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Aggregate cost implications of selected Cost-Drivers

in the Tanzanian Health Sector

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1.1 Background of the Study

Health is an important aspect of life of which one of its determinants is healthcare which is consumed in order to restore back deteriorated health to optimal pre-illness levels. The consumption of healthcare however has cost implications and accounts for a large share of resources directed towards the health sector. In health sector financing, it is vital to identify major cost components and create awareness about the costs of decisions. It is thus vital to identify factors that can cause changes in the cost of identified activities. A number of costly programs have been initiated and some others are on the horizon. In order to create awareness about the financial consequences of these decisions and to draw attention to the financing needs of the health sector, it is considered necessary to analyze the major health sector programs and initiatives with regard to the changes in costs brought about by new strategies, guidelines and interventions (including the adoption of new technologies), and aggregate these costs.

1.2 Objective of the Study

The main objective of this study was to identify cost-driving decisions in the health sector.

1.3 Study Methodology

The study methodology comprised of three independent but complementary methodologies and activities: (a) Desk review of literature and documents; (b) Interviews with officials from MOHSW, programs and agencies involved in setting and promoting standards at international level; (c) collection of primary data/information and subsequent analysis of the same.

1.4 Limitations

The study reviewed 11 plans, including summary plans like the Health Sector Strategic Plan III and the Primary Health Services Development Program 2007 -2017 and national disease control programme plans/strategies. However, not all of cost-driving decisions in these plans could be integrated into the analysis because the plans are undergoing reprogramming, as the previous cost estimates are regarded not to be realistic relative to achieving plan objectives. In addition the costs of some decisions in some plans/strategies HRH, infrastructure, health care financing strategy, mhealth, etc. are not established or are in the process of being costed or reviewed. It should also be noted that the consultants did not assess all plans/strategies and their associated costs as to their plausibility. This was neither task of the consultants, nor would the time allocated to the study have allowed such an in-depth review.

1.5 Findings

The study reviewed a total of 11 multi-year plans/strategies and found four plans to be affected by costs of decisions. Such decisions are: the adaption of WHO recommendations on Anti-retroviral Treatment eligibility criteria; re-treatment of conventional nets; indoor residual spraying; sustaining availability of long lasting insecticide treated nets (LLINs); provision of delivery kits to pregnant women in public

health facilities, and the potential future introduction of a malaria vaccine, human papilloma virus and pneumococcal vaccines, which affect the Health Sector HIV and AIDS Strategic Plan II (HSHSP II) 2008 – 2012, the Malaria Mid-Term Strategic Plan 2008 – 2013 (NMCP), the National Road Map Strategic Plan to Accelerate Reduction of Maternal, Newborn and Child Deaths in Tanzania 2008 – 2015 (the Road Map), and the Expanded Program on Immunization 2010 - 2015 Comprehensive Multi Year Plan (EPI), respectively. The study found that these decisions have a significant cost implication to a tune of US$ 706,688,405 over a five year period 2011- 2015. The initially estimated costs of programs that are currently being updated (HSHSP II, EPI, NMCP and the Road Map) is US$ 2,297,009,378 exclusive of the identified cost drivers.

The estimated cost of decisions is about 8 % of the total costs for health sector in Tanzania (HSSP III estimate) and about 3.3% of the 2009 GDP and added nominal per capita health spending/cost of US$ 17.3 (2009 population estimate) for five year period (annual per capita cost of US$ 3.46). This expenditure will definitely boost per capita health spending (US$ 13.45 in 2008/9). However, concerted revenue effort is needed if we are to hit HSSP III target of US$ 26.6 in 2014/15.

The National Strategy for Non-communicable Diseases 2009 – 2015 did not include estimates, while most parts of the National Road Map Strategic Plan to Accelerate Reduction of Maternal, Newborn and Child Deaths in Tanzania 2008 – 2015 are undergoing reprogramming, as the previous cost estimates are regarded not to be realistic relative to achieving plan objectives. The rest of the programs are not significantly affected by cost of decisions.

However, the estimated cost is likely to be higher owing to the fact that costs of some decisions in MMAM components such as HRH, infrastructure, health care financing strategy, mhealth, etc. are not established or are in the process of being costed or reviewed.

1.5 Recommendations

1.5.1 Promotion of Health Prevention and Promotion Services

Prevention and treatment of illness are the major strategies used to maintain or improve the health status of a population. Allocation of health resources are usually skewed towards treatment probably because addressing existing illnesses seem a present and clear danger than addressing potential illnesses which is what prevention is all about.

Prevention and health promotion however lead to greater benefits than treatment in the long run in the sense that it reduces future demand for treatment than treatment alone does and has stronger merit good characteristics than treatment of illness. Health planning should thus intensify focus on prevention through promoting lifestyle and behaviour changes as well as intensifying prevention and health promotion at community level.

1.5.2 Foster Cost effective Decisions

Most health sector multi-year plans are characterized by heavy resource dependence on development partners. Such levels of dependence tend to compromise control over some decisions especially those supported by financiers. That is, recipients may be tempted to accept a full funded activity even if there

is an ongoing similar activity which ends up creating parallel rather than complementary activities with cost implications.

Thus, the financiers and recipients should undertake thorough analysis of potential decisions based on their cost implications (direct and indirect) as well as the time parameters, while avoiding decisions that spin off similar activities rather than complementing the existing ones. This can be facilitated by coordinated analysis from the MOHSW by keeping and monitoring comprehensive cost driver table enriched by inputs from all health sector programs and plans.

1.5.3 Continuous Review of Multi-Year Plans

Continuous reviews of the plans enhance the capacity of programs to adequately identify cost drivers and therefore enhance the planning process. However, reviews are not always undertaken on time and as regular as possible due to lack of resources or transfer of resources set aside for review process to implement other pressing components of the plan.

MOHSW should make costing part of the plan a compulsory exercise for approval by the management and should not endorse plans which have not been adequately costed. MOHSW should also consider making reviews of multi-year plans a prerequisite for release of fund for subsequent implementation. Moreover, the reviews should integrate all stakeholders and involve technical people who are knowledgeable in costing and planning.

1.5.4 Improvement of Technical Capacity in Costing

The fact that most of the multi-year plans had indicative budgets, while others are not costed at all, warrants the conclusion that the basic knowledge in costing such as collaboration, parameter assumptions, time, manpower, and resources is lacking. Emphasis should thus be placed on developing and improving costing capacity in the programs as well as the MOHSW in terms of acquiring costing tools and exposure.

