

# **Financing Incidence Analysis of Health Financing in Zimbabwe**

## **Skills workshop Report**



**Training and Research Support Centre  
With  
Ministry of Health and Child Welfare**



**With  
University of Cape Town Health Economics  
Unit and  
Regional Network For Equity In Health  
in East and Southern Africa (EQUINET) and Global  
Network on Health Equity (GNHE)**



**February 18-22 2013. Harare**

**In the Programme on Advancing Equity in  
Universal Health Coverage in Zimbabwe**

**with support from IDRC, Canada**

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**Cite as:** TARSC, MoHCW, HEU (2013) Financing Incidence Analysis of Health Financing in Zimbabwe: Report of a skills workshop, Harare February 18-22 2013, TARSC. EQUINET with GNHE, Harare

Acknowledgement to the international Consultants, MoHCW, members of the Technical Working Group and the ZEPARU team for their support, contribution to the planning and roles in the workshop. Thanks to IDRC Canada for support to the Universal Health Coverage in Zimbabwe work and the workshop.

## 1. Background

In 2009, the Ministry of Health and Child Welfare (MOHCW) produced the 'National Health Strategy 2009 – 2013: Equity and Quality in Health – A People's Right'. The Strategy raises universality, equity and quality as central principles, i.e. that all have access to defined health interventions and services based on health need, including those that promote health and prevent ill health, and that sufficient resources for this are mobilised according to ability to pay and allocated according to health need.

Despite this stated policy goal, the public health financing for this is currently inadequate, the benefit package uncosted, financing, including in private health insurance schemes, is highly fragmented with little cross-subsidies across funding pools and out of pocket spending is high raising the risk of health spending increasing poverty in poor and vulnerable groups that depend to a large extent on public services. Efforts to mobilise resources need to address concerns about transparency and accountability in the management of resources.

To assess options for financing work is being done to implement research on the Financing Incidence Analysis (FIA) on the sources of health financing in Zimbabwe. The analysis will through review, data gathering, data captures, triangulation and analysis assess which socio-economic groups bear the burden of different areas of health care financing or the relative progressivity of financing mechanisms relative to living standards. The analysis will cover direct and indirect taxes, insurance, and out of pocket / direct payments for health.

Zimbabwe finances its health systems through various financing sources that include taxes, user fees, private health insurance and donors. As to which type of funding has to be preferred depends on how it addresses the issue of equity. MoHCW and local and international partners then commissioned Zimbabwe Economic Policy Research and Analysis Unit (ZEPARU) to carry out the research to assess the financial incidence of each financing source in Zimbabwe with resource input from Health Economics Unit (HEU) University of Cape Town.

A skills workshop was held to review the experiences internationally of financial incidence of various financing sources and the methods for assessing the incidence, drawing on work that has been carried out regionally by Dr John Ataguba of the University of Cape Town Health Economics Unit, including the local consultant team from ZEPARU and delegates from TARSC, GNHE, colleagues from the University of Nigeria, Ministry of Health and other institutions in the Technical Working Group (TWG).

Specifically the workshop sought to

- explore ways of realise additional funding from different progressive financing sources
- draw input from Health Economics Unit, University of Cape Town, on methodologies for analyzing the progressivity and regressivity of different financing sources;
- draw lessons from international and local experiences on financial incidence analysis of different financing sources;
- answer questions on how to address challenges with data collection and analysis, review of tools, preliminary results and reporting.

The workshop was jointly organised by the Training and Research Support Centre and the Ministry of Health and Child Welfare. It was held at Bronte Hotel. It was facilitated by TARSC and Dr John Ataguba from the Health Economics Unit, University of Cape Town. A CD Rom of background materials was prepared by TARSC. On the first day of the workshop there was an open session for the members of the Technical Working Group from 0830 hours-1100 hours, where a presentation on international and regional experiences with

progressivity and regressivity of different financing sources was made by Dr John Ataguba with a subsequent discussion with the TWG. The remainder of the five days involved participants more directly with the mechanics of how to carry out a Financial Incidence Analysis in Stata and the World Bank Adept software. The programme is shown in Appendix 1 and the delegate list in Appendix 2.

## 2. Opening

The workshop was opened by Mr Gwati Gwati who stood in for Dr Mhlanga the Principal director Preventive services and joint co-ordinator of the work in MoHCW. He welcomed the international consultant from South Africa, , members of the TWG and the local consultants. He gave a brief background of the work on Universal Health Coverage in Zimbabwe; how it was conceived of in the discussions of the Public Health Advisory Board and the subsequent stakeholder meetings in 2012 that gave impetus to further research in the area. He then gave a brief account of some of the key expectations from the workshop pointing out the need for the local consultants to meet the expectations of the MoHCW. The work on FIA is being done under the policy coordination of MoHCW and the MoHCW Top Management Team (TMT) with the Advisory Board of Public Health (PHAB). Technical co-ordination and management is provided by Training and Research Support Centre, and technical guidance from a Technical Working Group. TARSC and ZEPARU nationally and HEU internationally are playing lead roles in support to the work on FIA and IDRC Canada is providing financial support for the work. After these remarks, Mr Gwati then officially declared the workshop open.

