Summer Internship Report

At

IQVIA

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A Report

By

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ACKNOWLEDGEMENT

I am profoundly grateful for the opportunity to complete my summer internship at IQVIA, formerly known as QuintilesIMS an experience that has significantly contributed to my professional and personal growth in the Public Health Sector. This journey has been a remarkable learning experience, and I am indebted to many individuals who provided their support and guidance throughout this period.

First and foremost, I would like to express my deepest gratitude to **Mr. Kapil Dev Singh** and **Mr. Chander Pal Thakur (RMNCHA+N and Hospital System Strengthening Team)** for their exceptional mentorship and for granting me the opportunity to intern at IQVIA. Their expert guidance, valuable insights, and unwavering support have been pivotal in shaping my internship experience. Their encouragement and belief in my abilities have been a constant source of motivation.

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I would also like to extend my sincere appreciation to the entire team at IQVIA. The collaborative spirit and support from my colleagues and team members have been invaluable. Their cooperation, shared knowledge, and willingness to assist have significantly enriched my internship experience, providing me with practical insights and a deeper understanding of the public health sector.

Additionally, I am grateful to IIHMR Delhi for facilitating this internship opportunity. The institution's commitment to providing its students with real-world experiences has been instrumental in my professional growth.

Lastly, and most importantly, I am profoundly grateful for the unwavering moral support from my parents, friends, and seniors. Their encouragement, patience, and presence during both the good and challenging times have been crucial in helping me navigate this journey. Without their support, the completion of this summer internship would not have been possible.

Thank you all for your invaluable support, guidance, and encouragement.

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LIST OF ABBREVIATIONS

ANM	Auxiliary Nurse and Midwife
BCG	Bacille Calmette-Guerin,
BSA	Block Statistical Assistants
CHC	Community Health Centres
DH	District Hospital
DHS	District Health Society
DPT	Diphtheria Pertussis Tetanus
HRH	Human Resources for Health
HRIS	Human Resource Information System
IMR	Infant Mortality Rate
IPHS	Indian Public Health Standards
LT	Lab Technician
MD	Doctor of Medicine
MO	Medical Officer
NFHS	National Family Health Survey
NHWA	National Health Workforce Accounts
NMC	National Medical Commission
NNMR	Neonatal Mortality Rate
NRHM	National Rural Health Mission
NSSO	National Sample Survey Office
OPD	Outpatient Department
PG	Postgraduate
PHC	Primary Healthcare Centre
PHSC	Punjab Health Systems Corporation
PT	Physiotherapist
SC	Sub-Centres
SDGs	Sustainable Development Goals
SDH	Sub-District Hospital
SHS	State Health Society
TA/DA	Traveling Allowance/Dearness Allowance
U5MR	Under 5 Mortality Rate
WHO	World Health Organization

Part A: Observational learnings

Introduction to My Summer Internship at IQVIA

During the scorching summer months, I embarked on an enriching journey as an intern at IQVIA, a global leader in healthcare data analytics and clinical research. Over the course of two months, I had the privilege of working at both the Noida and New Delhi offices, immersing myself in the dynamic world of pharmaceuticals, healthcare solutions, and data-driven insights.

IQVIA: A Brief Overview

IQVIA, formerly known as QuintilesIMS, stands at the forefront of transforming healthcare through innovation, technology, and evidence-based decision-making. As a multinational company, IQVIA operates across the entire healthcare spectrum, from drug development to patient care.

My Role and Responsibilities

As an intern, I was entrusted with diverse responsibilities that allowed me to gain practical insights into the industry. These included:

- **Data Analysis**: I delved into real-world healthcare data, extracting meaningful patterns and trends.
- **Market Research**: I contributed to market intelligence reports, understanding the competitive landscape and identifying growth opportunities.
- **Collaboration**: Working closely with cross-functional teams, I witnessed the synergy between clinical research, data science, and business strategy.
- **Client Engagement**: I had the chance to interact with clients, understanding their needs and tailoring solutions accordingly.

Noida vs. New Delhi: Contrasting Perspectives

The juxtaposition of Noida and New Delhi offices provided a unique lens through which I observed the company's operations:

- **Noida**: A hub of technological innovation, Noida buzzed with energy. Here, I honed my analytical skills, diving into databases and unravelling complex datasets.
- **New Delhi**: The heart of strategic decision-making, New Delhi exposed me to high-level discussions, client meetings, and the art of translating data into actionable insights.

Key Takeaways

My internship at IQVIA was more than just a professional experience—it was a transformative journey. I learned that healthcare is not merely about numbers; it's about impacting lives. Whether it was analysing clinical trial data or understanding patient demographics, every task had a ripple effect on patient outcomes.

IQVIA Mission

Accelerating innovation for a healthier world: Our mission encapsulates our passion for achieving better results and improving patient outcomes. In everything we do, we are committed to driving innovation – from efficiencies to breakthroughs.

IQVIA Vision

Powering smarter healthcare for everyone, everywhere: IQVIA envisions a world where essential treatments reach every human being, regardless of their location. We collaborate with our customers and partners to accelerate results and address unmet needs.

Mode of data collection

The data collection process involved utilizing secondary research techniques like conducting desktop analysis, consulting public domain current reports, examining published articles and research papers, extracting data from reliable government websites, and gathering information from relevant platforms.

Learnings

During my internship at IQVIA Consulting, I had the opportunity to work on multiple projects-

• Human Resources for Health and its importance.

• Indian Public Health Standards and National Health Mission and its guidelines.

• Nurse strengthening in India and how to improvise it.

Role in IQVIA

• Desktop research and assessment of documents available on government websites and other public domains

• Proposal and report writing

• Support in stakeholder consultation.

Conclusive Learnings

• Professional presentation

• Proposal writing

• Report Making

• Maintaining work-life balance

• Coordination among team members for the timely achievement of goals

• Communication skills

• Exposure to the corporate world

• Time management

• Handling work pressure

• Attending given deadlines

• Making new connections with our colleagues

• Engaging with people from varied areas of experience and expertise

Limitations

Varying time zones have hindered the availability of stakeholders for meetings, making scheduling and coordination more difficult.

Suggestions for Improvement

- **Structured Orientation Program**: Implement a comprehensive and structured orientation at the start of the internship to help interns acclimate to the company culture, understand organizational goals, and become familiar with key projects and tools.

- **Clear Project Guidelines and Objectives**: Provide detailed project briefs and clearly defined objectives to ensure interns understand their roles and responsibilities. Regular check-ins can help align expectations and improve project outcomes.

- **Skill Development Workshops**: Organize workshops and training sessions focused on developing both technical and soft skills. Topics could include data analysis, public health trends, communication skills, and project management.

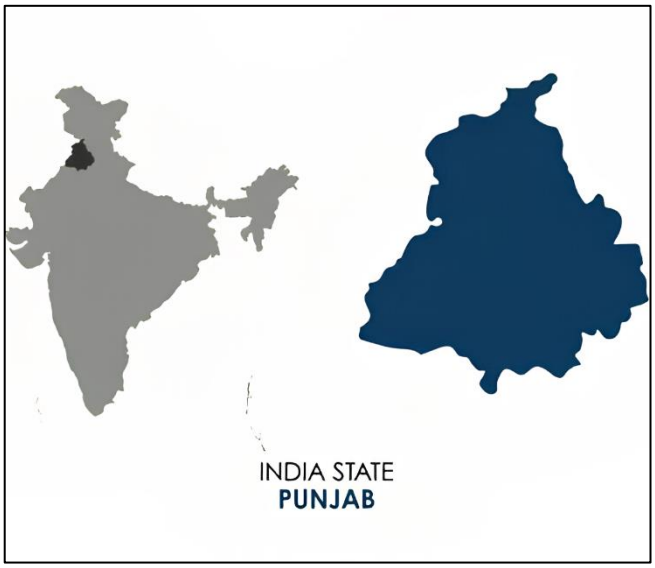
- **Cross-Functional Exposure**: Facilitate opportunities for interns to interact with different departments and teams within IQVIA, providing a broader perspective on the organization's operations and helping interns identify areas of interest for future career paths.

- **Regular Feedback Mechanism**: Implement a robust feedback system where interns receive constructive feedback on their performance and projects regularly.

Part B: Project report - Case Report: Landscape Analysis of Human Resources for Health - Punjab, India

1. BACKGROUND

Punjab is a state located in the northwestern region of India. Forming part of the larger punjab region of the indian subcontinent, the state is bordered by the indian states of himachal pradesh to the north and northeast, haryana to the south and southeast, and rajasthan to the southwest, by the indian union territories of chandigarh to the east and jammu and kashmir to the north. It shares a border with Punjab, a province of Pakistan, to the west. The state covers an area of 50,362 square kilometres (19,445 square miles), which is 1.53% of india's total geographical area, making it the 19th-largest indian state by area out of 28 indian states (20th largest, if union territories are considered). With over 27 million inhabitants, punjab is the 16th-largest indian state by population, comprising 23 districts.



The main ethnic group are the punjabis, with sikhs (57.7%) and hindus (38.5%) forming the dominant religious groups. The state capital, chandigarh, is a union territory and also the capital of the neighbouring state of haryana.

2. INTRODUCTION

A robust and equitably distributed human resources for health (HRH) workforce is the cornerstone of a functional healthcare system. This report presents a comprehensive landscape analysis of HRH in the state of Punjab, India. The analysis examines the current HRH situation, encompassing workforce size, geographic distribution, skill mix composition, and any existing gaps or challenges.

This analysis holds particular significance for policymakers, healthcare administrators, and public health professionals within the Punjab healthcare system. By gaining a granular understanding of the current HRH landscape, stakeholders can develop evidence-based interventions to address workforce shortages, optimize skill distribution, and ultimately enhance healthcare service accessibility and quality for Punjab's citizens.

The report will delve into a multifaceted exploration of factors influencing the HRH landscape, including:

2.1 Workforce Composition**:** This analysis will conduct a meticulous examination of the quantitative and qualitative composition of the healthcare workforce in Punjab. This will encompass a detailed breakdown of the numbers and types of healthcare professionals, including physicians, nurses, allied health workers, and public health specialists.

- **Geographical Distribution:** The report will assess the geographical distribution of healthcare professionals across the state. This analysis will identify potential disparities in access to healthcare services between rural and urban areas. Unveiling these disparities is crucial for developing targeted strategies to ensure equitable access to healthcare across Punjab's diverse geographical landscape.
- **Skill Mix:** The report will evaluate the skill mix of the healthcare workforce, identifying any areas with potential shortages of specialized personnel or imbalances in the distribution of skillsets. A well-balanced skill mix is essential for delivering a comprehensive range of healthcare services. By pinpointing areas of deficiency, targeted training programs and recruitment initiatives can be developed to address these gaps.
- **Workforce Challenges:** The report will explore existing challenges faced by the HRH sector in Punjab. This analysis will investigate factors such as workforce migration, attrition rates, and limited training opportunities. Understanding these challenges is critical for developing effective strategies to retain existing personnel, attract new talent, and ensure a sustainable healthcare workforce for the future.