1.5.5 Explore More Sources of Revenue for Health Sector

The MOHSW should ensure that the priority activities of the strategies/plans are funded. This could be done through lobbying the government and other stakeholders for more resources. Protocols such as Abuja Declaration 2001, in which African governments committed themselves to scale up health budget to 15% of the annual budget, could be useful in this end. Also the government and local authorities through laws/bylaws could establish and commit specific sources of resources for the health sector.

This should be pursued by keeping a close eye on the ratio of available resources to required resources which can indicate opportunities which development partners can be of help as well as providing an indication of the realism of planning. A review of the plans found the ratio of available resources to required resources to be 76 and 84 percent, respectively, for the Health Sector Strategic Plan III and the Expanded Program on Immunization 2010 – 2015 Comprehensive Multi Year Plan. The Malaria Medium Term Strategic Plan 2008-2013 on the other hand had the lowest ratio of available resources to required resources of 35 percent.

1.0 Introduction

Health is an important aspect of life as it is associated with the issue of existence, well-being and enjoyment of life in general. Health is in great demand because it has investment and consumptive benefits which contribute to economic growth by reducing production losses caused by worker's illness; enabling the use of natural resources which otherwise would have been inaccessible because of disease; increasing the enrollment of children in school and enhancing their capacity to learn; and freeing up resources for alternative uses that would otherwise have to be spent on treating illness.

LaLonde (1974) identifies the determinants of health as human biology, environment, lifestyle, and healthcare. A healthcare service is the most closely associated with health since it is consumed in order to restore back deteriorated health to optimal pre-illness levels. The consumption of healthcare, however, has cost implications for individuals and governments. This component carries a large share of resources directed towards the health sector.

In health sector financing, it is vital to identify major cost components and create awareness about the costs of decisions. Such awareness is important to ensure cooperation and "buy-in" of all affected stakeholders, including civil society, providers, insurers and Government MDAs, most notably the MoFEA and PMO-RALG. A number of costly programs have been initiated (e.g. MMAM and related human resource and infrastructure investments, extension of EmOC services, etc.), and some others are on the horizon (change in treatment protocol for HIV/AIDS and change in the threshold for treatment that will nearly double the demand for treatment, the introduction of new vaccines, etc.).

In order to create awareness about the financial consequences of these decisions and to draw attention to the financing needs of the health sector, it is considered necessary to analyze the major health sector programs and initiatives with regard to the changes in costs brought about by new strategies, guidelines and interventions (including the adoption of new technologies), and aggregate these costs. Raising cost-awareness in decision-making is a crucial step towards a more efficient health system, which is one of the aims of the Health Sector Strategic Plan III. It is in this context that the current assignment was commissioned.

1.1 Objective of the Study

The objective of the study was to identify cost-driving decisions in the health sector.

1.2 Cost Drivers

The fact that healthcare plays a vital role in health status of individuals in particular and a nation in general warrants the great attention given by policy makers and other stakeholders in terms of resource allocation to achieve the desired objectives. In the context of this study, cost drivers are those decisions that have the potential to increase cost of a health program or initiative in a way that cannot be implemented without adversely affecting the overall budget of a unit or a program. Apart from technological improvements, increase in healthcare provider costs, government mandates, change in standards, increased demand, and inflation, health sector is also affected by: the price of goods and services delivered by a healthcare system, the quantity of goods and services delivered and consumed by a healthcare system, the structure of a healthcare system; and the extent to which resources are available.

All these issues do not exist in isolation, they are interdependent. Their impact on cost drivers may be direct, indirect or both. To that effect, an integrated approach is needed if we are to attain an efficient health sector financing.

1.3 Study Approach and Methodology

In view of the objectives of the study, three independent but complementary methodologies and activities were used. These are: (a) Desk review of literature and documents; (b) Interviews with officials from MOHSW, programs and agencies involved in setting and promoting standards at international level; (c) collection of primary data/information and subsequent analysis of the same.

1.3.1 Desk Review of Literature and Documents

The Study undertook desk review of documents pertaining to multi-year health sector plans and initiatives in order to determine the cost of individual health sector programs or a decision. Key documents included annual operational plans and medium term strategic plans of programs. The review of literature was useful in obtaining information on parameters which had to be estimated. The documents and studies carried out in Tanzania and other countries were reviewed in order to enrich the study with best international practices cum standards. Finally, the desk review was helpful in identifying the set of issues to focus on during interviews.

1.3.2 Interviews

The study conducted interviews with MOHSW officials, staff of international agencies involved in setting clinical standards, and staff of various programs under the MOHSW in order to identify main cost drivers as well as cost estimates or information that was relevant in estimating costs. Different units of the Ministry's major departments (DPP, DCS and DPS) were part of the sample.

1.3.3 Data and Policy Analysis

On the basis of information obtained from interviews and desk review of literature and ministries/programs documents, data analysis was undertaken to scan the key cost drivers in the health sector and their costs implications (estimates) based on several assumptions. The analysis of information provided the main input for policy recommendations.

1.4 Limitations

The study reviewed 11 plans, including summary plans like the Health Sector Strategic Plan III and the Primary Health Services Development Program 2007 -2017 and national disease control programme plans/strategies. However, not all of cost-driving decisions in these plans could be integrated into the analysis because the plans are undergoing reprogramming, as the previous cost estimates are regarded not to be realistic relative to achieving plan objectives. In addition the costs of some decisions in some plans/strategies HRH, infrastructure, health care financing strategy, mhealth, etc. are not established or are in the process of being costed or reviewed. It should also be noted that the consultants did not assess all plans/strategies and their associated costs as to their plausibility. This was neither task of the consultants, nor would the time allocated to the study have allowed such an in-depth review. See Section 4.5 for more details.

2.0 Analysis of Sector Programs and Initiatives

2.1 Reviewed Programs/Plans

The study reviewed and analyzed various sector programs and initiatives in line with scope of the work. The study specifically reviewed the following strategies/plans:

- Health Sector Strategic Plan III (HSSP III)
- Human Resources for Health Strategic Plan 2008–2013 (HRSP)
- Health Sector HIV and AIDS Strategic Plan II (HSHSP) 2008–2012
- Malaria Mid-Term Strategic Plan 2008–2013 (NMCP)
- National TB and Leprosy Strategic Plan 2009/2010 – 2015/2016
- National Road Map Strategic Plan to Accelerate Reduction of Maternal, Newborn and Child Deaths in Tanzania 2008–2015 (Road Map)
- Expanded Program on Immunization 2010–2015 Comprehensive Multi Year Plan
- National Strategy for Non-communicable Diseases 2009 – 2015
- National Strategy for Growth and Reduction of Poverty II (MKUKUTA II)
- National Five Year Development Plan 2011–2015
- Primary Health Services Development Program 2007 -2017 (MMAM)

The initial cost of the reviewed health sector programs/plans at the time of formulation excluding the National Five-Year Development Plan and MKUKUTA II was US$ 19,641,472,846 (Appendix I).

