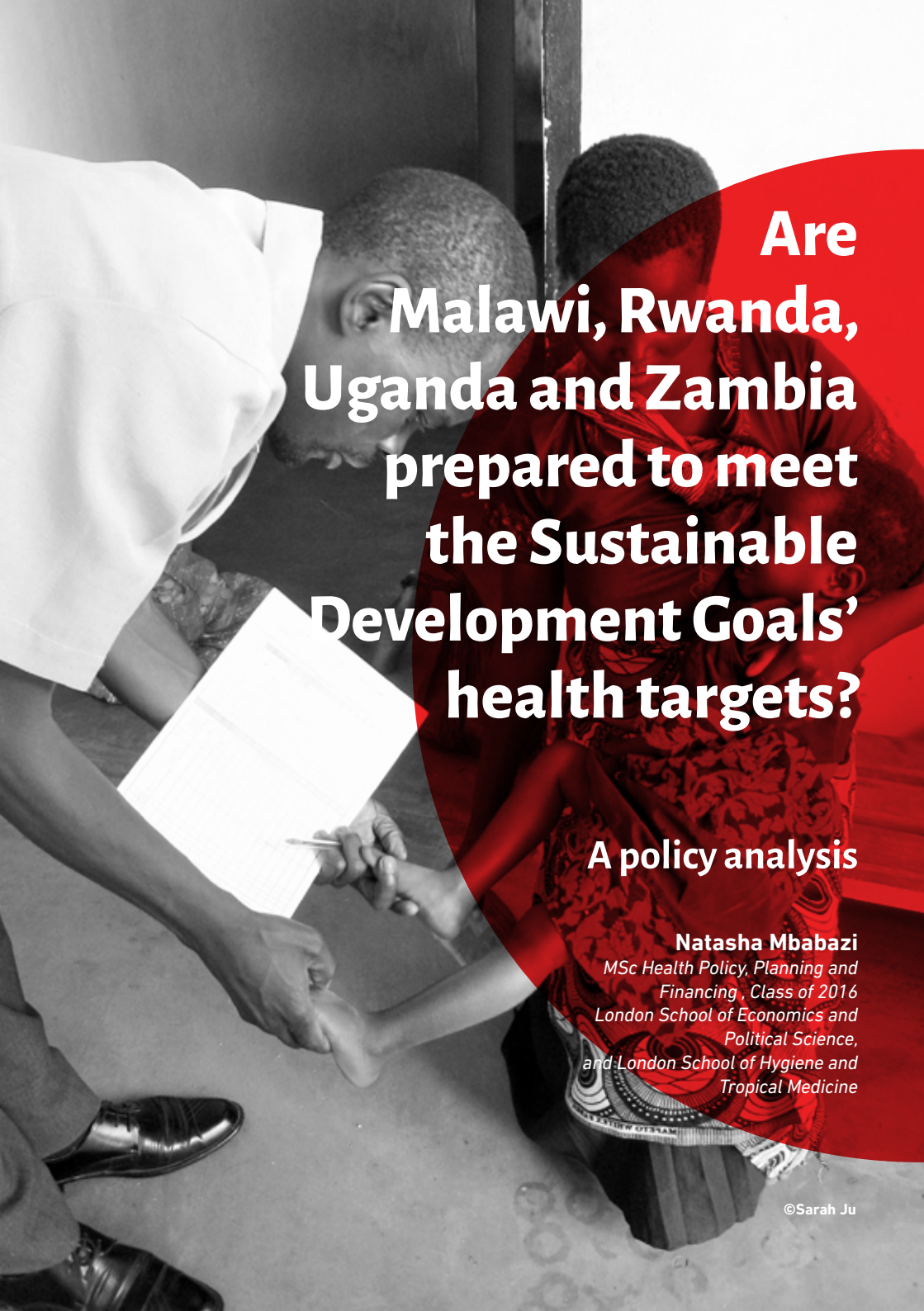

# Are Malawi, Rwanda, Uganda and Zambia prepared to meet the Sustainable Development Goals' health targets?

## A policy analysis

**Natasha Mbabazi**
*MSc Health Policy, Planning and Financing , Class of 2016*
*London School of Economics and Political Science,*
*and London School of Hygiene and Tropical Medicine*


## ABSTRACT

The primary aim of this paper is to evaluate and compare the health policies of Malawi, Rwanda, Uganda and Zambia in their preparedness to achieve the thirteen health targets under Goal 3, "Ensure healthy lives and promote well-being for all at all ages" of the United Nations Sustainable Development Goals (SDGs). This project evaluates the congruency of national policies and strategies with the SDG health targets. This body of work requires secondary research and literary review of national policy documents and United Nations policy language. Knowledge management databases on ministerial websites are also used. Additionally, some informational requests for policy documents are made to ministerial staff. Malawi, Rwanda, Uganda and Zambia score similarly on sexual reproductive health integration, universal health coverage, and human resources policy language. However, in terms of policy preparedness, Rwanda ranks best on the matrices. All countries are strongest in knowledge management, with the notable exception of Malawi. The countries collectively struggled most with cross-sectoral and/or intersectional policy language. Rwanda's policy are most prepared to achieve the SDG health targets. All policy recommendations will require capacity, resources and above all, political will.