This report, by providing a clear and comprehensive picture of the HRH landscape in Punjab, aims to contribute significantly to the development of data-driven strategies for strengthening the healthcare workforce. Ultimately, this will lead to improved health outcomes for the state's population.

2.2 Demography

Understanding the demographic landscape of Punjab is crucial for contextualizing the analysis of human resources for health (HRH) within the state. Here's a breakdown of key demographic factors:

- **Population:** As per the 2011 census, Punjab has a population of over 27.7 million, making it the 16th largest Indian state by population density[1].
- **Religion:** The dominant religious groups are Sikhs (57.7%) and Hindus (38.5%). This religious composition can influence healthcare needs and service preferences.
- **Urbanization:** Punjab has witnessed a steady rise in urbanization, with approximately 34% of the population residing in urban areas. This trend can impact the distribution of healthcare resources and workforce needs.
- **Age Structure:** The state has a relatively young population, with a median age of 27.4 years. This necessitates a healthcare system equipped to address the specific health concerns of a younger demographic.

[1]https://en.wikipedia.org/wiki/Demographics_of_Punjab,_India#:~:text=Punjab%20is%20home%20to%202.3,are%2014%2C639%2C465%20and%2013%2C103%2C873%20respectively.

3. PURPOSE OF SECONDARY REVIEW

The specific objectives of conducting this secondary review are as follows:

- Gain contextual information about government's rules and regulations, transfer & posting and promotion policy, allowance and incentive schemes in place for health personnel.
- Review current job titles, descriptions and responsibilities, and staffing.
- Review capacity building at state training institutes and understand whether state training institutes are functioning to adequately address the requirements of the department.
- Identify gaps in policies, documents & infrastructure to be addressed in the strategy document.
- Identify some of the best practices on HRH globally & nationally to recommend to the state based on gaps identified.

3.1 Aim

This study aims to create a comprehensive picture of Punjab's HRH landscape by analysing workforce composition, distribution, skill mix, and existing challenges.

3.2 Objective

Quantify and qualify the HRH workforce: Assess the number and types of healthcare professionals (doctors, nurses, etc.) in Punjab.

Map the geographic distribution: Identify potential disparities in healthcare worker distribution across urban and rural areas.

Evaluate the skill mix: Analyse the range of skills and specializations present within the workforce, pinpointing any skill shortages or imbalances.

Identify HRH sector challenges: Investigate factors like workforce migration, attrition, and limited training opportunities.

3.3 Methodology

3.3.1 Secondary Data

- Review government documents, reports, and policies related to HRH in Punjab (Punjab Health Department website, National Health Mission website).
- Access data from national health agencies and reports (Ministry of Health and Family Welfare website, WHO India website).

3.4 Data Analysis

The secondary data was organized and analysed to identify trends, patterns, and gaps in HRH in Punjab.

4. GLOBAL AND INDIAN CONTEXT OF HUMAN RESOURCES FOR HEALTH

Health systems are intricate and constantly changing in various settings. The knowledge and abilities required by health managers and leaders to address current and future challenges are not yet fully comprehended. Numerous global and national-level studies have been conducted by reputable healthcare bodies, organizations, independent public health researchers, and institutions. To gain a comprehensive understanding of the global and Indian context related to hrh, it is crucial to examine significant publications in this field. These studies serve as valuable resources for countries, providing guidance in the development of government policies at both national and state levels.

4.1 Global context of HRH

Global strategy on human resources for health: workforce 2030 published by the world health organization in 2016 aims to improve health, social and economic development outcomes by ensuring universal availability, accessibility, acceptability, coverage and quality of the hrh through adequate investments to strengthen health systems, and the implementation of effective policies at national, regional and global levels.

Projections developed by who and the world bank point to the need for creation of approximately 40 million new health and social care jobs globally by 2030, and the requirement for 18 million additional health workers, primarily in low-resource settings, to attain high and effective coverage of the broad range of health services necessary to ensure healthy lives for all. In addition, the who world health statistics report 2021 states that the pandemic has posited critical challenges to the health systems in low-resource settings and is jeopardizing the hard-won health and development gains towards achieving the who triple billion targets and un sustainable development goals (sdgs).

The second round of the who 'pulse survey' of 135 countries and territories (april 2021) highlights persistent disruptions to health services at considerable scale over one year into the covid-19 pandemic, with around 90% of countries reporting one or more disruptions to essential health services. Notably, health workforce-related reasons, such as being reassigned within the health system, are the most common causes of service disruption, impacting two-thirds of the surveyed countries.

The "appropriate usage" program involves strategies to reinforce two together the acting and impartial disposal of energy laborers. According to the World Health Organization (WHO), effective measures to increase the appearance of strength peasants in detached and country districts include better attraction, conscription, and memory. Key to impartial arrangement are the collection of trainees from country and underserved domains, provision of preparation in these districts, and the use of economic and non-monetary inducements, in addition to regulatory measures or changes functional childbirth. Additionally, the WHO stresses that the information, abilities, and ambition of the trained workers are essential for achieving Universal Health Coverage (WHO, 2020).

4.2 Indian Context of HRH

India has a harsh deficiency of workforce for health – a deficiency of skillful fitness laborers, and the workforce is reduced in city regions. Bringing limited health traders to country, detached, and underserved fields is very challenging. Many Indians, exceptionally those reside country fields, receive care from absolute providers. The shift of skillful allopathic

doctors and nurses is solid and further strains the system. Nurses do not have much expert or reply inside the energy arrangement, and the resources to train ruling class are still incompetent .A inclusive social policy for workforce is wanted to gain entire health care in India. Such a procedure power likewise reassure task-shifting and mainstreaming doctors and experts the one practice usual Indian cure (ayurveda, yoga and naturopathy, unani, and siddha) and homoeopathy to work in these regions while adopting added creative habits of augmenting workforce for energy. At the same time, supplementary contributions will command a price of to improve the pertinence, load, and feature of suckling, medical, and community health instruction in the country .In India, the country community constitutes nearly 71% of the total public (2016), inasmuch as only 36% of all strength workers are in country fields (Karan and others., 2019). People use rural fields have lower approach to health management distinguished to those who servant city fields. If we analyse this from the well-being foundation perspective, between the 25,778 management emergency rooms in India (2019), 83% are in country areas; nevertheless, these country nursing homes only hold 37% of the total administration beds (Central Bureau of Health Intelligence, 2019).India is committed to gaining the Sustainable Development Goals (SDGs) and it is everywhere recognized that the accomplishment of the 2030 agenda is predominantly weak on India.

5. HEALTH STATUS OF PUNJAB

The National Family Health Survey 2019-21 (NFHS-5), the having five of something in the NFHS order, supports information on culture, fitness, and food for India and each state/cause domain (UT). Like NFHS-4, NFHS-5 also supplies region-level estimates for many main signs. Compared to social averages, Punjab's performance on key well-being signs is corresponding or somewhat better accompanying a little bettering as per National Family Health Survey (NFHS)-5 in 2019-20 as distinguished to NFHS-4 (2015-16) but accompanying a considerably big rural-city difference. While skilled's happened progress in few areas, possible choice demand consideration. Institutional deliveries for founders have dissipated up, and child humanness rates have discontinued, particularly in municipalities. Children are further experiencing less dwindling (being thin for altitude). Overall, Punjab's fitness shows signs of bettering, but continued works are wanted to address regions like birth control selections, NCDs, and maternal fitness practices.

Key Indicators	NFHS-5 (2019-21)			NFHS-4 (2015-16)
	Urban	Rural	Total	Total
Infant mortality (IMR)	20.1	32.4	28	29.2
Neonatal mortality rate (NNMR)	16	24.9	21.8	21.2
Under-five mortality rate (U5MR)	24.1	37.5	32.7	33.2
Children under 5 years who are stunted (height-for-age) (%)	25.7	23.9	24.5	25.7
Children under 5 years who are wasted (weight-for-height) (%)	11.7	10	10.6	15.6
Children age 12-23 months fully immunized (BCG, measles, and 3 doses each of polio and DPT) (%)	87.5	89	88.5	94.5
Mothers who had at least 4 antenatal care visits (%)	60.8	58.4	59.3	68.5
Total fertility rate (children per woman)	1.6	1.7	1.6	1.6

6. OVERVIEW OF HRH IN PUNJAB

6.1 Health Workforce Profile in Punjab

Doctor Density

1. The stock density of doctors (including both active and inactive) in Punjab is approximately **8.8 doctors per 10,000 persons** according to the National Health Workforce Accounts (NHWA) data[2].
2. However, when considering only active health workers, the estimated density of doctors **is 6.1 per 10,000 population** based on the National Sample Survey Organization (NSSO) data.

Nurse and Midwife Density

1. The stock density of nurses and midwives (combined) in Punjab is approximately **17.7 per 10,000 persons** as per NHWA data[3].
2. When considering only active health workers, the estimated density of nurses and midwives is **10.6 per 10,000 population** based on NSSO data.
3. As of December 2021, Punjab had **76,680 registered nurses and midwives**, and **23,029 auxiliary nurse midwives**. The number of registered nurses and midwives in Punjab has increased from 45,801 in 2010 to 76,680 in 2017, at an average annual rate of **9.85%[4].**

Active health workers' density (estimated from NSSO) was 6.1 for doctors and 10.6 for nurses/midwives.

As of 2019, 1,458,000 doctors were registered with the Punjab State Medical Council. This is a decrease from the 1,544,000 doctors registered in 2018. The average number of doctors registered with the council from 2002 to 2019 is 1,063,000[5].

As of June 2022, the National Medical Commission (NMC) reported that 13,08,009 allopathic doctors were registered with the NMC and State Medical Councils. As of December 2021, Punjab had 23,029 registered auxiliary nurse midwives (ANMs). In 2021, Punjab also had 76,680 registered general nurses and midwives. The number of registered nurses and midwives in Punjab increased from 45,801 in 2010 to 76,680 in 2017, at an average annual rate of 9.85%[6]. Punjab faces a shortage of qualified health professionals, especially in rural areas. The overall density falls below the World Health Organization (WHO) threshold of 44.5 doctors, nurses, and midwives per 10,000 population. The distribution of health workers across

[2] https://human-resources-health.biomedcentral.com/articles/10.1186/s12960-021-00575-2

[3]https://pubmed.ncbi.nlm.nih.gov/33752675/#:~:text=Stock%20density%20of%20doctor%20and,urban%20and%20public%2Dprivate%20sectors.