Note that, the Primary Health Services Development Program- MMAM[1] 2007 – 2017 and HSSP III are kind of apex programs with several sub-programs each with specific plan aimed at operationalizing the main program. The study analyzed MMAM by its components such as HIV/AIDS, TB and Leprosy, malaria, maternal, newborn, and child health, etc. whose changes naturally impacted MMAM.

2.2 Main Issues from Review of Multi Year Plans

Review of multi-year plans revealed many issues. The common ones across all plans were dependency of multi-year plan budgets on donor funding; poor linkage of cost driving decisions and cost; lack of adequate reviews, staff have low costing capacity, as well as the underfunding syndrome.

2.2.1 Donor Dependency Multi-Year Plan Budgets

Review of documents and consultations showed that the bulk of resources for the multi-year plans come from development partners (DPs) and the residual from the Government. This excludes human resource and infrastructure in terms of buildings, etc. Such a situation often impairs control over

[1] MMAM is a comprehensive program (2007-2017) intended to revitalize the Primary Health Services with the following major components: human resources for health (as the first priority); district health services (infrastructure, pharmaceuticals and supplies, equipment, transport, and furniture and plants); maternal, newborn and child health; malaria; HIV/AIDS; tuberculosis and leprosy ; non communicable diseases; environmental health services; health promotion and education; nutrition; traditional medicines; neglected tropical diseases; public private partnership; advocacy; institutional arrangements; health care financing; and monitoring and evaluation

decisions. The interviews revealed some decisions which ended up with parallel rather than complementary activities ballooned the cost of the program. In some cases decisions underplayed or compromised the crucial issue of sustainability.

2.2.2 Poor Mapping/linkage between Decisions and Cost

Consultations and review of documents further revealed inability of the programs to cost all the new decisions either due to inadequate information on parameters and assumptions or lack of appreciation of the importance of costing decisions which have been made.

2.2.3 Inadequate Reviews of Plans

Sufficient identification of decisions/interventions (cost drivers) and the associated costs require a continuous and adequate review and monitoring of multi-year plans. A well reviewed plan/strategy will inform needs assessment process that will eventually identify required resources or resource gap. Consultations, however, revealed that multi-year plans normally have review schedules in place. Surprisingly, however, very few abide by their schedule due to lack of resources vis a vis other pressing issues in the plans. As a result some important decisions are either not made on time, or are not made at all or are made in piecemeal, not holistically.

2.2.4 Low Costing Capacity

Consultations revealed further that most of the multi-year plans had indicative budgets due to constraints in terms of collaboration, parameter assumptions, time, manpower, and resources. Generally, the units/programs have poor technical capacity in the area of costing. As a result, some plans/strategies are not costed or the exercise is done arbitrarily.

The strategies/plans were reviewed with focus on assessing the current situation in terms of objectives, targets, indicators, magnitude of interventions, and required resources as the basis for costing. Through review of various multi-year strategies and plans, the study identified plans which were informed by decisions that impacted on costs, while others had no cost of decisions. The next section focuses on the plans whose costs are affected by decisions. The attempt is also made to identify the cost drivers as well as estimating their costs.

2.2.5 Underfunding Syndrome

All sections in the MOHSW as well as programs are not allocated enough resources to implement their envisioned activities. Some units such as Health Promotion and Education Services get less than one third (including donor funding) of their total budget. In adequate allocation means cutting the budget across the board. Lack of critical sectoral analysis to guide priorities during the budget formation, may result into poor linkage in resource prioritization and allocation. This in turn leads into poor performance in terms of results and outcomes.

3.0 Cost Drivers

Review of multi-year health sector plans revealed that costs of four plans are affected by decisions. These are: Health Sector HIV and AIDS Strategic Plan II (HSHSP II) 2008 – 2012; Malaria Mid-Term Strategic Plan 2008 – 2013; National Road Map Strategic Plan to Accelerate Reduction of Maternal, Newborn and Child Deaths in Tanzania 2008 – 2015, and the Expanded Program on Immunization 2010 - 2015 Comprehensive Multi-Year Plan. The Human Resources for Health Strategic Plan 2008 -2013 indicates annual recruitment figure only. Whereas the National TB and Leprosy Strategic Plan 2009/2010 – 2015/2016 had not identified cost drivers, costing for the National Strategy for Non-communicable Diseases 2009 – 2015 had not been undertaken. However, the initial estimated costs of programs that are currently being updated (HSHSP II, EPI, NMCP and the Road Map) is US$ 2,297.0 million exclusive of the identified cost drivers (Appendix I).

However, in the MoHSW most of the sections/units in DPP, DCS and DPS, which operationalize the various plans, noted that they were in the process of revisiting and enriching their plans in line with changes in technology, demographic, and global/international standards/regulations. It was noted that, most of items in the review process are not different form the original plans, rather need to be upgraded/modernized in order to enhance efficiency in the sector. Nobody was ready to disclose what is in the pipeline given the fact that the process is considered premature. All these have cost implications, which could not be established. However, Health Care Financing Unit pointed to the health sector financing strategy, which is underway, as the likely major cost driver in the sector, especially meeting the medical costs of the poor, the old and disadvantaged groups.

mHealth application is another innovative public-private-partnership with MoHSW and US Centre for Disease Control and prevention (CDC) and numerous international public and private sector partners. The partnership encompasses multiple sectors, combining expertise and resources to implement sustainable and scalable public health programs that leverage the booming mobile phone infrastructure in Tanzania. Some mHealth application in Tanzania include: LSI Gateway, Phones for Health, SMS for life etc. The program is in the pilot stage since March 2009, expecting to take off in January 2012. The unit is in the process of costing its activities, which is expected to be ready early next year. It is crucial to note that the plan is fully funded by donors.

3.1 Identification of Cost Drivers

Identification of cost drivers emanated from discussions with MOHSW officials, program staff, and international agency officials whereby the interviews centered on new activities which are neither part of the original plans nor scaling up of activities included in the original plans and thereby increase the cost of existing multi-year plans. Furthermore, identification of cost drivers was not only based on decisions that had already been taken but also on decisions which had not been taken yet but could be taken in the future.

