Summer Training at
NITI Aayog, New Delhi
(March 27 to May 26, 2017)

- **Non – Availability of Qualified Medical Personnel in Rural Hinterland - Plausible Solutions**
- **Best Practices in Private Sector Healthcare**

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MBA Hospital & Health Management
2016-2018

Institute of Health Management Research
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2017

INSTITUTE OF HEALTH
MANAGEMENT RESEARCH
(WHO Collaborating Centre for District Health System Based on Primary Health Care)

IIHMR UNIVERSITY

CERTIFICATE

This is to certify that **Dr. Ila Bhatia** has undergone summer training in **NITI Aayog, New Delhi** from 27 March to 26 May 2017.

The candidate herself completed the project assign to her during summer training. Her approach to the project was sincere and proactive. This summer training is in partial fulfillment of the course requirement recommended for the award of MBA in Hospital and Health Management.

I wish her success in all her future endeavors.

Col. (Dr.) Ashok Kaushik

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D.O. No. 15 (5)/2016-H&FW

Dated 26th May, 2017

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Dr. Ila Bhatia, a student of IIHMR, Jaipur, has successfully completed her Internship with NITI Aayog, Government of India from 27.03.2017 to 26.05.2017. During her internship period, she worked in H&FW Division and was assigned the projects viz. "Non availability of qualified medical personnel (doctors) in rural areas-Plausible solutions" and "best practices in private sector healthcare"

2. During the tenure, she has shown keenness and interest in the work. She was punctual and hardworking.

3. I wish her success in life and career.

(Alok Kumar)
Adviser (Health & Nutrition)

Acknowledgements

I wish to express my sincere gratitude to Shri Alok Kumar, Advisor for providing me an opportunity to do Summer Internship at Health and Family Welfare Division, NITI Aayog.

I sincerely thank Shri Sumant Narain, Director for his guidance and encouragement in carrying out the project work.

I also wish to express my gratitude to my supervisor Ms. Jyoti Khattar, RO, my mentor Dr Rimy Khurana, RA, Dr. Kheya Furtado, RA and Ms Urvashi (Public Policy Specialist), for their advice, continuous support and encouragement.

I would also like to thank the officials and other staff members of NITI Aayog who rendered their help, in any way possible, for this project.

I would also like to thank Col. (Dr.) Ashok Kaushik, Dean Academics, IIHMR University, Jaipur who advised me, as my mentor and guide, despite his many other academic and professional commitments. His wisdom, knowledge and commitment to the highest standards has inspired and motivated me.

Finally, I would like to thank my colleagues and friends for their encouragement and assistance.

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PROJECT- I

Non – Availability of Qualified Medical Personnel in Rural Hinterland - Plausible Solutions

Introduction:

Availability of adequate manpower is one of the most essential requirements of efficient and effective functioning of rural health services. Despite application of a whole array of interventions, it has been found that there are substantial no. of vacancies (of doctors) in public health facilities in rural areas.

Lack of medical qualification is disproportionately concentrated in rural areas.[1]

As per WHO norms, there should be 23 health workers (doctors, nurses, and midwives) per 10,000 population [2]

Even though personnel are present, their level of participation in providing health services is lower than desired due to lack of inadequate and poor functioning of equipments, improper supply of drugs and vaccines, poor co-operation and co-ordination with paramedical staff and so on.[3]

Research surveys of have also shown that in addition to manpower shortages, the great degree of absenteeism among the health providers has been the focus of research in recent times.[4]

Various other reasons that have been attributed to the same are serious lack of zealous administrative action towards effective service provisioning, failure to provide basic infrastructure and incentive structure, not necessarily monetary but in terms of job environment and recognition for doctors and other health workers to be motivated enough to do their jobs.[5]

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1. The Health Workforce in India, WHO – 2016, Sudhir Anand and Victoria Fan , WHO, 2016 (Based on 2001 census data)
2. World Health Organisation's Global Atlas of the Health Workforce.
3. B. Dey, A. Mitrab, K. Prakash, A. Basud, S. Raye, A. Mitraa, Gaps in Health Infrastructure in Indian Scenario: A Review, Indo Global Journal of Pharmaceutical Sciences, 2013; 3(2): 156-166
4. N. Chaudhury, J. Hammer, M. Knemer, et al. Missing in action: Teacher and Health Worker Absence in developing countries. J. Eco. Prespec, 2003, 20: 265-285.
5. Bannerjee, C.D. Esther, D. Angus. Health care delivery in rural Rajasthan. Eco. Poli. Weekly, 2004, 39(9):944-949.

Objectives:

a. To find the various problems faced by the doctors working in rural areas.
b. Suggest solutions that can be applied to mitigate the same.

