MASTER OF PUBLIC HEALTH

Johns Hopkins Bloomberg School of Public Health & IIHMR University

PRACTICUM REPORT

STRENGTHENING HEALTH SYSTEMS: CASE OF UTTAR PRADESH

By

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Cohort-7

2019 - 21

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TO WHOMSOEVER MAY CONCERN

This is to certify that ***Dr Sudipta Ghoshal,*** student of Master of Public Health Program offered by IIHMR University, Jaipur in cooperation with Johns Hopkins Bloomberg School of Public Health, Baltimore has undergone Practicum Training at ***Johns Hopkins India Private Ltd.*** from ***10.03.2021*** to ***19.04.2021***.

The Candidate has successfully carried out the study designated to her/his during practicum training and her approach to the study has been sincere, scientific, and analytical. The Practicum Training is in fulfilment of the course requirements. I wish her/him success in all his future endeavours.

Sd-

Dr Dhirendra Kumar

Practicum Advisor *MPH Practicum Guidelines*

CERTIFICATE BY SCHOLAR

This is to certify that the Practicum Project titled submitted by me, ***Dr Sudipta Ghoshal*** with Enrolment No. 891D5A/0045 under the supervision of ***Dr Dhirendra Kumar and Dr Brian Wahl*** for award of **Master of Public Health** carried out during the period ***10.03.2021- 19.04.2021*** *embodies* my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

~ ***Dr Sudipta Ghoshal***

MPH Cohort 7 (2019-21)

Certificate from the organization

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Date: 19th April 2021

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This is to certify that Dr. Sudipta Ghoshal who is pursuing her MPH from IIHMR Jaipur has successfully completed the internship program from March 10, 2021 to April 19, 2021 at Lucknow office of Johns Hopkins Bloomberg School of Public Health.

During this time, Dr. Sudipta has worked across all work streams of UPHSS project and she displayed professional traits during her internship period and managed to complete all assigned tasks as requested.

she had completed her internship satisfactorily under the supervision of Assistant Scientist Dr. Brian Wahl.

she was hardworking, dedicated, and committed. It was a pleasure having her with us in this short period.

We wish her all the best for her future career.

Thank You,

Dr. Brian Wahl

Senior Technical Advisor & Assistant Scientist

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ACKNOWLEDGEMENT

I would like to express my deep heartfelt gratitude to ***Prof. Dr Dhirendra Kumar*** *&* ***Dr Brian Wahl*** *for providing me this golden opportunity to prepare this report and* ***Dr Nidhi Gupta*** *for her constant support throughout the process.*

I convey my special thanks to ***IIHMR University, JHSPH & JHIPL*** *for enabling me to come in proximity with such eminent professionals who guided me and gave clear idea about the work.*

I would also like to thank my ***parents & husband****, who despite all hurdles gifted me the opportunity to pursue this degree from an institute of such stature. Last but not least I would like to thank* ***Dr Seema Mehta*** *and* ***Ms. Richa Agarwal*** *for their constant motivation and trigger to complete this report and my* ***friends from MPH cohort 7*** *who helped me stay motivated and complete this task in such trying times.*

TABLE OF CONTENTS

ABBREVIATIONS

WHO - World Health Organization

PHC – Primary Health Centre

CHC- Community Health Centre

MOHFW- Ministry of Health and Family Welfare

NRHM- National Rural Health Mission

NUHM- National Urban Health Mission

GOUP- Government of Uttar Pradesh

PH&M- Public Health & Management

NHM- National Health Mission

ASHA- Auxiliary Social Health Activists

ANM- Auxiliary Nurse Midwife

MO- Medical Officer

CMHO/CMO- Chief Medical & Health Officer/Chief Medical Officer

DHO- District Health Officer

CTI – Collaborative Institutions

SIHFW- State Institute of Health and Family Welfare

NIHFW- National Institute of Health and Family Welfare

SGPGI- Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow

IIML- Indian Institute of Management, Lucknow

HRD- Human Resource Development

HFWTC- Health and Family Welfare Training Centre

IIHMR- Indian Institute of Health Management Research

IIPS- Indian Institute of Population Sciences

ASCI- Administrative Staff College of India

VHAI- Voluntary Health Association of India

FRCH- Foundation for Research in Community Health

TISS- Tata Institute of Social Sciences

PFI- Public Health Foundation of India

NACO- National AIDS Control Organization

UPHSSP- Uttar Pradesh Health Systems Strengthening Project

JHU- Johns Hopkins University

JHIPL- Johns Hopkins India Private Ltd.

INTRODUCTION

With the advance of medical technology, curing disease has become much easier than it was in the past. Thus, it has resulted in increased life expectancy. The two have established a causal relationship, however there are gaps in many areas which have continued to widen[1]. For the majority of illness, premature mortality, disease and distress that we see around us is useless given such effective and affordable health infrastructure which is adequate and expected health outcomes can be obtained through prevention and treatment. However, the actuality is quite straightforward which establishes the fact that for the ones who require it at the most, the power of current interventions do not match the power of health systems in a thorough, extensive, and adequate scale[1].

Technologies have helped mankind to prevent the burden and cure the disease. In most of the developing world, outcomes of health are too low and are beyond acceptable limits and the existence of deep inequities in health problem can be seen in all countries and no country is exempt. The significant issues are identified with drugs and vaccines, which different types of prevention, care, or treatment measures [1]. They are not readily available in sufficient quantities or at reasonable cost and the right time to those who require them the most. The main obstacles for meeting the internationally agreed goals, which is to scale up intervention and make them realistic are inadequate health systems[1].

THE CONCEPT OF HEALTH SYSTEMS

According to "**The World Health Organization, A health system consists of all organizations, people and actions whose *primary intent* is to promote, restore or maintain health"** [1]. This includes attempts to impact factors of not only wellbeing but also direct health improving behaviors [1].

The breadth of health system extends beyond the public facilities who provide healthcare services. The ownership lies with each individual who deliver health service. Be it a mother who cares a sick child at home or a private provider who does the same. The umbrella also includes programs related to behavior change, campaigns relating to vector control, organizations providing health insurance and occupational health and safety

legislation[1]. The government also play a key role in improving the health system. Inter sectoral activity attempted by healthcare workforce, for example, empowering the service of training to foster female education is additionally a notable determinant of better wellbeing [1]. To achieve their aims, all health system systems should ensure certain basic roles, irrespective of their modes of organization including developing health staff and other main resources, mobilize and distribute budgets and ensure health system leadership and governance (also known as stewardship, which is about supervision and direction of the entire system) [1].

Therefore the W.H.O. broke down these functions into six essential building blocks needed to improve outcome and called it *"The WHO Health Systems Framework"* [1].

