Term of Reference

Providing Technical Expertise Services to the Moodle based eLMS for basic and post-basic trainings for Healthcare Professionals conducted by the Ministry of Health, Sri Lanka

Scope:

Provision of guidance to design, develop, commission and maintaining of a Moodle based eLMS for Health Professional to augment the existing basic and post basic Trainings for Health Professionals conduct by the Ministry of Health (MoH).

Transfer of knowledge and skills to the relevant staff to ensure long term sustainability of the system.

Capacity development in the areas of content developers and course managers.

Introduction:

There are 14 health professional disciplines who undergo pre-service training programmes under the MoH and training take place in 43 training institutions located in different locations of Sri Lanka. Administrative authority of most of the training institutes comes directly under the Ministry of Health while some institutes are managed under the Provincial Departments of Health Services (PDoHS). The latter category of the training institutes, in conduct of the basic training programmes follow the guidance and standards set by the Education, Training and Research Unit (ET&R) of the MoH.

The disciplines in focus are as follows

- Nursing
- Professions Supplementary to Medicine (PSM)
  Five (05) disciplines: (Physiotherapists, Occupational Therapists, Medical Laboratory Technologists, Radiographers, Pharmacists)
- Paramedical services (PMS)
  Nine (09) disciplines: (PHM, PHI, Prosthetics & Orthotics, ECG Technicians, EEG technicians, Ophthalmic technologists, Dental technicians, Public Health Laboratory Technicians and Entomology Technicians).

Requirement of an Electronic Learning Management System (eLMS) for the basic training programmes was a long felt need to ensure better quality, standardized, interactive and student-centred learning experience. Ministry of Health started the initiative for selected courses in the view of moving to full system over an extended period of time in a phased-out manner.
eLMS has been recognized as having benefits for the trainees who are the future Health Professions for the health system in the country, as of

1. To improve the quality of the training: Online training sessions will give more opportunity to conduct student-centred and interactive sessions within the classroom, since the online sessions are expected to follow after the school hours ‘Flip Classroom approach’.

2. To build up the confidence and capacity of using electronic platforms for learning among students. It will be a great opportunity for students because currently Sri Lankan health system is moving to an electronic based document management system. At the moment few hospitals and some departments which are attached to MOH are completely convert into electronic document management systems.

3. Learning through electronic learning platform leads to a student-centered learning approach. Students will use electronic resources for their education and try to explore new knowledge using the internet.

4. Electronic learning platform will provide students more free time in the classroom. This time can be used to develop skills of the students. They can go through the lectures while staying home the time remains in the class can be us to improve the quality of service.

The need identified in having an eLMS was intensified with the effect of Covid-19 outbreak on Health Professional pre-service training as all the training programmes in progress at the time had to cease abruptly. This has led the authorities of the ET&R of MoH to integrate online teaching technology to the existing training approach of ‘Face to Face’ teaching. This created a scenario where having a full-scale eLMS became an urgent and priority requirement. eLMS will be a method which can minimize the education disruptions in the pandemic and the new-normal scenario in addition to previously identified benefits.

During the recent past collaborative activities carried out by the WHO/SL with the Education, Training & Research unit of MoH for upgrading of quality of the basic training conducted by the Ministry of Health are many. Specially the contribution in Establishment of Quality Assurance System for the Health Professional Basic Training programmes by providing technical and financial assistance in finalizing the Standards, conduct of capacity building of Trainers of the basic training programme on modern pedagogical approaches through the WHO Collaborating Centre for Medical Education in Sri Lanka, as well as upgrading the curricular to meet the present day needs are valuable.

Hence, the Ministry of Health has decided to seek technical and financial assistance from the WHO/SL, even for establishment of an eLMS for the basic training programmes conducted for health professionals.
Background:

At present training is conducted in 43 training schools/centres/settings distributed at different areas of the country. Most are directly under the ministry of health, under a hospital or under a provincial department of health services.

There are around 450 tutors employed in all basic training programmes with around 10000 students enrolled for basic training. Under the direct guidance of the Health Information Unit (HIU), the PSM and Paramedical schools were able to develop e-content in a Moodle based eLMS to support the activities ceased during COVID-19 crisis. However, this has created a considerable demand and enthusiasm among the trainers and trainees to use electronic means to carry out teaching and learning activities.

Hence, under the plan of establishment of eLMS for the basic training programmes many activities were identified.

The following main activities, to be carried out in collaboration (under the guidance of) with the team appointed by the MoH (namely ET&R & Health Information Unit) and WHO, lined up in the process are as follows:

1. Review of the following
   - current eLMS and the process of system implementation (under the guidance of implementing team and medical educationists)
   - Current online trainings
   - Previous attempts of eLMS

2. Revisit the completed readiness assessments including the facility survey. Finalise the report adding information which is vital but not collected. Group the training programmes & institutions depending on readiness level.

3. Establishment of the eLMS
   a. Development of the system requirement specification (SRS) and system assessment tool taking inputs from all the stakeholders and the work already completed by MoH.
   b. Guide and assist Moodle based eLMS system/tool selection and general customization
   c. Advocate, coordinate & support the ministry of health in development of a public procurement plan depending on the system/tool requirement and the implementation process
d. Maintaining the system, system trouble shooting /managing subscription to the eLMS, depending on the system/tool selected for 9 months

e. Provision of a technical help desk for tutors and students
   - 7 days a week
   - 8 am to 8 pm
   - Maximum waiting time to be answered shall be 5 min

f. Supporting the development, documentation and dissemination of user guides, SOPs, FAQs, and guidelines and incorporate them to the materials in simple English

4. Assistance / guidance from medical educationist for 250 trainers, who are to undergo training as Content developers, to identify and select sessions from the existing curriculum which are suitable for preparation of contents to be used for online (eLMS) training. These selected sessions are to be used by each of the 250 trainers for hand-on-practice sessions during the training as ‘Content developers’.

