	199	35.28	3	7	58.33		
40-50	89	288	51.06	2	9	75.00		
50 & Above	276	564	100	3	12	100		

Source: DHS, GoHP

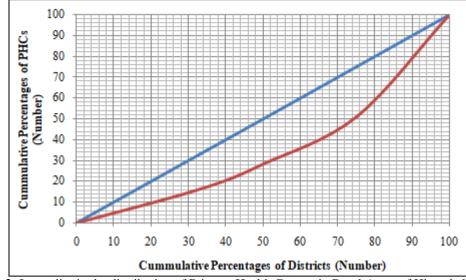


Figure 2: Inequality in the distribution of Primary Health Centres in Rural Areas of Himachal Pradesh

#### **4.3 Inequality in the distribution of Sub-Centres in Rural Areas of Himachal Pradesh**

The cumulative percentage of the Sub-Centres and the districts when plotted on the graph paper gives the resultant

shape of the Lorenz Curve which is evident from Figure 3. This Figure clearly indicates that the bottom 30 per cent districts having only 16 per cent Sub-Centres, whereas the top 30 per cent districts having 55 per cent Sub-Centres.

Table 3: Inequality in the distribution of Sub-Centres in Rural Areas of Himachal Pradesh

Sub-Centre	s Group Sub-Cer	ntres Cumulative	Cumulative	Districts	Cumulative	Cumulative
(No.	) (No.	) Sub-Centres	Percentage	(No.)	Value of Districts	Percentage
0-15	578	578	27.47	6	6	50.00
150-2	00 502	1080	51.33	3	9	75.00
200-4	00 583	1663	79.04	2	11	91.67
400 & A	bove 441	2104	100	1	12	100

Source: DHS, GoHP

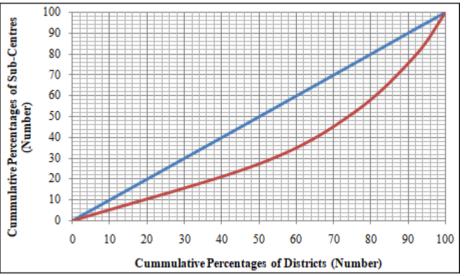


Figure 3: Inequality in the distribution of Sub-Centres in Rural Areas of Himachal Pradesh

# 4.4 Inequality in the distribution of ESI Dispensaries/Institutions in Rural Areas of Himachal Pradesh

The cumulative percentage of the ESI Dispensaries/Institutions and the districts when plotted on

the graph paper gives the resultant shape of the Lorenz Curve which is evident from Figure 4. This Figure clearly indicates that the bottom 30 per cent districts having only 6 per cent ESI/dispensaries, whereas the top 30 per cent districts having 80 per cent ESI/Dispensaries.

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<b>Table 4:</b> Inequality in the distribution of ESI Dispensaries/Institutions in Rural Areas of Himachal Pradesh	
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ESI Dispensaries	ESI Dispensaries	Cumulative Value of	Cumulative	Districts	Cumulative Value	Cumulative
Group (No.)	(No.)	ESI Dispensaries	Percentage	(No.)	of Districts	Percentage
0-1	3	3	16.67	8	8	66.67
1-3	5	8	44.44	2	10	83.33
3-5	4	12	66.67	1	11	91.67
5 & Above	6	18	100	1	12	100

Source: DHS, GoHP

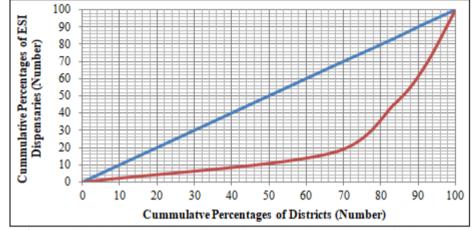


Figure 4: Inequality in the distribution of ESI/Dispensaries in Rural Areas of Himachal Pradesh

## **4.5 Inequality in the Distribution of T. B. Institutions in Rural Areas of Himachal Pradesh**

Inequality in the distribution of T. B. institutions in Health facilities in Rural Areas of Himachal Pradesh is given in Table-5. The cumulative percentage of the T. B. institutions

and the districts when plotted on the graph paper gives the resultant shape of the Lorenz Curve which is evident from Figure 5. This Figure clearly indicates that the bottom 30 per cent districts having only 13 per cent T. B. institutions, whereas the top 30 per cent districts having 58 per cent T. B. institutions.

