Healthcare-Insurance Industry Pilot (HIIP):

Call-for-Proposals

15 March 2021

GENERAL INSURANCE ASSOCIATION

Life Insurance Association Singapore
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CONTENTS

1 EXECUTIVE SUMMARY

1.1. By 2030, it is expected that 1 in 4 Singaporeans will be aged 65 or older. The demand on healthcare and insurance services are expected to increase in tandem. To this end, the Healthcare-Insurance Industry Pilot (HIIP) focuses on healthcare insurance claims relating to hospitalisation. It aims to identify and address the pain points faced by patients/policyholders, healthcare providers and insurers in the end-to-end user journey, using technology solutions and public digital infrastructures.

1.2. The Call-for-Proposals ("CFP") is seeking proposals to improve the interoperability between the healthcare and insurance industry, eliminate cost inefficiencies and duplicate claims, which in turn will improve the patients' experience. It will be deployed as a live pilot involving actual patients who fall within the HIIP scope, and no parallel runs with existing systems are expected unless the specific functionality is not provided for under HIIP.

1.3. HIIP will take the minimum viable product ("MVP) approach by starting small and iterating fast. By calibrating on the outcomes of the MVP pilot, the aim for HIIP is to eventually scale to a national infrastructure for both healthcare and insurance industry ("Post-MVP").

2 BACKGROUND

2.1. HIIP will take the minimum viable product ("MVP) approach by starting small and iterating fast. Depending on the success of the MVP pilot, the aim for HIIP is to eventually scale to a national infrastructure for both healthcare and insurance industry ("Post-MVP").

2.2. HIIP is an industry initiative co-led by the following organisations:

2.2.1. General Insurance Association of Singapore ("GIA");

2.2.2. Integrated Health Information Systems Pte Ltd ("IHiS"); and

2.2.3. Life Insurance Association of Singapore ("LIA").

2.3. The initial phase of this initiative is jointly supported by the following organisations:

2.3.1. KK Women's and Children's Hospital ("KKH");

2.3.2. Ministry of Health ("MOH");

2.3.3. Monetary Authority of Singapore ("MAS");

2.3.4. National University Hospital ("NUH");

2.3.5. Singapore General Hospital ("SGH"); and

2.3.6. The Great Eastern Life Assurance Company Limited ("GEL").

2.4. For the MVP pilot, the proposed solution will only be used by or require integration with the following organisations ("Participants"):

2.4.1. GEL;

2.4.2. KKH;

2.4.3. NUH; and

2.4.4. SGH.

2.5. HIIP will cover the following types of health insurance policies under the participating insurer:

2.5.1. Integrated Shield Plans ("IPs"); and

2.5.2. Group Hospital and Surgical insurance ("GH&S").

2.6. The lead organisations stated in paragraph 2.2 can jointly appoint any other organisation that is subsequently determined as necessary to ensure a smooth delivery of HIIP.

3 OBJECTIVES

3.1. The healthcare and insurance industry have highlighted existing pain points such as the following, from patient's admission, inflight and discharge, to claims settlement between insurers, healthcare providers and patients/policyholders:

3.1.1. IPs and GH&S are supported by separate processes and systems. In the event where the patient is uncertain of the insurance coverage detail during admission, healthcare providers need to access different systems to check for the patient's insurance coverage and then access the relevant insurer's portal to generate the Letters of Guarantee ("LOGs"). This may prolong the admission process and result in a poor patient's experience.

3.1.2. Healthcare providers may receive incomplete or invalid hardcopy LOGs issued under GH&S. For example, there could be missing information such as date of issuance, company's stamp or incorrect hospital name.

3.1.3. Multiple consents may be required from the patient at various juncture of the end-to-end journey, for the healthcare provider to release relevant medical records to the insurer. The consent forms are not standardised across healthcare providers, the submission of consent is typically via hardcopy or email, and the consent may need to be routed through the insurers.

