**Scope of Work**

Mentor-Mentee Program

**To study telemedicine services with respect to quality, standardization, specialty, accessibility, affordability and referral mechanisms**

1. Rationale

In view of improving the health system performance it is important to assess the new advances in healthcare service delivery such as telemedicine from perspective of WHO model of health system strengthening (HSS). It is essential to understand dimensions of affordability, accessibility, quality standards, and continuum of care (referral) so as to achieve better health outcomes through telemedicine. This concept notealso proposes aspect of acceptability in addition to other mentioned dimensions.

The research will be undertaken using tele-consultation data to assess quality of care through:

* drug-prescribing patterns
* treatment appropriateness

along with quantifying beneficiaries’ perspective on affordability, accessibility and experience with telemedicine services. The concept propose to compare the potential benefits & identify gaps of e-prescribing systems with manual prescriptions. It is expected that this information will be useful in assessing the impact of various interventions and adopted models of health service delivery which can be further helpful in planning and mid-course correction.

1. Goals and Objectives

The overall goal of the study is to take ‘stock of the situation’ of telemedicine service delivery with respect to clinical care and AAA(affordability, accessibility,and acceptability) of ‘access to care’. The study will be comparative study of prescribing practices and patient experiences of manual verses e-healthcare. The study will set a stage for larger telemedicine survey geared towards standardization and quality of service delivery.

Following are objectives and specific objectives.

* 1. To do classification of Prescription as per treatment appropriateness
* The prescriptions will be classified under four heads i.e. Appropriate, not appropriate, undetermined & inadequate information. The parameters for the basis of this classification would be decided & finalized by a panel of experts/ doctors as per available protocolized treatment such as standard treatment guidelines (STG), rationality & pattern in advising diagnostics as per available treatment protocols & guidelines etc.
* Appropriate: The prescriptions are classified as appropriate based on the available treatment protocols and guidelines such as WHO standard of prescribing practices, among others.
* Not appropriate: Prescriptions which have substantial deviations from the standard guideline will be classified into this category.
* Indeterminate: Prescription that could not be classified as adequate or inadequate due to absence of clear guidelines
* Inadequate information: The prescriptions which cannot be classified due to incompleteness of prescribing items.
  1. To assess completeness of prescription
* To assess prescription patterns, adequacy/completeness in AV consultations as per MCI & telemedicine guidelines
* To analyze the prescription of drugs for data completeness
* To analyze the prescription of drugs for data accuracy
* To analyze and generate information on core prescribing indicators by WHO
* To understand and classify the advice as health education or counselling or prescribing of medicines
* To understand the morbidity pattern currently being handled through AV consultations as per Ayushman Bharat Health & Wellness Centre guideline for provision of 12 services (assess the impact of AV consultation as intervention)
  1. To assess & understand the benefits of e-prescription in comparison to manual prescription.
* Compare a sample of manual prescriptions with e-prescriptions and identify gaps
  1. To assess the beneficiary’s perspective on ‘AAA’ outcomes (Acceptability, Accessibility & Affordability) across facilities
* Identifying accessibility, acceptability, affordability factors of care related to service delivery mechanism.
* Exploring organizational or programmatic areas of improvement for course correction, notably within the context of quality healthcare service delivery systems and processes.
* Quantifying aspirations and perspectives of beneficiaries/patients

1. METHODOLOGY
   1. Prescription Audit

**Sampling**

We will be selecting 50 sample prescriptions, 25 MMU (mobile medical unit) and 25 HWC (health and wellness center) wherein each of the facilities sample size is divided with 60:40 ratio for general and specialist teleconsultation. So, general e-prescription and specialist e-prescription will be selected randomly for the study.

In addition to above we also propose to assess & understand the benefits and also identify the gaps of e-prescription in comparison to manual prescriptions. Since only general consultations happen at the HWC level, similar sample of 25 manual prescriptions will be randomly selected from the health facility & same time period.

Table: Prescription Study sample

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Type of prescription | MMU | | HWC | | Total |
|  | General consultation | Specialist  Consultation | General consultation | Specialist  Consultation |  |
| Telemedicine (E-Prescription) | 15 | 10 | 15 | 10 | **50** |
| Manual Prescription | Nil | Nil | 15 | 10 | **25** |
| Total |  |  |  |  | **75** |

**The study will adopt stratified simple random sampling methodology.**

The data received will be stratified based on type of specialty and then sampling frame will be developed using Probability proportional to size (PPS) sampling method. Following that 50 sample prescriptions will be selected using SRS with replacement.