## BACKGROUND

According to the World Health Organisation (WHO), national health policies "define a country's vision, priorities, budgetary decisions and course of action"(WHO, 2016). Policies act as a legitimate, recorded consensus of a nation's policy makers on how to move forward in a particular area. They can serve as a point of reference on how to continue moving forward with programs and plans when there are many changes outside of the health sector such as economic crises, coups d'état, natural disasters and armed conflicts. For low-income countries, policies help donors and other stakeholders understand not only the state's priorities, but previous accomplishments, and the unfulfilled needs of its various constituencies. Policies that are both published and easily accessible can also be used as a road map for nations with similar dynamics and demographics looking for guidance on how to proceed in executing health programs.

The findings in this paper offer stakeholders a high-level perspective of strengths and gaps in policies related to the SDG health targets. From that vantage point, stakeholders have a better understanding of issue areas that need political will (the intention to carry through a policy), advocacy efforts, or further systems strengthening. Use of the matrices are transferrable to any country setting and can supplement other SDG evaluations that have begun to emerge.

These four countries were analysed due to the author's professional experience and contacts in Malawi, Rwanda, Uganda and Zambia. All four are members of the Common Market for East and Southern Africa, a free trade area of twenty member states in sub-Saharan Africa. Uganda and Rwanda are neighbouring countries located in the east and are also members of the East African Community, a regional intergovernmental organization. Similarly, Malawi and Zambia are neighbouring countries in southern Africa and members of the Southern African De-

velopment Community. Further, Zambia and Malawi have been relatively peaceful nations while Rwanda and Uganda have recent histories of internal strife. Armed conflicts and displaced populations have grave implications for a country's health indicators, available human resources, and sustainability of its health systems. This study may be of interest to those comparing national health policies and service readiness within and among these regional blocs.

This research questions how prepared Malawi, Rwanda, Uganda and Zambia are to achieve the thirteen health targets under Goal 3 of the UN SDGs. It will examine how well their policies measure against a preparedness framework, as well as how prepared they are to achieve each individual target. It concludes with a comparative analysis of all the countries.

## DEFINING POLICY PREPAREDNESS

The following five points are the indicators in which policies will be evaluated against, followed by brief justifications:

*1. Policies address WHO health system building blocks*

The WHO is the United Nations' specialised agency focused on health. Its mandate is to support countries in achieving their health objectives (World Health Organization, 2016). The WHO building blocks represent the core pillars of functioning and thriving health systems. It is important that policies aim to address at least one of the building blocks (WHO Western Pacific Region, 2016):

- Service delivery
- Health workforce
- Health information systems
- Financing

- Leadership/governance
- Access to essential medicines

*2. Targets explicitly stated in policy language*

- At what level is national policy language congruent to the SDGs target language?

The SDG language is adaptable and it is widely accepted best practice that each country draft national policies in a manner that best suits their unique context. With that said, a clear correlation to the SDG language may mean a better chance of local policy translating into activities directly in line with achieving the SDG goals.

*3. Strong knowledge management*

- Policies are easily accessible to stakeholders.

Jeffrey Sachs, an economist and architect of the MDGs, observed that the data available to monitor MDG progress was often outdated, if accessible at all. Making better use of technology to manage information helps strengthen programs in real-time management, advocacy and feedback (Sachs, 2012). Additionally, stakeholders (including ministerial staff) develop their work plans in a more timely and efficient manner when they are afforded easy access to policies and data. This requires countries to take advantage of increased technological connectivity.

*4. Cross-sectoral and/or intersectional component*

- Evidence of cross sectoral/ministerial collaboration.

Health issues such as pollution and road safety do not typically fall under jurisdiction of health ministries. For these, cross-sectoral cooperation is needed to bring together different skillsets and expertise to achieve public health outcomes.

Youth and/or gender intersectionalities also determine how one will access health care, one's ability to access it, and which health issues are priorities. Gender is defined by the WHO as "socially constructed roles, behaviours, activities, and attributes that a given society considers appropriate for men and women." The WHO continues:

"Gender norms, roles and relations influence people's susceptibility to different health conditions and diseases and affect their enjoyment of good mental, physical health and wellbeing. They also have a bearing on people's access to and uptake of health services and on the health outcomes they experience throughout the life-course"(WHO, 2016).

The definition of youth can vary country to country but generally captures the age range of 15 to 24 (WHO, 2016). Like gender, age can determine cultural expectations in a society. For example, youths in Malawi have had trouble accessing reproductive health services from facilities operated by staff who believe youths should not be sexually active (Kambalame, 2013). Further, gender and youth can intersect in a way that needs to be acknowledged by policy makers. In Zambia, adolescent girls have higher rates of child marriage due to the vulnerability brought by their gender, age, and economic deprivation (Imbuwa, 2015).

*5. Integration into work plans*

- A national work plan exists for the policy.

Work plans are a detailed account of how a policy will be accomplished. The existence of a work plan demonstrates a commitment to follow through on policies. It also means a nation is one step closer to achieving the policy's outcomes. In Malawi, for example, some policies take more than a year from final draft form to official publication. The Government of Rwanda provides insight to the prolonged policy making process: "prior to the approval of any policy, the Government of Rwanda conducts

extensive stakeholders' consultation processes in accordance with the Cabinet manual. The consultation process ensure[s] that the policy adequately identify all relevant issues and proposes suitable actions to address them. At the end of a consultation process, the policy is considered as a final draft paper and submitted to cabinet for approval"(Myict.gov.rw, 2016). In essence, the sooner a policy is in plan form, the sooner execution can be expected.