## 3. Regional Experience: The Shield Project and Financial Incidence

Dr John Ataguba gave the first morning open session presentation on assessing equity in health financing focusing on the experiences of three countries that participated in the Shield Project. The focus was on the progressivity and regressivity of their different financing sources for health. The study sought to document current trends in the distribution of the burden of health care financing across socio-economic groups by assessing the incidence of different financing sources. It sought to identify who pays for healthcare and to assess the extent to which payments for healthcare are related to the ability to pay, that is

- **Progressive** if payments, on average, are an increasing proportion of Ability to Pay (ATP)
- **Regressive** if payments, on average, are decreasing proportion of Ability to Pay; or
- **Proportional** if payments, on average, remain a constant proportion of Ability to Pay.

### Structure of the Prepayment schemes in Ghana, South Africa and Tanzania

1. Ghana: The health systems is dominated by the National Health Insurance (NHI) which covers approximately 60% of the population
2. South Africa: Private voluntary health insurance there are approximately less than 15% of the population
3. Tanzania: there are several public and private schemes
  - National Health Insurance Fund (NHIF) – public civil servants who are approximately less than 5% of the population;
  - Social Health Insurance Benefit (SHIB) – mainly formal sector private employees who are approximately less than <1% of the population;
  - Community health fund (CHF) – voluntary (rural informal population).

### Key features of their Health systems;

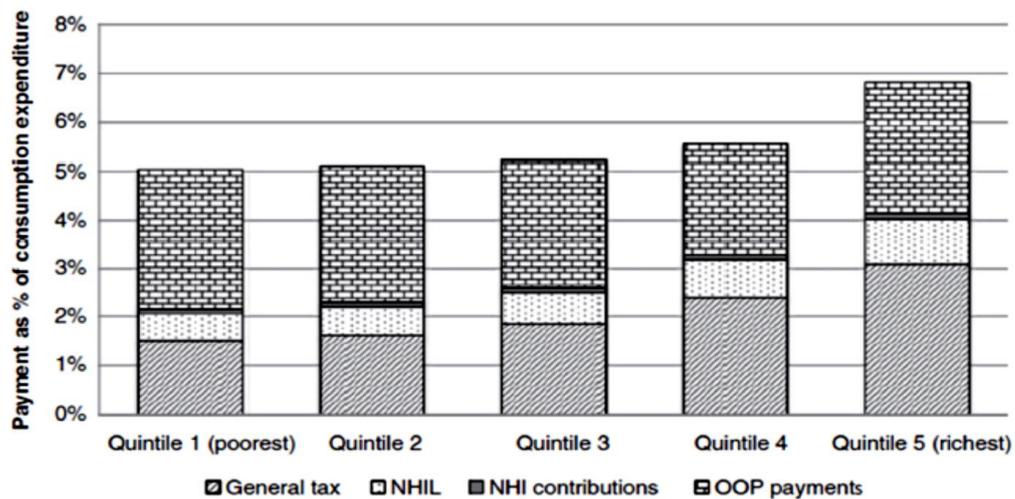
The public sector main provider in all three countries;

1. Ghana and Tanzania:
  - Faith-based facilities large and important
  - Some private for-profit, including informal providers such as drug vendors
2. South Africa:
  - Large private for-profit sector, e.g. only 30% of doctors work in public sector

*There are a number of problems in the three countries' health systems, which are mainly the fragmentation in the insurance schemes: For example in;*

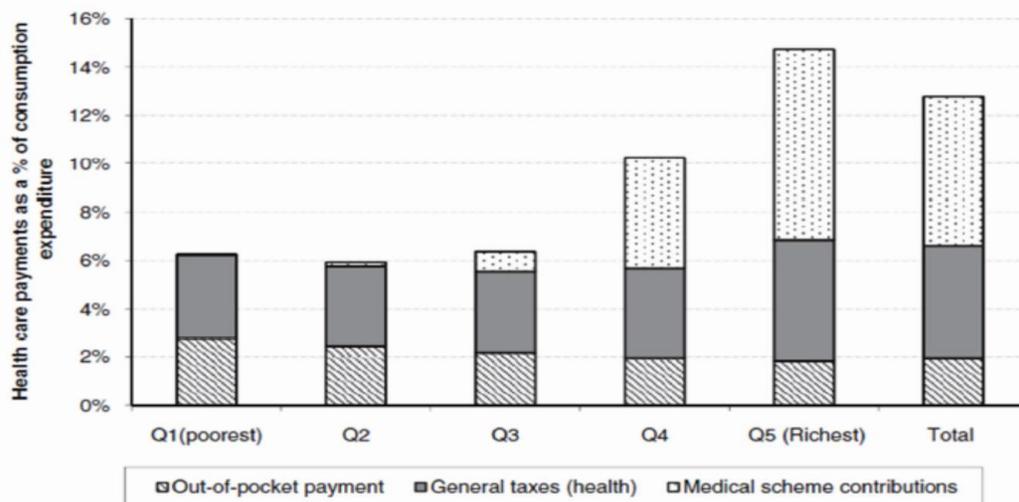
- South Africa, there are more 100 schemes with different risk pool and benefit packages;
- Ghana, there are approximately 130 district mutual health insurance schemes with different risk pool;
- Tanzania, distinct mandatory type schemes for private and public employees; and community insurance schemes leading to different risk pools.