3.1.4. For the purpose of processing claims, healthcare providers are currently providing the necessary information to the insurers via separate systems. For GH&S, the final bills and LOGs are submitted by the healthcare providers to the insurers via hardcopy and in batches. As a result of the different processes, reconciliation may be challenging and result in claims settlement delay.

3.1.5. Patient may potentially submit duplicate claims for both IPs and GH&S, especially where the policies are under different insurers, as they do not have a common view of the patient's claims.

3.2. HIIP aims to resolve the above pain points and achieve the following desired outcomes:

3.2.1. Eliminate the need for LOGs, i.e. the patient can do away with deposit automatically if the healthcare provider can have access to information to ascertain that he/she is sufficiently covered by an insurer (either IPs or GH&S).

3.2.2. Insurers can request for diagnosis, treatments and other medical records from healthcare providers, and healthcare providers can provide them digitally.

3.2.3. Patients can provide consent for the release of medical details or records by healthcare providers to insurers using Singapore's national digital identity services via the Singpass app.

3.2.4. Healthcare providers can submit all types of claims digitally to insurers, eliminating the need for paper/email-based processes.

3.2.5. Insurers can identify and combat duplicate claims, for example, a claim is submitted for both IPs and GH&S.

3.2.6. Patients can enquire status of claims digitally by authenticating with their Singpass app.

3.2.7. Insurers can provide patient's relevant policies coverage information and timely updates on the estimated claimable amount to healthcare providers.

3.2.8. Insurers can activate payment against claim, and healthcare provider can monitor status of payment.

4 SCOPE

Note: The proposal should be clearly structured according to the following sections for ease of evaluation.

4.1. Landscape Study *[Note: Please provide as an Annex]*

4.1.1. The proposal shall include a landscape study on how other countries are leveraging technology to meet similar objectives outlined in Chapter 3, i.e. to improve efficiency and bring new benefits to insurers, healthcare providers and patients/policyholders, while still maintaining privacy and security of the data shared.

4.1.2. The proposal shall provide clear justifications whether the proposed solution should be built from scratch for Singapore or adapt solutions from similar implementations, based on the landscape study.

4.2. Functional Requirements *[Note: Detailed process flow diagrams may be provided as Annexes]*

4.2.1. The proposal shall include a technology solution or service that enables timely sharing of relevant data sets between the Participants, with the patient's consent, from the time the patient is admitted to the healthcare provider till the claims are fully settled.

4.2.2. The proposal shall clearly state how the relevant data sets are being handled (e.g. encrypted, stored, in-transit) on the technology solution, and which Participants can access the specific data.

4.2.3. The proposal shall include the ability for the patient to provide consent to release the relevant data sets. This shall be enabled by Singapore's national digital identity services via the Singpass app. In addition, the patient shall be notified whenever data is shared between the Participants.

4.2.4. The proposal shall provide details of the proposed processes and key functionalities in the following 3 stages to achieve the desired outcomes stated in paragraph 3.1.5:

4.2.4.1. Patient admission

4.2.4.2. Inflight and discharge

4.2.4.3. Billing and claims settlement

4.2.5. For <u>patient admission</u>, the proposed solution shall minimally:

4.2.5.1. Enable healthcare providers and insurers to initiate a request to patients, and for patients to provide consent via the Singpass app to authorise the release of relevant data sets from the originating party to the receiving party.

4.2.5.2. Enable healthcare providers to release information in the Admission Authorisation Form and Care Cost Form (Financial Counselling) to the relevant insurers.

4.2.5.3. Enable healthcare providers to retrieve detail of the patient's relevant policies coverage information from the insurers, including both IPs and GH&S, and ascertain whether any hospital admission deposit by the patient is still necessary.

4.2.5.4. Enable notifications to the relevant insurers and employers (where applicable) on the patient's admission.

4.2.6. For <u>inflight and discharge</u>, the proposed solution shall minimally:

4.2.6.1. Enable healthcare providers to provide detailed interim bill or doctor's memo on the latest progress of the patient to the relevant insurers.