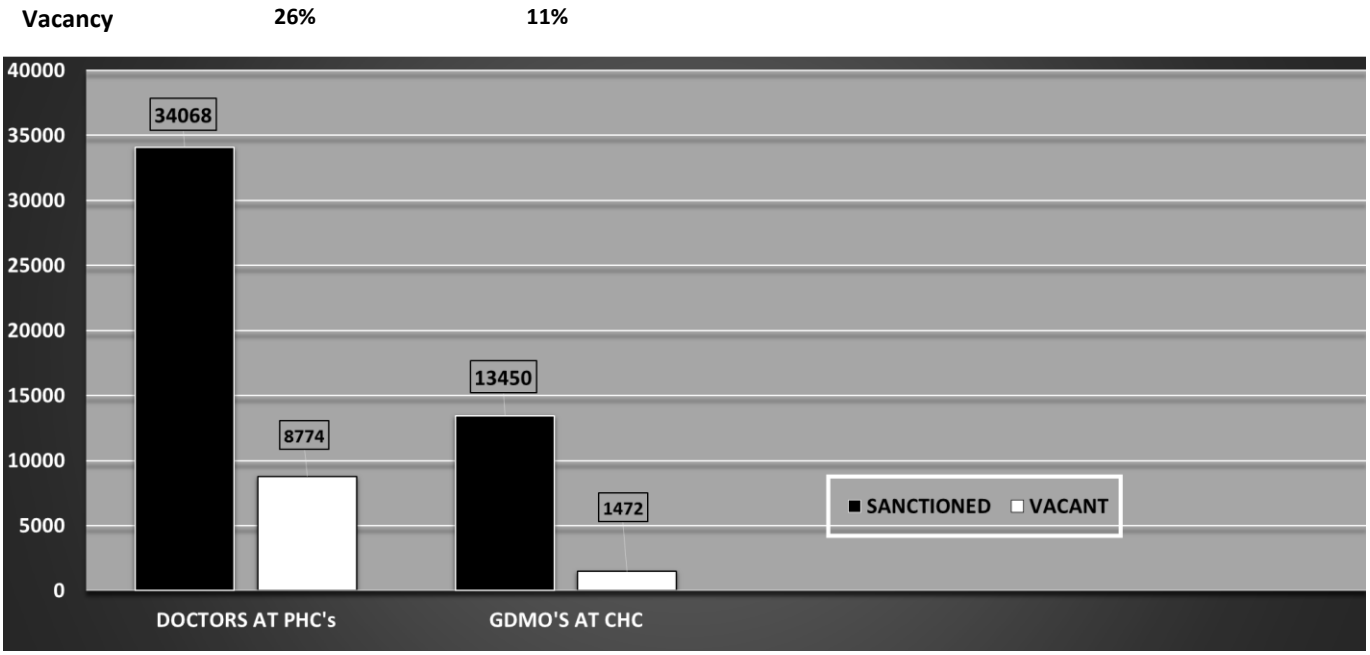
Method of Data Collection:

Data from published literature and secondary sources was collected and analysed. Apart from this, NHSRC Reports have also been taken into consideration (observations and recommendations).

Data Compilation, Analysis and Interpretation:

As Per the Existing data:

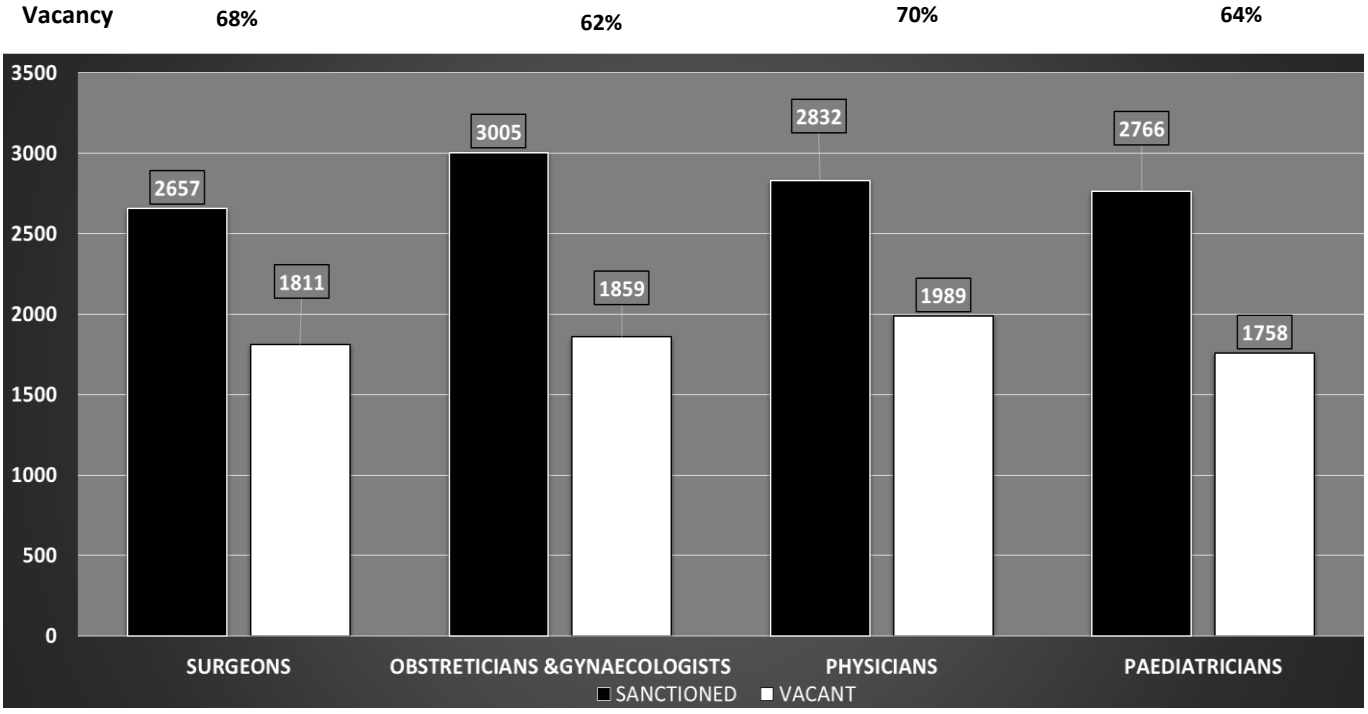
1. Status Of Health Manpower As Per The Rural Health Statistics 2016:



Excluding Sikkim, Arunachal Pradesh, Assam, Bihar & Mizoram

Excluding Sikkim, Arunachal Pradesh, Assam, Bihar & Mizoram

Fig 1 : Status of Health Manpower (Doctors) as per the Rural Health Statistics 2016



Excluding Arunachal Pradesh, Assam, Bihar, Kerala, Himachal Pradesh, Nagaland & Sikkim.