[4]https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8958234/

[5] https://www.ceicdata.com/en/india/health-human-resources-number-of-doctors-registered/number-of-doctors-registered-state-medical-council-punjab#:~:text=%E4%B8%AD%E6%96%87,to%202019%2C%20with%2018%20observations.

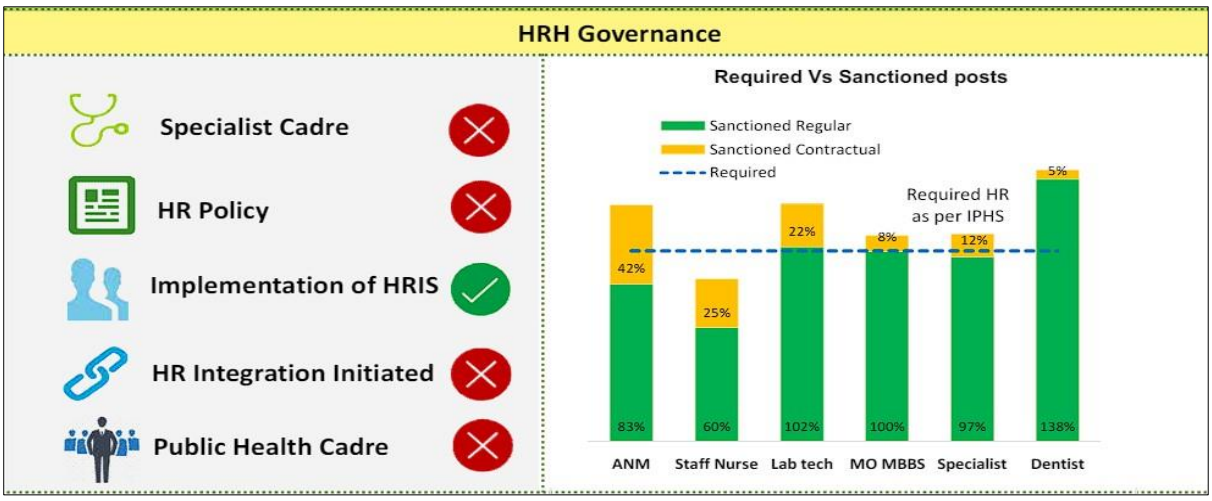
[6] https://www.ceicdata.com/en/india/health-human-resources-number-of-nurses-registered/number-of-nurses-registered-punjab-general-nursing-and-midwives#:~:text=Number%20of%20Nurses:%20Registered:%20Punjab:%20General%20Nursing,was%20reported%20at%2076%2C680.000%20Person%20in%202021.

states, rural–urban areas, and public–private sectors is highly skewed. Urban canters tend to have better access to healthcare services.

The departments of Punjab separated by public has been proved in table. Table discloses that in Punjab skilled are enormous disparities in health management foundation 'tween sectors. In top three districts Amritsar, Ludhiana and Patiala skilled is 25.35 allotment nursing homes, 25 allotment of PHCs, 18 portion CHCs, 21.88 percent substitute-centres and 35.28 portion of beds are situated in a group the physical health management foundation. Human resources are still condensed in these three districts as skilled is 43.47 portion doctors, 25.52 portion midwives and 25.96 allotment nurses are providing duties in these districts. However, in these three sections 28.41 portion of the society lives.However, in below three districts Fatehgarh Sahib, Fazilka and Pathankot skilled is only 7 allotment nursing homes, 10 portion CHCs, 8.96 percent PHCs, 8.33 portion SCs and 6 portion beds are possible. These departments are too lack of human resources as skilled is only 2.36 portion doctors, 2.98 allotment midwives and 3.38 allotment nurses are available. Almost 8.42 portion of the total people use these three communes .

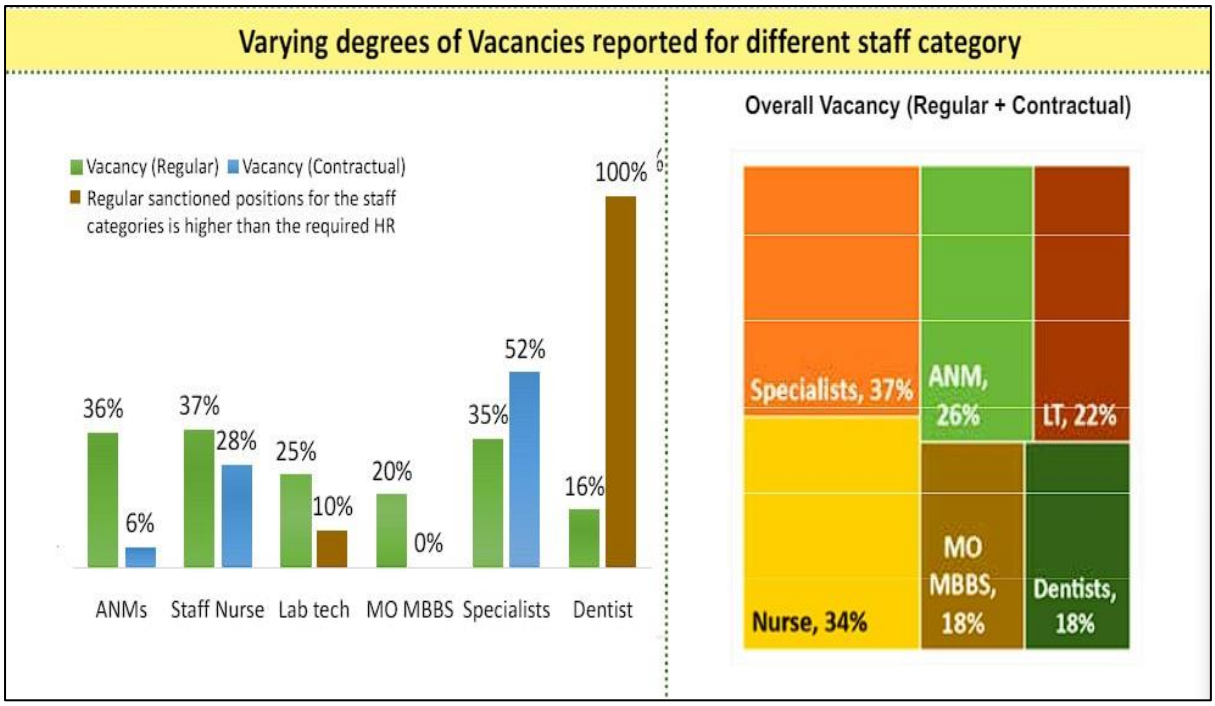
Sr. No.	District	Population	Literacy Rate	Gender Ratio	Urban Population Percentage	Percentage of the total population	Rural population percentage
1	Ludhiana	34,98,739	82.2	873	12.61	59.16	40.84
2	Amritsar	24,90,656	76.27	889	8.97	53.58	46.42
3	Jalandhar	21,93,590	82.48	915	7.9	52.93	47.07
4	Fazilka	10,63,737	68.9	898	3.83	23.6	76.4
5	Pathankot	6,76,598	84.6	860	2.43	44.07	55.93
6	Fategarh Sahib	6,00,163	79.35	871	2.16	30.91	69.09

- The HRH Governance shows there is absence of specialist cadre, HR policy, HR integration and Public Health Cadre but there is presence of the implementation of HRIS. There is significant absence of the required HRH staff which are required as per IPHS.



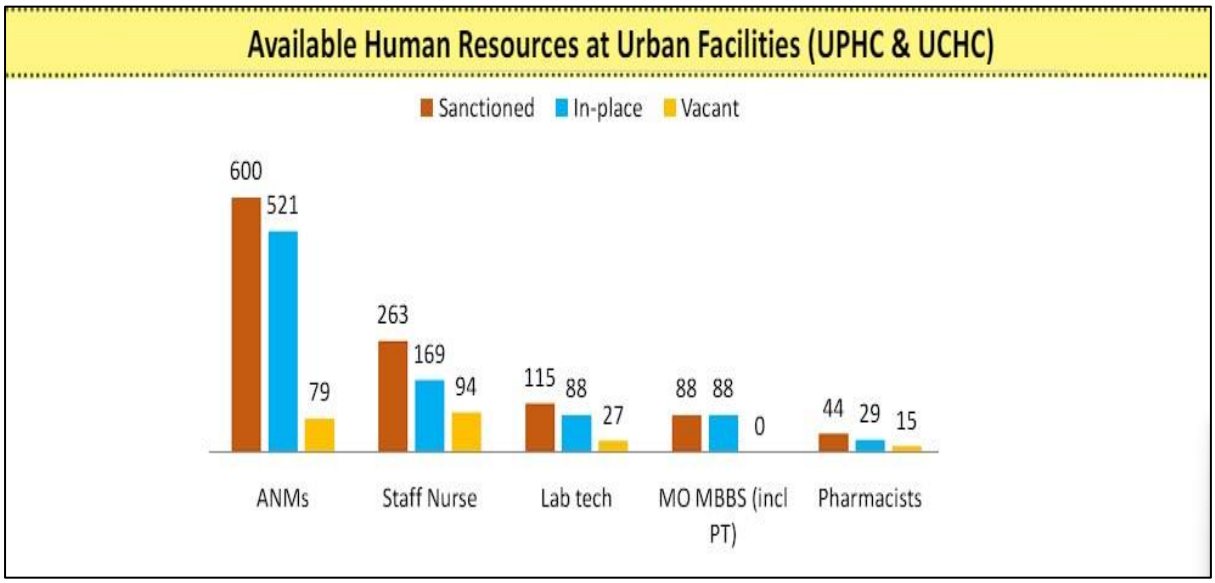
Source: NHSRC : All State infographics of HRH,2020

- The overall staff vacancy can be seen from all the departments. The requirements of Specialists is significantly higher as compared to other positions.