Table 5: Inequality in the Distribution of T. B. Institutions in Rural Areas of Himachal Pradesh

T. B. Institutions	T. B. Institutions	Cumulative Value of T.	Cumulative	Districts	Cumulative Value	Cumulative
Group (No.)	(No.)	<b>B.</b> Institutions	Percentage	(No.)	of Districts	Percentage
0-3	8	8	11.94	3	3	25
3-5	12	20	29.85	3	6	50
5-7	17	37	55.22	3	9	75
7 & Above	30	67	100	3	12	100

Source: DHS, GoHP

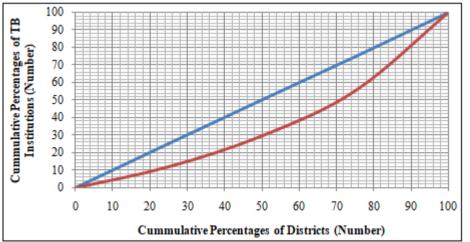


Figure 5: Inequality in the Distribution of T. B. Institutions in Rural Areas of Himachal Pradesh

# 4.6 Inequality in the Distribution of RTD (STD) Clinics in Rural Areas of Himachal Pradesh

The cumulative percentage of the RTD (STD) clinics and the districts when plotted on the graph paper gives the

resultant shape of the Lorenz Curve which is evident from Figure 6. This Figure clearly indicates that the bottom 30 per cent districts having only 16 per cent RTD (STD) clinics, whereas the top 30 per cent districts having 54 per cent RTD (STD) clinics.

### Volume 11 Issue 3, March 2022

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<b>Table 6:</b> Inequality in the Distribution of RTD	(STD) Clinics in Rural Areas of Himachal Pradesh
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	RTD (STD) Clinics	RTD (STD) Clinics	Cumulative Value of RTD (STD)	Cumulative	Districts	Cumulative Value	Cumulative
	Group (No.)	(No.)	Clinics	Percentage	(No.)	of Districts	Percentage
	0-2	11	11	26.83	6	6	50.00
	2-4	6	17	41.46	2	8	66.67
	4-6	9	26	63.41	2	10	83.33
	6 & Above	15	41	100	2	12	100
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Source: DHS, GoHP

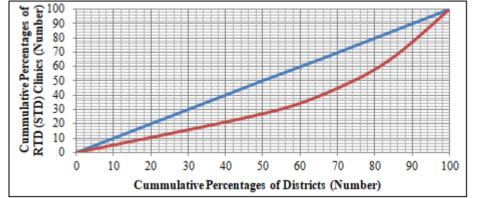


Figure 6: Inequality in the Distribution of RTD (STD) Clinics in Rural Areas of Himachal Pradesh

# 4.7 Inequality in the Distribution of Dental Clinics in Rural Areas of Himachal Pradesh

The cumulative percentage of the dental clinics and the districts when plotted on the graph paper gives the resultant

shape of the Lorenz Curve which is evident from Figure 7. This Figure clearly indicates that the bottom 30 per cent districts having only 17 per cent dental clinics, whereas the top 30 per cent districts having 50 per cent dental clinics.

