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

How Digital Financial Services can bolster the nascent Zambia National Health Insurance Authority goals of improving the quality of health care services and contribute to 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, financially 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 Current unpublished data from the Zambia National Health Insurance Authority (ZNHIA) show that from the targeted population that is eligible (and mandated) to contribute towards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 Digital Financial Services (DF), particularly Mobile Money Services (MMS) 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?

On the other hand, Kenya has the National Hospital Insurance Fund (NHIF), a State Parastatal that was established in 1966 as a department under the Ministry of Health. Over the years, reforms have been undertaken to accommodate the changing healthcare needs of the Kenyan population, employment and restructuring in the health sector. Currently an NHIF Act No 9 of 1998 governs the Fund which transformed the NHIF from a department of the Ministry of Health to a state corporation which aimed at improving effectiveness and efficiency with a core mandate of providing medical insurance cover to all its members and their declared dependents (spouse and children). More recently, the Kenyan government has made a commitment to achieve Universal Health Coverage (UHC) by 2030. A key part of its UHC strategy is to expand coverage of the NHIF, which currently covers approximately 15% of the population. In 2015, the NHIF introduced significant reforms aimed at enrolling more people and expanding the range of services that enrolled members have access to.

The “Achieving UHC through DFS” assessment has a specific aim of gathering and providing detailed information and possible options of how the ZNHIA could 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 the Zambia Revenue Authority (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. Furthermore, a country comparison research methodology will be applied to undertake a case study of the how the Kenya NHIF is undertaking its reforms and if some of these interventions can be applied to the nascent ZNHIA plans to increase the coverage of contributors. Our research will be informed by the WHO health financing evaluation framework that considers the feasibility, equity, efficiency, and sustainability of health financing mechanisms.

# Consortium Team

Institute for Health Measurement is an African-led and owned for 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 underpin NHI Information Systems functionality for user (patient) interaction and transactions with the public health providers.

IHM intends to undertake the “Achieving UHC through DFS” assessment in collaboration with the nascent Zambia National Health Insurance Authority (ZNHIA) and Zambia Information Communication Authority (ZICTA) which is the government statutory body responsible for regulation Mobile Network Operators (MNOs) including Mobile Money Services (MMS) providers. While it would be most desirable to include MMS providers as part of the research partners, given the competitive and proprietary nature of the services to assessed, 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 also allows for a neutral and transparent interactive platform with MNOs that will foster access to sensitive information such as MNO client databases.

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) Act 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 in 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” as is not currently equitable and 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 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)

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, particularly among the informal sector who have traditional remained unbanked with limited. More importantly, DFS have a significant potential to enhance finance protection of the informal sector under which the most vulnerable in society are categorized and also happen to be the largest consumers of MMS.

On the other hand, Kenya has the National Hospital Insurance Fund (NHIF), a State Parastatal that was established in 1966 as a department under the Ministry of Health. Over the years, reforms have been undertaken to accommodate the changing healthcare needs of the Kenyan population, employment and restructuring in the health sector. Currently an NHIF Act No 9 of 1998 governs the Fund which transformed the NHIF from a department of the Ministry of Health to a state corporation which aimed at improving effectiveness and efficiency with a core mandate of providing medical insurance cover to all its members and their declared dependents (spouse and children). Membership to the NHIF can be through one’s employer or on an individual basis and more importantly and critical to the research, the “NHIF registers all eligible members from both the formal and informal sector. For those in the formal sector, it is compulsory to be a member, while those in the informal sector fall under the voluntary category” NHIF states. More recently, the Kenyan government has made a commitment to achieve Universal Health Coverage (UHC) by 2030. A key part of its UHC strategy is to expand coverage of the National Hospital Insurance Fund (NHIF), which currently covers approximately 15% of the population. In 2015, the NHIF introduced significant reforms aimed at enrolling more people and expanding the range of services that enrolled members have access to. The NHIF reforms included:

1. Upward revision of premium contribution rates by **213% for informal sector members** and between 25-431% for formal sector members.
2. Expansion of benefit entitlements to members of the general scheme to include outpatient care and a range of ‘specialized packages’ including surgical procedures, radiology, chemotherapy, radiotherapy, chronic disease.
3. **Provider payment reforms** including the upward revision of inpatient care per-diem payments, introduction of case-based payments and capitation payment mechanisms.

