Unified Health Interface

Response to Consultation Paper

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Date : 22nd August, 2021

Chapters of UHI Consultation Paper

1. Introduction and Background
2. Creating an Open Network for Digital Health Services
3. Creating an Open Network for Services in NDHM
4. Ecosystem Adoption
5. Unified Health Interface in Depth
6. UHI Development, Governance and Management

Appendix - List of Questions

Chapter 1 - Introduction and Background

As stated on NDHM website https://ndhm.gov.in/assets/uploads/consultation_papersDocs/UHI_Consultation_Paper.pdf

“1.2.2 The National Digital Health Mission (NDHM) plans to develop the UHI building block as a public good that will enable **digital health services** in the **ecosystem**. Inputs from all are sought through this consultation paper to ensure UHI is beneficial to all parties and will help accelerate the adoption of digital health services in India.”

Open Question/Need for Elaboration

Is there any attempt made to define the terms “Digital Health Services” and “Ecosystem”?

Can this be stated more simply?

“Public, Private and Rural Health Ecosystems will be able to provide health services digitally to increase convenience, reduce cost and improve outcomes using UHI”

Define the terms used and focus on outcomes to evangelize adoption and answer the big Q “**what is in it for me”** for all ecosystem players?.

Q 1 - Telemedicine Practice Guidelines

As stated on NDHM website
https://ndhm.gov.in/assets/uploads/consultation_papersDocs/UHI_Consultation_Paper.pdf

“1.7.1 Please refer to section 1.6.3. The Telemedicine Guidelines were issued by The Board of Governors of the Medical Council of India (MCI) in March 2020. Stakeholders are requested to go through them and suggest changes to the policy, if any, to ensure adoption of telemedicine and e-pharmacy. “

1.6.6 The proposed Health Services Layer along with other NDHM building blocks is envisioned to solve challenges in delivering healthcare services digitally by creating an ecosystem that benefits both the patients and the Health Service Providers

Response/Comment

<comment>Is telemedicine about video consultation, home sample collection and e-pharmacy? Why is this paper making broad hints to make changes to TPG that supports ‘digital health’ technologies that provide these capabilities? <comment>

<answer> Telemedicine adoption needs more than regulation to be successful, ecosystem has to reinvent and realign itself for effective use of ‘tele’ in care journeys.<answer>

telemedregistry.in had identified ‘Teleconsultation’ ‘TeleICU and other tele services in hospital’ ‘Specialized Telemedicine Telecardiology’ and ‘Remote Patient Monitoring at Home’ - not all tele is doctor to patient!

Chapter 1 - Recommendations

1. Focus on problems to be solved, every problem is a nail when you have a hammer!
2. Convenience is not the only benefit of telemedicine, Swiggy of Health is not the answer.
3. Shortage of doctors is not solved by digital health, teletriage by skilled HCWs is more effective
4. Healthcare is not encounters, it is about episodes - appointments are transactions, care delivery is about taking responsibility for entire journey.
5. **If Doctors prefer to consult on whatsapp and write prescriptions by hand and take photos is not considered OK, do not force them to use telemedicine technologies. Ask them what they need to do their job better. Maybe it is a whatsapp with an eprescription app that is the answer.**

   WHO defines telemedicine as ".. valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and the continuing education of health-care workers, with the aim of advancing the health of individuals and communities." NOT JUST CONVENIENCE OF ORDERING

Chapter 2 - Creating an Open Network for Digital Health Services (1)

As stated on NDHM website https://ndhm.gov.in/assets/uploads/consultation_papersDocs/UHI_Consultation_Paper.pdf

“2.1.2 ...Currently, there are no Open Protocols defined for delivery of digital health services. This results in the several fragmented, non-interoperable platforms providing health services in the market. In order to obtain a digital health service (say tele-consultation or booking an appointment) the platform approach requires both patients and health service providers to use the same platform.

Open Question/Need for Elaboration

Going with open protocols rather than platforms will make the market more efficient by reducing transaction costs and rent.

Since the approach has been untried in Healthcare, we do not know what might be the benefits and risks associated with the open protocol approach.

At this point in time, the question is whether health services can be unbundled to the extent required by open networks. Will it lead to each player taking responsibility for only their role in the care journey?