Excluding Arunachal Pradesh, Assam, Bihar, Kerala, Himachal Pradesh, Nagaland & Sikkim.

Excluding Arunachal Pradesh, Assam, Bihar, Himachal Pradesh, Nagaland, Sikkim & Tamil Nadu.

Excluding Arunachal Pradesh, Assam, Bihar, Himachal Pradesh, Meghalaya, Nagaland, Sikkim, Tamil Nadu & Chandigarh

Fig 2 : Status Of Health Manpower (Specialist Doctors) as Per The Rural Health Statistics 2016

2. Projected HR Statics and Population Projections for India for 2016, FYP- 2012-2017, RGI Report, 2006

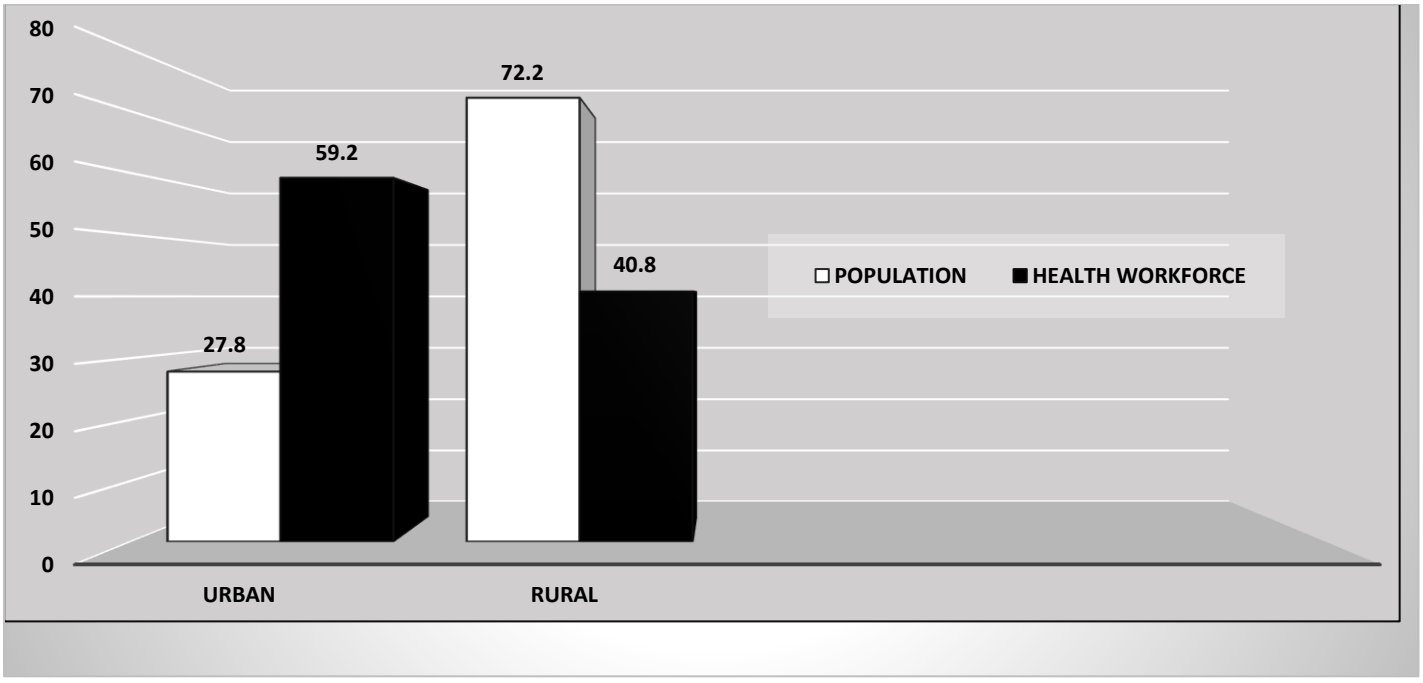
- Projected Total Population of India= 1,26,89,61,000
- Projected Rural Population of India (%) = 68.9%
- Total Rural Population of India = 87,43,14,129

- Desirable density of Physicians = 85/lakh,
  Total No. Of Physicians catering to the Rural Population = 7,43,167
- Desirable density of AYUSH doctors = 49 /lakh
  Total No. Of AYUSH Doctors catering to the Rural Population = 4,28,413
- Desirable density of Dentists = 15/lakh,
  Total No. of Dentists catering to the Rural Population = 1,31,147