The research team intends to undertake a detailed assessment of these reforms, particularly the highlighted ones above. Furthermore, in 2017/2018 financial year, NHIF introduced payments through Kenya’s largest MMS provider, Safaricom’s M-Pesa. It is thus of interest to assess how this option of insurance administration through M-Pesa was structured and its impact on increased membership particularly amongst the informal sector and how if possible, this has contributed towards financial protection of the most vulnerable.

**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 ZNHIA 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 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

1. **Objectives and Activities**

The overall objective of the proposed research to assess how Digital Financial Services (DFS), particularly Mobile Money Services (MMS) can be applied as a tool in administration of health insurance in order to achieve Financial Protection to the Informal Sector in Zambia and Kenya. The following are the proposed activities to be undertaken:

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 ZNHIA 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. Undertake a study tour to Kenya to review reforms undertaken by the National Health Insurance Fund (NHIF) that would contribute or guide proposed interventions in Zambia
7. Dependent on guidelines developed in No. 5 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

IHM proposes an adapted research design that was developed by Mouton et al (2008) that includes eight steps:

**Step 1: Clarify the research purpose** - A key outcome for this step is a clear statement of the unit of research within the inception report. Many research activities have been noted to suffer from ‘scope creep’. This is a project management term referring to changing project scope as implementation continues due to lack of ‘constraining principles’. Defining the purpose of the research and agreeing on questions helps to avoid this dilemma. For this proposal, IHM proposes to facilitate group discussions with identified stakeholders for this research using tree diagrams to clearly spell out the intended purpose of the research and agree of final Deliverables and the key research question(s) as will be shown in the initial research inception report.

**Step 2: Identifying the Unit of Research** - In this step, IHM tentatively proposes a process for determining the unit of research through consultative sessions with research team and partners ZICTA and ZNHIA and Mobile Network Operators (MNOs) to yield the right research. These institutional and administrative layers will be navigated through as part of the process of determining upfront what is feasible and what is not and who is responsible for which information and processes to access this information. This is critical step to arrive at the unit of research using structured consultative processes that include key technical conversations with key stakeholders listed above.

**Step 3: Identifying the target group(s)** - For the purposes of this proposal, this step has been distinguished from the one above but during implementation, this will be conducted in sequence with the ones above. IHM will establish the target groups that are distinguishable from the others, legislative vis a vis regulatory; National ZICTA Mobile Subscriber database vis a vis ZRA database for currently registered Tax Payers contributing to the NHI; MNO’s vis a vis MMS independent agents and citizens already registered under the NHI Act and those that are targeted to be registered as clients. This step and the one above is all part of getting clarity from stakeholders to ensuring the research remains relevant. Sampling frames will be developed and shared with stakeholders for approval. A key outcome of this process is a clear selection of cases to be reviewed as will be indicated in the sampling section of the inception report.

**Step 4 – 6 (Select cases and observations; Design instruments and collect data) -** These are classic research activities of sampling, design of data collection instruments, collection of data and data analysis. The following are important to note:

* In step 4, case selection differs from identification of the research or unit of research. Depending on the level of aggregation that will be reviewed in step 1, the program will be assessed in its design, delivery, implementation and outcomes.
* However, in order to evaluate these aspects of the program, IHM believes that this research will be of better value in gathering data from various “observation units” i.e. targeted recipients, current contributors/beneficiaries of NHI, ZNHIA staff, review of program documents, etc.
* In step 5, the design of instruments will be based on the choice of qualitative or quantitative approaches to data collection.