Chapter 2 - Creating an Open Network for Digital Health Services (2)

As stated on NDHM website https://ndhm.gov.in/assets/uploads/consultation_papersDocs/UHI_Consultation_Paper.pdf

“2.2.5 For the patient, the open network should enable easy discoverability, booking, fulfillment and payment of digital health services from across the open network. In an open network, the patient’s set of options for Health Service Providers (HSPs) is no longer restricted by their choice of software platform or geography. This is similar to how users can use any mobile app in the UPI ecosystem to make payments to any other party.

Open Question/Need for Elaboration

Is the patient looking for convenience in healthcare or are they looking for something else - reliable quality?

While the UPI analogy works as far as allowing choice of mobile app, it does not do justice to needs of healthcare beyond enabling transactions.

Patients are looking for “**long term, trusted and high quality providers”** for an episode of illness that could be from days to entire lifetime. Discoverability without measurement and sharing of quality outcomes is not that valuable!

Chapter 2 - Creating an Open Network for Digital Health Services (3)

As stated on NDHM website https://ndhm.gov.in/assets/uploads/consultation_papersDocs/UHI_Consultation_Paper.pdf

“2.2.6 By enabling such journeys, an open network for digital health services, in conjunction with the other NDHM building blocks, democratizes access to digital health services. It can lay the foundation of a more open, efficient marketplace, where demand and supply for these services can be matched seamlessly with minimal information asymmetry. “

Open Question/Need for Elaboration

Does an open, efficient marketplace solve problems in public health? Can you stop a virus spread by market forces?

Are providers interested to participate in open networks? Who takes responsibility of care in market driven care flows?

Healthcare is not merely a business or marketplace, it is an “**ecosystem”** as you have called it, there are both altruistic and selfish motives at play in care journeys. Information asymmetry does not go away with digital health, might make it worse!!

Q 2.4.1 What benefits and risks do you see if an open network…?

As stated on NDHM website
https://ndhm.gov.in/assets/uploads/consultation_papersDocs/UHI_Consultation_Paper.pdf

2.4.1 As a stakeholder in the health ecosystem, what benefits and risks do you see if an open network approach to digital health services is implemented? Please respond with details. “

Response/Comment

<comment>Is the healthcare ecosystem or patient mature enough to take advantage of open networks?<comment>

<benefit> exchange of health data across providers will be possible, patients will have complete view of health record and benefit from options/choices of health services. <benefit>

<risks> providers will show lack of ownership and responsibility for entire care journey due to excessive shopping around by patients, giving choices is not always possible - for eg can you ask for change in the pilot of your flight mid-air, one to land and one to take off? <risks>

Chapter 2 - Recommendations

1. Digital Health is still a service, not a pure technology like SMTP - wrong analogy!
2. Sure, there is a role for shopping and convenience enabled by making choices available, however it is not as trivial as a list of doctors and facilities, much more data is needed for decisions.
3. Does the ecosystem want an open network? What will it help them achieve that they cannot by keeping data to themselves and patient? Does it profit them?
4. To achieve interoperability, standards like FHIR are well specified for usage in healthcare - why are we reinventing the wheel? FHIR can be used both as an open or closed network depending on needs.

Beckn and UPI are great approaches to make markets function efficiently by discovery of services and prices, however the answer to healthcare lies in interoperability not marketplaces. Problem to solve is quality of care not matching of demand to supply, that is already happening in private hospitals and still not solving our healthcare problems. Digital health should not make it worse!!

Chapter 3 - Creating an Open Network for Services in NDHM (1)

As stated on NDHM website https://ndhm.gov.in/assets/uploads/consultation_papersDocs/UHI_Consultation_Paper.pdf

“3.2.4 UHI ensures that a digital health service can be delivered between any EUA with any HSP in this ecosystem. The best example of a similar inter-operable model is from the financial services domain - the Unified Payment Interface (UPI). Today, users can choose any end user application (eg: BHIM app, PayTM, PhonePe, etc) to make seamless payments from their bank account or wallet to any other bank account.”

Open Question/Need for Elaboration

Overuse of banking analogy, health services are not transactional like finance/money transfer.

