**Achieving Universal Health Coverage through Digital Financial Services**

How Digital Financial Services can bolster the nascent Zambia NHI goals to achieve quality health care and contribute to achieving universal health coverage

## Executive Summary

The introduction of a National Health Insurance Scheme in Zambia is a timely, purposeful and strategic initiative aimed at addressing certain resource deficiencies in the health system, protecting and advancing the health of citizens and legal residents of Zambia as well as securing the sustainability of the health system. For Zambia, it addresses concerns over the financial burden and equity in access experienced by a large segment of the population, particularly the vulnerable and indigent in seeking adequate health care services for themselves and their dependents given that approximately 99%of the population has no private health insurance coverage.

Current unpublished data from the National Health Insurance (NHI) Authority show that from the targeted population that is eligible (and mandated) to contribute towards the national health insurance scheme, there are no records, systems or mechanism to identify, enroll and collect premiums from 60% of the targeted contributing population. This is primarily because of the fact the majority of people in actual employment in Zambia are “self-employed” in what is categorized as the informal sector with no traceable income tax records or social security numbers. In the last five years, there has been an exponential growth of Dgigital Financial Services (DF), particularly Mobile Money Services which are used by over 70% of the working age population (15-60 age; both in the informal and formal employment categories). How can this extensively used service be harnessed to identify and possibly be a preferred platform to process enrollment, premium payment, policy administration, and communication of the “unregistered” informally employed” category of contributors to the NHI?

The “Achieving UHC through DFS” assessment has a specific aim of gathering and providing detailed information and possible options of how the NHI Authority should collaborate and/or partner with Mobile Network Operators (MNOs) to achieve the NHI goals by increasing the member-contributor base population amongst the informally employed persons who are not captured and processed by ZRA for NHI monthly contributions. The assessment will identify the most practical and cost effect solutions of the client-facing interaction processes (enrollment, premium payment, policy administration, and communication) through the use of mobile money services.

Consortium Team

IHM Southern Africa is an African led and owned non-profit organization working primarily to strengthen health systems for public health programs across Africa and has offices in South Africa, Zambia, Swaziland and Lesotho. Since its establishment in 2011, our staff compliment has grown from 5 to a team of over 50, managing development assistance funds from the US Government, the World Bank and the UN Family (including UNFPA, UNICEF and WHO). Our operating budget has increased from approximately $400,000 per annum to approximately to $4,000,000 per annum in 2019. We have implemented health systems and health management information systems projects and undertaken large scale qualitative and quantitative research assignments and program evaluations across East and Southern Africa. IHM has a proven track record of providing high-quality cost-effective program research and evaluations for various health sector clients; health informatics technical assistance; grant funded Strategic Information (SI) and Health Management Information Systems (HMIS) program implementation. IHM comprises a team of experienced and recognized public health experts in health informatics, program monitoring and evaluation, data analytics, quantitative and qualitative researchers and epidemiologist from across the Southern Africa region who have built strong long-term working relationships and networks with key organisations and institutions in the East and Southern Africa region. Through a CDC funded sub-contract, IHM in Zambia is responsible for the deployment of a nationwide roll out of the Electronic Health Records (EHR), which will underpins NHI Information Systems functionality.

IHM intends to undertake the DFS assessment in collaboration with the nascent NHI Authority and Zambia Information Communication Authority (ZICTA) which is the government statutory body responsible for regulation Mobile Network Operators including mobile money services. While it would be most desirable to include the Mobile Money service providers, given the competitive and proprietary nature of the services to be assessment, IHM proposes ZICTA as the assessment partner as it is an independent entity that provides the legislative engagement channel through its regulatory mandate that provides for periodic reviews of its Value Addition Services licensing[[1]](#footnote-1) to MNOs and is also transparent interactive platform with MNOs that will allow for access to sensitive information such as MNO client databases. IHM will also explore the feasibility of incorporating the Bank of Zambiaas a resource partner to provide legislative requirements from a monetary policy perspective.