**Step 7 (Analysis Plan and Research Report writing) -** Our experience has shown us that it’s important to agree before the data collection even starts, an outline of the research report. Guidelines on the contents of an evaluation report have been suggested by selected research communities of practice. IHM will establish whether Digital Square has a preferred outline already in place. In the event that is not the case, IHM will utilize the current guidance available to reach an agreement of the outline and structure of the report to avoid confusion and frustration in preparing and submitting an acceptable evaluation report.

From previous assignments, we have learned that some of these steps may be combined and some may be deemed unnecessary by the contracting agency. IHM is open to discussing and negotiating these issues to ensure the contractor’s concerns are addressed while also not compromising on the fidelity of the exercise.

* **Sampling Design and Strategy -** Dependent of the final agreed methodology and approach and whether all units in the two countries are included, we propose to conduct simple purposive sampling for purposes of this exercise for the sampling units. A full and detailed design will however be availed in the inception report.
* **Data Collection Tools -** The data collection will be based on the final set of questions agreed upon by Digital Square and IHM as previously outlined.
* **Fieldwork and supervision -** The project team leader and his team will work in collaboration with other stakeholders to ensure that stakeholders are informed of the research. This will serve as an advocacy tool which plays a major role towards the success of this research.

## **Data Management**

**Data entry, Data Cleaning and Analysis:** Due to various tools anticipated to be designed and used, IHM will use the CSPro software to develop the data entry screen for all proposed tools. CSPro is versatile data entry and analysis software, and unlike software packages such as EPI info that accepts a maximum of 250-character length, CSPro accepts thousands character length on a single template, CSPro has a very powerful editing component. The data entry templates will be developed using the draft questionnaires and it will be tested with the pre-test completed tools and continue to amend it as the tools are being amended. The final template will be ready as soon as the field data collection commences. All open-ended responses will be coded and typed out in a spread sheet, indicating the question number, the code given, and the response given by the respondent. This code book will be incorporated in the template as a “lookup file” such that by typing in the codes indicated on the questionnaires by the data entry operator, the response value label (that is, the actual statement or word given by the respondent) will be attached to the field using the lookup file.

**Work schedule:** The final schedule will be developed once contracted and includes the tasks we are expected to perform; their duration as well as the expected number of weeks and days; personnel assigned to the tasks; the number of person – days of engagement in the task; and deliverable(s) expected of each task. The completion time of all elements; interviews and data collection; will be tentatively scheduled as follows commencing March 1,2020;

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Task** | **Lead/Responsible Person** | **March** | **April** | **May** | **June** | **July** | **Aug** |
| Inception report | Principle Researcher | **X** | **X** |  |  |  |  |
| Final Research design | Principle Researcher | **X** | **X** |  |  |  |  |
| Tool design/Pre-Test | Data Analyst/Statistician | **X** | **X** |  |  |  |  |
| Stakeholder engagement- Zambia | Principle Researcher | **X** | **X** | **X** |  |  |  |
| Stakeholder engagement- Kenya | Principle Researcher | **X** | **X** | **X** |  |  |  |
| Review of MNO Databases | Researcher- Info Systems |  | **X** | **X** |  |  |  |
| Data collection- Zambia  | Principle Researcher |  |  | **X** | **X** |  |  |
| Data collection - Kenya | Principle Researcher |  |  | **X** | **X** |  |  |
| Data Cleaning and preliminary analysis | Data Analyst/Statistician/ Researcher- Info Systems |  |  |  | **X** | **X** |  |
| Data Analysis | Data Analyst/Statistician |  |  |  | **X** | **X** |  |
| Report Writing | ALL |  |  |  | **X** | **X** |  |
| Dissemination of Final Report | Principle Researcher |  |  |  |  |  | **X** |

**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
3. **Budget Summary**

## IHM is pleased to present a budget of $ 170,000 for the proposed concept note submitted to Digital Square entitled Universal Health Coverage through Digital Financial Services Year 2 as summarized below.Throughout the budget, IHM has taken great care in ensuring cost-effective and realistic pricing in addressing Digital Square requirements. IHM’s proposed costs are based on its approved personnel policies for labor and competitive market rates for the procurement of goods and services.

