**Project Title:** Improving Primary Health Care Services through Competency Development of Health Care Workers

# Background

In the Indian context, health needs are changing because of three significant factors. These are emerging and re-emerging infectious diseases, the emergence of non-communicable chronic diseases, and accidents &injuries. To provide health services for such changing needs and demands, there is a requirement to develop relevant competencies among the health care workers. These competencies should be aligned with the Comprehensive Primary Care Services delivered at the Primary health care facilities. It is expected that such competencies are developed during pre-service education of the health care workers. Human Resource for health producing institutions must be aware of changing health needs. These institutions must maneuver health professional education to develop relevant competencies. Evidences suggest that pre service education is inadequate to develop required competencies during pre-service education. Therefore, health systems must make significant investments to to build competencies of Primary health workers during service.. However, interventions to improve the competencies of health workers have not been developed to improve health services, especially in primary health care settings (Kadam, 2020).

The quality of health services is dependent on the competencies of health workers to provide specific health services by various categories of health staff. In India, there are separate councils for medical and paramedical health staff to regulate the quality of education in graduate and or diploma courses for doctors, nurses, pharmacists, and technicians. For example, there is a nursing council at the national and state level for nurses. National level nursing council guides syllabus development and frames rules on infrastructure and human resources. The state councils register the candidates after successfully completing the said degree or diploma. These councils undertake regular inspection visits to ensure adequate infrastructure and human resources required for teaching are available. These educational institutions are from the public and private sector; more recently, the private sector has dominated over the public sector institutions

However, the quality of medical and paramedical education is in question, and health systems have to make huge investments in providing in-service training to develop competencies of newly joined health staff of all categories (Kadam, 2020). The health systems have introduced competency assessment while selecting the health staff.

However, they could not get the expected numbers of candidates with all required competencies for the job, therefore could not fill all the vacancies and had to advertise vacancies again.

After recruitment, the health system has to provide induction training and continues to provide in-service training to build and sustain the required competencies of the health staff. In addition to in-service training, there are other human resource management (HRM) functions such as supervision, review, and performance appraisal to assess and maintain the competencies. However, there is no evidence on how these HRM functions evaluate or manage the competencies.

Recently, an primary Care Provider competency assessment was done to elicit information for correctly diagnosing, prescribing the correct treatment and referring to higher facilities for five common conditions. It reports that the performance of the providers was not up to the mark – only 40% of providers were able to diagnose tuberculosis (TB) correctly, whereas correct diagnostic ability was 54% for pre-eclampsia, 55% for asthma, 67% for heart attack and 72% for diarrhea. Doctors practicing in rural areas performed better than those in urban areas. Private providers showed better competence in diagnosing most diseases except for TB. In most cases, the condition was misdiagnosed as a milder illness. Most providers could not prescribe the right treatment, recommended by STGs or correctly refer patients to higher facilities when required.This survey reported a high percentage of referrals from PHCs and SCs to the higher centers for complex cases. However, the back referrals were very few, indicating inefficiencies in the health system's functioning. Out of the total PHCs, 56% refer to CHCs, 28% to sub-centers, and 10% to district hospitals. Regarding the referral network among the public hospitals (including the CHCs) and private hospitals, 87% refer patients to public hospitals, while 7% to other private hospitals. In other instances, most of the public hospitals refer their patients to other public hospitals.

These findings indicate many challenges in delivering quality healthcare services in Odisha. Even though physical access to health facilities is good, there is a chronic shortage of staff at all levels. The competence level of primary Care health workers in place is not up to the mark. One key potential area for intervention includes strengthening primary healthcare services by strategies aimed at improving the competence of the primary healthcare providers for clinical care and for handling management and administrative/financial responsibilities.

It is evident that in delivering quality primary health care services, the competency of health care workers is one of the significant challenges in Indian context. Developing the competency of Primary Health care worker is the only solution to improve the quality of primary health care services.

**Research questions**

1. What is the package of services and competencies required for providing primary health care services?
2. What are the existing competencies of medical doctors, staff nurses, pharmacists, and lab technicians over a period of their length of service?
3. What are the existing mechanisms for developing, monitoring, and evaluating competencies by the health systems?
4. What can be the interventions and strategies to develop and maintain competencies of the health staff (doctors, nurses, pharmacists, and lab technicians) to improve the delivery of primary healthcare services?

