

Achieving Millennium Development Goal 4 in Malawi.

Reducing Childhood Mortality: Current Status and Strategies



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In this assignment, I will look at the current status of child mortality in Malawi, and efforts made towards achieving Millennium Development Goal (MDG) 4. I will explore how and why the Malawian Government, in cooperation with international donor partners, have had a relative success in their fight against child mortality and has reached MDG4.

Malawi, being a sub-Saharan, low-income country, is one in four sub-Saharan countries which has already achieved their goal of reducing under five mortality rate by two thirds, as being the target of MDG4A (UNICEF et al. 2013). While there is no simple explanation or model to be copied by others on how to achieve similar results, it might be useful for other low-income countries to explore policy interventions, health system arrangements and other contributing factors for this success, in order to enhance their own efforts nationally.

In the first part of this assignment, global health and the health related MDGs are introduced. I will start by placing MDG 4 in a global and regional context, and then sum up major achievements and current status for MDG 4 in Malawi. Terms important for child mortality will be introduced, followed by a discussion of the main causes of child mortality in Malawi. Social determinants of health will be discussed in relation to MDG4. Key Malawian health policies (*Programme of Work* and *Health Sector Strategic Plan*) will be analysed and discussed, in light of the *Sector Wide Approach* (SWAp) for health.

The mentioned policies attempt to coordinate health sector activity, and are consistent with global health strategies such as WHO Strategic Agenda and UN Development Assistance (WHO 2013a). The Programme of Work (PoW) and Health Sector Strategic Plan (HSSP) are established by the Ministry of Health in Malawi, in collaboration with donor partners such as Norway and United Kingdom through the Department for International Development (DFID) and non-governmental organizations like Christian Health Association of Malawi (CHAM), exemplifying the numerous actors within the Malawi health sector. The policies emphasises amongst other health promotion and disease prevention, community participation, quality assurance and establishing financing of the Essential Health Package (EHP) in Malawi (Ministry of Health [MoH] 2011).

In the second part of the assignment, I will focus on how the PoW, HSSP, and SWAp support the implementation of activities and programs towards achieving MDG 4. I will discuss how and why the Malawi health sector has had relative success in decreasing child mortality. In order to do so, I will take a closer look at two specific health system interventions (*Kangaroo Mother Care* and *Child Lung Health Programme*) that have been incorporated into the Malawi health sector. These two interventions are examples of successful programs that link health sector policies to positive impact on child health, and contributed in achieving MDG4. Finally, I will take a look at gaps in health care provision, and challenges Malawi face towards further progress in childhood mortality reduction.

Scope and Methodology

This is a literature study based on articles, official Malawi strategy papers, international reports, country reports and statistics. Sources were identified using official websites (i.e. United Nations and World Bank), Google search (for Malawi policy documents) and non-systematic search in Pubmed/McMaster Plus for articles and updated material on childhood mortality in Malawi. An example of search terms I used was “MDG 4 Malawi”.

As the topic of this study is in constant change, I have tried to get access to updated sources where they are available. For instance, when reading the annual UN Millennium Development Goals Report, the number of children under five years of age dying in sub-Saharan Africa is changing rapidly. In 2009, the number was one in seven children, in 2010 the number was one in eight, and in 2013 the number was one in nine (United Nations [UN] 2009, 2010, 2013).

In this assignment I have focused primarily on two issues, and I have tried to show how these two are connected. First, I have focused on the MDGs in Malawi, and primarily the MDG4, which is at the centre of my assignment. I have viewed the most common diseases in light of the decrease in childhood mortality. Second, I have focused on how the government of Malawi has worked towards reducing the childhood mortality, and why they have had relative success. In order to bridge the connection between these two issues, I have introduced the structure of the Malawi health system, and the health policies PoW and HSSP, together with the Sector Wide Approach to Health. I attempt to outline the link between government actions through policy making, with programs aiming to improve the health sector delivery, and specific programs on childhood diseases – resulting in reduced childhood mortality.

In order to narrow down the scope of this assignment, I will introduce two specific programs for treating the major childhood killers, namely a program directed to fight pneumonia (*Child Lung Health Programme*), and a program directed towards fighting neonatal mortality (*Kangaroo Mother Care*). These programs demonstrate how achieving the MDGs are linked with national health policies, which again depends on a functional health system capable of delivering the most urgent health services in order to succeed in reaching MDG 4.

I have chosen to focus on the Government of Malawi and how they are working both towards the MDG4 and at the same time building a well-functioning health system. Recognizing there are other actors involved in the Malawi health care system, some of these will be mentioned, but they will not be my main interest.

Also, my focus will be on the Malawi health system strategies, while other sectors also play their part in improving health outcome, such as education and general infrastructure. Malawi does not act alone, but is part of a global political context. This is stated in “*The political origins of health inequity: prospects of change*” by The Lancet-University of Oslo Commission on Global Governance for Health (Ottersen et al. 2014):

The unacceptable health inequities within and between countries cannot be addressed within the health sector, by technical measures, or at the national level alone, but require global political solutions.

“The political origins of health inequity: prospects of change” also addresses technical aspects related to logistics and supplies, and information systems. These dimensions are of importance to low-income countries such as Malawi, but will not be discussed further in this assignment.

Further on, my attention is mainly on the supply-side of health care. Focus centres on what makes health care delivery better, in regard to quality, coverage and equity rather than what is the situation of the caretakers demanding the services.

The Millennium Development Goals (MDGs) and Health

United Nation’s (UN) Secretary-General Ban Ki-Moon has described the UN Millennium Goals (MDGs) as the most successful anti-poverty push in history (UN 2013). The eight MDGs (Panel 1) recognise poverty and development as multi-dimensional phenomenon, requiring political commitment, co-ordinated, sequenced actions and cross-sectorial approaches by national governments in cooperation with international development partners.

The Millennium Development Goals:

Panel 1

- Goal 1 Eradicate Extreme Poverty and Hunger
- Goal 2: Achieve Universal Primary Education
- Goal 3: Promote Gender Equality and Empower Women
- Goal 4: Reduce Child Mortality
- Goal 5: Improve Maternal Health
- Goal 6: Combat HIV and AIDS, Malaria and other Diseases
- Goal 7: Ensure Environmental Sustainability
- Goal 8: Develop Global Partnership for Development

In May 2012, the UN reported on major achievements towards reaching the MDGs. At the global level, the poverty reduction target was reached five years ahead of schedule (UN 2013). Also, the hunger reduction target is within reach, again at the global level. Among

other major achievements are over 2 billion people gained access to improved sources of drinking water over the last 21 years (UN 2013 p. 4). Remarkable progress has also been made in the fight against malaria and tuberculosis (UN 2013).

Nevertheless, it is certain that many countries will not meet all of, or some of, the MDG targets. Global progress numbers on MDG indicators hide great regional disparities, and national numbers conceal significant inequalities within countries (UN 2012). It is a clear trend that the lowest income countries, the regions of sub-Saharan Africa and South Asia in particular, together with conflict affected countries, still have a long way to go, also beyond 2015 (UN 2012) in order to reach the MDGs.