## COUNTRY POLICIES AND RANKING: SDG POLICY LANGUAGE

Each country's policies were obtained through ministerial websites, web searches and/or through ministerial contacts. No hard copies of policies were available. Only policies that were electronically accessible, whether through a government site, a partner site, or obtained via ministerial staff could be examined. Each country's policies were analysed against the language of the following 13 health SDG targets:

**1.** By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births

**2.** By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births

**3.** By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases

**4.** By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment

and promote mental health and well-being

**5.** Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol

**6.** By 2020, halve the number of global deaths and injuries from road traffic accidents

**7.** By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes

**8.** Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all

**9.** By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

**10.** Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate

**11.** Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade Related Aspects of Intellectual Property Rights regarding flexibilities

to protect public health, and, in particular, provide access to medicines for all

**12.** Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States

**13.** Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks (Sustainable Development Goals: 17 Goals to Transform our World, 2016)

## METHODOLOGY FOR CALCULATING PREPAREDNESS

### Individual policy preparedness ranking

This section looks at the code used to rank the countries' policies based on preparedness and describes how the scores are calculated. It then discusses how results are fed into both collective policy and specific target preparedness rankings.

For individual countries, there are five indicators and each indicator is ranked on a scale from 0-5.

**Table 1** Rankings

| Ranking code | |
|---|---|
| N/A | Not applicable to the country |
| 0 | No/no evidence |
| 1 | Vague association |
| 2 | Evidence |
| 3 | Clear evidence |
| 4 | Similar wording |
| 5 | Very evident/explicit |

Scores are calculated out of 325 based on the 5 indicators and 13 targets (5 points max per target x 13 targets x 5 indicators = 325 max). The maximum total drops by 25 points for each target that is not applicable to a country. For example, where the tobacco target is not applicable, the score is out of 300 instead of 325. Where both the tobacco and R&D targets are not applicable, the final score is calculated out of total of 275. This scoring system is used for its straightforwardness. For simplicity, all targets are weighted equally. The final results are divided by the total and multiplied by 100 (total/max*100 = overall preparedness per cent). The percentage equals the total level of preparedness for the country.

## Collective policy preparedness ranking

The results from individual countries feed into the collective policy preparedness ranking. In this matrix, each countries' total score per indicator is calculated out of a maximum of 65 (5 points x 13 targets). For targets that are not applicable, the maximum number drops by 5. Formula to rank each countries' performance by indicator: indicator total divided by country maximum multiplied by 100 (country's indicator total/max*100=indicator preparedness per cent).

## Specific target preparedness

This allows the reader to understand at a cursory glance how a country is ranking in each target and where other countries rank for that individual target. This entails simply adding the totals from the 0-5 indicator ranking (no final percentages). For this matrix, the lowest score possible is 0 and the highest score possible is 25 (5 points x 5 indicators).

# RESULTS

## Context of results

### *Donor policy in global health*

Many global health and development policies stem from international conferences. The most important of these are the SDGs and the Millenium Development Goals (MDGs), which will be analysed. The Millennium Development Goals (MDGs) were introduced in 2000 at the United Nations Millennium Summit and were intended to be achieved by 2015. The MDGs were the world's eight "time-bound and quantified targets for addressing extreme poverty in its many dimensions-income poverty, hunger, disease, lack of adequate shelter, and exclusion-while promoting gender equality, education, and environmental sustainability" (UN Millennium Project, 2006). Goals 4, 5 and 6 directly addressed health issues such as reducing child mortality, improve maternal health, and combating HIV/AIDS, malaria and other diseases. As a result of this and other national and international initiatives, maternal and child mortality, tuberculosis, HIV/AIDS and malaria health policies in Malawi, Rwanda, Uganda and Zambia are well established.

The United Nations Sustainable Development Goals (SDGs) were recently developed as the successor to the MDGs. In 2012, the UN Conference on Sustainable Development (Rio+20) was a forum for governments to continue building on the success made in the last fifteen years. Of the 17 goals and 169 targets, goal 3 focuses on good health and well-being with a target date of 2030. In addition to the health concerns addressed in the MDGs, several more are now recognised in the SDGs, including: mental health, substance abuse, universal health care, quality care and drugs, environmental health, human resources, health risks and road safety. Some goals, such as research and development in pharma-

ceuticals, are less applicable to low-resource countries due to lack of capacity and funding.

## Individual country analysis: Malawi

### *Health system snapshot*

Malawi has a heavy burden of communicable diseases, especially HIV/AIDS with evidence of a growing number of non-communicable disease (WHO, 2015). Stunting from malnutrition affects nearly half of all children under five years old (Wilson, 2014). A quarter of women who want to use family planning have an unmet need due to barriers to access (lack of support from their husbands, length of travel to health centres, etc.) (Health Policy Project, 2016). Lack of human resources is one of Malawi's main challenges, along with inadequate funding, equipment and infrastructure (Malawi Country Cooperation Strategy: At a glance, 2014).

