Sub-Saharan African experience of conducting National Health Equity Assessments

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Question

Provide an annotated bibliography of the literature published on the SSA experience of conducting National Health Equity Assessments/Analyses, to inform National Equity Plans and ensure the delivery of Universal Health Coverage.

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1. Summary

The World Health Organization (WHO)'s Commission on Social Determinants of Health (CSDH) has called for 'health equity impact assessments' of all economic agreements, market regulation, and public policies, and for related training and capacity building. This is to examine current health impact assessment (HIA) methods in order to ensure their adequacy in the global policy context (WHO, 2008; Povall et al., 2013: 621).

This rapid review summarises the literature on practical lessons and tools for use by government when conducting such assessments. As the focus is on experiences from sub-Saharan Africa (SSA), academic evidence is taken from Ghana, Kenya, Malawi, Sierra Leone, South Africa, Tanzania, and Zambia. However, 'lessons learned' are also taken from assessments/analyses in other non-SSA countries. Key points on practical lessons include the following:

- **Indicators/health outcome measures**: Measures of child health such as the under five year mortality rate (U5MR) and the Infant Mortality Rate have been successfully used as general indicators of population health (Olafsdottir et al., 2011; Prasad et al., 2015). Other core indicators include skilled birth attendance, primary education, unemployment, government expenditure on health, and service provision e.g. safe water and improved sanitation (Prasad et al., 2015). Ill health status and disability were included in South African analysis (Omotoso & Koch, 2018). Findings suggest that the quality of governance may be an important structural determinant of health systems performance, and could be an indicator to be monitored (Olafsdottir et al., 2011). Benefit incidence analysis (BIA) is an analytical technique that was used to assess how government health spending is allocated and utilised across Zambian socio-economic groups; however, by focussing on recurrent expenditure data, it overlooks differences in the availability of key health service delivery inputs such as human resources, medicines and other essential commodities, infrastructure, and equipment (Chitah et al., 2018). Proxy information/indicators, e.g. as a measure of socio-economic status or wealth, have been used in the absence of data on household income, in South Africa (Omotoso & Koch, 2018), Tanzania (Kuwawenaruwa et al., 2017) and Zambia (Chitah et al., 2018) – however, they may not represent the entire population of the catchment area.

- **Tools to use**: Although the WHO OneHealth tool has been used to cost health packages in several countries, data availability and quality issues were found when used in Malawi (Barker, 2017). Urban HEART has been piloted in several cities in Asia, as well as in Kenya. Lessons learned from south-east Asia show that these tools can be led by health authorities at the national/country level (as in Indonesia and Vietnam) or local level (Columbo and most Philippines cities) (Nambiar et al., 2019).

- **Models to use**: A diversity of strategies - including impact assessment tools and community-integrated processes for needs assessment - have been used by governments to identify and respond to potential or actual health equity problems (Shankardass et al., 2012). Community involvement is essential (Nyasani, 2009): when used to review the National Health Insurance Scheme (NHIS) in Ghana, the community HIA model identified negative and positive impacts of proposed health policies and programmes (Aboagye et al., 2019). Baseline and follow-up surveys were found to be crucial in an HIA in rural Zambia (Knoblauch et al., 2018). However, no studies have reported the time, money, and staff used to perform HIAs (Thondoo et al., 2019).
• **Potential for scale-up:** Cities who piloted Urban HEART displayed confidence in its potential by sustaining or scaling-up its use within their countries (Prasad et al., 2015). However, questions on scale-up using the OneHealth Tool in Kenya still remain unanswered (Perales et al., 2015).

• **Data sources:** It is strongly recommended that secondary or available data sources be used for the assessment (Prasad et al., 2015). Secondary sources include living standard measurements surveys (LSMS), demographic and health surveys (DHS), and malaria indicator surveys (MIS) (Mangham, 2009). **Country level documents** were the main sources of data used in Kenya (Chuma & Okungu, 2011); interviews with various stakeholders - primary data - were also used (Okech & Lelegwe, 2015; Shankardass et al., 2012). An alternative source is examination via symptom-based questions, which were useful in Sierra Leone (Groen et al., 2012). However, relying on verbal interviews or recalls of self-reported conditions and oral use of local languages during questioning could be limitations (Groen et al., 2012).

• **Multi-dimensional indices of poverty:** In South Africa, variables such as education, social grants, and employment status were included in analysis of social determinants of health - providing an underestimation of overall health inequality (Omotoso & Koch, 2018). **Concentration curves** were used in Tanzania as an alternative measure to report health outcomes by socio-economic status (Kuwawenaruwa et al., 2017).

• **Linking of health and non-health datasets:** **Inter-sectoral collaboration,** specifically for those activities that extend beyond the health sector, was necessary to alleviate health determinant inequalities in Nakuru, Kenya (Okonji & Mulama, 2013). At the local level, non-health sectors such as the Mayor’s office, as well as education and other social sectors, were also engaged in Urban HEART (Prasad et al., 2015).