MDG 4: Child Mortality

Health is central to development. This is reflected in the fact that four out of the eight MDG goals (MDG 1, 4, 5 and 6) are directly referring to health conditions (UN 2012).

In recent progress reports, the UN emphasizes that in many low and middle income countries health progress over the past decade has been impressive. Child and maternal

mortality have declined at unprecedented rates in many countries. Also, substantial progress has been made in the fight against major infectious diseases such as AIDS, tuberculosis and malaria (UN 2013).

MDG 4A is defined as: *Reduce by two thirds, between 1990 and 2015, the under-five mortality rate* (UN 2013 p. 24). The UN uses three indicators in viewing development towards achieving MDG target 4A. These are *under-five mortality rate* (indicator 1), *infant mortality rate* (indicator 2), and *proportion of one-year old children immunised against measles* (indicator 3) (UN 2008).

The progress towards MDG 4A relies on estimates made within each country. The reliability of mortality estimates depends on sampling variability of the estimates and non-sampling errors. Typical examples are underreporting of child deaths and misreporting on age, causing bias in terms of group affiliation (UNICEF et al. 2012).

Globally, the progress towards the MDG4 is promising. Since 1990, the child mortality rate has dropped by 41 per cent, implying that 14,000 fewer children are dying each day (UN 2013 p. 24). However, while the overall, global picture of progress towards MDG4 gives reason for optimism, many low-income countries show slow progress towards reaching goal 4. The sub-Saharan region is lagging behind the global average, despite an accelerated rate of reduction. In Africa south of Sahara, one in every nine children dies before their fifth birthday. This is more than 16 times the average for developed regions. (UN 2013, p. 24). Combined with extremely high fertility numbers, an increasingly high proportion of under-five mortality worldwide is accountable to this region (United Nations Children's Fund [UNICEF] et al. 2012).

Many countries are now experiencing a stagnation of progress. This has partly been explained by a failure so far to reach the most vulnerable populations. Moreover, gaps within and between countries demand a much sharper focus on inequities and their consequences for health, and on health inequities themselves (UN 2012).

The Case of Malawi

Malawi is a landlocked country in the southeast of Africa, with a population of approximately 16,000,000 people (World Health Organization [WHO] 2014). Average age is as young as 17,3 years of age and Malawi has one of the highest annual population growth rates in the world, also making the population density among the highest in the world (Central Intelligence Agency [CIA] 2014). Malawi carries a great burden of disease with one of the highest mortality rates in the world, both among children and adults. The prevalence is high in diseases as malaria, tuberculosis, HIV/AIDS and other tropical diseases. In addition, non-communicable diseases as hypertension and diabetes are on the rise (WHO 2013a).

Malawi is a democratic republic under current leadership of Joyce Banda – the country's first female president. . The GDP of Malawi in 2012 was \$4.264 billion, placing it as a low-income country in World Bank ranking of countries (World Bank 2014a). As much as 80% of the population live in rural parts of the country, and the economy is highly dependent on agriculture, where tobacco, tea, coffee and sugar make up for 90% of export (CIA 2014). During the first decade of the new millennium, Malawi experienced

an economic boom, with average annual rise of 7,1 % during the years 2006-2010 (WHO 2013a). Still, approximately 39 % of the population live below the poverty line. The most vulnerable to poverty are female-headed households, households where the head of the household has no formal education and people living in rural areas (WHO 2013a).

Social determinants of health in Malawi

Malawi is on track to meet five of the eight Millennium Development Goals, these being MDG 1, 4, 6, 7 and 8 (Ministry of Development Planning and Cooperation [MDPC] 2010). Even though they are measured as single quantities, the MDGs are interconnected as parts of society. All goals are associated to MDG 4, either directly or indirectly, and some more than others. As mentioned, MDG 1,4,5 and 6 are directly health related.

MDG 1 aims to eradicate extreme poverty and hunger. Poverty is a powerful determinant of health, as it is associated with reduced standard of living conditions, water, nutritional status and sanitation (Mæland et al. 2013). At the same time, there is a strong correlation between decreasing Gross Domestic Product (GDP)/capita and decreasing life expectancy at birth, meaning the life expectancy in low-income countries is lower than in high-income countries. This is also the case in Malawi, where the life expectancy at birth is 54 years (2011), which is low also in comparison to neighbouring country Tanzania, where the life expectancy is 60 years (2011) (World Bank 2014b). Still, life expectancy has steadily increased over the last decade, climbing from 46 years in 2000. At large this can be attributed to increased child survival, but other factors like education and wealth also play its part as they correlate to higher life expectancy. At the same time, the measure of the poverty head count declined by 11 % from 2005-2009, as the economy grew (MDPC 2010). Still there is work to do towards MDG1, as 13 % of children under age 5 are underweight (National Statistical Office [NSO] and ICF Macro: p. 132). Childhood underweight is a strong predictor of childhood mortality.

Also relative poverty within a country correlates with poor health (Mæland et al. 2011). The Gini-index measures the extent to which the distribution income within a state is divided, where a score of zero indicate perfect equality, while 100 indicate great inequality. Malawi scores 43,9 in 2010, categorized as a medium ranked country (World Bank 2014c). The disparity is significant particularly between the rural and urban population, where 43 % of the rural population is poor, compared to 14 % of the urban population (African Development Bank Group [AfDB] 2011: p. 8).

Inequality also exists between men and women, and MDG 3, which aims to promote gender equality and empower women, is unlikely to be met (MDPC 2010). Of special importance is the gap between ratio of girls to boys in Primary and in Secondary Education. In Primary education, the ratio is 1,03, while in Secondary education it falls to 0,79, indicating a high degree of girl fallout in higher education (MDPC 2010: p. ix). There is an obvious lack of results when it comes to promoting women's status in Malawian society, and MDG 5 (Improving Maternal Health) is far from reaching its target (MDPC 2010). This has severe consequences for the women themselves, but also for the children, as I will try to outline in this assignment.

MDG 6 concerns combating HIV, AIDS, Malaria and other diseases, which are all common killers in childhood. This goal is likely to be met in Malawi, and will be mentioned in brief later on.

Under-five Mortality rate

The leading cause of under-five deaths on a global scale is pneumonia, diarrhoea, intrapartum complications, preterm birth complications and malaria (UNICEF et al. 2013). Globally, 45 % of under-five deaths are attributable to undernutrition (UNICEF et al. 2013, p. 1). The majority of these deaths are preventable. UNICEF claims that six million of the almost 11 million children who die each year could be saved by low-tech, evidence-based, cost-effective measures such as vaccines, antibiotics, micronutrient supplementation, insecticide-treated bed nets and improved family care and breastfeeding practices (UNICEF 2014).