Dental Clinics	Dental Clinics	Cumulative Value	Cumulative	Districts	Cumulative Value	Cumulative
Group (No.)	(No.)	of Dental Clinics	Percentage	(No.)	of Districts	Percentage
0-10	8	8	3.45	1	1	8.33
10-15	38	46	19.83	3	4	33.33
15-20	82	128	55.17	5	9	75.00
20-30	28	156	67.24	1	10	83.33
30 & Above	76	232	100	2	12	100

Source: DHS, GoHP

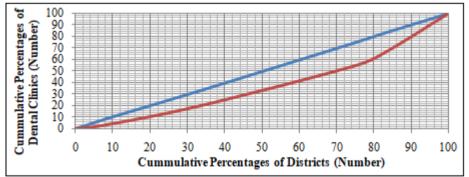


Figure 7: Inequality in the Distribution of Dental Clinics in Rural Areas of Himachal Pradesh

# **4.8 Inequality in the Distribution of X-Rays Clinics in Rural Areas of Himachal Pradesh**

The cumulative percentage of the X-Rays clinics and the districts when plotted on the graph paper gives the resultant

shape of the Lorenz Curve which is evident from Figure 8. This Figure clearly indicates that the bottom 30 per cent districts having only 14 per cent X-Rays clinics, whereas the top 30 per cent districts having 60 per cent X-Rays clinics.

Table 8: Inequality in the Distribution of X-Rays Clinics in Rural Areas of Himachal Pradesh

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X-Rays Clinics	X-Rays	Cumulative Value of	Cumulative	Districts	Cumulative Value	Cumulative		
Group (No.)	Clinics (No.)	X-Rays Clinics	Percentage	(No.)	of Districts	Percentage		
0-6	4	4	2.72	1	1	8.33		
6-8	33	37	25.17	5	6	50.00		

### Volume 11 Issue 3, March 2022

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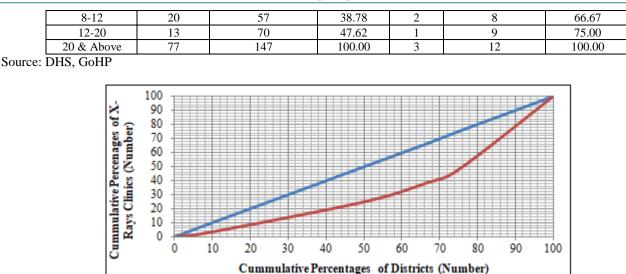


Figure 8: Inequality in the Distribution of X-Rays Clinics in Rural Areas of Himachal Pradesh

### **4.9 Inequality in the Distribution of Maternity and Child Welfare Clinics in Rural Areas of Himachal Pradesh**

The cumulative percentage of the Maternity and Child Welfare clinics and the districts when plotted on the graph paper gives the resultant shape of the Lorenz Curve which is evident from Figure 9. This Figure clearly indicates that the bottom 30 per cent districts having only 18 per cent maternity and child welfare clinics, whereas the top 30 per cent districts having 60 per cent maternity and child welfare clinics.

**Table 9:** Inequality in the Distribution of Maternity and Child Welfare Clinics in Rural Areas of Himachal Pradesh

Maternity and Child Welfare Clinics Group (No.)	~	Cumulative Value of Maternity and Child Welfare Clinics	Cumulative Percentage		Cumulative Value of Districts	Cumulative Percentage
0-1	3	3	15.79	6	6	50.00
1-2	6	9	47.37	3	9	75.00
2-3	6	15	78.95	2	11	91.67
3 & Above	4	19	100	1	12	100

Source: DHS, GoHP

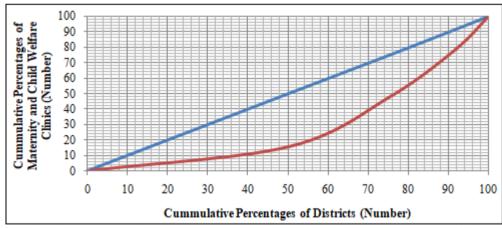


Figure 9: Inequality in the Distribution of Maternity and Child Welfare Clinics in Rural Areas of Himachal Pradesh

# 4.10 Inequality in the distribution of beds in Health facilities in Rural Areas of Himachal Pradesh

Inequality in the distribution of beds in Health facilities in Rural Areas of Himachal Pradesh is given in Table-3.20. The cumulative percentage of the beds and the districts when plotted on the graph paper gives the resultant shape of the Lorenz Curve which is evident from Figure 10. This Figure clearly indicates that the bottom 30 per cent districts having only 13 per cent beds in health facilities, whereas the top 30 per cent districts having 58 per cent beds availability in their health facilities.