The six-health System building blocks are[1]:

1) Service delivery,

2) Health workforce,

3) Information,

4) Medical products, vaccines, and technology,

5) Financing,

6) Leadership, and governance,

targeted towards achieving overall goals and outcomes. The four outcomes/overall goals are recognized to be *Improved health (level and equity), Responsiveness, Social and financial risk protection* and *Improved efficiency* through proper *access, quality, coverage, and safety.*

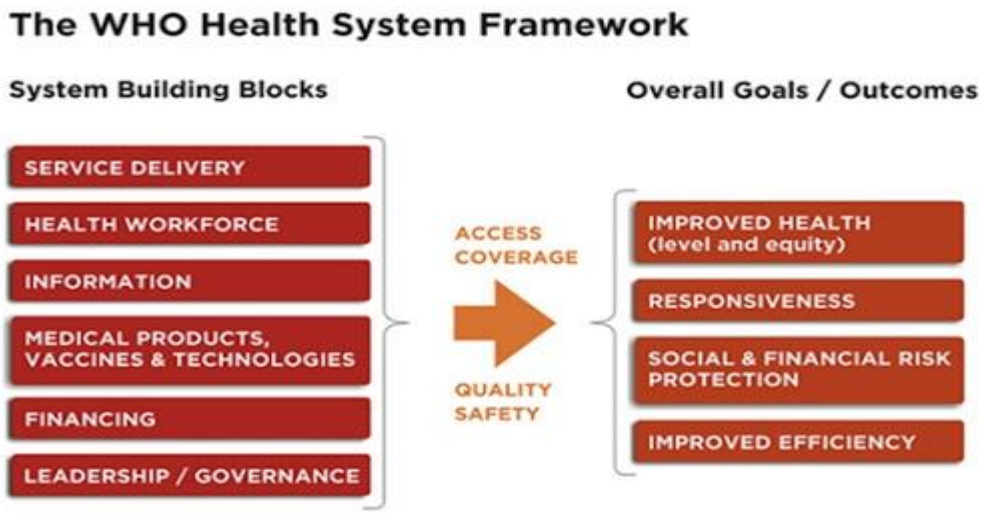

Figure 1. The WHO Health System Framework.

Source:*https://lh3.googleusercontent.com/proxy/yKLLK3cwTCBWx51n08iMKrnudOZ8pDNazqXTWVghJzN621BiDzuFY_tglgyece01pwUoHPNmu9alhRJU5448de4khet8Dgs_eOWEgxgxFY9biiJ981Mz9vQGQ*

Regardless of how a health system is structured, all health systems should carry out basic functions. They must deliver healthcare services to the needy ones. Also, they should plan to create key resources and develop health workers who shall contribute to the system. They should also organize and allocate finances. It should also ensure health system stewardship, which ensures proper management of an entire health system[1].

Therefore, Health system strengthening relates to refining these six blocks of health system and manage their interfaces. That should be so that health care and health results will improve more equally and sustainably [1].

Middle-income countries, such as India, face numerous problems in terms of health care. Millions of Indians fall into poverty each year as a result of health-care costs. The main explanation for this is a shaky health system, which is both technically and practically unequal[2]. The scope of illness continues to shift in the light of a year-long COVID-19 pandemic. A number of factors affect their ability to do so. Some are national or sub-national in scope, such as monetary and human resource availability, overall government policies on decentralization, as well as the position of the private sector. National health systems, on the other hand, are increasingly being influenced by forces that have a negative impact on their success such as migration and trade factors, which operate at global level[2].

HEALTH SYSTEM IN UTTAR PRADESH

Uttar Pradesh (UP), is the largest and most populated state in India with almost 200 million inhabitants in the northern part of the country and accounts for 17% of India's population[3][4]. The state is divided into 18 divisions and 75 districts with Lucknow being the capital city [5] [6].

Source: *https://upload.wikimedia.org/wikipedia/commons/thumb/9/91/IN-UP.svg/375px-IN-UP.svg.png*

The urban population of UP is increasing over the past decades given the rate of migration owing to rapid urbanization, many citizens in the state live in tough personal circumstances because of economic deprivation and harsh living conditions

that have become everyday realities for a significant portion of the population[7]. The status of their health and the minimal chances they have, to confront sickness is a central aspect of this instability. Concurrently, the health problems that the people of Uttar Pradesh face are changing. Uttar Pradesh is in the early stages of an epidemiological transition, as evidenced by an increasing burden of morbidity and mortality due to Noncommunicable Diseases (NCD), as well as a continuing twin burden of communicable diseases and malnutrition well before the incidence of COVID19[8].

Health care in UP is delivered across a vast network of hospitals in both urban and rural areas[9]. But public health services in the state are underutilized due to limited and underfunded public health system. The poorest quintile and women are more likely to use a municipal provider for hospitalization treatment[9]. Hence, they have no alternative but to rely on a growing but increasingly unregulated private health care distribution system. A significant percentage of the population either foregoes healthcare due to the prohibitively high cost of treatment in the private sector or affords health insurance that is costly and often unsuccessful[9].

For example, a hurdle to entry is insufficient facility density. Facilities that are structured by directive to provide very small categories of treatment in order to receive user fees to administer medications and diagnostics that cannot be ordered elsewhere, as well as with little continuity in care between primary and secondary tiers, contribute to a reduction in standard of care[9]. Low utilization is often driven by *"market-defined"* expectations of a good healthcare delivery system, as well as understaffed and dispirited workforce[9].

There are many problems, including a shortage of healthcare practitioners, the healthcare costs, the proliferation of private healthcare, and a lack of planning[9]. According to the Indian Public Health Standards (IPHS), which establishes facilities and human capital standards for public health institutes in India, one-third of the state's rural population lacks access to primary healthcare infrastructure. To satisfy the healthcare services needs of its kin, Uttar Pradesh requires 31,037 sub-focuses, 5,172 PHCs, and 1,293 CHCs. Nonetheless, as indicated by RHS-2015 outcomes, the state is in a lack of 33% of required sub-centers and PHCs, and 40% short of CHCs [9].

This lack of public healthcare facilities impedes the introduction of publicly financed health services, which, in essence, necessitate an efficient web of public health institutes. Consecutive state governments and policymakers were unable to properly plan for, focus on, and handle medical care needs Successive state governments and

policymakers have consistently failed to prepare for, prioritize, and grasp healthcare needs[9].

The State's Health Infrastructure is divided into two Directorates, each of which is led by a different Director General[9][10]:

i) The Director General of Medical Health Care
ii) The Director General of Family Welfare

Both Directorates are in charge of implementing all health programs.

For successful National Rural Health Mission (NRHM) programme management, the NRHM has a special unit called the *"State Proj ect Management Unit (SPMU)"* Programme Managers are designated as *'General Managers'* for each part of NRHM[9] [10].