• **Role for government:** There is a lack of literature aimed at informing governments and other actors about intersectoral action for health equity (Shankardass et al., 2012). The South African government has embarked on a variety of health-related policies and reforms to reverse the discriminatory practices that pervaded all aspects of life before 1994 (Omotoso & Koch, 2018). Political will to enhance commitment towards devolution of health care is important (Okech & Lelegwe, 2015); however, decentralisation can result in a policy and practice bottleneck (Munge et al., 2018). Findings show that devolution in Kenya focused on improving the supply side of health services, rather than the demand side, including restricted efforts to promote acceptability or use of services (McCullum et al., 2019). The Urban HEART pilot was supported at the assessment stage, but not at the response stage by the Municipal Council of Nakuru, Kenya; this could be due to limited advocacy strategies and misconception of the role of WHO at the inception of the project (Okonji & Mulama, 2013). **County governments** must address all aspects of equity, including quality (McCullum et al., 2019); however, interviews with Ministry of Health officials in Kenya suggested a lack of clarity about the role of the health insurance scheme (the National Health Insurance Fund, NHIF) and how it should be regulated (Munge et al., 2018). Although the NHIF was accountable to citizens and government through a number of institutions, accountability seemed to be more concerned with financial performance than with other aspects of purchasing activities (Munge et al., 2018). NHIF’s ability to continuously monitor standards or quality of services was also limited, even though the infrastructure to do so was in place (Munge et al., 2018). **Government-centred intersectoral initiatives** can include a variety of non-governmental actors, such as those from academic, private, and community/civil sectors (Shankardass et al., 2012). In Ghana, local community leaders who govern by proximity were successfully involved (Aboagye et al., 2019: 2).
• **Monitoring and feedback:** A five-star rating system using government *syndication* worked well in Tanzania (Yahya & Mohamed, 2017). In addition to providing feedback to regional facilities, *sharing results through progressively higher government levels*, as well as *across health systems* was important - as is disseminating results on a wider platform (Prasad et al., 2015; Yahya & Mohamed, 2018).

- **Gender:** Attention must be given to *good gender representation*; however, guidelines must also be followed on respondent selection (Nyasanii, 2009). Social determinants of health include gender norms in South Africa (Omotoso & Koch, 2018). Women’s health was emphasised in Zambia (Knoblach et al., 2018). However, men were not satisfactorily represented in Kenya’s experience of *Urban HEART* (33% only) (Nyasanii, 2009).

- **Lessons learned from outside SSA:** *Quality of data* is a major issue in assessing health equity (Prasad et al., 2015: 241). Health equity analysis from the WHO South-East Asian region conclude that *indicator-based quantitative monitoring*, as well as *qualitative forms of monitoring* (e.g. community-based audits) are needed in order to conduct more finely tuned analyses of equity, as an integral part of universal health coverage (UHC), relevant policy implementation, and decision-making at national and subnational levels (Nambari et al., 2018). An evaluation from Indonesian cities recommends a closer link with WHO during the assessment process, with *mechanisms for nationwide dissemination of the results* (Prasad et al., 2015).

There is a paucity of academic research on whether and how HIAs have been utilised to address health equity (Shankardass et al., 2012), especially in SSA (Leuenberger et al., 2019). There has been little critical reflection and empirical documentation on the processes that have led governments to use intersectoral approaches to address health equity ("initiation"), and the designs that have been used to identify and respond to problems of health equity (potential or actual) while also negotiating cross-sectoral relationships ("implementation") (Shankardass et al., 2012). The majority of the literature on experiences, tools, and accountability was found from analysis on the Kenyan health system. Key lessons learned from health equity analysis in south-east Asian countries were summarised by Nambiar et al. (2019). However, single time point, cross-sectional design, the level of missing data, and small sample size, only allows for tentative conclusions on how to conduct health equity assessments (Olafsdottir et al., 2011; Kuwawenaruwa et al., 2017; Omotoso & Koch, 2018).

2. **Introduction**

**National Health Equity Assessments**

Equity has long been considered an important goal in the health sector. Disparities in health between nations, and between social groups and individuals within nations, are largely determined by *how* societies are organised. This involves economic, political, and social factors. Disparities in health often reflect stratifying forces that differentiate life opportunities within and between countries (Mangham, 2009: 4).

Therefore, WHO's Commission on Social Determinants of Health (CSDH) has called for *Health Equity Impact Assessments* (HEIA) of all economic agreements, market regulation, and public policies, and for related training and capacity building. This is to examine current health impact assessment (HIA) methods in order to ensure their adequacy in the global policy context (WHO, 2008; Povall et al., 2013: 621).
Basic considerations for assessment

There are three key issues that must be addressed in constructing a measure of health inequality (Mangham, 2019: 6):

- The **measure** of the health outcome, utilisation of health care, and/or other consequence (e.g. tables and graphs of rates differences/ratios);\(^1\)
- The **population grouping** across which health inequalities are described or assessed (i.e. difference in the health outcome [or utilisation measure] between the lowest and highest socio-economic status quintiles);\(^2\) and
- The **reference group or norm** against which differences are measured.

Data sources

The data on mortality and morbidity may be available from **Health Information System** surveillance data. Utilisation of malaria-related health care services and specific malaria outcome data may be **self-reported and collected as part of a household survey**, or may be **directly observed** either by researchers conducting an exit poll or by health professionals in a health care facility. In order to conduct an equity analysis, it is necessary to have some descriptive characteristics of the sample population in order to undertake appropriate sub-group analysis (Mangham, 2019: 7).

HEIA tools

HEIA tools have been designed to specifically determine effects on health equity or inequity. Variations on these tools have emerged, including such factors as **inclusion of gender, sex, and diversity considerations** to produce more nuanced analyses (Shankardass et al., 2012). Over the past decade in particular, WHO has been developing a collection of tools to enable analysis of health inequalities and action on health equity (Nambiar et al., 2019). Frequently used tools include:

- the **Urban Health Equity Assessment and Response Tool (Urban HEART)**: designed to support local stakeholders in identifying and planning action on health inequalities. Developed by WHO in 2010 following the recommendations of the CSDH. **Urban HEART** has been, or is being used, in cities in over 40 countries. The tool has been incorporated in national and local policies in many countries outside SSA, such as Canada, Colombia, Indonesia, Iran, Philippines, and Sri Lanka (Prasad et al., 2015: 238).
- the **OneHealth tool (OHT)**: provides planners with a single framework for scenario analysis, costing, health impact analysis, budgeting and financing of strategies for all major diseases and health system components. It is thus primarily intended to inform sector wide national strategic health plans and policies. Since it was released in May 2012, the tool has been applied in over 40 countries, most of which are in SSA. It is a tool

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1 Although under-five mortality rate (U5MR) is a narrow operational definition of a population’s health outcome, measures of child health, such as the U5MR and the Infant Mortality Rate, have been successfully used as general indicators of population health. This is because they are sensitive to both structural changes, and to rising epidemics that affect the wider population.