Apart from identification of cost drivers, the study also focused on unveiling the reasons behind the identified cost drivers in the context of technology, policy decisions, standards, demand, demographics, and economic factors. Indeed the identification of reasons behind cost driving decisions in health sector plans would shed more light on factors informing such decisions and thus serve as important inputs for

improving the cost of decision making process and subsequently scale-up the cost effectiveness of the sector.

3.2 General Assumptions of Cost Driver Estimation

After indentifying the cost drivers in various multi-year plans, the study quantified their effects in monetary terms by estimating their costs in three ways. First, the study obtained estimates from costing studies done by the programs –for those which had such studies. Second, the study used information obtained from interviews and multi-year plans pertaining to assumptions and general parameters and linked them to identified cost drivers to estimate costs of those drivers. Last, the study reviewed literature to obtain parameters which it used to estimate costs of decisions that had yet to be been established, likely to be estimated in the future but lacked any parameter assumptions at least from the programs staff.

4.0 Cost Driving Interventions

The study identified various cost drivers in the multi-year health sector plans. The cost driving interventions in the plans resulted from the following factors: change in guidelines; potential introduction of new products (technology); government mandates; and those derived form implementation of existing strategies.

The cost driving interventions uncovered include those pertaining to the adaption of WHO recommendations on Anti-retroviral Treatment eligibility criteria; re-treatment of conventional nets; indoor residual spraying; sustaining availability of long lasting insecticide treated nets (LLINs); provision of delivery kits to pregnant women in public health facilities, and the potential future introduction of a malaria vaccine. The affected programs are: the Health Sector HIV and AIDS Strategic Plan II 2008 – 2012, Malaria Mid-Term Strategic Plan 2008 – 2013, the National Road Map Strategic Plan to Accelerate Reduction of Maternal, Newborn and Child Deaths in Tanzania 2008 – 2015, and the Expanded Program on Immunization 2010 - 2015 Comprehensive Multi Year Plan, in the same order. Table 1 shows the cost drivers identified by the study.

Table 1: Identified Health Sector Cost Drivers

Program/Plan	Cost Driver	Cost/Year (US$)					Aggregated Costs (US$)
Health Sector HIV and AIDS Strategic Plan II	Proposed phased adaption of WHO recommendations on ART eligibility criteria (ARV + Lab Costs)	**Phase One**			**Phase Two**		
		2011-2013			2014-2015		
		200,950,000			78,900,000		279,850,000
Sub-total							**279,850,000**
Malaria Mid Term Strategic Plan 2008- 2013		2011	2012	2013	2014	2015	
	Re-treatment of conventional nets	1,689,600	1,716,000	1,744,050	1,773,750	1,801,800	8,725,200
	Sustaining Indoor Residual Spraying		18,344,382	21,045,984	24,186,953	27,763,472	91,340,791
	Sustaining of LLINs	2,369,836	2,599,414	2,853,257	3,133,993	3,438,238	14,394,738
Sub-total							**114,460,729**

Program/Plan	Cost Driver	Cost/Year (US$)					Aggregated Costs (US$)
National Road Map Strategic Plan	Provision of Delivery Kits to Pregnant Women in Public Health Facilities	2011	2012	2013	2014	2015	40,237,227
		7,771,533	7,894,161	8,032,117	8,185,401	8,354,015	
Sub-total							**40,237,227**
Expanded Program on Immunization 2010 – 2015 Comprehensive Multi Year Plan		2011	2012	2013	2014	2015	
	Introduction of Human Papilloma Virus (HPV) Vaccine		4,736,169	15,692,543	36,603,843	38,398,275	95,430,830
	Introduction of Pneumococcal Vaccine			19,523,700	20,280,456	21,118,663	60,922,819
Expanded Program on Immunization	Potential Introduction of Malaria Vaccine				57,304,500	58,482,300	115,786,800
Sub-total							**272,140,449**
Grand Total Cost							**706,688,405**

Source: Cost Driver Study, 2011

4.1 Health Sector HIV and AIDS Strategic Plan II 2008 – 2012

The Health Sector HIV and AIDS Strategic Plan II costs US$ 643,054,623. Care, treatment and support account for about 65% of the entire cost of the plan. Of this, over 87% is dedicated to treatment or treatment related issues. Treatment and treatment related issues is thus the major component of the Health Sector HIV and AIDS Strategic Plan II. Any change related to this component will have a significant implication on costs.

Revision of the World Health Organization (WHO) antiretroviral therapy (ART) guidelines resulted in updating the recommended eligibility criteria for ART initiation for people living with HIV (PLHIV) along with recommendations on the type of drugs to be used. The new WHO eligibility criteria entail providing antiretrovirals (ARVs) to all PLHIV with CD4 counts equal to or less than 350 cells/mm^3 from CD4 counts equal to or less than 200 cells/mm^3 and moving from d4T-based first line ARV regimens to both AZT and TDF/3TC-based regimens at 10% each year. The new eligibility criteria will result in additional 37,000 patients eligible for ART initiation each year implying additional drugs and additional laboratory costs.

Adaption of updated WHO recommendations on ART eligibility criteria in Tanzania is proposed to be implemented in two phases. Phase one will focus on pregnant women, children under two years of age, and TB/HIV co-infected patients; phasing out Stavudine by moving from D4T to AZT and TDF/3TC at 10% each per year; and PMTCT option a prophylactic regimen. Phase two will expand ART eligibility to other children below 15 years and all PLHIV with CD4 counts equal to or below 350 cells/mm^3 (NACP, 2011).

The additional cost of the proposed adaption of WHO recommendations on ART eligibility criteria in terms of ARVs and laboratory over five years (2011-2015) adds up to US$ 279,850,000 with phase one alone costing US$ 200,950,000 and phase two US$ 78,950,000. These recommendations have a significant impact on resource needs. However, in addition to improving and prolonging the lives of infected individuals, it will have expected benefit of reducing HIV transmission and future HIV/AIDS burden.

4.2 Malaria Mid-Term Strategic Plan 2008 – 2013

The Malaria Mid-Term Strategic Plan 2008 – 2013 costs US$ 719,669,264 over 6 years. Outlays on distribution of insecticide treated nets/long lasting insecticide treated nets (ITNs/LLINs) and malaria treatment account for 82% of the cost of the plan, led by ITNs/LLINs accounting for 48%, and treatment 34% of the outlay (NMCP, 2009). Since these two items constitute the large share of resources in the Plan, any decisions affecting them will consequently have huge cost implication. However, the study uncovered 3 decisions with significant cost implications, in the plan. These are: re-treatment of conventional bed nets; sustaining of indoor residual spraying (IRS); and sustaining coverage of LLINs (Table 1).

