



HiDok

"Health within your reach."

WHITE PAPER

*This document outlines our plans for **HiDOK™** – a healthcare technology that aspires to provide first-world innovation to the Philippine Healthcare Industry and create income-generating opportunities for its stakeholders. The technology also aims to complement the government's objectives for the said industry, particularly those that are embodied in the R.A. 1123 Universal Health Care Law and the EMR Act of 2007.*

CONTEXT AND PROBLEM STATEMENT

Health is wealth. It is vital and indispensable to anyone regardless of age, gender or social status. This statement still holds true to this day in spite of all the advancements the world has experienced. Ironically, poor health has remained to be one of our major problems. According to a survey conducted by AIA Group last 2016, the Philippines is still one of the unhealthiest countries in Asia, lagging behind India, Malaysia, Thailand, Vietnam and Sri Lanka with a health score of 61/100 and with 80% of adults expressing dissatisfaction with their health.¹ There are a number of reasons behind the statistics. The most apparent is financial constraints. The typical Filipino family does not have the income level to sustain the kind of regimen required to be genuinely healthy. Culture and lifestyle trends are also contributing factors.

But are these things symptoms of a much bigger problem – one that is deeply embedded in the healthcare industry? Could it be that the current healthcare system and the infrastructures it utilizes have not been efficient and conducive to build a society that truly values health? In a world where innovation has been the constant trend, is the healthcare system in our country outdated? Why is it that the development of a comprehensive healthcare technology has not been prioritized in the past years? And as we move towards the direction that the Universal Health Care Law is calling us, why is it that the importance and specifications of this technology has still not been clearly defined?

The Citizens

If you ask someone if they can provide you the details of every medical prescription or diagnosis given to them since they were born, the response would most likely be an oblivious stare. Based on a survey conducted by our team on 100 individuals, 95% do not have access to their health records and 80% do not know where and how these records can be obtained. Interestingly, 96% recognizes the value and importance that such records have. Unfortunately, the way this data is stored has made it inconvenient, costly and perhaps even impossible to anyone who would like to track or retrieve them. If you come to think of it, it is both ironic and amusing that pet dogs are highly encouraged to have health cards while their owners are not.

Aside from knowing these records, it is also difficult to monitor one's health profile and lifestyle. The average person would not be aware of seemingly trivial things such as the number of glasses of water they drink per day or the volume of medicines they have taken over the last five years. As the saying goes, you cannot manage what you cannot measure. One cannot maintain a healthy lifestyle without being aware of information related to your health.

The Healthcare Providers

Back in 2014, the Philippine Medical Association (PMA) listed 130,000 licensed doctors, of which only 70,000 (53.8%) are still actively practicing. Although this number grows by a constant 4,000 - 4,500 every year, the ratio of doctors to the 108 million Filipinos is still low (0.6 doctor for every 1,000 Filipinos). In contrast, Germany has a 3.7 per 1,000 ratio while the U.S. has a 2.4 per 1,000.² In terms of hospitals, 2017 data from the Department of Health (DoH) lists 1,071 licensed private hospitals and 721 public hospitals. The Department takes care of 70 of the public hospitals while local government units and other state-run agencies manage the rest. Many of these hospitals are providing affordable and efficient services, but facilities have yet to meet global standards.³ One of the challenges that medical practitioners, hospitals and clinics face is to ensure the accuracy, accessibility and availability of their patient's medical data.

For healthcare providers, the management and analysis of client data is essential in the quality of their services. For some who can afford an information system (IS), these concerns may be addressed or even resolved. However, only a small percentage of these providers have the capacity and privilege of acquiring and maintaining a reliable IS. It has also been observed that these information systems do not typically integrate other features that will streamline and add value to their operations, especially when it comes to data analytics, EMR/EHR services and e-Claims. Per inquiry, the average HIS costs roughly around 4 – 5 million pesos, excluding retainer's fees.