Results show that Malawi has reduced under-five mortality rate (deaths per 1000 live births) from 244 in 1990 to 71 in 2012 (UNICEF et al. 2013:20). This is equivalent to a 71% reduction, and with the goal being to reduce under-five mortality rate by two-thirds, or in real numbers, to below 81 per 1000, Malawi has achieved this goal (UNICEF et al. 2013). By comparison, the average for Africa south of Sahara is that 98 per 1000 children die before their fifth birthday, and the region in total is not on track to reach MDG 4 (UNICEF et al. 2013). In spite of showing accelerated reduction in average annual reduction in under-five mortality rate, an increasing proportion of deaths occur in sub-Saharan Africa and South-Asia.

The same diseases as mentioned above are also the main causes of childhood mortality in Malawi (Bowie and Mwase 2011). The cause-of-death profile varies between and within countries, with HIV/AIDS contributing to a larger proportion of deaths in southern African countries, also being the case in Malawi.

Diarrhoea is one of the most prominent killers of children globally, only second to pneumonia and preterm birth complications (UNICEF et al. 2012). It is accountable for approximately 11% of death globally, and kills approximately 600 children per year in Malawi (WHO 2013b). It is a preventable disease caused by a number of virus, bacteria and parasites. No single approach can effectively prevent the spread of the disease, so there is need for an integrated approach. This includes promoting clean environment, early breastfeeding, nutritional food and vaccines (Rota-virus vaccine became available in Malawi in 2012). It also means providing access to health service and quality treatment like Oral Rehydration Therapy (ORT) (WHO 2013b).

Malaria is caused by the Plasmodium parasite and most commonly spread through mosquitoes. Globally, 7% of childhood death is caused by Malaria, while in Malawi accounting for 13% (UNICEF et al 2013, WHO 2013c). There has been difficulty both on preventing and treating the condition, due to poor diagnostic capacity, poor adherence to treatment guidelines and low coverage of Insecticide Treated Nets (ITNs), to mention some (WHO: Regional Office for Africa n.d. (a)) Malaria is a leading cause of illness and death among children in countries in which it is endemic. Malawi has year-round malaria transmission that peaks during the long rainy season from late November – April. Malaria control interventions have been scaled up since 2000, with increased use

of bed nets demonstrating a positive trend. However, in spite of this, no evidence exists of decreased malaria since 2000 in Malawi (Rocha-Feltrer et al 2012).

Globally, the number of people newly infected with HIV continues to fall, dropping 33% from 2001 to 2011 (UN 2013). Sub-Saharan Africa is the most severely affected region in the world, accounting for 69% of people living with HIV worldwide (UN 2013: page 35). The spread of HIV is considered a major cause of childhood death in Malawi, and a study by the WHO suggests a mean rate of 21 per 1000 under-five deaths in Malawi is attributable to the HIV-infection (Jahn et al. 2010). Infection spread through mother-child transmission during birth is one of the main reasons, and in 2009-2010 37% of HIV positive mothers received appropriate drugs and counselling (MoH 2011). The Health Sector Strategic Plan (HSSP) provides strategies for increasing this annually by 10% until 2016.

Infant and Neonatal Mortality Rate

When viewing the second indicator of MDG4, infant mortality rate (deaths per 1000 live births within first year after birth) in Malawi, there was a decrease from 143 in 1990 to 46 in 2012 (UNICEF et al. 2013: p. 21). This is a substantial decline, and of vital importance for the totality of the drop in under-five mortality rate. The term *neonatal mortality* is also used, indicating death within the first 28 days after birth. Globally, 41 % of all under-five deaths happen in the neonatal period, and among these, three quarters die within the first week after birth (WHO 2011). Both the close relationship between the mortality in this group of children and maternal health, and the difference in causes of death between the neonates and the non-neonates, makes it necessary to assess neonatal mortality separately.

Neonatal mortality is more important than ever because the proportion of under-five deaths that occur during the first month of life is increasing as the under-five mortality rate is decreasing (UNICEF et al 2013). Almost all deaths (99%) occur in low and middle-income countries (WHO 2011), especially hitting Africa and South Asia (UNICEF et al. 2012). Because there are other diseases and challenges causing neonatal mortality than the causes of post-neonatal mortality, different approaches are required. Deaths among neonates are especially related to infections, premature births, delivery complications, perinatal asphyxia and birth injuries (Kinney et al. 2010). When added together, infections are the biggest cause of newborn death, but also among the easiest to prevent and treat. These include sepsis, pneumonia and tetanus. Up to 90 % of neonatal deaths are among low birth weight (under 2500 grams) and many could be saved with measures as warmth, feeding, hygiene and early treatment of infections (Kinney et al. 2010).

Also, effective and low-cost interventions directed towards pregnant women and mothers could help save as many as 2/3 of the newborn lives lost, with measures like treating infections in pregnant women, providing a clean birth and promoting breastfeeding (WHO 2011). Efforts towards a decrease in neonatal mortality rely on political will, education and information on health and empowering women and families, as well as a well functioning health system (WHO 2011).

In Malawi, despite a reduction of 3,5 % in NMR annually since the beginning of the new millennia, which is more than regional and global averages, and despite an accelerated pace of reduction over the last twenty years, the neonatal mortality rate is still decreasing slower than under-five mortality rate (UNICEF et al. 2012). NMR was estimated 24/1000 live births in 2012, at a total of 71/1000 under-five mortality rate. (UNICEF et al. 2013) This means that the total of under-five deaths is increasingly due to neonatal mortality.

Immunization against measles

As for indicator 3 of MDG4, the estimates for measles vaccination in Malawi indicate coverage of 90 % in 2012, with a slight decrease from 2011 where the WHO estimated coverage of 96 % (WHO 2013d). Immunization against measles has to a large extent been successful in Africa, as there was an 89% mortality reduction between 2000-2010 (UNICEF 2013). The WHO and UNICEF recommends giving two doses of the vaccine, as about 15% of those children vaccinated at 9 months, fail to develop immunity from the first dose (WHO and UNICEF 2010). In Malawi, a single dose is given to children 9 months of age, and a second vaccine is often offered through campaigns (UN 2010: p. 28). Nevertheless, in 2010 Malawi suffered a massive outbreak of Measles. The disease infected at least 134,000 people, and at least 300 people died, mostly children (Clark 2013). The outburst carries a warning; the gain made so far is easily lost without sufficient funding, political commitment and a high-level implementation strategy. This again necessitates a functioning health system that can implement overall health policies by providing the (most urgent) health services to the population.

Providing Healthcare in Malawi

The African Development Bank has characterized African health systems as underfunded, over- stretched, and understaffed (AfDB 2013), a situation also applicable for Malawi. Reducing child mortality in Malawi requires that the Malawi government succeed in providing the most urgent health services necessary to fight the most common child killers discussed in the text above. These health services must be provided in a context of limited financial and human resources. With a variety of actors involved, as for instance the major health donors United Kingdom, United States and Norway (DFID 2010), this leaves the Malawi government with the task to manoeuvre, coordinate - and at best govern - all health care and healthcare providers in Malawi in order to ensure that resources are used where they are most needed.