4.2.6.2. Enable healthcare providers to provide timely updates on the status of the patient, for example, inflight status, length of hospitalisation stays, to the relevant insurers. If the patient is inflight for more than 60 days, additional data sets may be required.

4.2.6.3. Enable insurers to provide timely updates on the estimated claimable amount to the relevant healthcare institutions, to facilitate further financial counselling to the patients where necessary.

4.2.6.4. Enable insurers to initiate a request to patients, and for patients to provide consent via the Singpass app to healthcare providers to release the relevant medical details or records to the relevant insurers.

4.2.7. For billing and claims settlement, the proposed solution shall minimally:

4.2.7.1. Enable healthcare providers to submit claims digitally to the relevant insurers. This shall include outpatient claims arising from post-hospitalisation visits.

4.2.7.2. Enable healthcare providers to provide the detailed final bill as well as the patient's copy of inpatient discharge summary ("IPDS") or its equivalent to the relevant insurers.

4.2.7.3. Enable insurers to digitally request for and healthcare providers to digitally release additional medical details or records of the patients which are deemed necessary for claims adjudication.

4.2.7.4. Enable insurers to settle the payment electronically within the stipulated period agreed with the healthcare providers (e.g. 30 days) from the final bill date if no further information required.

4.2.7.5. Enable healthcare providers, insurers and patients to monitor or enquire the latest claim status.

4.2.7.6. Enable healthcare providers or insurers to notify patients of the balance payment.

4.2.7.7. Enable insurers to initiate a request to patients, and for patients to provide consent via the Singpass app to healthcare providers to release the relevant medical details or records to the relevant insurers.

4.3. Non-Functional Requirements

4.3.1. The proposal can include use of cloud services, on the understanding that it can still satisfy the non-functional requirements outlined in paragraph 4.3.

4.3.2. The proposal shall include details of the proposed solution in the following areas, and where applicable clearly state whether it will be delivered as part of MVP or Post-MVP.

4.3.2.1. Performance, reliability and availability;

4.3.2.2. Security and cyber resilience;

4.3.2.3. Usability;

4.3.2.4. Scalability; and

4.3.2.5. Extensibility.

4.3.3. The proposal shall include how relevant regulations and guidelines will be met, including:

4.3.3.1. Personal Data Protection Act 2012;

4.3.3.2. HealthTech Instruction Manual; and

4.3.3.3. MAS Cyber Hygiene Notice 132.

4.3.4. The proposal shall include how it intends to meet the relevant guidelines and best practices, particularly Post-MVP, including:

4.3.4.1. MAS Technology Risk Management Guidelines; and

4.3.4.2. MAS Guidelines on Outsourcing, particularly paragraph 5.4.3.

4.4. Operating Models

4.4.1. The proposal shall include operating models, including the strategy, people, processes, governance structure and partners (if any), to design, build, deploy and operate the proposed solution. The operating models shall cover both:

4.4.1.1. MVP; and

4.4.1.2. Post-MVP.

4.4.2. The proposal shall provide details on the benefits and any downsides for each of the proposed operating model.

4.5. Pricing Models *[Note: Please complete the price schedule and provide as an Annex]*

4.5.1. The proposal shall include sustainable pricing models to support and drive adoption of the proposed solution by the healthcare providers and insurers. The pricing models shall cover both:

4.5.1.1. MVP; and

4.5.1.2. Post-MVP.

4.5.2. Each proposed pricing model shall clearly state:

4.5.2.1. The fixed cost;

4.5.2.2. The variable cost and the basis of each (post-MVP only); and

4.5.2.3. Any tiered volume-based cost to cater for varying demands of the healthcare providers and insurers (post-MVP only).

4.5.3. The proposal shall provide details on the potential cost savings and efficiency gains from deploying the proposed solution, clearly stating any assumptions made.