The EMR Act of 2007

On June 30, 2007, Congress passed the EMR Act of 2007 with the mission of "*...making available electronic medical records [i.e. EMR] of all patients of hospitals and clinics establishing for this purpose electronic medical record center under the Department of Health appropriating funds therefore and for other purposes*".⁴

The Act aims to improve accessibility, record keeping and retrieval of medical records on the part of healthcare providers. Its objective is commendable. However, the provision paved way to new challenges. First, there are issues of adaptability. The resistance to change is strong – a trait which Filipinos are known for especially when it comes to technology. Secondly, there was no significant assistance from the government in its implementation. There was an absence of support and incentivization to the EMR providers. Thirdly, it is observed that hospital administrations, clinics and practitioners do not fully acknowledge the need for the system in order for them to genuinely promote its advocacy. Lastly, the mandate for compliance was not clearly established.

As of writing, there are 13 EMR providers in the Philippines. None of them have effectively and significantly captured or led the market. This year, 12 years since the approval of the Act, the Department of Health (DOH) released the full specifications of the EMR system needed to fully comply with the provision.

Universal Health Care Law (R.A. 11223)

Last March 2019, President Rodrigo Duterte has just signed has just signed a Universal Health Care (UHC) Bill into law (Republic Act No. 11223) that automatically enrolls all Filipino citizens in the National Health Insurance Program and prescribes complementary reforms in the health system.⁵

Among the many things and benefits that the Law wants to forward, the following are the provisions that are relevant to the context of this paper:

1. The coverage of the Law are all Filipinos and enrolment will be automatic. They are eligible to have full access to all services.
2. PhilHealth will be further empowered through additional fund allocation to act as the primary buyer of health goods and services.
3. Health systems will become city-wide and province-wide. This means that a more centralized approach per area will be adopted. The objective is not only to reduce monitoring efforts but also to pool resources to improve accessibility to constituents.
4. The Law creates what is known as HTAC (Health Technology and Assessment Council) – a group of experts in charge of evaluating and recommending products, services and developments to DOH and PhilHealth.
5. The Law also aims to put importance on the collection of data related to health. In line with this, healthcare providers particularly hospitals and insurers will be required to maintain a health information system that will contain electronic health records, prescription logs, and “human resource information.” Accordingly, this system will be developed and funded by DOH and PhilHealth. It will also be subject to patient confidentiality rules and data privacy laws.⁶

The Law is in the process of implementation, but the specific mechanisms to achieve its objectives has yet to be characterized.

THE OPPORTUNITY

We believe that these challenges in the Philippine healthcare industry can be overcome. These are opportunities of improvement and innovation, and we only need the right approach and perspective to resolve them. Our team wants to take that responsibility and provide the momentum necessary for advancement. But before we do this, we would like to share our six core beliefs to the community with the hopes of aligning everyone to our vision:

1. *We believe* that EMR is more than just a tool to make medical and healthcare data more accessible and efficient. It is an essential part of our everyday lifestyle and wellbeing which the Filipino community has yet to realize.
2. *We believe* that healthcare providers are more than just clients of the system. They should be empowered as advocates and catalysts. In this regard, we believe that medical practitioners, hospitals, clinics, pharmacies and other healthcare facilities should be freely provided with an information system that will not only have an EMR platform but will also include high-end features to improve the efficiency of their operations.
3. *We believe* in the creation of a Citizen Healthcare App – a mobile platform for patients/citizens that will provide them with an innovative and interactive experience in their pursuit to live a healthy life.
4. *We believe* in a shared economy business model to ensure the sustainability of the ecosystem that we want to create. Everyone should be involved, incentivized and equipped to ensure adoption. Everyone should benefit along the way. We want to create income-generating opportunities to users and partners alike. This means that collaboration among stakeholders within and outside the healthcare industry is necessary.
5. *We believe* that streamlining medical data and allowing real-time access to the same is not only crucial to healthcare services but also to medical research and product development. All of these are within the context of a secure platform that upholds data integrity and the privacy of its users.
6. *We believe* that that the 108 million Filipinos deserve the best future and it begins by ensuring that everyone values their health.