The research team will be led by Dr Mpuma Kamanga, a well-rounded public health clinician and health economist with over 18 years’ experience and lead policy designer of the National Health Insurance Act. Dr Kamanga has extensive experience in developing and implementing health systems projects across Africa with a strong track record in Health Financing. He has led and supported various national and international research projects in health systems strengthening initiatives. He holds a Bachelor of Medicine and Surgery (University of Zambia) and a master’s in public health economics University of Cape Town and is currently Director of Special Duties (Health Economics) at the Ministry of Health. The assessment will be co-led by Dr Kamanga and Mr Kunda

Mr William Kunda is an accomplished IT project Manager and Senior Software Engineer. Mr Kunda has extensive hands-on experience in designing and leading Software development projects and has strong competencies in interoperability and integration of software systems. He is the lead architect and Project manager for the recently launching National Health Data Ware House, a first of its kind project that stores multiple data sets from various disparate patient- and aggregate-level systems across the different sub-sectors of the health system. Prior to joining, Mr Kunda was the Software Engineering Manager for Barclays group Africa (ABSA Bank) where he oversaw the design and execution of various new and innovative Digital Financial Services. Contractually, the assessment will be overseen by the CEO of IHM, Mr Kelvin Sikwibele, a public health expert with over 20 years’ experience in Health Systems program design and implementation

Project Description

1. Problem statement

The introduction of the Zambia National Health Insurance (NHI) in 2018 aims to provide for sound financing for the national health systems as well as provide for universal access to quality insured health care services (NHI Act No. 2 of 2018). The NHI will run on the guiding principles of the “Solidarity Model”[[2]](#footnote-2)- those who contribute to the scheme will cross subsidize the poor, old and vulnerable i.e. based on one’s ability to pay. The NHI Act (No. 2 of 2018) and Statutory Instrument (S.I No. 63 of 2019 – NHI General Regulations) outlines that mandatory contributions by citizens and permanent residents in the formal sector “employees and employer” category shall be 1% of the member’s basic salary. For those that are self-employed (including the informal sector who are the majority of this category), their contributions shall be “1% of self-declared income (S.I No. 63 of 2019 – NHI General Regulations). With an approximate population of 16.8 million in 2017, Zambia’s working age population (15 years or older) is estimated at 9,056,840 with an approximately one-third of this figure (2,971,170) being in actual employment (Central Statistical Office & Ministry of Labour 2018). Of those “actual employed persons”, only 1,096,832 are in formal employment while the rest, approximately 60% are self-employed with the 95% of these being in the informal sector.

Other than formal sector employers and employees who are mandatorily registered with national income taxation and pension statutory entities (Zambia Revenue Authority and National Pension Scheme Authority), Zambia has no centralized repository or database to capture details of the informally employed (who constitute the majority of the self-employed category) let alone mechanisms or social security number to identify, track and enforce collection of NHI contributions. This entails that its current proposed state, the NHI contributions that are only effectively guaranteed to be collected will be made by 5% of the target population while the rest of the eligible proportion that are able to contribute towards NHI are expected to do so at their own accord i.e. report declared income and contribute 1% of this to the NHI. This scenario presents potential challenges that may hinder the success of the NHI in achieving its intended goals on multiple fronts including the sustainability of the NHI financing model premised on the “solidarity model” and is not currently equitable as puts in question the goal of ensuring quality health care service provision in all 2600+ health facilities across the country.

The high proportion of employment informality raises many challenges to engage the informal sector in the rolled out National Health Insurance, as these workers and their dependents are not registered as owning or working in registered enterprises. While this situation presents a great a complexity in collecting contributions from this sector, Digital Financial Services particularly mobile money services offered by Mobile Network Operators (MNOs) have the potential to address this gap. DFS have largely been attributed as the engine for growth in broadening the scope and depth of money services to customers particularly the unbanked and poorer communities. (Luwabelwa; 2017)

Digital Financial Services (DFS) have the potential to be the game-changer and play a critical role in capturing and expanding the NHI contributor member-base which has the resultant potential to increase the net revenue collection for the insurance scheme which in turn would impact on the quality to and access of improved health service delivery in public sector health facilities. Of the frequently used DFS, mobile money transactions are the most widely used services and over the past 5 years, these have exponentially increased both in terms of the array of services as well as penetration amongst the general populace, particualry among the informal sector who have traditional remained unbanked.