### *Narrative analysis*

The Road Map for Accelerating the Reduction of Maternal and Neonatal Morbidity and Mortality is a strategic plan to tackle maternal mortality rates (MMR) (Ministry of Health (Malawi) 2012). Decreasing morbidity for children under five is discussed in the 2011-2016 Health Sector Strategic Plan (HSSP), but in the context of acute respiratory infections, diarrheal diseases, malaria, malnutrition, and vaccinations (Ministry of Health (Malawi), 2011). Target 3 in the HSSP on non-communicable diseases (NCDs) acknowledges the increasing burden of NCDs, including mental health, but there are no objectives listed in final policies or plans. No policies were found on substance abuse or road safety. Sexual reproductive health (SRH) integration has an up-to-date 2015-2020 National Sexual and Reproductive Health and

**Table 2** Policy preparedness indicator matrix: Malawi

| | Target 1 MMR | Target 2 Under 5 | Target 3 CDs | Target 4 NCDS | Target 5 Alcohol | Target 6 Road | Target 7 SRH | Target 8 UHC | Target 9 Environ. | Target 10 Tobacco | Target 11 R&D | Target 12 HRH | Target 13 Risks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Are policies addressing any WHO health system building blocks? | 3 | 3 | 0 | 0 | 0 | 0 | 4 | 5 | 0 | N/A | N/A | 5 | 5 |
| Are targets explicitly expressed in policy language? | 5 | 5 | 3 | 2 | 0 | 0 | 5 | 2 | 2.5 | N/A | N/A | 0 | 0 |
| Are policies easily accesible for stakeholders? | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | N/A | N/A | 0 | 0 |
| Are cross-sectoral and/ or intersectional components included? | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 3 | N/A | N/A | 5 | 5 |
| Are policies integrated into work plans? | 5 | 5 | 5 | 5 | 0 | 0 | 5 | 5 | 5 | N/A | N/A | 5 | 5 |
| Results: 132.5/275 *100 = 48 % level of preparedness | 13 | 13 | 8 | 7 | 0 | 0 | 19 | 17 | 15.5 | -- | -- | 20 | 20 |

Source: Author.

Rights and HIV and AIDS Integration Strategy and endeavours to collaborate with researchers from various institutions of higher learning (National Aids Commission (Malawi), 2014). The universal health coverage (UHC) policy in the HSSP emphasises overall financial resources to the sector by strengthening health financing capabilities and working with the finance ministry to meet objectives. However, this overlooks financial risk protection for individuals. It also does not include any mention of access to medicine. There is evidence in the HSSP of environmental and health sector collaboration on air and water, but the 2004 National Environmental Policy does not have language on chemical and soil pollution (Ministry of Natural Resources and Environmental Affairs (Malawi), 2004). The WHO Framework Convention on Tobacco Control was not signed or ratified leading to no score. The HSSP has explicit policy language on the human resources for health target but does not offer concrete methods to increase health financing for human resources for health (HRH, p.38). As mentioned, the UHC policy included health financing language but it is unclear from the policy language if adequate resources will be allocated for HRH objectives. The policy does at least demonstrate plans for collaboration with the education ministry and regulatory bodies. There is strong policy language for strengthening the response to health risks in the HSSP, but Malawi lost points due to the HSSP not being easily accessible to stakeholders. **Preparedness Score: 48 per cent.**

## Individual country analysis: Rwanda

### *Health system snapshot*

The most common communicable diseases are HIV/AIDS, TB and diarrheal disease. Stunting of children under five remains high at 44 per cent (WHO, 2014). Health financing in Rwanda is characterised by the "Mutuelles de Santa" Community-Based

Health Insurance scheme (WHO, 2014) which covers 90 per cent of the population. Rwanda's high population density poses a burden for the health system in the capital, Kigali (Bahati, 2014). Regardless of the challenges, Rwanda's health sector has been described as a "health care success story" (McNeil 1, 2013).

*See policy prepardness indicator matrix (Table 3) on following page.*

## *Narrative analysis*

Rwanda's 2012 Family Planning Policy covers MMR and neonatal deaths and is in the 2012-2018 third Health Sector Strategic Plan (HSSP III) (Ministry of Health (Rwanda), 2012). These documents contain some language on morbidity and mortality of children under five. According the HSSP III, the ministry's Maternal and Child Health Unit will develop a new Child Survival Strategic Plan. The 2015 Health Sector Policy covers the well-funded communicable diseases (TB, AIDS, malaria) while excluding hepatitis (Ministry of Health (Rwanda), 2015). Rwanda has a 2015 Non-communicable Diseases Policy, but the National Health Policy stated that NCD prevention and control services are not widely affordable or available (Ministry of Health (Rwanda), 2015). There is also a National Mental Health Policy whose year of publication is unclear (Ministry of Health (Rwanda), n.d.). The health ministry's 2011-2015 Adolescent Sexual Reproductive Health and Right Policy (ASHR) addresses narcotics and alcohol (possibly due to links made between risky sexual behavior and substance abuse among adolescents), but does not address older demographics and includes no language on addiction prevention (Ministry of Health (Rwanda), 2011). The 2012 Public Transport Policy and Strategy for Rwanda adequately covers the road safety target and embraces the cross sectoral collaboration by calling for a land transport safety council that includes a num-

**Table 3** Policy preparedness indicator matrix: Rwanda

| | Target 1 MMR | Target 2 Under 5 | Target 3 CDs | Target 4 NCDS | Target 5 Alcohol | Target 6 Road | Target 7 SRH | Target 8 UHC | Target 9 Environ. | Target 10 Tobacco | Target 11 R&D | Target 12 HRH | Target 13 Risks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Are policies addressing any WHO health system building blocks? | 3 | 3 | 1 | 5 | 0 | 0 | 1 | 5 | 0 | N/A | N/A | 5 | 0 |
| Are targets explicitly expressed in policy language? | 5 | 5 | 4 | 5 | 3 | 5 | 5 | 5 | 2 | N/A | N/A | 5 | 5 |
| Are policies easily accesible for stakeholders? | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | N/A | N/A | 5 | 5 |
| Are cross-sectoral and/ or intersectional components included? | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 | 2 | N/A | N/A | 5 | 1 |
| Are policies integrated into work plans? | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 2 | 4 | N/A | N/A | 5 | 1 |
| Results: 199/275 *100 = 72 % level of preparedness | 18 | 18 | 15 | 20 | 14 | 20 | 21 | 22 | 13 | -- | -- | 25 | 13 |