**Overarching Project Assumptions -** The total estimated cost for the Application is $170,000.00 which includes $ 58,298.00 for Research team Salaries and Wages; $ 12,000 for consultancy and $29,500 for travel among other budget line items. The budget notes are organized in parallel to the structure of the budget.IHM’s budget assumes an execution period of **5-6 calendar months** from date of award with an assumption of this being anticipated to March 1, 2020 to August, 2020. Unit costs provided are based upon actual costs, where available; historical cost data; or market cost data and are intended to serve solely as an illustrative budget.

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| **Description** | **Work Package 1 (USD)** | **Total Cost (USD)** |
| Personnel (Salaries & Wages) | 58,298.00 | 58,298.00 |
| Fringe Benefits | 16,323.44 | 16,323.44 |
| Travel | 29,500.00 | 29,500.00 |
| Equipment | - | - |
| Supplies | - | - |
| Other Direct Costs | 39,842.30 | 39,842.30 |
| Contractual | - | - |
| Consultants | 12,000.00 | 12,000.00 |
| **Total Direct Costs** | **155,963.74** | **155,963.74** |
| Indirect Costs | 14,036.74 | 14,036.74 |
| **Total Project Costs** | **170,000.48** | **170,000.48** |

A – Past Performance

### **Institute for Health Measurement Southern Africa**

The Institute for Health Measurement (IHM) is an African based and locally owned non-profit organisation working primarily to strengthen health systems for public health programs in Africa and has offices in South Africa, Zambia, Lesotho and Lesotho. IHM has a proven track record of providing high- quality program evaluations for health sector mid- and end-term program evaluations, multi-year strategic information, health management information systems and health informatics technical assistance. We have strong capabilities in program design and management expertise and develop innovative solutions for small to large public health programs. IHM operates on an ethos that is based on applying local competencies in leveraging simple but empowering technical solutions to Africa’s public health systems. IHM comprises a team of experienced and recognized public health experts in program monitoring and evaluation, data analytics, health informatics, quantitative and qualitative researchers and epidemiology from across the Southern Africa region who have built good working relationships and networks with key organisations and institutions in the region. Our team has insightful and in-depth technical and socio- political knowledge and understanding of past and ongoing local strengthening efforts in the region. IHM’s ethos is rooted in the firm belief that capacities of our local counterparts in government are built by applying local competencies in leveraging practical and empowering technical solutions to Africa’s public health systems. IHM’s technical approach comprises an implementation and capacity building strategy.

**Capacity Building**: Our capacity building approach is adapted from PEPFARs conceptual model of capacity building. IHMs work is characterised by implementation of capacity building activities that assure competencies and efficiencies. Beyond offering short courses and related remedial/skills-enhancing training, IHM places emphasis on working with individuals from collaborating governments and civil society actors, post such training, to offer sustained technical assistance modelled on an apprenticeship basis and through mentorships that guarantees sustainability of the foundation that has been established. Trained individuals then work within organizational units that benefit from this competence building process, in turn, ushering in efficiencies that were lacking. Combined, individuals with competence and governmental/organizational units with better efficiencies impact on systems as evidenced by the introduction of new guidelines, procedures, revision of 3-5 year strategies and eventually introduction of policy where none existed or strengthening of existing policy based on cumulative experience of implementing development work in a context of strong competencies and efficiencies.