4.2.1 Re-treatment of Conventional Nets

The Plan's strategy of distributing insecticide treated nets/long lasting insecticide treated nets for the next couple of years is the major cost component of the plan. However, there is an issue of the significant numbers of re-treated conventional nets, which if left out will reduce the benefits of

distributing ITNs and LLINs to the population. The distribution of ITNs and LLINs thus results in the need to re-treat conventional nets on a semi-annual and annual basis.

The cost of procurement of insecticides, retreatment kits, training, and distribution is estimated to be US$ 1.65 per net (2008 prices). A total number of 1 million bed nets will need to be treated each year leading to a total of additional cost of US$ 8,725,200. Double counting is avoided by the fact that re-treatment of bed nets activities are not shared with any other activity.

4.2.2 Sustaining of Long Lasting Insecticide Treated Nets

The Plan has a also strategy of moving from focused LLIN coverage of children under five and pregnant women (high risk groups) to universal coverage which entails distributing an average of 2 LLINs per household and coverage to reach at least 80% of the population. However, the distribution of LLINs is a one shot activity when there is annual depreciation of LLINs and addition of sleeping spaces which tend to increase demand for LLINs by about 8% annually (obtained from consultations with NMCP), and hence decrease in total coverage of LLINs.

The unit cost of a LLIN which involves training, distribution, promotion, and monitoring is US$ 8.50. Per unit cost of a LLIN should be multiplied by the total LLINs need. The total need in 2010 was 3,403,372, which is considered as the base year in this study. Assuming 8% (accounting for depreciation and new housing space) to be added annually to maintain LLIN coverage of at least 80% in the country, the additional cost of sustaining LLIN coverage over 5 years up to 2015 is US$ 14,394,738. For the same reasoning the cost of the program will continue beyond 2015.

4.2.3 Indoor Residual Spraying

Indoor residual spraying (IRS) complements ITNs, LLINs, and treatment of conventional nets in the prevention of malaria. IRS can however be adequate if it covers at least 85% of households. IRS protects sprayed houses from between 4 to 10 months depending on the type of insecticide used and the type of the house. This implies that IRS needs regular spray for it to be effective and sustainable.

Funding for IRS strategy runs up to 2011, the period President's Malaria Initiative (PMI) funding ends, thus a complete gap beyond 2011 (NMCP, 2009). Assuming additional 13% resource requirement in line with 2011 to 2013 trend and adjusting for inflation (estimated at 2008 prices), the sustainability of IRS plan requires US$ 91,340,791. Although IRS may be very effective, it is not possible to eradicate malaria by 2015. Rolling over the program beyond 2015 will definitely have cost implications.

4.3 National Road Map Strategic Plan to Accelerate Reduction of Maternal, Newborn and Child Deaths in Tanzania 2008 – 2015

One of the operational targets of the plan is to increase coverage of births attended by skilled attendants from 46% to 80% in 2015 (RCHS, 2008). An important input in achieving this target is the provision of delivery kits to pregnant women in public health facilities as an incentive for increased utilization of skilled attendants who are at public health facilities.

The Government issued a directive for pregnant women to be provided with delivery kits at public health facilities, the practice which was abandoned due to financial constraints. The decision to re-introduce the kits has significant cost implications. Assume providing delivery kits to half of the 1,400,000 million women who give birth in the country annually, the annual demand for delivery kits is 700,000 pieces. At the price of US$ 10.95 per kit (2010 prices), the cost will be US$ 40,237,227 for the period of five years. Assuming that there is no waste the cost will continue beyond 2015.

4.4 Expanded Program on Immunization 2010 - 2015 Comprehensive Multi Year Plan

4.4.1 Potential Introduction of Malaria Vaccine (RTS, S)

Malaria is a leading public health problem in Tanzania; it is the leading cause of child morbidity and mortality in the country. There is on going research on development of a malaria vaccine (RTS, S) which is in phase 3 trials and may be available in the near future. Introduction of a malaria vaccine through the EPI system would reduce child mortality in Tanzania and thus provide value for money.

Hutton and Tediosi (2006) investigated the cost of introducing the expanded program on immunizing malaria in Tanzania. They assumed US$ 3,968,880 doses could be administered and if same coverage rate as reported for DPT-HBV vaccine at US$ 10 per dose, and addition of US$ 1.40 for other costs related to program strengthening (2003 prices). If the vaccine is introduced in 2014, the total cost would be US$ 115,786,800 over two years up to 2015. It is expected that if the program is carried out successfully other cost of malaria control and treatment burden will be reduced.

4.4.2 Introduction of Human Papilloma Virus (HPV) Vaccine

The Human Papilloma Virus (HPV) vaccine is effective in preventing infection with certain species of human papillomavirus associated with the development of cervical cancer, genital warts, and some less common cancers. There are two HPV vaccines in the market namely, Gardasil and Cervarix which protect against the two HPV types (HPV-16 and HPV-18) diagnosed to cause 70% of cervical cancers and most HPV-induced genital and head and neck cancers.

The EPI plans to introduce HPV vaccination in 2012 through school-based strategy whereby children of 9 years of age will be vaccinated. Three doses will be administered per child, with the price per dose of the vaccine estimated at US$ 8 (covering procurement to administration of vaccine). Vaccination will cover 3 regions in the 2012 namely, Dar es Salaam, Kilimanjaro, and Dodoma (194,424 children) followed by addition of 7 regions (approximately 632,968 children) in 2013 and subsequent national coverage from 2014 onwards increasing the number of children to be vaccinated to 1,449,772 and 1,489,691 in 2014 and 2015, respectively, resulting in additional total cost of US$ 95,430,830.

4.4.3 Introduction of Pneumococcal Vaccine

Pneumococcal vaccine prevents invasive diseases caused by the organism Streptococcus pneumonia (also known as Pneumococcus) including bacteria (an infection of the bloodstream) and meningitis.

The EPI intends to administer the pneumococcal vaccination in 2013. Infants can receive the vaccine as a series of three inoculations administered at 6, 10, and 14 months of age annually. The price per dose of the vaccine is estimated at US$ 3.5 (covering procurement to administration of vaccine) and the number of children estimated at 1, 800,000. Taking an average population growth rate of 2%, the number of children vaccinated will be 1,800,000, 1,836,000 and 1,872,720 in 2013, 2014 and 2015, respectively, resulting in additional total cost of US$ 60,922,819.