Source: Author.

ber of different ministries (Ministry of Infrastructure (Rwanda), 2012). The SRH access and integration target is a major policy piece for the ministry of health (MoH) with strategies in the Economic Development and Poverty Reduction Strategy (Ministry of Finance (Rwanda), 2008), the HSSP III and a specific policy for adolescents (ASHR). For adolescent policies, the MoH will collaborate with the ministry of education to cover adolescent SRH in school health policy and curriculum. There is evidence of collaborative efforts in the health financing arena — the Government of Rwanda will collaborate with the private sector to increase taxes on air tickets, foreign exchange transactions and other goods to supplement the national health sector budget (Ministry of Health (Rwanda), 2015). Over the last few years, health financing mechanisms have helped decrease incidences of financial risk, though financial risk protection is not specifically mentioned in the National Health Sector Policy. The 2016 National Pharmacy Policy promotes affordable and accessible medicines (Ministry of Health (Rwanda), 2016). The 2003 Environmental Policy endeavours to "formulate a national strategy for specific management of chemical products and biomedical and industrial waste," but does not include explicit language on reducing deaths and illness (Ministry of Lands (Rwanda), 2003). The WHO Framework Convention on Tobacco Control was ratified in 2005 (WHO Report on the Global Tobacco Epidemic, 2015 Country profile Rwanda, 2015). In terms of the HRH target, there is language in the National Health Policy on collaborating with American university professors to train specialised doctors in Rwanda. There is substantive health risks policy in the 2012 Disaster Management Policy with explicit language on "mainstreaming" (incorporating policies) in education and cooperating with civil society organizations (Ministry of Disaster Management (Rwanda), 2012). **Preparedness Score: 72 per cent.**

## Individual country analysis: Uganda

### *Health system snapshot*

Uganda's health system is highly decentralised and for political reasons, the number of districts has grown from 56 in 2005 to 112 in 2016. Financing, human resource, supply chain, and management issues hinder smaller health centres from achieving their mandates. Rampant corruption, a pharmaceutical black market, and acute human resource shortages are some of the health systems predominant challenges. The status of maternal health in the country has led to legal action against the Ugandan government for failing to provide adequate maternal health services consistently and effectively (The Guardian, 2015). It also has one of the highest rates of road accidents in the world, with recent claims of accidents causing more deaths than malaria and AIDS (China.org.Cn, 2016).

### *Narrative analysis*

Uganda's 2007-2015 Roadmap for Accelerating the Reduction of Maternal and Neonatal Mortality and Morbidity in Uganda directly addresses both the maternal mortality and neonatal death rates (Ministry of Health (Uganda), 2007). The second National Health Policy (NHP II) states that the minimum health care package will feature child health, but does not elaborate further on the issue (Ministry of Health (Uganda), 2010). The national policy on NCDs has not been released but is in the finalizing stages. The Health Sector Development Plan 2015/2016-2019/2020 (HSDP) includes a section on NCD prevention and control but no language on mental health, resulting in a 2.5 ranking for policy language (Ministry of Health (Uganda), 2015). Ugandan media has noted the increase of narcotic drug abuse in the country but there is no reflection of prevention or treatment policy in the NHP II.

**Table 4** Policy preparedness indicator matrix: Uganda

| | Target 1 MMR | Target 2 Under 5 | Target 3 CDs | Target 4 NCDS | Target 5 Alcohol | Target 6 Road | Target 7 SRH | Target 8 UHC | Target 9 Environ. | Target 10 Tobacco | Target 11 R&D | Target 12 HRH | Target 13 Risks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Are policies addressing any WHO health system building blocks? | 5 | 0 | 1 | 5 | 0 | 0 | 5 | 5 | 0 | 0 | N/A | 5 | 2 |
| Are targets explicitly expressed in policy language? | 5 | 3 | 2 | 2.5 | 3 | 0 | 5 | 5 | 1 | 3 | N/A | 5 | 5 |
| Are policies easily accesible for stakeholders? | 5 | 5 | 5 | 5 | 0 | 0 | 5 | 5 | 5 | 5 | N/A | 5 | 5 |
| Are cross-sectoral and/ or intersectional components included? | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | N/A | 0 | 5 |
| Are policies integrated into work plans? | 5 | 1 | 2 | 3 | 1 | 0 | 5 | 5 | 0 | 1 | N/A | 5 | 3 |
| Results: 157.5/300 *100 = 52.5 % level of preparedness | 20 | 9 | 10 | 15.5 | 6 | 0 | 20 | 22 | 6 | 9 | -- | 20 | 20 |

Source: Author.