Majority of the workforce are recruited on a contractual basis, with others bringing in on deputation. In addition, Program Management Units (PMUs) have been established in 18 divisional PMUs, 75 district PMUs, and 820 block PMUs[10]. Active policy administration is carried out by the State Institute of Health and Family Welfare (SIHFW), the Directorate of Family Welfare, the Directorate of Medical Health, and the Directors (MH and FW) [10]. At the Divisional level, Additional Directors provide leadership for policy execution, and the Divisional PMU serves as a control cell. At the districts level, the Chief Medical Officer is in charge of the health department, and the heads of the hospitals are the Chief Medical Superintendents of Male, Female, and Combined hospitals. District Male, Female, and Mixed Clinics, Community Health Centers, Primary Health Centers, and Health Sub Centers offer health care[10].

The government of Uttar Pradesh has appointed CMOs from the Provincial Medical and Health Services (PMHS) Cadre at the Level-4 (L4) level[10]. CMOs oversee the district's health management and are responsible for meeting the district's health objectives by strategic preparation, implementation, and management of both preventive and curative health care programs[10]. They are also in charge of working with all government departments, PRIs, Non-Governmental Organizations (NGOs), and social and political leaders[10].

CMOs currently are recruited solely on the basis of seniority, with no formal qualifications or assessment of their Public Health and Management (PH&M) competencies to address the complexities and obligations of this role. Despite the fact that the majority of CMOs have almost two decades of experience in the public health sector,

their domain knowledge, and skills in public health (e.g., assessment, policy development, and assurance), management (e.g., people, financial, and material), and leadership, which are needed to successfully lead public health systems at the district level, could be limited due to the clinical nature of their pre-service training. Most of it is job-based learning.

The COVID-19 pandemic stresses the role of key competencies, including prevention, diagnosis, and response to disease outbreaks, in the implementation of public health responsibilities. However, several resource-poor environments are struggling to ensure that health workers have enough public health capabilities to fulfil this and other public health roles effectively[4].

In this circumstance, the level-4 health experts should be prepared to apply the central program the executives elements of planning, staffing, arranging, administrative necessities, observing, organizing and successful group building; think about training and speculations in initiative and the board that sway the interaction of dynamic in general wellbeing practice and exploration; achieve bona fide and innovative answers for general wellbeing challenges through oversaw cooperation, and authority.

THE UTTAR PRADESH HEALTH SYSTEMS STRENGTHENING PROJECT[7]

The Uttar Pradesh Government has been open to organizations such as the *World Bank* and private institutions such as the *Gates Foundation* to strengthen the health system and the board. [9]. A model is the World Bank helped, “Uttar Pradesh Health System Strengthening Project (UPHSSP)”. This plans to upgrade public health care departments in the state[7].

The Department of Health and Family Welfare (DOHFW), UP and its Directorates' administrative capability and management processes were deemed insufficient in areas including strategic planning and systematic budgeting, tracking, and assessing efficiency, hospital management, health finance, human resource distribution and management, procurement and supply chain management, and financial management [3]. Public health and supervisory roles such as outbreak monitoring, mosquito control, vital statistics,

service delivery quality assurance, food and drug administration, and healthcare waste management were also inadequate[7].

This project was initiated with an objective "to scale up efficiency, quality, and accountability of health services delivery by strengthening the state health department's management and systems' capacity in the state of Uttar Pradesh, India"[7].

The project is divided into two elements. The first element is strengthening the management and accountability systems of the state's health department[7]. This component further supports the following objectives[3][7]:

- Boosting strategic planning roles in the health department by working closely with the Health and Knowledge Resource Centre (HKRC) [7].
- Enhancing use of data for the program management in cooperation with existing Electronic Data Processing (EDP) cell and expand its scope of function as a Data Resource Centre (DRC) [5][7].
- Advancing the use of financial information for better decision making through the present accounting and auditing systems for treasury and society funds and improving procurement and supply chain management systems[5][7].
- Enter and enhance community wellbeing and health care community action studies at the local level and create incentives for providers in the public sector [5][7].

The second element is aimed at strengthening the health department's quality assurance capability and the successful involvement of the private sector. The following objectives are supported by this section [7]:

- Strengthening administrative capability and legislative capacity for quality care, including establishing cells for capacity development in the Health Directorate for Quality Assurance (QA), Environment Management (EM) and the Public Private Partnership cells[5][7].
- Enhance the level of operation and service delivery in public sector hospitals for the purpose of accreditation under the National Accreditation Board for Hospital and Healthcare Provider (NABH) [5][7].

PRACTICUM EXPERIENCE

Context

The Johns Hopkins Bloomberg School of Public Health (JHSPH) is contributing technical and analytical assistance to improving health services in Uttar Pradesh (UP), with funding from the *Bill and Melinda Gates Foundation, India* Country Office, under the support of a broader grant to the University of Manitoba. This project is a 24 month long broad reaching project objected towards improving coordination and collaboration of health agencies, human resources for health, health financing, evidence-to-policy, and practice as well as performance management through planned analytical approach. Apart from that, the project is responsive to health system analytical needs of the state government.

Position: Health Systems Intern

Project: Uttar Pradesh Health Systems Platform

Division: Training and Capacity Building

Target Participants: Level 4 (L4) in-service health officials/CMOs, nominated by the .Government of UP (GOUP).

Location: Lucknow, Uttar Pradesh

Situational Analysis:

CMOs currently are recruited solely on the basis of seniority, with no formal qualifications or assessment of their public health and management (PH&M) competencies to address the complexities and obligations of this role. Despite the fact that the majority of CMOs have almost two decades of experience in the public health sector, their domain knowledge, and skills in public health (e.g., assessment, policy development, and assurance), management (e.g., people, financial, and material), and leadership, which are needed to successfully lead public health systems at the district

level, could be limited due to the clinical nature of their pre-service training. Most of it is job-based learning.

In this circumstance, the level-4 health experts should be prepared to apply the central program the executives elements of planning, staffing, arranging, administrative necessities, observing, organizing and successful group building; think about training and speculations in initiative and the board that sway the interaction of dynamic in general wellbeing practice and exploration; achieve bona fide and innovative answers for general wellbeing challenges through oversaw cooperation, and authority.

Interventions: Training and Capacity Building in Public Health Management

Developing the skills of the health workforce by improvements in their competencies has the ability to transform health care and health outcomes, and lead to social and economic growth[4] [11]. For district senior health officers like CMOs, there are few training courses performed by institutes such as SGPGI, IIML and some training courses performed by NHM on basic program management, but the coverage and depth of these training courses is restricted in improving the competences of PH&M.

In addition, COVID-19 pandemic has highlighted the need to strengthen the management of public health functions at various levels especially the district –level for control as well as active management of pandemic. In the absence of competency-based training for CMOs currently, they usually experience difficulty in performing specific public health and management activities. It has consequences for the achievement of desired health benefits in districts and the state. This makes it clear that L4 physicians responsible for PH&M, at the district level and beyond, must develop public health and management skills.