2 One limitation of these range measures is that they focus on two points in the distribution and do not capture the changes that occur in the middle of the distribution.
for medium term strategic health planning (3-10 years) at the national level, although it can be adapted for sub-national applications.3

- the Innov8 tool,4 designed for re-orientation of national health programmes. This was developed by WHO in 2016.

- the Health Equity Assessment Toolkit (HEAT): has built-in database and upload database editions (developed between 2014 and 2016). The HEAT Plus edition of the software, launched in 2017, allows bespoke data for any indicator (health or otherwise) to be uploaded into a simple template, and used for analysis of disaggregated data and summary measures.5 HEAT Plus was developed based on extensive inputs from the WHO South-East Asia Region.

Health impact assessments (HIAs)

Tackling the gap in health equity across populations, regions and countries has been a particular challenge for Africa. The monitoring of health inequalities is important. It can identify progress linked to specific health policies or programmes, and help to focus interventions at the most disadvantaged cohorts of the population.6 Gaps in health equity means that promoting HIA is an immediate priority (Winkler et al., 2013 in Leuenberger et al., 2019).

Health impact assessment (HIA) is a fast-emerging contemporary process (Aboagye et al., 2019: 1; Leuenberger et al., 2019). HIAs are useful to predict the impact of interventions7 in shaping health determinants before they are framed and implemented. They have been promoted as an important decision-support tool to achieve health equity (Thondoo et al., 2019). However, no studies have reported the time, money, and staff used to perform HIAs (Thondoo et al., 2019).

HIAs are often generic and rapid desk–based appraisals, characterised by the use of information and evidence already available or easily accessible, and generally undertaken by administrators in an organisation to gain a snapshot of the health impacts to inform proposal direction (Aboagye et al., 2019). However, both appraisals can also be used to determine whether a more detailed review is necessary (Aboagye et al., 2019).

HIAs have been successfully and extensively used in cities of high income countries (HICs) to assess the impacts of air pollution, urban planning, and transport. HIAs aim at maximising benefits and minimising negative impacts on people's health. A core value of HIA is equity; yet, little is known about health equity in the frame of HIA, particularly in SSA (Leuenberger et al., 2019).

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4 Innov8 involves an eight-step process where baseline data on a programme are gathered, its theory of change is understood, and then redesign of this theory is collaboratively developed using an equity-oriented, rights-based, gender-responsive approach, mindful of the social determinants of health and measures to monitor, evaluate and ensure sustained attention to leaving no one behind.


7 Interventions are defined as either policy, programme, or project.
Therefore, although the HIA process entails a health monitoring component, it is currently being under-utilised (Knoblauch et al., 2018).

**Healthcare financing equity tools/analysis**

Financial protection against the cost of unforeseen ill health has become a global concern. This is expressed in the 2005 World Health Assembly resolution (WHA58.33), which urges its member states to "plan the transition to universal coverage of their citizens". An important element of financial risk protection is to distribute health care financing fairly in relation to ability to pay. However, application of relevant tools for measuring the equity of financing mechanisms, particularly for assessing the progressivity of financing mechanisms, has remained focused primarily on the health care systems of developed countries and, more recently, some Asian countries (Akazili et al., 2011). There has been only very limited application in developing countries, and almost none in SSA.

Some SSA countries have introduced national health insurance schemes (NHISs) with the aim of moving towards universal health care (UHC), using more equitable financing mechanisms. The role of NHIS is to regulate, monitor, and enforce quality controls, as well as administer the system, including care to the disadvantaged sectors in society (Odeyemi & Nixon, 2013). Therefore, assessing the extent to which the health financing system meets the key requirements for universal coverage is important.

One of the analytical techniques that can be used to assess how public health spending is allocated and utilised across socio-economic groups is benefit incidence analysis (BIA). BIA tracks the distribution of public resources across different socio-economic groups and the extent to which different groups are utilising or benefiting from public services. BIA is important for developing a pattern for total health expenditure among different providers in both the public and private sectors. Despite its importance in establishing the impact of fiscal policies on addressing inequities, most developing countries do not conduct BIA studies. This makes it difficult to establish a benchmark benefit incidence pattern, which is important for assessing past policies and designing and implementing remedial strategies if the intended goals are not met.

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3. HEA experiences: Sub-Saharan Africa

Ghana


A comprehensive review of Ghana’s National Health Insurance Scheme (NHIS) was carried out using the generic desk-based HIA approach (i.e. nine key informant interviews enabled the gathering of information from policymakers, officials from the NHIS and government, Ghana Health Service, Ministry of Health (MoH), and service providers on the impact of the NHIS policy on the wider community). This was followed by a practical qualitative community field work. This research demonstrated how community HIA can be conducted. The scope of this work is wide and incorporates the consideration of key concepts and possible methods for carrying out HIA at the community level. The community HIA model proposed by this work departs from the generic and rapid desk-based appraisals, and is intended to provide practical evidence to give higher priority to people’s viewpoints, promote participation, understanding and incorporate community voices to help shape future policy, programmes, and practice. It is better suited to African or developing countries generally. Community HIAs are not only interested in the aggregate impact of the assessed policy on the health of a population, but also on the distribution of the impact within the population, in terms of gender, age, ethnic background, and socio-economic status.


Although there is a commitment to pursuing a universal health system in Ghana, no assessment of equity in health care financing has been undertaken. To improve equity in health care financing and promote the goal of achieving UHC, there is a need to measure the degree of progressivity of existing health care financing mechanisms to be able to establish the relative funding burden on the poor compared with the rich.

Secondary data from the Ghana Living Standard Survey (GLSS) 2005/2006 were used. This was triangulated with data from the Ministry of Finance and other relevant sources, and further complemented with primary household data collected in six districts.