4.5 Multi Year Plans With Unidentified and Uncosted Decisions

Out of the reviewed plans, the study team could not establish cost of decisions in National TB and Leprosy Strategic Plan 2009/2010 – 2015/2016, Neglected Tropical Diseases Strategic Plan 2009/10-2013/14, and the National Strategy for Non-communicable Diseases 2009 – 2015. The National TB and Leprosy Program had not analyzed its strategic plan (2009/10–2015/16) to identify cost of decisions. However, costing for MMAM and the Road Map are currently under review to make them more realistic in achieving their objectives.

Review of the Human Resources for Health Strategic Plan 2018–2013 and consultations with staff of the Directorate of Human Resource Development in the MOHSW revealed the likely cost of recruiting 14,470 staff annually to mitigate the existing shortage of human resources in public health facilities. 14,470 staff is about 50% of the total 29,063 available medical personnel in all facilities in 2006. Assuming 2006 staffing levels and if recruitment is implemented in 2012 the fist approximation of 50% of the healthcare professional staff wage bill could be added (although the real figures would depend on position and seniority). To address the supply side problem it is recommended to target enrollment of 14,470 students in medical institutions in order to match the growing human resource demand in the sector.

The National Strategy for Non-communicable Diseases 2009 – 2015 has four key components (promotive, preventive, care & treatment, and rehabilitation activities/services). Implementation of the strategy did not start in 2009/2010 as planned. However, costing of promotive activities (increasing awareness of non-communicable diseases and associated risk factors) started in 2011 at estimated cost of TZS 857,000,000. Efficient implementation of the strategy however, needs tools for early identification in order to minimize complications, sensitization of public on non-communicable diseases (NCDs) risk factors, and expansion of treatment of some NCDs such as cancer beyond Dar es Salaam. Some constraints include: service level gaps, poor capacity in terms of human resources and equipment, as well as inadequate resource allocation. The major challenge is scaling up the supply of NCD services to march the increasing demand given the meager resources.

4.6 Comparison of the Cost of Decisions with HSSP III Estimates

This study is motivated by the need to identify the cost of decisions up to 2015 in order to create awareness about the financial consequences of these decisions and to increase attention to the financing needs of the health sector.

The medium term resource required for health sector in Tanzania is given in the Health Sector Strategic Plan III (HSSP III) which sets out health sector priorities from 2009 to 2015. According to HSSP III, the required resource for the plan period is US$ 8,923,216,095. The additional estimated resource from cost of decision is US$ 706,688,405, which is about 8% of the estimated resources for health in Tanzania up to 2015. The estimated cost of decisions is about 3.3% of 2009 GDP and equivalent to nominal per capita spending of US$ 17.7 (2009 population estimate). This expenditure will definitely boost per capita health spending (US$ 13.45 in 2008/9). However, concerted revenue effort is needed if we are to hit HSSP III target of US$ 26.6 in 2014/15.

This cost component is likely to be high owing to the fact that costs of some decisions in MMAM components, such as HRH, infrastructure, health care financing strategy, mhealth, etc. are in the processes of being estimated, while others had not been costed yet due to various reasons.

5.0 Recommendations

The main objective of this study was to identify cost of decisions in the health sector. The study established cost of decisions in the following areas: Health Sector HIV and AIDS Strategic Plan II; Malaria Mid Term Strategic Plan 2008- 2013; National Road Map Strategic Plan; and the Expanded Program on Immunization 2010 – 2015 Comprehensive Multi Year Plan.

Cost driving decisions in the four plans revolved around the phased adaption of WHO recommendations on ART eligibility criteria, re-treatment of conventional bed nets, sustaining indoor residual spraying, sustaining coverage of LLINs; provision of delivery kits to pregnant women in public health facilities, the potential introduction of a malaria vaccine, and introduction of human papilloma virus (HPV) vaccine. The cost implication of these decisions is estimated at US$ 706,688,405 over a five year period to 2015. Such 8% additional cost to HSSP III is not small, in fact more should be expected because a couple of strategies are not costed.

5.1 Promotion of Health Prevention and Promotion Services

Prevention and treatment of illness are the major strategies used to maintain or improve the health status of the population. The former however is usually the first stage and thus serves as the first line of defense to illness, while the latter is the second line of defense. To a certain degree the two can be mutually exclusive. Despite this, allocation of health resources is usually skewed towards treatment. This may be because addressing existing illnesses seem to be a clear danger than addressing their potential sources.

It is however important to note that although prevention seems to address illnesses which are less clear, it leads to greater benefits than treatment in the sense that it reduces future demand for treatment than what treatment could have had. Furthermore, prevention of illness has stronger merit good characteristics than treatment of illness, that is, people are more likely to consume amounts which are less than needed, whereas in the case for treatment people are usually willing to consume amounts at or near the required levels.

The different merit good characteristics of prevention and treatment implies that although prevention may appear more costly than treatment in the short run, it benefits more people in the long run hence reduces the cost resulting from treatment of illness via reduction in demand for treatment in the long run which is greater than the reduction that is obtained by treatment alone. Health planning should increase focus on prevention through promoting change of lifestyle and behaviour as well as intensifying prevention and health promotion at community level to complement the smaller preventive benefits of treatment alone.

5.2 Foster Cost Effective Decisions

Most health sector multi-year plans are characterized by heavy resource dependence on development partners. Such levels of dependence tend to compromise control over some decisions especially those supported by financiers. That is, recipients may be tempted to accept a full funded activity even if there is an ongoing similar activity –end up creating parallel rather than complementary activities with cost implications.

To this end, the financiers and recipients should undertake through analysis of potential decisions based on their cost implications (direct and indirect) as well as the time parameters, while avoiding decisions that spin off similar activities rather than complementing the existing ones. This can be facilitated by coordinated analysis from the MOHSW by keeping and monitoring comprehensive cost driver table enriched by inputs from all health sector programs and plans.

5.3 Continuous Review of Multi-Year Plans

Continuous reviews of the plans enhance the capacity of programs to adequately identify cost drivers and therefore enhance the planning process. However, reviews are not always undertaken on time and as regular as possible due to lack of resources or transfer of resources set aside for review process to implement other pressing components of the plan.

The Ministry should make costing part of the plan a compulsory exercise for approval by the management and should not endorse plans which have not been adequately costed. The Ministry can also consider making reviews of multi-year plans a prerequisite for release of fund for subsequent implementation. Moreover, the reviews should integrate all stakeholders and involve technical people who are knowledgeable in planning and costing.

