

# Request for proposal #TAP-2024-01

Upgrade Smart Chatbot for iCare system (mobile application and web application) for HIV patients in Ho Chi Minh City



2201 Westlake Avenue  
Suite 200  
Seattle, WA 98121 USA

[www.path.org](http://www.path.org)

© 2023 PATH. All rights reserved.

---

## Contents

1. Request for proposal schedule .....	1
2. PATH statement of business .....	1
3. Contracting requirements .....	1
4. Solicitation terms and conditions .....	2
5. Instructions for responding. ....	3
6. Specifications/Scope .....	4
7. Fact-finding questions.....	8
8. Qualifications, evaluation criteria, and selection .....	8

Request for proposal number: RFQ#TAP–2024–01

For: Upgrade Smart Chatbot for iCare system (mobile application and web application) for HIV patients in Ho Chi Minh City

## 1. Request for proposal schedule

Activity	Date and time (Hanoi time)
Request for proposal (RFP) released	January 25 <sup>th</sup> 2024
Confirmation of interest in submitting a proposal	January 26 <sup>th</sup> 2024
Deadline for fact-finding questions	January 29 <sup>th</sup> 2024, 5:30PM
PATH to respond to fact-finding questions	January 31 <sup>st</sup> 2024
Deadline for submission of proposal in response to the RFP	February 5 <sup>th</sup> 2024, 5:30PM
Award decision (to be followed by contract negotiations)	Week February 19-23, 2024

**Note:** PATH may change the dates at its discretion. Changes will be communicated to those who confirmed their intent to submit a proposal.

## 2. PATH statement of business

PATH is a global nonprofit dedicated to achieving health equity. With more than 40 years of experience forging multisector partnerships, and with expertise in science, economics, technology, advocacy, and dozens of other specialties, PATH develops and scales up innovative solutions to the world's most pressing health challenges. Learn more at [www.path.org](http://www.path.org).

## 3. Contracting requirements

- 3.1 The contracting authority shall be PATH or any one of its affiliates either directly or on behalf of operations countries or programs.
- 3.2 The commercial contracting terms and conditions will be negotiated with the successful supplier toward the end of the selection process.
- 3.3 By submitting a proposal, the supplier confirms that they will abide by the RFP terms and PATH policies, especially our Code of Ethics (<https://www.path.org/about/code-ethics/>), and general good practices regarding

inclusivity, diversity, fair trading, health and safety, records management, anti-fraud and corruption, and environmental policy, among others.

- 3.4 Duration of the contract is estimated to be 8 months.

## 4. Solicitation terms and conditions

- 4.1 **Notice of nonbinding solicitation:** PATH reserves the right to reject any and all bids received in response to this solicitation and is in no way bound to accept any proposal.
- 4.2 **Confidentiality:** Suppliers shall treat all information provided by PATH as part of this solicitation as confidential. If any information is inappropriately released, PATH may seek appropriate remedies as allowed under applicable law.
- 4.3 **Conflict of interest disclosure:** Suppliers bidding on PATH business (also referenced herein as “bidders”) must disclose, to the procurement contact listed in the RFP, any actual or potential conflicts of interest. Conflicts of interest could be present if there is a personal relationship with a PATH staff member that constitutes a significant financial interest, a board membership, other employment, or ownership or rights in intellectual property that may conflict with the supplier’s obligations to PATH. Suppliers and PATH are protected when actual or perceived conflicts of interest are disclosed. When necessary, PATH will create a management plan that provides mitigation of potential risks presented by the disclosed conflict of interest.
- 4.4 **Acceptance:** Bidder’s submission of a proposal means the bidder accepts all terms and conditions set forth in the RFP. PATH’s acceptance of a proposal does not mean acceptance of its terms and conditions. PATH reserves the option to negotiate on the final terms and conditions. We additionally reserve the right to negotiate the substance of the RFP finalists’ proposals, as well as the option of accepting partial components of a proposal if appropriate.
- 4.5 **Right to final negotiations:** PATH reserves the option to negotiate on the final costs and final scope of work and reserves the option to limit or include third parties in such negotiations at PATH’s sole and full discretion.
- 4.6 **Third-party limitations:** PATH does not represent, warrant, or act as an agent for any third party because of this solicitation. This solicitation does not authorize any third party to bind or commit PATH in any way without our express written consent.
- 4.7 **Proposal validity:** Proposals submitted under this RFP shall be valid for at least 90 days following the date the proposal is due. The validity period shall be stated in the proposal submitted to PATH.
- 4.8 **Limitation of liability:** The terms and conditions set forth in this RFP do not exclude or limit the liability of PATH or the supplier in relation to fraud or in other circumstances giving rise to liability under any applicable law.
- 4.9 **Tender costs and liability:** Bidders are responsible for obtaining all information necessary for preparation of their proposal and for all costs and expenses incurred in preparation of the proposal. Subject to the “Limitation of liability” section in this RFP (section 4.8), the bidder accepts by their participation in response to this RFP, including without limitation the submission of the proposal, that it will not be entitled to claim from PATH any costs, expenses, or liabilities that it may incur in tendering a response to this RFP, irrespective of whether their proposal is successful.