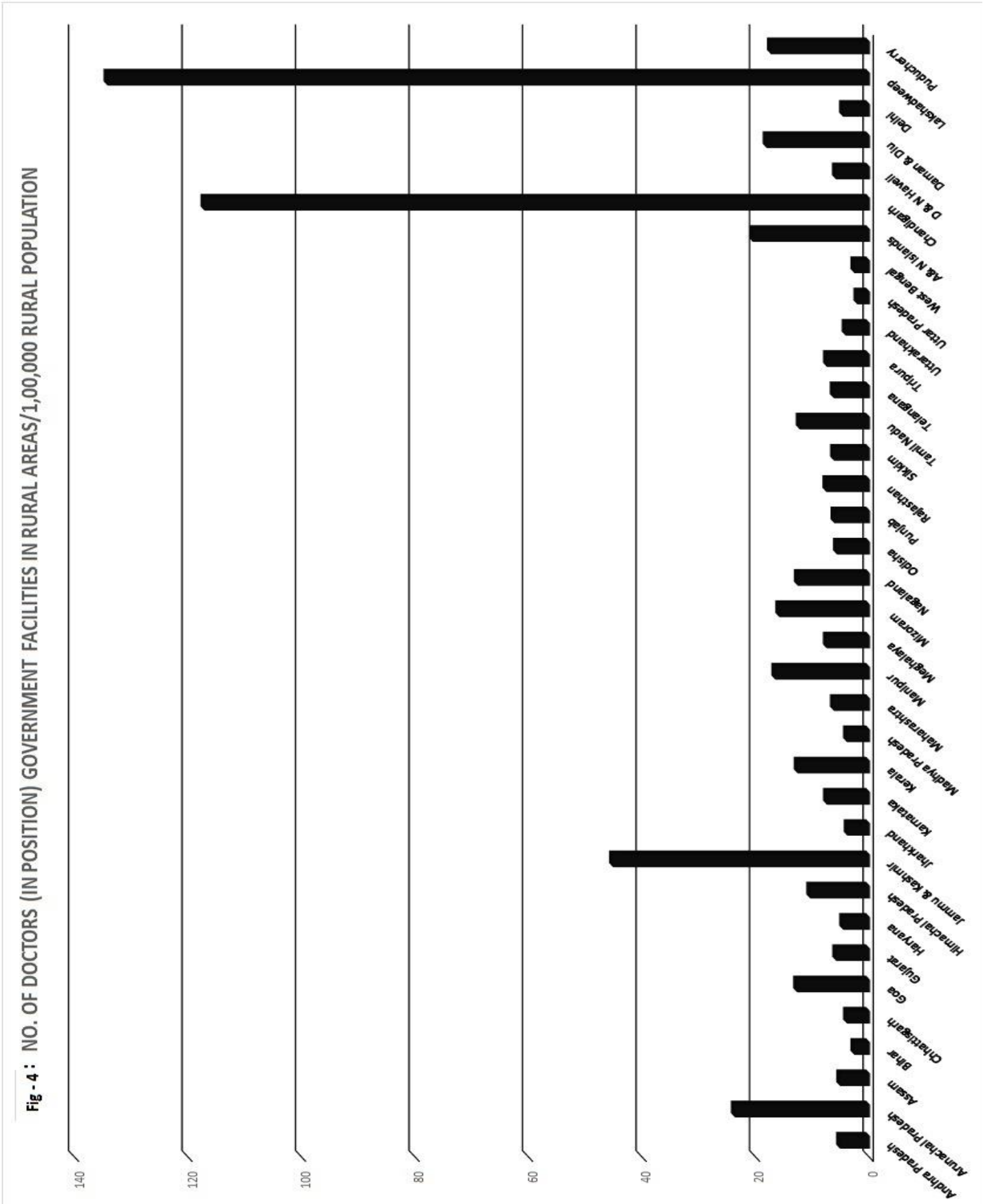
3. The Health Workforce in India, Sudhir Anand and Victoria Fan , WHO, 2016

   Of all health workers, 59.2% were in urban areas, where 27.8% of the population resides, and 40.8% were in rural areas, where 72.2% of the population resides, based on Census 2001 Data.

Fig-3 : Distribution of Health Workforce (Census 2001)



The Health Workforce in India, Sudhir Anand and Victoria Fan, WHO (2016)



4. As per the above Graph (source – RHS,2016 and Census 2011- Rural Population Data):
    - On an average there are 16 doctors (MBBS +Specialists) in position in PHC's and CHC's per 1,00,000 population residing in rural areas.

    (Table with calculations given in Annexure 1 a)

Based on the above data, it can be inferred

- There is an Urban-Rural imbalance in the distribution of doctors in India suggesting that they prefer to work in urban settings after graduation.
- There is substantial no. of vacancies of doctors in the public health facilities situated in rural areas.

Issues highlighted in Literature are:

Data

- **Lack of Comprehensive Data** - Unavailability of comprehensive information available on HR for health facilities[9] impedes rationalised HR planning and health systems' strengthening.

- **Data sources**
  - **HRMIS**
    - Lack of uniform updation at national, state, and district levels, for all posts and for all public health facilities.
  - **Rural Health Statistics**
    - Data not available for all posts in every state.
    - Updated annually (not even so for some states).
    - Data available for only PHCs and CHCs.
  - **Census**
    - Data is not real time, available once in 10 years.
    - Based on self-declaration, hence, authenticity is unsubstantiated.
  - **Professional Councils**
    - Does not account for attrition (from death, retirement, etc.).
    - No specific data regarding actual no. of practicing professionals.