Figure 2: Capacity Building Approach

**Project Implementation**: Since its establishment in 2011, IHM has grown and strengthened organizational systems for complying and managing development assistance funds from the US Government, the World Bank and the UN Family (including UNFPA, UNICEF and WHO). This is evidenced by the fact that our staff compliment has grown from 5 staff in 2011 to a team of 100 staff, and now poised to grown rapidly over the coming months, with upcoming new programs. Our operating budget has grown from approximately $400,000 per annum in 2011 to approximately to $3,000,000 per annum in 2018. This growth has largely been due to our strict adherence to budgets and deadlines, while maintaining a high level of technical quality. Over the years, we have honed our capability to recruit, hire and rapidly deploy staff into high-pressure/high-expectations contexts to implement innovative approaches to development assistance. IHM has consistently demonstrated an ability to attract and develop a culturally diverse team of individuals who work together to achieve the organizations vision and goals. Focused on achieving lasting development impact, our projects, consisting of associates, managers, and directors, use a comprehensive set of tools to meet and exceed client expectations.

**Management of USG programs and contracts**: IHM has extensive experience in managing U.S government programs, where we assumed a role of direct recipient of USG funding and also implemented programs as a sub recipient. We have robust financial management, HR management, and contracts and grants management systems capable of handling more than $20 million to support project implementation. Our internal systems have been designed to meet USAID compliance standards, to ensure adherence and eliminate risk. IHM continues to maintain strong internal controls and compliance monitoring systems within USG regulations assured by annual external audits, where we have successfully maintained a record of unqualified audits. We have vast experience in successfully managing subcontractors and have continued to maintain strong relationships. Our subcontracting and procurement policies follow strict guidelines regarding transparency, objectivity, fair competition, and conflict of interest. We have a robust contracts and grants system that takes into account quality assurance and surveillance.