- 4.10 **PATH's variation or termination rights:** PATH reserves the right to vary or terminate this RFP process with written notice to all suppliers from which it has received proposals. It is intended that this solicitation process will take place in accordance with the provisions of this RFP, but PATH reserves the right to terminate, amend, or vary (to include, without limitation, in relation to any time scales or deadlines) the solicitation process by notice to all suppliers from which it has received proposals. Subject to section 4.8, "Limitation of liability," PATH will have no liability for any losses, costs, or expenses caused by its termination, amendment, or variation to this RFP.
- 4.11 **Joint venture or consortium or subcontractors:** Any lead supplier that submits a proposal in response to this RFP takes responsibility and accountability for enforcing the RFP requirements set forth herein among the members of the joint venture or consortium, and each of their advisers, subcontractors, and staff.
- 4.12 **Payment and invoicing:** PATH will pay correctly addressed and undisputed invoices within 30 days. Suppliers shall ensure comparable payment provisions apply to payments to their downstream parties. Advance payment is not preferred. If an advance payment is envisaged and is other than industry or country known practice, such must be made clear in the financial proposal to PATH.
- 4.13 **PATH Values and DEI (Diversity, Equity, and Inclusion)**
- 4.13.1 Supplier Diversity Statement/Commitment - PATH works to create mutually beneficial business relationships with diverse suppliers and consultants that strengthen the communities in which we operate. We are committed to developing mutually beneficial relationships with small, minority-owned, women-owned, and other underrepresented business enterprises and consultants. The primary goal of PATH's Supplier Diversity Program is to provide opportunities to diverse suppliers and consultants that satisfy our procurement and contractual standards and reflect the communities we serve; build resilient supply chains that drive economic growth and cost savings; and finally, advance our commitment to diversity, equity, and inclusion.
- 4.13.2 Supplier Diversity at PATH - Supplier diversity at PATH means that we seek and include small, minority-owned, women-owned, and other underrepresented businesses and consultants in our procurement policies, practices, and vendor providers. PATH recognizes that supplier diversity creates a sustainable competitive advantage for the organization, enhances our commitment to equity and has a positive impact on the communities which we serve.
- 4.13.3 Planning and reporting - Suppliers are expected to live up to PATH's DEI vision and state how they have included diverse supplier groups in their supply chain as they aim to partner with PATH in delivery of this project. The successful supplier will report to PATH every six months what portion of the work has been delivered through an inclusive workforce and underrepresented supplier groups.

## 5. Instructions for responding.

- 5.1 **PATH contacts:** All communications regarding this solicitation shall be directed to the contacts below. Contacting third parties involved in the project, the review panel, or any other party may be considered a conflict of interest and could result in disqualification of the proposal. All documents required as part of the proposal must be submitted to the contacts listed by the deadline for submission:

Technical contact:	Mr. Pham Thanh Dat	Email: dpham@path.org
Finance Contact:	Mr. Ngo Tuan Anh	Email: ango@path.org
Procurement contact:	Ms. Nguyen Thuc Hang	Email: htnguyen@path.org

- The subject line of all emails regarding the proposal should read: RFP #TAP –2024–01 Your Company Name.
- 5.2 **Confirmation of interest:** Please send a statement acknowledging receipt of this solicitation and your intent to respond or not respond no later than the date noted in the schedule in section 1. Send the confirmation to the contacts listed above.
- 5.3 **Proposal technical content:** Bidders are advised to provide only what is required. The proposal must be clear, concise, unambiguous, and directly address the requirements stated.
- 5.4 **Selection of short list:** PATH reserves the right to select a short list from the bids received. PATH has the option to interview and discuss specific details with those candidates who are short-listed.

## 6. Specifications/Scope

### 6.1 Scope of work/terms of reference/specifications:

#### Objectives and tasks

In the Technical Assistance Platform (TAP) project funded by the US Center for Disease Control and Prevention (US CDC), PATH collaborated with local government stakeholders, Ho Chi Minh City Department of Health/Center for Disease Control (HDOH/HCDC), to upgrade and implement mobile and web applications (apps) that support HIV patients in treatment and care. The mobile apps aim to give HIV patients access to antiretroviral (ARV) treatment related information, remind them of their appointments and when to take their medication, provide and explain HIV related lab test results, and provide them with useful information on their health issues. These mobile apps will also help HIV patients schedule appointments with health care providers and attend virtual examinations. These mobile apps will make it convenient and easy for both the patients and health care providers at treatment facilities (e.g., outpatient clinics [OPC] and hospitals) in the provision of HIV care and treatment services. The mobile apps will link with an electronic medical record system (EMR) implemented in 31 OPCs in Ho Chi Minh City (HCMC) for getting data—such as patient information and patient examination and testing results—to mobile and web apps.