Patient Care Facility

- Inadequate Physical Infrastructure[8,10]
- Fewer and older technological resources than urban and suburban locations.[2]
- Inadequate medical supplies[10]
- Adequate support staff[8]
- Physical Security[4, 8, 10]
- Incurring personal expenses to address local healthcare needs. [10]
- Access and communication[10]
- Support by local communities[8]
- Responsibility and Accountability[8]

➢ HR Policy for Health

- The directorate does not have a specialized HR department, nor do they have HR specialist to guide them on various HR functions.[6]
- Clearly defined Human Resource Policy for Health Personnel is required for all cadres with defined parameters for performance appraisal, transfer and promotion.[8, 9]

- **Administrative**
  - Modern medical school graduates who have been trained to use costly new technologies in diagnosis and treatment are eager to apply their knowledge and skills but rural practice locations typically generate lower income for the physicians [2]Erosion of professional skills and confidence limitations of resources (clinical facilities and equipment) to practise a high standard of medicine, and the lack of opportunity for further academic development. [10]
  - Inadequate incentive structure, not necessarily monetary but in terms of job environment and recognition for doctors. [3, 6, 8]
  - Prior experience in other departments (Medical Education or Health Department) is not counted towards service continuation if the person moves to another department.[5]
  - Inadequate resources to recruit quality human resources for health.[7]
  - Improper distribution of Medical, Dental and Para-Medical Institutes[7] leading to
- Improper projection of HRH availability and production commensurate with needs.[9]
- Wide disparities in quality of education[9] and uniform availability of workforce.
  - Overburdening of the personnel who are present.[10]
- Increased risk of physical abuse by patient's friends and relatives[10]
  - Dissatisfaction from the present salary structure[2,10]
  - Late payment of salaries[10]
  - Work under intense pressure of various kinds.[10]

- **Infrastructure**
  - Good schooling facilities for the children (of the Health Workers)[8,10]
  - Adequate and proper accommodation for health staff[8]
  - Facility for proper care of parents of the workforce. [8]
  - Physical security[4, 8, 10]
  - Adequate supply of essential commodities, safe and clean drinking water, electricity.

- **Recruitment / Appraisal / Transfer**

    - Lack of zealous administrative action.[2]
    - Non-creation of posts at health facilities is pervasive and several posts for various health worker categories have not been created.[9, 6]
    - Recruitment issues involved in the contractual category such as insecurity of job and lack of employment benefits that are otherwise available to MOs in the regular service, insecurities of employment and a widespread perception of their inferiority in comparison to regular MOs.[5,10]
    - Periodicity of the State PSC exam delays the MOs' service regularization.[5]
    - The current practices of transfers and posting are seen as non-systematic. [6]
    - Structured Promotional Avenues after certain years of rural service.[8, 10]
    - Long separations from families, disturbances in spousal relations and estrangements[10]
    - Working in the same location with spouse[8]

- **Training**
    - Lack of desire and aptitude for public health related work. [4]
    - Medical Officer's overall knowledge about Recruitment Rules is generally low.[5]
    - Staff at different levels has not been adequately trained in scientific management functions and techniques.[4, 6, 8]
    - Lack of will to serve in rural areas[8]

Recommendations

➢ Data

- Creation of a centralised database/ portal called Human Resource Information System on which the states will update their vacancy, in-position and shortfall data for all posts, regularly. Initially half-yearly updation, and gradually ease into quarterly and finally monthly updation of the database.
- Recruitment advertisements should be uploaded on the same portal, which will route the applicants to specific state websites.
- By giving real-time data, this will help the authorities in regularising recruitment procedure and proper estimation of demand and supply of health workforce, and hence, plan accordingly for the future.

➢ Patient Care Facility

- Proper allocation of medical supplies[10] and basic diagnostic equipments.
- Availability of safe and clean drinking water facilities.
- Uninterrupted electrical supply.
- Adequate security arrangements and sufficient deployment of personnel, especially in high risk areas.
- Adequate deployment of allied health personnel in the rural health facilities.
- Special mention should be made for increased usage of mobile medical units and telemedicine for service delivery in very remote, hard to reach and disturbed areas.

• HR Policy for Health

- Every state should create an HR department for health, hire and make use of services of personnel specialised in Human Resources.[6]
- Every state should formulate a comprehensive HR Policy for Health.[8]
- Enhance the quality of HRH education and training and improve HRH management by competency based, health system-connected, problem solving, IT enabled learning methods and integrated trainings.[9]
- All the below mentioned provisions should be made applicable to both contractual and regular employees.

- **Administrative**

  - Fixed office timings and provision for incentives for overtime.

  - Biometric attendance should be made compulsory and regularity should be incentivised

  - A specific leave policy should be designed and leave application procedure should be made online to increase transparency.

  - Performance Appraisal (PA) -It should not only be made mandatory, but also be done (definitely) as per a regular schedule. To increase efficiency, and reduce load on the officers' in-charge, PA for different posts can be scheduled at different times during the year, while renewal/ cessation of the contract (which depends on the PA) can be scheduled as per requirement. E.g- Dadra and Nagar Haveli[15], Himachal Pradesh[40], Haryana[35], Assam[38]

  - Grievance Redressal Mechanism – should be necessarily established so that employees have an interactive platform to get the issues that they face, resolved.

  - Pay parity between regular and contractual employees. This will incentivize contractual employees (whose recruitment process is relatively less cumbersome), and hopefully reduce vacancies by increasing recruitment for the same. E.g Gujrat[39], Andhra Pradesh[42], West Bengal[32] and Punjab[27]

  - Timely disbursal of salary.