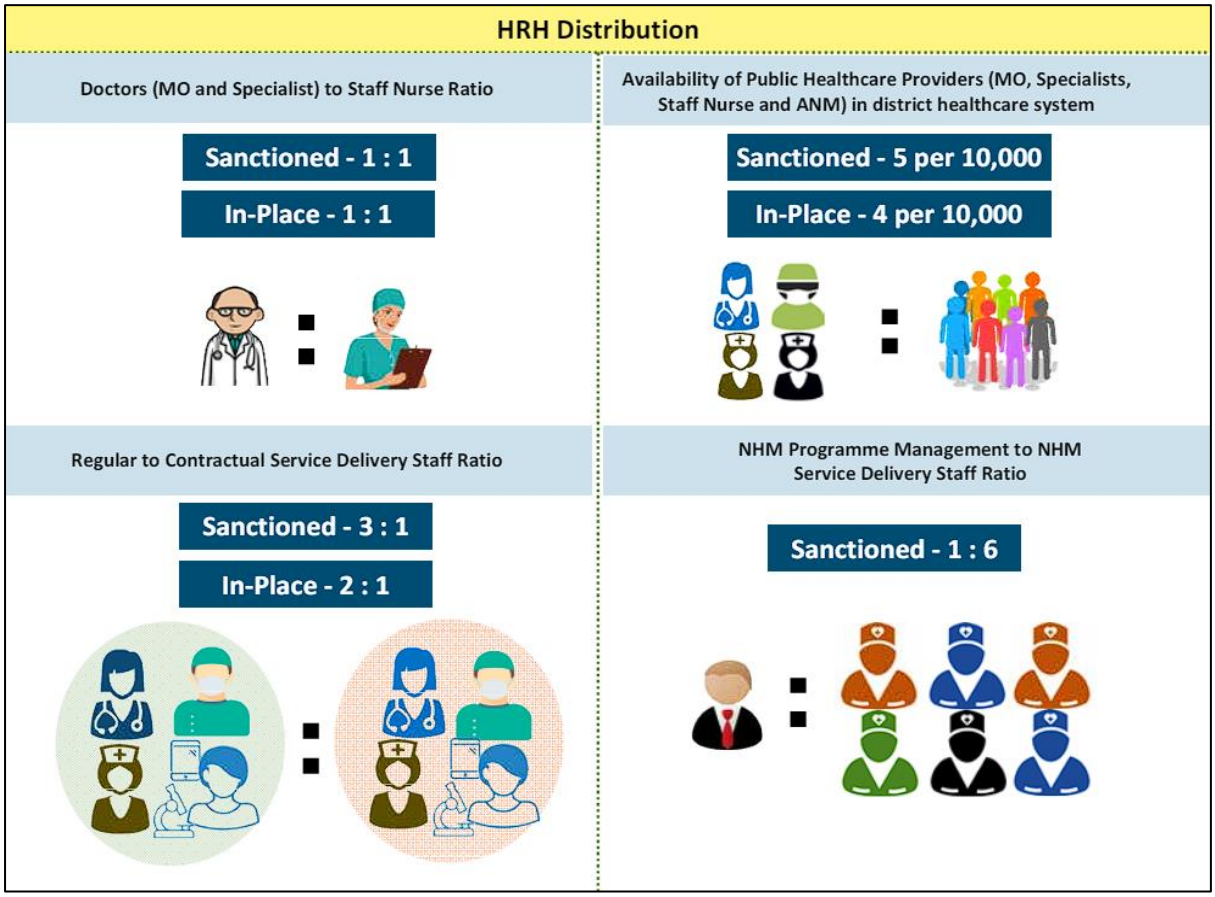
Source: NHSRC : All State infographics of HRH,2020

- Availability of HRH at Urban Facilities (UPHC & UCHC) depicting ANMs, Staff Nurse, Lab Technicians, MO MBBS and Pharmacists.



Source: NHSRC : All State infographics of HRH,2020

- HRH distribution from all the domains depicting the Sanctioned vs the In-Place staff ratio.



Source: NHSRC : All State infographics of HRH, 2020

- Average Caseload of key HRH in Punjab.

Average Caseload of Key HRH

Indicator	Average Caseload
OPD attendance per doctor	25 cases per day
Dental OPD per dental surgeon	12 cases per day
In-patient cases per nurse	2 cases per shift per day
In-patient headcount at midnight per nurse	4 cases per shift per day
Lab tests* per Lab Technician	62 tests per day
Rapid Diagnostic Tests per Lab Technician	3 tests per month
Caesarean (C-Section) per gynaecologist	1 case per day
Hysterectomy surgeries per gynaecologist	4 cases per month
Major operations using anaesthesia per anaesthetist	4 cases per day

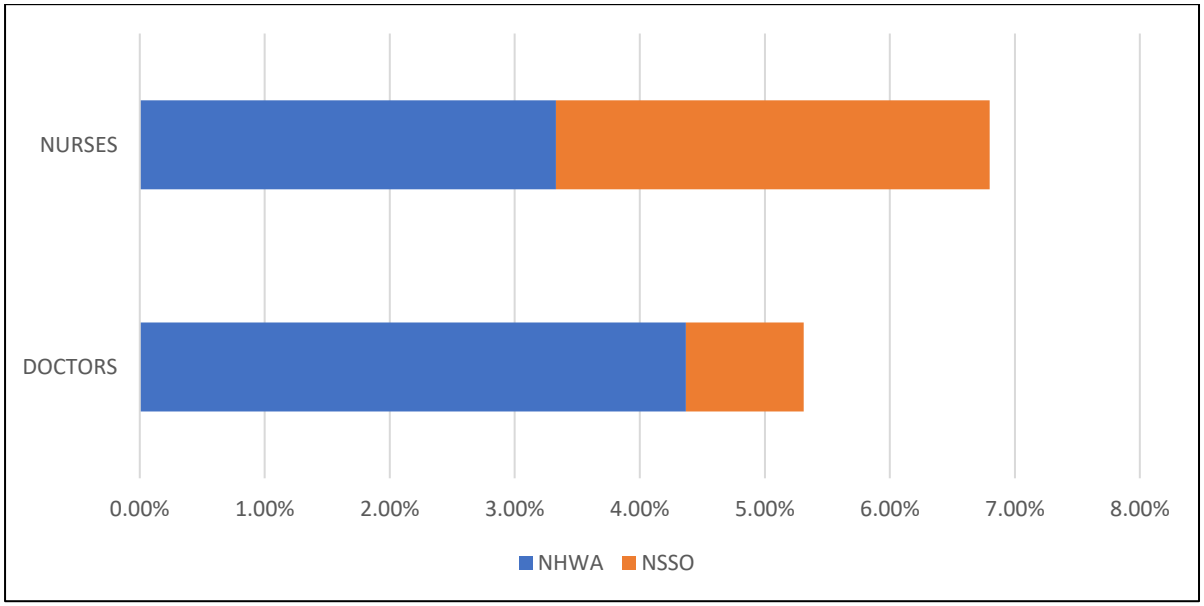
** excluding tests for RNTCP*

Source: NHSRC : All State infographics of HRH,2020

6.2 National Health Workforce Data

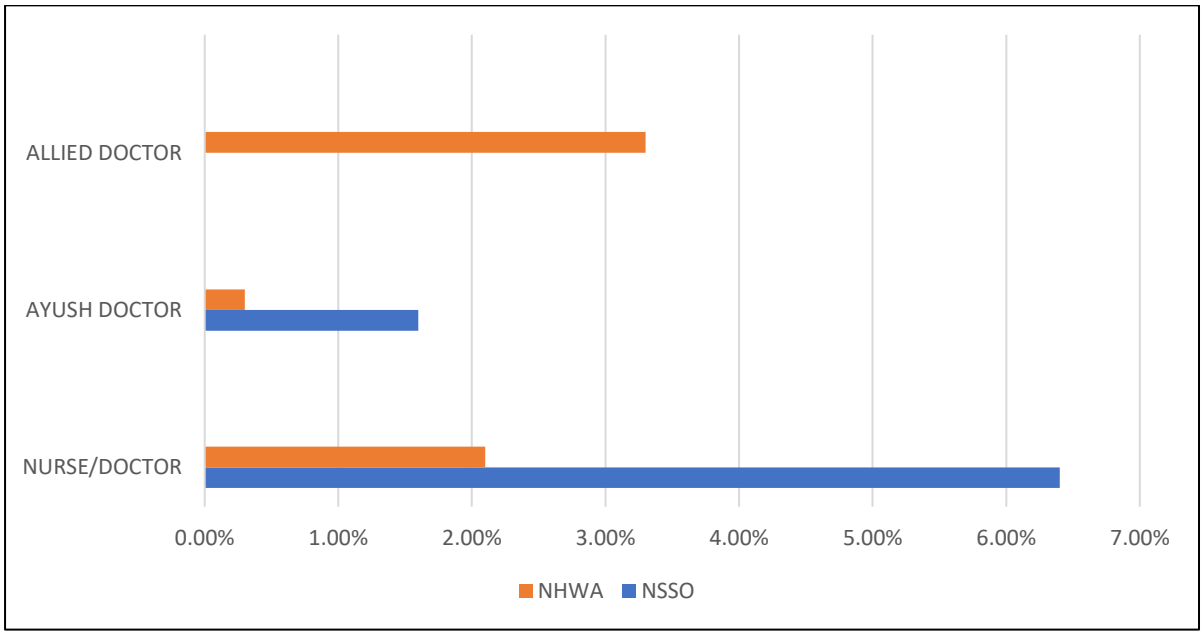
The stock data of NHWA suggested nurse to doctor ratio (number of nurse/midwives per doctor) to be 2.1:1 at the all-India level with Punjab (6.4:1)

- Number and percentage distribution of allopathic doctors and nurse in Punjab, 2018, the number of nurses is significantly more as compared to doctors.



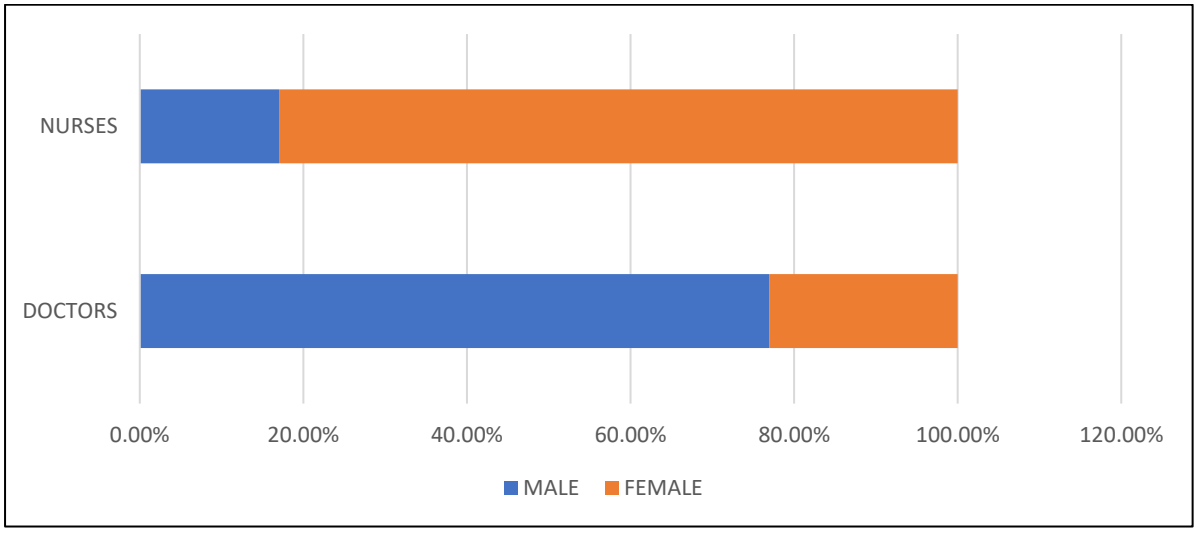
Sources: NHWA 2018 and NSSO 2017–18

- Skill-mix of health workers in Punjab, 2018 comprising of AYUSH doctors, Allied doctors and nurses:



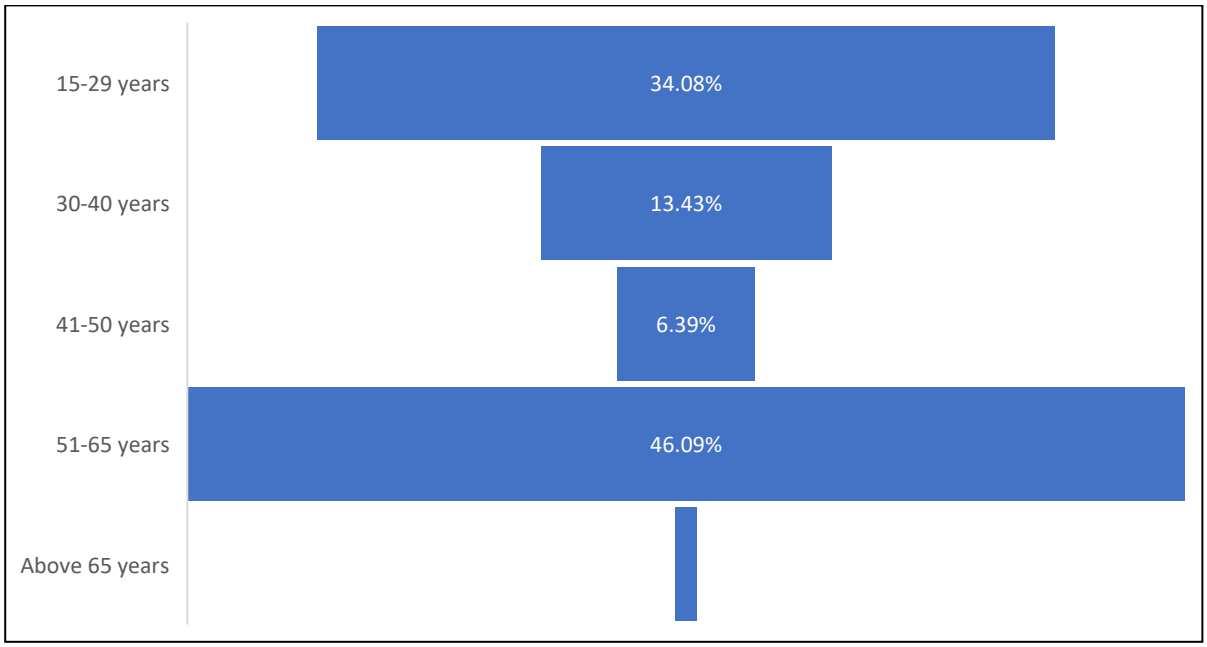
Sources: NHWA 2018 and NSSO 2017–18

- Distribution of doctors and nurses by gender across major states in Punjab, 2018 where the number of females nurses is significantly more as compared to male nurses and when we compare it to doctors, the number of male doctors is significantly higher than the female doctors:



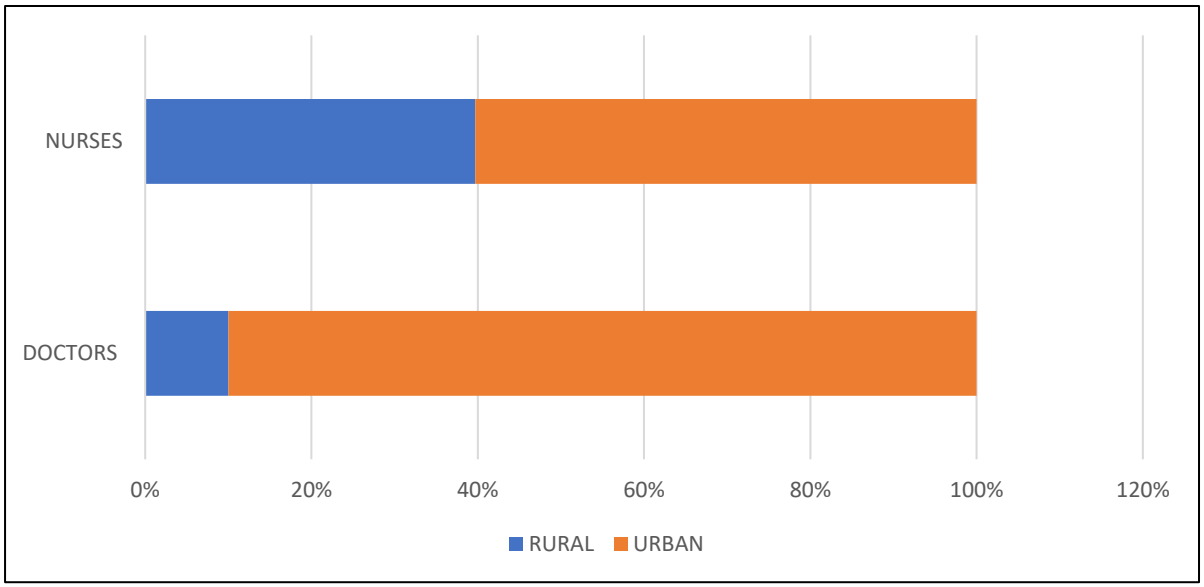
Source: Estimates from NSSO 2017– 18

- Distribution of doctors by age across major states in Punjab, 2018 the majority of the doctors lie in the age group of 51-65 years of age and with minimal in the age group of above 65 years:



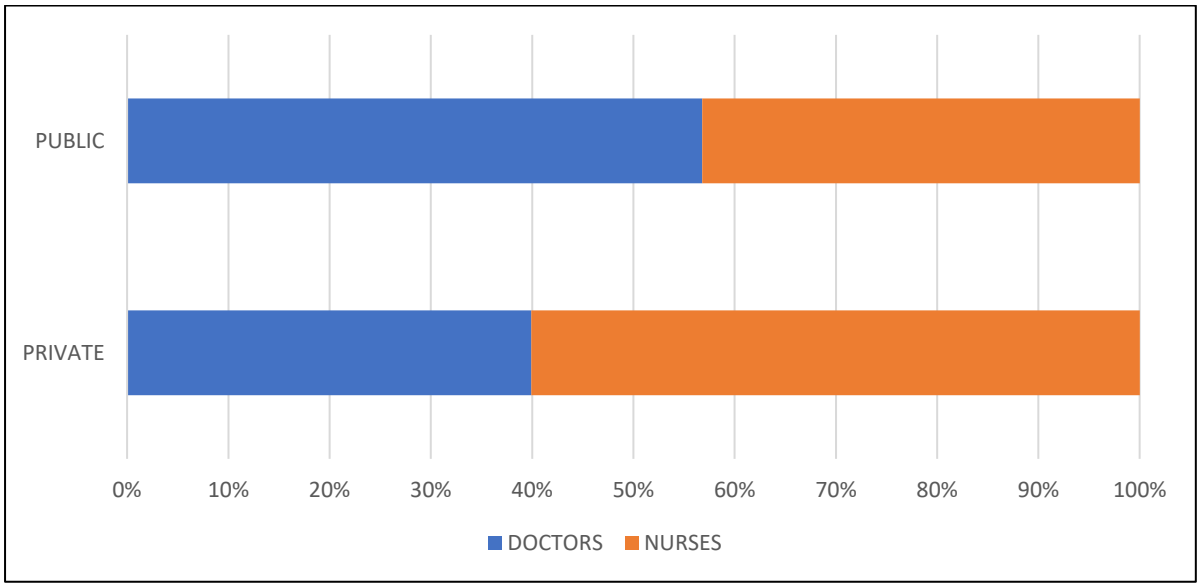
Source: Estimates from NSSO 2017– 18

- Distribution of doctors and nurses across rural – urban in Punjab, 2018 the number of nurses is almost the same in the rural and urban areas but when we compare the same with the doctors, they are more in number in the urban areas:



Source: Estimates from NSSO 2017– 18

- Distribution of doctors and nurses across public-private and major states in Punjab, 2018 almost more than 50% of the doctors work in the public sector and around 40-45% work in the private sector. Nurses work significantly more in the private sector.



Source: Estimates from NSSO 2017– 18

- Punjab vacancy numbers for select positions at sub-centre, PHC and CHC level (as on 31st March 2019) where the number of ANMs, AYUSH doctors, nursing staff and Allopathic general duty medical officers is in surplus:

Sub-centre		Primary health centre (PHC)						Community health centre (CHC)			
Health worker(female)/ANM	Health worker (male)	Health worker (female)/ANM	Health assistant (female)/LHV	Health assistant (male)	Allopathic doctors	AYUSH doctors	Nursing staff	Nursing staff	Allopathic general duty medical officers	Total specialists	Ayush doctors
140	1602	Surplus	73	117	13	Surplus	228	Surplus	Surplus	403	Surplus

Source: Rural Health Statistics: 2018-19, Ministry of Health and Family Welfare, Government of India

6.3 Public Health Facilities in Punjab:

S.No	Health Facilities	Number existing	Remarks
1	District Hospitals	21	
2	Sub Divisional Hospitals	39	277 (requirements if taken per lakh population)
3	Community Health Centres	143	
4	Primary Health Centres	330	923 (requirement if taken per 30000 population)
5	Sub centres	2950	5541 (requirement if taken per 5000 population)

SOURCE: Punjab Public Health Workforce Report.pdf (nhsrcindia.org)

In addition, state has 23 Urban Family Planning Centres, 64 Urban Revamping centres & 52 Post Partum Units to deliver Family Planning services in the state.