There is policy language in the HSDP to implement an Alcohol Control Policy and Drug Abuse Control Policy in the future. For the meantime, policy language on substance abuse is found in the 2004 Uganda National Adolescent Health Policy (Ministry of Health (Uganda), 2004). There are no road safety policy documents electronically available. For the SRH access and integration target, Uganda has the 2001 National Policy Guidelines and Service Standards for Reproductive Health (Ministry of Health (Uganda), 2001). UHC and access to quality care and medicines policy is well documented in the NHP II, HSSP, 2015 National Medicines Policy and 2015-2020 National Pharmaceutical Sector Strategic Plan (Ministry of Health (Uganda), 2015). There is a National Environmental Health Policy with the objective of creating an enabling environment for achieving and maintaining healthy living conditions (Ministry of Health (Uganda), 2005). There is no specific language on reducing deaths from various environmental hazards. The WHO Framework Convention on Tobacco Control was ratified in June 2007 (WHO Report on the Global Tobacco Epidemic, 2015 Country profile Uganda, 2015). The HSDP endeavours to implement the Tobacco Control Policy once the health ministry issues the 2015 Tobacco Control Act regulations. HRH is a vital issue for Uganda's health sector and there is adequate language in the NHP II and HSDP. Uganda's history of Ebola outbreaks (2012, 2011, 2007, 2000-2001) has helped build the country's capacity to deal with health risks. Uganda's 2010 National Policy for Disaster Preparedness and Management contains very specific language for handling pandemics and epidemics (Office of the Prime Minister (Uganda), 2010). **Preparedness Score: 52.5 per cent.**

## Individual country analysis: Zambia

### *Health system snapshot*

Zambia has a large land mass and decentralised health system making equitable access of health services a challenge. To close this gap, religious organizations, most notably the Churches Health Association of Zambia (CHAZ), play an important role in delivering health services. CHAZ is the largest third sector health provider with 151 member institutions around the country (Chaz.org.zm, 2013).

*See policy prepardness indicator matrix (Table 5) on following page.*

### *Narrative analysis*

One of the National Health Policy's main objectives is to reduce newborn and maternal mortality (Ministry of Health (Zambia), 2012). In addition, the Ministry of Health published a 2013-2016 Maternal Neonatal and Child Health Road Map to address MMR, neonatal and child morbidity (Ministry of Health (Zambia), 2013). There are detailed plans in the NHP to tackle communicable diseases but there is no mention of hepatitis. For non-communicable diseases, there are policy measures in the NHP and National Health Sector Plan 2011-2015 (NHSP) to strengthen frameworks and coordination of services. Substance abuse policy is intertwined in the NHP with mental health policy and the 2011-2015 Adolescent Health Strategic Plan (Ministry of Health (Zambia), 2011). While it's positive that substance abuse intersectionality is addressed with a specific plan for adolescents, the NHSP does not address substance abuse for older populations, resulting in a 2.5 score for work plan integration. No road safety policy was found for Zambia. There are many pol-

**Table 5** Policy preparedness indicator matrix: Zambia

| | Target 1 MMR | Target 2 Under 5 | Target 3 CDs | Target 4 NCDS | Target 5 Alcohol | Target 6 Road | Target 7 SRH | Target 8 UHC | Target 9 Environ. | Target 10 Tobacco | Target 11 R&D | Target 12 HRH | Target 13 Risks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Are policies addressing any WHO health system building blocks? | 5 | 5 | 1 | 0 | 0 | 0 | 4 | 3 | 0 | N/A | N/A | 5 | 0 |
| Are targets explicitly expressed in policy language? | 5 | 5 | 4 | 5 | 3 | 0 | 5 | 4 | 2 | N/A | N/A | 4 | 5 |
| Are policies easily accesible for stakeholders? | 5 | 5 | 5 | 5 | 5 | 0 | 5 | 5 | 5 | N/A | N/A | 5 | 5 |
| Are cross-sectoral and/ or intersectional components included? | 5 | 5 | 5 | 1 | 5 | 0 | 5 | 3 | 1 | N/A | N/A | 0 | 2 |
| Are policies integrated into work plans? | 5 | 5 | 5 | 5 | 2.5 | 0 | 5 | 5 | 0 | N/A | N/A | 5 | 5 |
| Results: 189.5/275 *100 = 68 % level of preparedness | 25 | 25 | 20 | 16 | 15.5 | 0 | 24 | 20 | 8 | -- | -- | 19 | 17 |

Source: Author.

icy documents addressing SRH access and integration, namely the Integrated Family Planning Scale-up Plan 2013-2020 (Ministry of Health (Zambia), 2013). Access to quality medicines is a listed objective of the NHP and the NHSP. The 2009 National Environmental Policy does not include explicit policy language on reducing deaths and illness (Ministry of Tourism (Zambia), 2009). The WHO Tobacco Framework on Tobacco Control was ratified May 2008 (WHO Report on the Global Tobacco Epidemic, 2015 Country profile Zambia, 2015). The target of supporting R&D of drugs is less applicable to low-income countries due to that burden typically falling on wealthier nations with the capacity to carry it out. Zambia has nonetheless managed to include pertinent language in the 2013 Guidelines for the Medicines and Therapeutics Committee (Ministry of Health (Zambia), 2013). The guideline calls for creating means to access medicines through the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). The NHP HRH policy is not explicit on financing or training. In response to the 2014 Ebola outbreak in west Africa, Zambia developed a 2015 Ebola Preparedness and Response Plan, ultimately strengthening its capacity for health risks (Ministry of Health (Zambia), 2015). **Preparedness Score: 68 per cent.**

## Policy preparedness ranking comparison

### *Comparative analysis*

Rwanda is the only country to have a perfect score on any policy preparedness indicators and ranks the highest overall, followed by Zambia, Uganda, and then Malawi. With the notable exception of Malawi, the countries examined are strongest in their accessibility of documents and knowledge management. The second highest ranked metric is explicit policy language. SRH integration is also highly ranked. The countries collective-

ly struggle most with cross-sectoral and/or intersectional policy language. All countries rank similarly on policies addressing WHO health system building blocks.