- **Infrastructure**

  - Safe & Comfortable Housing for the health workforce near their workplace

    - ✓ Community hostels[8] could be made at the block level for all the personnel working in the nearby facilities.

    - ✓ The concept Township Housing[41] can be utilized. It has already been successfully applied by some Public-Sector Undertakings (e.g BHEL, IOCL, etc.)

    - ✓ To increase accountability, maintenance and renovation of the same, if required, should be outsourced (Public-Private Partnership).

- Good schooling facilities[8] should either be established, or be made available by using ICT services, to the wards of those working in remote areas, help can be taken from NIOS and NCERT for the same.
- Availability of safe and clean drinking water facilities.
- Uninterrupted electrical supply.
- Adequate security arrangements and sufficient deployment of personnel, especially in high risk areas.
- Conveyance facilities should be made available in areas with difficult terrain and/ or security concerns, along with an option of travelling allowance for others.
- Community Life – Provisions should be made for either wellness allowance or leave period for the same. This would help in reducing the stress levels of employees, especially of those working in extremely harsh conditions and help in increasing the efficiency of the same. Swayam and MOOC portals can also be utilized for the same.

- **Recruitment / Appraisal / Transfer**

  - **Appointment** – could be initially made for a probationary period of 2 years. This would enable the candidates to better acquaint themselves with the prevalent work conditions. This would give them an opportunity to have an informed decision on whether they want to get into a regular service or not. This would help the recruiters to better target the potential candidates and reduce the no. of "no shows" after completion of the cumbersome recruitment process. Regularization of the candidates could be made subject qualifying an exam, to further assess the candidate's potential.
    This would not only streamline the recruitment process but also help in reducing attrition. The same concept has been successfully applied in the banking sector.

  - **Recruitment**

    - ✓ **Specified time interval**- should be structured at regular time intervals. This can be made possible by better projection of HR requirements, which can be facilitated by the proposed HRMIS. E.g- Odisha[25], Gujrat, Himachal Pradesh[40], Rajasthan[28] and Punjab[27]

    - ✓ **Specified time frame** –The whole procedure could be streamlined using ICT- online exams, declaration of the result and the interview procedure should be made time bound.

- **Posting**

  - ✓ **Preferential Postings** – Selected candidates can be given three or four choices of postings, subject to vacancy and their rank in the merit list. This would enable the candidates to express their choice and autonomy (to a certain extent). E.g Jharkhand[18], Haryana[35] and Tamil Nadu[29]

  - ✓ **Rotation between hard and soft postings** - Time bound rotation between hard and soft postings should take place so that responsibility for the same can be shared. This will help in reducing attrition and stabilizing retention rates of employees. E.g Jammu &Kashmir[17] and Punjab[27]

- **Contractual Arrangements – Three types of terms are proposed**

  - ✓ **1 year/ 11 months**- Short term contracts (as already provisioned under NHM)

  - ✓ **2 years** – Medium term

  - ✓ **4 years** - Long term

    The type of contract can be decided based on various factors- capability of the candidate, requirement of service, attrition rates, etc.

- **Incentive Structure**

  - ✓ **Monetary**[8] – Already an established practice, successfully employed by various states. It is based on the type of area that the employee has been posted in. Classification of different types of areas of posting would be a pre-requirement for the same. E.g Gujrat[39], Jammu & Kashmir[17], Madhya Pradesh[20], Karnataka[19], Himachal Pradesh[40], Chhattisgarh[34], Tripura[30], Tamil Nadu[29], Rajasthan[28], Odisha[25] and Punjab[27]

  - ✓ **Educational** – Already an established practice, successfully employed in consonance with post graduate education. E.g – Bihar[37] and Punjab[27]

- ✓ **Credit System**- based on the type of service and the area in which it was rendered. Preferably linked with the promotional aspects and/ or educational credits. It could also be linked to credits required for renewal of registration of doctors (through state professional councils) E.g – Haryana[35]

- ✓ **Service Excellence Awards** – Have been used to commemorate services in the past in other sectors (E.g- army, private sector- healthcare, business, entrepreneurship, etc.) This helps by recognition and encouragement of work of dedicated employees.

- **Training**

  - **Pre /Post Educational Training:**

    - ✓ Post (Graduate / Post-Graduate) and / or Pre-Educational (Post-Graduate) **Compulsory Rural Service** [7]–Several states have an already established procedure for the same, and has been successful. Implementation concerns have been raised in several reports for the same, recommendations have been given for increasing the bond amount as well as better implementation of the established procedure. Karnataka[19] has a special Bond enforcement cell for this purpose. E.g.- Gujrat[39], Madhya Pradesh[20], Karnataka[19], Uttarakhand[32], Andhra Pradesh[42].

    - ✓ **Induction and Handholding**- There is an established practice of holding an induction training / orientation module for new recruits (e.g Bihar[37] and Uttarakhand[32]). The same practice should be emulated (district level) for newly recruited doctors to give them a general idea about what is expected out of them, what are the basic rules they need to follow and what all (if) difficulties they will face in the field (area specific, based on the previous experiences). Also, handholding of new recruits by experienced candidates (from the respective facility) for around 1-2 weeks can be done for smooth transition.