Punjab has 9 Government Medical Colleges with the total annual intake of 1070 seats. Apart from the government colleges, there are 9 Private Medical Colleges also offering annual intake of 995 seats:

S.No	Government Colleges	Tentative no of Seats
	MEDICAL COLLEGES	
1	Govt. Medical college, Majitha road, Amritsar (GMC Amritsar)	150
2	Govt. Medical College, Sangrur Road, Patiala (GMC Patiala)	150
3	Guru Gobind Singh Medical College, Sadiq Road, Faridkot (GGSMC)	50
4	Dayanand Medical College, Civil Lines, Ludhiana (DMCH Ldh)	70
5	Sri Guru Ram Das Institute of Medical Sciences & Research, VPO Vallah, Amritsar (SGRDIMS & R Amritsar)	100
6	Adesh Institute of Medical Sciences & Research, Barnala Road, Bathinda (AIMS & R, Bathinda)	150
7	Gian Sagar Medical College & Hospital, Village Ram Nagar, Banur, Distt. Patiala (GSMC & H, Banur)	100
8	PIMS Medical & Education Charitable Society, Garha Road, Jalandhar (PIMS, Jalandhar)	150
9	Chintapurni Medical College & Hospital, Village Bungal, Distt. Pathankot (Chintpurni, Pathankot)	150
TOTAL		1070

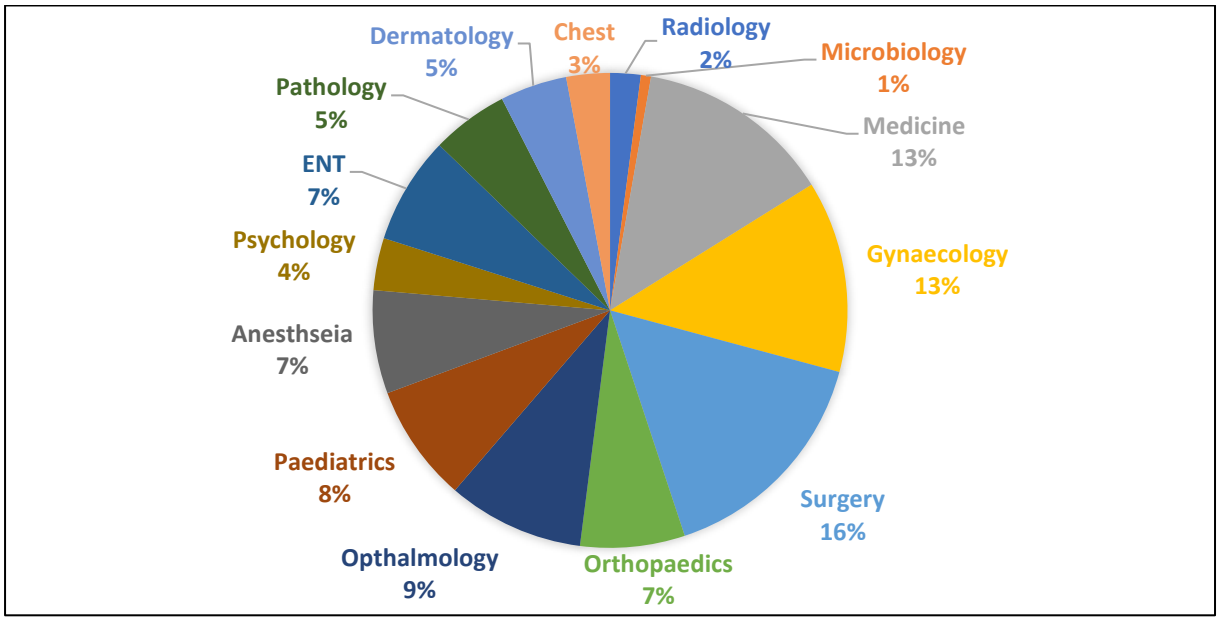
SOURCE: Punjab Public Health Workforce Report.pdf (nhsrcindia.org)

- Human Resource availability – Sanctioned (S) & Vacant (V) posts under all broad categories:

S.No.	District	MPW (Male)		Staff Nurse		Lab Tech (LT)		Pharamacists		LHV		ANM		Health Supervisors (Male)		Radiographer		MO		MO (Dental)	
		S	V	S	V	S	V	S	V	S	V	S	V	S	V	S	V	S	V	S	V
1	Amritsar	183	0	198	59	72	1	168	150	58	0	269	0	42	0	36	0	162	19	21	2
2	Barnala	77	7	53	8	19	0	65	0	16	11	74	0	18	0	4	2	56	14	5	2
3	Bathinda	158	88	180	103	66	41	148	17	37	15	178	19	33	2	16	10	184	60	20	8
4	Faridkot	69	51	96	57	31	25	45	3	15	0	65	0	12	0	7	6	101	52	9	4
5	F.G. Sahib	73	23	92	56	38	26	61	31	12	3	73	3	12	0	13	9	90	29	9	0
6	Ferozpur	227	156	217	104	64	22	173	50	48	3	231	20	45	14	18	7	196	106	18	4
7	Gurdaspur	269	6	235	24	58	0	215	78	68	0	325	12	54	0	48	2	225	43	29	3
8	Hoshairpur	223	80	188	11	72	11	89	0	54	0	259	23	50	5	22	1	183	25	20	3
9	Jalandhar	233	143	140	63	60	16	158	8	55	0	242	26	55	0	14	2	158	7	20	1
10	Kapurthala	101	51	115	42	32	10	88	49	22	0	113	13	19	2	13	5	129	31	12	9
11	Ludhiana	267	158	202	14	82	38	152	0	66	4	349	0	54	1	16	0	257	56	23	1
12	Mansa	107	57	105	67	31	18	72	0	24	17	108	4	22	0	5	2	100	64	9	4
13	Moga	100	67	102	24	39	21	102	29	27	0	122	7	28	0	9	6	85	34	7	0
14	Muktsar	91	47	86	0	38	25	87	24	24	5	106	0	19	1	16	11	113	61	12	7
15	Patiala	222	149	173	107	57	27	157	59	35	11	217	17	34	18	21	13	184	40	20	0
16	Ropar	85	28	113	54	40	25	67	30	23	0	106	11	21	0	11	7	77	35	10	1
17	SAS Nagar	77	30	123	53	33	11	89	1	20	2	92	9	15	0	15	6	104	23	11	0
18	SBS Nagar	96	77	56	11	33	13	40	8	24	0	97	10	21	1	6	0	71	8	9	3
19	Sangrur	181	62	207	108	64	18	84	4	44	10	204	12	40	0	28	17	169	69	17	1
20	Tarn Taran	147	34	143	74	59	0	52	11	41	0	187	29	40	0	23	3	131	29	12	1
Total		2986	1314	2824	1036	988	348	2112	552	713	81	3417	34	634	41	341	109	2775	805	293	53

SOURCE: Punjab Public Health Workforce Report.pdf (nhsrcindia.org)

- Shown below is the Speciality wise breakup of the Specialists in the form of pie chart where we can see the majority of the doctors have specialisation in the Surgery followed by Medicine and the least can be seen in Microbiology :



SOURCE: Punjab Public Health Workforce Report.pdf (nhsrcindia.org)

7. REMUNERATION

Currently, Medical Officers & Specialists receive weekly payment of Rs 35,000 and Rs 45,000 individually. To address the always-general vacancies, it has happened projected to hike the payrolls of Medical Officers & professionals to Rs 45,000 and Rs 55,000 individually. For all permissible stick, 6% increase in permissible amount is likely to clerks upon recurrence of contract. There is more a supplying of Contributory Provident Fund scheme for staff members in united states of america. TA/DA and different concessions to the allowable stick are at average accompanying their normal matches.

7.1 Retention Strategy

7.1.1 Educational incentives

State administration sponsors in-aid doctors for PG courses in united states of america Medical Colleges against 60% measure unsociable for ruling class. As per the tactics, MOs the one had dressed in Category D and C for 4 and 6 age individually stand fit for protection.For MOs apart from the in-aid one, 40% measure in seats has been constrained. In return, they should sign a bond of 10 age duty accompanying the administration. State management is immediately expect increase the bond consist of Rs 15 lakhs from Rs 10 lakhs.

7.1.2 Monetary Incentives

Performance located lures are supported to Specialists Female Medical Officers and Staff Nurses inducted on Contract Basis.Difficult field concessions to consultants (Obstetricians, Paediatricians and Surgeons) to better aids in troublesome & most troublesome regions have existed fashioned. Rs 5000/period after 12 noon and before sunset for troublesome extents and Rs 10,000 period after 12 noon and before sunset for most troublesome districts .ISSUE – Since the well-paid convenience uncommunicative Health Sector are blooming, an MD unconscious from the Govt Medical College surely pay off the bond amount and gets lessened. There are instances when the allied clinics essentially had compensated the bond amount for the Specialists so concerning take bureaucracy up.

8. HEALTH HUMAN RESOURCE INFORMATION SYSTEM

State has grown inside a program that is to say, Doctor OPD Management method that is used to path the depiction of key duty providers. Block Statistical Assistants and Information Assistants at the block level feed the dossier on results like IPD, OPD, deliveries, etc for all help providers. This facts on outputs is before inspected by Punjab Health Systems Corporation (PHSC) for CHCs, SDH and DHs and Directorate of Health Services (DHS) for PHCs only and secondhand for judging the depiction of the stick and following the underperforming conveniences. Various conduct-located lures are likewise connected to this whole. Apart from this, state has still planned Human Resource Information System (HRIS) but not caused it common up until now.Block Statistical Assistants (BSA) & Computer Operators are, still, in the direction of the block to feed dossier but occasionally on account of the duties and responsibilities they are unfit commotion dossier augmenting that further leads to dossier lapse. In a habit, circumstance of the dossier rests on the opportuneness proved apiece BSAs.

9. WORKFORCE MANAGEMENT POLICIES AND GUIDELINES:

As per the posting policy, the stations have been classified into four categories, namely:

a) Major cities (Category – A)
b) Semi Urban and Urban areas (Category – B)
c) Semi Urban and Urban areas (Category – C)
d) Very Difficult areas (category- D)

9.1 Medical Officers & Specialists

The energy area invites uses in the prescribed plan for transfers from worthy MOs in the first temporal length of event or entity's existence of April done yearly. While seeing the proposal for transfer requests, desire is likely to the thwarted, customer accompanying serious aches like tumor, Thalassemia, Single female (widowed, relict & allowable divorce).On first appointment, all Medical Officer gets informed in the D classification. The Medical Officers the one complete the established tenure in the classification take the alternative to present choice of 3 workstations in the next category orderly of advantage as earlier, through decent channel. If some MO wishes to stay further in Category – D, after the accomplishment of recommended need age' help, then each year's help in classification D counts for 2 age in Category – C. Or if some MO wishes to take transferred to type C & D stations, he will catch option for the unchanging.This tactics is not applicable to the Medical Officers the one have achieved five age beneficial as on 1/01/12. The Medical Officers named prior to 01/01/12 the one destitute achieved 5 age influential as a whole and not completely 2 age in Category D stations should complete minimum 2 age in classification D stations. Those who have achieved 2 age in type D stations should do for at least 3 age in classification C before.