Figure 1: Financing Incidence in Ghana



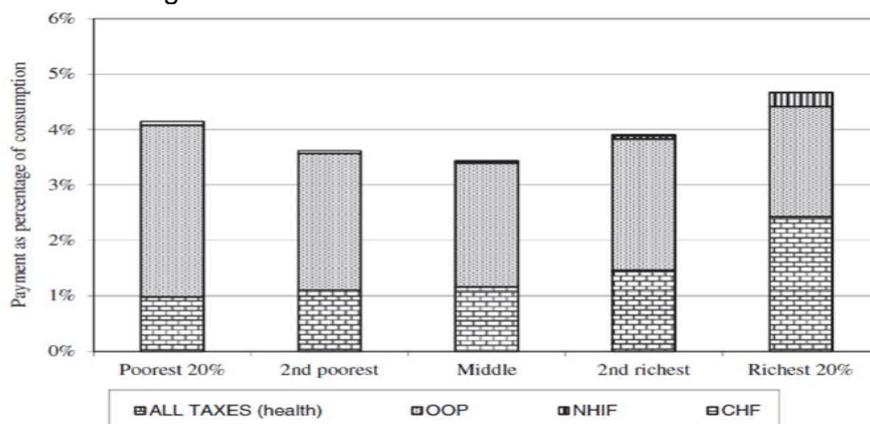
Source: Akazili et al 2012

Figure 2: Financial Incidence in South Africa



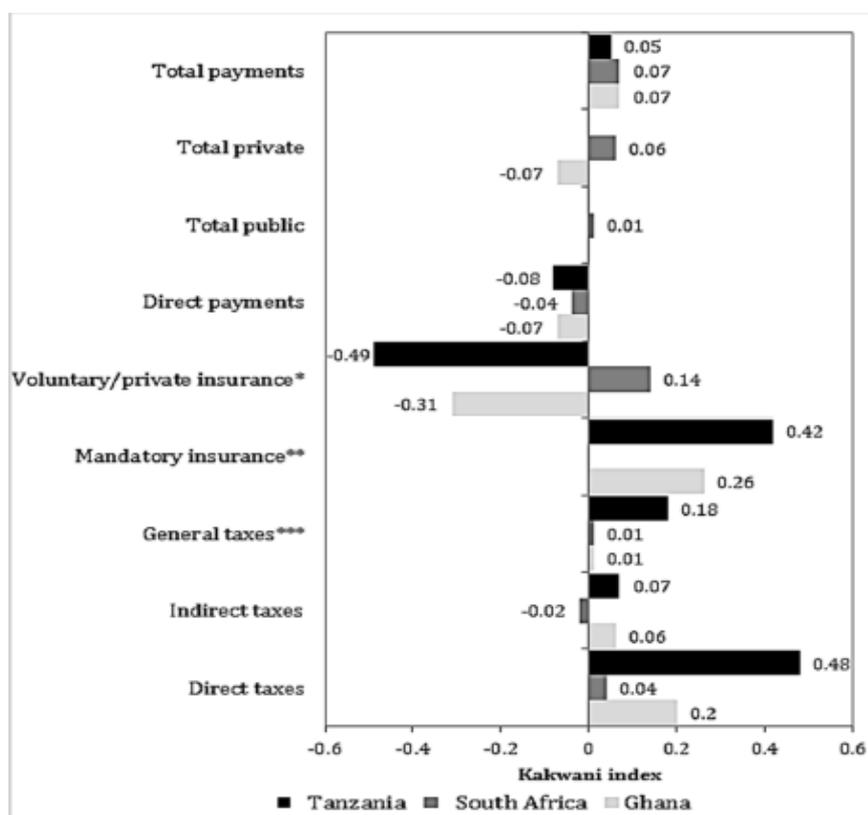
Source: Ataguba and McIntyre 2012

Figure 3: Financing Incidence in Tanzania



Source: Mtei et al., 2012

Figure 4: Progressivity of Health care finance in Ghana, South Africa and Tanzania



Source: Mills, Ataguba, Akazili et al 2012

**Key conclusions on Financing:**

- a heavy reliance on OOP in Ghana and Tanzania remains a problem, particularly in terms of the impoverishing impacts;
- revenue from health insurance varies across countries;

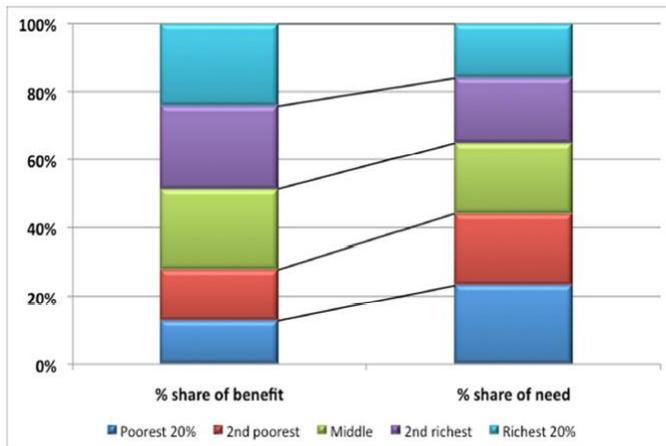
Some positive signs on tax:

- Tax revenue growing rapidly in SA (compliance)
- VAT (NHI levy) in Ghana generating large revenue.