This study is highly informative to both Ghana and other countries as it used empirical analyses of households and other sources, coupled with well-established methods (including Kakwani index and test for dominance) to determine the degree of progressivity in different categories of revenue-raising. This comprehensive study of equity in financing in Ghana serves as a model for much-needed analyses of other SSA countries.

Kenya

The aim of this paper is to assess the extent to which the Kenyan health financing system meets the key requirements for universal coverage, including income and risk cross-subsidisation. Using published and grey literature, this paper provides a comprehensive description of Kenya’s health care financing system. It describes how it has changed over time, and the key equity concerns arising from current, past, and upcoming health financing policies. **Country-level documents** were the main sources of data. Documents were mainly sourced from the Ministry of Medical Services and the Ministry of Public Health and Sanitation. In cases where data were not available at the country level, they were sought from the WHO website. Each financing mechanism was analysed in respect to key functions namely, **revenue generation, pooling, and purchasing**.

The overview of the Kenyan health financing system in terms of its key functions was identified through the Kutzin framework. Private-for-profit services rarely provide services to community based health insurance schemes (CBHIs) due to their high cost. Benefits related to donor funds are project specific, and it is not always clear how decisions are made in terms of what projects to fund and in which settings. The criteria used by donors to target specific regions is not clear, but for disease specific projects, donor funding in Kenya has mainly focused on HIV/AIDS, malaria and to a small extent, reproductive health. This research concludes that it is difficult to exclusively assess the benefit packages under different projects.


Within Kenya, UHC for all has been interpreted as relating to improving access to the national health insurance fund (NHIF). This study applied Tanahashi’s equity model (according to availability, accessibility, acceptability, contact with and quality) to review perceived equity of health services by actors across the health system and at community level, following changes to the priority-setting process at sub-national levels post-devolution in Kenya.13

269 key informant and in-depth interviews from different levels of the health system in ten counties, and 14 focus group discussions with community members in two of these counties, were performed. Findings reveal that **devolution in Kenya has focused on improving the supply side of health services**, by expanding the availability, geographic and financial accessibility of health services across many counties. However, there has been limited emphasis and investment in promoting the demand side, including **restricted efforts to promote acceptability or use of services**. Respondents perceived that the quality of health services has typically been neglected within priority-setting to date. In conclusion, community health services can play a crucial role towards achieving health equity. If Kenya is to achieve UHC for all citizens, then **county governments must address all aspects of equity, including quality**.


Very little is known about purchasing arrangements in low- and middle-income countries (LMICs), and certainly not in Kenya. This study aimed to critically analyse purchasing

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13 While Tanahashi’s model has widely been used for analysis at national level, to date it has had more limited application at sub-national levels.
arrangements in Kenya, using the NHIF as a case study. A principal-agent relationship framework was applied, which identifies three pairs of principal-agent relationships (government-purchaser, purchaser-provider, and citizen-purchaser) and specific actions required within them to achieve strategic purchasing.

Qualitative data were collected through 62 in-depth interviews, and document reviews (statutes, policy and regulatory documents). **Data from interviews with the MoH suggested a lack of clarity about the role of the NHIF, how it should be regulated, and whether or not it should enjoy the monopoly of being the sole health insurer with mandatory membership of formal sector workers.** The NHIF’s accountability framework was also undermined by the absence of a regulatory and policy framework in support of strategic purchasing practice. For instance, the NHIF was accountable to citizens and government through a number of institutions including the MoH, the State Corporations Advisory Committee, the National Treasury, the Kenya National Audit Office, the Inspector General of Corporations, the Efficiency Monitoring Unit and various parliamentary committees. In practice, however, **accountability seemed to be more concerned with financial performance than with other aspects of purchasing activities**, such as quality of services received by members or responsiveness of the NHIF to complaints.

Data from the interviews suggested that the **NHIF’s ability to continuously monitor standards or quality of services was limited.** This was despite the fact that the NHIF had a well-functioning information system, branch network, and organisational structure that could have supported monitoring activities (e.g. involving media to promote service entitlements, toll-free numbers for further information and feedback).

Interviews with NHIF officials suggested that changes to the benefit package and premium rates were based on member feedback, the process of implementation of these changes was met with **stiff opposition from labour unions and the general population.** Decentralisation can result in a policy and practice bottleneck, particularly where reforms are a consequence of broader reforms.


https://www.alnap.org/help-library/kenyas-experience-on-urban-health-issues-final-report-on-the-urban-heart-pilot-testing

The WHO’s Urban HEART was taken to the full municipal council meeting of Nakuru, Kenya, on 3 March 2009, and was unanimously adopted for implementation. The task was to pilot-test Urban HEART to assess and analyse health equity in two wards of Nakuru, and to report the results.

Attention was given, on the one hand, to have a **good gender representation** and, on the other hand, to follow guidelines on respondent selection. In spite of this, men were not satisfactorily represented (33% only). There is a need to consider the benefits of **involving local communities** in plan formulation and implementation processes. This involvement may come in the form of the private sector, NGOs, community-based organisations, and individual citizens in various stages of planning, decision-making and plan implementation.


10.5539/gjhs.v8n7p218
The purpose of this analysis was to critically review the various initiatives that the government of Kenya has over the years initiated towards the realisation of UHC and how this has impacted on health equity. The paper relied heavily on secondary sources\(^\text{14}\) of information (through critical review of policy documents and commissioned studies by the MoH and development partners), although primary data (through interviews with various stakeholders involved in UHC including policy makers, implementers, researchers and health service providers) was also collected. Additional data was also collected from relevant commissioned studies by Health Policy Initiatives, KfW Development Bank, World Bank, print and mass media coverage, among others.

It appears that the display of leadership by the highest national authorities can be a double edged sword.\(^\text{15}\) The disconnection between scientists (in charge of producing evidence), top officials (who have the required knowledge for policy making) and practitioners (who have the operational experience) largely explains the research-to-policy and the policy-to-implementation gaps: each party ignores or even despises the knowledge held by the other(s).