Scope of work: As a Health System Intern, my part was to support team JHU in closely coordinating with State Institute of Health and Family Welfare (SIHFW), UP for organizing resource material and support in developing training manual for Public Health and Management Refresher trainings for level 4 health officials.

Output – Case Study Analysis

Rationale:

To contribute significantly to strengthening health systems, we need to have a retrospection of existing frameworks for training in the state of our interest. Since our

primary state of interest is Uttar Pradesh, research has always encircled the niches around the state level training centers in U.P.

For our interest in developing new trainings, it was necessary to review training frameworks that is followed by different state SIHFWs. To have a brief comparative analysis, I have selected four states, Haryana and Rajasthan where "State Institute of Health and Family Welfare" is the prime institute responsible for in-service trainings of health officials of all levels in state , regional and district level [12][13] and the Other two states Tamil Nadu and Maharashtra who has "Directorate of Public Health and Preventive Medicine" and Institute of Public Health as the primary bodies which are Collaborative Institutes similar to SIHFWs and are responsible for organizing and conducting trainings in the state[14][15].

In the latest health index report by NITI Ayogh "Healthy States, Progressive India" documents that " among the larger States, Maharashtra is among the top three states ranked in terms of overall performance, while Haryana, Rajasthan are among the top three states ranking in terms of annual incremental performance and they have also showed the maximum gains in improvement of health outcomes from base to reference year in indicators such as Neonatal Mortality Rate (NMR), Under-five Mortality Rate (U5MR), etc."[16] This defines the rationale behind choosing Maharashtra, Haryana, and Rajasthan, besides the fact that Haryana and Rajasthan are neighbors to Uttar Pradesh. It was also very important to study training patterns for a state like Tamil Nadu whose public health system is considered among the best performers in the country[17].

Methodology:

To study the various frameworks and training strategies, literature review was conducted on search engines like PubMed, Google scholar. Majorly the research question was:

What are the different frameworks/models that various State institute of health and family welfare in India follows to conduct trainings for in service health officials?

To refine the results obtained by the first research question, few keywords were changed to develop the second research question which was,

How are capacity building trainings for in-service health officials currently conducted in various states in India?

Firstly, "Training" was replaced with "Capacity building training". Secondly, rather than explicitly mentioning about SIHFW, it was changed to "various states" so that we can

have more relevant data about SIHFW and also about other state level training centres which was then tailored according to our area of interest.

Other than that, World Bank documents on Health System Strengthening Projects and their strategies were reviewed. The National Training Strategy, Capacity building frameworks for NRHM and NUHM developed by MOHFW was also reviewed to extract information of trainings in state level organizations recognized for trainings of in-service health officials.

Background:

The National Health Policy 2017 recognizes that training and capacity building is an important aspect for health system strengthening and health care delivery. The NHP 2017 hence have proposed measure to address the same[18]. Apart from conventional medical education they have proposed measures for short term trainings to medical officers (11.3 Specialist attraction & Retention). The policy proposes up gradation of short-term mid-level (kind of refresher) trainings for medical officers at block and district level as well[18].

Research revealed that to efficiently address the health and health system interests of both urban and rural populace Ministry of Health and Family welfare has laid capacity building framework[19]. There is documentation of capacity building frameworks for proper implementation of National Urban Health Mission. This framework outlines a broad plan for capacity development at 4 levels[20][21]:

- National
- State
- City
- District

Our focus was majorly on state level, since our motive was to find out different frameworks or models that various SIHFW follows to conduct in service trainings. However, each state does not specifically have a SIHFW, there are other parallel collaborating institutions such as medical colleges for that.

Also, there are no concrete evidence or documentation on frameworks that SIHFWs follows rather they seem to follow the National Training Strategy laid by MOHFW in

general. The training strategy states that at state level SIHFWs and other CTIs should perform the following[21]:

- Facilitate reinforcing of existing data sets for trainings.
- Identifying stakeholders other than state government to impart trainings.
- Ensure monitoring and evaluation of all programs running in the state.
- Identifying gaps/bottlenecks and devise strategies to address them.

The state of Uttar Pradesh has two institutions recognized for state level training of in-service health officials in the capital city of Lucknow. They are State Institute of Health Welfare (SIHFW) and King George Medical University (KGMU) Institute of Clinical Epidemiology[22].

State Institute of Health and Family Welfare (SIHFW) in Lucknow, Uttar Pradesh is a government affiliated top level institution established for the sake of health promotion through training, research, monitoring, and evaluation. It was previously known as "Population Centre" and was established in late 90s [23]. The objective behind its transition from Population Centre to SIHFW was to[23],

- Evaluations, baseline and end-line surveys are undertaken.
- Upgrade monitoring and evaluation system for district project.
- Plan and implement Operations Research (OR) project.

Apart with these underlying objectives resulting in the transition, Management Training Cell was added to the Population Centre with further responsibility of organizing Management Development Program for PHC and District level Senior Medical Officers[23], therefore as emphasis on trainings increased the institute was remodeled to be called as SIHFW[23].

The institute has a mission of commitment towards improving health outcomes through Human Resources Development, health staff in-service training in different categories, academic studies, and projects [23].

Types of trainings conducted:

- All clinical trainings
- Induction training
- Foundational trainings

- Orientation training
- Administration management training
- Capacity building trainings
- Disaster, logistics and waste (including bio-medical waste) management trainings.

Target participants:

- MOs, CMOs
- Nurses
- ASHAs & ANMs
- Other Paramedical forces

SIHFW, UP directs a range of trainings each year at state, regional and district level[24]. As per the data provided for the annual year of 2019-2020, they have conducted over than 20 different types of trainings, such as[25]:

- **Refresher training for counsellors** under ***Rashtriya Kishore Swasthya Karyakram (RKSK)***, funded by NHM Project budget for **24 days** in a total of **8 batches**.
- **Various trainings for ASHAs** funded by NHM ranging for 6-8 days. These trainings are conducted throughout the year in phases.
- **Induction trainings for MOs** under NUHM for 20 days in a batch of 10.
- **Rapid Response Team Training** for 10 days in a batch of 5.
- **Medical Officer (level 3 & 4) Refresher Trainings** for 10 days in a batch of 2.

SIHFW, UP is also working for National and state level projects such as **National Health Mission (NHM), Uttar Pradesh State AIDS Control Society (UPSACS),** as well as agencies and institutions like **State Innovations in Family Planning Services Project Agency (SIFPSPA), National Institute of Health and Family Welfare (NIHFW)** [23]**.**

Case Study Analysis of Four State Training Centers:

For our interest in developing new trainings, it was necessary to review training frameworks that is followed by different state SIHFWs. To have a brief comparative

analysis, I have selected four states, Haryana and Rajasthan where State Institute of Health and Family Welfare is the prime institute responsible for in-service trainings of health officials of all levels in state , regional and district level and the Other two states Tamil Nadu and Maharashtra who has Directorate of Public Health and Preventive Medicine and Institute of Public Health as the primary bodies which are Collaborative Institutes similar to SIHFWs and are responsible for organizing and conducting trainings in the state.