There are three main categories of healthcare providers in Malawi, namely the public sector, the non-profit private sector and the private for profit organizations. There is also a significant number of traditional birth attendants and traditional health practitioners, which are often used either besides- or instead of the mentioned three (Economic Development Institute 1998: p. 131). The Malawi Ministry of Health (MoH) is the highest authority on healthcare in Malawi, and the government provides the majority of healthcare services. Approximately 40% of health services are provided by the Christian Health Association of Malawi (CHAM), which is an independent association based on churches and other private voluntary agencies, running 172 health facilities in rural areas. Approximately 3% are provided through the private-for-profit sector (USAID 2012). While aware of the importance of the non-profit private sector and the

private for profit organizations as health-care providers in Malawi, only health care provided through the public sector will be discussed in this assignment.

The public healthcare services in Malawi are provided at three levels:

1. Primary level includes the community outpatient clinics, manned and unmanned health posts and health centres. The hospitals have holding beds, post-natal beds and are able to provide outpatient services. Medical conditions that are considered too critical for the primary care to handle, is referred to the next level of health care.
2. Secondary level consists of district hospitals that are placed in 26 of the 28 Malawi districts. The services provided are similar to those at primary level, with some extra facilities like ambulances, operation theatres and laboratories.
3. Tertiary level is the highest level of care and refers to the central hospitals with specialized services, located in the major urban areas (WHO: Regional Office for Africa n.d. (b)).

Historically, there are examples of low-income countries that have managed to obtain good health results (measured in life expectancy and childhood mortality figures, relative to high-income countries). This was the theme of the “Good Health at Low Cost” conference in 1985. Back in 1985, countries such as Costa Rica, China and Sri Lanka, as well as the Indian state of Kerala, were showing good health results in spite of relatively poor economic performance (Irwin and Scali 2010). Twenty-five years later, Irwin and Scali (2010) studied the health results performance of these foregoing examples together with Cuba. They found that a predominant common denominator for the countries and states was political commitment towards public health. This message has also been emphasized by global health actors such as the WHO, who has stressed that political will is a prerequisite for reaching the health-related MDGs (see for instance WHO 2005). Exercising political will in this context implies that commitment towards the MDGs must be translated into binding national health policies and strategies that prioritizes establishing and sustaining a well-functioning health system that can deliver the most urgent health care services.

WHO has proposed an approach to understanding a health system as consisting of the following six building blocks (WHO 2007):

1. Governance
2. Financing
3. Human resources
4. Service delivery
5. Logistics and supplies
6. Information systems

Balabanova et al. (2013), points to four characteristics of a well-functioning health system, linked to improvement in health or health care in low-income countries. These are *good governance, effective bureaucracies and institutions, innovation, and lastly, resilience in the health system*. In the following, both WHO’s terms and the terms used by Balabanova et al. will be discussed in light of action taken by the Malawi Government,

when analysing how and why the Malawi Government, in cooperation with international donor partners, have had a relative success in reducing child mortality and is on track in achieving MDG4.

Political Commitment and Financing of Health Care

Malawi's main health strategies are known as the Health Sector Programme of Work (PoW; 2004-2010) and the Health Sector Strategic Plan (HSSP; 2011-2016), with the Sector Wide Approach to health development (SWAp) as an overarching strategy. The HSSP is the successor of the PoW, and these are both strategies established to outline the priority health activities to be implemented by the public health sector in Malawi, responding to the mismatch between health resources, health needs and demand for health care (MoH 2004, and MoH 2011).

The SWAp is based on the principle of decentralization of power from the central government of Malawi to the local government in form of District Assemblies in all districts in Malawi. Decentralization has established a framework for community participation for planning, and is also emphasised in the PoW (MoH 2004). When functioning well, this provides an opportunity to express community priority (Norwegian Agency for Development and Cooperation 2013). Further on, a SWAp serves two main functions. First, it places the government as leaders of a sustained partnership, governing the program. Secondly, it outlines common efforts by external donors to support the policy at hand; including pooled funding for the sector. The aim is to unify policy and expenditure, in order to provide better public health care (WHO 2014b).

The priorities of the PoW and HSSP are amongst other based on provision of the Essential Health Package (EHP), which is a prioritized, but limited, group of cost-effective and proven interventions. The initiation of the EHP through Sector Wide Approach (SWAp) in Malawi has made treatment and some preventive measures free of charge for every Malawian for the most common diseases (DFID 2010).

The Programme of Work strategy claims that:

the overall objective and desire of the Ministry of Health (MoH) is to develop a health delivery system that is pro-actively responsive to the prevailing needs and problems – a health care delivery system that addresses the current and foreseeable health, disease, and health care management problems by focussing on the provision of a minimum package of essential health services to the people of Malawi with emphasis on the poor, women and children (MoH 2004 p.17).

The objective is ambitious. It emphasizes that it is a *delivery* system, providing services to people in need. It addresses the poor, women and children in specific, touching base with MDG 1, 3, 4 and 5. Still, the Government of Malawi faces many challenges when implementing their health related strategies, as is also recognized by the Government and described in PoW:

The POW has been developed in an uncertain environment of poor macro-economics, increasing levels of poverty, a shortage of drugs and other essential supplies, a critical shortage of human resources and the devastating impact of HIV/AIDS. Preventable causes

of morbidity and mortality constitute the major contributors to the disease burden in Malawi (MoH 2004 p. 4).

Financially, the Government of Malawi is heavily dependent on external funding in the attempt to reach the MDGs. Already prior to the initiation of the SWAp, public funding on health increased as private out-of-pocket expenditure on health decreased, giving more protection to the poor against catastrophic health costs (Zere et al 2010). The introduction of the SWAp marked a shift in financing health services. During the following years the donor-funded healthcare increased drastically. Gross Official Development Assistance (ODA) from OECD-Development Assistance Countries (DAC countries), non-DAC and multilateral partners such as UN agencies and the World Bank accounted for US\$ 943 million in 2008 and US\$ 773 million in 2009 (OECD 2011: p. 18). The health sector received a total of 29% of aid flows in 2010/11 (Dionne, Kramon and Roberts 2013: p. 15), and more than 85% of funding for public sector health care services comes from donor support (USAID 2013). Approximately half of all ODA is given as off-budget aid (Development Initiatives 2008).

Simultaneously as there was a shift towards greater donor-funded healthcare, the Government of Malawi also increased spending in the same period, from an estimated \$US46,3 million in 2004/05 to \$US134 million in 2009/10 (MoH 2011: p. 32). 13,6% of total Malawi budget was allocated on health in 2008/2009, making progress towards the Abuja declaration at 15% (MoH 2011: p. 32).