The Urban HEART pilot team in Nakuru planned for two major components: assessment and response. The assessment was completed, and a draft report was made available. However, more needs to be done on the response component, as there was minimal evidence of relevant policy-making at the council level by endorsing relevant by-laws or regulations to respond to the gaps in health and its determinants identified in the two pilot sites. Inter-sectoral collaboration, specifically for those activities that extend beyond the health sector, is necessary to alleviate health determinant inequalities. Coordinated actions by community and NGOs in the form of community-based initiatives were not observed, apart from one that was licensed by the council to collect rubbish. However, its relation to the Nakuru Municipality Urban HEART pilot implementation is not known. In conclusion, the Urban HEART pilot was supported at the assessment stage, but not at the response stage by the Municipal Council of Nakuru. This could be due to limited advocacy strategies and misconception of the role of WHO at the inception of the project. This needs to be addressed so as to achieve the overall goal of Urban HEART in reducing health inequities in cities.

https://www.healthpolicyproject.com/index.cfm?id=publications&get=publD&pubId=161

In Kenya, at the request of the MoH, the Health Policy Project provided technical assistance in applying OHT to cost the Kenya Health Sector Strategic Plan III, 2012-2017, reflecting the interventions under the Kenya Essential Package for Health (KEPH), as well as national disease strategies for programmes that include HIV/AIDS, tuberculosis, malaria, non-communicable diseases, maternal, reproductive and child health, etc. The results include an assessment of the overall financial gap between resources needed, and the government and donor resources

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\(^{14}\) Secondary sources of relevant household survey data include: living standard measurements surveys (LSMS), demographic and health surveys (DHS), and malaria indicator surveys (MIS) (Mangham, 2009: 7).

\(^{15}\) For instance, the country’s political leadership announced user fee removal policies for the public health sector out of the blue, without giving technocrats sufficient time to correctly design, prepare and implement the reform. Consequently, some national policies though considered politically sound, may fail to bring the expected.
available for all years of the analysis. This brief is intended for a policy audience in Kenya to support sustainable health sector planning, and may be of interest to other countries in the region who wish to apply OHT or similar approaches to assessing costs and financial gaps. Nevertheless, certain questions remain unanswered: Is the intensity of scale-up across the Kenya Health Sector Strategic and Investment Plan, July 2014–June 2018 (KHSSP III) investment areas balanced? Could better coordination and planning across KHSSP III investment areas lead to a more responsive health system?

**Malawi**


Malawi’s Health Sector Strategic Plan 2017–2022 (HSSP II) aims to move the country toward universal coverage of health services through an essential health package free of charge to all citizens. Through a consultative process, Health Policy Plus (HP+) worked with Malawi’s MoH to estimate the total financial resources required to reach HSSP II targets, including costs of delivering the essential health package and implementing health systems strengthening activities. Scenarios were costed using the WHO OHT, taking into account various interventions, coverage of interventions, human resources, and infrastructure investment. The HSSP II cost analysis is the second application of the OHT in Malawi; it was also used to cost the country’s first Health Sector Strategic Plan (HSSP I).

However, this analysis is limited by data availability and quality issues. The open source DHIS2\(^{16}\) software platform does not include service delivery statistics for all interventions included in the essential health package (EHP), particularly for services related to mental health, oral health, and other non-communicable diseases. The OHT costing team extrapolated data from MoH reports from specific facilities or geographical areas and relied on expert opinion to help estimate baseline coverage for these interventions. Further, iHRIS\(^ {17}\) was used in the team’s human resources for health (HRH) cost analysis, but this source is considered unreliable because districts inconsistently report data into the system. Also, estimates of how much time health workers spend in delivering services used in the full-time equivalent (FTE) analysis were outdated and missing for some interventions.

**Sierra Leone**


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\(^{16}\) District Health Information Software 2 (DHIS2) is the open source used for reporting, analysis and dissemination of data for all health programmes.  
\(^{17}\) iHRIS, IntraHealth International’s free, open source Health Workforce Information Systems Software, helps countries around the world track and manage their health workforce data to improve access to services. Countries use it to capture and maintain high-quality information for health workforce planning, management, regulation, and training.
Surgical care is increasingly recognised as an important part of global health yet data for the burden of surgical disease are scarce. The Surgeons OverSeas Assessment of Surgical Need (SOSAS) was developed for use in LMICs. SOSAS is a population-based household survey that was developed collaboratively by an international group of experts and piloted in Sierra Leone. Health indicators for Sierra Leone are indicative of scarce access to health care: life expectancy at birth is 48 years, an estimated 174 per 1,000 children die before their fifth birthday (U5MR), and maternal mortality rates are among the highest in the world.

Symptom-based questions were used to determine the need for surgical interventions. This included a systematic head-to-toe verbal examination, with data collected via handheld tablets by trained local medical and nursing students. This resulted in as many as 25% of the total 3,645 respondents reporting a surgical condition needing attention.

The major limitation of this study was that it relied solely on a verbal interview of self-reported conditions. No physical examination could be done to corroborate responses; however, in view of the substantial ethical and logistical issues, with financial implications, such a survey could not be undertaken. Also, the respondents' perception of a surgical condition might not be correct. A third limitation is that the data collected about household deaths relied on recall from household representatives. Fourthly, although Sierra Leone has 14 official languages, the survey was written in English but administered orally in the local language (which is standard protocol for Sierra Leone’s Demographic and Health Surveys). Finally, gender was an issue: the survey contained more females than males, supporting the notion that men are more likely to work away from the household than women, and thus are less likely to be captured with a household survey.

South Africa


Socio-economic related inequalities in health have been identified as one of the greatest challenges to public health in South Africa. A number of social factors, including education, employment status, provincial and racial differences need to be addressed in order to further tackle the avoidable and widely considered unacceptable socio-economic health inequalities in South African society.