2. Approach

Recent estimates by the health sector cooperating partners suggest that based on the country’s GDP PPP of $1,500 from a formally employed workforce of 1 million people, the NHI would only collect approximately $15,000,000 annually while the total national annual health facility operational budget for service delivery including medical commodities is $150 million to $200 million. On the other hand, according to the ministry of Labour, the average income of informally employed persons per month is K2,400 ($184). If this proportion of the population contributes their portion toward NHI, there is a potential to raise and additional $20 million to 40 million dollars in insurance contributions annually. This can be achieved by partnering and collaborating with Mobile Money Service providers who’s over 4 million registered subscribes constitute a significant number of informally employed persons using their services for day to day transactions. Furthermore, the assessment will explore the feasibility of collaborating (through Public-Private Partnerships) with MNOs through their extensive network mobile money retail agents to achieve the to enroll the “self-employed” category to process enrollment, premium payment, policy administration, and communication using mobile money services.

The assessment would thus support the NHI Authority to make informed decisions that will contribute towards reaching scale relatively quicker and have a sustainable and equitable financial contribution model by lowering operational costs and reducing inefficiencies of registration and member contributions collection that will make it possible to undertake low-value, high volume transactions in a financial viable way that ensures the majority of the actual employed persons contribute towards the NHI.

In 2015, the Ministry of Health, as part of the preparatory efforts to inform the drafting of the National Health Insurance legislative and statutory framework contracted an independent consultant to undertake a feasibility study of the viability of a partnership with MNOs in NHI administration. While the consultant report outline various aspects relevant to the scope of work then, this assessment will build on these efforts with the specific goal of providing detailed information and possible options of how to collaborate with MNOs to achieve the NHI goals by increasing the member-contributor base and options for client facing interaction with NHI processes such as enrollment, premium payment, policy administration, and communication using mobile money services.

The Achieving UHC through DFS assessment has a specific goal of gathering and providing detailed information and possible options of how the NHI Authority should collaborate and/or partner with MNOs to achieve the NHI goals by increasing the member-contributor base population amongst the informally employed who are not captured and processed by ZRA for NHI monthly contributions. The assessment will identifying the most practical and cost effect solutions of the client-facing interaction processes (enrollment, premium payment, policy administration, and communication) through the use of mobile money services

1. Review legislative framework and meet industry players to establish the extent to which the assessment can be undertake without breaching privacy and confidentiality or other statutory regulations[[3]](#footnote-3).
2. Review of the current national NHI membership contributor database to establish critical baseline data that will inform the detailed activity schedule and structure of the assessment’s data elements to consider and be collected[[4]](#footnote-4)
3. Develop algorithm to be applied on the various MNO’s mobile money services to identify and eliminate NHI members who are already enrolled and contributing premiums through ZRA and NAPSA in order to identify mobile money services users
4. Develop protocol and algorithm to run data on mobile money user platforms against the national ZICTA mobile phone registered user database[[5]](#footnote-5) to narrow down the potential new NHI membership base at household level.
5. Develop guidelines and recommendations of further engagement with identified new/potential NHI contributors
6. Dependent on guidelines developed in No. 6 above and in collaboration with MNOs, the assessment will develop an NHI mobile administration prototype app to be used for member enrollment, premium payment, policy administration, and communication

Risk Mitigation

1. Political interreference of the assessment. This can occur if the objectives are misconstrued and there is need to emphasize the non-political nature of the work with industry players
2. Resistance of the MNOs to reveal confidential information
1. Mobile money service is categorized as a Value Added Service (VAS) provided by telecommunications operators after the grant of a VAS license by ZICTA. However, the financial transaction itself is regulated by the Bank of Zambia in accordance with the Banking and Financial Services Act. [↑](#footnote-ref-1)
2. Defined as outlined in the Statutory Instrument [↑](#footnote-ref-2)
3. Each Mobile Money Service provider requires a Value-Added Services License from ZICTA to enable them operate. On the other hand, the financial regulations such as the Insitution’s license for Deposit Taking from the public are managed by the Bank of Zambia. [↑](#footnote-ref-3)
4. This will inform the design and implementation of a data collection and data analysis plan [↑](#footnote-ref-4)
5. ZICTA has a comprehensive database of all registered mobile telephone users. This information contains indivudal users personal identification details including home addresses. This information is critical and be triangulated to establish mobile users at household level which is critical as NHI premiums are noly applicable at household level . [↑](#footnote-ref-5)