He outlined the benefit Incidence analysis in Ghana, South Africa and Tanzania shown in Figures 5-7 below. As conclusions from the three countries he noted that Inequity exists in the distribution of health care benefit in all 3 countries

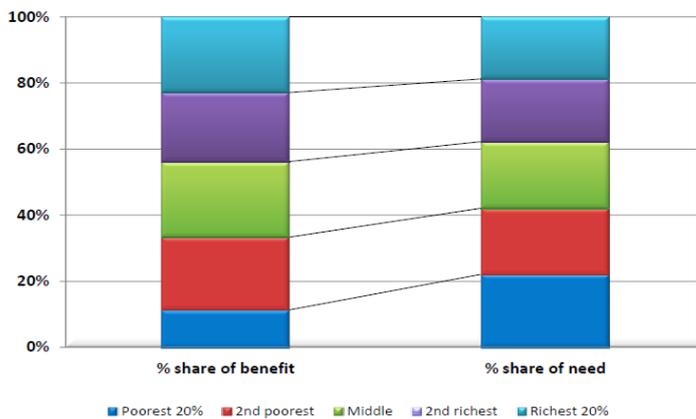
- benefits of is not distributed in relation to the distribution of the burden of illness;
- universal access still a challenge in all 3 countries; and
- addressing access constraints is critical.

Figure 5 Benefits vs Needs in Ghana



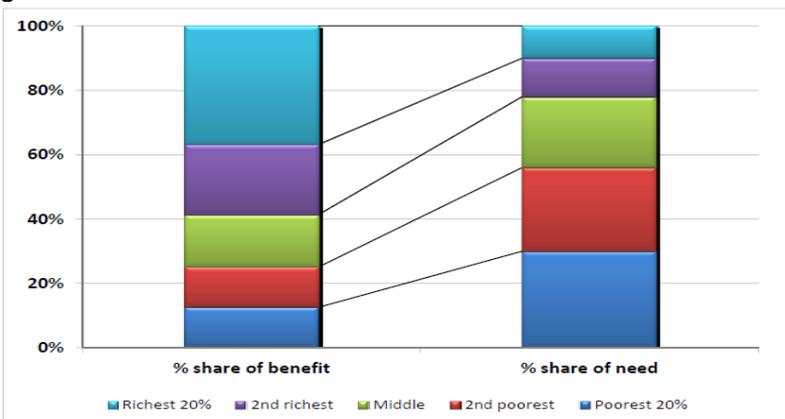
Source: Akazili et al 2012

Figure 6: Benefits vs Need in Tanzania



Source: Mtei et al 2012

Figure 8: Benefits vs Need in South Africa



Source: Ataguba and McIntyre 2012

### 3. Overview of the work on FIA in Zimbabwe

Dr Rene Loewenson from TARSC discussed the scope of work and the expected activities and outputs from the consultants. Terms of Reference were circulated to the consultants prior to the workshop, so only the summary of the work was discussed in this session in order to find a common understanding of the scope of work. The work is being implemented by ZEPARU. Dr Rene Loewenson with Mr Z Mlambo and Mr S Shamu will be responsible for communications on the MoU from TARSC and Dr G Mhlanga MoHCW will be responsible for policy direction.

The work seeks to look at the **Financing Incidence Analysis (FIA)**, i.e. the assessment of which socio-economic groups bear the burden of different areas of health care financing or the relative progressivity of financing mechanisms

- **Inception workshop**
- **Desk review** of national evidence on the context, data sources, issues for the methods, conceptual framework
- **Gather, capture, triangulate evidence for FIA.**
- **Analyse the composite index of SES, and the incidence of different sources of financing for health**
- **Report on the findings** on the FIA and issues for policy consideration

. The expected outputs of the work are;

1. Report of the desk review and research conceptualization
2. Draft report of the FIA and issues for policy consideration
3. Final report of the FIA and issues for policy consideration

The initial Gantt chart was slightly modified and the following points of exchange were then discussed and agreed;