Haryana

State level training institutes responsible for conducting various trainings for human resource development and capacity building in Haryana as recognized by the National Institute of Health and Family Welfare (NIHFW) are, **State institute of Health and Family Welfare (SIHFW) Panchkula** followed by **Civil Surgeon Office , Jhajjar** and **District Training Centre, B.K. Hospital, Faridabad**[13]**.** Among these three premier training institutes recognized for pre-service and in-service health officials, this brief discussion will majorly focus on SIHFW, because of its recognition as a collaborating Institute by NIHFW not only for the state of Haryana but also for Union Territories namely, Jammu & Kashmir and Chandigarh. This SIHFW has also collaborated recently with the Public Health Foundation of India on conduct public health related certificate courses[26].

This SIHFW follows a basic structure for smooth and effective administration of the institute. Following visualization shows the vision, mission, policies, and objectives that decides the outcomes of this institute[26].

- Has a vision "to enable the provision of quality patient-centric health care services by optimum capacity building of health care personnel in the state."
- The institution has a mission “to establish the training needs of health care personnel at primary, secondary, tertiary care levels and assist the districts in their capacity building through the production of trained manpower at State level & regular monitoring of their services”.
- The institutional policy is "to develop, update and refresh the knowledge and skills of the health care personnel in the State by providing quality trainings at State level and ensuring standardized trainings at district level following Training Needs Assessment with continual improvement."

- Quality objectives include Development of need based health research and training, formulation of integrated trainings on GOI and MOHFW guidelines, Developing and promoting alternative training approaches, pooling skilled health officials for various trainings, Monitoring quality of training imparted by external agency and collect training data and Update software developed for tracking skilled manpower at each health care facility and also the position of their trainings (if any).

Training Details:

SIHFW, Panchkula provides mentoring and managerial backing to all the district training institutes in each district of Haryana[26]. In addition to training of trainers (these trainers providers trainings to other medical and paramedical workers), they also improve their own skills and expertise on many subjects, including prevention of infection, contraception, immunization, and communicable and non-communicable diseases [26], the institute also conducts pre-service and ins-service trainings and conduct accident and emergency training for Casualty Medical Officers[26].

Pre-service or Induction training[27]**:**

Target Participants: Newly recruited Medical officers, Dental surgeons, and Staff Nurses.

Duration of training: 9 days for MOs, 5days for Dental surgeons and Staff nurses.

Batch size: A batch of 30 participants/ each for MOs, Dental surgeons, and Staff nurses are trained.

These induction trainings are organized for newly recruited Mos, Dental surgeons, Staff nurses, to orient them with all running health programs and their roles and responsibilities towards it.

This training for MOs and Dental surgeons mainly refreshes knowledge in topics like Behavior Change Communication (BCC),planning health services, conduct rules, material and equipment management, human resource management, performance appraisals, financial management, administrative issues, blood transfusion services and RTI act, Basic Life Support (BLS) [26].

For staff nurses topics covered are Active Management for Third Stage of Labor (AMTSL), newborn care, Sick Newborn Care Unit (SNCU) management, nursing care

plan, emergency ward management, financial and administrative issues, along with Basic life Support (BLS) [26]. All these trainings are interactive in nature and encompasses field visits and group work[26].

In-service or Mid-career training[28]**:**

Target Participants: Senior medical officers[28]

Duration: 4 days

This mid-career training is organized for senior health workers in order to introduce them to all state health services and their duties and obligations towards them [27]. Topics during trainings include health care planning (budgeting, accounting, auditing, DDO powers) administration, blood transfusion and Reproductive Tract Infection (RTI) law, and so on. The subjects of these training courses include management code of practice, materials and facilities, human resources management, performance assessments, financial management[28].

Recently, the institute is also conducting mid-career trainings for staff nurses along with senior medical officers at the time of promotion during service[29].

Public health and management related topics of our interest that are included during these trainings are Behavior Change Communication (BCC),planning health services, conduct rules, material and equipment management, human resource management, performance appraisals, financial management, administrative issues[28]. SIHFW Haryana also carries out a wide range of training including maternal health, child health, family planning, along with proper monitoring and evaluation[26].

Rajasthan

In Rajasthan there are four training centers recognized for the state. Two among them, **State Institute of Health & Family Welfare (SIHFW) and Health and Family Welfare Training Centers (HFTWCs)** are government affiliated and **Indian Institute of Health Management Research (IIHMR) and District Training Centre Heath and Family Welfare** are privately affiliated[12]. All four institutions conduct trainings for in-service and pre-service health forces.

Training Details:

These four training institutes has their primary interests in health services research, different types of trainings, health manpower development, heath management, education, capacity building[12].

Within these four state-level institutions, SIHFW, the independent healthcare training and research organization considered to be of apex level in the health sector of the state, was founded during 1995 [30].

SIHFW has a mission of "improving health care through HRD, Health research, Consultancy and Networking aiming towards enriching the quality of life" [30]. They further aim to accomplish this mission of developing human resources via capacity building and Organization Development (OD) through operations research[30].

The institute has also developed few strategies to achieve its goals, some of them are[30]:

- Enhancing capacity of HFWTCs.
- Contributing in operational analysis to the organizational advancement of the state government's medical, health and family welfare [30].
- Delivering health care consultancy[30].
- Conducting appraisal and impact assessment analyses in multiple Health Care Delivery System Activity [30].

It has instituted official linkages with IIHMR, IIPS, ASCI, VHAI, TISS, FRCH, PFI, NACO, NIHFW and desires further collaboration with such kind of institutes and organizations[30].

Types of trainings conducted in SIHFW, Jaipur:

- In-service & Pre-service trainings
- Foundation courses
- Refresher trainings
- Clinical trainings

Target Participants:

- Doctors
- Paramedic staffs
- Public Health managers

Besides conducting clinical training, they conduct foundational trainings for newly recruited medically officers and most importantly as per the latest data of 2019-2020 as provided by SIHFW, they impart **3 days refresher trainings for Community Health Officers (CHO) with a batch of 31 participants each**[31]**.**

They also conduct trainings for **Public Health Managers for 7 days with a batch of not less than 50 participants each** as per the data provided for 2019-2020[31].

As per our interests, research revealed that SIHFW also orients its training participants on **super courses for Public Health** facilitated by NIHFW. They cover areas like health systems, financial management, health policies and legislation, health sector reforms, Indian Public health standards, All national programs, health management and information system, health promotion, interpersonal communication and BCCI, personnel, and conflict management, performance management along with skill development topics such as scientific writing[30].