For rest of the Medical Officers, minimum period of working at each category has been affixed as shown below:

a) Very Difficult areas (category- D): 4 years
b) Difficult areas (Category-C): 5 years
c) Semi Urban and Urban areas (Category-B): 7 years
d) Major cities (Category – A): Remainder (If in case any MO wishes to continue beyond his minimum tenure affixed for categories D, C and B, he is allowed to do so)

Exceptions have happened fashioned, still, like on sure premises like doctors approaching retirement payout, Doctors accompanying their wards in Class X or XII can receive their transfers waived off. Also, either of pair of things occupied as Government Medical Officers in Category D (very troublesome extent), the minimum ending to do because classification gets decreased to 3 from 4 age.Establishment issues for all classifications of stick, except Medical Officers and Specialists are anticipated afterwards by Director Health Services. For transfers/entry of Medical Officers/Specialists only, definitive nod from Principal Secretary is captured.

9.2 Contractual Staff

State Health Society (SHS) being the ministry has persistent the conditions and environments of hiring of allowable stick. In united states of america, skilled is further a supplying of transfer of workers on governmental domains inside united states of america or to & frizzy

hairstyle State Headquarters in consideration of Department of Mission Director. Transfer requests are diverted formerly in ownership and in the months of April, May. Transfer requests are thought-out mainly on shared base and exceptionally as long as of some importance.Terms and Conditions more involve the premises for leaving, namely. Maternity/Abortion, Medical/Sick leave, Casual and Extra Ordinary leaves.

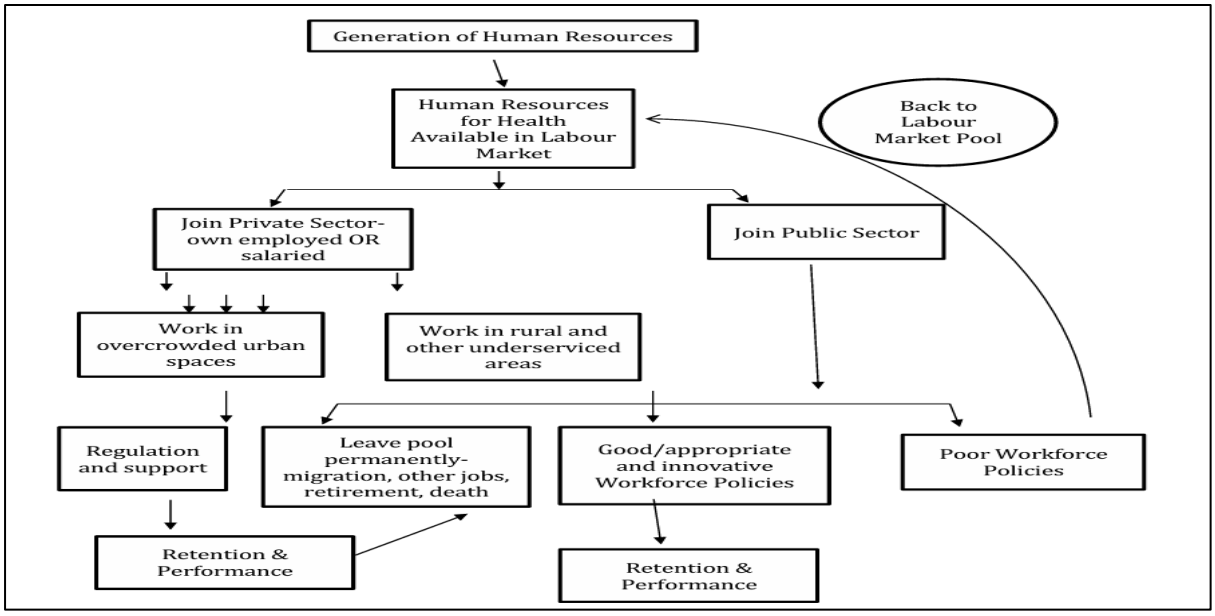
10. MANAGEMENT CADRE

10.1 Regular Staff

Separate disconnections are aimed by various managers like Director - Health Services, Director - Family Welfare, Mission Director – NRHM, Director – PHSC, Commissioner – AYUSH. These are further aimed apiece Principal Secretary.

10.2 Contractual Staff

At states level, State Programme Management Unit composes State Programme Manager, M & E Manager, HRD Manager, Procurement Manager situated State NGO Coordinator, ARSH Coordinator, BCC Coordinator.



Human Resources for Health- Employment Cycle

There is no HR to supply mechanics Consultancy at united states of america level. Positions for mechanics stick in the way that Specialist MH, Specialist CH and Specialist FP are dishonest absent-minded in SPMU.At the commune level, District Program Management Unit (DPMU) covers District Programme Manager, District Accounts Manager and District M & E Officer[7].

[7] https://qps.nhsrcindia.org/sites/default/files/2021-02/Punjab%20Public%20Health%20Workforce%20Report.pdf

11. ACTION POINTS

11.1 Immediate Actions:

1. **Prioritizing Vacant Positions:** The state must prioritize filling all vacant positions at SPMUs. This can be achieved through targeted recruitment drives and streamlining the appointment process.
2. **Needs-Based Staffing Allocation:** A mechanistic approach solely based on IPHS scores should be replaced with a needs-based staffing model. This model should consider factors such as patient caseload, service requirements of the specific facility, and available infrastructure and equipment. This will ensure optimal resource allocation based on actual service demands.
3. **Strategic Redeployment of Staff:** A strategic redeployment of trained staff can address critical shortages. Staff with relevant skillsets can be redeployed to facilities experiencing high patient volume and ensure continuity of care. This exercise should be conducted meticulously, considering the staff's expertise and ensuring they are placed in environments with appropriate facilities to handle the assigned caseload.

11.2 Mid-Term Measures:

1. **Performance Monitoring and Feedback:** Regular progress reviews based on key performance indicators (KPIs) should be conducted for FRUs (First Referral Units) and 24x7 PHCs (Primary Health Centres) by the respective supervisory authorities. This will not only ensure accountability and improve service delivery but also provide a sense of being valued and appreciated for the staff working on the ground.
2. **HR Management Information System (HRMIS):** Implementing an HRMIS can significantly enhance workforce management. Real-time data on trained and untrained staff across various departments and facilities will enable better decision-making regarding staffing needs, skill gaps, and targeted training programs.
3. **Optimizing Physician Workforce:** To bridge the gap in primary care physician availability, AYUSH FMOs (doctors trained in traditional Indian medicine systems) can be strategically deployed in facilities lacking MBBS FMOs. This can ensure continued access to essential healthcare services in underserved areas while potentially reducing the burden on the MBBS doctor workforce.
4. **Grievance Redressal Mechanism:** A robust and accessible grievance redressal mechanism should be established to address staff concerns promptly and effectively. This will foster a more positive work environment and improve staff morale, leading to better patient care.
5. **Incentivizing Performance:** The proposal to increase the bond amount for graduating MDs can be further evaluated alongside exploring alternative incentive programs. Consider increasing the bond amount for MD graduates from Rs 10 lakhs to Rs 15 lakhs. Linking performance-based deliverables with incentives can motivate staff to go the extra mile and improve overall service quality.

11.3 Long-Term Strategies:

1. **Increased Medical Workforce Generation:** Long-term efforts are crucial to increase the overall number of healthcare professionals at all levels. This may involve increasing medical college capacities, offering scholarships and financial assistance to medical

students, and potentially creating attractive career paths in government healthcare services to attract and retain talent.

2. **Adequate Staffing Policies:** Policies should be implemented to ensure adequate staffing levels across all healthcare facilities, considering projected population growth and evolving healthcare needs. This will require regular review and adjustments to staffing allocation based on actual service demands.

CONCLUSION

The healthcare workforce in Punjab faces numerous challenges, primarily due to disparities in the distribution of medical professionals and facilities across the state. According to the National Health Workforce Accounts (NHWA), the stock density of doctors (including both active and inactive) in Punjab is approximately 8.8 per 10,000 persons, but this number drops to 6.1 per 10,000 when considering only active doctors as per National Sample Survey Organization (NSSO) data. Similarly, the stock density of nurses and midwives is about 17.7 per 10,000 persons, but only 10.6 per 10,000 are actively working. This gap highlights a significant issue in the availability of healthcare professionals where they are needed the most.

Punjab has seen an increase in the number of registered nurses and midwives, growing from 45,801 in 2010 to 76,680 in 2017, at an average annual growth rate of 9.85%. Despite this growth, the state still struggles with shortages, especially in rural areas. The doctor-to-nurse ratio stands at 6.4:1, which is higher than the national average, indicating a relative oversupply of nurses compared to doctors.

The distribution of healthcare resources is highly uneven across the state's districts. For instance, the top three districts, Amritsar, Ludhiana, and Patiala, house a significant portion of the healthcare infrastructure and professionals: 25.35% of hospitals, 25% of primary health centres (PHCs), and 35.28% of beds. Conversely, the bottom three districts—Fatehgarh Sahib, Fazilka, and Pathankot—suffer from severe shortages, with only 7% of hospitals and 6% of beds. This skewed distribution is mirrored in human resources, where the top three districts employ 43.47% of doctors and 25.96% of nurses, while the bottom three districts have only 2.36% of doctors and 3.38% of nurses.

As of June 2022, Punjab had 1,308,009 allopathic doctors registered with the National Medical Commission (NMC) and state medical councils. This number reflects a decline from previous years and highlights a broader issue of doctor retention and distribution. The urban areas generally have better access to healthcare services, leaving rural areas underserved. This is compounded by a significant number of healthcare professionals working in the private sector, which limits the availability of public healthcare services.

The state has made efforts to improve this situation, including increasing the intake of medical colleges. Punjab has nine government medical colleges with a total annual intake of 1,070 seats and nine private medical colleges offering 995 seats. Despite these efforts, Punjab's overall density of healthcare professionals remains below the World Health Organization (WHO) threshold of 44.5 doctors, nurses, and midwives per 10,000 population.

Furthermore, the state's health human resource (HRH) governance indicates an absence of specialist cadres and public health cadres, although there is an implementation of HR information systems. Immediate actions to address these gaps include prioritizing the filling of vacant positions, needs-based staffing allocation, and strategic redeployment of trained staff to high-demand areas. Mid-term measures involve performance monitoring, implementing a robust HR Management Information System (HRMIS), optimizing the workforce with AYUSH doctors, and establishing a grievance redressal mechanism. Long-term strategies focus on increasing the medical workforce, ensuring adequate staffing policies, and incentivizing performance to retain healthcare professionals in the public sector.