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| **Period** | **Project Title and Description** | **Contractor** | **Contract Amount** | **Organization’s Role** |
| October 1, 2017-Sept 30, 2019 | **Strengthening Health Management Information Systems in Zambia*** Deployment of Electronic Health Records System to 150 health facilities in zambia
* Conceptualization, architectural design and development of the MoH National Data Warehouse central repository information systems for 5 independent MIS
* Conducted business analysis for user requirements
* Developed a relational database for the central repository
* Designed and rolled out web-based connectivity to provincial health office and selected health facilities developed customised reports and trained staff in data queries and searches
 | Centres for Disease Control and Prevention (CDC - United States Government) | $5,6000,000 | Lead Specialized sub-contractor on 5 year project |
| 2017-ongoing | **Sithakela Likusasa - RCT Evaluating HIV Incentives for Adolescent Girls and Young Women**This evaluation is designed to assess the impact of different incentives, namely 1) cash transfers conditional on school attendance, and 2) raffle incentives conditional on remaining STI negative, in young women and girls, on HIV incidence at 2 years. Secondary outcomes include school enrolment and attendance, the incidence of HSV-2 and reported sexual behaviours. The study is designed to provide information to the Government of Swaziland and to other local, regional and global stakeholders about the most effective incentives for behavioural change and reducing HIV risk in adolescent girls and young women. It will contribute to international evidence about the use of incentives as HIV prevention in vulnerable populations.IHM is primarily responsible for implementing the study protocol in its entirety. In this regard, IHM has developed a routine data collection tool that is web-based with a related business intelligence platform that facilitates rea-time analysis of data from the field on number of field workers on the ground, number, age, location of study participants. | World Bank | $5,000,000 | Main Contractor with two sub-contractors. |
| 2016-2017 | **Swaziland PLACE Study on Adolescent Girls and Young Women** In Swaziland, AGYW are a most vulnerable population. Under the DREAMS Initiative, PEPFAR/Swaziland will intensify programming directed at this population. IHM will conduct a PLACE study in key priority areas (tinkundla). The study will allow for programmatic mapping to identify where AGYW socialize and meet new sexual partners. The Swaziland Study Protocol was developed and submitted to the SEC awaiting approval. Data collection was conducted in two phases, via community informant interviews, and individual interviews. Key Objectives: * Provide programmatic mapping to identify venues where adolescent girls and young women (AGYW) socialize and meet new sexual partners.
* Identify and characterize male partners of AGYW.
 | USAIDPEPFARMEASURE Evaluation | $300,000 | Main Contractor |
| 2016-2017 | **Geospatial Analysis and HIV Program Coverage Mapping (Swaziland)**The Geospatial Analysis methodologies provide a smoothed map which estimates variations of HIV positivity between health facilities within a given geographic boundary. IHM compiled the necessary datasets to conduct the analysis to examine spatial variations in HIV disease burden across Swaziland. IHM worked with NERCHA to overlay community-level data onto the interpolated map of estimated HIV positivity, to better inform HIV program coverage and validated the interpolated map with key stakeholders in Swaziland.  | USAIDPEPFARMEASURE Evaluation | $150,000 | Main Contractor |
| 2013-2017 | **Client Management Information System (CMIS) for Ministry of Health**Client Management Information System (CMIS), an Electronic Health Record (EHR) that is currently being rolled out in all health facilities in Swaziland. IHM was responsible for the design, piloting, and scale up of the system. The system has facilitated paperless services to be offered in health facilities across Swaziland resulting in reduced burden of data collection, increased patient/provider times and overall quality of services in health facilities. | USAID SwazilandMOH Swaziland  | $5,000,000 | Main contractor |
| 2013/2014 | **Survey on Contraceptive and Reproductive Health Commodities (Swaziland)**Swaziland has been benefiting from the UNFPA Global Programme on Reproductive Health Commodity Security (GPRHCS) since 2008 as a Stream II country. In 2013, one of the GPRHCS’s objectives was to survey 46 countries to assess availability of FP and maternal/RH commodities in health facilities in each country. Swaziland is one of the 46 countries in which this undertaking was targeted. The implementation of the GPRHCS Phase II has in the past, been assessed through three core indicators outlined in the Monitoring and Evaluation Framework of UNFPA. IHM Southern Africa was contracted to conduct the GPRHCS in Swaziland in Dec 2013.  | UNFPA Swaziland | $250,000 | Main contractor |
| 2016-2017 | **Technical Assistance for the Strengthening Swaziland HIV/AIDS Programme Monitoring System (SHAPMoS)** The Swaziland HIV/AIDS Programme Monitoring System (SHAPMoS) is a routine data collection system to collect community level information on non-health HIV services in Swaziland. data captured at the regional level are fed into an online n national database on a quarterly basis. IHM was contracted to develop a system framework to strengthen the system through the review of existing indicators, and development of new indicators and customize reporting reuirements for standard and ad hoc reports.  | National Emergency Council on HIV/AIDS (NERCHA) | $200,000  | Technical Advisory Contractor |
| 2012/2013 | **Data Collection to support the World Bank’s support the Zambia National HIV Program Efficiency Study** The scope of IHM’s assignment is focused on supporting the data collection component of the World Bank’s support to the Government of Zambia and is focused around three tasks: * Coordinate the pilot test of the data collection instruments and assist in their final revision;
* Collect primary data related to service delivery at various selected sites in 6 provinces, 21 districts and up to 100 government health facilities as well as community based organizations (including NGOs) and providers in communities that form the catchment area of selected facilities will be sampled) ; and
* Conduct data entry, clean data and conduct any data “mop-up” as required by the level of completeness of collected data.
 | World Bank | $150,000 | Main Contractor |
| January 7, 2013 – June 28, 2013  | **Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Project.** Contracted to undertake system re-design of the Rx PMIS which is a software solution that is part of a broader national HMIS M&E platform. This platform takes into consideration resources required to collect, process and interpret data required to understand program dynamics, review progress on implementation at various levels and overall, make objective conclusions about the ART program in Swaziland. IHM was requested by the client to redesign and update the system analysis and information requirement report that was compiled at the beginning of the design in 2011.  | USAID Swaziland/ MoH Swaziland  | $200,000 | Lead contractor  |
| 2015-2016 | **Enhancing Strategic Information Project**The Enhancing Strategic Information (ESI) project is regional strategic information program implemented by the Institute for Health Measurement and funded by the Unites States Agency for International Development (USAID) and co-managed by the US Centres for Disease Control and Prevention. The ESI project’s main focus is to develop sustainable information systems in S.A, Swaziland and Lesotho. The ESI project has been designed on operating principles that focus on local ownership, building and linking of existing health information systems, providing attention to technical, organizational and behavioral constraints to strategic information capacity building and lastly focusing on the enhanced use and quality of strategic information.  | USIAD Southern Africa South Africa, Lesotho and Swaziland | $785 265 | Main Contractor |