Tamil Nadu

The state of Tamil Nadu is known for its special emphasis on preventive approach towards public health and for its well performing public health cadre. At the state level, there are two institutes responsible for conducting trainings for in-service health officials, **Directorate of Public Health and Preventive Medicine (DPH&PM), Chennai and Mount Tabor Medical Mission Hospital, Pudukkottai**[32].

Area of interest for both the bodies lies in health education and training. DPH&PM is responsible for the implementation of all national and state health programs in Tamil Nadu. The department envisions and implements measures to lessen the prevalence of communicable diseases to reduce the burden of mortality and morbidity in the state[15] [32].

Training details

DPH&PM conducts various types of trainings through Eight Regional Training Institutes (RTI)[32][33], they are:

- Institute of Public Health, Poonamallee [32].
- Health and Family Welfare Training Centers (HFWTC) at Egmore and Madurai each [32].

- Health Manpower Development Institutes, both at Villupuram and Salem each [32].
- Institute of Vector Control and Zoonoses, Hosur [32].
- Regional Institute of Public Health, Thiruvarankulam, Pudukottai [32].
- HFWTC, Gandhigram, Dindigul [32].

Among these eight institutes, "Institute of Public Health, Poonamallee" is recognized as a "Collaborative Institute" for coordinating the RCH training with "The National Institute of Health and Family Welfare, New Delhi" [15] [32].

Types of trainings conducted by DPH&PM through these eight regional schools are:

- Continuing Education
- In-service training
- Pre-service induction trainings

Target participants:

- Health officers
- Medical officers
- Nurses
- Paramedic staff

All training programs conducted by DPH&PM are organized and facilitated by the National Health Mission[32][33]. Skilled Birth Attendee (SBA), EmOC (Emergency Obstetric Care, six months of training), Life Saving anesthesia (LSAS), Computer and other NHM training programs are organized in these fields: capacity building training, skill lab program, Integrated Management of Neonatal and Childhood Illness, Immunization, Integrated Disease Surveillance and Control Program (IDSP) [32] [33]. Ultra-sonogram training is given to Primary Health Centers Doctors for detection of congenital deformities during pregnancy in Public Private Partnership mode[32] [33].

Induction training, managerial skill trainings are also conducted for MOs generally for a month all year long in 3 batches[32].

In the district of Pudukottai, Tamil Nadu , Regional Public Health training Institute, offers in-service training programs for health officials in the field of public health [32] [33].

The Institute of Vector Control and Zoonotic Diseases is categorized as a dedicated training cum research institute for vector borne and zoonotic diseases control[32] [33].

Maharashtra:

In Maharashtra trainings are conducted by Ten state level training centers, three of these Institutes i.e., National Institute for Research in Reproductive Health (ICMR), Health & Family Welfare Training Centre, Public Health Institute *Mata Khachari Shradanand*, are in Nagpur [14]. Next comes, Health & Family Welfare Training Centre in Aurangabad, Family Welfare Training & Research Centre in Mumbai, Two institutes in Pune, Maharashtra University of Health Sciences, Nashik, Gokhale Institute of Politics and Economics, Godavari Institute of Politics and Economics and Symbiosis Institute of Health Sciences (SIHS), Godavari Institute of Management in Jalgaon and Health& Family Welfare Training Centre in Nasik[14].

Among them, **Public Health Institute Nagpur** is the chief training institute of Maharashtra, which exercises technical and administrative control over the seven of the Regional Health and Family Welfare Training Centers (RHFWTCs) [34]. Every 12 National Health Systems Resource Centre year, RHFWTCs conduct training need assessment of their respective regions and submit the training requisition to PHI. PHI, then, proposes the same in the annual PIP for approval[34].

Types of trainings:

- Diploma
- Skill development programs
- Short term trainings
- Distance learning program
- W.H.O fellowship programs.

Target participants:

- Doctors
- Nurses
- Para-medical staffs.

In-service training aims to improve health professionals' understanding and expertise to deliver different national health programs effectively [35]. When policy decisions in the

central ministries are made according to the health needs and when reforms are recommended to prevent and monitor emerging health problems, the state and district officers are prepared to deal with these problems [35].

Different training plans are also tailored for the multiple health staff groups.
They also deliver the national health policies and services training programs to D.H.O/C .M.H.O [35].

Learnings:

The importance of understanding the organizational culture and ideologies, mission, vision, and values for all the prime institutes responsible for trainings defines the nature, if these undertaken processes for implementation ae going to be smooth or patchy. Haven said that trainings are an integral part in capacity building programs and how different institutions execute this process is important for a self -assessment and we can also extract learnings which might be useful for us to robe in for a better performance.

For example, SIHFW, Haryana focuses on designing training according to the state's needs which seems to bring good results. As per "Healthy States, Progressive India", 2019 which is a comprehensive health index report by the NITI Ayogh, shows that "Haryana is among the top three larger ranking states in terms of annual incremental performance"[16]. They have a concrete vision along with having mission and objectives. They have brought in policies for development of trainings. Developing a vision has always played a major part of what an organization aspires to be. This can be an important learning for the premier training institute in UP, since developing a vision and goal are primary footsteps towards strategic management.

Along with Haryana, Rajasthan is also in the list. The collaboration that SIHFW Rajasthan is commendable, and a great learning touchpoint. Though SIHFW UP is a leading institute and carries out a lot of trainings but there is very little evidence regarding their collaborations with other public and private agencies. Collaboration is the key to diversity, and the more diverse our collaborations are, the richer are our resources and experiences.

Finally, Tamil Nadu, the only Indian state to have a separate public health department that is responsible for primary care [17]. Unlike majority of the states in the country in which public health education is not obligatory for public health officials, this department is unusual in being staffed by physicians specialized in public health. The Public Health and Preventive Medicine Directorate at the State level, Tamil Nadu, is responsible for

drafting policy and ensuring monitoring of all trainings and programs being run in the state. Implementation is carried out at district level. This is the major learning how the state directorate organizes trainings by coordinating with all the regional training centers. That is because of the accountability within the system and the workstream. They have developed an entire cadre which is robust and efficient. They also have a well-developed and maintained website to share information. Accountability is a key to health systems strengthening, though UP was not a good performer in terms of indicator for the past few decades, yet the state has emerged to show better results and SIHFW UP and JHU through UPHSSP has played a major role through trainings in public health management.

Training Module Development

SIHFW, UP and JHU, based on Indian and international efforts, organized a consensus meeting between public health experts and UP government officers to develop a set of core competency for public health professionals as well as managers in the field of public health, to ensure the current public health staff has suitable competencies to fulfil essential public health functions [4][36]. The study when steered aimed to identify the required key competencies in mid-level supervisory and management roles to effectively perform their tasks in resource poor settings such as UP[4] [36].