Malawi's bright spot is on integrating policies into work plans and using explicit policy language. However, Malawi is below par

**Table 6** Policy preparedness results and ranking matrix

| | Malawi | Rwanda | Uganda | Zambia | Country w/ best results: |
|---|---|---|---|---|---|
| Are policies addressing any WHO health system building blocks? | (25/55) *100 = 45 % | (23/55) *100 = 41 % | (28/60) *100 = 46 % | (23/55) *100 = 41.8 % | Uganda |
| Are targets explicitly expressed in policy language? | (34.5/55) *100 = 62.7 % | (49/55) *100 = 89 % | (39.5/60) *100 = 65.8 % | (42/55) *100 = 76 % | Rwanda |
| Are policies easily accesible for stakeholders? | (5/55) *100 = 9 % | (55/55) *100 = 100 % | (50/60) *100 = 83 % | (50/55) *100 = 90.9 % | Rwanda |
| Are cross-sectoral and/or intersectional components included? | (23/55) *100 = 41.8 % | (29/55) *100 = 52.7 % | (9/60) *100 = 15 % | (32/55) *100 = 58 % | Zambia |
| Are policies integrated into work plans? | (45/55) *100 = 81.8 % | (43/55) *100 = 78 % | (31/60) *100 = 51.6 % | (42.5/55) *100 = 77 % | Malawi |
| Average | 48% | 72% | 52% | 68% | |
| Countries strongest areas (top 3): | Integration, Explicit targets, Addressing building blocks | Accessibility Explicit targets, Integration | Access., Explicit targets, Integration | Access., Integration, Explicit targets | |

Source: Author.

on accessibility of policies to stakeholders. Rwanda has a perfect score on policy access for stakeholders, followed by use of explicit policy language. Rwanda's is lacking in cross-sectoral and intersectional components. Uganda scored best on policy accessibility, followed by explicit language, and struggles most with cross-sectoral and intersectional components of policies. Zambia has an almost perfect score on accessible policies, its best area, followed by integration of policies into work plans. Zambia is weakest in cross-sectoral and intersectional components in policy language but still outranks the other three countries in this area.

## Preparedness to meet specific targets

### *Comparative analysis*

Zambia scores top results on five SDG health targets: MMR, child health, communicable diseases, substance abuse and sexual reproductive health. The R&D target is not included in the final score but it is worth noting that Zambia is the only country that has policy language on finding ways to take advantage of the TRIPS agreement. Rwanda ranks second and is the only country with a road safety policy, and has the most robust policy on non-communicable diseases including mental health. Rwanda shares the highest score for universal health coverage. It rounds out with the best score for human resources for health policy. Uganda comes in third overall, sharing the top score with Rwanda in universal health coverage. Uganda ratified the Tobacco Framework on Tobacco Control and is the only country found to have established national tobacco objectives beyond legislation. Uganda also shares the top spot on global health risks policy. Malawi scores top on environmental health policy and ties with Uganda on highest ranking for global health risks policy. Collectively, all countries did similarly on sexual reproductive health integration, universal health coverage, financial risk protection

and access to quality medicines, and human resources for health policy language.

**Table 7** Preparedness to meet specific targets

| Target number | Malawi results | Rwanda results | Uganda results | Zambia results | Top results |
|---|---|---|---|---|---|
| 1. MMR | 13 | 18 | 20 | 25 | Zambia |
| 2. Under 5 | 13 | 18 | 9 | 25 | Zambia |
| 3. CDs | 8 | 15 | 10 | 20 | Zambia |
| 4. NCDS | 7 | 20 | 15.5 | 16 | Rwanda |
| 5. Alcohol | 0 | 14 | 6 | 15.5 | Zambia |
| 6. Road | 0 | 20 | 0 | 0 | Rwanda |
| 7. SRH | 19 | 21 | 20 | 24 | Zambia |
| 8. UHC | 17 | 22 | 22 | 20 | Rwanda, Uganda |
| 9. Environ. | 15.5 | 13 | 6 | 8 | Malawi |
| 10. Tobacco | -- | -- | 9 | -- | Uganda |
| 11. R&D | -- | -- | -- | -- | Zambia* |
| 12. HRH | 20 | 25 | 20 | 19 | Rwanda |
| 13. Risks | 20 | 13 | 20 | 17 | Malawi, Uganda |

*Not included in final score.

Source: Author.

## POLICY RECOMMENDATIONS

### Malawi

Stakeholders need easy access to the Health Sector Strategic Plan and, above all, the finalised version of the National Health Policy. It is essential that Malawi improve its knowledge man-

agement capacities across government sectors. It is not for lack of ability as there are government units, albeit a limited number, that have managed to ensure stakeholders' accessibility to policy documents. More specific objectives for non-communicable diseases should be adopted. There needs to be policy objectives on substance abuse and road safety. In terms of universal access to care, an emphasis on financial risk protection is necessary considering the limited disposable income of many Malawians. Given the dire state of supply chain logistics in Malawi, it is imperative that there is language to address access to medicines. Even if Malawi is less industrialised, there should be environmental health policies addressing soil and chemical pollution. This can be seen as a preventative measure in anticipation of emergent industries. As a low-income country, the R&D target is not expected to be the onus of Malawi but there can be policy language in place outlining how to identify or create the appropriate mechanisms to access medicines through TRIPS agreements. So long as tobacco remains Malawi's top export, ratification of tobacco treaty is unlikely to happen.