If there is a comparable concept, it is rather the account aggregator model in UPI, health service providers will be using the transactional data to make decisions.

Interoperability of data is not required only for digital health services, hospitals require to exchange data with several ecosystem partners like labs, other doctors - many such care workflows need not be transparent to patients.

Q 3.8 Questions for Consultation - Open Network for NDHM

As stated on NDHM website
https://ndhm.gov.in/assets/uploads/consultation_papersDocs/UHI_Consultation_Paper.pdf

3.8.12.

"The primary stakeholders in the UHI ecosystem are mentioned in section 3.3. While the list is more indicative than exhaustive, are there any other primary or secondary stakeholders that should be considered while building the interface? If yes, please outline their role in the UHI ecosystem."

Patients, HSPs and TSPs (EUAs) are mentioned as stakeholders.

Response/Comment

<comment>usually it is payor, provider and patient in healthcare as stakeholders, technology is an enabler without any stake really, only an intermediary<comment>

<response> boundaries between stakeholders are fast disappearing, technology companies can be care providers like in digital therapeutics and care providers can use proprietary technologies for example to monitor sepsis scores of patients after surgery. Too few care journeys are considered, mostly at a very generic level whereas healthcare system responds very specifically. For eg. ambulance dispatch is done based on triaging by an emergency help desk, not by letting patients call the nearest ambulance like an Uber.<response>

Q 3.8 Questions for Consultation - Open Network for NDHM

As stated on NDHM website
https://ndhm.gov.in/assets/uploads/consultation_papersDocs/UHI_Consultation_Paper.pdf

3.8.2 " The proposed objectives of UHI and UHI Network have been detailed in sector 3.4. Please share your comments on the comprehensiveness of these objectives, methods to ensure these objectives are adhered to. Please comment if there are other objectives which must be included in section 3.4. ."

Fair discovery, verification of entities, interoperability of services, service fulfillment, financial settlements, post fulfillment, open protocols, technology agnostic

Response/Comment

<comment>some of these are objectives while others are principles, for eg fair discovery is an objective whereas open protocols is a principle<comment>

<response>each stakeholder has their own objectives, if we are looking at patient as stakeholder the quality of services and fair charges are most important. Rating is mentioned in 3.5, however we have no idea how it will be implemented using UHI. Will there be an Ombudsman with access to health data for evaluating prices and quality of service based on patient complaints? Or we are talking about a Zomato kind of customer feedback here? <response>

Q 3.8 Questions for Consultation - Open Network for NDHM

As stated on NDHM website
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3.8.3 "UHI will support a range of digital health services and is expected to evolve with time. How should the digital health services be phased in the upcoming versions of UHI?. ."

Response/Comment

<comment>there is really nothing called digital health service, there are health services using digital as a medium.<comment>

<response>most of the examples given are transactional encounters between patient and provider, whereas care is often about an episode or long term. Neither patients nor healthcare providers are looking for a revolution in appointments or teleconsultation, what they are considering is innovative services like remote patient monitoring and digital therapeutics. Fro eg. the real value of digital is to help avoid that 2 extra visits during pregnancy, teleconsultation or remote monitoring might be used by provider - no pregnant mother will benefit from discovering new providers for every visit <response>

Chapter 4 - Ecosystem Adoption

As stated on NDHM website https://ndhm.gov.in/assets/uploads/consultation_papersDocs/UHI_Consultation_Paper.pdf

“**4.1.1 End-Users/ Patients** - UHI will also enable a large segment of Indian users who do not have physical access to doctors to be able to connect with them digitally - regardless of location. Users will also be able to share their health information with their health service providers and receive prescriptions, lab reports and doctor notes digitally on their devices.

Open Question/Need for Elaboration

Patients will prefer a last mile healthcare worker over a distant doctor, and many will not have required devices (specially women)

Doctors are not the only resource needed in healthcare, and connecting them digitally will not solve the lack of resource availability.

Rural healthcare will need e-clinics with point-of-care devices and healthcare workers to triage a patient and then consult a doctor.

Q 4 Ecosystem Adoption

As stated on NDHM website
https://ndhm.gov.in/assets/uploads/consultation_papersDocs/UHI_Consultation_Paper.pdf

4.3.1 " Have all incentives / disincentives for various stakeholders to participate been covered in chapter 4? If not, please provide the list and mention the role and description of the stakeholder."