    - ✓ **Preferential training to students residing in rural hinterland** – It has been observed in some reports that candidates belonging to remote areas have a tendency to go back and serve in the same after completion, hence it is proposed that preferential training be given to students residing in rural hinterland. Recently, Tamil Nadu[11] has also expressed its opinion to provide reservation to rural students for medical admissions E.g Gujrat[39].

- ✓ **Critical Event Report** – It is one of the techniques of self-evaluation (performance appraisal). If the doctors are asked to write the same and it is placed on an open source platform for the potential recruits to read from, it will help in motivating them to serve in rural areas.

- ✓ **Module on Ethics and Medical Law** – The importance of knowing medical ethics is very relevant to a medical professional due to a variety of reasons, including increasing litigation, changes in complexities in medical practice and the importance of consumer courts. It would help medical students to recognize the importance of being sensitive to ethical issues within everyday clinical practice and develop in them the ability to effectively address the ethical concerns of patients. [12] Knowledge of medical law would help the (current) students to be legally aware in order to navigate the complex legal and regulatory systems that now govern what type of medical care will actually be delivered to a patient.[13]

- **In-Service Training:**
  - ✓ E.g – Madhya Pradesh[20], Himachal Pradesh[40], Chhattisgarh[34], Arunachal Pradesh, Bihar[37], Uttarakhand[32]

  - ✓ **Training Needs Assessment** – It is important as it would help the government to gauge what type of training is required for different types of employees, and would help in planning further for the same. E.g Tripura and Odisha[25] conduct this exercise.

  - ✓ **Skill based training through ICT**- Ease of access and widespread reach of Internet will make it easier to provide training to employees posted even in remote areas. NOFN, Digital India and Power for All initiatives can be useful for effective application of the same. E.g Odisha[25]

  - ✓ **Managerial / Administrative / Public Health Training** – Need has been expressed for the same in published literature and committee reports. This would help in improving personnel management and supervisory skills of the existing workforce. E.g West Bengal[32] and Karnataka[19]

  - ✓ **Monitoring training outcomes** - Monitoring helps organizations track achievements by a regular collection of information to assist timely decision making, ensure accountability, and provide the basis for evaluation and learning. While evaluation would help determine the relevance and fulfilment of objectives, development efficiency, effectiveness, impact, and sustainability.[14]

Annexure Ia: No. of Doctors in CHCs and PHCs in Rural Areas – Rural Health Statistics, 2016

SNO.	State	Rural Population (2011)	In Position Doctors at PHCs	In Position Specialists at CHCs	In Position GDMO's at CHCs	Total Dr.s at CHCs, PHCs in Rural Areas	**No. of Dr.s in CHCs, PHCs Rural Areas/1,00,000 Rural Population**
1	Andhra Pradesh	34776389	1412	159	272	1843	**5**
2	Arunachal Pradesh	1066358	122	4	128	254	**24**
3	Assam	26807034	932	131	350	1413	**5**
4	Bihar	92341436	1786	40	735	2561	**3**
5	Chhattisgarh	196,07,961	344	61	393	798	**4**
6	Goa	551731	56	5	10	71	**13**
7	Gujarat	34694609	1105	148	812	2065	**6**
8	Haryana	16509359	489	30	265	784	**5**
9	Himachal Pradesh	6176050	424	7	220	651	**11**
10	Jammu & Kashmir	3433242	761	190	604	1555	**45**
11	Jharkhand	25055073	271	122	594	987	**4**
12	Karnataka	37469335	2133	498	218	2849	**8**
13	Kerala	17471135	1169	40	1019	2228	**13**
14	Madhya Pradesh	52557404	946	289	904	2139	**4**
15	Maharashtra	61556074	2927	505	486	3918	**6**
16	Manipur	1736236	194	3	93	290	**17**
17	Meghalaya	2371439	105	12	64	181	**8**
18	Mizoram	525435	71	0	13	84	**16**
19	Nagaland	1407536	120	8	51	179	**13**
20	Odisha	34970562	959	354	722	2035	**6**
21	Punjab	17344192	494	196	398	1088	**6**
22	Rajasthan	51500352	2422	497	1045	3964	**8**
23	Sikkim	456999	26	0	3	29	**6**
24	Tamil Nadu	37229590	2751	76	1787	4614	**12**
25	Telangana	21395009	1024	147	197	1368	**6**
26	Tripura	2712464	147	1	58	206	**8**
27	Uttarakhand	7036954	215	41	47	303	**4**
28	Uttar Pradesh	155317278	2209	484	778	3471	**2**
29	West Bengal	62183113	721	125	876	1722	**3**
30	A& N Islands	237093	36	0	13	49	**21**
31	Chandigarh	28991	2	14	18	34	**117**
32	D & N Haveli	183114	11	0	0	11	**6**
33	Daman & Diu	60396	7	0	4	11	**18**
34	Delhi	419319	20	0	0	20	**5**
35	Lakshadweep	14141	7	0	12	19	**134**
36	Puducherry	395200	46	5	18	69	**17**
	India	827598603	26464	4192	13207	43863	**16**

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Project II

Best Practices in Private Sector Healthcare

Executive Summary

This is a study of best practices running in the private sector in the healthcare segment and an attempt to gauge the possibility of application of the same in Government healthcare facilities.

After going through various initiatives three were selected, i.e., incorporation of Physician Assistants in mainstream facilities, increased use of Support Groups for enhanced adherence to and improvement of treatment outcomes in Public Health Facilities and knowledge dissemination through state and district specific Information-Education- Communication (IEC) material in the form of a monthly newsletter.