# **Objective-wise Methodology**

|  |  |  |
| --- | --- | --- |
| Research question | Methods | Study participants |
| 1. Package of services and competencies required for CPHC | Review of documents related to policy on the package of PHC services  In-depth interviews of district and facility level managers and supervisors on the expected role of health staff in delivering PHC services  Review of literature & Expert consultation on package of PHC services | District and facility-level managers and supervisors |
| 1. Existing competencies of staff to deliver a package of services | Observation, Clinical vignettes, and Interviews | Medical doctors, Staff nurses, Pharmacists, and Lab techniciansproviding PHC services |
| 1. Existing mechanisms for developing, monitoring, and evaluating competencies | Review of documents related to competency development, including in-service training, supervision, and mentoring  In-depth interviews of health staff, trainers, supervisors, and managers at facility and district level | health staff, trainers, supervisors, and managers at the facility and district level |
| 1. Development of competencies of the health staff to improve the delivery of PHC services | Findings and recommendations from the expert consultation | Managers and supervisors facility and district level  Domain Experts on HRM and PHC |

**List of activities**

**First Phase (2021-2022)**

1. Literature review for existing competence frameworks and related information for all the four Cadres
2. Constitute a panel of experts to guide the study and provide strategic direction and inputs.
3. Assessment of package of services at the health centers providing primary healthcare and identify competencies required to deliver those packages of services.
4. Competency assessment of the medical doctors, staff nurses, pharmacists, and lab technicians
5. Map the gaps in competencies and ascertain reasons for such inadequacies by in-depth interview of a sample of health staff and managers
6. Analyse the mechanism and methods of developing, monitoring, and evaluating competency development by health care delivery systems
7. Consultation workshops to validate competency assessment framework and its methods. The strategies to develop competencies will also be made through consultation workshop.

# **Outputs and deliverables**

1. A document on competency framework including evidence-based strategies for assessment and development of competencies of primary healthcare providers(Four Cadres).
2. A report on competency assessment of health staff providing primary health care
3. A scoping document for developing task shifting and task sharing strategiesfor primary health Care Provider team.
4. A scoping document to develop alternative models of delivering primary healthcare,of using a mix of competencies.
5. Reports, policy briefs, journal articles for disseminating the findings from the study.

* Inception report
* Study Protocol including data collection tools
* IEC application and approval Certificate
* Draft report submission
* Final report submission
* Develop dissemination materials, including publications

**Study site:**

Four districts have been selected representing all four geographical areas of the state (Refer map 1) These are ; Balasore, Rayagada, Jharsuguda and Angul. Balasore has been selected through randomization among the seven coastal districts of Odisha while Rayagada has been randomly selected from tribal dominant southern seven districts of Odisha. Simillarly, Jharsuguda has been selected from eight western districts of Odisha and Angul from eight districts of central region of Odisha, randomly.

**Map

Description automatically generated**

Figure Odisha Map

**Sampling**

Ten CHCs from each district and two PHCs from each of the 10 CHCs of four districts totalling 40 CHCs and 80 PHCs. Two doctors, one pharmacist, two staff nurses and one LT will be selected from each CHC and one doctor, one pharmacist, and one staff nurse from each PHC. Thus, the study participants will be 160 doctors, 160 nurses, 120 pharmacists, and 40 LTs totalling . As there are no LTs posts at PHCs, we will select all available LTs at CHC to make it a universal sample of LTs from all the sampled CHCs.

**Key informant interviews:**

One CHC in-charge MO from each of 10 CHCs will be interviewed as Key Informant. Two district-level officers from each of four districts and four state and national level experts will also be interviewed as Key informant forcompetency assessment and development.

**Research Team**

The proposal has been co-developed by IIPH Bhubaneswar and HSTP Delhi. The broad responsibilities for both the team members are mentioned below.