Response/Comment

<comment>have the stakeholders been consulted for incentives needed for adoption, what was the experience at the UTs<comment>

<response> at this point, UHI is mainly focusing on health service aggregators in digital health and convenience of home sample collection/medicine/home care delivery. In short, all this is about 'may the best app win'. are patients hungry for the best app or they want something else - my understanding is that patients want better medicine that can only happen with evidence based practices. UHI has no role to play in improving the quality of healthcare services, it will only address peripheral needs which are indeed useful but not sufficient for improving healthcare <response>

Q 4 Ecosystem Adoption

As stated on NDHM website
https://ndhm.gov.in/assets/uploads/consultation_papers Docs/UHI_Consultation_Paper.pdf

4.3.2 For the disincentives mentioned in chapter 4 and the ones provided as an answer to the question above, please provide details on possible mitigating measures that may be taken to minimize the impact of said disincentives.

Response/Comment

<comment>disincentives have been trivialized, the real fear is about losing customers and revenue for healthcare providers.<comment>

<response> UHI is strengthening digital health as a challenger to incumbents providing health services. They are afraid this will raise expenses for compliance and lead to loss of potential revenues. Shaking up the incumbents might seem like a good idea, however it might backfire by creating more confusion on who takes responsibility of patient. Instead of deciding these questions on paper consultations, UHI/NDA should take up a pilot for a small geography and demonstrate how the ecosystem can reinvent itself to create value <response>

Chapter 5 - Unified Health Interface in Depth

As stated on NDHM website https://ndhm.gov.in/assets/uploads/consultation_papersDocs/UHI_Consultation_Paper.pdf

“**5.1.3** - UHI Protocols could consist of the following as part of its workflow: (a) Service Discovery (b) Service Booking (c) Service Fulfilment (d) Financial Settlement (e) Post Fulfilment

Open Question/Need for Elaboration

Service Discovery gives 4 examples, doctor discovery for teleconsultation, availability of your doctor, discover an ambulance, discover the closest lab. EUAs request the HSP and the HSP chooses to respond to patient using the application.

Care delivery is not about transactional service discovery and fulfillment, it is about a workflow involving team of care providers engaging with patients and their families for best outcomes.

Need more real world high impact use cases.

Q 5 Unified Health Interface in Depth

As stated on NDHM website
https://ndhm.gov.in/assets/uploads/consultation_papers Docs/UHI_Consultation_Paper.pdf

5.3.1 In the proposed discovery model in section 5.1.3.1, EUAs are expected to present all responses returned by the Gateway to the user and allow the user to choose the HSP. Should any alternate models be allowed? If yes, provide details.

Response/Comment

<comment>how would this discovery model work when a HCW is looking for a specialist?<comment>

<response> discovery model assumes too much knowledge from patient on the type of service required by them while usually all they will have is a symptom/problem. The first step in healthcare is triaging, if UHI can work in either an AI based triage or a manual triage (either physical or digital) then the one doing the triage can present choices to patient. can you really see a 65 yr old woman with a bad migraine using a discovery service and selecting a provider for herself? or a pregnant woman scared about baby not kicking getting on the EUA and looking up a list of doctors? <response>

Q 5 Unified Health Interface in Depth

As stated on NDHM website
https://ndhm.gov.in/assets/uploads/consultation_papersDocs/UHI_Consultation_Paper.pdf

5.3.2 Are there any challenges to the proposed approach to pricing of services detailed in section 5.1.3.2? Please suggest other alternate pricing models that must be supported by the Gateway.

HSP price for service + UHI Gateway charges (if any) + EUA service charges

Response/Comment

<comment>adding a charge for UHI means increasing cost for patient, is there enough value?<comment>

<response> absolutely there are challenges, nearly 50% patients in OPD are repeat patients who may visit the same doctor several times. Hospitals and doctors already provide appointment booking using their existing applications. Why would they or the patient pay UHI gateway fees for no added value? Suggested pricing model would be to actually incentivise both patients and doctors to use UHI, give them rewards like Google Pay does to get people used to a new way of doing things. <response>

Q 5 Unified Health Interface in Depth

As stated on NDHM website
https://ndhm.gov.in/assets/uploads/consultation_papersDocs/UHI_Consultation_Paper.pdf

5.3.3 Are there any other areas that must be supported by the Gateway for service fulfilment in section 5.1.3.3? If yes, provide details.