To make policy more easily accessible, Malawi must invest in information technologies and the capacity to make policies electronically available. This may come in the form of designated knowledge management personnel to ensure the most updated policies are circulated and posted. It will also benefit the ministry of health to upgrade the IT skills of those responsible for document management. Technical capacities such as health economics are needed to formulate a more specific and tailored policy on financial risk protection.

## Rwanda

Rwanda performed the best overall in the matrices. Rwanda scored highest in its human resources policy followed closely by its UHC and medicine access policy language, then SRH inte-

gration language. Additionally, Rwanda scored high for policies (NCDs and mental health, road safety policy) that are outside the already well-established MDGs 4, 5, and 6.

Rwanda did best on the policy preparedness indicators, scoring highest on two out of the five indicators. It is the only country with more than one top score on the policy preparedness matrix. Even Rwanda's weakest area (cross-sectoral and intersectionality) outperformed all countries in the category. However, Rwanda is weakest in environmental health policy and has yet to implement specific national government objectives in tobacco control.

Communicable disease policy should include hepatitis. Prevention and control services for NCDs should be expanded. Existing services need to be made affordable and accessible to all. Given the amount of the population suffering from post-conflict mental illness, substance abuse policy cannot be partial to adolescents and should also address older demographics.

UHC needs a more explicit focus on financial risk protection. Environmental policy needs more focus on reducing deaths and illness from chemical products. This needs to be in parallel with formulating a management strategy. Rwanda should endeavour to quickly translate any existing tobacco laws into action plans.

NCD services need treatment and diagnostic technologies and increased human resource capacities. The remainder of the targets will require political will and specialised skillsets. Fortunately, Rwanda's Ministry of Health has already made specialised training a priority.

## Uganda

Uganda scored highest on UHC and access to medicine. It then tied for MMR, SRH integration, HRH policy and global health risks. It also scored highly for NCDs and mental health policy. Uganda lacks an electronically accessible road safety policy and scored low on substance abuse and environmental health

policy. Uganda had a second to highest score and three-way tie with SRH integration, HRH policy and global health risks.

Given the high incidences of road injuries and mortalities in Uganda, road safety policy is imperative and should be the Ugandan government's first priority. The National Health Policy needs more explicit language on addressing under-five child health. Drafting a separate policy similar to Rwanda's can work as well. The national policy on NCDs that is currently being finalised will hopefully include language on mental health. There needs to be updated narcotics abuse language that addresses both older users and adolescents. Environmental health policy needs language on decreasing deaths from hazards. The forthcoming Tobacco Control Policy needs to be cross-sectoral by addressing youths. Note that Uganda is the only country where the tobacco target will be applicable due to the fact that it is the only country with specific national objectives in tobacco control.

Most of these policies have a solid foundation to continue building on. It is a matter of political will and capacity to see policy development through. The road safety policy will be the most labour intensive of these given that the Ministry of Works and Transportation will need to make this a cross-sectoral effort. Enforcement of these policies will require additional financial and human resources.

## Zambia

Zambia ranks second in policy preparedness and scores top for cross-sectoral and intersectional components to policies. It ties at the top with MMR and preventing deaths of children under five. Their SRH integration policy follows closely. Zambia then ties again with their communicable disease and UHC policies. Zambia scores highly but does not have any language on road safety and scores low on environmental health policy.

Zambia's Ebola plan is robust but it remains to be seen if it is flexible enough to translate to other health risks. Policies on communicable diseases should include specific language on hepatitis. NCDs can benefit from cross-sectoral collaboration in all areas, not just on oral health as it currently stands. The health ministry should likewise expand cooperative efforts, especially for NCD prevention. The National Health Sector Plan needs to address substance abuse for older populations. When considering access to medicines policy, stock outs must be considered. The National Environmental Policy needs to be strengthened to include explicit policy language on reducing illness and deaths. Tobacco use is mentioned in the National Health Policy which is a promising. Nevertheless, policy makers must ensure the tobacco industry does not dominate the anti-tobacco policy making process. The HRH policy should include focus on financing and training.

To execute policies, Zambia requires similar capacities to the other countries. For most SDG targets, a platform in which to expand on existing policies is in place. Correspondingly, the government will need adequate financial and human resources for a brand new, cross-sectoral road safety policy.

## CONCLUSION

Malawi, Rwanda, Uganda and Zambia are all prepared to meet the SDG health targets. While it's evident particular countries are better positioned to achieve the targets, all four countries are leading in some manner: Rwanda is the only country with a road safety policy, Zambia has policy language for R&D and accessing pharmaceutical commodities through the TRIPS process, and Uganda has moved forward with tobacco legislation. Malawi lags in some areas but still manages to have the strongest environmental health policy. Another good indicator of success is

when countries have well established policy plans outside of the entrenched health MDGs (MMR and neonatal, child mortality, HIV/AIDS, TB and malaria).

Beyond financial and human resource capacity, political will is by far the most integral aspect of seeing achievement of these goals come to fruition. At the central level, heads of state and ministers must have a vision all stakeholders can rally behind. Leaders must be willing to support the needs of those implementing policies and to prioritise them beyond talking points and campaign events. Policies need to be unique to the country's setting to allow those on the ground to follow this vision. This research can be used as a cursory glance at policy gaps to help guide advocates when lobbying policy makers or allocating resources.

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