1. Report of the literature review and research conceptualisation
  - DRAFT –ZEPARU - February 28
  - REVIEW FEEDBACK- - HEU, TARSC,– March 4
  - FINAL –ZEPARU – March15
2. Report of the workshop
  - DRAFT – TARSC (SS)– February 28
  - Edit and input- RL – March 8
  - Confirm draft – HEU, MoHCW – March 12.
3. Data gathering and capture, data sets
  - ZEPARU February 22- April 15 with HEU input
  - Updates to TARSC – March 15, March 30
4. Financing incidence analysis
  - ZEPARU April 15 – July 15 with HEU input
  - Updates to TARSC – April 30, May 30, June 30
  - Report of FIA
  - DRAFT – ZEPARU– July 30
  - REVIEW FEEDBACK- - TARSC, HEU, MOHCW – August 10
  - FINAL – ZEPARU – August 20
  - PRESENTATION TO TWG – August / September
  - EDIT and Final scientific report – ZEPARU, TARSC, MoHCW , HEU - September

## 4. Methods for FIA

The rest of the sessions from 3-9 from day 1 to the day 5 were mainly to do with the actual methodology for use for the study, the data sources and the handling of those data sets. The sessions featured a number of practical/hands on sessions that were meant to equip the consultants with the actual methods for the FI Analysis in Zimbabwe.

### 4.1 Use of STATA

The first session was on the use of the Stata Statistical Package since it is the main statistical package that would be used for the FI analysis. The facilitator went through the basics of the package using a hands-on approach using a customised dataset from his South African study on FIA.

Programming in Stata is a major feature of the software

- Stata programming is an advanced topic
  - Requires some proficiency beyond what basic users have
  - Do-files are some sort of Stata programs

The facilitator went through some essential algorithms in stata such as the;

- the difference between scalars and variables;
- the use of macros;
- looping stata;
- use of the *if* and *else* conditions;
- use of do-files and log-files; and
- combining data sets.

Stata has a very rich PDF version of the manual which can be accessed through the help command: For example –

- *help label*
- *help summarize*

Useful documents can also be accessed through the Stat website and these include the Stata Corp (2009) Users Guide (Release 11) and other Stata PDF Documentation (e.g version 11.0)

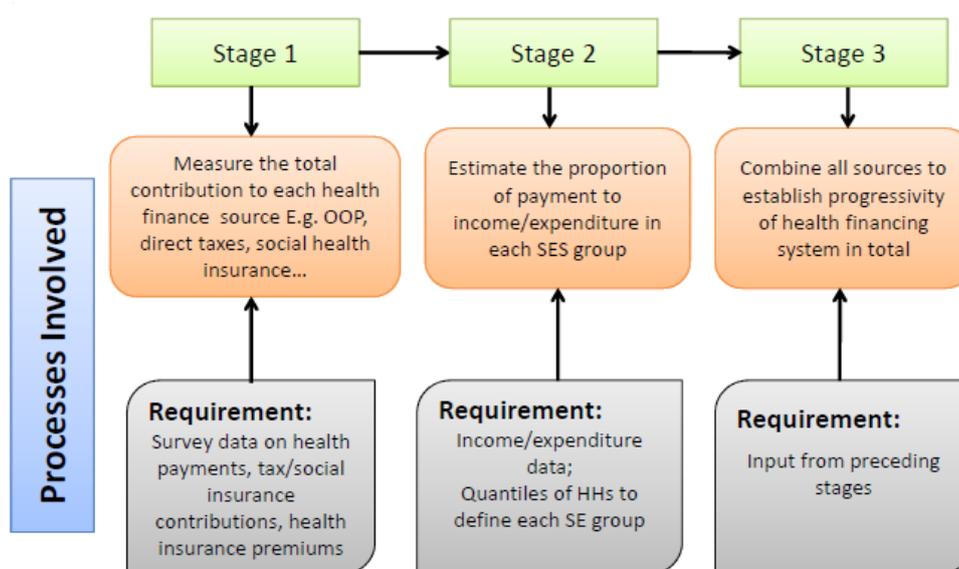
### 4.2 Data sets for FIA

Since the FI analysis will make use of the household survey datasets, the facilitator also discussed the use of individual and household datasets. He described the difference between the individual and household data structures, the various components of those datasets and how to merge them. One important caveat of survey data is the correct and methodical preparation of the dataset for analysis. The facilitator emphasized that the researchers were supposed to;

- adopt a systematic approach to prepare datasets by preserving the original dataset;
- avoid undocumented process of preparing datasets;
- think of returning to the data in 5 years time;
- share the data with colleagues, etc;
- organise your data in the same directory (working directory):not compulsory but efficient;
- ensure that your dataset has some unique identifier for linking and merging (Unique ID); and
- keep in mind that missing values are not the same as zeros

Data will be gathered and captured from secondary household data sources (usual Living Standards Measurement surveys or Income and Expenditure surveys; PICES in the case of Zimbabwe) for estimates of gross income, reported income tax payments; tax paid by shareholders on revenue from dividends; VAT and excise taxes (applying the tax rate to the number of taxable units consumed), fuel levy; health insurance (triangulating data from secondary household surveys and health insurance schemes) and out of pocket spending. This process is illustrated in *Figure 8* below.

Figure 8: Stages of FI Analysis



Source: Ataguba 2013

It is not practically possible to provide common rules for the computation of financial incidence, hence country specific assumptions must be made and clearly stated in the report. However, there are a conventional set of rules and assumptions that must be followed as shown in *Table 1* below.