Response/Comment

<response>instead of OPD, focus on discovery of in patient services. Patients usually evaluate options of HSPs when advised an elective surgery. Making the options available digitally will really help them in a big way, in this process a teleconsultation process can be incorporated with a fee and then booking of service.

Cancellations have to be kept in mind for teleconsultations, patients routinely cancel and sometimes doctors also have to cancel or postpone. <response>

Q 5 Unified Health Interface in Depth

As stated on NDHM website
https://ndhm.gov.in/assets/uploads/consultation_papers Docs/UHI_Consultation_Paper.pdf

5.3.4 Post-fulfilment, as described in section 5.1.3.5, covers ratings and grievances. Are there any other areas that must be supported by the Gateway for post service fulfilment in section 5.1.3.5? If yes, provide details.

5.3.5 The proposed approach for allowing users to share ratings for the HSPs as well as EUAs has been laid out in 5.1.3.5. Please comment on the same and share any other approach that might be adopted.

Response/Comment

<response> Getting patient feedback like Practo and Google is not the right approach, they are very weak signals for decision making on doctor or hospital. Ratings have to be a mix of objective measures of care delivery and subjective experiences of patients. Systems like HQR used in USA and NHS surveys should be considered for feedback. Healthcare ratings are not like comparing restaurants, one has to set measurable objectives for quality rather than perceived experience alone.<response>

Chapter 6 -UHI Development, Governance and Management

As stated on NDHM website https://ndhm.gov.in/assets/uploads/consultation_papersDocs/UHI_Consultation_Paper.pdf

“Consultation with Experts – NDHM will invite experts from government, academia, and industry or independent experts to become part of the expert consultation group. The UHI specifications developed by the specification committee will be reviewed by the expert group and revised by the specification committee

Open Question/Need for Elaboration

Is this already done?

Q 6 UHI Development, Governance and Management

As stated on NDHM website
https://ndhm.gov.in/assets/uploads/consultation_papersDocs/UHI_Consultation_Paper.pdf

6.5.1 What approaches, other than the ones mentioned in chapter 6, should be considered for managing and governing the UHI gateway? Please provide details.

Response/Comment

Isn't it possible to use the international open standard FHIR/HL7 already available to make healthcare data interoperable across the ecosystem?

Why are we reinventing the wheel by developing a UHI gateway?

Has NHA compared what is possible with FHIR and UHI gateway?

FHIR with Open EHR will address most of the needs for interoperability, UHI can address the user authentication and APIs for enabling transactions.

Q 6 UHI Development, Governance and Management

As stated on NDHM website
https://ndhm.gov.in/assets/uploads/consultation_papersDocs/UHI_Consultation_Paper.pdf

6.5.2 What should the UHI Gateway charge in the initial few years of operation? How can this model evolve over time?

Response/Comment

UHI should not charge anything in the first few years of operation, adoption by stakeholders will need incentives as HCPs have to upgrade their existing systems to comply with UHI.

In any case, the burden for UHI should not fall on patients.

UHI should consider charging TSPs and Health Aggregators for providing them an open network, they can make revenue from innovative EUAs.

Q 6 UHI Development, Governance and Management

As stated on NDHM website
https://ndhm.gov.in/assets/uploads/consultation_papersDocs/UHI_Consultation_Paper.pdf

6.5.3 Please share your views on the duration for which NDHM should manage and govern the UHI gateway, and if NDHM should open the path to multiple gateways. Please provide details on the benefits and risks of the options

Response/Comment

NDHM should prove the value of gateway in a real world scenario for next couple of years by setting objectives in consultation with healthcare providers.

Incumbents will resist UHI gateways unless they are forced to take it up.

Multiple gateways can emerge based on needs and they should be encouraged, NDHM should learn from federated initiatives and improve their model.

All this is possible with FHIR and Open EHR

Thanks!!

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Date : 22nd August, 2021