Nevertheless, Malawi became more aid-dependent during the PoW-period, and aid per capita in Malawi is higher than the average in the sub-Saharan region (Dionne et al. 2013). In 2011, multiple donors suspended budget support to Malawi due to suspicion of financial mismanagement and human rights violation (Dionne et al. 2013). The consequence of such action is less pooled money through the Government, and less predictability in spending, showing some of the challenges Malawi face in terms of financing.

In addition to the high degree of vulnerability to the financing situation, donor money dependency implies other challenges such as donor coordination. It also imposes on the Government to ensure that the particular context of the Malawian health system is understood and acted upon accordingly also by all external partners.

How and Why Is Malawi Successful in reducing childhood mortality?

Malawi has reached the MDG4 and reduced the under-five mortality rate in an impressive manner. Still, there is work to do as many children die from preventable diseases. Equally important, the progress made needs to be maintained. As mentioned, donors are important contributors in the success, as they provide a large part of the funding needed to implement health related programs and health system change. Donors are also to a larger extent, especially through the SWAp, linked to the Malawi health system. The government of Malawi has through the health sector policies PoW and HSSP shown political will to promote health system changes directed at improving the health service for all. Removing financial barriers to accessing basic services, developing innovative solutions that make the supply of critical services more available

to the poor and increasing local accountability of health systems are all examples that allow health systems to reduce childhood mortality (UNICEF et al. 2011).

The decrease in childhood mortality in Malawi, as targeted through the MDG 4, is the result of policies that, following an expected pathway, provides impact like improved health, improved social and financial risk protection and reduced disparities in health outcome. At the onset of the new millennium, newborn survival was virtually unmentioned in Malawi, suffering from lack of political attention (Zimba et al 2013). This was however changed by the introduction of the PoW:

The broad objective of the POW is to raise the level of health status of all Malawians by reducing the incidence of illness and occurrence of premature deaths in the population (MoH 2004: p. 4).

The objective is important for the struggle towards reduced under-five mortality in Malawi. It demonstrates that neonatal death is a key priority of the government, linking newborn health to political ambition. Still, policies are only words on paper until interventions are in place. Malawi has since the onset of the PoW in 2004 experienced positive outcome on health, for example in regard to reduced childhood mortality as seen through the MDG4. This is in spite of financial difficulties and shortages on supplies and human resources, among others (MoH 2004). The SWAp has been important in the process of program implementation, as this process is dependent on degree of harmonization and alignment of donor support, as well as factors like sustainability and predictability of the host country (WHO 2014b).

With the PoW, other important changes also came about. One of these was the change in system focus, as it prioritized the delivery of the essential health package (EHP) and the emergency human resource program (EHRR), which addressed the emerging human resource crisis. At the same time, the initiation of the SWAp represented a shift in the aid relationship between the Government in Malawi and international aid agencies, international financial institutions and global partnerships. A common framework for planning, budgeting and performance monitoring between the government and the external donors was put in place. This contributed to the strengthening the public health sector (DFID 2010).

Especially the initiation of the SWAp thereby provided the MoH with stronger managerial and regulatory capacity, and showed willingness to engage with several stakeholders, which are characteristics of an effective institution (Balabanova et al. 2013). Also non-state actors were engaged. Through the PoW and the Memorandum of Understanding, the Government of Malawi and Christian Health Association of Malawi (CHAM) agreed on enhancement of collaborative efforts aimed at increasing access to the EHP by the poor, by ensuring that nobody is denied health services because of inability to pay (MoH 2004). This agreement has enabled increased access to essential health care for rural poor Malawians, and has thus been important in contributing towards Malawi's realisation of MDG4 (Kumwenda-Ngóma 2012).

Another important characteristic of effective institution is synergy between government and donors in implementing policy. The report *Newborn Survival in Malawi: a decade of change and future implications* (Zimba et al. 2012) shows that there has been an

improved life expectancy for the newborns of Malawi through comprehensive involvement of the national health sector as a framework in which improved services can be devised and delivered. Also, the Government of Malawi has through the PoW shown a consistent high level of political commitment to provide a policy platform for implementing newborn care interventions. After 2005, the Ministry of Health has played a more active part in coordinating their partners, resulting in greater synergy and coordinated efforts.

The HSSP followed PoW in 2011. It outlines priorities towards 2016, and thereby beyond the scope of the Millennium Development Goals. The evaluation of the PoW has provided recommendations for priorities. Among these are addressing the staff shortages at all levels (Euro Health Group 2010). This includes high staff turnover in the Ministry of Health (MoH) and development partners, giving institutional memory loss. Recommendations also include a focus on gender and geographic equity, together with strengthening quality assurance approaches. Monitoring and evaluation should have extra focus on impacts and outcomes, as well as extended focus on quality of care (MoH 2011).

It is also recommended expanding the EHP to include non-communicable diseases like diabetes, cancer, hypertension and cardiovascular disease, together with mental health interventions. These groups of diseases constitute a major part of total Disability Adjusted Life Years (DALYs) in Malawi. It is estimated that 33 % of adults have hypertension and 5,6 % have diabetes, while cancer is on the increase. The main risk-factors for the non-communicable diseases are cigarette smoking, harmful use of alcohol and a high HIV-prevalence. Yet, the cost-effectiveness is not as high as for the initial EHP-package, and assessment of cost-effectiveness in pilot-districts will be done before an implementation for a wider population.

These changes in policy as seen through the PoW and the HSSP are not isolated events, and changes also related to other aspects of the healthcare system are part in the success of reducing childhood mortality. Examples of this are governance and innovative solutions towards the shortage of human resources.

Governance, innovation and results of a diagonal approach to health care in Malawi

The Malawi health policies of PoW and HSSP, and the introduction of the SWAp, are linked to the term “governance” used by the WHO. In WHO’s view, governance in health sector is understood as a wide range of steering and rule-making related functions carried out by governments/decisions makers as they seek to achieve national health policy objectives that are conducive to universal health coverage. WHO argues that governance is a political process that involves balancing competing influences and demands, leadership and clear priorities as well as setting goals and monitoring these. WHO works to support countries in building the capacity needed to carry out governance functions effectively (WHO n.d.). For WHO, this includes a better understanding of what constitutes best practice (ibid.).

Balabanova et al. (2013) argues that the meaning of governance in relation to health systems is contested and diverse. In their understanding of the term governance, they

emphasise the regulatory and managerial arrangements, through which the health system operates. This includes how goals are set and monitored, and how various components of the health system interact in order to reach this goal. Further, Balabanova et al. (2013) uses the term “good governance”. In their understanding of this term, good governance includes elements such as effective leadership, clear priorities and realistic policy goals, responsiveness to diverse population needs, reform continuity and enhanced accountability.