Methodology

These core competencies have been developed using a *"Multi-step interactive Delphi technique"*[4]. Long workshops were held with Indian Public Health specialists and government officials[4]. A 5-point Likert scale used to rate 54 competency statements and aggregated ratings were shared with the participants[4]. Wilcoxon matched pairs were tested, and consensus was established by the percentage agreement criterion[4].

Core competencies in public health and management[4]

Core public health competencies are the vast knowledge, abilities and capacities, that the healthcare force ought to have to convey fundamental general wellbeing successfully[4].

The identified set of core competencies are organized under 8 domains[4]:

1. Public Health Sciences; Practice application of public health disciplines such as behavioral and social sciences, biostatistics, epidemiology, environmental public health and demography.

2. Assessment and Analysis ; Core competencies needed for decision-making and advice on evidence-based policies and program development.

3. Policy and Program Management; Competencies needed for public health policies and programs to be planned, implemented, and evaluated

4. Financial Management and Budgeting; Competencies required to make use of a range of funding channels and processes, including budget preparations and financial details for the purpose of planning, decision making and management in responsible, reliable and productive ways, for delivering public health programs and services.

5. Partnerships and Collaboration; Key skills required to recognize, cooperate with diverse stakeholders, and enhance public health and welfare.

6. Social and Cultural Determinants; Core competencies necessary for successful interactions with persons, associations, and cultures with various socio-economic and cultural contexts, to attain equitable health goals.

7. Communication; Key skills necessary to discuss proposals and views as well as to use advocacy related technologies.

8. Leadership; core competencies needed to facilitate groups of people, organizations and communities to communicate and operate with a shared vision and mission.

This outline of core competencies and domains in general public health which can be imparted through refresher trainings, can be used to survey skills of public health professionals, and modify or grow new strategies to address aspired skills[4].

Goal of Refresher Trainings:

The goal of the refresher training is to improve public health practice, leadership, and administration with special focus on improving the core competences of district-level L4 health officials.

Learning Objectives for trainees:

- Analyze public health problems.
- Recognize complexities of the policy environment in public health.

- Demonstrate abilities to fulfil functional roles in context of public health.
- Apply culturally relevant and appropriate approaches.
- Assess personal leadership.
- Apply communications and collaborations skills.
- Apply techniques for stakeholder identification and creating alliances.
- Apply financial analysis methods in making decisions.

  .

Target group: Level-4 health officials nominated by GOUP for training.

Number of participants: 15-20

Duration: A 5-day face to face training at SIHFW, UP.

Date: To be decided.

Indicative List of training modules:

- Problem solving in public health.
- Policy and program management[4][36].
- Understanding financial management and budgeting[4] [36].
- Leadership and change management.

An indicative summarized list of modules that may be presented during trainings has also been designed (Annexure).

Competency Assessment

Before delivering trainings to level 4 health officials, it is essential to have an overview about existing competencies in this workforce. Based on the 8 identified core competencies, it is necessary to assess the existing proficiencies in public health and management among the participants.

To evaluate the present skills a ***Competency Assessment Tool*** has been developed with 55 public health and management competency related statements that the training participants need to respond before the training (Annexure). After this process, 5 days face to face refresher training will be imparted.

ANNEXURES

1. An Indicative summarized list of modules and sample sessions for refresher trainings:

***(Source:** Data provided by JHIPL.)*

Module proposed	Examples of Session
Problem solving in PH	• Introduction to public health and essential public health functions • Problem-Solving Framework – steps and examples
Policy and Program management	• Program Planning, Monitoring and Evaluation • SMART objectives and Logical Framework approach • Quality Management (tools and approaches) • National Health Mission – lessons learnt. • Strengthening local governance system for management of public health facilities – case of *Rogi Kalyan Samitis.* • Stakeholder analysis. • Health security preparedness
Understanding Financial Management and Budgeting	• Financial and accounting techniques for budgeting, procurement, staffing, accounting, and expenditure tracking • E-tendering procedures and processes

Leadership and Change Management	• Systems thinking skills for public health. • Leadership theories and principles • Leading organizational and programmatic change • Leading teams and effective supervision • Balanced scorecard and performance management

2. Public Health & Management Competency Assessment Instrument.

*(**Source**: Data from JHIPL; Proposal for Public Health and Management Training for Level-4 Health Officials in Uttar Pradesh , February 2021.)*

SN	Question wording	Response options	Skip Logic
1)	Sex of respondent (SELECT ONE RESPONSE)	Female =1 Male=2	
2)	What best describes your current title? (SELECT ONE RESPONSE)	Assistant Chief Medical Officer (ACMO) — Nodal Program = 1 Assistant Chief Medical Officer (ACMO) — Reproductive and Child Health = 2 Assistant Research Officer (ARO) = 3 Chief Medical Officer (CMO) =4	If response option = 1 or 11; then skip questions 7-33. If response option = 2 or 9; skip questions 34-113.

SN	Question wording	Response options	Skip Logic
		Chief Medical Superintendent (CMS) = 5 Deputy Chief Medical Officer (DCMO) = 6 District Community Process Manager (DCPM) = 7 District Data Manager (DDM) = 8 District Immunization Officer (DIO) = 9 District Program Manager (DPM) = 10 District Public Health Nursing Officer (DPNH) = 11	

SN	Question wording	Response options	Skip Logic
		Health Education Officer (HEO)/ Health Education and Information Officer (HEIO) = 12 Other = 13	
3)	How long have you been in your current position (designation) in this district?	__ (years) ___ (months)	
4)	How long have you worked in within the Department of Medical Health and Family Welfare?	__ (years) ___ (months)	
5)	What is your education level? (SELECT ONE RESPONSE)	*Non-medical:* Bachelors = 1 Master's degree = 2 Master's in Public Health = 3 MBA = 4 PhD = 5 *Medical* MBBS = 6 MD = 7 Postgraduate in Medicine = 8 Other, please specify _____ = 9	

SN	Question wording	Response options	Skip Logic
6)	Have you ever received any of the following on-the-job trainings? (SELECT ALL THAT APPLY)	UP-HMIS/HMIS Training =1 MCTS/RCH Training = 2 Family Planning Logistics Management Information System = 3 Data use and ranking =4 Manav Sampada (HRMS) Training = 5 Assessing data quality training = 6 Medical Officer (MO) induction training = 7 None = 8 Other, please specify____= 9	

Section 2. Self-Assessment of skills

For each statement, think about the level at which you are currently able to perform the skill. Then rate your level of proficiency on each statement by selecting a number between 1 and 4:

1 = None; I am unaware or have very little knowledge of the skill

2 = Aware; I have heard of, but have limited knowledge or ability to apply the skill

3 = Knowledgeable; I am comfortable with my knowledge or ability to apply the skill

4 = Proficient; I am very comfortable, am an expert, or could teach this skill to others

Note: The statements should be interpreted as broadly as possible to apply to your position and main setting of your work. In the example below, you would select number "4" for "Proficient" if you think you are excelling at this skill or select "1" for "None" if you feel you need a great deal of improvement.