5.4 Improvement of Technical Capacity in Costing

The fact that most of the multi-year plans had indicative budgets, while others are not costed at all, warrants the conclusion that the basic knowledge in costing such as collaboration, parameter assumptions, time, manpower, and resources is lacking. Furthermore, consultations and documents revealed existence of potential cost driving decisions which however could not be linked with costs – Human resource for health, mHealth, etc. This is an indication that costed multi-year plans adopt the plan costing approach rather than the service costing[2]. There is thus poor capacity as far as costing is concerned which in turn affects the ability to adequately cost identified potential cost drivers arising during implementation of multi-year plans. Emphasis should thus be placed on developing and improving costing capacity in the programs and the MOHSW in terms of acquiring costing tools and exposure –for example Neglected Tropical Diseases (NTDs) program has a very comprehensive costing tool.

5.5 Explore more Sources of Revenue for the Health sector

Despite of having good plans in place, the Ministry and programs suffer a serious problem of resource gap. The Ministry should ensure that the priority activities of the strategy/plan are funded. This could be done through lobbying the government and other stakeholders for more resources. Protocols such as Abuja Declaration 2001 in which African governments committed themselves to scale up health budget to 15% of the total budget could be useful. Also the government and local authorities through laws/bylaws could establish and commit specific sources of resources for the health sector.

[2] Plan costing involves attaching costs to the various components of a plan and is undertaken with the assumption that the various plan components or services have been costed. Service costing on the other hand involves detailed costing of services making up a plan by attaching the direct and indirect costs to the chosen magnitude of unit of service to be offered along with determination of assumptions to be used.

A close eye should be kept on the ratio of available resources to required resources which can indicate opportunities which development partners can be of help as well as providing an indication of the realism of planning. A review of the plans found the ratio of available resources to required resources to be 76, 84, and 35 percent for the Health Sector Strategic Plan III, the Expanded Program on Immunization 2010 - 2015 Comprehensive Multi Year Plan, and the Malaria Medium Term Strategic Plan 2008-2013, respectively. The Malaria Medium Term Strategic Plan 2008-2013 on the other hand had the lowest ratio of available resources to required resources of 35 percent.

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Appendix I: The Initial Cost of the Reviewed Health Sector Programs/plans at the time of Formulation

S/N	Plan	Amount (US$)
1.	MMAM (2007 – 2017)	7,682,586,645
2.	HSSP III (2009/10 – 2014/15)	8,923,216,095
3.	HSHSP II (2008 – 2012)	643,054,623
4.	NMCP (2008 – 2013)	693,372,026
5.	NTLP (2009/10 – 2015/16)	333,663,746
6.	EPI (2010 – 2015)	730,363,729
7.	Road Map (2008 – 2015)	230,219,000
8.	HRH (2008 – 2013)	404,996,982

Appendix II: List of Respondents

S/N	Respondent	Organization	Address
1	Bernard H. Konga	Directorate of Policy and Planning(Planning and Budgeting Section) – MOHSW	0786 661221 Email : bkonga@moh.go.tz
2	Mr. Maxmillian Mapunda	World Health Organization	0784 555275 Email: mapundam@tz.afro.who.int
3	Dr. Asia Hussein	United Nations Children's Fund	9786 111612 Email: akhussein@unicef.org
4	Dr. Rita Noronha	United nations Fund for Population Activities	0754 781123 Email: noronha@unfpa.org
5	Dr. Renata Mandike	National Malaria Control Program	
6	Dr. David Manyanga	Expanded Program on Immunization	0787 839839/0713 666676
7	William Msirikale	Expanded Program on Immunization	
8	Dr. Mweikemo Kajoka	Prevention of Mother to Child Transmission-RCHS	0754 767148/0788 377150 Email: dkajoka@yohoo.com
9	Dr. Michael Msangi	Prevention of Mother to Child Transmission-RCHS	
10	Dr. Koheleth Winani	Reproductive and Child Health Section – Ministry of Health and Social Welfare	
11	Ms. Martha Remuyi	Reproductive and Child Health Section – Ministry of Health and Social Welfare	
12	Ms. Christine Hamza	Reproductive and Child Health Section – Ministry of Health and Social Welfare	0783 402750
13	Dr. Joseph Mbatia	MoHSW -Non-Communicable Diseases, mental health and Substance Abuse Section	0713 616190
14	Ms. E. Mwakalukwa	MoHSW –Human Resources Planning Section	0754 287893
15	Mr. Martin Msuha	National Aids Control Program	0787 449004 Email: msuham@yahoo.com
16	Dr. D. Kamara	National Tuberculosis and Leprosy Program	
17	Ms. Marium Ally	MoHSW -Heath Care Financing Unit	0754 436472 Email: mariammwakobe@yahoo.com
18	Mr. Claud Kumalija	MoHSW -Monitoring and Evaluation Unit	0754 279211 Email: claudjohnk@yahoo.com
19	Dr. Mwendwa Mwenesi	MoHSW -mHealth	0713-256855 email mwendwa18@yahoo.com
20	Dr. Godffrey Kiangi	MoHSW -Health Promotion/ Education services	0754 377168 Email: gkiangi@yahoo.co.uk
21	Mr. Elias Chinamo	MoHSW -Environmental	0784 831623 Email:

S/N	Respondent	Organization	Address
		Health, Hygiene and Sanitation	chinamoebm@yoahoo.co.uk
22	Dr. Khalid Massa	MoHSW -Environmental Health Unit	0713 413699 Email: kmkmassa@yahoo.com
23	Dr. Bernard Kilembe	Neglected Tropical Diseases	0784 601235 Email: bckilembe@nimr.or.tz

Appendix III: Terms of Reference:

Cost-Driver Paper

Background

The Ministry is in the process of formulating sustainable health financing strategy. The Health Financing Strategy aims to provide the necessary framework for comprehensive and mutually reinforcing reforms in all areas of health financing, such that an increasing number of Tanzanians will have access to quality health services without facing financial risks related to health care.

A crucial factor for the implementation of any Health Financing Strategy is awareness about the costs of decisions. Such awareness is also important to ensure cooperation and "buy-in" of all affected stakeholders, including civil society, providers, insurers and Government MDAs, most notably the MoFEA and PMO-RALG. A number of costly programprograms have been initiated (e.g. MMAM and related human resource and infrastructure investments, extension of EmOC services, etc.), and some others are on the horizon (change in treatment protocol for HIV/AIDS and change in the threshold for treatment that will nearly double the demand for treatment, the introduction of new vaccines, etc.).