The mobile apps deployed on Android/iOS with the following technologies:

- Kotlin programming language for Android version
- Swift and Objective C for iOS version
- ReactJS Framework for front-end (single page application)

iCare system functions is:

- Functions to manage personal health records for HIV patients.
- Consultation management function for HIV patients.
- Function for medication reminders.
- Content management functions.
- Chatbot tools.
- Develop chat tools between OPCs and people living with HIV.

In last fiscal year, the project developed a very basic chatbot (if/then functions). For the needs of HIV patients for incrementing the ability of chatbot for question/answering smart and accuracy, the icare chatbot should be upgraded for smater and adding more general information and specific information related to HIV in HCM city

The objective of the problem is to build smart chatbot with developing a language model to support individuals with information related to HIV (Human Immunodeficiency Virus) in HCM city and provide guidance and answers related to the disease.

**Example:**

INPUT: What is HIV?

OUTPUT: HIV is an abbreviation for Human Immunodeficiency Virus, which means a virus that weakens the immune system in humans. HIV is a type of virus capable of destroying T-lymphocytes, an important type of immune system cell. When T-lymphocytes are destroyed, the body's immune system weakens gradually.

**Corpus**

The data source for the chatbot's learning and response generation includes information related to the causes, symptoms, prevention methods, etc. This information is gathered from news websites, articles, standardized software databases, and other reliable sources. The information is then organized and normalized into a set of standardized questions and answers. The chatbot's Q&A system reads and analyzes this information to provide the most accurate responses.

**Input**

The input consists of multiple-choice questions in the Vietnamese language. Each question has between 2 to 6 options, with at least one correct option. The questions are formulated based on context, information extraction, user data collection, keyword identification, and directing the questions into answer options.

**Output**

The system's output involves providing answers or engaging in a question-and-answer interaction based on predefined workflows and recognized content from the original source of the inquiry.

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

**Task:**

- 1. Develop Natural Processing Language techniques for Specific Domain in HIV in Vietnamesees**
- 2. Develop HIV information contents for Chatbot** (at least 200 corpus with question/answers in general information and specific information for HIV in HCM city. The chatbot include model, interface and management module to feed information into chatbot)
- 3. Upgraded iCare chatbot with Developed Language Model and HIV contents in English and Vietnamese.**  
Ensure performance and accuracy inference of chatbot
- 4. Corporate with Icare development It vendor interated Upgraded chatbot with ICare system**
- 5. Test and fix errors**

The IT vendor will test and fix errors found in the apps. PATH and HDOH/HCDC will approve the test cases and results sent by the IT vendor.

**6. Develop documents for (1) (2) (3) (4)**

6.1. Develop business analysis documents

6.2. Develop system analysis and design documents.

6.3. Develop Users guide

6.4. Test cases and Testing reports

6.5 HIV information contents and Language Model

**Task 2 : Maintenance support**

After completing the system deployment, the IT vendor must provide system maintenance support for one year.

**Responsibilities**

**Context and purpose**

- Work closely with staff members of HDOH/HCDC, PATH, US CDC, and the Vietnam Administration for HIV/AIDS Control both in and outside of Vietnam during the business requirement development, design, development, and implementation of the system.
- Maintain and produce the business requirements and the system analysis and design, including agreed upon changes, and follow the priorities defined by the project stakeholders. Ensure adequate testing throughout the development of activities described above (including a user-acceptance testing phase).
- Conduct a bi-weekly planning meeting to agree on the plan for the upcoming two-week sprint period.
- Conduct a bi-weekly demonstration to showcase tasks completed in the previous two-week period, including the testing results, and bi-weekly reports for those tasks are required.
- 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 develop a master plan for creating user accounts at different levels (e.g., site level, HCDC/HDOH level, and donor level) and assigning suitable functions to each level. All stakeholders must approve this plan.
- The IT vendor is required to prepare and to provide relevant training to users in OPCs and HDOH/HCDC. During the training, the vendor should record and respond to users' queries about the system usage and resolve all technical issues. The training can be conducted either offline, in-person, or hybrid (i.e., include online sections).