The health care system, which provides services for an estimated population of over 58 million people, includes both private and public sectors. The South African government has embarked on a variety of policies and reforms to reverse the discriminatory practices that pervaded all aspects of life before the end of apartheid in 1994. Policy interventions have targeted reductions in socio-economic inequalities in various capacities, and, by extension, these policies have also applied to the health care system.¹⁸

Data came from information collected on social determinants of health (SDH) and on health status in the 2004, 2010 and 2014 cross-sectional questionnaires of the South African General Household Surveys (GHSs). The health indicators considered included ill-health status and

¹⁸ These include: fiscal redistribution targeted at health, education, social protection sectors; abolition of user fees at the primary health care (PHC) level in 1994; extension of PHC policy to all users in relatively poorer households in 1996; introduction of Government Employees MedicalAid Scheme (GEMS) in 2006, and ongoing discussions related to UHC coverage through yet-to-be-fully-implemented national health insurance (NHI).
disability. Survey questions relate to housing services, social services, socio-demographic information, labour markets, health and health care information, and household tourism activities. Social determinants of health include gender norms in South Africa. Socio-economic variables such as education, social grants and employment were included to capture the realities of changes in the socio-economic outlook of the country, not just included in the analysis on the basis of WHO identified domains or data availability. As the GHS includes information on the ownership of household assets and services, this information was used to construct a wealth index, which serves as a proxy for the measure of socio-economic status, in the absence of data on household income.

Tanzania


This is a quantitative assessment of equity in the distribution of health care inputs (staff, drugs, medical supplies and equipment) from district to facility level. The study was carried out in three districts (Kinondoni, Singida Rural, and Manyoni district). These districts were selected because they were implementing primary care reforms.

729 exit surveys with patients seeking out-patient care, and health facility surveys at 69 facilities in early 2014 were administered. Seventeen indices of input availability were constructed with the collected data. The distribution of inputs was considered in relation to (i) the wealth of patients accessing the facilities, which was taken as a proxy for the wealth of the population in the catchment area, and (ii) facility distance from the district headquarters. Equity was assessed in the distribution of inputs through the use of equity ratios, concentration indices and curves.

This study has a number of limitations:

- Drug availability was examined at a single point in time, rather than supplies over time. This could be an issue if facilities receive supplies at different time points. The assessment of the availability over time may have yielded different findings.

- Estimates reflect the context of public primary facilities sampled from only three districts in the country and may not represent the situation nationally. It also does not reflect the distribution of resources across higher level facilities or those outside the public sector.

- These estimates of socio-economic status reflect the sample of patients interviewed at facilities, and may not represent the entire population in the facility catchment area, although this group is

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19 Based on a set of seven variables measuring relative wealth; source of drinking water, presence of electricity, land line/cellular phone, television set, radio, refrigerator and car. Thus, the authors were limited to wealth-related questions that were available in all surveys.

20 Concentration curves and the concentration index are alternative measures which are typically used to report health outcomes by socio-economic status. They can be prepared using grouped data (such as socio-economic quintiles or deciles) and individual-level data on socio-economic status. Concentration curves present proportion of (III) health suffered by the cumulative proportions of individuals ranked by socio-economic status. The concentration index is defined in terms of the concentration curve and takes a value between zero and one (Mangham, 2009: 5).
likely to be better off on average than the general population, this would be the case across all facilities.

- The measure of wealth is a relative measure for the sampled population.

- Not all essential drugs and supplies were captured, since the focus of the study was on maternal and child health services.


Despite substantial efforts to improve the quality of care in Tanzania, evidence suggests that most facilities struggle to deliver high-quality services and face a number of challenges. In response to these challenges and the need for greater facility accountability, the MoH of Tanzania implemented a facility rating system called ‘five-star rating assessment’, in 2015. The five-star rating system for health-care facilities was developed as part of the Big Results Now (borrowed from Malaysia's Big Fast Now) labs in 2014 through a participatory process that involved 138 stakeholders from 65 organisations. The objective of Big Results Now (BRN) is to develop concrete plans in specific health-care areas, and align these plans with the Tanzania Development Vision 2025 targets.

12 key areas were chosen to address the common problems in primary health facilities. The indicators were chosen to measure key issues that had been widely cited by the stakeholders to be the major bottlenecks to providing good quality care at health facilities. Other important stakeholders from outside the lab were invited at key stages of the development process; this was called syndication. The indicators were also presented to these stakeholders before being weighted. Presence of skilled workers, for example, was given a double score, because this factor is a crucial barrier to providing quality health care. Through this process, several important decisions were made.

The assessment covered approximately 7,000 primary facilities over a period of 1 year in 26 of the country's 31 regions. In addition to providing feedback to the facilities, the results were shared through progressively higher government levels at a gathering at the end of the council assessment. Data for all councils in the region were then presented at the regional level. The health facilities are overseen in Tanzania by two ministries: the MoH, which writes policies and guidelines, and the Ministry of Regional and Local Government, which controls the ownership and running of primary health facilities. Therefore, at the ministerial level, reports were shared with these two ministries and with members of parliament. The star rating was also linked with a national results-based financing programme, allowing facilities with one star or more to be enrolled into the scheme.

The five-star assessment process teaches several important lessons. Using a participatory process to create a facility assessment method and a minimum standard for quality is crucial to developing a process that resonated with system leaders, administrators, and providers. The researchers will share the information from Tanzania on a public portal and post the ratings at each health facility, with the hopes of engaging system users. They believe that using data for immediate feedback at the facility level was important for shifting the culture of care towards one of data-driven quality improvement. Finally, sharing data across health systems created opportunities for system-wide improvements that will move Tanzania closer to delivering truly high-quality care to all its citizens.
This study reviews the distributional impact of financing and organisational health reforms on enhancing equity at the regional level and for different socio-economic groups. Data from three nationally representative household surveys were collected, and a benefit incidence analysis (BIA) was conducted to determine the distributional impact over the period 2010–2015. From Zambia’s health reform vision, intermediate health systems development objectives such as equity, efficiency, access, quality, safety, and coverage were prioritised.

