

## **Scope of work for IT vendor: Pilot development Machine learning/Deep learning Model for HIV epidemic forecasting**

Technical Assistance Platform (TAP) is a central mechanism that allows global stakeholders and experts in PEPFAR health information systems to come together as a Global Informatics Collaborative for unified development of sustainable HIS solutions and interventions. The TAP implementing partners, and the players in their respective consortiums, in collaboration with CDC headquarters and country offices develop a wide variety of products for use by the global community as well as products that are disseminated or presented to external audiences. The TAP work is focused on producing products to support the global community across three focus areas, data integration strategies and implementation, OpenMRS HIV Reference Implementation, and Overall Health Information Systems Support. Each of the primary TAP IPs and their consortiums all support aspects of work across these areas.

### **A. Objectives and tasks**

In the TAP project funded by the US Center for Disease Control and Prevention (US CDC), PATH collaborated with Vietnam Administration of HIV/AIDS Control (VAAC) , to develop Viet nam nation HIV/AIDS information system (HIV INFO). The objective of this mission is to focus on research and develop a pilot ML/DL for HIV/AIDS forecasting based on deidentification HIV/AIDS data use.

The IT vendor will conduct the following tasks to achieve these activities:

#### **Task 1 : preparation**

1. Working with VAAC/PATH for identifying the Forecasting requirements and HIV/AIDS domain knowledge for Model
2. Copporation with VAAC for preparing deidentification data and identify data features for the forecasting.
3. Proposal plan for model training for HIV/AIDS forecasting (data preprocessing, select models, model training, model implementation)
4. Documents
  - 4.1. Forecasting requirements documents
  - 4.2. Data use documents
  - 4.3. Proposal plan for model training

#### **Task 2: Model training**

1. IT vendor have to prepare server for model training
2. IT vendor develop model2 and conduct training
3. IT conduct customize the models and select suitable model
4. Documents:
  - 4.1. Server configuration
  - 4.2. Model, training results

### Task 3: Model implementation

1. Implement model on web or mobile apps.
2. Documents: Model implementation

## B. Responsibilities

### Context and purpose

- Work closely with staff members of VAAC, PATH, US CDC, and the Vietnam Administration for HIV/AIDS Control both in and outside of Vietnam during the mission..
- Conduct a bi-weekly planning meeting to agree on the plan for upcoming two-week sprint period.
- Handover all documents, new and/or updated, as well as the source code at the end of the project.

### System transition

- The IT vendor will hand over all source codes and documents to PATH
- The approval and final payment will only be made when all major bugs are fixed, key responses, source codes, and documents are reviewed and confirmed as satisfactory by PATH.

### Preference/Advantages

- Experience working with government institutions, local/international non-government organizations, and health-related organizations.
- Experience in AI

## C. Deliverables

#	Deliverables		Activities related	Deadline
1	Approved Documents of task 1		Task 1	July,15, 2024
2	Approved documents of task 2		Task 2	August , 15, 2024
3	Approved documents of task 3		Task 3	September 15, 2024
3	Project finalization			
3,1	Document handover	Documents in task 1, task 2, task 3		September 20, 2024

3.2	Source code handover	Final version of source code will be handed over to VAAC and PATH. <ul style="list-style-type: none"><li>•</li></ul>		September 20, 2024
-----	----------------------	--	--	--------------------

**D. Timeframe**

May 2024 to September 30, 2024