The prescriptions will be audited based on

* Appropriate
* not appropriate
* undetermined
* inadequate information
* Completeness of information

**Objective 1: To do classification of Prescription as per Treatment Appropriateness**

**Proposed Framework:** variables in the framework will be developed after referencing 2002 MCI prescription guidelines, telemedicine guideline by MoHFW issued in March 2020 and NQAS parameters

Table: Prescription audit framework as per Treatment Appropriateness

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S.No | Parameters/ Variable | Appropriate (AP) | Not Appropriate (NAP) | Undetermined (UD) | Inadequate Information (II) |
| **1** | **STG : Reference –Who, Mohfw, Dohfw** |  |  |  |  |
| **2** | **Rationality & Pattern Of Diagnostics** |  |  |  |  |
| **3** | **Prescription Format: References- Telemedicine Guideline By Mohfw; NQAS** |  |  |  |  |
| **4** | **Language & Instructions** |  |  |  |  |
| **5** | **Consent /Disclaimer** |  |  |  |  |

**Objective 2: To Assess completeness of Prescription**

Table: Proposed Audit Framework for Prescription completeness

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.No** |  | **Adequate** | **Inadequate** | **Underminate** | **Inadequate** |
| **1** | MCI Guidelines |  |  |  |  |
| **2** | Telemedicine Guidelines  3.7 |  |  |  |  |
| **3** | Data Completeness |  |  |  |  |
| **4** | Data Accuracy |  |  |  |  |
| **5** | Core Indicators Of Who |  |  |  |  |
| **6** | Health Advice/  Counselling/  Details Of Prescribing Medicine |  |  |  |  |
| **7** | 12 Services Ayushman Bharat |  |  |  |  |

**Audit Framework:**

We proposed a prescription audit on the following objective criteria, however this will be finalized in consultation with the mentor

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S No.** | **Objective Criteria** | **Yes** | **No** | **NA** | **Remarks** |
| 1 | Medication Orders bear the name of the Doctor (Prescriber |  |  |  |  |
| 2 | All orders written in uniform designated location |  |  |  |  |
| 3 | Medication Orders are Legible and Clear (Written in Capital Letter) |  |  |  |  |
| 4 | Medication Orders are dated |  |  |  |  |
| 5 | Medication Orders are Signed by Authorized Person |  |  |  |  |
| 6 | Prescription bears the name of the patient that is legible |  |  |  |  |
| 7 | Prescription bears the second patient identifier as Age/ Address / Father's or Spouse Name |  |  |  |  |
| 8 | Patient registration No. is mentioned |  |  |  |  |
| 9 | Clinical Diagnosis is mentioned |  |  |  |  |
| 10 | Drug Allergy Ascertained |  |  |  |  |
| 11 | Name of the Medicine Written |  |  |  |  |
| 12 | Route of Administration Written |  |  |  |  |
| 13 | Dose to be Administered Written |  |  |  |  |
| 14 | Frequency/ Time of Administration Written |  |  |  |  |
| 15 | Verbal Orders Counter Signed By Clinician with in 24 hrs |  |  |  |  |
| 16 | Drug - Drug Interactions Mentioned |  |  |  |  |
| 17 | High Risk Medications: MCI/ State Medical Council Registration Number of Prescribing Doctor Mentioned |  |  |  |  |
| 18 | Whether the drug is relevant to the disease/condition? |  |  |  |  |

**Objective 3: Comparative Analysis of e- prescription & manual Prescription**

Table: Proposed audit Framework of e- prescription & manual Prescription

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameters/Variable | E Prescription | Manual Prescription | Gaps | Comment (assess benefit/ drawback) |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

* 1. Beneficiary assessment

**Objective 4: beneficiary feedback**

The beneficiary feedback will be taken on following areas and a prescribed format will be developed in consultation with the mentor

* Identifying accessibility, acceptability, affordability factors of care related to service delivery mechanism.
* Exploring organizational or programmatic areas of improvement for course correction, notably within the context of quality healthcare service delivery systems and processes.
* Quantifying aspirations and perspectives of beneficiaries/patients
* Assess the continuum of care loop through referral services in terms of efficiency

**Methodology**

The beneficiary’s assessment will adopt **SRS sampling methodology**. The survey will be quantitative. A semi-structured quantitative tool will be used to conduct the study. The study will be conducted in a selected HWC and MMU in Uttarakhand. At least 50 interviews will be randomly selected after completion of teleconsultation from the HWC and MMU. A total of 50 patients sample size has been planned to achieve.

|  |  |  |
| --- | --- | --- |
| S.no | Health Facility | No of Interview of beneficiaries |
| 1 | HWC | 25 |
| 2. | MMU | 25 |
| Total |  | 50 |

**Compensation**

The Consultancy fee for this engagement is USD 5,000(Inclusive of all indirect taxes). The payment will be disbursed in three instalments, in the proportions given below and the consultant should provide the invoice against each deliverable.

|  |  |  |  |
| --- | --- | --- | --- |
| **Instalment** | **Percentage** | **Amount (USD)** | **Deliverable/ Milestone** |
| 1 | 25 | 1250 | On Signing Contract |
| 2 | 25 | 1250 | On submission of literature review and methodology (including stakeholders for a qualitative interview and analysis plan) approved by the Mentor, and |
| 3 | 50 | 2500 | On submission of the final deliverable approved and accepted by the Mentor & AHI Team. |

**Term**

This engagement shall commence upon execution of this Agreement. The Agreement shall continue in full force and is effect from **September 15, 2021** to **December 15, 2021** and is extendable based on the review of Consultant’s performance by the Foundation and mutual concurrence on revised terms of engagement.