Table 10: Inequality in the distribution of beds in Health facilities in Rural Areas of Himachal Pradesh

Beds Group	Beds Available in	Cumulative Value of Beds	Cumulative	Districts	Cumulative Value	Cumulative
(No.)	Health Facilities (No.)	Available in Health Facilities	Percentage	(No.)	of Districts	Percentage
0-350	536	536	6.07	2	2	16.67

### Volume 11 Issue 3, March 2022

### <u>www.ijsr.net</u>

350-450	1181	1717	19.45	3	5	41.67
450-650	1693	3410	38.63	3	8	66.67
650-1000	2863	6273	71.07	3	11	91.67
1000 & Above	2554	8827	100	1	12	100

Source: DHS, GoHP

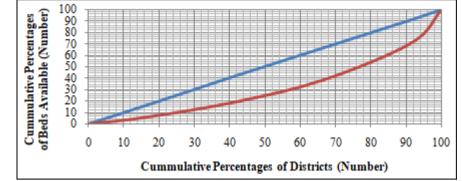


Figure 10: Inequality in the distribution of beds in Health facilities in Rural Areas of Himachal Pradesh

#### 5. Conclusion

From the above analysis it can be concluded that the highest number of Community Health Centres, Primary Health Centres and Sub-Centres is in Kangra, Shimla and Kullu districts of the state. ESI dispensaries/institutions are highly dominated in Solan district and T. B. institutions are in rural areas of Mandi and Kangra districts. Whereas leprosy institutions are equally distributed in rural areas of Chamba, Kangra, Kinnaur and Solan district of the state. The RTD (STD) clinics are observed to be highest in rural areas of Kangra district and lowest in rural areas of Bilaspur district. Further X-Rays clinics are also highly dominated in rural areas of Kangra district. The maternity & child welfare clinics are highest in Mandi district of the state.

#### 6. Policy Recommendations

- Responsibility for care of a defined population should be entrusted to the entire primary healthcare team. The team should be consists of the CHC, PHC and Sub-Centres staff and likely to provide comprehensive and continued care.
- 2) Primary care team should be adequately supported through regular skilling, incentives, and supervision. Appropriate technological solutions should be provided to help them deliver quality healthcare
- 3) Allocate a large proportion of postgraduate seats for family-centered care with rural immersion. In recent years, there has been a huge increase in postgraduate seats (MD/MS) for medical graduates. Allocating them to family medicine, with appropriate training in rural health care settings, will bring about the change in focus from tertiary care to primary care. It would require setting up family medicine programs in medical colleges, with strong rural focus.
- 4) A large number of state-funded medical colleges are being set up in district hospitals, most of which are rural. Entrusting them with healthcare of their respective districts, focusing on sourcing rural students, adapting their training curricula to meet local needs, and helping them place within the districts would help them fulfill their social accountability. In such colleges, focus

should be on primary and secondary care rather than tertiary care

- 5) Identify and accredit rural training sites for rural health professionals, It would ensure sustained and high-quality training of a large number of professionals required for managing CHCs, PHCs and Sub-Centre. The staff of these training sites should be accorded a faculty status.
- 6) Government should set up an empowered group to define improvements in training, living, security and working conditions for rural healthcare professionals.
- 7) Government should ensure the proper and adequate connectivity of internet facility in the rural health facilities in Himachal Pradesh.
- 8) In the rural areas there is problem of transport facility; Government should ensure adequate transport facility, so the patient can easily avail the health facilities available in health institutions.
- 9) There should not be political interference in postings and transfer of medical professionals, Nurses and other health workers. There should be a compulsory service for every health staff in rural areas, so the problem of manpower can be resolve.

Note: Present paper is outcome of the PRC study entitled," An Evaluation of Health Services In Rural Areas of Himachal Pradesh

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### Volume 11 Issue 3, March 2022

www.ijsr.net

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