INTRODUCING HiDOK™

HiDOK™ Inc. is a health tech company in the Philippines that aims to provide first-world innovation to the Philippine healthcare industry. It is the creator of **HiDOK™ - a multi-dimensional, interoperable and integrated set of technologies that aims to connect stakeholders within and outside the healthcare sector through a common platform.** These stakeholders are hospitals, clinics, pharmacies, insurance companies, fitness facilities, government health agencies, and citizens who avail of healthcare services. The technologies that we will be utilizing and providing are described as follows:

1. **Quick Response (QR) technology** – each user within the platform shall be provided with a unique QR code in the database where medical and health records are encrypted and securely stored. Essentially, this will allow the user to “own” his/her data. The type of data that may be viewed or extracted by a third party shall depend on the level of access granted by the user to the viewer.
2. **Electronic Medical/Health Records (EMR/EHR)** – in line with the utilization of QR technology, this feature will be rooted within the HIMS and Citizen App to allow both parties to store, retrieve and track medical data and health history. This will also allow healthcare providers and patients to seamlessly share data during consultations to ensure the quality of prescription.

3. **Hospital Information and Management System (HIMS)** – this is a full-feature system that incorporates an ERP (Enterprise Resource Planning) approach to hospital and clinic operations. The information system shall primarily include data management and EMR/EHR on top of other functions unique to every department within the business (i.e. human resource, laboratory, ER, etc.) The system aspires to enhance the process flow of services by reducing paperwork and accelerating the decision making process through dashboard analytics where management can monitor performance indicators in real-time. The HIMS shall also have a **Philhealth e-Claims** feature. **HiDOK™** through its partnership and accreditation with PhilHealth will act as a transporter and provide assistance in the validation and submission of such claims.

4. **Citizen Healthcare App** – this integrated platform will allow citizens/patients to access and store their medical records, book appointments with doctors, order medicines, participate in health challenges, and earn through the platform’s referral program. The App shall also have the following features:
 - a. **Lifestyle Monitoring** – the platform includes a lifestyle monitoring feature where specific health metrics can be viewed. These health metrics will be the basis of the user’s health points. The point system is central to the platform’s objective to *gamify* health awareness. Through the shared economy model, users are given health challenges and are incentivized/rewarded for keeping positive health metrics.
 - b. **E-Wallet** – through partnerships with payment centers and banks, each user shall have an embedded E-wallet in the Citizen Healthcare App where rewards and incentives are transferred. Eventually, it can be also used as a means of payment for the services and products of hospitals, clinics, pharmacies and fitness gyms. Moreover, the E-wallet is key to the referral system that the platform will employ as part of its shared economy model.

5. **Data Analytics** – as one of our key partners, government agencies under the healthcare sector will be granted by our technology with exclusive privilege of querying and producing reports that are based on near real-time summary data.

All of these will interact within and be linked through a common platform known as **HiDOK™**.

Technology Analogy

As an analogy, a mobile banking app and the bank’s information system are two distinct technologies. They do not have a similar interface and their users have varying access to information. However, both are linked within a common platform. This linkage allows banks to monitor client data and record transactions as they happen. They can also share customer data within their network and even with other banks to improve their services without violating privacy laws. Depositors on the other hand can view their account information, transact with the bank or other individuals, and share their banking details to anyone with their permission.

Our Mission and Vision

HiDok™ Inc.'s primary mission is to add value to the Philippine healthcare industry through its platform.

Specifically, it aspires to:

1. Create and spearhead an ecosystem where everyone can interact, collaborate and share a common vision towards a healthier society.
2. Provide free technology and innovation to healthcare providers to improve their services, particularly in the aspect of management, data analytics and research.
3. Provide Filipinos with a platform that will allow them to own their medical data, help them access quality healthcare services with convenience, and encourage them to live a health life.
4. Ensure that the next generation shall have a complete set of medical and health records that are kept securely as mandated by the Data Privacy Act R.A. 10173.
5. Establish a comprehensive corporate social responsibility (CRS) program that aims to provide income-generating opportunities and incentives to users, partners and advocates through our shared economy business model.
6. Improve transparency of healthcare data and provide the government with a reliable database to counter fraudulent claims, mitigate corruption in healthcare agencies, and obtain real-time data analytics.

Our vision is simple – to become the leading health-tech company in the Philippines with a technology that Filipinos can be proud of.

Our Strategy – A Shared Economy Business Model

Unlike many businesses, we are adopting a shared economy business model with the goal of creating income-generating opportunities for our partners and clients. This is in line with our objective of ensuring that everyone who will share and participate in our vision will benefit along the way.