In development discourses and practices, “good governance” has been associated with a best practice approach (WHO n.d.). A best practice approach combines the normative assumption of what ideally constitutes good governance with the presumption that good results in one context (best practices) e.g. related to how to develop institutions or health system arrangements, can be transferred from one context to another. However, in this assignment, governance refers to exercising health governance in a way that promotes effectiveness and efficiency of the Malawi health care system, taking the specific Malawi context as the starting point and hereby contextualising interventions. This approach is more in line with a best fit approach, implying that the specific context of the Malawi health care system is taken into account. The shift from best practice to best fit when approaching governance issues is reflected in major donors thinking and practices (DFID, USAID and the World Bank 2011). For the health sector in Malawi, a contextualized approach to governance is important as this allows for building on Malawi’s existing institutions and health governance structures, which again contributes to achieving good health at low cost.

In Malawi, health governance is exercised at different levels and with different approaches. What has been discussed so far is the *horizontal approach* to health. That is, the aim to strengthen structures (i.e. community level healthcare) and functions (like governance, financing or human resources) of the efficiency of service delivery and build a results-focused health system. The *diagonal approach* to health argues that *vertical strategies*; which focus on specific donor agendas, disease priorities and interventions, can be used to strengthen *horizontal strategies*, which refer to more integrated, demand-driven and resource-sharing health services, by starting with simple approaches and using those to build human resources and strengthen already existing programs (Sepúlveda et al. 2006).

The effects of vertical strategies depend on how functional the health system is, showing the interdependency between vertical and horizontal approaches. As mentioned, there is a shortage of human resources at all levels of the Malawi health care system, and Zimba et al point to the fact that Malawi has one of the lowest densities of physicians in the world with less than 0,5 physicians per 10,000 people and a overall health worker density of 3,3 per 10,000 population (Zimba et al 2012). In this manner, Malawi has been forced to use innovative solutions in order to provide delivery of health services. Balabanova et al. uses the term “innovation” in regard to finding new ways of providing financing and service delivery, but also in regard to workforce strategies to overcome staff and skills shortages (Balabanova et al. 2013).

A link was made in the original 1985 report “Good Health at Low Cost” between investment in well-trained primary care workers and better health (Balabanova et al. 2013). One example of Malawi’s attempt to cover their shortage of primary care

workers is the use of Clinical Officers. A Clinical Officer is a mid-level practitioner of medicine who is qualified to diagnose and treat certain diseases, as well as performing routine medical and surgical procedures (Wikipedia 2014). Malawi has the highest ratio of Clinical Officers in sub-Saharan Africa, at 2,2 per 10,000 population (Zimba et al 2012).

Also, training Health Surveillance Assistants (HSAs) is an example of an innovative new way of handling shortages in staff and skill. These are community health workers that have provided a range of health services for over 40 years, and have played a crucial part in the decentralization of the health system, which is the principle on which the SWAp is based (Bemelmans 2010). MoH has added new roles for HSAs in regard to service delivery for maternal and newborn health during the last decade (Zimba et al. 2012). They undergo a 10-week basic training program, that focus on health promotion and delivery of services for family planning, HIV, tuberculosis, malaria prevention and nutrition (Gilroy et al. 2012). HSAs serve rural communities with a target catchment area of 1000 population, although often exceeding this (Callaghan-Koru et al. 2013). They undertake activities like home visits to women during pregnancy and postnatal mothers, health education and referral of sick women and children to health facilities (Harmonization for Health in Africa 2011).

The training program teaches community health workers new skills and gives new areas of responsibility. This is known as task shifting, which is defined by the World Health Organization as the rational redistribution of tasks among health workforce teams (WHO 2008). Healthcare tasks are shifted from higher trained health workers to less highly trained workers in order to maximize the efficient use of health workforce resource.

The training of Health Surveillance Assistants in Malawi is closely linked to the Community-Based Maternal and Newborn Care (CBMNC) package (Callaghan-Koru et al. 2013). CBMNC is a package of community and facility-based interventions to improve newborn health, implemented by the MoH with support from Save the Children and UNICEF. The intention of the program is to reduce inequities of health in rural low-income settings, as compared to urban higher-income settings. (Callaghan-Koru et al. 2013) Access to care is increased as key barriers for poor households are removed, such as distance and transport costs.

There is an emphasis on linking preventive community-based maternal and newborn services to facilities for care at birth and for emergency care (Zimba et al. 2012). The work towards implementing the CBMNC package began simultaneously with the implementation of the Integrated Maternal and Newborn Care (IMNC) training manual for facility-based workers (Save the Children 2012). The responsiveness of the government to diverse population needs and expectations, including investment in district health systems that can reach rural and isolated populations, is also a characteristic of good governance (Balabanova et al. 2013).

An example of this link between the preventive community-based work of the HSAs and the health care facilities is through the Kangaroo Mother Care (KMC) program, and the Child Lung Health Programme (CHLP), which are both integrated parts of the IMNC.

The Kangaroo Mother Care (and the role of the health sector in reducing NMR)

The Kangaroo Mother Care (KMC) is an initiative by the Ministry of Health (MoH) and Reproductive Health Unit, in collaboration with Save the Children and other partners. It is an intervention ensuring the survival of premature and low birth weight babies through a technique that involves tying the babies skin-to-skin with the mother to provide warmth, promote breastfeeding and reduce infections. The technique is associated with 51% reduced risk of neonatal mortality for babies weighing more than 2000 grams at birth, if started within the first week (Lawn et al. 2010). It is also associated with a decrease in post-discharge mortality, weight gain and maternal bonding (Konde-Agudelo 2011).

Prematurity, defined as birth before 37 completed gestational weeks, is a major cause of death (Lawn et al. 2010). Complications of preterm birth are the single largest direct cause of neonatal deaths, responsible for 35% of the world's 3.1 million deaths a year, and the second most common cause of under-5 deaths after pneumonia. Being born preterm also increases a baby's risk of dying due to other causes, especially from neonatal infections (Blencowe et al. 2013). The case is similar in Malawi, where there are few functioning incubators, and at few locations, making cheap and effective interventions ever more necessary (Zimba et al. 2012).

KMC was included in the national initiative *The 'Road Map' for Accelerating Reduction of Maternal and Newborn Mortality and Morbidity in Malawi*, which was developed in 2005 as a response to the call by the African Union to its members to accelerate the attainment of the MDGs related to maternal and newborn health. The objective was to increase the availability, accessibility, utilization and quality of skilled obstetric care during pregnancy, childbirth and postnatal period at all levels of the health care delivery system (MoH 2005). The Road Map was built on the Programme of Work, and implemented within the context of the SWAp (Ibid.).

The integration of newborn survival into the EHP, linked to the SWAp through the Road Map and the CBMNC, was the top ranked input of influence in the growing attention to newborn survival, which was virtually unmentioned at the beginning of the millennium (Zimba et al. 2012). Also the success of the KMC was seen as a major input for newborn health programming, and it was in turn implemented in all district hospitals and health centres and incorporated into the national *Integrated Maternal and Newborn Care* (IMNC) training. This program trained facility-based health-personnel, and sensitized Health Surveillance Assistants (HSAs), in supporting the intervention. The results as of 2011 shows that training is now widespread, and at least 30 hospitals have active KMC units (Zimba et al. 2012).