In order to create awareness about the financial consequences of these decisions and to increase attention to the financing needs of the health sector, it is considered necessary to analyse the major health sector programprograms and initiatives with regards to the changes in costs brought about by new strategies, guidelines and interventions (including the adoption of new technologies), and aggregate these costs. Strengthening cost-awareness in decision-making and is a crucial step towards a more efficient health system, which is one of the aims of the Health Sector Strategic Plan III.

For this reason, a consultancy will be carried out under these Terms of Reference with the aim of identifying the major cost drivers in the health sector and preparing a summary report with the aggregate costs. Demographic and epidemiological changes are other important cost-drivers for health and as far as published cost estimates exist for their impact, these should be integrated into the report, but no new analysis is expected under the present TOR. This is an expected outcome of the National Health Service Costing Study presently carried out in Tanzania.

The task will be carried out with the assistance of the international *Providing for Health (P4H) Initiative* in response to a request from the MoHSW. P4H is a global health initiative aimed at improving social health protection (SHP) in low and middle-income countries, particularly for the poor. Launched in 2007 during the G8 summit in Germany, P4H operates through a network of partners viz., Germany, France, Switzerland, ILO, WHO and the World Bank. It works with a lean management structure and draws on the global, regional and country structures of its members.

Objectives of the consultancy

The objective of the consultancy is identification of cost-driving decisions in the health sector and develops the Cost-driver paper.

Definition of "cost driver"

For the purposes of this study, a "cost driving decision" or cost driver is a decision that (a) has the potential to increase the costs of a program or initiative in a way that it cannot be expected to be financed domestically without notable consequences for the overall health budget.

Scope of Work

1. Identify potential future cost-drivers for the health sector and collect estimates for their potential budget impact up to 2015 through:
   - Desk review of literature and documents.
   - Interviews with officials from the MoHSW and agencies involved in setting and promoting clinical standards in Tanzania.
   - Interviews with agencies involved in setting and promoting clinical standards at an international level, especially the WHO and other relevant UN Agencies.

   Where a cost driver is identified in a program or initiative, but costs have not been formally estimated, program/initiative staff will be asked to make a rough estimate with an upper and lower expected boundary. Where this is not possible, this should be clearly indicated in the report. Due to time constraints, it is not expected that the consultants engaged for this study will engage themselves in cost estimations.

2. The analysis will include but not limit itself to the following sector programprograms and initiatives:
   - HSSP III, MKUKUTA
   - Expansion of Primary Health Care: MMAM
   - HR: Human Resources for Health Strategic Plan 2008-2013 (with an analysis, as far as possible, of the structure of increased human resource costs in terms of (a) increased numbers of staff, (b) average wage growth, (c) the staff mix and (d) allowances)
   - HIV / AIDS (NACP and TACAIDS)
   - Malaria (NMCP)
   - Child health (IMCI / EPI)
   - Reproductive Health (RH)
   - Non-communicable diseases
3. The main analysis will be done in a brief summary of each of the cost-driving intervention showing the main assumptions behind the cost estimate.
4. The centre-piece of the summary analysis will be a table detailing the expected costs of each identified cost-driver per year alongside the aggregated costs per cost-driver and per year in the final column and row respectively. This table will be accompanied by a narrative explanation of how the aggregated estimate was arrived at, especially how double counting of costs included in two interventions has been avoided.
5. The above overall analysis in the summary table will be based on those cost drivers for which formal estimates exist. The narrative will also provide estimates for a lower and upper boundary including all cost-drivers, i.e. including those for which a rough cost estimate was developed with program/initiative staff.
6. The total cost estimate should be compared with the resources currently available for health in Tanzania and with a projection of resources available up to 2015.
7. The report will conclude with recommendations on strengthening cost-aware decision-making and increasing cost-effectiveness, with a view to the analysis for the Health Financing Strategy.
8. Prepare a report and draft PowerPoint presentation for use during the Health Financing Strategy process.
9. Prepare a narrative one-page summary for integration into the Health Financing Strategy.

Expected outputs

1. A report entitled "*Aggregate cost implications of selected cost-drivers in the Tanzanian health sector*" of not more than 25 pages plus executive summary (max. 2 pages) and Annexes in soft- and hard-copy (two copies to the HCFC Secretariat).
2. One-page summary for integration into health financing strategy (as above).
3. Draft PowerPoint presentation for use during the Health Financing Strategy process.

Participation of MOHSW

The consultants will welcome MOHSW staff to participate in all stages of the research activities. This does not imply any financial claims of MOHSW staff towards the consultants and also leaves them free in their choice of work place.

Timing

The assignment will start on 08 August 2011 and not finish later than 28 calendar days from the day of the signing of the contract, i.e. all outputs will have been delivered.

Inputs

The consultancy will not exceed 25 persondays for up to two consultants, one lead consultant and one assisting consultant. The consultants will have at least a Masters degree in a relevant area and not less than 5 years of professional experience. They will have a proven track record in working on health financing assignments, and will provide at least three relevant work samples (each if more than one consultant) before contracting.

The lead consultant will have the overall responsibility for the timely submission of deliverables of the required quality. S/he will either provide deliverables himself or assure the quality of parts of deliverables provided by the assisting consultant. S/he will be responsible for the overall design of the study and assure that methods are used and a workplan developed that will be appropriate for successfully concluding this assignment.

The assisting consultant will support the lead consultant in all the above tasks and will carry out all assignments given by the lead consultant. S/he will especially assist the lead consultant in preparation of data collection materials, analysis of data collected, and report writing. The assisting consultant is expected to have sufficient capacity to carry out data collection assignments by him/herself in order to be able to work timely through the data collection referred to under Scope of Work, no. 2.

This study was commissioned by the Ministry of Health and Social Welfare of Tanzania.

It was financially supported by partners of the Providing for Health (P4H) initiative, specifically Germany and Switzerland. P4H is a global network aimed at improving social health protection (SHP) and strengthening health financing systems to promote universal health coverage (UHC) in low and middle-income countries. P4H operates through an open network of partners, to date including the African Development Bank, France, Germany, the International Labour Organization, Spain, Switzerland, the World Bank and the World Health Organization. The purpose and focus of P4H is to support countries in developing effective, efficient, equitable and sustainable health and social protection systems for UHC and SHP, in particular for the poor and other disadvantaged populations.