Table 1: Methods and Incidence Assumptions

Financing Type	Method	Incidence Assumption
Direct Taxes: Personal Income tax Corporate Income Tax	Reported Income Allocation	Legal Taxpayer Shareholder/consumer
Indirect Taxes Value added Tax (VAT) Excise Taxes	Estimated from Consumption	Consumer
Out-of-pocket payments	Reported expenses	Consumer/user
Social Insurance payments (Employer/employee)	Estimated from reported income	Employee
Private Health Insurance payments (individual/employer)	Reported Contributions	Consumer/member

Adapted from World Bank Technical Note Number 6

The workshop resolved to carry out the FI Analysis using the 2010/11 Poverty, Consumption Income and Expenditure Survey (PICES). Although the data was by then not publicly available; hence not accessible, the ZEPARU consultants were tasked to liaise with the Zimbabwe Statistical Agency (Zimstat) to get the dataset. In the event that the team could not get the dataset by the beginning of April, the workshop explored the use of other previous Income, Consumption and Expenditure Surveys. The workshop discouraged the

use of the 2006/7 dataset, which was conducted during the country's hyperinflation period; hence was considered unreliable. This view was also corroborated by the Zimstat noting that the dataset did not meet the expected quality standards. The workshop then resolved that the 2001/2 dataset, although old, was both of better quality and more reliable, and therefore could be used in the event that the 2010/11 dataset was not accessed in time.

The facilitator also noted that as is common with Household Survey Datasets that needed to be merged and analysed, the statistical processes and steps in assessing of quality, measurement errors and data cleaning needed to be rigorously followed.

### **4.3 Context and inception report**

The review will look at the national evidence on the context, data sources, issues for the methods in terms of the socio-economic context, the distribution of burdens of health care financing and the relative progressivity of financing mechanisms relative to living standards. A research conceptual framework and assessment of data sources for carrying out the FIA will be developed, including on the adequacy of, gaps, biases in data from secondary household data, and where primary household data would be desirable for improved estimates.

The guidance structure for this was agreed as

Literature review/conceptual outline

- Introduction \*\*\* Please use the Zimbabwe Health Equity Watch over the NHS.
- Macroeconomic context
  - o Overview of the Zimbabwean economy (biased in favour of the health sector) – consider the HDI (health + income + education), GDP, per capita GDP, income inequality, gender inequality, poverty rate,
  - o Health indicators in Zimbabwe
    - IMR, MMR, immunisation coverage, disease burden (communicable and NCDs)
    - Create an argument that links the macroeconomic context to health indicators
  - o Previous and current National Health Strategy (contact Shepherd)
- Overview of the Zimbabwean health system (including the challenges)
  - o Public and private sectors
  - o Source: previous and current NHS (National health strategy) – contact Shepherd
- Overview of the health financing system – public and private (including the challenges)
  - o Use the Kutzin framework.
  - o Source: National Health Accounts (NHA) – contact Shepherd & Gwati
    - Health financing reform(s) in Zimbabwe (including any proposal)
  - o Source: contact Shepherd
- Conclusion (highlighting areas of importance or focus)

### **4.4 Progressivity analysis or financing incidence analysis (FIA)**

According to the World Bank's Technical Note Number 6, there are basically two separate stages in which progressivity can be analysed. The first stage is the determination of the progressivity of each financing source and the second stage is the determination of the progressivity of the overall system which is done through the weighting of the progressivity of the different sources. Survey data is needed to determine the distribution across households, while aggregate (for example National Health Accounts) is needed to determine the macro-weights to be assigned to each financing source. According to the note, the most suitable data source is the Household Income, Consumption and Expenditure Survey. The progressivity of health financing therefore requires an examination of all sources of health funding and not only payments that are made exclusively for health care, information of which is provided comprehensively from household surveys.

The mostly widely used summary index of progressivity is the Kakwani Index which is the difference between the Concentration Index and the Gini. This can be estimated using the regression of the form;

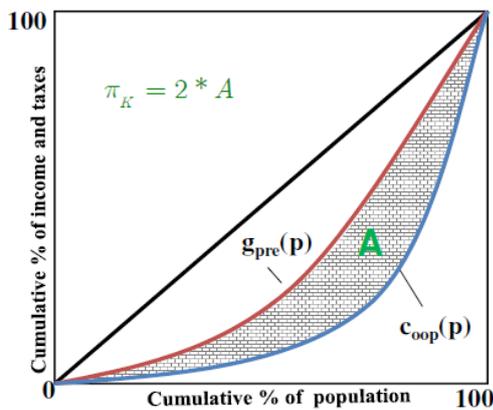
$$2\sigma_R^2 \left[ \frac{h_i}{\gamma} - \frac{Y_i}{\mu} \right] = \alpha + \beta R_i + \mu_i$$

Where  $h_i$  is the health payment variable for household  $i$  and  $\gamma$  its mean,  $Y_i$  is the Ability To Pay (ATP) variable and  $\mu$  its mean,  $R_i$  is the household fractional rank in the ATP distribution and  $\sigma_R^2$  is the sample variance of the fractional rank. The Ordinary Least Squares (OLS) estimate of  $\beta$  is the *Kakwani index*.