Although incorporated into the health sector strategies, KMC faces challenges in implementation. There is a severe shortage of health workers and supplies, especially in rural areas. The quality of care is threatened by high staff turnover among nurses, which has forced a varying degree of task shifting. Also, service data is not part of existing national information systems and nationally agreed indicators, making monitoring difficult (Zimba et al. 2012).

Pneumonia and the Child Lung Health Programme (CHLP)

Pneumonia is often used synonymously or as the major part in the term *acute respiratory infections (ARIs)*, and is associated with 18% of childhood deaths globally. It is the most common childhood killer in Malawi, responsible for approximately 1000 deaths per year (WHO 2013e). But there is reason for optimism as the proportions of children with ARIs taken to a health facility for treatment increased from 19,6% in 2004, to 70,3% in 2010 (MoH 2011). Simultaneously, there was a reduction of pneumonia case fatality from 18,7% to 5,7% between 2000 and 2008 (MoH 2011). Among preventive measures taken are the introduction of the Hib-vaccine in 2002, and the Pneumococcal-vaccine in 2011. Antibiotics are effective in treating the disease, but attention needs to be focused on medicine-coverage, sufficient health personnel, and recognizing and treating the condition correctly. Chiang Chen-Yuan, director of the Department of Lung Health and Non-communicable Diseases for the International Union Against Tuberculosis and Lung Disease (The Union), puts it like this:

There is no global campaign against pneumonia because the solution is not a medical one. The problem is with the health system. The children are dying because of irregular drug supplies, broken equipment, high staff turnover, and inadequate training (Mullins 2012).

The Health Sector Strategic Plan (MoH 2011) concludes that the successful implementation of pneumonia interventions in the PoW is likely to be part of the reason for the dramatic fall in infant and under 5 mortality. One of these interventions is the Child Lung Health Programme (CHLP).

The CHLP was implemented in Malawi in 2000 by The International Union Against Tuberculosis and Lung Disease (The Union), and coordinated by the Ministry of Health (MoH). The funding was initially co-funded between the MoH and The Bill and Melinda Gates Foundation. The government identified problems prior to the implementation, which were the inadequate health worker skills in district hospitals, inadequate supplies of antibiotics and equipment to administer oxygen therapy, and lastly, deficient use of strategic information.

The Child Lung Health Programme delivers standardized case management (SCM) for treatment of pneumonia (Enarson et al. 2009). It is a cost-effective intervention, which focus on vulnerable children with severe or very severe pneumonia, who has the greatest risk of dying. A pilot study in Malawi concluded with a 55% reduction in case fatalities for children with pneumonia with the introduction of standardized case management for this group of children, saving thousands of lives (Mullins 2012).

The implementation was executed by the personnel within the basic management units, and coordinated with existing policies for the treatment of acute respiratory infections. It was aligned with the pre-existing facility-based *Integrated Maternal and Newborn Care (IMNC)* training, and implementation was done step-wise across the country to adapt policies to local context.

Training of health care workers focused mainly on standard case management of the common lung diseases like pneumonia, tuberculosis and asthma, but also included case management of comorbid diseases like diarrhoea and malaria. In addition to training, the program focused on monitoring progress, managing supplies and materials, and evaluating the services.

After the initial donor-supported co-funding, the CHLP was included in the Essential Health Package, funded through the Sector Wide Approach (SWAp). Still challenges have threatened the implementation of the program. Health care worker shortages are significant due to a number of different factors. Also, frequent comorbid diseases to pneumonia, like malaria, HIV/AIDS and malnutrition has rendered some districts with a continuing high fatality rate. And finally, there has been a lack of equipment such as oxygen concentrators, computers and other electrical equipment, essential to the management of the facilities.

The Gaps in Health Service, and Challenges for Further Progress in Reducing Child Mortality in Malawi

The challenges above illustrates gaps in the provision of health services that needs to be filled in order to maintain the current level of reduction in child mortality. “Resilience in health system” is the forth term used by Balabanova et al. (2013) in relation to good health in low-cost countries. The term includes the ability to adapt towards changing events, such as natural disasters like floods or drought. The term also includes sustainability in key functions (Nemeth et al. 2008), in which community participation is a prerequisite (African Union 2013). As mentioned, decentralization provides framework for the community participation in Malawi, attempting to enhance health system resilience (MoH 2004).

Evaluation of both PoW (commissioned by Euro Health Group) and SWAp (commissioned by DFID) show progress made during the period of the PoW (2004-2010). It is recognized that PoW was resource-based (based on resources available at the time, with limitations on i.e. finances and human resources) rather than needs-based (based on the populations total need of healthcare services) on the onset of the period, making progress towards the MDGs difficult. The task at hand was making the most of the resources available, and DFID concludes in their evaluation of the SWAp (2010) that more resources than anticipated have been made available during the period (DFID 2010). The DFID Evaluation (2010) also concludes that the delivery of the prioritized EHP and human resources could not have been addressed in a similar manner if it had not been for the high level of pooled funding through the SWAp. Still, there are concerns as to whether the gains made during the policy period is possible to maintain, as aid dependency, staff shortages and high staff turnover in central administration are some main aspects (DFID 2010).

Friberg et al have pointed toward three challenges, or gaps, in the provision of essential maternal, newborn and child health (MNCH) interventions in many sub-Saharan countries. The first is the *coverage gap* for essential care, which is the difference between the current coverage and the universal coverage for all those in need of it. One example is in obstetric care, where they point to the fact that an average of only 46 % of births in sub-Saharan occur in health facilities.

The other gap is a *quality gap*, which is largely dependent on available personnel with the appropriate skills, essential equipment and drugs. This is exemplified within facility births, as few women receive the full range of necessary services; regarding failure to monitor pregnancy and labour, identify complications and provide life-saving

interventions. These may include simple measures like monitoring blood pressure in pregnancy, informing about signs of pregnancy complications or providing necessary medicine for women with HIV.

The last gap they point to is an *equity gap* – which amongst other is the difference between care received by the richest families compared to the poorest families. The disparity is also evident between the urban and rural population, and between districts.

The gaps are challenges that need to be attended to in Malawi in order to maintain their level of decrease in childhood mortality. Much has been done in order to improve coverage of health service, and analysing positive development by using the Malawi Demographic Health Survey from 2000 and from 2010, show among others a 17 % increase in skilled birth attendance. 71% of Malawi women now give birth assisted by a skilled provider (MDHS 2010) as compared to 49% of women in the sub-Saharan region (UNICEF 2013). At the same time, 73% of all women in Malawi gave birth in a health facility, which is a lot higher than the average of 46% in the sub-Saharan region (NSO and ICF Macro 2011). Measuring skilled birth attendance has been identified as a useful marker of health system access and equity of services delivery, as it is a strong and negative correlate to maternal and neonatal mortality (Overseas Development Institute (ODI) 2012).