5. Capacity development of trainers on content development and implementation of the course materials

   a. Development of the training model and the curriculum for the basic, intermediate and expert level courses on eLearning content management based on the eLMS system/tool. In development, the training needs and the capacity of the target group in following the training are to be considered.(addressing the requirements of the from ET&R, HIU)

   b. The curriculum with different levels (in 5 a) to include following units/modules as appropriate:- Learning Management System development, Online learning content development, Development of a e-learning course, Video editing and video content development, interactive learning - Virtual classroom, Technical support. Note: All the training material to be used at the workshop are also to be produced

c. Development and validation of the course materials for the three levels of the courses

d. Conduct training programmes based on the training curriculum developed (under 4 a.) for tutors/trainers nominated by ET&R unit to develop 250 ‘Content developers’ and 50 Course managers’.

e. Conduct advocacy program for Principles/Heads of the Training programme/institutions on roles and responsibilities in conduct eLMS

f. Evaluation of the training programmes conducted (KirkPatric model preferred)
5. Prepare a plan for and develop a Team of Master Trainers, to conduct training of ‘Content Developers’ and ‘Course managers’

6. Develop a mechanism to monitor the implementation and to evaluate output/outcome of eLMS.

7. Develop the capacity of the MoH, ET&R, HIU & the schools in relevant technical capacities to ensure the sustainability of the eLMS

**Deliverables:**

1. Review report on online trainings and eLMS (ongoing and attempted) by all the basic and post basic training programmes.

2. List of the training sessions identified by the 250 trainers to use for ‘Content developers’ training programme

3. Capacity development:
   a. Development of training modules, based on the training need analysis, for capacity development of tutors/trainers/MOs to function as Course Managers, Content developers and in Using eLMS for teaching and assessment of learning
   b. Develop a team of (30 to 50) Master Trainers to address the future needs of the MoH in development of ‘Content developers’ and ‘Course Managers’.
   c. Training of 250 tutors as ‘Content developers’
   d. Training of 50 tutors as ‘Course managers’
   e. Advocacy program for Principles/Heads of the Training programme/institutions on roles and responsibilities in conduct eLMS
   f. Evaluation report for the capacity development programs (first 3 levels of Kirkpatrick model)

4. Provide guidance, as requested by the ET&R/HIU, in establishment of eLMS for basic and post basic training programmes

5. Identification and competencies identified for the technical personnel at each of the focal points in the governance mechanism of the eLMS developed by the MoH.

6. Prepare a guideline, FAQs and SOPs for implementation of eLMS

7. Documents of updated, FAQs, user guides and guidelines for eLMS in use

8. Report on capacity development done for the MoH, ET&R, HIU & the schools in relevant technical capacities to ensure the sustainability of the eLMS

9. Mechanism developed for monitoring the implementation and to evaluation output/outcome of eLMS.

10. Midterm evaluation on the progress of the establishments of eLMS and the end of term evaluation report

11. Procurement plan developed

12. Development and provision of user/system administrator manual
Qualifications, experiences and special requirements

The technical agency/team bidding for this consultancy should have:

General qualifications of the entity

1. Specific expertise

   Expertise in
   1. Medical education
   2. Digital Health / Health Informatics
   3. ICT

A) Qualifications and experience

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<th>Criteria</th>
<th>Minimum Requirement</th>
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<td>1. A registered entity or academic institution in Sri Lanka with at least 5 years' experience.</td>
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<td>2. Prior experience on development and successful implementation of at least two 2 Moodle based eLMS in Sri Lanka or internationally with in the last 10 years</td>
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<td>3. Past track record of satisfactory work completed with Ministry of Health with in the last 5 years</td>
<td>Considered an added advantage</td>
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<td>4. Technical resources (qualifications and experience) on the following areas</td>
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<td>a. Education science</td>
<td>Masters or higher qualification in the fields of Medical Education/ Education with minimum 3 years’ experience</td>
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<td>b. Health Informatics Information and Communication Technology</td>
<td>Minimum of 2 years’ experience in the platforms with BSc or higher qualification in a related field.</td>
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<td>Competency</td>
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<td>a. eLearning based training using Moodle and / or similar platforms</td>
<td>Expert</td>
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<td>Criteria</td>
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<td>Certification/formal training widely known eLearning platforms will be an advantage</td>
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<td>b. Operating and managing of digital Learning Management Systems such as Moodle or similar platforms</td>
<td>Expert</td>
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<td>c. Use of digital audio / video capture devices for educational material development including development / adaptation and editing of multimedia content intended for online training</td>
<td>Advance user</td>
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Signed curriculum vitae must be provided to demonstrate fulfilment of above qualifications for each member of the team of experts.

B) Work plan and Methodology

The methodology should be provided by the team of experts covering the following aspects;

Specific resources to be allocated to the service (Human and equipment)
- Timelines for specific components of the work
- Any other important aspects of the service

Inputs from the consultants/team of experts
- Any ICT equipment (ex: computer(s))
- Telephone connectivity
- Data connectivity
- Collaborative working platform(s)