While progressivity can be assessed mathematically using regression analysis, it can also be assessed graphically as shown in *Figure 10* through a comparison of the concentration curve of the health payments with the Lorenz curve of the Ability to Pay.

The mechanics of measuring progressivity using the Kakwani Index is shown below

Figure 9: Kakwani Index of Progressivity



$$\pi_k = C_{oop} - G_{pre}, \text{ where}$$

$g_{pre}$ : Lorenz curve for the pre-tax income

$C_{oop}$ : Out-of-pocket payments concentration curve

$G_{pre}$ : Gini coefficient for pre-tax income

$C_{oop}$ : Concentration index for OOP

$\pi_k$ : is the Kakwani index for progressivity

The Kakwani index can also be measured as equal to 2 x area between concentration curve and Lorenz curve - that is the concentration index less the Gini index. The Kakwani index lies between Minimum -2 and Maximum +1. A negative number denotes regressivity, while a positive number denotes progressivity. An index of zero denotes proportionality. That is, if

- Kakwani > 0 → progressive
- Kakwani < 0 → regressive
- Kakwani = 0 → proportional (but can also arise with intersecting curves)

A Practical Examples were performed using the customised data from South African

Table 2 shows the different sources of domestic financing and how they are were allocated to the different households in South Africa. The table provides the various consumption tax rates and premiums and how they are subsequently allocated to the individual household to estimate the share of expenditures per component.

Table 2: Sources of Financing and the Allocation Criteria

Component	Basic Computation Technique
Value Added Tax (VAT) (10.8% of total health finance)	The VAT rate is applied to expenditure on all goods and services that are rated, i.e. excluding the zero rated and exempted goods. = Expenditure * (14/114) [Note: VAT is 14%]
Personal income tax (12% of total health finance)	Apply the appropriate tax thresholds, tax rate and rebates to the gross income of individuals within each household within the taxable range.
Corporate income Tax (10% of total health finance)	Apportion total corporate tax receipts reported by Treasury to households based on different assumptions of tax shifting in terms of percentage borne by shareholders (identified as those who report earning dividends) and that by households through consumption. The scenarios considered ranged from two extremes: that shareholders/capital owners bear the full burden of the tax, and that consumers bear the full burden, with variation within these ranges in ten percent increments: (100%:0%), (90%:10%), ..., (0%:100%). The assumption of 50%:50% or equal sharing of the economic burden was used in the final analysis
Fuel Levy (2% of total health finance)	Fuel is consumed by households (personal or public transportation) as well as by corporate or industrial users, so the estimation involved a process of generating the component attributable to public transport users, personal transport users and users in business. We assumed that the fuel levy is shifted to the consumers reporting expenditure on minibus taxis, buses, and other types of public transport. Fuel tax accruing to business and corporate users is also assumed to be passed forward onto consumers. Because we could not directly estimate from the dataset the component attributed to corporate or industrial users, we assumed that the difference between the fuel levy component accounted for the private and public transport users and that reported by National Treasury is attributable to national users.
Excise Tax (1.5% of total health finance)	For cigarettes, the tax rate was applied to expenditure on cigarette products. For beer, wine and spirits, reported expenditure on these products was translated into estimated quantities (litres) using average retail prices: the rate per litre was then applied.
Others (4% of total health finance)	Not estimated but includes taxes on property and unidentified levies, stamp duties and fines, air departure tax and skills development levy.
Medical Schemes (Private) (45% of total health finance)	Expenditure on medical scheme premiums by households were combined with employers' contributions on behalf of members of the household.
OPP payments (14% of total health finance)	Household expenditure on medicines, consultations, treatments and procedures were summed.

Source: Ataguba and McIntyre 2012

The facilitator also went through the World Bank Adept Software, which can also be used to carry out FI Analysis, by simply importing household survey data from the Stata Database.

Once data has been cleaned and manipulated, the Adept software provides a simpler and quicker way of conducting a FI Analysis.

## **5. Closing**

Dissemination to the MoHCW top management team, PHAB and stakeholder forum will be done through the meetings scheduled within the wider programme.

The workshop was then closed with thanks from Dr Loewenson for TARSC/EQUINET to delegates, to MoHCW, to the colleagues from South Africa and Nigeria. Final closing remarks and wishes for productive work were made by Mr Gwati, Ministry of Health and Child Welfare.