Though Zambia has implemented several health reforms and has a fiscal redistributive system including social expenditures and taxes, the impact of these reforms and policies on poverty reduction and shared prosperity have not been adequately evaluated, especially in the health sector.

This study used a repeated cross-sectional survey design and applied the traditional BIA methodology to assess the distribution of public subsidies and service benefits (utilisation of health services). The primary data sets (sources) used to perform the BIA were the 2010 and 2015 Living Conditions and Monitoring Surveys (LCMS) and the 2014 Zambia Household Health Expenditure and Utilization Survey (ZHHEUS) - conducted in-country by the MoH.21

The main limitation of this study is that BIA does not take into consideration opportunities at household, facility, and district levels. By focusing on recurrent expenditure data, the study also overlooks differences in the availability of key health service delivery inputs such as human resources, medicines and other essential commodities, infrastructure, and equipment. Secondly, by assuming that health services are homogeneous across all beneficiaries, the study ignores the fact that quality of health services often varies between different geographical areas and between rural and urban areas. Thirdly, by using constant unit subsidies, the study overlooks differences in costs of service provision at various levels of the health system and between rural and urban areas. As such, the study does not take into account an assessment of the efficacy or efficiency of the health services. Lastly, the study uses self-reported illness as a proxy for need, but this measure could be inadequate.


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21 Five key steps and activities were undertaken: 1-Using household expenditure as a measure of socio-economic status, quintiles were constructed and used to rank the population by wealth; 2-Data on the utilisation of health services were disaggregated by provider, level of health care, outpatient/inpatient, and socio-economic status; 3-Unit costs for outpatient and inpatient services were calculated by using expenditure data, population, and utilisation rates; 4-“Benefits” were calculated by expressing utilisation of health services in monetary terms by multiplying utilisation rates by unit costs for each socio-economic group. The benefits were then aggregated across different types of health services for each socio-economic group, 5-Comparing the distribution of health expenditures (subsidies) and benefits by province, providers, type of health services and for the different socio-economic groups in order to determine differences in benefit incidence and with respect to need.
Within the frame of the HIA of the Trident copper mining project in Zambia, two health surveys were conducted (baseline in 2011 and follow-up in 2015) in order to monitor health and health-related indicators. The project was located in a remote, rural area with a poor health system, the local population is vulnerable to ill-health. **Emphasis was placed on women of reproductive age** residing in the mining area and, for comparison, in settings not impacted by the project. Data was collected via a questionnaire, and **several biomedical indicators** (including HIV and STI indicators) which were measured in a mobile field laboratory.

The community health management plan that resulted from the HIA recommended continuous and periodic data collection, including district health information system data, and repeated cross-sectional health surveys at a 4-year interval. Results show that the **in-migrating population is generally healthier** than the local host population. the HIA for the Trident copper mining project has demonstrated that (i) the community health management plan was tailored based on local health needs; (ii) close collaboration between the private and the health sector was achieved as the project acts as an implementing partner to the district health management team; and (iii) **baseline and follow-up surveys are crucial** for benchmarking and monitoring of the health status of communities residing in the project area, and to evaluate the performance of health interventions. Importantly, given the systematic and comprehensive approach to health, which includes wider determinants of health, HIA aligns with the health-in-all sectors approach proposed in the Sustainable Development Goals (SDGs).

### 4. Lessons learned: non-SSA HEA experiences

**Global research**


Povall et al. carried out an international study to clarify if existing HIA methods are adequate for the task of global health equity assessments. 14 international key stakeholders in the fields of HIA and health equity were interviewed.

A number of new guidelines have been developed that include a more explicit focus on inequities/inequalities, often with tools and guidance for how to include equity or health inequalities in the various stages of HIA. Some guidelines argue for the **inclusion of equity/inequalities in all stages of the HIA**; most tools focus on **inequalities in the screening, scoping and appraisal phases**. There is little help in including equity within the results and recommendations. **Equity is most frequently addressed through the assessment of potential differential impacts on vulnerable or other population subgroups.** Process evaluations of HIAs demonstrate that they can promote equity beyond their recommendations, and potential impact on policy development and implementation.

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23 The process itself provides opportunities for inclusion - bridging as it does different sectors and social groups - and for learning the languages of equity and of other organisations, fostering shared understanding and greater collaboration. Such benefits may extend beyond the life of the HIA, and have been shown to lead to greater
Regarding geographical levels at which policies act, some interviewees felt that health equity impact assessments of global/transnational public policies will require new HIA tools to be developed.

Participants identified barriers to carrying out health equity impact assessments and actioning their recommendations, which include the lack of good local data. While adequate data may exist at city, state and regional levels, at the local level data have often not been collected in sufficient depth to be useful in assessing equity impacts within HIA.

Participants noted that evidence may also be discounted where it does not fit with the political aims or value systems of policy makers: this was described as ‘policy based evidence making’. Examples given include qualitative evidence in general and also economic evidence that departs from dominant macroeconomic theories and practices. To counteract this, it was suggested that good HIAs require a broad evidence base including social science research and narratives from affected groups: such stories can be powerful ways of engaging with policy makers.

The importance of recognising that different communities have different capacities and capabilities, and that there is a need to develop ways of engaging with all communities, was also stressed. Participants with multi-national experience highlighted that national context also matters: the USA, Africa and China, for example, will have different levels of capacity for HIAs and different cultural understandings of health and its determinants.


This report analysed the experiences of cities in implementing Urban HEART in order to inform how the future development of the tool could support local stakeholders better in addressing health inequities. Kenya was the only SSA country included. Data on barriers and facilitators of using the tool in Nakuru was obtained by intra-city analysis via household surveys. A consulting firm was contracted for the evaluation.