For the healthcare providers

Licensed doctors, hospitals, clinics, pharmacies, fitness gyms, government will be given free access and use of our system/platform during the implementation and adoption phase. Our team will also provide free assistance during this phase through technical supervision and orientation. A **HiDOK™-powered** healthcare provider or facility will take the role of an advocate of the platform and ensure that the value and convenience it provides is realized and made known to the community. The objective is to have as many **HiDOK™-powered** providers and facilities as possible in a short span of time. This achievement shall be the catalyst for mass adoption.

For the Users

Users between the age brackets of 0 – 19 and 65 onwards shall also be granted free access and use. Thus, users outside these age brackets shall be the initial go-to market of the platform. In exchange for a minimal subscription fee, the users will be able to utilize all the features the platform has to offer. A paying user shall also have the privilege to participate in the platform’s referral incentive program and in the health challenges. This is a critical strategy that will help **HiDOK™** achieve its target user base over the next few years.

The HiDOK™ Life Fund

At the heart of our shared economy model is the **HiDOK™ Life Fund** managed by our company fund managers. This Fund shall be raised through the revenue obtained from the paying users. Out of the total subscription revenue, only 18% shall be credited to our Company to sustain our operations and achieve our target ROI for our investors. The remaining 82% will be *shared back* to our users and partners in the form of projects and incentives. The **HiDOK™ Life Fund** aspires to achieve the following:

- Provide the subscribing user with a reliable death and disability insurance policy through the partnerships that we plan to create with insurance companies
- Provide an incentive to every user who successfully referred another individual to the platform through our QR Referral System
- Provide free housing to our top users through our reward and ranking system
- Raise funds for the construction of hospitals in different communities where healthcare facilities are scarce
- Incentivize our healthcare providers who are actively advocating our platform and the vision it has to Filipino community

Below is an illustration of our revenue model:

Subscription fee	P1,100.00 annually (100%) <i>(P91.67 monthly or P3.06 daily)</i>
Allocation for Life Fund:	
User insurance	P150.00
Referral incentive	200.00
Housing project	50.00
Hospital project	75.00
Advocacy incentives	<u>425.00</u>
Total allocated	<u>900.00 (82%)</u>
HiDOK™ Share	P200.00 (18%)

We believe that this is what makes **HiDOK™** different. We plan to take corporate social responsibility (CSR) to the next level without compromising the sustainability of our operations. Our revenue structure has shown promising results in our financial projections and risk models. This strategy is two-fold. First, it helps us draw the interest of potential partners to our vision thereby increasing our leverage. Secondly, it incentivizes the user's initiative to advocate for the platform and their participation in our health programs and challenges.

With **HiDOK™**, health is *indeed* wealth.

Projected Traction

With the strategies that we plan to employ, we are targeting 16 million paying users at the end of our six-year projection period. The feasibility of this target does not only rest on our execution, strategies and decision making. Ultimately it requires all our stakeholders to synergize with our vision. The process is extremely challenging but the potential outcome is what makes it worth pursuing. In six years, we can:

- Provide 16 million Filipinos with EMR access, lifestyle monitoring features and the means to earn while being healthy
- Grant P50,000 worth of insurance claims to at least 84,000 individuals
- Incentivized 93,000 Filipino health advocates for approximately P20,000 per month
- Provide 1,860 free housing units to selected families
- Construct 30 fully-furnished hospitals in different communities
- Provide approximately P170,000 for each healthcare provider as incentive for their support and contribution to the project.
- Finance health-care related projects of the government through our tax contributions.

These are just some of the many milestones that we hope to accomplish.

WHAT'S NEXT FOR HiDOK™?

Our team wants to ensure that our vision for this project is heard by the Philippine healthcare community and garner the support of our target partners.

As of writing, our development team has been tirelessly working on the features of the platform particularly its HIS, EMR and lifestyle functions. Over the next few weeks, our team will continue to develop the prototype and bring it to a functional state. This phase will focus more on solidifying the platform's backend (data integrity, privacy, among many others) and scalability which are crucial to this kind of project. Our plan is to release a beta version before the end of 2019 to selected hospitals and clinics. From there, we plan to do further product research and development and raise funds to fully finance the project. Our target is to have our product launching at the end of the first quarter of 2020 and a full release by July 2020.