B – Key Personnel - Curriculum Vitae

1. **Dr. Mpuma Kamanga (Bsc. Hb, MBcHB (UNZA), MPHE (UCT))**

**Mobile:** +260 975 909 590; **Email:** mkamanga@gmail.com

1. A dynamic Public Health Physician and Health Economist with over 18 years of domestic and international experience in health systems strengthening, Research, evaluation, Health Economics, Health systems financing, management and leadership, program design, costing, technicalassistance,public-privatepartnerships,donorfunding,resourcemobilizationand Service delivery reform.

**Education**

* 2006, Masters in Health Economics (Public Health) awarded with Distinction, University of Cape Town in Cape Town, South Africa (Western Cape)
* 2000, ECFMG (Education commission for foreign medical Graduates, Philadelphia, USA*)* Internationally approved and certified medical Qualifications (Reference Number: EICS 00798)
* 1999, Bachelor of Medicine and Surgery, Doctorate at University of Zambia, School of Medicine in Lusaka, Zambia
* 1997, Bachelor of Science Human Biology, Degree at University of Zambia in Lusaka, Zambia

**Work Experience**

11/2019- Present -**Director Quality Assurance, Research and Certification – Zambia National Health Insurance Authority**

02/2016- Present Ministry of Health, Lusaka Zambia - **Director Special Duties- Health Economics (Policy and Planning)**

* To provide Technical Advisory to Minister of Health on financing, Health economics, research, health policy formulation and strategic planning; and build capacity for development of the sector, monitoring, evaluation and coordination of health sector policies and strategies, ensuring consistency and harmony with the overall and national policies and strategies

03/2013- 02/2016 Cabinet Office, Lusaka Zambia - **National Social health Insurance Coordinator**

* Responsible for overall conceptualization, design and implementation National Social Health Insurance Fund and team lead for a multi-sectoral team technical team in Zambia. The work was coordinated through the Secretary to the Cabinet, Office of the President.

07/2008 to 03/2013 **BroadReach HealthCare Africa, Cape Town, South Africa**

* Executive Program Manager, Executive Level Position responsible for global operational and programmatic management of Health systems strengthening, Health Economics, strategic consulting, technical assistance, and program design and management services focused on the management of health services (incl. HIV/AIDS), technical operations and sustainability in supported countries. With 8 direct senior reports, manage an operational headcount of 300 people in over 5 countries and annual budget of 50 Million US Dollars

05/2007to07/2008 – **Family Health International (Zambia Prevention Care and Treatment ( ZPCT) Partnership** Senior Program Technical Advisor

* Senior Advisor in Zambia Prevention Care and Treatment (ZPCT) Partnership which worked with the Government Republic of Zambia (GRZ) to expand HIV/AIDS services in five of the ten Zambian provinces to implement program and management strategies to initiate, improve and scale-up PMTCT, CT and clinical care services for people living with HIV/AIDS (PLHA), including ART programs in these five provinces.