- Deliverables must be packaged and sent to HDOH/HCDC and PATH through zipped files, Docker, or GitHub. The IT vendor will hand over all source codes and documents to PATH—including but not limited to user/administrator manuals, system analysis and design documents, and data loading tools documents.
- The IT vendor must deploy source codes to the testing environment for the PATH and HCDC/HDOH technical teams to review and verify.
- 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
- Experience in developing Natural Language Model

#### 6.2 Deliverables:

#	Deliverables	Requirements	Activities related	Deadline
1	Develop chatbot			
2	Develop HIV contents for Chatbot	Contents include corpus, question and answers	Task 2	July 01, 2024
3	Develop language model	Code and documents	Task 1	July 01, 2024
4	Develop and integrated chatbot	Chatbot is developed, integrated with Icare and testing	Task 3,4,5	September 30, 2024
5	Develop documents	Fully, quality documents is developed	Task 6	July 31, 2024
6	Project finalization			
6.1	Document handover	Documentation chatbot required include: 1. Develop business analysis documents 2. Develop system analysis and design documents.		September 15, 2024

		3. Develop Users guide for upgrade and new functions 4. Test cases and Testing reports 5. HIV information contents and Language Model 6. Implementation documents		
6.2	Source code handover	Final version of source code will be handed over to HDOH/HCDC and PATH. <ul style="list-style-type: none"> <li>The IT vendor must build the system from handover source code on servers which is indicated by PATH for testing functions.</li> </ul>		September 15, 2024

## 7. Fact-finding questions

- 7.1 Fact-finding questions should be sent to the contacts listed in Section 5.1 by the date in the RFP schedule (section 1). Fact-finding questions received after this deadline cannot be accommodated.
- 7.2 It is advisable that any fact-finding questions refer to a specific section of the RFP; and to the extent possible, be aggregated rather than sent individually.
- 7.3 In line with transparency principles, all fact-finding questions and all of PATH's responses to these questions will be shared with all those who confirmed their intent to bid. Questions will be anonymized and answered if PATH reasonably determines that such fact-finding questions do not disadvantage any potential supplier and are not commercially in confidence. If such are commercially in confidence, they shall be handled in line with PATH's policy on information and data.
- 7.4 PATH may request from a bidder additional information at any time ahead of award, and the bidder will be expected to provide the requested information within the time frame given. Failure by a bidder to provide supplementary information to PATH in a timely manner may lead to the proposal being rejected in full or disqualification from the procurement process.

## 8. Qualifications, evaluation criteria, and selection

- 8.1 **Supplier qualifications:** In relation to the scope, provide information on your overall qualifications, including:
- Profile of relevant corporate qualifications.
  - Profile of relevant experience and examples of related work.
  - Qualifications of key members of the proposed project team (attach CVs/resumes and provide details of backup/standby teams).
  - Number of years in business.

- If your company has more than one location, please indicate these qualifications for the site that is responding.
- Other as required by specific procurement.

Suppliers that do not meet reasonable qualifications shall not be short-listed and therefore not technically evaluated.

8.2 **Selection and evaluation criteria:** The proposal will be expected to address all the requirements.

- Stage 1: Proposals will be checked for completeness in terms of submission on time, technical proposal, financial proposal, and all required information. Proposals that are correctly completed will proceed to Stage 2. Any proposals submitted late, incomplete, or with omissions may be rejected at this point. If a proposal is rejected at this stage, it will automatically be disqualified from further review.
- Stage 2: If a proposal passes the Stage 1 evaluation, it will be evaluated in detail in line with the evaluation methodology below. Information provided as part of the qualification may be verified at this stage, and as part of the evaluation process.

8.3 **Evaluation criteria:** Proposals will be assessed to determine the most economically advantageous using a set of criteria and weightings and will be assessed strictly based on the proposal submitted.

8.4 **Scoring model:** Proposals that are subjected to both technical/detail evaluation and financial evaluation.

8.4.1 **Financial evaluation:** The “total cost” will be evaluated for the purposes of financial evaluation and prices are not subject to any pricing assumptions, qualifications, or indexation other than that stated in the financial proposal. A maximum score of x (financial score/points allocated in the evaluation criteria) will be awarded to the proposal offering the lowest “overall cost.” Other proposals will be awarded a mark by application of the following formula: (lowest overall cost / overall cost being evaluated) \* x (rounded to one decimal place) = financial score.

8.4.2 **Moderation and application of weightings:** The evaluation panel will moderate criteria that have substantial divergence among the individual scores and agree on the final score (as opposed to averaging scores). The score for each award criterion will be amalgamated to give a percentage score out of 100.

8.4.3 **The recommended winning supplier:** The recommended award winner will be the proposal that receives the highest score out of 100 (combined technical and financial scores) when applying the above evaluation methodology.

8.4.4 **Feedback:** All those who submit proposals will be provided with feedback. At a minimum, each supplier will be informed of how many points they scored and provided with a summary of key strengths and areas for improvement.