**IIPHB team:**

From IIPHB, the team will comprise of two faculty members Dr. Shridhar Kadam and Mr. Srinivas Nallala; Dr Ambarish Dutta. With expertise in human resources for health, Dr. Kadam will work as the Principal investigator and be responsible for overall coordination with the donor and state government, desk review, finalization of research tools, data analysis, and report writing. Dr Ambarish Dutta is expert in Epidemiology and Biostatistics who will responsible for research designe and sampling. Being Medical Doctors Dr Dutta and Dr Kadam would also responsible for developing tools to assess package of services and competency assessment. Mr. Nallala, with experience in qualitative research and project management, will provide support for qualitative study design, data collection and management, data analysis and report writing.

**Hired research staff:**

Two full-time research Associates (one medical and one public health with training/experience HRH) who will be hired for the entire project period. The RAs will work in close coordination with the PI and Co-PI and support desk review of the HR systems, developing study tools, planning and monitoring the data collection process, analysis, and writing the draft report. Four allopathic medical doctors and four research consultatnts one pair in each of four districts,will be recruited as consultants at the time of data collection for 4months. The consultants – medical will be involved in competency assessment and the consultant research will be involved in document review and qualitative part of the research.

**Dissemination Plan**

The dissemination of the findings from the research study will be done through communication to the state government and publications in peer-reviewed journals. At the end of the study, a formal written report of the findings and recommendations will be submitted to state governments. The project findings will be presented at national and international conferences and published in relevant journals.

**Project Timeline**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| No. | Activities | M1 | M2 | M3 | M4 | M5 | M6 | M7 | M8 | M9 | M10 | M11 | M12 |
| 1 | Signing project MoU |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 | Recruitment of project staff and Induction |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 | Literature review for existing competence frameworks |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 | Constitute a panel of experts |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 | Expert consultation |  |  |  |  |  |  |  |  |  |  |  |  |
| 6 | Development of study tools and pre testing |  |  |  |  |  |  |  |  |  |  |  |  |
| 7 | IEC approval and state government approvals |  |  |  |  |  |  |  |  |  |  |  |  |
| 8 | Data collection |  |  |  |  |  |  |  |  |  |  |  |  |
| 9 | Translation and transcription of qualitative data |  |  |  |  |  |  |  |  |  |  |  |  |
| 10 | Familiarisation and coding |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 | Data Analysis |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 | Report preparation - draft |  |  |  |  |  |  |  |  |  |  |  |  |
| 13 | Expert consultation |  |  |  |  |  |  |  |  |  |  |  |  |
| 14 | Revise the report |  |  |  |  |  |  |  |  |  |  |  |  |
| 15 | Development of dissemination/ advocacy materials |  |  |  |  |  |  |  |  |  |  |  |  |
| 16 | Dissemination of study findings |  |  |  |  |  |  |  |  |  |  |  |  |

**Budget**

The total budget for proposed engagement will be INR 8,535,300 exclusive of all applicable taxes.

**Bank Account Details**

|  |  |  |
| --- | --- | --- |
| Name of the Beneficiary | : | Public Health foundation of India |
| Bank Name | : | HDFC Bank Ltd. |
| Bank Address | : | H-7 Green park extension, New Delhi, New Delhi - 110016 |
| Account Number | : | 05861110000013 |
| Swift Code | : | HDFCINBBDEL |

**Remuneration**

The entire fee/compensation, not exceeding INR 8,535,300 exclusive of all applicable taxes would be paid in below tranches to the account mentioned above held by the Indian Institute of Public Health, Bhubaneswar (PHFI/IIPHB).

**Deliverables and Payment**

|  |  |  |  |
| --- | --- | --- | --- |
| **Instalment** | **Month** | **Contribution (Out of Total Contract Value)** | **Deliverables** |
| 1. | January 2022 | 25% | Inception Report |
| 2. | April 2022 | 50% | Research Protocol with Study frameworks and Data Collection tools |
| 3. | September 2022 | 15% | IEC Approval Certificate; Study Report |
| 4. | November 2022 | 10% | Dissemination Workshop Report: Manuscript Submitted to peer review Journal; Policy briefs |

**Term of Contract**

This contract period is from **January 10, 2022** to **November 30, 2022.** Indian Institute of Public Health, Bhubaneswar (PHFI/IIPHB) will be engaged under the agreement from the date of signing the contract till the date of closure as mentioned above**. The contract will be considered closed when the deliverable is received, and final report is submitted.**