In line with this, we plan to create the **HiDOK™ advocacy team**. This team will be composed of highly trained and passionate individuals who will represent us in tech fairs, business presentations and roundtable discussions. There are three key sectors that this team plans to target – the government, healthcare providers and private businesses. Our proposal letter and presentation for these groups are already complete and ready for dispersal. Primarily, the team is in charge of sourcing B2B and B2C Partnerships that are integral to the platform's features as well as looking for prospective investors for the project. As our reach widens, more individuals will be added to this team to maintain the project's momentum.

Moreover, having a large user base will make **HiDOK™** a goldmine of data that is crucial to research, product development and analytics-based decision making for the healthcare sector. This transition is expected to happen after the six-year projection period.

Block-chain technology

Two of the major concerns that **HiDOK™** will most likely face are data privacy issues and its payment system for its referral and reward programs. Fortunately, the advent of block-chain technology fits well as a solution to these concerns. Although the said technology will not be immediately integrated to the platform, its integration is not only necessary but also inevitable in the long run. As envisioned, we want to provide maximum efficiency and innovation to the healthcare industry and any technology that will help us achieve this will be embraced.

Additional Revenue Streams

Once mass adoption has been achieved and the user base increases, the platform will eventually include new revenue streams to sustain its operations. This includes but is not limited to advertising, upselling and data monetization. Having a large user base will make **HiDOK™** a goldmine of aggregated data that is crucial to research, product development and analytics-based decision making for the healthcare sector.

Future Features

As the ecosystem grows, we also plan to integrate the following:

1. **Pharmacy Inventory Management and Logistic System** – A system that allows the pharmacy to manage their inventory, human resource, finance and logistics. The inclusion of this system within the platform is done to allow efficient delivery of medicines and products to citizens.
2. **Fitness Gym Management and Routine System** – A specialized system for fitness gyms that will allow citizens to track their exercise routines and physical improvements. The system also aspires to optimize the gym's operations and ensure that they consistently promote health and wellness to its members. As part of the integration, this feature will be linked to the Citizen Healthcare App as part of the health challenges.

HOW TO GET INVOLVED?

The purpose of this document is not only to lay down our plans for **HiDOK™** but also for everyone to have the opportunity to provide feedback and express their intent to participate in our vision.

- If you are a researcher particularly in the field of healthcare and you want to help us gather more data that is crucial to this project,
- If you are a representative of a private enterprise and you recognize the opportunity to be one of our business partners, or
- If you are from a government agency or sector and you recognize the role that the government has to play in this endeavour, or
- If you are one of the 108 million Filipinos who believe that they can be a health advocate and promote the value of our platform,

Your collaboration is key to our success. Do not hesitate to contact us through the following – contact@hidok.ph.

Lastly, if you believe in our business model and want to support our project by being one of our investors and financiers, connect with us through investors@hidok.ph. We would be happy to present our full proposal that includes our detailed strategies and financial projections.

CONCLUSION

Our goal at **HiDOK™** is to provide first-world innovation to the Philippine Healthcare Industry and create income-generating opportunities for multiple stakeholders. Our goal is to make healthcare accessible anytime and anywhere through technology. We believe in a shared economy where everyone benefits simply by valuing their health. This path that we are taking is ambitious and we expect a lot of roadblocks along the way, but we believe that we can do this with the help of the whole Filipino community and the Almighty.

Join us as we revolutionize the Philippine healthcare industry!

REFERENCES AND LINKS

¹<https://www.philstar.com/headlines/2016/06/29/1597762/philippines-one-asias-most-unhealthy-countries-study>

²<https://www.investopedia.com/articles/personal-finance/111015/can-you-trust-philippines-healthcare-system.asp>

³ <https://www.manilatimes.net/at-a-glance-the-philippine-health-care-system/395117/>

⁴ <https://www.senate.gov.ph/lisdata/43043700!.pdf>

⁵ <https://www.who.int/philippines/news/feature-stories/detail/uhc-act-in-the-philippines-a-new-dawn-for-health-care>

⁶<https://www.rappler.com/newsbreak/iq/226810-explanation-what-filipinos-can-expect-universal-health-care-law>

⁷ <http://www.healthdata.org/philippines>