4.6. Execution Plan, Delivery Schedule and Report

4.6.1. The proposal shall include a detailed execution plan and delivery schedule, stating the key milestones, key dependencies, key resources available and any assumptions made. The proposal shall also state the key requirements from the Participants.

4.6.2. The proposal shall outline plans and approach for data harmonization between the Participants.

4.6.3. The proposal shall be based on a delivery schedule where the proposed solution would be ready for go-live within 6 months upon award.

4.6.4. The proposal shall be based on a pilot period of 3 to 6 months.

4.6.5. The proposal shall outline plans for the delivery of an industry report that will be published after the MVP pilot. The industry report shall include key findings and outcome of the pilot.

4.7. Transition Plan

4.7.1. The proposal shall include metrics to measure and evaluate the performance of the MVP pilot, including whether the desired outcomes have been achieved, and whether the proposed solution can transit to a national infrastructure for both healthcare and insurance industry.

4.7.2. The proposal shall include a transition plan to describe the key actions after a successful MVP pilot. This shall include illustrations on how the proposal solution could be seamlessly scaled and extended from MVP to Post-MVP, including onboarding of more healthcare providers and insurers. The proposal should include any limitations and specific dependencies.

4.7.3. The proposal shall include an exit plan to describe the key actions if the MVP pilot is discontinued or needs to be transferred to another operator for Post-MVP. In the event of a transfer, please note that the MVP operator must commit to a successful transition to the Post-MVP operator.

5 EVALUATION METRICS

5.1. The bidder shall have the familiarity and experience with the HIIP use cases, including the processes, data requirements and relevant regulations.

5.2. The proposals will be further evaluated against the following criteria:

5.2.1. Quality of the project and execution plan, including consideration on extensibility, scalability and high availability of the proposed solution in the transition plan.

5.2.2. Quality and technological innovativeness of the proposed solution, including risk management, cyber security and resiliency.

5.2.3. Ability to deliver the solution and commence live pilot within 6 months of contract award.

5.2.4. Attractiveness and sustainability of the pricing models.

5.2.5. Familiarity and experience integrating with existing systems of the Participants.

6 ASSUMPTIONS AND OTHER INFORMATION

6.1. Assumptions

6.1.1. The proposed solution shall interface with the Participants' existing systems via their existing B2B gateways or equivalent.

6.1.2. The proposed solution should be based on open standards and minimise the usage of any proprietary components which limits the adoption of the platform.

6.1.3. The proposed solution shall not store any data in a centrally consolidated physical and/or virtual location, except for necessary metadata.

6.1.4. The proposed solution shall ensure that healthcare personal identifiable information shall not leave Singapore even if the data is encrypted.

6.1.5. The bidder shall provide the required infrastructure and platform as a service for the MVP pilot unless otherwise stipulated.

6.1.6. For GH&S, the insurers shall provide details of the patient's relevant policy coverage information for named-basis policies. For unnamed-basis GH&S, the insurers will provide the list of companies and their corresponding GH&S plans to the healthcare providers.

6.2. Other information

6.2.1. For reference,

6.2.1.1. GIA and LIA have 27 and 11 members respectively offering health insurance.

6.2.1.2. The public statistics on hospital admissions are available at this link: https://www.moh.gov.sg/resources-statistics/singapore-health-facts/admissions-and-outpatient-attendances.

6.2.1.3. The national digital identity application programming interfaces are available at this link: https://go.gov.sg/singpass-api.

6.2.2. The bidder is required to sign Non-Disclosure Agreements with the Participants if it requires to obtain further information such as the "as-is" processes and HealthTech Instruction Manual.

6.2.3. The main submission, excluding annexes if any, should be kept concise and targeted at the CFP scope, preferably within 25 pages.

6.2.4. The CFP will close on 26 April 2021. Bidders should express their interest and submit their clarifications to texas.hong@gia.org.sg by 29 March 2021.