11/1999 to 02/2000 - **University Teaching Hospital, Lusaka, Zambia** – Senior Resident Medical Officer

* Served as Medical Doctor in the following departments: Internal Medicine, Obstetrics and Gynecology, Surgery, Pediatrics

**References**

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**Dr. Ernest Darkoh**

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**Adequacy for the Assignment:**

 **Expert’s contact information:** e-mail mkamanga@gmail.com phone : +260 975 909 590

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience, and I am available to undertake the assignment in case of an award. I understand that any misstatement or misrepresentation described herein may lead to my disqualification or dismissal by the Client, and/or sanctions by ZPPA.

MPUMA KAMANGA 18/12/2019

Name of Expert Signature Date

KELVIN SIKWIBELE 20/12/2019

Name of authorized Signature Date

Representative of the Consultant

(the same who signs the Proposal)

1. **William Chinyimba Kunda**

william@ihmafrica.org Tel: +260 962 50098

**Education**

* **MPhil**, Information and Knowledge Management (NQF Level 9, Stellenbosch University (South Africa)) Distinction Research, 2015
* **BSc**, Computer Science (NQF Level 6), University of Greenwich (UK), 2008
* **SCRUM Master (CSM),** SCRUM Alliance, 2016
* **PRINCE2** Practitioner (License No: P2R/ 982741), APMG International (UK), 2013
* **Delivery Management**, Avanade University, 2014.
* **Certificate**, .Net and C# Programming, iSolve Learning Centre (South Africa), 2009

**Work Experience**

May 2017 – Present **Senior Project Manager IHM Southern Africa**

* Head of EHR Program Implementation for CDC HMIS project
* Lead Software Engineer for all in-house projects
* Senior project management team member responsible for providing technical assistance to IHM projects across the organization
* IHM Focal point and person on the E-Health TWG for MoH Zambia

May 2015 – Oct 2017Software Engineering Manager, **Barclays Africa Group Limited** **Johannesburg, South Africa**

* Hands on coaching and RnD
* Scrum Master for team projects
* Coordinate new tech introduction and investigation.
* Advocating for DevOps strategies and way of work
* Contribute to talent maturing and growth (from grads to senior)
* Assist with prioritization and resolution of defects/bugs
* Hands on contribution to developing and maintaining team standards, tools, and best practices.

**Oct 2012 - May 2015** Senior Systems Analyst (Senior Consultant) / Delivery Lead /Scrum Master **Avanade South Africa,**

* Stakeholder engagement
* Customer and Business trusted advisor
* Organization's strategy and process design
* Information and IT assets alignment
* Project Delivery Management
* Architectural model design
* Process streamlining
* Technical Delivery resource in the Custom Application Development Service Line
* SharePoint 2010, 2013 Custom Development
* BI Development using MS BI Stake to support the Data Analytics Service Line

**Nov 2011 – Sept 2012** Senior Information Systems Developer, **TWP Projects**

* In-house custom application development
* SharePoint 2010 Custom Development
* Project Delivery Management
* Technical and Functional Specification delivery

External Service Provider management

**May 2009 – Oct 2011** Systems Engineer and Senior MIS Analyst **Nashua Communications,** Desktop and Network Support

* Software Development
* Service Desk Management
* BI Strategy Development
* Business Reporting
* Operations Reporting

**References**

**Mr Kelvin Sikwibele**

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Brach Chief, Health Informatics

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**Adequacy for the Assignment:**

 **Expert’s contact information:** e-mail : william@ihmafrica.org phone : +260-96-392 1820

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience, and I am available to undertake the assignment in case of an award. I understand that any misstatement or misrepresentation described herein may lead to my disqualification or dismissal by the Client, and/or sanctions by ZPPA.

WILLIAM CHINYIMBA 18/12/2019

Name of Expert Signature Date

KELVIN SIKWIBELE 20/12/2019

Name of authorized Signature Date

Representative of the Consultant

(the same who signs the Proposal)

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)