Please rate your level of competency in the following statements.			**None**	**Aware**	**Knowledgeable**	**Proficient**
7)	MC	Describe key concepts in public health (e.g., the health status of populations, the determinants of health and illness, strategies for health promotion, relationship between health and poverty, inequities in health and various forms of disadvantages, disease and injury prevention and health protection, as well as the factors that influence the delivery and use of health services.)	1	2	3	4
8)	MC	Apply the public health tools, techniques, and sciences (e.g., behavioral and social sciences, biostatistics, economics, epidemiology, environmental public health, demography) to practice	1	2	3	4
9)	MC	Use data, evidence, and research to inform health policies, programs, and organizational performance.	1	2	3	4
10)	MC	Identify relevant and appropriate sources of information, including community resources.	1	2	3	4
11)	MC	Collect, store, retrieve and use accurate and appropriate data on public health issues.	1	2	3	4
12)	MC	Analyze information to determine appropriate implications, uses, gaps, and limitations.	1	2	3	4
13)	MC	Assess the accuracy and importance of data for public health decision making.	1	2	3	4

14)	MC	Describe selected policy and program options to address a specific public health issue.	1	2	3	4
15)	MC	Describe the implications of each policy and program option, especially as they apply to the determinants of health and recommend or decide on a course of action.	1	2	3	4
16)	MC	Develop a plan to implement a course of action taking into account relevant evidence, emergency planning procedures, regulations and policies, and legislation (e.g., government order).	1	2	3	4
17)	MC	Implement a policy, program, or effective practice guidelines (e.g., immunization guidelines, screening programs for illnesses) to address a specific public health issue.	1	2	3	4
18)	MC	Monitor and evaluate an action, policy, or program.	1	2	3	4
19)	MC	Demonstrate the ability to fulfill functional roles in response to a public health emergency.	1	2	3	4
20)	MC	Establish teams for the purpose of achieving program and organizational goals (e.g., considering the value of different disciplines, sectors, skills, experiences, and perspectives; determining scope of work and timeline).	1	2	3	4
21)	MC	Motivate and supervise personnel for the purpose of achieving program and organizational goals (e.g., participating in teams, encouraging sharing of ideas, respecting different points of view).	1	2	3	4
22)	MC	Support learning within an organization including on the job training to advance public health goals.	1	2	3	4
23)	MC	Manage time appropriately.	1	2	3	4
24)	MC	Justify programs for inclusion in budgets, develop and defend budgets.	1	2	3	4
25)	MC	Prepare proposals for funding (e.g., foundations, government agencies, corporations).	1	2	3	4
26)	MC	Make use of financial analysis and accounting techniques in making decisions about policies, programs, and services.	1	2	3	4

27)	MC	Manage programs within current and projected budgets and staffing levels (e.g., sustaining a program when funding and staff are cut, recruiting and retaining staff).	1	2	3	4
28)	MC	Identify and collaborate with partners in addressing public health issues.	1	2	3	4
29)	MC	Use skills such as team building, negotiation, conflict management, group facilitation, and mediation between differing interests to build partnerships.	1	2	3	4
30)	MC	Mobilize communities by using appropriate media, community resources, and social marketing techniques.	1	2	3	4
31)	MC	Recognize how the determinants of health (biological, social, cultural, economic and physical) influence the health and well-being of specific population groups.	1	2	3	4
32)	MC	Address population diversity when planning, implementing, adapting, and evaluating public health programs and policies.	1	2	3	4
33)	MC	Apply culturally relevant and appropriate approaches with people from diverse castes, religions, socioeconomic and	1	2	3	4

		educational backgrounds, and persons of all ages, genders, health status, sexual orientations and abilities.				
34)	MC	Listen, engage, and communicate effectively (e.g., by leveraging technology) with individuals, families, groups, communities, and colleagues including supervisors and team members.	1	2	3	4
35)	MC	Interpret information for professional, nonprofessional and community audiences.	1	2	3	4
36)	MC	Advocate and network for healthy public policies and services that promote and protect the health and well-being of individuals and communities.	1	2	3	4
37)	MC	Describe the mission and priorities of the public health organization where one works and apply them in practice.	1	2	3	4
38)	MC	Contribute to developing key values and a shared vision in planning and implementing public health programs and policies in the community.	1	2	3	4

39)	MC	Utilize public health ethics to manage self, others, information, and resources.	1	2	3	4
40)	MC	Contribute to maintaining organizational performance standards.	1	2	3	4
41)	MC	Build community capacity by sharing knowledge, tools, expertise, and experience.	1	2	3	4
42)	MC	Identify a need for change, manage change and processes.	1	2	3	4
43)	MC	Maintain organizational justice, equality, and fairness in dealing with subordinates.	1	2	3	4

Section 3: Assessment of public health competencies

Please check the response option that you think is the correct answer to the question. Please select one response only.

			A	B	C	D
44)	MC	In a community with 20,000 births in a given year, five births are premature. Which of the following values represents this in a manner that allows comparison with other populations?	0.025	2.5%	25 per 10,000	25 per 100,000
45)		When a public health issue emerges for which there is no "evidence base" to suggest a response strategy, which of the following actions on the part of a public health professional is most appropriate?	Defer action on the issue until further information about the appropriate intervention is available.	Dismiss the issue because there is insufficient evidence to make an informed decision.	Implement several different strategies at once to assess which is most effective.	Start efforts in data collection and community-based research to build a more thorough understanding of the issue.
46)	MC	Public health surveillance can be described primarily as which of the following:	A method to monitor occurrences of public health problems.	A program to control disease outbreaks.	A system for collecting health-related information.	A system for monitoring persons who have been exposed to a communicable disease.

51)	MC	A good leader...	Engages in problem avoiding	Avoids conflict at all costs	Connects activities to group's mission	Holds power and authority
52)	MC	What does compromise in a negotiation entail?	Projecting influence through feelings	Using facts and data to make your case	Going back and forth until you reach a goal	Finding a solution that everyone can agree on
53)	MC	Which of the following questions does NOT represent "systems" thinking approach to a problem?	Who is responsible for the problem?	What has happened? (or What is happening?)	Why did it happen?	Why does it matter? (or How can we make improvements?)
54)	MC	How would you classify the following statement?	Data or Fact	Meaning We've Drawn	Conclusion We've Reached	
		We can't do anything without support from the top.				
55)	MC	How would you classify the following statement? Our budget was cut by 10% this year.	Data or Fact	Meaning We've Drawn	Conclusion We've Reached	
		children with malnutrition. The coalition membership currently includes health care professionals and representatives from the directorates of Health and Family Welfare, Medical Health, Women and Child Welfare, and the Basic Education Department, and seeks broader community engagement. There is one remaining open seat. Which of the following representatives is most appropriate to fill the open slot?	schools			

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