Still, the shortage of human resources is alarming. The final evaluation on PoW concludes that the percentage of health facilities with minimum staff has increased, but is still as low as 13 %. Also, the documented decrease in overall number of health care facilities decreases the physical access to health services for a proportion of the population (ODI 2012). More worrying still is the low number of students graduating from health care training institutions. For nurses the training output was essentially flat during the PoW-period, missing the target by a large margin (Euro Health Group 2010) For the training of doctors, progress was better, but also this goal missed its target (DFID 2010).

Another point made by the PoW (2010) evaluation by Euro Health Group shows how the monitoring and evaluation framework has been of low capacity, unable to provide reliable indicators for both quality and equity of care. The focus of decentralization and increased community participation is a guiding principle for the HSSP, and with emphasis on local participation in planning, management and delivery of services, the HSSP aims toward improving quality assurance at systems level (MoH 2011, p. 46).

The gap in quality is evident, especially for newborn care services. There are few fully functioning birth facilities, lacking access to essential services for women and children with complications during birth, lacking signal functions and shortage of staff, basic drugs and medical supplies. As there is a growing tendency toward seeking facility health care, the clinical workload on health care staff increases more rapidly than the increase in overall health staff – which can undermine quality of care (Euro Health Group 2010). Local fieldwork has also pointed towards a negative attitude among staff working within the health centres, who often work in severely overcrowded facilities with lack of capacity (ODI 2012). MoH policy is that HSA's should be recruited from within the districts where they will work, but many are recruited centrally, and do not live at their posts (Callaghan-Koru 2013). A study from Malawi shows that only 13% of

clinics had 24-hour midwifery-care, representing a major hazard for maternal emergencies (AfDB 2013).

Both quality and equity are main objectives in the HSSP (MoH 2011). Addressing issues of equity include gender and geographical location. As mentioned, both MDG 3 and 5, both directly related to women's health, are unlikely to be met (Malawi MDG report 2010). Empowering women is seen as an example of policy interventions that allow health systems to improve equity and reduce mortality (UNICEF et al. 2011). The WHO Commission on Social Determinants of Health (2008) point to the fact that the position of women in many countries has changed in a positive direction during the last century, through legislation, technology and structural changes. Still, in Malawi, only approximately 30% of women have a final say in decision-making regarding their own health care (WHO 2008, p. 146).

At the same time there is an obvious equity gap between the urban and the rural population in Malawi. For example, 86% of women in urban areas give birth in health facilities, compared to 71% of the rural population (NSO and ICF Macro 2011, p. 110). Another example is the number of staff working in urban areas, which are higher than in rural areas, even as most poor live in the rural areas (Euro Health Group 2010).

The gaps discussed above are challenges that need to be met in the following years in order to provide further progress in childhood mortality reduction, and to maintain the current level of care towards childhood health. As shown, progress has been made towards filling the gap in coverage, and Malawi is doing better than the sub-Saharan region in this regard. Still, there is work to do, and working toward improved coverage implies filling the gaps also within equity and quality. Filling these gaps does not depend on medical solutions and financing alone, but rely deeply on social factors such as women's empowerment and addressing the rural population, and require a health system that shows political will to deal with these factors.

Conclusion

In this assignment I have looked at the current status of child mortality in Malawi, and the efforts towards achieving Millennium Development Goal (MDG) 4. As shown, Malawi has reached the target of MDG4A, by reducing by two-thirds, between 1990 and 2015, the under-five mortality rate. Further on, I have looked at global health and the health related MDGs. I have tried to place MDG 4 in a regional and global context. Realizing that the health-related MDGs are integrated parts of society, I have discussed social determinants of health and the current status of health-related MDGs in Malawi. While some MDGs are likely to be met (MDG 1, 4, 6, 7 and 8), the MDGs related to women's empowerment are unlikely to be met (MDG 3 and 5), which again has consequences for childhood mortality. The main causes of childhood mortality and how they are dealt with in Malawi has been presented and discussed. Among these causes are pneumonia, diarrhoea, malaria, HIV/AIDS and preterm birth complications.

I have outlined how and why Malawi have had relative success in their fight against child mortality, with focus on the role of the Malawian Government and the health policies Programme of Work (PoW) and Health Sector Strategic Plan (HSSP), through a Sector Wide Approach (SWAp) for health. Through these policies, the Malawi

government has shown political commitment towards reducing childhood mortality. The links between these policies and improved health outcomes for children have been discussed by taking a closer look at the disease-specific interventions Kangaroo Mother Care (KMC) and Child Lung Health Programme (CHLP). These two programs have during the last few years been adapted into pre-existing childhood health programs, and has become part of the EHP, which has been implemented within the context of the PoW. These two interventions serve as examples of successful programs that link health sector policies to positive impact on child health, and has contributed to achieving MDG4.

Further on, I have tried to show how the relative success of Malawi is attributable to government contribution to the health system through good governance, innovative solutions in providing human resources, building an effective institution and increasing resilience in the health system. International donors have also contributed, and I have focused on their role as financial support in building an improved healthcare system.

Finally, I have looked at gaps in health care provision, and challenges Malawi face towards further progress in childhood mortality reduction. These include gaps in coverage, quality and equity. Despite their relative success in reducing childhood mortality, Malawi still has work to do in order to close these gaps and maintain their current level of mortality reduction, and to secure further progress, also beyond 2015.

List of abbreviations

AfDB - African Development Bank Group

AIDS – Acquired Immunodeficiency Syndrome

ARI – Acute Respiratory Infection

CBMNC - Community-Based Maternal and Newborn Care

CHAM – Christian Health Association of Malawi

CHLP – Child Lung Health Programme

CIA – Central Intelligence Agency

DAC – Development Assistance Comity

DALY - Disability Adjusted Life Years

DFID – Department for International Development

EHP – Essential Health Package

EHRR - Emergency Human Resource Program

GDP – Gross Domestic Product

HIV – Human Immunodeficiency Virus

HSA – Health Surveillance Assistants

HSSP – Health Sector Strategic Paper

IMNC – Integrated Maternal and Newborn Care

ITN – Insecticide Treated Net

KIM – Kangaroo Mother Care

MDG – Millennium Development Goal

MDPC – Ministry of Development, Planning and Cooperation, Malawi

MoH – Ministry of Health, Malawi

MNCH – Maternal, Newborn and Child Health

NMR – Neonatal Mortality Rate

NSO - National Statistical Office

ODA – Official Development Assistance

ODI – Overseas Development Institute

OECD – Organization of Economic Co-operation and Development

ORT - Oral Rehydration Therapy

PoW – Programme of Work

SCM – Standardized Case Management

SWAp – Sector Wide Approach programme

UN – The United Nations

UNICEF – The United Nations Children’s Fund

WB – World Bank

WHO – World Health Organization

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