Results show that of the 37 indicators recommended in Urban HEART, 12 were identified as “core”. The 12 core indicators were infant mortality rate (U5MR), tuberculosis, diabetes, road traffic injuries, safe water, improved sanitation, primary education, fully immunised children, skilled birth attendance, smoking, unemployment, and government expenditure on health. Indicators that were collected by stakeholders were more likely to be acted upon (Prasad et al., 2015: 241). It is strongly recommended that secondary or available data sources be used for the assessment (Prasad et al., 2015: 239).

Health departments at the national (i.e. Indonesia and Vietnam) and local levels (Colombo and in all cities in the Philippines with the exception of Tacloban) were engaged in the piloting process in all countries. In Tehran (Iran) and Nakuru (Kenya), respective city councils were the lead authorities; while in Ulaanbaatar and Tacloban (Philippines) the Mayor or Governor’s office was primarily responsible. At the local level, in addition to the health department, the city council, intersectoral working, as well as improved inclusion of socially excluded groups in local government decision-making processes.

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legal, budget and planning departments, education and other social sectors, urban planning, and the Mayor’s office were engaged in the process. While at the national level non-health sectors were only successfully engaged in Indonesia and Sri Lanka. Local community groups were engaged in all cities from Indonesia and the Philippines; in both countries the local and national Healthy Cities programme was engaged in the process of Urban HEART. Academia played an important role in facilitating the process, especially data collection and analysis, in Tehran.

Policy plays a crucial role in scaling-up and sustaining health interventions. Cities who piloted Urban HEART displayed confidence in its potential by sustaining or scaling-up its use within their countries (Prasad et al., 2015: 241). The evaluation from Indonesian cities recommends a closer link with WHO during the process, with mechanisms for nationwide dissemination of the results (Prasad et al., 2015: 241).

South Asia


Efforts to examine inequalities have ranged from workshops on monitoring health inequalities (e.g. training by academics in Thailand, and development of the Bangladesh Health Watch in 2006); to programme re-orientation of country action plans (e.g. Indonesian National Action Plan on School Aged Children and Adolescent Health 2017–2019, and the 2017 revision of the Adolescent Development and Health Strategy in Nepal); the creation of assemblies and conferences (e.g. the Prince Mahidol conferences in Thailand), as well as collation of evidence through collaborative research, reviews/synthesis and conferences (e.g. publications resulting in the 2018 Health Equity Network India).

In Sri Lanka, for indicators like stunting among children aged under 5 years, district-level inequalities were highlighted, and emphasis placed on regions of the country where tea estates dominated: it appeared that these communities needed greater emphasis in service coverage.

There is great need, moving forward, to carry out more finely grained analyses of equity as an integral part of UHC-relevant policy implementation and decision-making at national and subnational levels. Here, there is great value in indicator-based quantitative monitoring, as well as qualitative forms of monitoring, such as social audits, community-based monitoring and mixed-methods barrier assessments.

5. Conclusions: role for government


This scoping review identifies and describes the scholarly and grey literature referring to global cases of intersectoral action for health equity, featuring a central role for governments. Out of the 43 countries implementing government-centred intersectoral action for health equity identified, five are from Africa (Cameroon, Djibouti, Morocco, Mozambique, and Uganda).
Governments can design and assess the effectiveness of policies with health outcomes in mind. **Government-centred intersectoral initiatives** may also include a variety of non-governmental actors, such as those from academic, private, and community/civil sectors. Since intersectoral action implies collaboration between government sectors (as well as between government and NGOs), and has implications for the autonomy of participating sectors, the relationships and patterns of collaboration across governmental sectors may reflect the structure of intersectoral action, as well as the orientation and intensity of actions undertaken for health equity.

The description of these complex, multi-actor processes was generally superficial and sometimes entirely absent. Richer sources of information such as **interviews** may facilitate a more comprehensive understanding from the perspective of multiple sectors involved.

**Community-integrated processes** for needs assessment were used in Malaysia and Iran to address existing inequities (and prevent new ones from happening) based on a response involving government action and/or legislation.


The literature on health systems focuses largely on the performance of healthcare systems operationalised around indicators such as hospital beds, maternity care and immunisation coverage. A broader definition of health systems however, needs to include the wider determinants of health. The aim of this study was to examine the relationship between health systems outcomes and equity, and governance as a part of a process to extend the range of indicators used to assess health systems performance.

An **ecological analysis** was conducted to examine the relationship between governance and health systems performance, using cross-sectional data from 46 countries in the African region of the WHO.

It is unlikely that health systems performance in low-income countries – often with poor infrastructure and weak political, commercial, financial and regulatory systems – can be reduced to an analysis of the incremental health gains associated with improvements to the healthcare system.

Findings suggest that the **quality of governance and its relationship to health and health equity** may be an important structural determinant of health systems performance, and could be an indicator to be monitored. The association suggests there might be a causal relationship. However, cross-sectional design, the level of missing data, and small sample size, forces tentative conclusions.

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24 An ecological analysis is a way for scientists to look at large scale impacts of time-specific interventions on population health. In these types of studies, researchers examine the health of a population before and after some time-specific event.
6. Further reading and references


*Includes guidelines for equity in HIA in SSA. Provides evidence to suggest that HIA is an approach that can reduce health disparities.*


*Provides an introduction to health equity issues and outlines the principles and methods for undertaking equity analysis.*


*The government clearly plays a significant role in the health care sector by raising both direct and indirect taxes and allocating part of it to fund health care. This study compares health and economic indicators, describes the structure of each country’s NHIS within the wider healthcare system, and analyses impacts on equity in financing and access to health care.*


*This report systematically reviews, geographically maps, and characterise HIA activity in LMICs. It also applies a process evaluation method to identify factors which are important to improve HIA implementation in LMICs.*


*This Final Report sets out key areas – of daily living conditions and of the underlying structural drivers that influence them – in which action is needed. It provides analysis of social determinants of health and concrete examples of types of action that have proven effective in improving health and health equity, in countries at all levels of socioeconomic development.*

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Key websites


Suggested citation


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