Physician assistants are qualified healthcare professionals with academic and clinical training to provide healthcare services under the supervision of a specialist. They have potential to compensate for shortage of doctors in government facilities. Though recognised as a professional degree/ diploma holder, they are currently mostly unabsorbed in the government workforce.

Support Groups are organizations of people who share a common disorder, who meet to discuss their experiences and ideas, and provide emotional support to each other at regular intervals. The meeting is lead by a member trained in facilitating group discussions. These have been found to be effective in improving treatment outcomes of various diseases such as Cancer, Mental health issues, GI Disorders, Hepatitis C, Diabetes, etc. and even for Habit cessation. They can be used in rehab centres, hospices and hospitals.

State and District level newsletter featuring facilities available at the setups, health promotion / creative IEC material, information about any endemic diseases, important contact information, health games, cartoons, etc. preferably in vernacular language and according to the taste of the local population will help in knowledge dissemination at the local level.

Physician Assistants

History (Indian):

"*In 1987, Institute of Cardiovascular Diseases in Chennai started providing training and education specific to Physician Assistants under the aegis of Dr K.M. Cherian who was a cardiac surgeon. This was given a formal shape in 1992 as in-house, 2-year post graduate diploma program. Soon various other institutes followed suit.*"[1]

Definition:

"Physician Assistant is a skilled health care professional who is qualified with academic and clinical training to provide health care services under the supervision of a specialist. The training that they receive equips them to provide diagnostic, therapeutic and preventive healthcare services".[2]

Duties and Responsibilities [1, 3, 4, 5]**:**

Table 2 : Duties and Responsibilities of Physician Assistants in different Countries

S No.	Responsibility	Country			
		India	USA	UK	Canada
1	Take Detailed History	✓	✓	✓	✓
2	Order Relevant Investigations	✓	✓	✓	✓
3	Counsel Patients	✓	✓	✓	✓
4	Provide instructions for medications	✓	✓	✓	✓
5	Write progress notes	✓	✓	✓	✓
6	Write discharge notes	✓	✓	✓	✓
7	Communicate with referring doctors or institutions	✓	✓	✓	✓
8	Conduct physical exams	X	✓	✓	✓
9	Diagnose and treat illnesses	X	✓	X	✓
10	Develop Treatment Plans	X	✓	X	✓
11	Assist in surgeries	✓	✓	✓	✓
12	Write Prescriptions	X	✓	X	✓
13	Do Clinical Research	X	✓	X	✓
14	Analysis of test results	X	✓	X	✓
15	Develop Management Plans	X	X	✓	X

Recommendations

- Set up a standardised curriculum structure for the Physician Assistant's course.
- Include Physician Assistants in The Allied and Healthcare Professional's Central Council Bill, 2015.
- Set up rules and regulations for the practice of Physician Assistants clearly demarcating the activities they can undertake under a Doctor's guidance
- Setup a licentiate body for registration (and renewal of license) of genuine candidates.
- Duties that can be commissioned to them (legally) are:

• Order Relevant Investigations • Counsel Patients • Provide instructions for medications • Write progress notes • Write discharge notes	• Communicate with referring doctors or institutions • Assist in Examination of the patient (Physical as well as Laboratory) • Develop Management Plans

Support Groups

Support Groups are organizations of people who share a common disorder, who meet to discuss their experiences and ideas, and provide emotional support to each other at regular intervals.

Types:

- Member-only/self-help/peer support groups.
- Professionally-facilitated support groups

Uses

- It has been proven by research that support groups have been effective in improving treatment outcomes of various diseases[11, 12, 13] such as Cancer[11], Mental health issues[14, 15, 16], GI Disorders, Diabetes[17, 18], etc. and even for Habit cessation(Alcoholics Anonymous)
- It helps a patient realize that he or she is not alone -- that there are other people who have the same problems.
- Being in a support group can also help one develop new skills to relate to others.
- Members of the group who have the same problems can support each other and may suggest new ways of dealing with a particular problem.
- Everything that takes place within the support group should be kept confidential, this would help patients in opening up.

Scalability

- To make it scalable, the most important aspect should be to make people aware that such kind of groups exist. Every public health facility should start support groups (as per their need, related to the issues specific to their local population) and hold the meetings in a structured manner, preferably professionally-facilitated support groups.
- To encourage people to come to the same, facilitation of the group members with mementos could be done. Keynote speakers should be awarded with souvenirs and/ or certificates to thank them for speaking up for the cause.
- Information-Education- Communication (IEC) material, targeting the specific local concerns is the most important tool for generating awareness about the same. Also they can be referred to by new and innovative names (like Alcoholics Anonymous, Mothers Against Drunk Drivers, etc.) to address the initial apprehensions of the patients and their families.
- Internet can be (is being) used as a powerful tool for starting discussions. An online platform can be created where people can share their concerns, experiences and ways of dealing with their problems, anonymously.

Newsletter

Type:

- State Level
- District Level
- Facility Level

Featuring

- Facilities available at the setups
- Health promotion / Creative IEC Material
- Information about any endemic diseases
- Important contact information
- Prices of different services available
- Health games, cartoons, weekly contests etc.

Preferably in vernacular language and according to the taste of the local population.

This will help in knowledge dissemination at the local level, it should also encourage participation by the target population to encourage their inclusion.

Health promotional activities should also be publicised in the same along with currently functional government schemes.

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