## Appendix 1: Programme

### UCT HEU (GNHE), TARSC/ EQUINET and MoHCW Inception workshop, 18-22 February 2013, Bronte Hotel

TIME	ACTIVITY	FACILITATOR
<b>Monday 18<sup>th</sup> February 2013</b>		
0900-0920 Session 1	Welcome, opening, Objectives of the workshop Introductions	Dr G Mhlanga MoHCW, Dr R Loewenson TARSC Delegates
0920-10.00 Session 2	Introductory presentations of FIA work in the region (SHIELD South Africa and others)	Dr J Ataguba, UCT HEU
1000-1030	Discussion	Dr G Mhlanga MoHCW chairing
1030-1100	<b>TEA BREAK</b>	
<b>OPEN SESSION FOR TWG ENDS</b>		
1100-1300 Session 4	General data requirements for analyses: Progressivity of current health care financing mechanisms Taxes (direct + indirect) OOP, insurance, etc... Discussion	Dr J Ataguba, UCT HEU
1300-1400	<b>LUNCH BREAK</b>	
1400-1600 Session 5	General data requirements for analyses continued Assessment of current data available for the analysis (esp. for Zimbabwe) Discussion Overview of areas for day 2	Dr J Ataguba, UCT HEU

TIME	ACTIVITY	FACILITATOR
<b>Tuesday 19<sup>th</sup> February 2013</b>		
0900-0930 Session 6	Questions and discussion of day one reading and work	Delegates, Mr S Shamu TARSC Dr J Ataguba, UCT HEU
0930-1030 Session 7	Introduction to progressivity analysis or financing incidence analysis (FIA)	Dr J Ataguba, UCT HEU
<b>1030-1100</b>	<b>TEA BREAK</b>	<b>TEA BREAK</b>
1100-1300 Session 7 continued	Introduction to progressivity analysis or financing incidence analysis (FIA) Estimating household (HH) income or expenditure Estimating HH contributions to various financing mechanisms (direct and indirect taxes, OOP, insurance, etc.)	Dr J Ataguba, UCT HEU
<b>1300-1400</b>	<b>LUNCH BREAK</b>	
1400-1600 Session 7 continued	Practical work on Estimating household (HH) income or expenditure Consolidation of the methods Questions, Issues to resolve	Dr J Ataguba, UCT HEU, Delegates

TIME	ACTIVITY	FACILITATOR
<b>Wednesday 20<sup>th</sup> February 2013</b>		
0900-0930 Session 8	Recap of day 2, questions and discussion of day two reading and work	Delegates, Mr S Shamu TARSC Dr J Ataguba, UCT HEU
0930-1100 Session 9	Estimating HH contributions to various financing mechanisms (direct and indirect taxes, OOP, insurance, etc.)- continued	Dr J Ataguba, UCT HEU Delegates

<b>1100-1130</b>	<b>TEA BREAK</b>	<b>TEA BREAK</b>
1130-1300 Session 10	Methods for FIA analysis (theory session) overview Discussion	Dr J Ataguba, UCT HEU
<b>1300-1400</b>	<b>LUNCH BREAK</b>	
1400-1500 Session 10 continued	Methods for FIA analysis (theory session) - Simple method (using bar charts) - Formal methods using formal indices (Kakwani and concentration indices) - Including dominance testing	Dr J Ataguba, UCT HEU,
1500-1600 Session 11	Planned protocol for the FIA work: Introduction and discussion	Dr R Loewenson. Mr S Shamu, TARSC

TIME	ACTIVITY	FACILITATOR
<b>Thursday 21<sup>th</sup> February 2013</b>		
0900-1030 Session 12	Methods for FIA analysis (practical session) - Simple method (using bar charts) - Formal methods using formal indices (Kakwani and concentration indices) - Including dominance testing	Dr J Ataguba, UCT HEU Delegates
<b>1030-1100</b>	<b>TEA BREAK</b>	<b>TEA BREAK</b>
1100-1200 Session 12 continued	Methods for FIA analysis (practical session) - Simple method (using bar charts) - Formal methods using formal indices (Kakwani and concentration indices) - Including dominance testing	Dr J Ataguba, UCT HEU Delegates
1200-1300 Session 13	Introduction to Stata do files used in FI analysis	Dr J Ataguba, UCT HEU, S Shamu TARSC and Delegates
<b>1300-1400</b>	<b>LUNCH BREAK</b>	
1400-1500 Session 13 continued	Introduction to Stata do files used in FI analysis	Dr J Ataguba, UCT HEU, S Shamu TARSC and Delegates
1400-1500 Session 14	Ensuring data and results quality - Triangulation of data and results - Validation of results	Dr J Ataguba, UCT HEU, S Shamu TARSC and Delegates
1600-1630	<b>TEA BREAK AND CLOSING</b>	
Evening	Own work, reading	Delegates

TIME	ACTIVITY	FACILITATOR
<b>Friday 22 February 2013</b>		
0900-1030 Session 15	Presentation of results and wrap up of FIA discussions	Delegates, Dr J Ataguba, UCT HEU
<b>1030-1100</b>	<b>TEA BREAK</b>	<b>TEA BREAK</b>
1100-1200 Session 16	Brief overview of other financing analyses: impoverishment and catastrophic analysis and Benefit incidence analysis (BIA)	Dr J Ataguba, UCT HEU
1200-1300 Session 17	Next steps on the protocol, work Points of interaction with UCT HEU Future exchange and dialogue	Dr R Loewenson TARSC
1300-1315	Closing	MoHCW, TARSC, UCT HEU and delegates
<b>1315</b>	<b>LUNCH BREAK AND CLOSING</b>	
	<b>END OF WORKSHOP</b>	

## Appendix 2: Delegate list

Name and Position	Institution	Email Address
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