ANNEXURE : HRH BEST PRACTICES

Based on gaps that has been identified from secondary review of the policies/guidelines/GOs, following are the HRH best practices at national & international level and snapshot of some of key best practices under various themes are illustrated below:

1. Haryana

Policy & Regulation – Recruitment & Retention

Haryana

Background

Haryana reported shortage of health manpower, especially for doctors, primarily due to poorly designed work force management policies and the lengthy recruitment process under Haryana Public Service Commission (HPSC).

To overcome the same, state has adopted bundle of strategies for improving Work Force Management Practices in state to attract and retain Medical Professionals in Public Health Service.

Intervention

- **Contractual appointments**: Appointment of medical professionals on short term contract for one year, extended annually without going to the public service commission by the state or district health department. Selection was made by "walk-in" interview and immediately appointed if found suitable.
- **Public Private Partnerships**: Private specialists were contracted in on call basis to provide specialty health care services in the public health facility where regular government specialist posts were vacant.
- **Revised recruitment, placement & Transfer policy**: Flexible approach was adopted to post the candidates at the preferred location whenever feasible. This flexibility has attracted candidates from the neighboring states of Rajasthan, Punjab, and Uttar Pradesh, and many such doctors opted to be posted as per their preference in the border districts. As per transfer policy, both specialists and MBBS doctors, have to complete a minimum tenure of three years at one location of posting. No transfers would be made until three years of term is completed at one center of posting.

Impact

- Significant reduction in the number of vacancies of doctors/ specialists at public health facilities of state
- Revised workforce management policies and fast recruitment process for regular government posts served as contemporary platform to attract or retain or ensure performance of skilled professionals in the public health system

(Source: Dr. T. Sundararaman, Dr. Garima Gupta, Shomikho Raha1, Krishna D. Rao (2011) Improving Work Force Management Practices in Haryana state to attract and retain medical professionals in public health service: A Case Study, : National Health Systems Resource Center, New Delhi & PHFI)

2. Odisha

Policy & Regulation – Recruitment & Retention

Odisha

Background

The scarcity of qualified health personnel in rural areas and their unequal distribution was a critical challenge for health sector in Odisha. Diverse interventions have been instituted by Odisha government to attract health personnel to rural areas and to enhance the retention of qualified workers which include incentives by way of higher salaries or preferential admission to postgraduate education, and regulatory strategies, such as, educational bonds or compulsory rural service for medical graduates.

Department of Health and Family Welfare, Government of Odisha has also taken a proactive step in strengthening their human resources by creating a dedicated State Human Resource Management Unit (SHRMU) under the directorate of health services with an aim to revamp human resources for health.

Intervention

- The entry level of Assistant Surgeon has been upgraded from class-II rank to the rank of junior class-I with scale of pay of Rs. 15,600/- to Rs. 39,100/- with grade pay of Rs. 5,400/-.
- Specialist allowance of Rs. 3000 to each specialist doctor has been sanctioned.
- Kalahandi-Balangir-Koraput (KBK) allowance of regular M.O. has been increased from Rs. 4,000/- PM to Rs. 8000 in periphery health institutions and from Rs. 2,000/- PM to Rs. 4,000/- in SDH and DH.
- Restructuring of the cadre of medical officers has been done to create more promotional avenues.
- Legislation has been made to prevent violence against medical personnel and medical institutions.
- Retirement age of regular doctors has been enhanced from 58 to 60 years.
- Confidential Character Rolls rules have been relaxed to enhance promotion.
- Addition of 10% of marks in PG entrance examination per year of service in tribal subplan and backward areas by in-service doctors with maximum marks of 30%.
- NRHM provided monetary incentives to health staff working in hard-to-reach areas identified based on a vulnerability scale across the state.

Impact

- Progressive increase in retention of doctors and other health staff particularly in rural areas.

(Source: Dr. Shridhar Kadam (March 2012) Assessment of factors Contributing & Affecting Availability & Retention of Health Workforce in Rural & Remote Areas of Odisha: Technical Management Support Team (TMST) and Department of Health and Family Welfare, Government of Odisha & Indian Institute of Public Health, Bhubaneswar)

3. Assam

Assam

To address the issue of shortage of medical doctors at difficult/rural areas of Assam, Government of Assam jointly took initiative with NHM Assam for introducing **compulsory one-year rural posting** for all doctors who have passed MBBS course and completed their compulsory rotating internship from the Medical Colleges of Assam, Doctors can choose any place of rural posting as per the merit list published by the NHM, Assam based on 1st & 2nd MBBS Marks. A monthly remuneration of Rs 35,000/- is paid to the doctors for their services in rural areas.

(Source: Notice issued by MD, NHM, Assam dated on 21st Nov 2021vide No. NHM-31013(11)/14/2020-HRD-NHM/22176 - One Year Compulsory Rural Posting of MBBS Doctors Under National Health Mission, Assam)

4. West Bengal

Education & Training – Strengthening training infrastructure

West Bengal

Background

As per IPHS, each Health Sub Center (HSC) is to be staffed by 2 Auxiliary Nurse Midwives (ANM) with 18 months training. According to this strategy, West Bengal faced shortfall of ANM's to cover the population especially in tribal & difficult areas. In this regard, West Bengal Government took initiative to re-open the government ANM Training Schools to fill the posts in newly sanctioned HSCs and vacancies in the existing ones to have enough number of ANM's to cover population especially in tribal & difficult areas & combine the outreach work with midwifery services in the Sub Center.

As, ANM being a woman worker they can be expected to be on leave for at least 40 days in a year (excluding maternity leave). 1 ANM per SC provides no room for leave reserves, and as a system, at least a 30% leave reserve is needed, making 2 ANMs per HSC a more viable Health Sub Center. A team of 3 (including the MPW-M) is a much more viable unit than a single ANM woman.

Intervention

- Increased the capacity of the existing training institutions and utilizing the un-utilized spaces/infrastructure in exiting training centers.
- Developed innovative partnership with the private institutions undertook the task of offered training to government sponsored candidates for a specified grant to expand the capacity to train ANMs to meet the deficit.
- Innovated the selection process of the ANM to ensure clear preference to those ANMs who want to work in the specific villages with active involvement of panchayats.
- Tailored the course curriculum to meet the ANMs' immediate work needs.
- Posted the ANMs to their place of selection under the local government, and not as part of the state cadre.
- Provided residential accommodation for ANMs with special permission for breast feeding mothers and women with infants to bring their children along for the training to increase their retention.

Impact

- Substantial increase in the number of ANM's in Health Sub-Centre especially in rural, tribal & difficult areas.
- Enhancement in the knowledge level of ANMs and improvement in retention of the same.

(Source: Summary Report of NHSRC Studies on Strategies for Improving Availability of Healthcare Providers in Rural Remote Areas)

5. Delhi

Human Resource Management Information System

Delhi

Background

Recognizing the use of HRIS data to improve recruitment, deployment, and training of health workers to expand access, quality, and use of health services, NHM cell of the state of Delhi launched a Management Information System (MIS), including an Employee Information System (EIS) module for use as a web-based payroll system with purpose to maintain an online attendance monitoring system and for online computation of salary.

Intervention

- EIS covers all program-based and facility-based regular employees and facility-based contractual employees of the state Department of Health and Family Welfare and captures personal and official information, salary and bank details, attendance and leave records, and current transfer posting details.
- All new HR-related orders such as transfer orders, joining orders, and others can only be generated online from this system.
- All security protocols are followed with secure user login and data security provided by NIC (National Informatics Centre).

Impact

- Around 93% HR records have been entered in the system with separate module for NHM program employees.
- Regular updation of data with online generation of new HR-related orders (such as transfer orders, joining orders, and others)
- Generation of built-in HR reports which includes salary bill reports and designation-wise and facility-wise employee distribution along with real-time reports generation on request.

(Source: Dr. Manju Shukla, Shalini Verma, Madhuri Narayanan, and David Potenziani (June 2014) Human Resources Information Systems (HRIS): A Review across States of India: Capacityplus, IntraHealth International)

Snapshot of HRH best practices implemented across the country

Kovid Gupta ST report

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21st June 2024

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Dr Kovid Gupta** was associated with **IQVIA Consulting and Information Services India Private Limited ("IQVIA")** on the **Landscape analysis of human resource for health - Punjab, India**as a part of the curriculum during the period from **22nd April 2024** till **21st June 2024**

This certificate is being issued to recognize successful completion of his internship.

For IQVIA Consulting and Information Services India Pvt. Ltd

VARINDRA Digitally signed by VARINDRA Date: 2024.06.21 21:37:09 +05'30'

Varindra B
Director - Human Resources, South Asia

FEEDBACK FORM

(Organization Supervisor)

Name of the Student: Dr. Kovid Gupta

Summer Internship Institution: IQVIA Consulting and Information Services India Private Limited, New Delhi

Area of Summer Internship: Public Health

Attendance: He maintained good attendance through out the internship duration.

Objectives met: The primary objective set for the internship was to equip him with literature review and exploratory skills for conducting landscaping exercising basis of secondary data. He was critical in providing support to team in drafting various notes on basis of secondary research. He was able to progress in enhancing secondary research skills starting from basic to fair amount of skills. I would highlight that he was able to satisfactorily meet the objectives set.

Deliverables:

- Landscape analysis of Human Resources for health (On basis of available secondary data) in the state of Punjab
- Developing note on "Understanding of Urban Health Scenarios in City Corporations of Maharashtra and Integration of Health Services with National Urban Health Mission".
- Using DemProj Offline Software and Explore various models of population projections available.
- Current Nursing Landscape and Public Health Nursing Scenario in India

Strengths: He is a proactive individual with keenness to learn and explore more. His writing skills are good, and he will excel in business writing with fair amount of handholding/ guidance.

Suggestions for Improvement: Public health research and scientific research/ writing are areas which require patient research of primary and secondary data sources. It is advisable to spend reasonable amount of time while exploring these areas and during writing as well.

Signature of the Officer-in-Charge (Internship)

Date: 14 June 2024
Place: Noida/ Delhi NCR

Certificate of Approval

The Summer Internship Project of titled **"Landscape Analysis of Human Resources for Health – Punjab, India"** at **"IQVIA, New Delhi"** is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **Post Graduate Diploma in Health and Hospital Management** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed, or conclusion drawn therein but approve the report only for the purpose it is submitted.

Name of the Mentor
Designation
IIHMR, Delhi

FEEDBACK FORM

(IIHMR MENTOR)

Name of the Student: Dr. Kovid Gupta

Summer Internship Institution: IQVIA

Area of Summer Internship: Public Health (RMNCHA+N)

Attendance: Excellent

Objectives met: Yes

Deliverables: All Deliverables Met.

Strengths: Hardworking, sincere

Suggestions for Improvement: –

Signature of the Officer-in-Charge (Internship)

Date: 3 July 2024
Place: