## The Evolution and Future of Social Security in Africa: An Actuarial Perspective

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Actuarial Society of South Africa – Social Security Committee

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### 1 EXECUTIVE SUMMARY

There is a growing global interest in Africa. There has been a gradual shift from images of poverty to those of promising economic growth. Africa has some of the fastest growing economies in the world with the greatest projected future growth. Social security across the continent has been receiving greater attention from governments and non-governmental organisations. There are some efforts being applied to ensure that the African people benefit from this economic growth and positive outlook for the continent's future. Social security is increasingly becoming the preferred area to achieve this.

According to the International Labour Organisation (ILO), Social Security involves access to health care and income security, particularly in cases of old age, unemployment, sickness, invalidity, work injury, maternity or loss of a main income earner.

In this paper, a high level summary of Social Security developments across the African continent is provided. The aim of this document is to inform about Africa and some key social security initiatives that have been implemented in southern African nations. In the process of informing, areas of past and potential future involvement are highlighted and suggested respectively. This will hopefully encourage more actuarial professionals to seek involvement in these areas and investigate other potential areas of contribution within social security.

The areas covered in this paper will include Pension provision, Unemployment Insurance Benefits, Health Care and Road Accident Fund benefits. This paper does not provide a detailed country by country analysis; rather, it seeks to provide a high level overall view of trends and to identify strengths and weaknesses of existing policies.

### 1.1 BRIEF ECONOMIC AND DEMOGRAPHIC PROFILE

Africa accounts for some 16% of the world's population but 2.4% of the world's GDP. The proportion of people living below the poverty line in Sub-Saharan Africa decreased from 51% in 1981 to 47% in 2008. By contrast, China reduced the proportion living below the poverty line from 84% in 1981 to 13% in 2008. This was mainly due to a robust economic growth rate of 5% per annum between 2001 and 2010 whereas the population growth rate was only 2.5%. According to The Economist, six of the world's top ten fastest growing economies over the period 2001 to 2010 were African economies, who have traditionally lagged behind the rest of the world in terms of growth rates.

### 1.2 RETIREMENT FUNDING

There are two main objectives for the provision of retirement benefits:

- to protect against the risk of poverty in old age; and
- to smooth consumption from working life into retirement.

The primary criteria to assess pension provision are affordability, sustainability, equity, predictability and robustness.

Many countries in Africa set up their current national pension schemes in the 1970s, and some are in the process of introducing or implementing major changes or reforms.

There are five major issues with pension systems in Africa:

- the pension promise is often large and unaffordable;
- badly designed rules introduce unnecessary distortions in labour supply and savings decisions:
- the schemes are fragmented and administration is weak and costly;
- coverage rates are modest, with important gaps among the self-employed and informal sector workers; and
- governance structures are not designed to ensure that the funds are managed in the best interests of scheme members.

The following should be considered when doing pension reforms:

- explicit recognition/financing of liabilities;
- basic protection;
- equitability of earnings-related protection;
- expanding coverage;
- diversifying sources of provision;
- gender-based intervention; and
- governance and administration.

### 1.3 HEALTH CARE

The fundamental objective of health systems is to improve the health of the population and to provide financial protection against the unexpected costs of ill-health. The ultimate goal of Healthcare initiatives is the concept of universal coverage, which is defined by the World Health Organisation as access to key promotive, preventive, curative and rehabilitative health interventions for all at an affordable cost (WHO, 2003).

The pressures of reform for African countries are intensified by the high burden of disease, which is exacerbated by poor living conditions and lack of access to quality care. Health statistics for African countries as a whole are poor in comparison to the rest of the world and efforts for reform are problematic given the typical issues faced by low and middle-income countries.

Many African countries have embarked on the strenuous task of achieving accessible and equitable good quality healthcare. For most countries, the achievement of successful healthcare policy requires large scale reforms in various sectors. Initiatives taken will depend largely on the conditions prevailing within each country.

The literature recognises four options for achieving the goal of universal coverage (WHO, 2004):

- The Beveridge Model, which achieves universal coverage immediately;
- The Bismarck Model, where Social Heath Insurance can be viewed as a building block for National Health Insurance. This model follows a phased implementation approach towards achieving universal coverage in the long-term;
- National Health Insurance, which achieves universal coverage immediately. NHI can be viewed as a mix of the aforementioned two options. Under mixed health financing systems, the subsidised population group is partially covered via general tax revenue, and a clearly specified contributory population group is covered by SHI; and
- A system of private health insurance that is subject to government regulatory powers, especially ensuring a pre-defined benefit package of care.

In this paper all of the aforementioned options, including the advantages and disadvantages of each system, are analysed. In Africa, Community Health Insurance (CHI) Schemes are common mechanisms used to provide health care to low-income earners living in rural areas. It was independently estimated that there were 626 CHI schemes in West Africa alone. The Millennium Development Goals (MDGs) agreed to by world leaders over a decade ago encompass a number of important milestones relating to health, poverty, hunger and environmental sustainability, amongst others.

Health-related Millennium Development goals include:

- Reducing child mortality rates;
- Improving maternal health; and
- Combatting HIV/AIDS, malaria, and other diseases.

In 2010, 24 of the 26 countries with under-five mortality rates (U5MR) above 100 deaths per 1,000 live births, were African countries.

Despite the implementation of numerous strategies on the continent (one of them being the Maputo Action Plan), the Maternal Mortality Rate (MMR) is still excessively high at 590 deaths per 100,000 live births. This rate has only decreased by 1.6% per year overall. This is lower than the global average of a 2.3% decrease rate and much lower than the 5.5% rate required to meet the target set out in MDG 5. Over the period of 1990–2008, 11 African states more than halved their MMR and are thus close to achieving MDG 5.

As reported in the UNAIDS 2011 Report on the Global HIV/AIDS Response, HIV incidence has been steadily declining since the late 1990s. There has simultaneously been a significant scaling-up of Anti Retro Viral Therapy (ART) over the past few years, also impacting the number of AIDS-related deaths (1.3 million in 2009 compared to 1.4 million in 2001). The decrease in AIDS-related deaths means that people Living with HIV are surviving longer. A further encouraging sign for the attainment of the MDG of combatting HIV/AIDS is the drop in prevalence rates in young women (15–24 years).

### 1.4 UNEMPLOYMENT BENEFITS

Unemployment Benefits provide indemnity against wage loss resulting from involuntary unemployment. Different types of schemes include Contributory schemes, Employment related social assistance and Non-contributory or tax financed social assistance.

Civil unrest is frequently linked to rising levels of unemployment. The ILO has advocated full and productive employment and decent work for all, including women and young people. A further MDG aims at creating a global partnership for development. Unemployment places great financial burdens on the state and benefit funds, resulting in large fiscal budgets and worsening deficits. It is clearly a severe socio-economic problem.

## 1.5 GENDER INEQUALITY, CHILDREN AND ORPHANS BENEFITS AND EDUCATION

Aside from Health Care and unemployment benefits, MDG aims to promote gender equality and empower women, prevent childhood poverty and improve education.

Childhood poverty is a significant factor in persistent and chronic poverty, and in the intergenerational transmission of poverty. Preventing poverty in childhood can thus help prevent the vicious cycle of poverty. There are MDGs related to children, Reducing Child Mortality Rates and Improving Maternal Mortality Rates.

The MDG related to Universal Education states that "By 2015, all children can complete a full course of primary schooling, girls and boys." Education is essential in closing the gender gap to ensure that girls and women are able to contribute effectively to the economy and reach their full potential.

### 1.6 ACTUARIAL CONTRIBUTION

The role of actuaries in Social Security includes but is not limited to:

- valuation of liabilities emerging from providing Social Security benefits;
- evaluating the sustainability of Social Security benefits and overall systems;
- assisting in the financial management of Social Security systems;
- providing informed and quantitative input into design and adequacy issues;
- asset-liability modelling;
- economic, financial and demographic modelling;
- investing;
- risk management;
- strategic planning;
- working with other professionals in developing implementation plans; and
- reporting and communicating information, including that related to inherent redistribution within the system.

### 2 INTRODUCTION

The purpose of this paper is to provide a high level summary of Social Security developments within the African context. Africa has a rich history with some emerging evidence that Mankind even had its origins in the continent. North and Western Africa were the first parts of the continent to have trade and other links with the outside world, including the Slave Trade. These ties grew to Eastern and Southern Africa from the fifteenth century onwards. Rapid colonization by European countries took place in the nineteenth and twentieth centuries followed by the independence of many countries after the Second World War.

Social Security in most African countries has, over time, evolved significantly in terms of perspectives, motives, governance and benefit—design and administration. African countries are slowly but surely beginning to reassess the role of Social Security in correcting several historical social ills. Empowerment programs and grants are increasingly being provided to women and the youth via Social Security. From the outset of Social Security even very low income countries, some of which have recently experienced several years of civil war and extreme economic hardship, have begun to improve benefit structures and benefit payments which include national medical benefits.

The paper analyses the benefit structures of various countries. The effective use of Social Security programs and how they fit into a nation's programs to lift itself out of poverty is increasingly involving the actuarial profession, including the utilization of international organisations such as ILO and ISSA, as well as consulting actuaries and academics.

Assessing and ensuring sustainability of Social Security benefits require actuarial valuations to take into account long-term consequences such as potential demographic and economic changes whilst providing the benefits in the short-term. Asset—liability modelling may ensure adequate resources are held and that results are appropriately reported and communicated to key stakeholders. In this paper, we consider the role of actuaries in a dynamic environment where Social Security mechanisms are increasingly evolving. Social Security programs need to be considered alongside other mechanisms to alleviate poverty.

The main factors considered driving forces behind Social Security spending patterns are as follows:

- a) income growth and level of development;
- b) demographics and population aging;
- c) rise of democracy and political institutions, political parties and policy legacies; and
- d) globalisation, industrialisation and urbanisation

Whereas to some, Africa is the embodiment of war, poverty, disease and other social and economic ills, there is much evidence that Africa is emerging as an important economic player and that there is much more science and thought behind Social Security provisions. At the same time we appreciate that it is not possible to comprehensively cover the length and breadth of such provisions, covering such a vast area, and that this paper is selective in its coverage. The authors thank their fellow members of the Social Security Committee of the Actuarial Society of South Africa for their support and review, namely Professor Anthony Asher and Peter Johnstone.

### 3 SCOPE OF PAPER

This paper provides a high level overview of Social Security developments in Africa. By its very definition the scope of research and discussion is extremely wide and the paper is selective in terms of areas of coverage and focus. Rather than focus on detail on a country – by– country basis, the paper provides a broad overview of the trends so as to identify areas of strengths as well as concerns at a regional level. Where practical the paper draws comparatives to developments in other geographical domains.

The areas covered in this paper will include Pension provision, Unemployment Insurance Benefits, Health Care, Gender-based inequalities and other Social Security provisions. We acknowledge that we have not covered every single area of Social Security development.

### 3.1 SOCIAL SECURITY DEFINITION

The World Labour Report of 2000 issued by the ILO defines Social Security as follows: "Social Security is the protection which Society provides for its members through a series of public measures:

- To offset the absence or substantial reduction of income from work resulting from various contingencies (notably sickness, maternity, employment injury, unemployment, invalidity, old age and death of the breadwinner);
- To provide people with Health Care; and
- To provide benefits for families with children."

Social Security may also refer to the action programs of government intended to promote the welfare of the population through assistance measures guaranteeing access to sufficient resources for food and shelter and to promote health and wellbeing for the population at large and for the potentially vulnerable segments such as children, the elderly, the sick and the unemployed. Services providing Social Security are often called social services.

### 4 AFRICA – AN OVERVIEW

The purpose of this section is to provide an overview of the key geographical, economic and demographic elements of Africa to contextualise the discussion in the rest of the paper.

### 4.1 GEOGRAPHY

Africa is a vast continent consisting of 62 political territories and an area of 30,368,609 square kilometres. By way of comparison, Europe covers 10,400,000 square kilometres. Africa covers 6% of the Earth's total surface area and 20.4% of the total land area. Algeria is the largest country on the African continent covering a total area of 2,381,741 square kilometres. The largest city is Cairo with a population of approximately 17 million people. Nigeria is the most populous country with a population of 150 million people.

### 4.2 ECONOMY

African economies have traditionally lagged behind the rest of the world in terms of growth rates. According to the OECD, although Africa accounts for some 16% of the world's population, it accounts for only 2.4% of the world's GDP. A combination of factors including economic and political instability as well as wars, famine and disease has traditionally hampered the continent's progress. Statistics over the last decade have however become more encouraging. According to The Economist six of the world top ten fastest growing economies over the period 2001 to 2010 were African.

Table 1. World's ten fastest GDP growth rates - 2001 to 2010

Angola *	11.1%
China	10.5%
Myanmar	10.3%
Nigeria *	8.9%
Ethiopia *	8.4%
Kazakhstan	8.2%
Chad *	7.9%
Mozambique *	7.9%
Cambodia	7.7%
Rwanda *	7.6%
Worlds Ten fastest GDP growth rates - 2001 to 2010	
* African country	
Source - The Economist	

The average growth rate for Africa has been about 5% per annum over the same period. Looking forward the same Economist survey indicated that seven of the world fastest ten growing economies over the period 2011 to 2015, will be African.

Table 2. World's ten fastest projected GDP growth rates - 2011 to 2015

China	9.5%
India	8.2%
Ethiopia *	8.1%
Mozambique *	7.7%
Tanzania *	7.2%
Vietnam	7.2%

Congo *	7.0%
Ghana *	7.0%
Zambia *	6.9%
Nigeria *	6.8%
* African country	
Source - The Economist	

Africa's relatively higher growth rate when compared with the rest of the world is expected to see its share of GDP increase from 2.4% in 2012 to about 5% in 2034.

According to the OECD, in 2009 Agriculture accounted for some 13% of GDP for Sub Saharan Africa, Industry (including Mining and Manufacture) accounted for 31% of GDP and Services made up 56% of GDP. Agriculture does however account for 60% of the workforce. Africa has numerous mineral resources and there have been substantial new discoveries of oil and gas.

Bhawan, McKay & Patel (2013) summarised the economic and demographic features of Africa as follows:

- The expected growth in GDP in 2014 for Sub-Saharan African countries is 5.9% compared to 2.1% for developed countries;
- 11 of the 20 fastest growing economies in the world are in Africa;
- 13 African countries are expected to grow at a rate higher than 7% in 2013;
- The average gross debt to GDP ratio for Sub-Saharan African countries is 36% as opposed to 109% for developed countries;
- The countries with the 10 youngest populations are all in Africa;
- 41% of the African population are under the age of 15; and
- Africa is expected to have the world's largest working population in 30 years.

Some of the major obstacles of doing business in Africa include unstable economic or political environment, lack of infrastructure, foreign exchange control, corruption, local regulatory requirements and lack of skilled resources.

Social Security strategies need to factor in the economic and demographic developments. In many cases African countries have contrasting fortunes with some sectors experiencing some of the fastest growth rates in the world whilst some portions of the economies bear huge burdens of social and economic ills. There is often competition for resources in that choices need to be made between addressing historical social ills or whether resources need to be directed towards growth-areas.

### 4.3 PROJECTED POPULATION

According to United Nations Estimates it is estimated that Africa's population, compared to the rest of the world, is expected to be as follows (millions):

Table 3. Estimated population growth by region

	Twelf to 25 minutes population from the of 10 from							
Year	World	Asia	Africa	Europe	Latin America	Northern America	Oceania	
2000	6,115	3,698 (60.5%)	819 (13.4%)	727 (11.9%)	521 (8.5%)	319 (5.2%)	31 (0.5%)	

					(0)		<b>-</b>
2005	6,512	3,937	921	729	557 (8.6%)	335	34 (0.5%)
		(60.5%)	(14.1%)	(11.2%)		(5.1%)	
2010	6,909	4,167	1,033	733	589 (8.5%)	352	36 (0.5%)
		(60.3%)	(15.0%)	(10.6%)		(5.1%)	
2015	7,302	4,391	1,153	734	618 (8.5%)	368	38 (0.5%)
		(60.1%)	(15.8%)	(10.1%)		(5.0%)	
2020	7,675	4,596	1,276	733 (9.6%)	646 (8.4%)	383	40 (0.5%)
		(59.9%)	(16.6%)			(5.0%)	
2025	8,012	4,773	1,400	729 (9.1%)	670 (8.4%)	398	43 (0.5%)
		(59.6%)	(17.5%)			(5.0%)	
2030	8,309	4,917	1,524	723 (8.7%)	690 (8.3%)	410	45 (0.5%)
		(59.2%)	(18.3%)			(4.9%)	
2035	8,571	5,032	1,647	716 (8.4%)	706 (8.2%)	421	46 (0.5%)
		(58.7%)	(19.2%)			(4.9%)	
2040	8,801	5,125	1,770	708 (8.0%)	718 (8.2%)	431	48 (0.5%)
		(58.2%)	(20.1%)			(4.9%)	
2045	8,996	5,193	1,887	700 (7.8%)	726 (8.1%)	440	50 (0.6%)
		(57.7%)	(21.0%)			(4.9%)	
2050	9,150	5,231	1,998	691 (7.6%)	729 (8.0%)	448	51 (0.6%)
		(57.2%)	(21.8%)			(4.9%)	

According to the African Development Bank, average life expectancy in Africa will increase from 57 years (2010) to 64 years in 2030. There is expected to be a reduction in infant mortality rates and a reduced impact of HIV/AIDS.

According to the World Bank the proportion of people living below the poverty line in Sub-Saharan Africa decreased from 51% in 1981 to 47% in 2008. As a comparison China reduced the proportion of people living below the poverty line from 84% in 1981 to 13% in 2008. The reduction in poverty rates in Africa was mainly due to robust economic growth rate of 5% per annum between 2001 and 2010 whereas the population growth rate was only 2.5%. Other factors contributing to the decrease in population below the poverty line include improvements in education and health care. Conversely, hikes in fuel and food price and global economic crisis worked against reducing poverty.

Africa's increasing population and in particular increasing young population, has implications for Social Security provisions. A high level of unemployment, particularly high levels of youth unemployment, has implications for Social Security provisions. A case in point is the Social Security provisions for unemployed youth. These individuals are unlikely to have adequate Pension, Health Care or any other Social Security provisions over their lifetime and will be a burden to the state over a lengthy period of time.

### 5 RETIREMENT BENEFITS

### 5.1 INTRODUCTION

According to the World Bank Pension Conceptual Framework, there are two main objectives for the provision of retirement benefits, namely:

- to protect against the risk of poverty in old age; and
- to smooth consumption from working life into retirement.

Neither objective is necessarily preferable; they simply represent different societal preferences (Schwarz, 2006). Some countries tackle these different objectives by providing separate benefits. Resources to protect against poverty usually come from a source other than the individual receiving the benefit. The state generally provides the funds and finances them through foreign aid capital, taxation or borrowing (Prasad & Gerecke, 2010). On the other hand, smoothing of consumption implies redistribution of income across an individual's lifetime, but not between individuals.

Other writers also associate other objectives with the provision of pension benefits. Asher (2006a) includes the following: equality, liberty, efficiency and recognition of just deserts. This last objective somewhat echoes the precept present at the birth of Social Security in Europe. According to Dixon (Dixon & Scheurell, 1995) poverty stricken European individuals from the 1600's onwards were categorised as those who deserved relief and those who did not. This need did not automatically equate to a right for Social Security, it only justified 'public charity'. Individuals were expected to work and maintain responsibility for themselves. This changed with the introduction of the European Poor Law which raised money to keep "society's failures without work above an acceptable level of basic subsistence" by imposing a compulsory tax. Old-age pensions were introduced by Bismarck at the end of the 19th century.

There are currently three primary providers of pension benefits. The first provider, the state, is the main focus of this section of the paper. The employer and the individual are the other two main providers. Engaging in paid employment after retirement age may be seen as a type of individual provision. The family and/or the community may also have a role in benefit provision for the elderly.

Different pension benefit providers have different, sometimes non-complementary, criteria. The criteria used by the primary providers to determine the suitability of retirement benefits offered is given below.

### 5.1.2 State Provision

The main criteria used by the World Bank to assess pension provision are: adequacy, affordability, sustainability, equity, predictability and robustness. Definitions of these criteria can be found in Appendix A. Pallares-Miralles, Romero & Whitehouse (2012) also include administrative efficiency in their criteria.

In meeting their primary pension provision objectives, the state often has to weigh up alternative needs for funding (e.g. healthcare, roads, and education) and decide whether or not to try to meet any secondary objectives listed below.

### 5.1.3 State–Regulation and Supervision

The state may also wish to reinforce measures to improve savings, facilitate financial market development and support labour and capital market efficiency (World Bank, 2008). Macroeconomic stability and a sound regulatory and tax framework are pre-requisites for encouraging retirement fund savings. The design of retirement benefits should therefore promote growth and development of the economy and minimise distortions in capital and labour markets.

To this end, any additional contribution requirements should not cause workers to exit the formal sector (in an attempt to avoid additional contributions and/or administrative requirements) and should facilitate migration between all job types. Such constraints may initially lead to a focus on workers within the formal sector – public and private – and may expand to those in the informal sector.

There are separate challenges outside the scope of this paper that discourage the informal sector from willingly participating in retirement funding arrangements. These include the desire to be unregulated, the need to avoid taxation and other statutory obligations and the increase in costs associated with introducing retirement arrangements.

### 5.1.4 Employment-based Provision

From a financial perspective, employers generally desire a value—for—money product that produces predictable and stable costs. They also aim to meet their non-financial business needs (e.g. attracting and retaining the right staff) in a tax-efficient manner.

### 5.1.5 Individual Provision

The individual must find a balance between affordability and need. This typically changes over the various stages of life.

### 5.2 BENEFITS COVERED

The Five Pillar Framework for pension provision, as proposed by the World Bank, is set out in their document on a conceptual framework for pensions (World Bank, op. cit.). The following table contains brief descriptions, extracted from table 1 of this document, of the five pillars identified to meet pension objectives, as well as which state-related criteria the Pillars (may) meet:

Table 4. Five pillar framework for pension provision

Pillar	Definition	Primary Criteria	
		Should be met	Possibly met
Zero*	Non-contributory social assistance	Adequacy (as a	Affordability
	financed by the state, fiscal conditions	safety net)	Sustainability
	permitting.		Predictability
			Robustness
First	Mandatory contributions linked to	Affordability	Adequacy
	earnings—with the objective of		Sustainability
	replacing some portion of lifetime pre-		Predictability
	retirement income.		·
Second	Mandatory defined contribution plan	Affordability	Adequacy
	with independent investment	Sustainability	
	management.	·	
Third	Voluntary, taking many forms (e.g.	Sustainability wrt	Affordability
	individual savings, employer-	DC schemes	Predictability
	sponsored, defined benefits or defined	This Pillar may	(depending on nature:

	contribution).	constrain the fiscal cost of basic components **	DB or DC) Adequacy (for higher-income groups **)
Fourth	Informal support (such as family), other formal social programs (such as healthcare or housing), and other individual assets (such as home ownership and reverse mortgages).		Adequacy

<sup>\*</sup> The Zero Pillar, comprising of cash transfers, is sometimes referred to as the Social Assistance Tier.

The importance placed on each pillar is country-dependent. Not all pillars are present in all countries. More information on the usage of Pillars in Africa is given in Section 4.3.

All systems face some degree of economic, political and demographic risk. Experience has shown that a multi-pillar approach is able to address risks facing pension systems more effectively (Holzmann, 2005). A multi-pillar approach typically reduces dependency on any one source of income and thereby reduces risks as well. On the other hand, it introduces complexity into the system, especially if multiple administrators are involved. It may therefore be more expensive to administer than a single pillar system. Individuals may have difficulty understanding the full extent of their benefits and projecting their likely retirement income.

The First and Second Pillar encompass mandatory contributions. This serves to combat individual myopia (in which retirement is viewed as a problem for the future) and consumerism (Schwartz, 2006). The Third Pillar offers greater flexibility than the prior pillars, while the Fourth Pillar offers diversification and some recognition of the role informal support systems have traditionally played in African and other cultures e.g. that of China. A multi-pillar approach therefore has the ability to meet the broad spectrum of criteria on which systems are evaluated, increased security of benefits<sup>1</sup>, flexibility, and allowance for the influence of local culture.

### 5.3 MEANS-TESTING

Means-Testing has a role to play in all benefits and its application has financial, social and economic consequences. Means-testing involves evaluating the income and/or assets of the person applying for social assistance in order to determine whether the person's means are below a stipulated amount. Actuaries have been applying this technique to a range of benefits for several years.

Over the years there was an on-going debate as to the necessity of means-testing. Below are the main arguments that have emerged for and against the application of means-testing to Social Security benefits.

### 5.3.1 Arguments for Means-Testing

There are two main arguments for means-testing. It assists in ensuring that mainly those who need benefits the most receive them (so as to maximise efficiency), and consequently reduces the Social Security bill.

<sup>\*\* (</sup>Holzmann, 2005)

<sup>&</sup>lt;sup>1</sup> The Seychelles is an example of this. It operates both a Zero and Secondary Pillar. The Zero Pillar is, by definition, dependent on the government for its funding. The Secondary Pillar, if accompanied by property rights embedded in the constitution, builds up funds in advance and keeps them outside the influence of the state (with the exceptions of taxation and state imposed investment requirements).

5.3.2 Arguments against Means-Testing – "A program for the poor is a poor program." Social Security benefits are seen to promote fairness, equality and shared citizenship. These benefits are expected to promote social cohesion, particularly in the case where everyone is participating. Means-testing is seen to undermine these values.

One of the great strengths of universal benefits is that they are simple and economical to administer and operate. The opposite is true of means-testing. The bureaucracy and administrative costs tend to eat up any predicted savings. Asher (2006b) gives evidence that it is not possible to properly administer means-tests, even amongst developed countries.

Means-testing always hurts people who are neither rich nor very poor. Because there is a cutoff point, individuals who are far from well off and who would "genuinely" benefit from these benefits are excluded. When benefits are universal it means that there are better placed people concerned to fight for them.

Reducing a person's government benefits as his outside income increases creates a disincentive to work and save. In other words, means-tests can produce implicit taxes every bit as harmful as explicit taxes. Also, since it is preferable that individuals remain in employment and save more for retirement, it would be both counterproductive and unfair to penalise them for doing exactly that.

A means-test undermines the principle that benefits are an earned right. It destroys the link between premiums paid from wages and the benefits that are designed to replace part of those wages.

### 5.3.3 Alternative Approaches

It is evident that there is a wide array of reasons not to continue with the current implementation of means-testing. One of the roles of actuaries is to assist in developing fair ways to distribute benefits whilst ensuring sustainability. Two alternatives are the implementation of a single means-test or the scrapping of means-testing, with a claw-back mechanism to recover benefits from the relatively wealthy via the taxation system.

An alternative single means-test should ideally:

- ensure the full range of an individual's retirement savings is effectively and fairly assessed in the pension means-test;
- be more neutral in the treatment of different forms of retirement savings;
- ensure there are appropriate incentives for people to use their retirement savings effectively;
- provide appropriate incentives for older African (citizens) who wish to do so, to continue to undertake paid work; and
- contribute to the fairness of the overall tax-transfer system.

The ultimate design of such a means-test depends on its interaction with the personal income tax system. According to proposals of South Africa's National Treasury, retirement fund reform proposals include the proposed scrapping of their current Means-Test in South Africa from a future date.

### 5.4 INTERNATIONAL EXPERIENCE

Countries worldwide have been moving towards multi-pillar pension systems (Pallares et al, op. cit.). It does appear that the general objective of many contemporary reforms is to ensure

that there is a reduction in dependency on the state. There has been a trend towards integrating civil servant and national schemes. The following overview of basic system architecture, by region, can be found in the World Bank discussion paper entitled "International Patterns of Pension Provision II: A Worldwide Overview of Facts and Figures":

Table 5. Basic pension architecture by region

Region	Number of countries	Pillar National scheme and civil servants scheme			servants		
		Zero	1	2	Separate	Integrated <sup>2</sup>	Partially Integrate d
East Asia and Pacific	28	11	17	1	9	7	2
Eastern Europe and Central Asia	30	17	30	14	1	29	0
Latin America and Caribbean (LAC)	37	19	29	10	3	22	5
Middle East and North Africa	20	2	18	1	7	8	3
(MENA) South Asia	8	4	4	1	6	1	0
Sub-Saharan Africa	46	8	33	2	24	11	1
High income OECD	24	20	20	3	10	11	2
World	193	81	151	32	60	89	13

65% of mandatory national pension systems are defined benefit (DB) in nature. The majority are Pay– As– You– Go or partially funded, publically administered schemes.

Defined Contribution (DC) funds are fully funded and most are privately managed. They differ from national DB schemes as the system risk lies with the individual rather than the state. The state may choose to offer some type of investment guarantee to encourage participation or require annuitisation at retirement to reduce an individual's exposure to longevity risk.

Pension provision is constantly changing to respond to changes in the environment in which it operates. Changes listed in the table below are based on information found in Robert Holzmann's (2012) paper "Global pension systems and their reform".

Table 6. Recent changes in pension provision

Tweeto of thought of handless in position provision					
Area of change	Type of change				
Zero Pillar	Pillar provision growing in low and middle- income countries.				
	Recent initiates include matching contributions for informal and self-employed				
	workers (to lessen the need for social pension payment later).				
First Pillar OECD countries: mainly parametric changes to ensure sustainability.					
	Europe and worldwide: consideration of viability of NDC*.				
Second Pillar	Pillar established in 29 countries from 1988 to 2008.				

<sup>2</sup> See Section 5.5.3 for more information.

	Fiscal concerns subsequently led to the removal of this Pillar, or the reduction of contributions towards it, in some of these countries.  The extension of risk-based supervision methods to this Pillar.
Third Pillar	Low-and middle-income countries: Pillar considered as a way to increase informal sector coverage.  High-income countries: Pillar considered as way for individuals to retain replacement rates in light of system changes; participation motivated via contribution matching, nudging or advocacy.
Centralised public pre- funding	18 OECD countries, China and Argentina: trend to create/expand public pension reserve funds to cater for consumption smoothing across generations or cushion against adverse events.  East and West Africa: interest in such a fund.

Two of the key international challenges are dealing with increasing levels of labour informality and longevity increases. Longevity impacts both defined benefit and defined contribution schemes.

### 5.5 AFRICAN EXPERIENCE

The ISSA classifies Social Security benefits into four categories:

- employment related: dependent upon employment (or credits for employment in some cases);
- universal: given to all (may be subject to country- specific criteria e.g. citizens only);
- means-tested: granted to all who apply that meet minimum age, income and/or asset level tests; and
- other: aligned to benefit source (e.g. financial service providers, mandatory occupational systems or provident funds).

In general, a number of ex-British colonies have national provident funds (which initially provided lump sums at retirement), while ex-French colonies introduced national earnings-related pension schemes (Asher, 2006).

A complete summary of Social Security in Africa is set out in an International Social Security Association's (ISSA) document entitled 'Social security systems throughout the world: Africa, 2011'.

### 5.6 CURRENT AFRICAN CHALLENGES

Africa's average old-age dependency ratio has been, and remains, the lowest; far below the world average. The African labour force has been expanding over the last two decades (Pallares-Miralles et al., op. cit.). Africa is subsequently not yet experiencing the type of demographic pressure that exists in other regions of the world. However, the number of elderly in Africa is expected to increase by 50% from 2000 to 2015 (Stewart & Yermo, 2009). Projections for 2050 show figures five times higher than those applicable in 2000. These projections may challenge a belief highlighted by Woodhouse (2005) that, because demographics remain favourable, financial problems are still far in the future.

Steward & Yermo (op. cit.) believe that current pension-related spending in Africa is often crowding out spending on key areas such as health and education.

Holzmann (2005) expresses concern that an average pension spend of 3% in Middle East and North Africa (MENA) economies may impact financial stability. Problems are starting to develop in many MENA countries, with their average implicit pension debt adding up to 80–

90% of GDP<sup>3</sup>– often larger than conventional government debt. Whitehouse (2005) deems this ultimately unsustainable. In 2005 he stated that, where pension reserves exist, they will probably be depleted within a decade. This estimate may be optimistic in the light of financial conditions which have seen reduced returns on investments following the 2008-2009 global financial crises.

Based on figures provided by (Pallares-Miralles et al., op. cit.), Sub-Saharan countries have an arithmetic average pension spend of 2.2 % of GDP. Growth in civil service retirees in this region is creating a growing fiscal strain (Pallares-Miralles, Romero & Whitehouse, 2012).

If governments cannot find additional money to finance implicit pension debt, e.g. by increasing revenues (imposing higher taxes) or reducing expenditures on other items (such as education and health), they may have to default on this implicit debt by reducing accrued benefits for future generations. Either one of these options is likely to prove unpopular. Conversely, funding retirement benefits can be a source of popularity even if these grants are not sustainable.

All MENA countries, and most Sub-Saharan countries, have implemented DB schemes. The implicit returns on the contributions that DB members pay are neither transparent nor equitable as they depend on fund members' wage history and decisions regarding enrolment and retirement. Where regressive tax systems exist, they compound the problem: middle-and high-income individuals can receive better tax treatment than low-income individuals as the wealthier receive the biggest rebates. Tax rebates are irrelevant to those whose income is below the tax threshold.

Whitehouse (op. cit.) identified six general problems with pension systems in MENA countries: financially unsustainable schemes (discussed above), large and unaffordable pension promises, badly designed rules, scheme fragmentation and weak administration, modest coverage rates and weak governance structures. Sections 5.6.1 to 5.6.5, which discuss these problems in more depth, are attributed to Whitehouse (2005) and reference MENA countries unless otherwise stated.

### 5.6.1 Benefit Promise Too Large

The DB pension promise is large and unaffordable in many countries in MENA. Pension systems in MENA countries target a high percentage of earnings before retirement: a replacement ratio of more than 80% of an average full career worker's last salary (Holzmann, op. cit.). MENA countries rarely impose a cap on the level of earnings eligible for pensions,—or these ceilings are very high (Holzmann, 2005).

Large mandatory pension mandates mean that few people will want to provide for retirement outside the system, including middle- and high-earners. Undiversified retirement savings increase individuals' pension-related risk and can hamper the development of capital markets, due to the funding of benefits on a pay-as-you- go basis.

The formula to determine public sector pensions throughout Africa is, in many cases, larger than that of the private sector (Holzmann, 2005).

<sup>&</sup>lt;sup>3</sup> Similar figures have yet to be produced for developing countries (Pallares-Miralles, Romero & Whitehouse, 2012) i.e. much of Sub-Saharan Africa.

### 5.6.2 Poorly Designed Rules

Some pension schemes have badly designed rules that arbitrarily redistribute income between members and damage savings incentives. For example, basing pension entitlements on some form of final salary definition, as is the case throughout much of Africa (Pallares-Miralles, Romero & Whitehouse, 2012), rather than average of pay over an individual's working lifetime is unfair and open to abuse. The history of earnings recorded by the pension scheme can be manipulated so that the final salary, which determines the pension, is high, while pay in earlier years, on which contributions are levied, is lower. Moreover, individuals whose earnings rise rapidly over their career receive relatively larger benefits for their contributions than those whose earnings rise slowly, which can be regressive.

Pension schemes in Africa typically favour, and thus encourage, early retirement. While the normal age for pension eligibility is typically 60, people can often draw the pension at age 50 or earlier (Whitehouse, 2005; Pallares-Miralles, Romero & Whitehouse, 2012). Early retirees receive unadjusted benefits or pay a penalty that does not reflect the cost of paying the pension for a longer period.

### 5.6.3 Scheme Fragmentation and Administration Problems

Throughout Africa, the administration of pensions is weak (Whitehouse, 2005) and fragmented (Pallares-Miralles, Romero & Whitehouse, 2012), often with a separate national and civil service scheme. Benefit formulas and eligibility conditions vary considerably among schemes. This hampers a smooth transfer of accrued rights between schemes and inhibits the mobility of the labour force across sectors.

In some countries, information technology systems are outmoded or non-existent. Workers cannot check the accuracy of records or estimate their accrued pensions (Whitehouse, 2005).

Administration costs exceed that of other regions of the world, consuming more than a third of contributions in some cases (Holzmann, 2005). An integrated approach will be more efficient and cost effective, provided coverage is large enough for economies of scale to be harnessed.

### 5.6.4 Modest Coverage Rates

Two MENA and 8 Sub-Saharan countries provide a universal or means-tested pension. Individuals who do not build up a sufficient contribution record during their pre-retirement years will be ineligible for a full scheme pension. Those who have contributed, but for an insufficient period of time, are often eligible for a lump sum payment or, less often, a partial pension (ISSA, 2011a).

Pension systems often cover a relatively modest share of the labour force; mostly workers in the public sector or a minority of relatively high-paid workers in the formal sector (Stewart et al., op cit). Low coverage rates reflect the informal structure of labour markets (Whitehouse, 2005) and the level of overall economic development (Pallares-Miralles, Romero & Whitehouse, 2012).

A lack of education and skills also contribute to low coverage rates. Informal sector workers and the unemployed are often excluded from cover.

Sub-Saharan Africa and the MENA countries have the lowest and third lowest regional coverage rates in the world: 10% and approximately 20% of their working-age populations

respectively (Pallares-Miralles, Romero & Whitehouse, 2012). Hinz, Holzmann, Tuesda, & Takayama, (2012) state that, in low income and developing countries, the number of working-age adults participating in a pension scheme is very often less than 1 in 10. Coverage rates are higher in predominantly public sector economies where civil servant schemes cover a large segment of the workforce.

According to Whitehouse (2005), a driver to increased coverage could be the capacity of the economy to generate jobs in the formal sector. The author believes that prospects for these jobs are not encouraging.

Changing working patterns also influence coverage rates: self-employment (often characterised by low coverage rates) is increasing and the period of employment with a single employer is decreasing (ISSA, 2012b). Financial uncertainty may deter pension scheme participation.

### 5.6.5 Governance and Institutional Capacity

Governance of pension schemes is generally weak. Tripartite boards, with representatives of government, employers, and trade unions, are common in Francophone Africa (Holzmann, 2005). Nominated members may lack experience in managing large, complex financial concerns. Whitehouse (2005) states that, where pension reserves exist, investment policies are governed more by political influence than by members' interest.

Limited institutional capacity is seen as a barrier to expanding social protection in some parts of Sub-Saharan Africa. Examples include the adaption/formulation and design of social protection programs. Such activities involve co-ordination and co-operation of multiple experts. (Niño-Zarazúa, Barrientos, Hicky & Hulme, 2011) Adequate regulatory and supervisory capacity should be in place, particularly for funded or partially funded retirement pillars.

### 5.6.6 Zero Pillar Benefit

Deveroux (2007) states that, for a zero pillar to be sustainable, countries offering it should have a high average national income and/or a high degree of inequality. At least eight countries in Sub-Saharan Africa have a type of zero pillar (Pillares, 2012). Three of these, all middle income countries, have questioned the financial sustainability of the benefit (Deveroux, 2007). Resources allocated to such spending will need to increase as populations age (Holzmann et al., 2009). Delivery costs can be problematic, e.g. these consume almost 15% of the social pension budget in Namibia (Deveroux, 2007). In addition, people who could afford to save for retirement may have less incentive to do so (van Ginneken, 2010), adding unnecessarily to the state's financial burden.

### 5.7 RETIREMENT BENEFIT REFORM

It can be seen from the challenges discussed in the above section that there is room for retirement benefit reform in Africa. If, inter alia, overly large existing benefits could be curtailed and economies of scale utilised, it may be possible for a wider portion of the population to enjoy some form of retirement provision.

### 5.7.1 Reform Criteria

The World Bank was approached for input into retirement reform and performed a 3-fold evaluation of retirement reform proposals, namely whether the proposed reform makes

sufficient progress toward the goals of the pension system, existing arrangements and three process criteria (Holzmann, 2005).

Questions asked concerning existing arrangements are:

- Is the macro and fiscal environment capable of supporting the reform?
- Can the public and private structure administrate any new pension scheme effectively?
- In the case of an existing funded pillar(s): Are regulatory and supervisory arrangements and institutions established and prepared to operate it with acceptable risks?

The process-related criteria are as follows:

- A long-term credible commitment by the government;
- Local buy-in and leadership; and
- The inclusion of sufficient capacity building and implementation.

Such an evaluation should help clarify the realistic chance of successful implementation of a country- specific reform proposal.

The following sections discuss broad reform principles and potential areas for intervention in Africa, before focusing on specific types of potential reform.

### 5.7.2 Reform Principles

Existing country conditions must be taken into account in establishing the pace and scope of the proposed reform (Holzmann, 2005). Countries need to make explicit choices about the level of benefits that the pension system will provide. In particular, these entail deciding what share of pre-retirement income should be replaced by the public system and what share should be the responsibility of individuals (Whitehouse, 2005).

The following broad principles<sup>4</sup> should guide African reform:

- A zero pillar should be in place. Alternatively, funding credits or similar in another pillar for those periodically (or permanently) inactive in the formal sector during the accumulation phase could act as a substitute for a zero pillar;
- Mandated systems should be kept small and manageable;
- The pension system should provide benefits that are adequate and affordable to all workers;
- The pension system should be financially self-sustainable, thus guaranteeing that pension promises can be kept;
- If redistribution takes place, it should be transparent and progressive (that is, from high—to—low—income workers). Holzmann (2005) recommends that "low-coverage earnings-related systems should minimise redistribution, be self-financing and not rely on budgetary transfers". Each country will need to make its own decision on the desirability of redistribution; and
- The pension system should not distort incentives; this requires a closer link between contributions and benefits.

Allowing for these principles, an integrated reform strategy will endeavour to prioritise the desirable criteria for retirement benefits listed in Section 4.1 to meet country-specific social needs. Any reform will result in transitional costs.

### 5.7.3 Potential Areas for Intervention

Reform may involve interventions in the following areas: explicit recognition/financing of liabilities; basic protection; earnings-related protection; expansion of coverage;

diversification of sources of provision; gender-based intervention and improvements in governance, institutional capacity and administration.

### 5.7.3.1 Explicit Recognition/Financing of Liabilities

Pension reform may lead to more sustainable future pension accrual. However, reform will not eliminate the current implicit pension debt related to promises made to current retirees and contributors in relation to accrued benefits. It is desirable that such liabilities be dealt with explicitly via the issuing of formal government debt or the design – and implementation – of transparent financing mechanisms (Holzmann, 2005). Newly accrued pension liabilities should be recognised explicitly to prevent excessive promises being made. Very importantly, rule changes should be subject to actuarial reports, especially those related to increases to benefits.

### 5.7.3.2 Basic Protection

The ILO advocates basic old-age income protection (Holzmann, 2012). However, it needs to be fiscally viable and sustainable. For countries exiting civil war, this may imply not offering overly substantial benefits to civil servants or previous combatants (Holzmann, 2005). While some pensions may support peace efforts, excessive benefits for such groups deplete existing resources earmarked for retirement, possibly leaving the majority of elderly citizens in poverty. Excessive benefits can also be counter-productive, providing perverse incentives for the next insurrection.

### 5.7.3.3 Earnings-Related Protection

Interventions could aim to improve the financial sustainability, incentives and equity of current earnings-related schemes. This will imply realigning promised benefits with contribution rates and retirement rules. A closer link between the earnings on which contributions are paid and that on which pension entitlements are calculated should be established. Examples of such interventions are found in Section 1.6.4 and include introducing parametric reforms, introducing a Non-financial/Notional DC scheme, instituting a move towards full/partial prefunding and matching contributions.

### **COVERAGE**

Ways of extending the formal pension system to vulnerable groups should be explored. However, coverage extension should be preceded by reforms that put the pension system on a financially sustainable footing. Possible methods to expand coverage are discussed in Section 4.7.4. In most cases, expanding coverage to the more vulnerable sectors of society is accompanied by a direct cost to society. Such benefits are often provided on an unfunded basis by utilising current tax revenues.

### PROTECTION OF EXISTING BENEFITS

Diversifying retirement provision reduces associated risk. A multi-pillar approach often incorporates diversification in structure, funding and administration (depending on which pillars are chosen) (Holzmann, 2005).

Vested benefits should be legally recognised as belonging to the individual in question. This ownership should be enforced by a country's laws, especially where liabilities are pre-funded.

### GENDER-BASED INTERVENTION

This issue is addressed extensively by Whitehouse (2005). Policies that discriminate against women should be reviewed. For example, women's rights to bequeath dependants' pensions

should be the same as for men. Alteration to legislation defining partners <sup>4</sup> (including multiple spouses), inheritance and divorce may be needed.

A typical defined contribution arrangement that prejudices women is the use of unisex risk contribution rates. In this scenario, women cross-subsidise their male colleagues' risk costs over their working lifetimes. However, when their accumulated contributions are utilised to purchase annuities, this purchase is often done at a more penal rate for women than for men. Women's higher life expectancy is factored in to the annuity purchase.

Providers may wish to identify ways to maintain a minimum level of contributions to a retirement fund for women during their child-bearing years (Whitehouse, 2005).

### GOVERNANCE, INSTITUTIONAL CAPACITY AND ADMINISTRATION

Reforms include improving the mechanisms to select the governing body, implementation of accountability and investment policies and processes, and institutional capacity building (Whitehouse, 2005). Administrative improvements could include improving information technology systems.

### 5.7.4 Reform Types

### 5.7.4.1 Parametric Reform

Parametric reforms retain the existing structure of benefits, funding and administration, but change contribution or benefit parameters or eligibility conditions. In this manner, additional contributions can be raised and/or the value of benefits can be contained. Parametric reform may be undertaken retrospectively or prospectively to ensure schemes remain solvent. However, it is important to address the underlying causes of any financial difficulty if additional future reforms are to be avoided.

Variation of scheme parameters or eligibility conditions may be the extent of the reform envisaged, or may be the first step in a reform process that is intended to encompass further future reforms. By reducing first or second pillar benefits, governments may encourage individuals to extend their third or fourth pillar savings.

A word of caution if such reforms are to be instituted: individuals may resist small parametric reforms if they are unsure of the extent of reforms envisaged (Holzmann, 2005) and fear more to come. This may be the case if it is suspected that politicians are trying to plaster over a problem that needs to be addressed more comprehensively.

It is possible for parametric reforms to meet social and economic reform objectives and deal with demographic aging of a population. However, World Bank experience shows that such reform is never fully implemented (Holzmann, 2005). Many of the criteria for retirement benefit systems remain unmet and labour market distortions are likely to continue.

As an example of the size of parametric reform necessary, a contribution rate rise of 30 % or more would be needed to ensure scheme sustainability in some MENA countries, were no complementary changes to be made (Whitehouse, 2005). Whereas such large scale adjustments are unlikely, smaller ones may be feasible, especially if they are deemed fair by the population. For example, limiting incentives for early retirement or moving from benefits

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<sup>&</sup>lt;sup>4</sup> Same sex partners are recognised in South Africa.

linked to final salary to lifetime revalued earnings would decrease scheme cost and improve sustainability (Pallares-Miralles, Romero & Whitehouse, 2012).

Kenya, Senegal and Uganda were implanting parametric reforms as far back as 2005 (Holzmann, 2005). Interest in parametric reforms is increasing in Africa (Stewart & Yermo, 2009). Fiscal pressure of civil service pensions is frequently a motivator for reform (Stewart & Yermo, 2009).

### 5.7.4.2 Introducing a Non-Financial/Notional Defined Contribution Scheme

The functioning of a Non-financial/Notional Defined Contribution (NDC) system and its advantages as discussed below are set out by Holzmann (2005). An NDC scheme is unfunded, with current workers paying for current retiree benefits. However, NDC schemes establish a link between contributions paid and benefits received.

Record is kept of the contributions made on an individual's behalf. These notional contributions into individual accounts accrue with a notional interest rate. This interest rate is consistent with that which an unfunded system can pay, taking into account productivity increases and changes in dependency ratios (effectively the "growth rate of covered wages in a mature system.")

Accrued contributions are converted at retirement to defined benefits payable over the remainder of an individual's life. Annuity rates may take life expectancy of a suitable cohort into account, automatically adjusting for early or late retirement. Increases to pensions in payments may be based on price, wage or national domestic product increases. A reserve may be built up if price increases are used and wage increases outstrip these due to increases in productivity. If reserves are built up, they may be used to cushion any economic shocks or changes to the dependency ratio. Even so, the realisation of either contingency may cause funding problems.

NDC system advantages include transparency, a reduction in labour market distortions – contributions are less likely to be viewed as additional tax – and built-in adjustments for individual decisions on retirement age and demographic aging<sup>5</sup>. Any desired redistribution can be introduced in a transparent manner through explicit monthly transfers into the system. Existing benefits may be transferred to notional individual accounts to aid retirement system integration.

If done well, NDC reform is "likely the best way to restructure a typical unfunded defined-benefit scheme within a multi-pillar structure" (Holzmann, 2005). This entails ensuring a level of old- age income protection through a zero pillar (or transfers within the NDC pillar) and implementing an NDC pillar together with a third pillar to enable individuals to target the same replacement ratios as were targeted pre-reform.

NDC reform mostly takes place in a defined contribution environment, or one where a conversion to a defined contribution environment is underway.

Egypt planned to implement an NDC system in 2012 (Pallares-Miralles, Romero & Whitehouse, 2012). However, ISSA's 2011 prediction that "the country's current uncertain political and economic situation may yet impact the scope, sequencing and timing of

reforms"<sup>5</sup> was proved true when the relevant social security law was terminated in August 2013. The termination was, according to the interim president, due to societal opposition to the law (Daily News Egypt, 2013)<sup>6</sup>.

### 5.7.4.3 Expanding Coverage

Kwena and Turner (2013) state that it is generally assumed that an economic incentive is needed to encourage individuals to participate in voluntary retirement schemes. Many governments therefore offer favourable tax treatment of retirement-related contributions, investment accrual and/or eventual benefits. Tax breaks are ineffective in encouraging informal sector coverage (Hinz, Holzmann, Tuesta & Takayama, 2012). Encouraging sponsors to match individual contributions may therefore be offered as an alternative to, or to complement, preferential tax treatment (Hinz et al., 2012). A non-financial approach of automatic enrolment in voluntary schemes is quite effective at improving coverage (Madrain, 2013 as quoted in Kwena & Turner, 2013).

Both the Rwandan and Kenyan governments have implemented successful programs to increase coverage amongst informal sector employees. Rwanda achieved this without following any of the aforementioned traditional methods. The Rwandan government targeted the informal sector by establishing partnerships with key institutions active in the sector, improving information technology to enable the exchange of relevant employment information, designing attractive benefit packages, decentralising services to district level to improve access, and simplifying administrative procedures. This approach led to an increase in coverage from 7 to 18 % in a single year (ISSA, 2011b).

The Kenyan Mboa Pension Plan makes it easy for individuals to make small, voluntary contributions. The Plan enjoys the same tax benefits as other Kenyan pension schemes and has attracted 42 000 members in a short period of time (Kwena & Turner, 2013). Many of the aforementioned approaches are discussed in further detail below.

### MATCHING CONTRIBUTIONS<sup>7</sup>

Matching Defined Contribution (MDC) schemes allow sponsors, public and private, to complement individual contributions into individual accounts. Matching rates of 25 to 100 % are typical as are thresholds and ceilings within the schemes. Withdrawals may be allowed to purchase a first home or on certain contingent events (e.g. unemployment). Retirement benefits are, by definition, prefunded.

Ideally, MDC systems should increase coverage and decrease labour informalisation at lower fiscal costs than expanding NDC schemes or subsidising earnings-related DB schemes.

Experience suggests that matching contributions is "moderately effective in increasing program participation, but not generally measurably effective in raising contributions and thus benefit levels" (Hinz, Holzmann, Tuesta & Takayama, 2012). It is noted that "Other interventions which are increasingly guided by lessons from behavioural economics and finance may prove more effective and typically cost much less" (Hinz, Holzmann, Tuesta & Takayama, 2012).

<sup>&</sup>lt;sup>5</sup> Reforming Egypt's social security system: A vision for social solidarity; Web accessed on url <a href="http://www.issa.int/-/reforming-egypt-s-social-security-system-a-vision-for-social-solidarity">http://www.issa.int/-/reforming-egypt-s-social-security-system-a-vision-for-social-solidarity</a> on 3 December 2013

<sup>&</sup>lt;sup>6</sup> Web accessed on url <a href="http://www.dailynewsegypt.com/2013/08/27/presidential-decree-announces-increase-in-pensions/">http://www.dailynewsegypt.com/2013/08/27/presidential-decree-announces-increase-in-pensions/</a> on 3 December 2013

<sup>&</sup>lt;sup>7</sup> The information in this section is attributed to coverage (Hinz, Holzmann, Tuesta & Takayama, 2012).

### MANDATING PARTICIPATION

Coverage can be expanded by introducing mandatory retirement schemes. However, careful thought needs to be given regarding the individuals for whom such contributions are mandated. Mandatory contributions can have unintended consequences as they effectively impose another layer of expense on workers. They may drive some, particularly low-paid formal workers to informal work if implemented. It would not be sensible to enforce mandatory contributions from individuals who cannot meet their existing obligations, or impose contributions at a level that would cause the barely solvent to take out loans to meet these obligations. Compulsion is difficult to implement amongst informal sector workers.

### INCORPORATING BEHAVIOURAL ECONOMICS AND FINANCE IDEAS

Extensive research is being done into how financial decisions are made. Individuals often react in a way that is not anticipated by economic theory (Ariely, 2008). Thaler & Sustein (2008) believe it to be both appropriate and acceptable to nudge individuals into making decisions that will make them better off "without forbidding (them) any options or significantly changing economic incentives". Governments, as well as industry practitioners, may wish to apply nudging techniques in the retirement context. For example, exploit the fact that many people do not act to alter a default choice by creating a default that will achieve a desired outcome.

### **IMPROVE ACCESS**

According to ISSA (2012a), there is evidence that barriers to extending coverage to the self-employed may be administrative and operational. Schemes could improve coverage by simplifying enrolment and facilitating the paying of contributions. In India, only one proof of identity is needed to enrol entire families into specified schemes. In South Africa, "mobile offices" have been set up to improve coverage of rural populations. Similarly, decentralisation in Rwanda resulted in a 50% improvement in contribution collection rates. Contributions can be paid by mobile phone in Kenya.

### 5.7.4.4 Move to Prefunded Retirement Benefits

Countries operating a Pay-As-You-Go (PAYG) system may choose to move wholly or partially to a funded system. The World Bank's staff are of the overall view that "where appropriate – some funding creates net benefits ... at a social, economic and political level." (Holzmann, 2005)

Moving to a funded system can help reduce the fiscal burden of PAYG schemes over time (Stewart & Yermo, 2009). The extent to which this is achieved will depend on the implementation of the process. Whether a move to prefunding is compulsory or voluntary for current active members, the extent of individual incentives to move play a role in estimating financial benefits of a system change (Palacios & Whitehouse, 1998).

Prefunding can result in increased national savings (provided retirement savings are not merely substituted for existing personal savings) and assist in financial market development (Stewart & Yermo, 2009) and output growth (Holzmann, 2005).

The main constraint to moving to a funded system is financial. Governments will need to simultaneously fund implicit pension debt and ongoing retirement fund accrual. Moving from an unfunded scheme to a partially/fully funded one will require a generation of workers to contribute to both arrangements simultaneously. The recent financial crisis may make the

financing of such transition costs more difficult across the globe (Holzmann, 2012). In 2005, Holzmann was already of the opinion that investment performance was compromising attempts to prefund pension obligations in Sub-Saharan Africa (Holzmann, 2005).

In monetary terms, transition costs may not be high for countries with an immature system and low or modest cover, – compared to countries with a mature system and broad coverage, but they may still be unaffordable (Holzmann, 2005).

In addition, limited investment opportunities, poor administration platforms and the lack of strong regulatory institutions all hinder systematic reform<sup>8</sup> in Sub-Saharan Africa (Holzmann, 2005). A sound regulatory and structural environment is needed to support DC funds.

Nigeria's Pension Reform Act of 2004 established a fully funded DC scheme. Membership is compulsory for employees of private sector businesses with more than 5 employees and virtually all public sector employees. However, as the informal sector accounts for 90% of the workforce, it may be argued that a basic social pension is still needed (Stewart & Yermo, 2009).

Some East and West African countries are interested in creating a prefunded Centralised Wealth Fund to cushion expected future shocks, including population aging, to unfunded pillars (Holzmann, 2012).

### 5.7.4.5 Extension of Pillars

The lifetime poor, non-poor informal sector workers and formal sector workers all differ in terms of retirement benefit needs. The lifetime poor normally hope for a level of income that meets basic needs. Non-poor informal and formal sector workers are often used to higher living standards and wish to ensure that these standards are maintained in retirement. Different pillars can be used to meet these different needs.

### 5.7.4.6 Reduce Administration Costs

Introducing clearing houses is an example of how transaction costs may be reduced (Holzmann, 2005). Offering a centralised administration platform is another example. Reduced charges would lead to better benefits for a given level of contributions or lower contribution requirements for the same level of benefit. Umbrella funds in South Africa are showing signs of reducing costs over time (Gluckman, unpublished/personal correspondence).

Integration of national and civil schemes should reap the benefits of economies of scale within the scheme in terms of reduced administration costs. Integration also has the potential to enable the broadening of investment possibilities. Nigeria and Ghana are examples of African countries that have recently introduced a single retirement system in which all formal sector workers participate (Pallares-Miralles, Romero & Whitehouse, 2012). Cape Verde and Djibouti have partially integrated their civil servants into the national scheme (Pallares-Miralles, Romero & Whitehouse, 2012).

5.7.4.7 Implement a Combined Unemployment and Retirement Savings Account Introducing one account out of which unemployment and retirement benefits are paid has the potential to reduce the temptation for the formally employed to only work the minimum

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<sup>&</sup>lt;sup>8</sup> Systematic reform is the movement from a DB system to a DC system.

numbers of years required to be eligible for a minimum pension (Holzmann, 2005). The claiming of unemployment benefits would result in an obvious reduction of future retirement benefits. This may not, however, deter individuals from using unemployment as an excuse to access retirement savings earlier than would otherwise be legally possible.

South Africa's current retirement reform proposals include an allowance for drawing down a portion of preserved pensions in the case of unemployment-related financial need (South African Government, 2013<sup>9</sup>). Although the initial intention was to enforce preservation, there were calls by organised labour to tolerate some leakage as impoverished retrenched workers and unemployed persons have a greater need for current consumption than for deferred benefits.

### 5.7.4.8 Integrated Systems

Stewart & Yermo (2009) list the following benefits to small/low income countries integrating their civil servant and national schemes: equity, administrative efficiency and labour market flexibility. They do however warn that this may need to be part of a reform process that first addresses any disparities between the schemes.

Cape Verde and Djibouti are in the process of integrating their different pension schemes (Pallares-Miralles, Romero & Whitehouse, 2012).

### 5.7.4.9 Extend Financial Sector Involvement

Countries with a core of sound banks and insurance companies and a clear agenda to support financial sector development should consider higher levels of funding in mandatory schemes (Whitehouse, 2011).

In countries where the life insurance sector is better developed and regulated, insurance companies could provide voluntary private pensions and compete for the management of public pension funds (Whitehouse, 2011).

### 5.7.5 Evaluation of Reform Projects

Insurance Fund (ISSA, 2011).

The World Bank found that the secondary criteria used to judge benefit suitability (see Section 5.1.2) are often not met even after reforms have been implemented (Andrews, 2006). There is therefore a need to manage country expectations of possible reform results.

### 5.8 ACTUARIAL INVOLVEMENT IN AFRICA

Retirement system projections are complex and all are subject to some degree of risk.

Results are dependent upon input parameters, assumed underlying distributions and their covariances as well as assumed starting values. All of these inputs need to be periodically reviewed in line with economic, environmental or demographic change in order to ensure results reflect current circumstances. A practical example of this is Chad's practice of adjusting benefit payments according to actuarial projections by the National Social

In partially/fully funded DB and DC systems, as well as NDC systems, the (notional) return on assets must be determined and declared and annuitisation factors for age-related cohorts must be determined. The latter requirement is a field of actuarial speciality.

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<sup>&</sup>lt;sup>9</sup> 2013 Retirement reform proposals for further consultation. <a href="http://www.treasury.gov.za/documents/national%20budget/2013/2013%20Retirement%20Reforms.pdf">http://www.treasury.gov.za/documents/national%20budget/2013/2013%20Retirement%20Reforms.pdf</a> accessed 1 November 2013

Inherent redistribution within and across generations should be monitored and communicated. Redistribution within DC schemes differs from that of DB schemes and relates to investment choice and market movements (Asher, 2013).<sup>10</sup>

Inherent financial risks came to the fore during the recent financial crisis. Reserves held by DB funds/required contribution rates, as well as individual DC benefit accounts, were often impacted. There is a role for actuaries in the financial management of Social Security systems.

In many African countries there is a lack of suitable investment opportunities for defined contribution schemes. Defined contribution schemes need returns at least equal to inflation to ensure that workers' monies are effectively preserved. In many countries the stock exchanges either do not exist or have a very limited universe of stocks to trade in. This often results in a relatively large percentage of the assets being invested in asset classes such as property and cash. Actuaries can play a role in advising on investment strategies, valuing assets and recommending an investment reserve account to smooth returns over time.

Other areas in which actuaries can become involved in are:

- evaluating the sustainability of Social Security systems,
- ensuring design and adequacy issues are addressed (including the projection of net replacement ratios),
- assessing the impact of HIV/AIDS on funds;
- asset-liability modelling to aid investment choice; and
- reporting and communicating information (ISSA, 2012b).

In addition, Actuaries can help to provide credible comparative estimates of retirement costs post reform to that of the current system (Holzmann, 2005). The World Bank provides a program called the Pension Reform Options Simulation Toolkit (PROST)11 that can assist with this.

 $<sup>^{10}</sup>$  A Asher (2013/unpublished/PBSS colloquium 2013 discussion paper) Redistibution and capital market impacts: principles and scope for actuarial involvement

<sup>&</sup>lt;sup>11</sup> For more information, visit <a href="http://siteresources.worldbank.org/INTPENSIONS/Resources/395443-1121194657824/PRPNoteModeling.pdf">http://siteresources.worldbank.org/INTPENSIONS/Resources/395443-1121194657824/PRPNoteModeling.pdf</a>

### 6 HEALTH CARE

### 6.1 INTRODUCTION

Central to the objectives of current Social Security goals is the sustainable access to affordable, efficient and equitable quality health care, which is also globally recognised as a key challenge to the core objectives and mandates of Social Security reforms. Inadequate access and the lack of prepayment systems for health care are barriers to social and economic development.

In addition, health reform has been ignited in many countries by the United Nations MDGs. These goals aim to reduce child mortality, improve maternal health, and combat HIV/Aids, malaria and other diseases. All of the MDG goals have been accepted by the 190+ UN member states as achievable by the year 2015.

The ultimate goal for many health reform initiatives is the achievement of universal coverage. This is defined by the World Health Organisation as access to key promotive, preventive, curative and rehabilitative health interventions for all at an affordable cost, thereby achieving equity in access. In tandem with this goal is the need to reduce the probability of catastrophic health expenditure by achieving equity in financing.

However, more health spending does not necessarily mean better health outcomes. "Throwing money at the problem" does not always translate into an automatically efficient, equitable, and effective health care solution. Evidence suggests that substantial amounts of new funds are flowing into health care in low- and middle-income countries. Unfortunately, health reform and policy debate focus narrowly on how to generate more funds for health care, ignoring the financing and payment methods chosen as well as the monitoring and evaluation of results. Yet these choices have profound effects on the outcomes and the performance of a health system.

In essence, successful health reform strategies are driven by health care policy. Key policy issues for countries aiming at extending coverage involve:

- choosing the appropriate financing models for different parts of the population as part of an integrated strategy;
- identifying the essential and cost-efficient benefit package; and
- developing the necessary institutional infrastructure and human resources to enable health benefits to be delivered effectively.

For most countries, the achievement of a successful health care policy requires large scale reforms in various sectors and the initiatives taken will depend largely on the conditions prevailing within each country. Health reform should be recognised as a lengthy process that requires thorough consideration of all the factors that contribute to the development of an enabling environment.

Health reform is unquestionably not precluded to developing or low-income countries. However, it is irrefutable that these countries face the most difficult challenges regarding inadequate access to affordable and effective health care. It is further noted that many African countries have embarked on the strenuous task of achieving accessible and equitable good quality health care.

The approaches vary from country to country, but positive outcomes in a range of settings suggest that structures based on risk-pooling and prepayment, and funded out of taxes or some form of social health insurance, have most to offer. In risk-pooling structures, funds are collected from workers and employers and often additional funds are provided by governments, and then pooled into a social health insurance fund and made available to individuals within the pool as required. The healthy subsidise the sick.

While prepayment and risk-pooling seem to be constants in equitable universal healthcare systems, the ILO recognises that the paths to universal coverage are as varied as the circumstances faced by individual countries. There is no defined solution nor is it appropriate to disregard current healthcare systems implemented. Even in countries with pluralistic or fragmented health financing mechanisms in place, universal health coverage is a realistic medium-term goal.

The remainder of this section provides a high-level summary of the various health insurance models and funding models implemented across the world including a discussion of the lessons learned from the various countries' experiences. This is followed by an overview of the health care challenges prevalent in Africa and an analysis of Africa's progress with regard to the MDG goals. This section concludes by considering the potential involvement of actuaries in health care.

### 6.2 HEALTH INSURANCE MODELS AND FUNDING MODELS

The fundamental objective of health systems is to improve the health of the population and to provide financial protection against the unexpected costs of ill-health. Central to achieving these goals is the concept of risk-pooling, where the risk of having to pay for health care is spread across the entire pool of members instead of being borne solely by the individual. Therefore, the larger the degree of risk-pooling in a health financing system, the smaller the financial consequences of individual health risks, and the easier it is to increase access to health care and achieve universal coverage.

Universal coverage is defined by the World Health Organisation as: "access to key promotive, preventive, curative and rehabilitative health interventions for all at an affordable cost" (WHO, 2005).

The literature recognises four options for achieving the ultimate objective of universal coverage (WHO, 2004):

- a) The Beveridge Model, which achieves universal coverage immediately;
- b) The Bismarck Model, where Social Health Insurance can be viewed as a building block for National Health Insurance. This model follows a phased implementation approach towards achieving universal coverage in the long-term;
- c) National Health Insurance, which achieves universal coverage immediately. NHI can be viewed as a mix of the above two options. Under mixed health financing systems, the subsidised population group is partially covered via general tax revenue, and a clearly specified contributory population group is covered by SHI;
- d) Two tiered model: A system of private health insurance that is subject to government regulatory powers, especially ensuring a pre-defined benefit package of care usually targeted at the urbanised populations coupled with a large out-of-pocket model within rural regions.

### 6.2.1 Beveridge Model

The Beveridge model is named after William Beveridge, a social reformer who designed Britain's National Health System (NHS). In this system, health services are free at the point of treatment and health care is provided and financed by the government through tax payments (in a similar manner as the police force or the public library). The government is the sole payer i.e. single funder-model. Many, but not all, hospitals and clinics are owned by the government. Some doctors are government employees, but there are also private doctors who collect their fees from the government. Government directly reimburses providers i.e. single purchaser. The State fund contracts with a network of public and private providers i.e. a multiple delivery system.

### 6.2.2 Bismarck Social Health Insurance (SHI) Model

The Bismarck SHI model is named after the Prussian Chancellor, Otto von Bismarck, who invented the welfare state. Similar to the NHI model, the SHI model also utilizes an insurance system, with the insurers called "sickness funds". It is important to draw the key distinction between NHI and SHI. NHI covers the entire population, thereby achieving "universal coverage", whilst the Bismarck SHI model only covers those in the formal sector who contribute to the SHI Scheme.

A Bismarck SHI scheme can either be made up of multiple risk pools/funds, or a single risk pool/fund. The SHI scheme can be funded by a single entity (for example the Government) or by multiple entities. It may also consist of a single-purchaser or multiple-purchasers of health care services. The purchaser of health care services contracts with health care providers to provide health care services to the scheme members. Funds are usually financed jointly by employers and employees through payroll deductions. Typically, an SHI scheme contracts with both public and private providers i.e. a multiple delivery system. The sickness funds are non-profit.

It is important to outline certain distinct characteristics of SHI:

- a) Membership under the "contributory regime" is compulsory;
- b) Government may fund low-income enrolees under the "subsidised regime" (should the government wish to extend SHI to achieve NHI);
- c) Enrolees are eligible for benefits once a contribution is paid (whether this contribution is subsidised or not); and
- d) Legislation sets out the contribution and benefit rules.

### 6.2.3 National Health Insurance (NHI) Model

The NHI model uses an insurance system as opposed to a budget system. This implies that the pool of state insurance funds, as opposed to the household's personal income, becomes the budget for individuals to service their health care needs. A single state NHI fund acts as a single funder and single purchaser of medical benefits, with only those citizens/employers earning above a certain income or means threshold, required to pay contributions into the NHI Fund. However, the entire population is entitled to benefits from the Fund. The NHI Fund is non-profit and may contract with both public- and private-sector health providers i.e. it is a multiple delivery system.

### 6.2.4 Two –Tiered Model

Only the developed and industrialised countries (perhaps 40 of the world's 190+ countries) have well established national health care systems. Most nations are too poor and suffer from unsophisticated organisational structures which limit their ability to provide mass medical

care. They are thus forced to adopt an out-of-pocket model where the individual bears the full cost of any health care.

The basic result in such countries is that the rich get medical care and the poor stay sick or die. Access to care under the Out-of-Pocket model is only available if the individual:

- Can pay the bill out-of-pocket at the time of treatment, or
- Is sick enough to be admitted to the emergency ward at the public hospital.

Therefore, this model can force individuals and families into poverty due to the costs of ill-health and can jeopardise the overall health of the population and thus the country's economic growth.

The following graphic presentation indicates which models a number of countries have chosen to implement, based on information available during 2006.

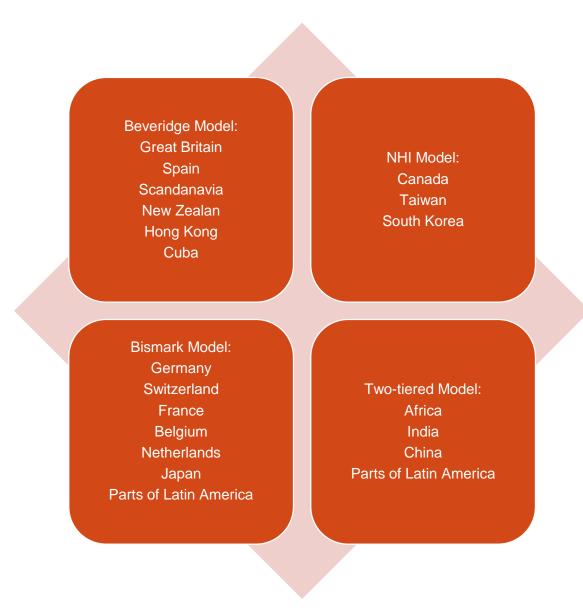


Figure 1. Healthcare Funding Models

Most countries depicted within the Out-of-Pocket model in the graph above have evolved beyond this model as it was notably the most inefficient and inequitable in achieving sustainable access to equitable and quality health care. The next section illustrates the lessons learned from the various countries' experiences followed by a discussion regarding the road to health care reform currently being embarked upon by various countries within Africa.

### 6.2.5 Transitioning from SHI to NHI

SHI is one of the main funding models used for health care financing. Many SHI initiatives have taken place in Africa, Asia, and Latin America. A total of twenty seven countries have introduced the overriding principle of universal coverage via SHI (Hsiao & Shaw, 2006). Due to the difficulty of moving to universal coverage overnight, a phased approach is typically adopted:

- a) Start with occupational/employee groups and
- b) Expand coverage, where the government plays a role in subsidising the rest of the population.

Advantages of this two-step approach:

- More financial stability (once the contributory regime is solvent and performing well, the subsidised regime can then be established) and
- More buy-in from contributors i.e. more acceptable to people who pay SHI contributions in Step 1.

It is possible to intertwine the two stages as follows:

- a) Decide the subsidized regime in advance, while designing the contributory regime and
- b) Secure donor funding/government funding in advance of introducing the subsidized regime.

It is also important to note that the transition from SHI to NHI is a lengthy process. The figure below illustrates the transition period from SHI to NHI by country (WHO, 2004):

# Time to universal coverage Republic of Korea Japan Costa Rica 48 Luxembourg Austria Fermany 0 20 40 60 80 100 120 140 Years to universal coverage

Figure 2. time to universal health care coverage

However, it is noteworthy that the factors at play for these countries differ to the factors at play in today's more technologically sophisticated world. For further reading on the factors to consider when transitioning from SHI to NHI, please refer to "Reaching universal coverage via social health insurance: key design features in the transition period" by the WHO.

# 6.2.6 Implementation of SHI: Lessons Learnt

Below is a summary of the key findings from a systematic review of SHI (in particular) country experiences from 5 developing countries (Hsiao & Shaw, 2006). These countries were/are developing nations with circumstances, to a certain extent, somewhat similar to those of the African countries.

Table 7. Africa health care statistics

	Population (millions)	Per capita GDP (US \$)	Population below poverty line (%)	% of population living in urban areas	Unemployment rate (%)	Private Health Expenditure (% of THE)	OOP health expenditure (% of THE)	Total dependency ratio
Year	2010	2010	2003 - 2009	2010	2008 - 2010	2010	2010	2010
Source	World Bank	World Bank	UNdata	UNICEF	NationMaster	WHO	WHO	WHO
Kenya	40.5	775	45.9 (2005)	22	40.0 (2008)	55.7	42.7	82.2
Ghana	24.4	1283	28.5 (2006)	51	11.0 (2000)	40.5	26.9	73.6
Philippines	93.3	2140	26.5 (2009)	49	7.3 (2010)	64.7	54.1	64.1
Colombia	46.3	6225	45.5 (2009)	75	11.8 (2010)	27.3	19.5	52.3
Thailand	69.1	4608	8.1 (2009)	34	1.2 (2010)	25.0	14.0	41.7
Namibia	2.3	5330	38 (2003)	38	51.2 (2008)	41.6	7.4	66.9

Furthermore, these countries are at various stages of SHI implementation (see diagram below for the various stages and which country provides the case study for each stage).

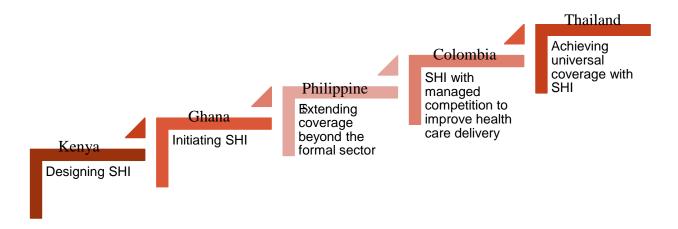


Figure 4. SHI Implementation stages

Hsiao & Shaw (2006) make the point that SHI is a complex instrument of reform. Done well, SHI can yield positive outcomes over time. Implemented properly, SHI can be expected to improve a country's risk protection and health status outcomes. Done hastily, SHI can take us backward, be disruptive, and possibly hazardous.

The lessons learned are summarised in terms of the following four dimensions (Hsiao & Shaw, 2006):

- Factors contributing positively to an enabling environment for SHI;
- Positive changes that can be attributed to SHI;
- Major problems that challenge implementation; and
- Implications for policy makers.

# 6.2.7 Factors Contributing Positively to an Enabling Environment for SHI

A successful launch of SHI requires three major pre-conditions:

# a) Incentive for people to pay premiums

People must be motivated to accept and pay for SHI, even in compulsory systems. People are willing to prepay for health care services only if they currently have to pay for their health services. If adequate public sector services of good quality are provided for free or nearly free, why would people who use these services want to enrol and pay for SHI? People will not want to pay for SHI unless user fees are high, if patients have to purchase drugs and supplies, or if public services are so poor that many patients pay out-of-pocket for private providers.

A comparison of the Ghanaian and Tanzanian experiences can be instructive. Ghana shifted to the "cash-and-carry" user fee system in 1999, and patients had to pay fairly high user fees. Consequently, voluntary prepayment plans such as the community-based mutual health organisations (MHOs) flourished, growing from 4 MHO funds in 1999 to 157 by 2002. In 2003, Ghana was able to pass legislation to establish SHI nationwide, relying on the MHOs as a building block.

By contrast, Tanzania does not have high user fees. Since 1996, Tanzania has tried to attract and enrol its population into its district-based insurance, the community health funds. The government subsidises 50% of the premium, regardless of income level, yet the enrolment rate remains low, ranging from 5% to 20% of the eligible population, and those who enrol tend to be the elderly and the sick.

# b) Certifications of qualified providers

Developing nations have tended to pay little attention to the safety and quality of health services rendered in the private sector, other than establishing minimum standards such as licensing requirements.

Following initial licensing, the actual safety and quality of health services remain largely unmonitored and unregulated. In rural areas, drug peddlers and indigenous doctors have free reign, because regulations are not enforced. Moreover, governments rarely require private facilities to be transparent in relation to their financial operations or to adopt modern financial and medical record systems. Under such conditions, the quality of private sector health services is highly variable, and detecting fraud and price gouging when SHI pays for claims is difficult.

Publicly provided health services are also problematic. Governments manage public facilities by means of bureaucratic rules that do not tend to encompass modern accounting, financial, and clinical information systems. The average clinical quality of public facilities might be better than that of private facilities, but it is nevertheless highly variable. These deficiencies have to be remedied before or concurrently with SHI to gain sustained public support, perform its role of assuring a reasonable quality of health care, and sustain its operations financially.

The SHI administration should prudently purchase health care for its insured. A prudent purchaser has to ensure that services and drugs meet certain standards. Equally important, SHI has to be able to control fraudulent claims and supplier-induced demand for unnecessary services, as well as "inside" dealings between doctors, pharmacies, and testing laboratories. Conditions in the market for health services often require SHI to set safety, quality, financial, and audit standards beyond what currently exists so that SHI can be a responsible and prudent purchaser. Under such circumstances, SHI has to develop and implement new standards and enforcement mechanisms to assure the safety and clinical quality of health care, as well as standard medical records and accounting systems, and adequate inspection and auditing of providers. Establishing standards and a system for enforcing them must be high priorities before SHI can be implemented.

# c) Rapid economic growth

Rapid economic growth is an important consideration in sustaining an SHI program and in expanding it to achieve universal coverage. Health care costs rise rapidly due to inflation, rising expectations, and expensive new drugs and technology. Unless wage rates are also rising rapidly, premiums would have to be increased frequently. Meanwhile, governments may need rising revenues to subsidise the growth in premiums for the poor and to expand coverage.

Moreover, rapid economic growth has positive effects on SHI enrolment in that it (a) can lift people out of poverty, meaning that more people can afford to pay their premiums; (b) can bring more workers into the formal sector, which increases the number of people in the contributory regime; (c) can raise the government's general revenues, meaning that the government can subsidise more of the poor; and (d) tends to increase the government's administrative capacity to collect taxes and insurance premiums.

Rapid economic growth will therefore enable a nation to move towards universal coverage.

# 6.2.8 Positive Changes Attributable to SHI

SHI-experiences from developing countries indicate that SHI can be credited with at least 13 positive changes. Effective SHI:

- a) Facilitates national debate and consensus on the financing of health care and allocation of resources, involving more stakeholders such as industrial groups, co-operatives and religious groups;
- b) Mobilises more revenue for health;
- c) Constitutes a formal mechanism for pooling revenues and spreading risks across population groups, from rich to poor, the sick and the healthy, and across the life cycle;
- d) Forces more careful and rational planning to equate SHI revenues with SHI expenditures;
- e) Responds to clients' preferences and complaints through grievance procedures if benefit entitlements have not been honoured:
- f) Separates public finance from public provision, whereby the SHI fund manages the financing and contracts with public and private providers to deliver services;
- g) Inspires more realistic consideration of equity, arising from the debate on subsidising and expanding coverage for the poor and the indigent that accompanies SHI;
- h) Encourages more efficient purchasing of health services using different forms of provider remuneration (e.g. capitation agreements) in the quest to achieve value for money;
- i) Results in a clarification and redefinition of the roles of ministries of health;
- i) Succeeds in expanding membership rather than simply stalling or levelling off;

- Reduces catastrophic financial loss that is faced at times of serious illness or injury, and thus the vicious cycle of indebtedness, debt servicing, and reduced household expenditure on necessities;
- 1) Expanding access to quality services by the insured; and
- m) Results in making scarce public revenues (from general taxation) available to the poor.

# 6.2.9 Major Challenges Inherent in Implementation

The experiences of the five countries also indicate that, at various stages of development, SHI can expect to encounter at least 9 major implementation challenges along the following themes:

- a) Enforcing the collection of contributions;
- b) Contributing members may not afford contributions in respect of dependants;
- c) Actuarial costing of the benefits package requires technical skills and data, and is essential to determine the financial sustainability and survival of SHI;
- d) Enrolment of those in the informal sector and the self-employed, since mandatory enrolment is not easy to enforce;
- e) Defining, certifying, and subsidising the poor;
- f) Supply will have to be built up progressively if clients in semi-urban and rural areas are to have access to adequate health care;
- g) Provider payment mechanisms that aim to shift the financial risk of provision to the provider will have to be continuously monitored and evaluated;
- h) Administrative efficiency improvements e.g. associated with the consolidation of existing social insurance and other risk-pooling schemes; and
- i) Leakage of SHI funds because of corruption will be a perpetual threat.

# 6.2.9.1 Policy Implications

The 15 policy implications are cautionary statements, intended to minimise misconceptions and mistakes surrounding SHI:

- a) SHI is complicated: effective and efficient implementation takes many years;
- b) It takes decades for SHI to achieve universality;
- c) Initially, having the same benefits-package for all groups may not be possible;
- d) The benefits-package must be designed and costed;
- e) User fees must be in place to motivate people to join;
- f) SHI must create adequate incentives for workers to enrol;
- g) Large general revenues are needed to cover the poor;
- h) Stakeholders must be convinced of the actuarial soundness of SHI;
- i) Supply-side subsidies must be reduced;
- j) The SHI Agency should be insulated from political interference;
- k) The SHI Agency should be a prudent purchaser of medical services and goods;
- 1) Qualified providers must be certified before or concurrently with implementation of SHI;
- m) A single fund is preferable to multiple funds;
- n) Donors could play a valuable role in supporting the implementation of SHI; and
- o) SHI should be linked to a National Health Insurance policy.

Even though the lessons learned relate mainly to SHI, these lessons can very well be extended to the design and implementation of any State health insurance fund (including the NHI and Beveridge models).

# 6.2.10 Country experience within the informal sector

In Africa, Community Health Insurance (CHI) Schemes are a common mechanism used to provide health care to low-income earners living in rural areas. It was independently estimated that there were 626 CHI schemes in West Africa alone (Soors, 2010).

Community Health Insurance Schemes share five characteristics, namely:

- a) The schemes are established by communities, of which the individuals share common characteristics such as geographical area, ethnicity, religion, etc.
- b) Solidarity principles are applied as opposed to mutuality i.e. contributions to the scheme are not determined based on a member's risk factors;
- c) Members are involved in decision-making and management of the scheme;
- d) The schemes are non-profit; and
- e) Membership to the scheme is voluntary (Soors, 2010).

In West African countries the establishment and management of CHI schemes have been undertaken by the respective governments which have also instituted enabling legal frameworks. Varying levels of success have been achieved by different countries of which Senegal, Mali, Ghana, Guinea, Burkina Faso, Benin, Togo, Cameroon and Niger are included. Progress has been slow and the success of the entire concept as a means of providing health care to low-income earners who live in areas with limited access to such services. has been heavily criticised (Soors, 2010).

In Central and East Africa, both government and health care providers tend to play leading roles in the establishment and management of CHI schemes. Tanzania, Kenya, Uganda, and Rwanda are some of the countries that have attempted to provide health care to the informal sector through CHI schemes. Most of these schemes are young and small with varying levels of successful implementation (Soors, 2010).

Exploring the possible establishment of CHI schemes as a means of providing health care to the informal sector in African nations would require extensive research and investigation into the nature and size of the informal sector and the most appropriate structure for the CHI schemes.

## 6.3 AFRICAN CHALLENGES

The pressures of reform for African countries are intensified by the high burden of disease. This is exacerbated by poor living conditions and lack of access to quality care. Health statistics for African countries as a whole are poor in comparison to the rest of the world and efforts for reform are problematic given the typical issues faced by low- and middle-income countries. These issues include high out-of-pocket health care expenditure, high income inequalities, unemployment rates, poor health care resources, poor infrastructure and overall system management, lack of policies and legislation to support development and importantly, a lack of funding.

Furthermore, in Africa, the minority have access to medicine and malnutrition is a constant problem. Lack of clean water and other basic necessities, disease, and human conflicts make survival difficult for most on this continent. Besides lack of appropriate health care and nutrition, HIV/AIDS is a major health issue in Africa. The children of Africa suffer the most from this epidemic. Millions of children have been left orphaned because of the disease.

Child mortality rates in Africa are disproportionately high in comparison to the rest of the world. Some statistics from The UN's Millennium Development Goals Report (2011) which highlight this are:

- Of the 26 countries worldwide with under-five mortality rates (U5MR) above 100 deaths per 1,000 live births in 2010, 24 are on the African continent;
- Approximately one in every eight children on the continent die before the age of five which is nearly twice the overall average in developing countries; and
- In Africa, the three biggest killers of children under five are diarrhoea, malaria and pneumonia (which make up more than 50% of deaths) with the proportion of malaria-related deaths (16%) being much higher than the world average.

In Africa more than half the population lives on less than \$1 a day which further exacerbates the need for affordable health care. On average, Governments only invest 6.5% of GDP in health care. In addition, Africa comprises almost one eighth of the world's population and bears one-quarter of its disease burden, but employs only 2% of its doctors. In some places, more than 10,000 people rely on just two doctors. As can be seen in the table below, the number of pharmaceutical personnel is equally sparse.

Table 8. African health care spending and personnel statistics

Health Statistic	Life Expectan cy at birth (years)	Physicia ns	Nursing & midwife ry personn el	Pharmaceuti cal personnel	Total Health Expenditu re (THE) (% of GDP)	Private Health Expenditu re (% of THE)
	2009	Density (p	er 10000 po - 2010	pulation), 2005	2009	2009
African Region	54	2.2	9	0.7	6.5	50.7
Region of the Americas	76	20	72.5	-	14.4	50.7
South-East Asia Region	65	5.6	10.9	4.1	3.8	62.9
European Region	75	33.2	65	5.4	9.3	24.8
Eastern Mediterranean Region	66	10.9	15.6	5.4	4.7	49.1
Western Pacific Region	75	14.8	18.4	3.8	6.6	35.6
Global	68	14.2	28.1	4	9.4	40.8

World Health Statistics 2012, WHO

Despite the momentous challenges faced by African nations, health care has already changed dramatically over the last decade, and is expected to improve even further in the next one. This is largely attributable to the many stakeholders striving to improve health care in the African region. This includes national and local government authorities, NGOs and multinationals. The details of an effective healthcare system are inextricably linked and notably complex and therefore it is difficult for any one party to independently make a difference.

A 2009 McKinsey research document noted that the private sector is currently playing and will continue to play a vital role in the financing and provision of health care in sub-Saharan

Africa. The report, "The Business of Health in Africa", noted that the private sector could provide 60% of the \$25 to \$30 billion needed for sub-Saharan Africa to meet the demands of health care over the next decade. A second McKinsey research document, "A practical approach to health strengthening in sub-Saharan Africa", pointed out that system-wide barriers were impeding the health care delivery in sub-Saharan Africa. In order to combat disease effectively, solutions must be developed and implemented collaboratively.

Furthermore, to create an environment of equity in access and fair financing, principles of social solidarity need to apply. Prepayment, linked to affordability and the pooling of funds, ensures that the risk of unexpected health expenditure is borne by the entire risk pool as opposed to the individuals themselves. The larger the risk pool, the greater the predictability of health expenditure as the effect of large claims is spread over a larger membership base. It is therefore critical to formulate a strategy to ensure that the entire population obtains health cover and reduce the levels of out-of-pocket expenditure that lead to impoverishment. Those countries that are seen to be making notable progress in certain areas of reform include South Africa, Zambia, Ghana, Tanzania, Kenya, Nigeria & Namibia, amongst others.

### 6.4 AFRICA'S PROGRESS WITH REGARD TO THE HEALTH- RELATED MDGS

The Millennium Development Goals (MDGs) that were agreed to by world leaders over a decade ago encompass a number of important milestones relating to poverty, hunger, health and environmental sustainability, amongst others.

The three MDG goals related to health care were set based on global health needs, and are stated below:

Goal 4: Reduce child mortality rates

• Target 4A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate

Goal 5: Improve maternal health

- Target 5A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio
- Target 5B: Achieve, by 2015, universal access to reproductive health care

Goal 6: Combat HIV/AIDS, malaria, and other diseases

- Target 6A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS
- Target 6B: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it
- Target 6C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases

Figure 5. MDG health care goals

Progress with regard to these ambitions can already be seen. Working together, governments, the United Nations, the private sector and civil society have succeeded in saving many lives and improving conditions for many more. On the contrary, political instability, conflict and economic constraints have a detrimental effect on the ability of a country to make progress towards the MDG's. Further issues include funding challenges, low-skilled human capital and a failure of government policies to effectively address the situation.

The remainder of this section highlights the progress made by the African nations with regard to these specific MDGs. In addition, brief illustrations of potential changes to health care delivery and health care interventions are provided.

### 6.4.1 Reducing Child Mortality

Expanding interventions that target the main causes of death for the overall population has had an impact on reducing child mortality. However, of greater impact is a comprehensive and integrated effort against the main causes of child mortality, such as HIV/AIDS, malaria, diarrhoea, measles, and pneumonia.

Concerted efforts in reducing child mortality have yielded positive results over the last 20 years. All the countries in Africa (except Somalia) saw a fall in their infant mortality rates with the overall effect being a 28.3% decline for the continent. Furthermore, Sub-Saharan Africa has doubled the rate of reduction in child mortality from 1.2 per cent a year in 1990–2000 to 2.4 per cent in 2000–2010. All regions (except Central Africa) have made great progress towards decreasing the under 5 mortality rate.

This rate of progress differs between and within the various countries with children from rural and poorer households continuing to be disproportionately affected. This is also seen in the immunisation coverage rates which, while growing overall, vary from country to country and within each.

According to the United Nations Statistics Division (UNSD) Madagascar, Malawi, Eritrea, Liberia, Niger and Tanzania are the best performing countries (from 1990–2010) with reductions of at least 50 per cent in Child Mortality.

North Africa showed the most progress at 49% followed by Southern Africa (35%) and West Africa (34%). Central Africa's slow progress is attributed to the high prevalence of malaria as well as political instability in the region.

These improvements, while commendable, are not large enough for the continent to meet the MDG goal set for 2015. Sustained funding and focus are required to ensure the gains are maintained.

Maintaining these gains would include expanding interventions to the most vulnerable children including those in rural and remote areas as well as those in marginalized and poor households.

Furthermore, child mortality and maternal health are highly correlated (with children who have lost their mothers being up to 10 times more likely to die prematurely than those who have not) and an integrated approach to targeting both aspects will yield more effective results.

# 6.4.2 Improving Maternal Health

Maternal Mortality Rates (MMR) in Africa is mainly as a result of haemorrhage, sepsis, hypertensive disorders, unsafe abortion and prolonged or obstructed labour. Other important factors driving MMR on the continent include malaria, HIV/AIDS and tuberculosis, conflict or political instability and female disempowerment and illiteracy.

Despite the implementation of numerous strategies on the continent (one of them being the Maputo Action Plan), the MMR is still excessively high at 590 maternal deaths per 100,000 live births and has only decreased 1.6% per year overall. This is lower than the global average of 2.3%.

It can be seen that countries with the greatest decline in MMR share high economic growth rates possibly indicating the delivery of these policy interventions on a larger scale than in previous years. Higher economic growth could also indicate the greater provision of social services and/or Social Security.

The biggest contributor to a decline in MMR on the continent appears to be the increased proportion of women giving birth with a skilled health attendant.

An analysis of the data for 1995–2008 indicated that the percentage increase in the proportion of births assisted by a skilled health attendant is correlated with the percentage decrease in the MMR. A 1% increase in this proportion was associated with a 0.21% decline in maternal mortality. Equatorial Guinea has seen a 72% reduction in its maternal mortality from 1990–2008 due to the increase in the proportion of births attended by skilled personnel.

However, factors affecting the proportion of births attended by skilled health personnel included spatial and wealth gaps which were witnessed in many of the countries on the continent.

Access to reproductive health services (such as health and family planning) also plays a key role in a country's ability to reduce maternal mortality. Female education of and empowerment over their Sexual Reproductive Health Rights (SRHR) improves the longevity of not only the mother but also the child. The drop in MMR on the continent is largely due to a decrease in the fertility rates seen between 1990 and 2008.

Access to contraceptives is often skewed towards higher-income successful countries that have found ways to ensure that the distribution of family-planning was more equitable.

The contraceptive prevalence rate (CPR) for married people is a difficult measure to verify but current metrics place the amount at 29.3% on the continent. This has increased from 21% in 1990. High CPR's were witnessed in North and Southern Africa over the period.

According to the UNSD (2011), Mauritius was able to attain a 75.8% CPR in 2002, which is one of the highest rates in the world. Other encouraging statistics released, indicated that 8 African countries were able to increase their CPR by more than 300%.

In addition to the aforementioned, a focused campaign to reduce adolescent birth rates has proved to reduce maternal mortality. Countries with adolescent birth rates far below the global average have managed to lower MMR.

The WHO-recommended four antenatal care visits has the strongest correlation with reducing the MMR of all the other maternal health variables being assessed by the MDG framework. Early detection of problems in pregnancy leads to more timely referrals in the case of women in high-risk categories or with complications. Early antenatal care also increases the chances that a woman will give birth with a skilled health care attendant present, which further improve outcomes.

However, the usage level of contraceptives and access to antenatal care is largely linked to cultural factors and social practices. Some of these include early marriage, polygamist marriages and the low importance placed on female education. These practices often result in high adolescent birth rates.

Niger, Chad and Mali had the highest adolescent birth rates while less than 50% of pregnant women in Somalia, Ethiopia, Chad and Niger attended an antenatal class. All five countries performed badly with regard to maternal mortality.

Furthermore, most of the countries that made little or no progress towards decreasing MMR are experiencing HIV/AIDS epidemics. This lack of progress is as a result of the increased risk of death during childbirth caused by HIV/AIDS. The doubling of the MMR in Botswana and Zimbabwe from 1990 to 2008 is largely attributed to this.

The response to the HIV/AIDS epidemic has included programs promoting abstinence and/or condom usage. The high condom prevalence rates (CPRs) in most countries could be attributed to the increased awareness these programs may have had, even with married individuals. Countries with particularly low CPRs are mostly in conflict or are post-conflict with the lowest being Chad (3% in 2004). This is further noted with the 8 highest maternal mortality rates being recorded in countries in conflict or post conflict. This indicates the importance of functional infrastructure and services as well as the training of medical practitioners to meet the needs of the population.

# 6.4.3 COMBATTING HIV/AIDS, MALARIA, TB AND OTHER DISEASES

Despite resource shortages, largely due to a global economic slowdown, the continent has been able to make an impact in terms of preventing new infections and increasing access to Anti-Retroviral Treatment (ART) for people living with HIV (PLHIV). The most pronounced increases were witnessed in Sub-Saharan Africa with ART coverage increasing 20% from 2009 to 2010 alone.

The incidence of HIV has dropped in 21 African countries with particularly large decreases in countries with the highest number of infected people. The African region has been able to decrease the rate of new infections by 21% between 1997 and 2010. Global and localized initiatives have seen the adult prevalence rate in Africa (excluding North Africa) decrease from 5.9% in 2001 to 5.0% in 2010. These declines on the continent are significant in stemming the flow of HIV/AIDS and are largely due to concerted national and international efforts that indicate the high level of political commitment to addressing the epidemic.

In 2009, the UNFPA and WHO conducted a systematic review of the literature on linkages between SRHR and HIV. This review corroborated the many benefits of linking policies, systems and services related to these two areas and provided a clearer view of the effectiveness, optimal circumstances, and best practices for strengthening such links.

A combination of better reproductive health, family planning and HIV services share many desired outcomes in dual protection, the promotion of sexual and reproductive health and human rights for all, and a reduction in maternal, new-born and child mortality. Linking SRHR with HIV programs creates a more enabling environment and greater demand for these services, and also increases the global effectiveness of the fight against HIV/AIDS. This ensures that all individuals who are most vulnerable to and affected by HIV and sexual and reproductive ill-health are included and kept at the centre of integration efforts. This would also address any discrimination by promoting their rights and participation. This increased access is critical in lowering incidence rates in vulnerable populations such as women in Sub-Saharan Africa who account for approximately 60% of HIV infections in the region. It is also vital in ensuring that PLHIV have full access to a range of health services that meet their HIV and SRHR needs.

In the 1990's Uganda was often cited as a success story due to its commendable progress in stemming the spread of HIV and AIDS. The situation today has changed with the country witnessing an expansion in the absolute number of new infections due to the increase in risky

behaviours. These behaviours include multiple partners and decreased condom use. The government is currently retooling their national HIV and AIDS policy to focus more on prevention rather than ART provision.

The region that continues to remain most affected by the epidemic continues to be Southern Africa with over a third of PLHIV living here. This is followed by East Africa, Central Africa and then West Africa with North Africa still being the least affected.

Similarly to the continuous battle against HIV, Africa has made significant attempts towards lowering the prevalence of malaria and TB. Increases in funding as well as co-ordinated initiatives (such as the Global Plan to Stop TB) have decreased the infection rates for both diseases. Malaria mortality has fallen by more than 33% since 2000 while TB infection and prevalence rates have also decreased. Given the opportunistic nature of the disease, the decrease in TB was further aided by improved ART coverage and the decline in HIV infection rates on the continent. Southern Africa is still the African sub-region most affected by TB with North Africa being the least affected.

### 6.5 ACTUARIAL INVOLVEMENT IN AFRICA

Actuaries have always been profound experts in retirement matters, life insurance and general insurance. A few years ago, the actuarial profession immersed into health care and in the present time, health care actuaries play important roles as both government actuaries and private health insurance actuaries. Within the EU, there is significantly less scope for broadening the actuarial role in health care and the number of health care actuaries is minimal. However within the developing nations, the role of the health care actuary has spiralled. In Africa, health care actuaries play an important role in developing, valuing and monitoring innovative health insurance products such as gap cover, hospital cash-plans, medical aid cover etc. The trend has further strategically embarked upon development of innovative health care solutions aimed at low-income earners and informal employees so as to increase the access to health care funding within Africa. Furthermore, actuaries are involved in developing SHI and NHI through developing comprehensive costing structures and benefit packages suitable to the nation in question. However, besides these traditional actuarial roles, there is significant scope for actuaries to broaden their involvement within the health care arena and to markedly influence and improve the direction of health care.

Furthermore, the actuarial profession as a whole has recently embarked on developing skills and qualifications within the broader business environment commonly referred to as 'wider fields'. These skills are directly transposable to the health care arena and it is imperative that health care actuaries practising within emerging markets begin to develop these broader actuarial skills. Actuaries are by no means business and economic experts nor are health care actuaries clinical experts and hence collaboration with various other professions such as economists, statisticians, demographers, health care professionals and politicians is vital in order to develop a comprehensive understanding of the health care complexities inherent within each nation and to collaboratively produce synergised solutions and strategies in achieving universal, efficient, appropriate and cost-effective healthcare.

Some of the areas that actuaries should continue to develop their understanding and increase their involvement are:

- Setting of health policies with specific reference to health financing policies;
- Maximising population coverage including innovative methods to extend coverage to the informally employed as well as the unemployed;
- Formulating appropriate benefit packages including synergies between benefits provided by government, private insurers, and employers;
- Evaluating the impacts of the long-term demographic effects of high childhood mortality, escalating disease burdens, medical advancements and changing lifestyles including consideration of the economic consequences of these impacts;
- Consideration of the relative effects of national economic growth and global technological improvements in improving general human health and well-being;
- Developing optimal methods of reimbursement whilst simultaneously developing clinical monitoring tools so as to ensure that optimal quality of care is achieved;
- Continuously monitoring and evaluating health care reform strategies and the interventions and health care solutions offered in order to reflect the actual disease burdens and demographic profiles of the nation;
- Developing strategies to maximise the supply of health care resources with specific consideration to the funding strategies required to achieve the most optimal health care solution within the constraints of available resources;
- Improving accountability through tracking and reporting on allocation, disbursement, and utilisation of financial resources, using the tools of auditing, budgeting, and accounting;
- Improving health system performance by demonstrating and accounting for performance in light of agreed-upon performance targets with a clear focus on services, outputs and results; and
- Consideration of the impacts of changing taxation and regulatory laws.

This list is in no way intended to be exhaustive but rather illustrative of the various aspects of health care that require collaborative attention by actuaries and other experts. Imperative to these aspects is the consideration of the evolutionary nature of health needs and the dynamics of a population. Considerable and continuous effort by all stakeholders, experts and professionals is vital in order to achieve sustainable access to affordable, efficient and equitable quality healthcare.

#### 7 UNEMPLOYMENT BENEFITS

#### 7.1 INTRODUCTION

"Job creation is the most pressing global development priority." Guy Ryder, ILO Director General.

Occupying centre stage in global pandemics, is unemployment. Civil unrest is frequently being linked to rising levels of unemployment. A very recent example of the "Arab Spring" of 2010-2012 began as a revolt because of the frustrations of youth in trying to obtain employment.

The unemployment rate is defined as the measure of the prevalence of unemployment and it is calculated as a percentage by dividing the number of unemployed (those who are actively seeking employment and those who aren't) by all individuals currently in the labour force. It is expected that in the face of a recession, unemployment worsens and vice versa. However, we find that in Africa, even in the face of "growth", unemployment rates are continuously increasing. The graph below will be a familiar picture to those who are aware of the statistics.

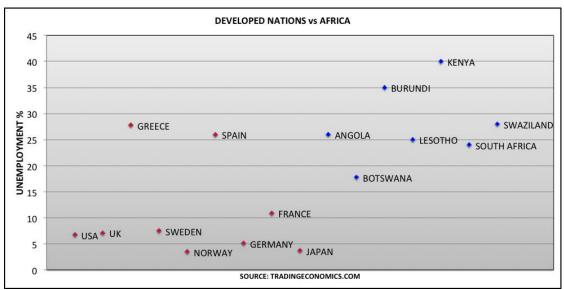


Figure 6. Unemployment rates: Developed Nations vs Africa

A clear lag exists between the upturn in the economy and unemployment rates improving—in our current case, unemployment is deteriorating even in the face of economic upturn. Recently, all regions of the world, with the exception of North Africa and Sub-Saharan Africa, have been experiencing an economic downturn that will drive the worsening unemployment rates going forward.

A range of approaches has been adopted across the globe, ranging from the Classical Economic Approach relying on market mechanisms, to the Keynesian Approach that emphasizes government interventions. Austerity plans being implemented across the globe have done more harm than good with capitalist nations now witnessing the effects of leaving job creation in the hands of supposedly 'efficient markets'. These have involved governments in reducing budget deficits during adverse economic conditions. This has included the increase of tax and reduction in expenditure. These are being seen more often in European nations and have far- reaching consequences for economies across the globe. All of these approaches have clearly failed the youth of the 21st Century. In the Annual Global Employment Trends Report issued by the ILO at the beginning of 2013, unemployment was

estimated to reach a record high in 2013 and expected to increase further until 2017. Unemployment in 2013 is expected to rise by 5.1 million lives, exceeding what was believed to be a once-in-a lifetime record level of unemployment in 2009 in the midst of the economic crisis. The worst affected regions have been East Asia, South Asia and the Sub-Saharan region of Africa. With the population of Africa composed of 60% to 70% of the youth this poses a great threat for Africa in the near future. The report is partially attributed to the "spill over effect" of the weak growth in advanced economies in 2012, in particular, recession conditions in Europe. The developing world's reliance on the "West" has surely taken its toll. However, it is worth noting that several African economies have experienced growth in the past few years despite this, and still we witness rising youth unemployment across Africa.

Many young people are experiencing long-term unemployment right from the very beginning of their labour market entry, a situation that was never observed during earlier cyclical downturns. When one remains out of the job market for a long period of time, for whatever reason, it becomes even more difficult for one to obtain employment afterwards as a result of discouragement, professional and social skills that erode and valuable on-the-job experience that is not developed. Further exacerbating this situation is the fact that "discouraged workers" no longer seek work as a result of the dire situation that has perpetuated for a long period of time. There has also been a rise in insecure or vulnerable employment that does not seem to have a tangible impact in solving the unemployment pandemic.

Incoherencies between monetary and fiscal policies combined with indecision of policy makers with regard to corporate behaviours (to focus on capital and dividends rather than growing capacities and employment) have been cited by the ILO as drivers of worsening labour markets.

Achieving "full and productive employment and decent work for all, including women and young people", thanks to the ILO's relentless advocacy, has been placed as a target under MDG 1. The indicators used under Target IB are:

- GDP Growth per Employed Person;
- Employment Rate;
- Proportion of employed population below \$1 per day (PPP values); and
- Proportion of family-based workers in employed population.

MDG 8 was also created as a result of member States' realization of the importance of establishing partnerships for youth employment. MDG 8 aims at creating "a global partnership for development". Sponsored by the Achievement Fund of the MDGs (MDG-F), the ILO has been leading the implementation of joint UN programs on youth employment across UN agencies and Country Teams. This has resulted in more integrated approaches that operationalize youth employment priorities.

In tackling unemployment it is essential to address several components that are mentioned explicitly within MDG 8. For example:

- It is difficult to lift a nation out of poverty when the majority of actively seeking adults are unemployed and there are few job prospects;
- One of the driving forces behind unemployment is the misalignment between the skills available and the training available. The goals of education and training and the labour market must work hand- in-hand to achieve common goals;
- Increasingly, many young people are losing sight of the value of education after witnessing young adults struggle to seek employment after many arduous years of studies. The quality of education can also be improved if families are able to afford to send their children to good schools. In the face of low incomes, education becomes a lower priority, with girls being side-lined even more;
- Lack of nutrition and medication can also be linked to low or no incomes. Women are not able to afford appropriate pre-natal care and nutrition as well as safe birthing facilities;
- With the recent decline in foreign aid to African countries for HIV/AIDS, African nations are going to have to start footing the ARV bill themselves. Given that a majority of infected people are without the means to foot such bills, improved employment opportunities could greatly relieve the need for finances.

As can be seen above, employment is not just about ensuring that people do not remain idle and that they are placed in some kind of permanent employment. The issue of unemployment is a critical social one that requires greater attention than ever before. Employment is also not just a matter of growing corporates and permanent contracts. It shows itself in entrepreneurship, agriculture and community co-operatives. It is a matter of empowering individuals to take care of themselves and their families. Unemployment places great financial burdens on the state and benefit funds resulting in large fiscal budgets and worsening deficits. Unemployment is clearly a considerable socio-economic problem.

There is no shortage of reports on unemployment rates and the trends to expect, with an increasing number of debates about what to do about it. There is however still a lack of linkage between the two. What are the potential impacts of the initiatives that world leaders intend to implement – without this, the discussions might remain in the discussion phase without a good understanding of the financial and demographic implications of the initiatives taking place.

This is an area that has been historically owned by economists and statisticians from whom significant advances have been made in terms of how we view and solve labour markets. With such a massive impact on global socio-economic and financial sectors, the actuarial profession cannot continue to ignore this area.

In addressing the youth unemployment crisis, account should be taken of the:

- ILO Declaration of Philadelphia (1944);
- ILO Declaration on Fundamental Principles and Rights at Work and its Follow-up (1998);
- Decent Work Agenda (1999);
- Global Employment Agenda (2003);
- Conclusions concerning the promotion of sustainable enterprises (2007);
- ILO Declaration on Social Justice for a Fair Globalization (2008);
- Global Jobs Pact (2009);
- ILC conclusions concerning the recurrent discussion on employment (2010); and
- Body of international labour standards relevant to work and young persons.

There are significant efforts by international organisations to address the issue of unemployment. These however, need to be brought to a national level in a systematic manner that speaks not only to the economic element but also to the broader social impact.

## 7.2 BENEFITS COVERED

In many countries, income support for young jobseekers can be provided in conjunction with active labour market programs (ALMPs) through a combination of Unemployment Insurance (UI), Unemployment Assistance (UA), Employment Guarantee Schemes or other forms tailored to the specific situations of different groups, as foreseen within the social protection floor concept. The benefits and features vary widely across countries and it is disappointing to note that most African countries do not provide UI. UI is currently the main area of actuarial involvement and the discussion below will focus on this.

UI in its simplest form provides, in accordance with a formula, indemnity against wage loss resulting from involuntary unemployment (Gaines, n.d.).

The most common characteristics of this benefit are eligibility criteria such as:

- Specified minimum duration of employment prior to the involuntary termination;
- Specified minimum earnings prior to termination of employment;
- A combination of prior earnings and employment;
- Benefits are paid on a regular basis, usually weekly;
- The weekly benefit payment is a specified proportion of the claimant's average weekly earnings, generally with the condition that such payments may not exceed a specified maximum amount;
- Benefits are payable only for a limited duration; and
- A claimant may be required to serve a waiting period during which he is not entitled to benefits.

The difference between UI and UA is worth noting. UA is not as common and exists only in a few countries, for example, in Australia, Hong Kong (China) and New Zealand. It may exist in tandem with UI but with UA being available for claimants who have exhausted UI or for those ineligible for UI at the onset of their unemployment for whatever reason. The primary goal of UI is consumption smoothing and the primary goal of UA is poverty reduction.

The main difference between the two programs is reflected in the benefit eligibility requirements:

- Under UI, eligibility is conditional on an individual's past contributions to the program.
- Under UA, it is determined by an income or means-test (World Bank, 2004).

A number of reasons not discussed here suggest that an UA program seems to be more relevant to countries with relatively developed administration capacity, a small informal sector, and large fiscal pressures. It could also be viewed as a transition system to UI.

The different types of schemes in use are as follows:

- Contributory schemes whereby the employee and employer contribute a certain percentage of the earnings paid by the employer or received by the employee to a UI Fund;
- Employment-related social assistance that comes into effect when the unemployed are no longer eligible for UI, or for a young new entrant; and
- Non-contributory, tax financed social assistance, instead of insurance for universal minimum living guarantee.

### 7.3 INTERNATIONAL EXPERIENCE

African countries should learn from other developing countries that have faced similar challenges in the design and implementation of unemployment insurance programs. Developing countries such as South Africa, Brazil and Chile amongst others have managed to introduce successful programs that offer an acceptable level of UI benefits. A large informal sector is common in most African countries and this brings additional challenges that the developed world doesn't have to deal with. That said, lessons can certainly be learnt from the developed nations as well.

# 7.3.1 Hidden employment

In China it has been observed that beneficiaries typically collect benefits for the maximum duration while some of them continue to work in the informal sector (Tong, 2008). This is very likely to happen in many African countries as well. Careful monitoring of the eligibility of claimants should therefore form an important part of the system and the duration for which benefits are paid should not be too long, as being out of the job market for an extended period may make workers less attractive when employers are looking to appoint new staff.

# 7.3.2 Re-employment incentives

It has also been suggested that to improve re-employment incentives, the replacement rate (percentage of previous income paid in form of unemployment benefits) could reduce with the time spent in unemployment. Various methods could be introduced to achieve this, for example a system where benefits are constant in the first period, say for 6 months, and reduced thereafter. Some countries have also experimented with rewarding employees with cash benefits if they find new employment within a certain time frame.

# 7.3.3 Severance payments

In Chile mandatory severance payments by employers protect employees in two ways by making dismissals more costly for employers whilst at the same time insuring employees against the loss of income. Some negative effects of severance payments have been documented as well. Severance payments may reduce the ability of the employer to adjust to changing economic conditions. It reduces job destruction but also inhibits job creation (Bertola, 1990). The result is higher job stability—but also higher duration of unemployment (Germán Acevedo, 2006). Another problem with severance payments is that they are usually due when employers are facing financial hardship. In extreme cases such benefits will not be paid when employers face possible bankruptcy. Severance payments can serve a useful purpose, but the consequences should be carefully considered before it is introduced.

# 7.3.4 Workfare programs

Workfare programs have been an effective method in Chile to provide jobs and income to low-income workers in times of low economic activity. Households receive monetary resources in exchange for work done in public works (Germán Acevedo, 2006).

## 7.3.5 Hiring subsidies

The purpose of employment subsidies is to increase firms' incentives to hire workers in private sector jobs during periods of high unemployment. In times of economic distress in Chile, employers received a subsidy of 40 % of the minimum wage for each worker hired for a period of four months. In addition, the firm received a lump-sum payment for training. The government financed the creation of 100,000 to 150,000 jobs as a result. The cost of this program has been high and reports of fraud have been widespread. They range from the creation of ghost enterprises and the hiring of deceased people, to firms that fired and re-hired workers to benefit from the subsidies. Such problems highlight the difficulties inherent in administrating this type of program (Germán Acevedo, 2006).

# 7.3.6 Individual Unemployment Insurance Savings Accounts

This method has been used to provide unemployment insurance for domestic workers in Chile. Employers are responsible for depositing a certain percentage of the employees' earnings into a savings account – it therefore serves as a form of self-insurance. Workers can withdraw the balance at the end of the employment relationship for whatever reason.

## 7.3.7 Administration systems

A well-functioning administration system is mentioned regularly in a number of research papers as one of the key determinants of a successful UI program. African countries should consider the cost and skills required to implement such a system to meet the particular needs of the country. This is important for the purpose of collecting contribution income as well as for paying benefits.

To prevent the possibility of fraud or corruption, a private firm could take responsibility for administration and general management of the program. This would include duties such as contribution collection, investment of contribution income in the financial market, verify eligibility criteria, pay benefits, and pursue debtors.

### 7.3.8 Enrolment

Participation in unemployment schemes should be compulsory for all employees in formal employment. This will avoid the problem of adverse selection that arises if only workers with a high risk of unemployment join the program.

## 7.3.9 Continuous Evaluation

The program should be regularly monitored to assess whether it can meet its promises in a cost-effective manner. Various methods can be used to evaluate the effectiveness of the program such as starting the program at different times across different regions within a country. This way the effect of a UI program can be assessed by looking at the welfare and behaviour of workers before and after the introduction of such a system (Germán Acevedo, 2006).

### 7.4 AFRICAN EXPERIENCE

There are very limited published documents on Unemployment Insurance policies in Africa making it challenging to discuss any lessons learnt from African countries in particular. The next section highlights why little has been achieved in terms of progress in this regard for most African countries with the exception of some. The benefits provided in South Africa for example, are based on international practice and hence there is not a significant amount to be learnt from the system in South Africa. There are, however, still significant differences between the demographic profile of African countries compared to the developed world,

which provide opportunity for further debate on how existing policies / systems can or should be tailored to be suitable for African countries.

### 7.5 CURRENT AFRICAN CHALLENGES

The challenges facing African countries in terms of unemployment are multi-faceted and display similarities across the continent.

Sustainability of long-term projects funded by government, non-governmental organizations, and the private sector alike have in most cases failed to carry momentum to provide long-lasting effects on economies. This can be tied back to poor management of programs and accountability. This leads us to the impediment of corruption. Despite great efforts at investing in employment programs, misappropriation of funds has been one of the reasons for the failure of several programs across the continent.

As a result of colonization, there are fundamental historical difficulties in addressing the issue of adequate and appropriate education to enable employment. This requires not just expanding the provision of education but providing training within skills that meet the demand within the market, and being able to do so in an affordable manner.

In Nigeria, a lack of quality education has been noted as an often over-looked barrier to doing business; a barrier that also hinders job-creation and entrepreneurship. This has been cited in other countries across the continent. Whereas electricity is readily available, the high cost thereof makes it difficult for small start-up businesses to get off the ground and even for larger industries to remain sustainable. With rapidly increasing fuel prices, the use of generators is becoming extremely costly as well.

Below are some specific challenges that could hinder the successful implementation and operation of UI schemes in African countries:

# 7.5.1 Administrative burden

Unemployment Benefit schemes cannot function without a well-organized administration system, because:

- Eligible claimants are required to be formally registered to receive benefits in the case of unemployment;
- Contribution income received in the case of a percentage of earnings should be well documented to ensure qualifying conditions are met when a claim is submitted; and
- Benefit payments should be monitored.

Depending on the purpose of the administration system, implementation in some African countries where this does not yet exist will be expensive and may take years to complete. Apart from implementation at government level, private and public employers may be required to make some changes to their payroll deduction systems to allow UI contributions to be collected. The UI premium paid by an enterprise may be deducted on a monthly basis from its bank account before calculation and levy of the profit tax. Likewise, the UI premium paid by an individual is not counted as income and is therefore exempt from income tax.

The cost of implementing and running the system will usually be the responsibility of the government. This may put further financial pressure on governments in some African countries that are already under pressure to improve the quality of education, infrastructure, health care etc.

# 7.5.2 Access to payments

Claimants in many African countries may have difficulty when it comes to collecting UI benefits. The traditional way of collecting benefits at a local government-operated administration office may prove difficult for some claimants that live in rural areas. It may be argued that the majority of claimants live in urban areas but transport for those in rural areas is challenging and likely to be expensive.

Developed nations such as China have implemented methods such as deposit cards whereby claimants are able to access their benefits at designated local banks.

# 7.5.3 Limited coverage

Apart from the general lack of UI benefits in African countries, coverage where such schemes do exist excludes the majority of the workforce. Excluding informal workers such as seasonal workers or household workers is consistent with the coverage rules in many other countries but the reality is that the size of the informal sector in most developing countries is significantly larger relative to the formal sector. In times of economic recession a large proportion of the country is therefore left without any assistance from the government to protect them from poverty.

# 7.5.4 Availability of information

The existence of UI benefits may be common knowledge for some but not for all. Creative ways need to be found to increase awareness of these benefits and explain how they work in simple terms. A basic education cannot be assumed in some African countries and the onus therefore rests on governments to ensure that beneficiaries of such benefits are made aware of them. Employers should take responsibility to register their employees and explain the procedure should they become unemployed.

## 7.5.5 Corruption, Fraud & Eligibility Enforcement

Many developing nations experience high levels of fraud and corruption in governmentoperated agencies. Fraud and corruption in the case of UI benefits can harm the system on the government, employer and claimant side. Corruption in governments that are responsible for operating the scheme could result in part of the contributions being channelled elsewhere or employers deducting contributions through their payroll system but failing to transfer these to government.

Beneficiaries may submit fraudulent claims for benefits that they are legally not entitled to. Some of these claimants may have been legitimately unemployed but started working again in an informal capacity.

Eligibility enforcement could be a challenge for many African countries with high levels of unemployment and low administrative capacity.

Another reason for weak enforcement is that when benefits are so low, UI officers may side with beneficiaries and tolerate "hidden employment".

# 7.5.6 Varying financial performance

A number of factors could affect the financial sustainability of UI funds. Aside from the large number of eligible unemployed in some areas, the UI system is providing benefits to some

individuals who should actually be ineligible because they do not meet the initial or continued eligibility requirements.

An appropriate investment strategy is necessary to ensure that the maximum investment returns can be earned on the contribution income. High returns in prosperous years can be used to fund deficits in years of depressed economic activity. Outsourcing of the investment management function is the only option for some African countries where governments may not have sufficient resources or experience in the area of portfolio management. This could be costly and without a carefully designed investment mandate lead investment managers to lose sight of the needs of the fund and seek excess returns (at a high risk) to boost performance fees.

#### 7.5.7 Lack of co-ordination

Where UI schemes exist they may have limited interaction with other existing Social Security benefit programs. Networking among agencies would help improve information on beneficiaries as well as facilitate identification of hidden employment. The challenge lies in the development of information technology to link the major databases of the different agencies together. It is quite likely that limited efforts are currently made to exchange information.

Lack of co-ordination is directly related to the administrative burden mentioned in section 3.1 above. Linking databases together will be a costly exercise and will probably not be a top priority for many governments in Africa where other more pressing needs will be seen as more important.

# 7.6 ACTUARIAL INVOLVEMENT IN AFRICA

Actuaries have not been completely uninvolved in the area of Unemployment Insurance Benefits but there is certainly scope for the profession to get more involved. Below are some existing and proposed areas where actuaries are currently involved in, or can become more involved to improve the quality and provision of these benefits:

#### 7.6.1 Valuation

Actuaries may be required to perform an annual actuarial valuation of the UI Fund and state whether they consider the fund to be in a sound financial position. This may be a regulatory requirement in certain countries.

In South Africa for example, valuation of the UIF consists of calculating the following two components:

- The technical reserve for "unearned contribution revenue" (UCR). The UCR represents that part of the current year's contributions that relates to risk periods that extend over the following four years.
- The Outstanding Claims Reserve (Benefits payable). This reserve comprises of:
  - Estimated reported benefits payable This relates to employees that became unemployed claimants and started receiving payments during the period under review. Provision is made on a prudent basis for the estimated final cost of all claims that had not been settled at the reporting date, less amounts already paid.
  - Claims incurred but not reported (IBNR) This provision is made for claims arising from insured events that occurred before the reporting date, but had not been reported by that date.

Actuaries may also be involved in the determination of thresholds below which action should be taken to restore or improve the financial position of the fund. Similar to capital requirements imposed on insurers by the regulator, the financial health of an Unemployment Insurance Fund may also be protected by implementing such thresholds.

If the thresholds are breached, actuaries may advise on corrective actions that can be taken to restore the fund to an acceptable level.

# 7.6.2 Modelling / Forecasting

UI funds are exposed to a number of uncertainties that could have an effect on the financial soundness of the fund in future. Uncertainty exists in the following factors that directly affect the fund:

- Future Unemployment Rates;
- Contribution Income;
- Population Growth & Labour Force Growth; and
- Economic Assumptions.

In the U.S., state agencies use the State Unemployment Insurance Benefit Financing Model (SBFM) to project the financial health of their UI Trust Fund. The model has been available from the U.S. Department of Labor since the late 70's. The program can model all types of experience rating systems and is very comprehensive in the number of UI variables that are used. Projections are made using regression analysis to calculate the relationships between UI variables and State economic variables. The model is generally used for 3 purposes:

- 1. To assess the impact of various economic scenarios on revenues, benefits and the overall trust fund balance;
- 2. To measure the responsiveness of their state financing system; and
- 3. To assess the impact of new state laws and proposals.

(United States Department of Labor)

The setting and monitoring of Economic and Demographic assumptions are areas that most actuaries are very familiar with and where significant value can potentially be added.

## 7.6.3 Risk Management

UI schemes will be exposed to a number of risks that may threaten the long -term sustainability of the fund or scheme. Since the onset of the global financial crisis in 2008 significantly more emphasis has been placed on the concept of risk management in various industries that may be threatened by sudden economic downturns.

Basel regulation for banks and Solvency II for insurers propose risk- based capital requirements to reduce the risk of these institutions not being able to meet their financial obligations to their customers.

In some countries UI schemes rely on government to make good any shortfall in the case where benefit pay-outs exceed contribution income in any one year. This is not the case in all countries and the unemployed may have to weather the storm themselves once their basic benefits have run out. Since large sums of money are involved in these schemes, risk management is just as important as for other large organisations.

Over the last few years Enterprise Risk Management (ERM) has evolved into an important part of the actuarial qualification, with some actuaries specialising in this area. ERM in business includes the methods and processes used by organisations to manage risks and seize opportunities related to the achievement of their objectives. The Casualty Actuarial Society (CAS) in the U.S. defines ERM as "The process by which organisations in all industries assess, control, exploit, finance and monitor risks from all sources for the purpose of increasing the organization's short and long term value to its stakeholders."

Unemployment Benefit schemes have some unique risk characteristics that may not have been analysed in detail in relation to the ERM framework as used in other large organisations. It may therefore be an opportunity for actuaries to put their skills in this area to good use. In reality unemployment will rise and fall with cyclical fluctuations in the economy. It is therefore important to take this into account in the planning of an UI scheme. In a contributory scheme where benefits may be financed on a level-premium basis, surplus funds must be accumulated during favourable years when unemployment benefit pay-outs are low, and used during periods of rising unemployment to supplement the regular contributions (Gaines, n.d.).

Based on all the complex aspects of an Unemployment Benefit scheme, actuaries around the world and especially in Africa are presented with a tremendous number of opportunities and challenges to make their voices heard.

Creative ways need to be found to make these benefits more accessible to a larger proportion of the world population whilst not putting more pressure on those who are contributing toward it. Actuaries are natural problem- solvers and the countries in Africa are encouraged to approach actuaries either locally or through consultancies for advice or assistance in a number of areas (all of which has not been discussed above) related to UI schemes.

# 7.7 FUTURE OF BENEFITS IN AFRICA

It is clear that there is no one-size-fits-all. There is a need to take a multi-pronged approach with measures to foster pro-employment growth and decent job creation through macroeconomic policies, employability, labour market policies and youth entrepreneurship. There is a need to tackle the social consequences of the crisis, while ensuring financial and fiscal sustainability. There is great scope for exchange of experience between countries and professions to inspire context-specific and concrete actions.

Fiscally sustainable ways for targeted interventions for young people, such as counter-cyclical policies and demand-side interventions, public employment programs, employment guarantee schemes, labour-intensive infrastructure, wage and training subsidies and other specific youth employment interventions need to be extensively researched, developed and implemented to ensure sustainable alleviation of the global unemployment challenge. Better analysis and forecasting of labour market needs are also required with extensive feedback mechanisms into educational and training institutions.

Unemployment Insurance Benefits in Africa still have some way to go to achieve the objectives it is designed for. Unemployment in Africa is likely to remain high over the foreseeable future highlighting the need to make progress in the implementation of these benefits. Since Africa is viewed by many developed nations as a high growth potential investment, economic growth in these countries would eventually be expected to lead to improved Social Security for its citizens and improved Unemployment Insurance Benefits. It

is therefore vital that some of the challenges highlighted above are addressed to promote and ensure that economic growth experienced will filter through to improved provision of benefits. In countries where no Unemployment Insurance Benefits exist, implementation of even the most basic benefits will be a significant improvement. Developed countries offering to assist in the design and implementation of such benefits need to be mindful of the challenges involved in researching the topic as well as the on-going challenges in implementation and monitoring of the system as mentioned above in the section on challenges faced.

#### 8 BROADER SOCIAL SECURITY NETS: OVERVIEW

#### 8.1 SUMMARY

Social Security is an extensive field in which actuaries may engage more frequently and apply their skills with greater depth. There is great scope to add value to the programs that currently exist and to assist with developing more innovative programs. To do this appropriately, knowledge of the issues affecting Social Security is necessary. Actuaries should begin to develop a broader understanding of the financial and economic impacts of Social Security matters. These also have a significant effect on traditional areas of actuarial practice. This section is not intended to go into the detail of actuarial involvement but to raise the areas of potential future involvement based on current developments within Social Security benefit provision being witnessed across the globe.

The table below provides an indication of the various types of social assistance programs present in various African countries:

Table 9. Types of social security programs in African countries

Country	Old	Disa-	Survivor	Sickness Sickness	Mater	Wor	<u>Unemplo</u>	<u>Famil</u>	Motor	Child/Or
	<u>Age</u>	<u>bility</u>	<u>s</u>		<u>-nity</u>	<u>k</u>	<u>y-ment</u>	<u>y</u>	<u>vehicle</u>	phan
						<u>Injur</u>			<u>accidents</u>	<u>Benefits</u>
South	<u>X</u>	<u>X</u>	<u>under</u>	<u>Other</u>	<u>Other</u>	<u>Y</u> <u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>Child</u>
<u>Africa</u>			unemploy	<u>programs</u>	<u>progra</u>					grants and
			<u>-ment</u>	or social assistanc	ms or social					communit y homes
				<u>e</u>	assista					<u>y nomes</u>
				_	nce					
<u>Zambia</u>	<u>X</u>	<u>X</u>	<u>X</u>	medical benefits only		<u>X</u>				
<u>Ghana</u>	<u>X</u>	<u>X</u>	<u>X</u>	Other programs	Other progra	<u>X</u>				
				or social	ms or					
				<u>assistanc</u>	social					
				<u>e</u>	assista nce					
<u>Nigeria</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		<u>X</u>	<u>Statutory</u>			
							<u>system</u> <u>not</u>			
							<u>implement</u>			
							<u>ed</u>			
<b>Zimbabw</b>	<u>X</u>	<u>X</u>	<u>X</u>	<u>Medical</u>		<u>X</u>				<u>Child</u>
<u>e</u>				<u>benefits</u> <u>only</u>						grants and communit
				Ollry						<u>y homes</u>
<u>Botswana</u>	<u>X</u>		<u>Orphans</u>			<u>X</u>		<u>Other</u>	<u>X</u>	
			<u>benefit</u>					progra		
			<u>only</u>					ms or social		
								assista		
	_	_	_			_		nce		
<u>Kenya</u>	<u>X</u>	<u>X</u>	<u>X</u>	Medical		<u>X</u>				
				<u>benefits</u> <u>only</u>						
			<u> </u>	<u>omy</u>						

## Source: Adapted from SSA and ISSA (2011).

As can be seen from the above, Social Security benefits in Africa encompass a reasonably broad spectrum of benefit types, most of which have been discussed at length in previous sections of this document. Specifically old age, unemployment and sickness as well as maternity benefits have been considered in the pension, unemployment and health care sections respectively. The remainder of this section aims to briefly discuss some of the benefits that have not been discussed in extensive detail.

### 8.2 SURVIVOR BENEFITS

Social protection programs that include provision for old-age benefits usually include provision for survivors' benefits as well. These benefits are generally a percentage of either the benefit paid to the deceased at death or the benefit to which the insured would have been entitled if he or she had attained pensionable age or become disabled at that time. In most cases, the provision of survivors' benefits is confined to widows/widowers who are caring for young children, are above a specified age, or are disabled. Many systems also pay benefits to other surviving close relatives, such as parents and grandparents, but only in the absence of qualifying widows, widowers, or children. (ISSA, 2012)

#### 8.3 FAMILY BENEFITS

Family benefit policies not only cover compensation for the additional cost for having children through family allowances, but also maternity and paternity benefits, day care subsidies, as well as programs to encourage women's participation in the workforce while balancing family needs.

With the break-up of the traditional family social safety net, together with a changing work environment and the effects of globalization, new social risks have emerged. These new risks have drawn attention to the limits of the existing social safety net and, as a response, the need for the state to adopt new social policies. Family policies can help societies meet these challenges, in particular by helping parents cope with the double burden of providing care for children while seeking to pursue a full professional career.

Developing countries face specific problems. Social protection schemes do not have the capacity to meet the on-going challenges, and existing formal Social Security programs are not adapted to a largely informal economy. It is believed that a better articulation of formal Social Security policies with the traditional family and community-based model could attenuate some of these problems. (ISSA, 2012)

#### 8.4 WORK INJURY BENEFITS

Work injury schemes provide for compensation for work-related injuries and occupational diseases. These schemes are in general funded through a levy based on number of employees charged to employers or earmarked tax percentage. The benefits provided by these schemes range from medical expenses, income support, support to dependants in the event of death of the employed individual etc.

The efficiency of a work injury scheme depends on a range of factors, the main indicator being the reduction of work-related accidents and occupational diseases. According to the ISSA, 2.34 million people die from work-related accidents and diseases each year and approximately 4% of GDP is lost as a result of occupational accidents.

From the above, it can be deduced that health care is relevant to work injury benefits. The sufficiency of the benefits payable in relation to medical expenses is directly impacted by the cost of health care services. In addition, the availability and adequacy of care has direct impacts on the ability of an individual to recover and return to work. Consequently this impacts the economy of a country through increased poverty, reduced economic growth and an increased burden on the state.

The concept of preventing occupational risks is therefore embedded in many of these schemes. They are supported by a legal framework, which defines the competencies, roles, responsibilities and spheres of action. Linking prevention to accident insurance compensation can enable effective mechanisms to reduce both accidents at work and occupational diseases, and to provide an incentive for employers to boost preventive activities in an enterprise, as it directly impacts on the contribution rate paid exclusively by the employer. (ISSA, 2012)

### 8.5 DISABILITY BENEFITS

Disability can be understood on three different levels, namely impairment, activity limitation, and participation restriction. Whereas impairment is often a result of acquired health conditions, the other two levels are a result of 'inaccessible environments that cause disability by creating barriers to participation and inclusion.' (WHO and World Bank 2011)

Based on the WHO and/or World Bank disability indicator, the World Report on Disability suggests that disability prevalence in the Eastern and Southern African region is between 14% and 36%, including different types and degrees of disability. Swaziland has the highest disability prevalence (35.9%) and South Africa has a disability prevalence of over 24% (WHO and World Bank 2011).

The World Report on Disability highlights several risk factors that drive impairment and/or disability. These factors include infectious diseases (HIV, tuberculosis and sexually-transmitted diseases); non-communicable chronic diseases (such as diabetes and cancer); injuries (including road traffic accidents, violence and occupational injuries); environmental conditions (poor sanitation, poverty, natural disasters and conflict situations); and old- age, as the chances of becoming disabled increase with age (WHO and World Bank 2011).

Various literature studies on disability place considerable importance on disease, injuries, poverty, and old age and their contribution to the development of disability. For instance, the link between poverty and disability is often discussed as a 'vicious circle' (Handicap International 2011a; Mitra et al., 2012), where poverty features as one of the key drivers of disability; disability may in turn lead to impoverishment due to lack of opportunities and access to health services, education, employment, etc. (Elwan 1999; Emmett 2006; Mitra et al., 2012; WHO and World Bank, 2011).

Many governments in Africa have developed budget allocations and systems in the form of disability grant payments to provide disability benefits to those in need. In general these grant payments are means-tested, and as mentioned in previous sections, means-tested benefits tend to marginalise a large proportion of the population despite their inability to earn a sufficient income.

In addition to the financial burden on a nation's economy to provide these grant payments, disability and impairments have considerable correlations with various other aspects pertaining to Social Security and its systems.

Health care has a significant role to play in the ever-expanding grants and benefits provided to disabled persons. The better the quality and efficiency of health care, the lower the incidence of permanently disabled persons resulting in lower aggregate amounts of disability payments, a large able workforce and reduced poverty. Furthermore, the existence of effective, sufficient and cost-efficient health care services will further alleviate the poverty burden experienced by those currently receiving, and in need of, disability benefits and grants. Logically, individuals who are receiving disability grants require these funds for various reasons, including food, shelter, medical care, supporting dependants etc. Should the costs of health care comprise a large proportion of the overall benefit received, it is unlikely that the individual will pursue the medical treatment required as the perceived need for alternate living necessities will be deemed more important. In addition, the high cost of disability means that many disabled people have additional expenses and difficulties in addition to those of able-bodied people, such as assistive devices, remuneration of caregivers and additional transport costs. This will further exacerbate the ailments burdening disabled individuals, hindering these individuals from resuming employment and combatting poverty, and consequently place further pressure on the adequacy of the disability grants provided globally.

Interestingly, there exists a global issue in quantifying the functional impairment/level of disability of an individual in an objective and globally consistent manner. Disability can be viewed from a medical perspective, which looks purely at the physical or mental impairment and views the degree of severity as the extent to which certain activities of daily living cannot be undertaken. It is difficult to define and measure disability, because disability is related to many life areas, and involves interactions between the person and his or her environment. Just as important as the disease label itself is whether a person can work and carry out the routine activities necessary to fulfil his or her roles at home, work, school or in other social areas. Summed up by the phrase "what people cannot do when they are ill", this aspect differs greatly, independently of the disease concerned. Information on functioning (i.e. an objective performance in a given life domain) and disability is taken into account by professionals in clinical and social services. However, proper measurement of functioning and disability has long suffered from a lack of consistent definitions and tools. Defining death and disease is easy, but defining disability is difficult, as is measuring it. (WHODAS 2.0)

## 8.6 MOTOR VEHICLE ACCIDENT BENEFITS

A motor vehicle accident fund (MVA) serves several purposes with regard to motor vehicle transportation on the roads. Central to its purposes is the provision of coverage (often third party coverage) in the event of an accident. These funds may be public funds or may reside in the private insurance market. Amongst the other main duties which have been adopted by these organisations are the following:

- Road safety;
- Research, design, development, promotion and implementation of motor vehicle accident and injury prevention measures; and
- Encourage inter-country trade and transportation with accommodating insurance arrangements as well as safe roads.

The social benefit provided by a public motor vehicle insurance fund is intended to compensate all road users who suffer loss or injury due to a motor vehicle accident. The benefits range from medical expenses, income support to either the injured or the remaining

dependants, etc. These funds are typically funded through a fuel levy charge or earmarked tax.

The existence of a public motor vehicle insurance fund and the funding mechanism employed affects the economy on a macro-economic level. Thus the need to ensure the sustainability of a public motor vehicle insurance fund and the ideal of paying valid claims that adequately compensate victims, are two notions for which an acceptable balance should be sought.

According to the World Bank, road accidents cost approximately 1 to 3 % of a country's annual Gross National Product (GNP). An estimate of the total national cost of road accidents will help governments realise the heavy economic losses being incurred annually. Governments must try to reduce these losses by providing road safety improvements and should see expenditure on road safety as an investment.

The Global Burden of Disease study undertaken by the World Health Organisation (WHO), Harvard University and the World Bank showed that in 1990, traffic accidents were assessed to be the world's ninth most important health problem. The study forecasts that by the year 2020, road accidents would move up to third place in the table of leading causes of death and disability facing the world community and therefore this places road safety on the health agenda as well.

The injuries and fatalities which occur as a result of road accidents have serious implications for a country not just in economic terms, but socially as well. As a result of a wide variety of road safety activities and traffic management measures, road accident levels in most industrialized countries are decreasing, but in developing countries the situation is becoming worse with an increase in road accident deaths. This is partly as a result of rapid urbanization of people as most individuals move to urban areas and begin to use motor vehicles more often. Unfortunately, road development and the enforcement of road safety have lagged behind the rate of urbanization, resulting in accidents that are mainly the result of poor road construction and vehicles that are not road-worthy.

A fuel levy funding mechanism has the benefit of forcing all motorists, regardless of socio-economic class, to contribute to the public motor vehicle insurance fund, but at the same time this places strain on a low-income earner whose fuel bill comprises a large proportion of his/her disposable income. However, the extent to which the levy affects motorists' disposable income is obviously confounded by the actual price of fuel. At times when fuel prices are high, transport costs and hence the cost of goods subsequently increase. This, together with the fuel levy exacerbates the exhaustion of consumers' disposable incomes and it may seem that the fuel levy serves to worsen a motorist's economic position in such times. Conversely, an inadequately funded public motor vehicle insurance fund impedes the ability of the fund to compensate victims and their dependants, resulting in poverty and / or hardship. The nature of the compensation received from a public motor vehicle insurance fund (loss of support, loss of earnings, medical expenditure amongst other benefits) serves to provide a way for victims and their dependants to remain economically active in the future (and hence make a positive contribution to the country's GDP).

# 9 BROADER SOCIAL SECURITY NETS: GENDER INEQUALITY

#### 9.1 INTRODUCTION

Gender inequality has a much greater impact than the explicit MDGs. Gender dynamics underpin all of the MDGs and to make progress, it is necessary to develop specific gender-sensitive approaches to the manner in which we organize the new world. The great themes of the 21st Century – democracy, globalization, health, lasting peace – cannot be achieved in a world with gross gender inequalities.

MDG 3 aims at "Promoting gender equality and empowering women". The specific target that was established at the time of developing the MDGs was to eliminate gender disparity in primary and secondary education preferably by 2005, and at all levels by 2015. This target is indicated by the following indicators:

- Ratios of girls to boys in primary, secondary and tertiary education;
- Share of women in wage employment in the non-agricultural sector; and
- Proportion of seats held by women in national parliament.

# 9.2 MEASURING GENDER INEQUALITY

The Gender Inequality Index ("GII") was introduced in 2010 by the Human Development Report of the United Nations Development Program. It has replaced the Gender Development Index and the Gender Empowerment Measure. This measure takes into consideration gender disparities, reproductive health, empowerment and labour market participation.

The reproductive health indicators are Maternal Mortality Ratio and the Adolescent Fertility, obtainable from UNICEF's State of the World's Children and the UN Department of Economic and Social Affairs respectively. The logic is that the lower these values are, the more likely a woman is to have access to adequate health services, lower health risks, and higher education attainment.

Empowerment for GII is measured by two indicators which are:

- Share of parliamentary seats held by each sex, which is obtained from the International Parliamentary Union; and
- Higher education attainment, which is obtained from the United Nations Educational, Scientific and Cultural Organisation ("UNESCO") and the Barro-Lee data sets.

The labour market component is measured by women's participation in the workforce. This takes into consideration those who are in paid work, unpaid work, and actively looking for work. The data for this dimension are obtained from the International Labor Organisation ("ILO").

Although women's representation in parliament has been increasing, women have been disadvantaged in representation of parliament with a global average of only 19.7% (UN, 2012).

It is worth reflecting on these measures (and those for the other MDGs) and challenging them to ensure that the most transparent and valuable measures provide the best quality information. For example, the interactions between these measures are likely to be very significant once multiplied against one another. It would be expected that statisticians and actuaries, with a good understanding of the social factors, could assist in understanding these measures and their relationships with more gender inclusiveness.

The ten highest ranking countries in terms of the GII are as follows:

Table 10. Top 10 highest ranking countries based on GII in 2011

Country	GII Rank 2011	GII Value 2011
Sweden	1	0.049
Netherlands	2	0.052
Denmark	3	0.060
Switzerland	4	0.067
Finland	5	0.075
Norway	6	0.075
Germany	7	0.085
Singapore	8	0.086
Iceland	9	0.099
France	10	0.106

Source: Social Watch, 2012

The bottom 10 countries based on the GII in 2011 are as follows:

Table 11. Bottom 10 highest ranking countries based on GII in 2011

Country	GII Rank 2011	GII Value 2011
Yemen	146	0.769
Chad	145	0.735
Niger	144	0.724
Mali	143	0.712
Congo	142	0.710
Afghanistan	141	0.717
Papua New Guinea	140	0.674
Liberia	139	0.671
Central African Republic	138	0.669
Sierra Leone	137	0.662

Source: Social Watch, 2012

As can be seen from the above, the countries where equality is witnessed the most are European, with African countries dominating the bottom of the list.

There are other economic indices which have been developed across the globe to measure gender differentials. The World Economic Forum developed the Global Gender Gap Index ("GGGI") covering economic participation and opportunity, educational attainment, general health and political empowerment.

The Economic Intelligence Unit then launched the Women's Economic Opportunity Index ("WEOI") in 2010 covering labour policy and practice, women's economic opportunity, access to finance, education and training, women's legal and social status and the general business environment.

It has been noted from the rankings of these indices, that there are correlations between the GEI and other indices used as proxies for gender equality:

Table 12. Correlations between GEI and other gender indices

GEI correlates with	Correlation
Gender Inequality Index	-0.721
Global Gender Gap Index (2010)	0.887
Women Economic Opportunity Index (2010)	0.794
<b>Human Development Index</b>	0.677
<b>Gross National Income</b>	0.448
Basic Capabilities Index (2011)	0.67
Adolescent Fertility Rate	-0.505
Maternal Mortality Ratio	0.595

Source: Social Watch, 2012

Interestingly, 2006 statistics from the ILO indicated that unemployment rates for men and women in Africa were the same at 9.7%. However it is worth noting that unemployment rates do not reflect the quality of work obtained. Women often do not have the opportunities to obtain employment in the formal sector and generally resort to insecure work in the informal sector which does not have prospects for growth.

The countries that show the most significant representation in parliament in Africa are as follows:

Table 13. African countries showing most significant female representation in parliament

Country	% Women in	Quota
	Parliament	
Rwanda	56	30% Reserved Seats – indirectly related
		Voluntary Party Quotas
Mozambique	39	Voluntary Party Quotas
South Africa	42	Voluntary Party Quotas
Burundi	31	Legislated 30% Quotas for Women on
		Party Candidate Lists

Source: Adapted from World Bank Data 2012

The question of women involved in parliament spans beyond quotas, but more critical questions revolve around the actual involvement of women in decision-making processes. Has the higher representation of women resulted in significant changes in national health status, adequate budgeting, and stronger, more sustainable programs encouraging greater gender equality? The issues to cover are corporate confidence, illiteracy, leadership training, advocacy, fund-raising etc. - not just the number of women in parliament and schools and fertility rates.

In an age where violence against women is a weapon of war, female genital mutilation (FGM), early/enforced marriages, child betrothal and polygamy are common place; the matter of improved gender equality is not just a social one but clearly has wide-spread ramifications for a wide range of sectors.

Understanding the issues surrounding gender inequalities— and the underlying issues that cause it— are essential to be able to understand the data and articulate it accordingly. In traditional actuarial practices, gender segregated data is the norm however it is disturbing to note that data and information from gender-sensitive indicators are actually not collected, often aggregated or not used at all. Gender responsiveness in a wider array of fields would

result in helping to track progress at a more granular level. Using the example above, the actual voting splits by gender within parliament should be collected to understand the impact that women have on the decision- making process. Not having adequate gender differentiated statistics in relevant areas makes evidence-based planning and resource allocation a difficult task which does not drive desired gender- related results. It has been recognised by policy-and law-makers and planners that there is a need to build the institutional capacity to generate gender statistics in general, and that the areas that are closely linked to women's economic status (agricultural census, land registration, women's access to credit, and others) need to be strengthened.

By looking at the gender parity index for gross enrolment ratios in primary, secondary and tertiary education (Girls' school enrolment ratio in relation to boys' enrolment ratio), there is marked improvement in the primary education coverage but an actual decline for secondary education and tertiary education from 1999 to 2010. All progress is still short of the targets in this region in comparison to other regions which met and exceeded their targets by 2010. However, it is worth noting that for developing regions as a whole there has been marked improvement with targets being met. Most of the progress in the past few years can however be attributed to Asian regions.

It is encouraging to note that Sub-Saharan Africa has displayed notable improvement in parliamentary representation, increasing representation from 13% to 20% between 2000 and 2012, trailing only behind Latin American and the Caribbean at 23% in 2012. However, the developing regions as a whole trail behind the developed regions at 12% versus 16% in 2012.

### 9.3 BENEFITS COVERED

Unlike most traditional actuarial areas of practice as they are known within the profession, benefits used to address gender matters are more country specific. The basic principles are recognised, however it is clear from the different initiatives being implemented across the globe that the benefits are structured to specifically meet the needs of the immediate communities. Below, under "Initiatives Being Implemented in Africa" we will look at the initiatives which have been implemented by African countries.

### 9.4 INITIATIVES BEING IMPLEMENTED IN AFRICA

One of the key means by which gender inequality is being addressed within African countries is by engendering national budgets. This ensures that the impact of budget allocations on women is tracked. South Africa has done this with the use of "Women's Budget Initiative". Some governments have gone so far as to develop programs within several ministries with several measurable indicators to ensure gender equality

Organisations within government and commerce have been instrumental in furthering the development of gender-sensitive policies and those that pro-actively empower women. In some cases this has resulted in the increase of political representation.

A recurring theme across several African countries is the prioritisation of agricultural and rural development. This is as a result of the fact that a majority of women live and work in these areas, some with very low prospects of progressive work in urban areas. There is the increased recognition of the economic and social value that can be created within the small scale commercial and subsistence agricultural sector.

### 9.5 CURRENT AFRICAN CHALLENGES

It has been noted from several countries that although more women are entering the labour market, they are often in insecure and informal forms of employment leaving these women vulnerable and with limited growth opportunities unlike their male counterparties.

Despite the formal measures being put into place, particularly by governments, there is a mind-shift required by the cultures inhabited by these countries to ensure that women are placed in positions of power and empowered to contribute politically and economically.

### 9.6 ACTUARIAL INVOLVEMENT IN AFRICA

Due to the non-traditional nature of this field for the majority of actuaries, this is currently an experimental area where it is believed that we can provide value in the planning, development and monitoring processes.

#### 10 BROADER SOCIAL SECURITY NETS: CHILD/ORPHAN GRANTS

#### 10.1 INTRODUCTION

Childhood poverty is a significant factor in persistent and chronic poverty, and in the intergenerational transmission of poverty. Preventing poverty in childhood can thus help prevent the vicious cycle of poverty across generations.

MDGs 4 and 5 are related to children with MDG 4 aimed at "Reducing Child Mortality Rates" and "MDG 5 aimed at "Improving Maternal Rate".

More specifically, MDG 4 aims to reduce under-five mortality rate by two-thirds between 1990 and 2015. The three indicators to measure this goal are:

- Under-five mortality;
- Infant (under 1) mortality rate; and
- Proportion of 1 year old children immunized against measles.

MDG 5, more specifically, aims at reducing the maternal mortality ratio by three quarters and achieving universal access to reproductive health by 2015. The indicators used for MDG 5 are:

- Maternal mortality ratio;
- Proportion of births attended by skilled health personnel;
- Contraceptive prevalence rate;
- Adolescent birth rate;
- Antenatal care coverage; and
- Unmet need for family planning.

The definition of an orphan/child requires national and global consensus as shared definitions and a clear understanding of the size and scope of the OVC problem will assist program-developers to have a better understanding of their target groups, and to facilitate tailoring interventions. Policy makers will have initial information for the allocation of resources, and a baseline for comparing future data in order to assess progress at a national level. A clear definition and characterization of vulnerability will help programmers design effective strategies to prevent or reduce vulnerability. Knowledge of numbers, characteristics and needs of OVC in households, on the street, in orphanages, in children's villages or group homes will help the country to target its resources and services more effectively.

#### 10.2 BENEFITS COVERED

A few of the means by which social protection agencies, NGOs and donor organisations have traditionally combatted childhood vulnerability are cash transfers, social work, early childhood development centres and alternative care. Cash transfers have been the most popular. Though used for non-essential goods at times, they allow recipients a greater deal of flexibility enabling them to tackle other issues in the household that could be hidden poverty traps, and retain resources for items such as school fees and health care.

These cash transfers aim to achieve, amongst other goals (Atkinson, 1995; ILO, 2000; Forster & Toth, 2001):

Ensuring a measure of parity between families with children and those without children, and among families with different numbers of children - i.e., horizontal equity;

- Reducing or preventing poverty among families with children, which is a vertical equity objective;
- Facilitating and encouraging the employment of mothers;
- Discouraging child labour and encouraging school attendance;
- Supporting and facilitating household investment in the human capital of children, raising gender equality by supporting investment in the human capital of girls and the bargaining power of women within the household e.g., when benefits are paid to the mother; and
- encouraging fertility, to the extent that transfers rise with the number of children in a household.

The three main types of cash transfers often used to tackle childhood poverty are:

- A uniform benefit, paid for every child in the household;
- An income supplement, paying a fraction of the difference between household income and the poverty line; and
- A minimum guaranteed income, which supplements income up to a given level.

As these programs have not been in existence for a significant period of time, it is difficult to provide a conclusive assessment as to whether they have indeed resulted in a change to certain behaviour. It has however been observed that cash transfer programs must be coupled with other programs that target other poverty-dimensions to be as effective as possible. These may include those related to education, health, employment and mobility, as is being seen across Africa.

The critical factor to consider here is that the impact of the cash grants is critically dependent on the response of the households as the cash given is assumed to increase the general standard of living within the home.

Table 14. Relative effectiveness of cash transfer to orphans

	Advantage	Disadvantage
Household Transfers	Facilitate fostering among poor households	They may be used by the household head or household members, other than the orphan They may be shared among a large number of household members, diminishing the support to the orphan Transfers going exclusively to orphans may stigmatise them
Community Transfers	Good information on household poverty and vulnerability If distributed through community and religious organisations, stigma may be reduced	Work less effectively in urban areas with weak communities May not work in communities where ethnic tensions or discrimination exists
School or Health Vouchers	Beneficiary is easily monitored Most likely to prevent human capital deficits	May exclude poor children living with parents

Adapted from Deininger et al. (2003)

UNICEF's work in this area has been based on the following four principles:

- AIDS-sensitive, not AIDS-specific: Taking into consideration that all children not just orphaned children face deprivation in poor communities which are affected by HIV;
- Rights-based: Interventions that address the needs of all children, regardless of their condition and circumstances;
- Gender-sensitive: Policies, strategies and programs that show awareness of gender differences that cause deprivation and vulnerability; and
- Sustainability: Interventions that are designed to consider the long-term nature of children's needs and vulnerabilities.

## 10.3 AFRICAN EXPERIENCE

With more than 10 million children orphaned by AIDS in Eastern and Southern Africa, the plight of OVCs has been placed high on the agenda of social needs. One in four children under the age of 15 in Lesotho, South Africa, Swaziland and Zimbabwe are orphans. This figure is one in three for Namibia.

Table 15. Breakdown of OVCs per African country

Country	Children who have	Children who have	% of children whose
	lost one or both	lost one or both	households received
	parents due to all	parents due to AIDS	external support
	causes		
Angola	1,500,000	140,000	-
Botswana	130,000	93,000	31
Burundi	610,000	200,000	-
Comoros	22,000	<100	-
Eritrea	240,000	19,000	-
Ethiopia	-	-	-
Kenya	2,600,000	1,200,000	21
Lesotho	200,000	130,000	-
Madagascar	910,000	11,000	-
Malawi	1,000,000	650,000	19
Mozambique	2,100,000	670,000	22
Namibia	120,000	70,000	17
Rwanda	690,000	130,000	13
Somalia	630,000	-	-
South Africa	3,400,000	1,900,000	-
Swaziland	100,000	69,000	41
Uganda	2,700,000	1,200,000	11
Tanzania (United	3,000,000	1,300,000	7
Republic of)			
Zambia	1,300,000	690,000	19
Zimbabwe	1,400,000	1,000,000	21
	22,650,000	9,454,000	

Source: State of the World's Children 2012, UNICEF

The countries with the highest number of orphaned and vulnerable children are Angola, Kenya, Madagascar, Malawi, Mozambique, South Africa, Uganda, Tanzania, Zambia and Zimbabwe.

Five of the nine developing regions show reductions in under-five mortality of more than 50% from 1990 through 2010. Northern Africa already has achieved the MDG 4 target, bringing down the child mortality rate by 67%. Sub-Saharan Africa has achieved reductions

of only around 30 %, less than half of what is required to reach the target. Despite determined progress overall, an increasing proportion of child deaths are in Sub-Saharan Africa (UN, 2012).

It is worth noting that as the rate of under-five deaths overall declines, the proportion that occurs during the neonatal period (the first month after birth) is actually increasing. Sub-Saharan Africa suffers a higher neonatal mortality rate than any other region, and has recorded the least improvement over the last two decades. This will need to be addressed more specifically and aggressively to ensure overall child health. The empirical evidence has shown that children born into poverty in the developing regions are almost twice as likely to die before the age of five as those from wealthier families. A mother's education remains a very strong determinant in inequity. Children of educated mothers— even mothers with only primary schooling—are more likely to survive than children of mothers with no education.

The maternal mortality rate in developing regions is 15 times higher than in developed regions. Sub-Saharan Africa leads the statistics with 500 deaths per 100 000 live births whereas Eastern Asia is at the other end of the spectrum with 37 deaths per 100 000 live births. Sub-Saharan Africa also has the highest number of maternal deaths attributable to HIV. Less than 50% of births in Sub-Saharan Africa are attended to by skilled health professions (doctor, nurse or midwife). There is however, an increased level of prenatal care throughout the pregnancy. Interestingly there has been a decrease since 1990 of the proportion of women aged 15-49 attended to four times of more, by any provider during pregnancy. Sub-Saharan Africa still lags behind other regions, with a percentage of 71% versus 96% in Latin America.

The African region presents large intra-regional disparities in terms of coverage of basic maternal health interventions like antenatal care. While Southern Africa reported almost universal coverage in 2010, in West Africa about one third of pregnant women did not receive antenatal care visits.

## 10.4 CURRENT AFRICAN CHALLENGES

A recurring theme across the different countries is the number of children who do not receive benefits, though they desperately need assistance, simply due to the definitions of eligible children. There seems to be a continent-wide bias towards supporting orphans who are affected by HIV/AIDS.

Connected to the provision of financial assistance is ensuring the normal growth of a child within a family unit which is not always addressed by the provision of grants. Given the cultural perceptions of adoption and the limited funding, creating healthy family environments for OVCs is often very difficult.

The role of social workers in African settings is essential as the purpose and qualifications of social workers are often unknown to the community being served; this differs from Western settings. Improving on this may result in better efficiencies by social workers.

### 10.5 ACTUARIAL INVOLVEMENT IN AFRICA

To be able to appropriately develop, implement and run programs for orphans and vulnerable children it is essential to know the costs of OVC programs. The costing and the analysis of the programs for monitoring and evaluation purposes would have to be in terms of the number of OVC beneficiaries that are reached in separate regions. This will provide a more transparent costing methodology for assessment and future pricing. Accurate costing of OVC

activities is essential in achieving a sustainable response at scale. Government and civil society planners require several levels of costing data to inform sound programming decisions, including cost data that inform basic budgeting, indicate the potential outcomes to be achieved by different interventions, and support scenario planning. Several costing methodologies specific to OVC programs have been developed for this purpose. Understanding the costs also requires that these be viewed in context of the epidemic, the children and the intended responses.

It is also essential to commission a National Longitudinal Cohort study, posing different research questions as needed. Following children and families being supported by various services over an extended period of time, is the most reliable way to understand whether the services being provided are making a difference in the lives of the children, both in the short term and longer term.

Each country should set up a Central OVC Database to capture among other essential data, information on all OVC service organisations by geographical and service coverage, and numbers of OVC by gender, age, and geographic area. This would be most appropriately commissioned as an actuarial activity due to the demographics background of actuaries.

#### 11 BROADER SOCIAL SECURITY NETS: EDUCATION

MDG 2 states that "By 2015, all children can complete a full course of primary schooling, girls and boys."

The measurable indicators for these targets are:

- Enrolment in primary education; and
- Completion of primary education.

Lacking from these goals is the urgent need for relevant higher education, starting from secondary education.

Different countries in Africa have taken it upon themselves to attain more specific and indepth goals within education to achieve the MDG target.

There has been a growing gap in the skills required in industries and the level of training attained by young people in Africa and other parts of the globe. Several African countries have started investing heavily in vocational training as well as entrepreneurial development. However, this is still not in alignment with the skills required to survive in the current job market. There is therefore a stronger link that needs to be developed between education and employment. It is clear from the aforementioned that education is a strong link between the different components of society. Education is essential in closing the gender gap which we witness, to ensure that girls and women are able to contribute effectively to the economy and reach their full potential. The link with unemployment is as described above. A critical component in alleviating the burden on OVCs is providing adequate education opportunities from a very young age.

The core educational focus at the moment should be to ensure that all children obtain a full primary education to allow them the opportunity to be accepted into secondary education. However, with the growing unemployment problem in the world, greater focus will need to be directed towards secondary education as well.

It is disheartening that the progress on primary school enrolments has slowed since 2004, even as countries with the toughest challenges have made large strides to reduce the number of uneducated children. More than half of out-of-school children are in Sub-Saharan Africa. This shows the need for a greater drive to get children into schools. This represented 33 million children in 2010. (UN, 2012)

Even more important than enrolment is completion of education. This shows the need for holistic, sustainable solutions. This brings us to the critical issue of the transition from primary to secondary education. There is an overemphasis on primary education from donors and government initiatives. Although this is an essential first step at improving education levels across the continent, more sustainable future opportunities can be obtained from completion of secondary education which is not available to an even greater portion of the population. Where it is available, it is not financially supported as is primary education, meaning that sending children to secondary school is impossible for many families. With the continent making good progress in attaining its goals for achieving primary education levels, there should be a growing emphasis towards improving the levels of secondary school education enrolment and ultimately, completion.

Secondary education does not always receive the same attention as primary education by donor organisations and countries. This is a serious problem for countries which have limited resources. To illustrate the problem, in 2010, 71 million young adolescents around the globe (typically from ages 12 to 15), were not attending school. 122 million people between 15 and 24 years of age were unable to read and write a short, simple statement about their everyday life. The comparison of the above two figures brings into question the quality of education currently being received and that which was disseminated in the past decade. 45 million of these 122 million people live in Sub-Saharan Africa. This spells greater trouble for unemployment in the future as these are young people who may be difficult to train and formally bring into the workforce (UN, 2012).

The area of education is not often covered by Social Security as its mandate falls under the Ministries of Education (including Higher Education). Donor-focus in the area of education has also reduced significantly since 2004. There is however an expectation of increased funding in this direction to focus more on sustainable growth in the near future as it has found itself on the global donor agenda once again.

It is essential to note the close connection between education, OVC benefits, unemployment, health, gender issues and other Social Security benefits. No one area can be targeted in isolation of others as our socio-economic environment is a highly entangled web. Neglecting one area impedes efforts directed in another area.

#### 12 CONCLUSION

Africa has a long history of Social Security provisions. African economies are increasingly demonstrating dual characteristics of high economic growth rates on the one hand and substantial Social Security challenges on the other hand. Economic growth, when not reflected in an improved socio-economic environment, serves very little to benefit the nation. There is growing interest and investment by African governments and international non-governmental organisations in developing social security programs and infrastructure. What is indicative is the great scope for further development and contribution by all stakeholders to ensure that the benefits run more efficiently and in a cost-effective manner to benefit the people of African nations.

Retirement Fund provision has evolved over time. Many countries have either reformed or are in the process of reforming retirement funding provision. Coverage of population and adequacy of benefits are critical challenges for effective retirement funding provision. State benefits are limited and more emphasis will need to be placed on individual savings to ensure adequate pension provision at retirement. There has been a trend towards Defined Contribution-type arrangements but there still remain challenges in respect of investment opportunities that can make such transitions sustainable.

The provision of Health Care remains a distinct challenge on the African continent. Various Funding models have been analysed. Out-of-pocket expenses remain a major funding method. Affordability, and sound and efficient management of existing resources remain challenges. A historic lack of adequate primary Health Care facilities compounded with other current challenges has resulted in inadequate Health Care provisions. Several nations have initiated efforts towards developing national public health care provision for their people. This has been an area of great involvement by the actuarial profession, however, enabling factors such as infrastructure and human resources remain great impediments to achieving the goal of adequate health care for all.

There are a myriad challenges in providing effective Unemployment Insurance which include poor administration systems, access to payments, limited coverage, availability of information, corruption, fraud and eligibility enforcement, varying financial performance and lack of co-ordination. The areas to focus on include hidden employment, reemployment incentives, severance payments, workfare programs, hiring subsidies, Individual Unemployment Insurance Savings Accounts, effective administration systems and continuous evaluation. The issue of addressing unemployment spans much further than providing an effective UIF. Providing more innovative solutions to providing employment is more likely to result in more sufficient long-term solutions. This is particularly an area of concern due to the very young African labour-force which should be integrated into the workforce.

To be able to appropriately develop, implement and run programs for orphans and vulnerable children it is essential to know the costs of OVC programs, an area which actuaries could provide as much value as they have in costing health care and UIFs amongst other benefits.

The area of education is still very new in the consulting and actuarial practices but the value provided is slowly emerging. Planning and budgeting at a national level have started involving actuarial input in a few African countries.

What has stood out in the investigation conducted and the consulting experience which several individuals in the profession have gained in these various areas, is the interlinked nature of these benefits. It is very difficult to address one area without considering the impacts of other issues. For example, when health care is coupled with education, the health of the nation is seen to improve over generations and the burden of disease and associated costs are greatly reduced. The long-term impacts are then seen in improved employment and longevity. Economic progress cannot be sustained in the absence of a population that is enabled to make the best use of the opportunities afforded by it.

There is great scope to conduct further research into African Social Security. Given the very differing landscape, culture and socio-economic environments, best practice for developing and implementing social security in the differing African regions may not be identical to that witnessed in western regions. In this regard, any social security research should not be in isolation from the circumstances in differing communities.

The potential contribution of actuaries is quite clear in some areas such as retirement reform, health care and unemployment insurance, as a result of the momentum the profession has already gained in these areas. In other areas of the development goals, contribution points are slowly being unearthed. The long-term view; the skill to view assets and liabilities side-by-side; the risk management capabilities; financial, economic and demographic modelling capabilities amongst a host of other skills, could be further put to great use to address development issues across the continent.

There is a professional responsibility upon any group of professionals to contribute to broader development areas where possible. This has been seen for centuries amongst health care professionals, construction professionals, lawyers etc. The actuarial profession, has, over time, become more visible and sought-after within areas of social security, especially within government and large NGO organisations such as the ILO. Actuaries have the potential to contribute and add value. Their potential contributions need to be progressively unearthed to expand their scope of influence in future.

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### 14 APPENDIX A

# **Primary Criteria to Assess Pension Provision**

The following definitions are set out in the World Bank Pension Conceptual Framework:

## Adequacy

Provide benefits sufficient to prevent old-age poverty (at a country-specific absolute level) amongst the populations and to provide a reliable means to smooth lifetime consumptions for the majority of the population. (Coverage is inherently included under this definition.)

## **Affordability**

A system, within the financing capacity of individuals and society, which does not unduly displace other social or economic imperatives or have untenable fiscal consequences.

# **Sustainability**

A financially sound system that can be maintained over a foreseeable horizon under a broad set of reasonable assumptions. Holzmann (2005) expands on this idea and expresses it slightly differently as "The payment of current and future liabilities according to an announced path of contribution rates without unannounced hikes in contribution rates, cuts in benefits, or deficits that need to be covered by budgetary resources."

### Equity

A system which provides income redistribution for the lifetime rich to lifetime poor, consistent with societal preferences, while not taxing workers or retirees external to the system. An equitable DB system provides the same benefits or services across income groups and cohorts subject to any income redistribution parameters that may apply.

### Predictability

A system that provides indexed benefits specific to law and not subject to the discretion of policymakers or administrators that as much as possible insulates retirees from longevity risks post-retirement and inflationary risks pre- and post-retirement.

### Robustness

A system that has the capacity to withstand, amongst others, major economic, demographic and political shocks.

#### 15 APPENDIX B

Examples of Gender Improvement in Africa

### South Africa

In 1995, South Africa introduced an innovative approach to gender inclusiveness within the economy by the Women's Budget Initiative ("WBI"). The WBI was designed to engender national budgets by impacting on the structures of allocating resources to ensure that women and men benefit equally. This initiative assesses the national, provincial, and local budgets from a gender perspective by tracking the impact of the budget on women. Many South African ministries have now accepted the concept of analysing their budgets from a gender perspective. A strong alliance between civil society activists and government departments is one of the key features of the initiative (Budlender et al., 2002).

Women have been on the national agenda of South Africa since the end of apartheid and were a high priority in developing the "New South Africa". The Women's National Coalition and its Women's Charter Campaign played a crucial role in placing women issues and policies on the political agenda (Gouws & Kotze, 2007). The first democratic government after the 1994 national elections laid the groundwork for mainstreaming gender, which included the development of gender equality policies and programs, a commitment made by government and new legislation, the supervision of legislation, and the allocation of resources for gender mainstreaming (Britton, 2005).

The most meaningful development occurred in the form of the Convention on the Elimination of all forms of Discrimination against Women (CEDAW) in 1995 (Kgasi, 2004). South Africa also implemented the national gender machinery and new legislation was proposed to address social, economic and political inequalities between men and women (Britton, 2005). Government policies ensured that women obtained more opportunities "to demonstrate their abilities and to participate in issues that may be advantageous to society" (Kgasi, 2004). Subsequently, the participation of women in the political arena, in terms of numbers and portfolio committees, was noteworthy.

South Africa has also made progress in terms of policies against Violence against Women. This has been in the form of the Prevention of Family Violence Act of 1993 which has criminalized marital rape.

The 1998 Act provided the first legal definition of domestic violence to include emotional abuse, economic abuse, intimidation, harassment, stalking, damage to property, preventing entry into residence and any other controlling and abusive behaviour.

There has been great intention within government and business to increase the inclusion of women at all levels. Although the nation may not be close to its targets, it has made significant progress in comparison to many of its counterparts across the globe.

# Nigeria

Nigeria ranks 118 of 134 countries in the Gender Equality Index. In Nigeria, only 25 out of the 360 members of the Nigerian House of Representatives are women and only about 4 % of local government councillors are women. This could perhaps be an explanation for Nigeria's low investment in sections that are crucial to human development outcomes such as health

and education due to the fact that these are often matters of interest to women leaders who understand the long-term ripple effects of these areas of investment.

In promoting women's livelihood, the 2012 DFID Gender Report in Nigeria recommends that "Government policy should prioritise agriculture and rural development, because 54 million of Nigeria's 80.2 million women live and work in rural areas where they constitute 60-70% of the rural work force". This is the case for many African countries.

### Namibia

The National Gender Policy of Namibia was designed with the objective to effectively contribute to the attainment of the objectives of Vision 2030, in order to create a society in which women and men enjoy equal rights and access to basic services. It also serves to provide opportunities for women and men to participate in and contribute towards the political, social, economic and cultural development of Namibia.

In order to address gender inequality and promote women's empowerment, the National Gender Policy focuses on the following key program areas (with their indicators):

Table 16. Key program and indicators from the Namibian national gender policy

Program Area	Indicators
Poverty and Rural Development	<ul> <li>Proportion below poverty line by sex of household Head</li> <li>Proportion accessing basic services by sex</li> <li>Access to potable water (% households covered)</li> </ul>
Gender, Education and Training	<ul> <li>Proportion of girls completing tertiary education</li> <li>Proportion of girls completing vocational education</li> <li>Proportion of girls completing secondary- education</li> <li>Proportion of girls completing primary education</li> </ul>
Gender, Education and Training	<ul> <li>Proportion of girls completing tertiary education</li> <li>Proportion of girls completing vocational education</li> <li>Proportion of girls completing secondary- education</li> <li>Proportion of girls completing primary education</li> </ul>
Health, Reproductive Health and HIV and AIDS	<ul> <li>HIV prevalence rate (% of pregnant women)</li> <li>Maternal mortality rate</li> <li>Infant mortality</li> <li>Contraceptive-use rate, including condom-use</li> </ul>
Gender based Violence	<ul> <li>Prevalence/incidence of GBV</li> <li>Percentage who received protection services, by sex</li> </ul>

Trade and Economic Empowerment	<ul> <li>Proportion of population owning land, by sex</li> <li>Proportion of population accessing and utilising credit schemes</li> <li>Percentage of women in employment, both wage- and self-employment, by type</li> </ul>
Gender, Governance and Decision-Making	<ul> <li>Proportion of women in politics, decision- making and managerial positions (Government, NGOs, private, parastatal and traditional authority)</li> </ul>
Media, Information and Communication	<ul> <li>Percentage of women in media organisations</li> </ul>
Gender and the Management Environment	<ul> <li>Proportion of women in managerial positions, environment institutions and Boards</li> </ul>
Issues of the Girl-Child	Prevalence of teenage pregnancies
Legal Affairs and Human Rights	<ul> <li>Percentage of women/ girls accessing protection services</li> <li>Percentage of women aware of their rights</li> </ul>
Peace-building and Natural Disasters	<ul> <li>Percentage of women in managerial positions in Defence and Protection services</li> <li>Percentage of peace-building institutions and committees</li> </ul>
Gender Equality in the Family Context.	<ul> <li>Average child maintenance award amounts</li> <li>Percentage of women receiving inheritance from deceased spouses</li> </ul>

(National Gender Policy, 2010)

As can be seen from the above, there is a strong effort to implement gender inclusion within as many areas as possible, and to track progress.

The promotion of gender equality was addressed at the national level with the creation of the Department of Women Affairs in the President's Office in the early nineties, just shortly after independence. The National Gender Policy was developed and translated into local languages in 1998. Furthermore, the Ministry for Women Affairs and Child Welfare was created to further enhance gender development in the country. This Ministry was renamed to Ministry of Gender and Child Welfare in 2005. In practice however, there have been incidences where gender discrimination manifested itself and Social Security provision was no exception, e.g. the absence of paternity leave benefit provision in the Social Security Act.

A gender analysis of the Namibian labour force reveals that the labour market is characterised by a sexual division of labour. This simply means that women are concentrated in sectors involved in domesticity and servicing which are traditionally considered as "female sectors" whereas men tend to be in sectors involving technology and manufacturing.

The Affirmative (Employment) Act has managed to advance educated women in the formal economy; this however has not translated to the informal economy and for uneducated women in the rural areas.

#### Rwanda

It is no secret that the devastation of the genocide which started on the 7th of April in 1994 had its greatest impact on the women—both Hutus and Tutsis. Almost two decades later, the impacts of that genocide are still a vivid memory to Rwandan women and have left a trail of social trauma.

Fortunately, with independence, there have been a growing number of women's cooperatives, the development of a Ministry of Gender and Development and a growing emphasis on women's issues by donor organisations and NGOs. This has all been in a growing effort to include the voices of women in important issues such as taxes incurred in inheritance and discrimination against women for inheritance.

The country's achievements can be attributed to the unique path the nation took in addressing gender issues during the post-conflict reconstruction. This is similar to what was witnessed in South Africa in 1994. Government's recognition of women as key players in the nation building process, commitment to gender equality at the highest level of leadership and women's resiliency in hardship and willingness to step up to the challenges were the key elements that played a role in making women equal participants.

These developments led to policy and legal reforms in areas critical to advancing women's economic status and well-being. These include:

- The Law on Matrimonial Regimes, Donations, Succession and Liberalities (1999) that stipulates gender equality in property ownership in marriages and inheritance;
- The Constitution (2003) that includes provisions for equal rights between men and women;
- The Gender Policy (2004);
- The Organic Land Law (2005) which ensures equality to land ownership, and
- The Law for the Prevention, Protection and Punishment of Gender Based Violence (2008).

Gender differentiated participation in the labour market is a key indicator that shows the types of opportunities women and men have in employment and the types of marketable skills they have that determine their income earning capacities.

In Rwanda, women account for 55.2 % of the 4,492,000 economically active population. Women have low rates of employment (34.6 %) in the formal public sector. Due to lack of gender statistics, information is not available on women's employment in the formal private sector, and the existence of wage differentials between men and women for similar jobs.

With 83.6 % participation in agriculture, women are highly engaged in the sector as independent farmers, wage farmers and unpaid family labour. Women find it difficult to move into non-agricultural jobs. The level of poverty among those employed in non-farm employment is low (36 % and lower) — women's difficulty in moving into off-farm employment raises a concern. Generating more off-farm jobs is one of the country's strategies for poverty reduction. The Economic Development and Poverty Reduction Strategy (EDPRS 2008-2012) envisions creating 1,000,000 jobs, 50 % of which will be off-farm jobs.

However, no targets have been set indicating the share of women in the job creation objective (African Development Bank Group Rwanda, 2008).

In Rwanda, an estimated 41 % of businesses are run by women. Lack of access to productive resources is one of the major constraints for women. Taking access to financial services as an example, women account for only 16 % of the borrowers. Some of the key constraints that hinder women from fully benefiting from the available micro-credit loans are:

- Many women still see taking credit as a risk;
- Women's lack of decision-making power on intra-household resources in general, and the use of the micro-credit loans in particular, increases their risk;
- Lack of collateral;
- Low capacity of Micro Finance Institutions in developing flexible products designed to meet women's needs:
- The low status of women in society and the cultural burden that discourages their economic ambitions, and
- A preference to get grants, an attitude that stems from post-conflict grant programs. (African Development Bank Group Rwanda, 2008)

Studies in these areas have indicated the micro-finance products that are likely to economically empower women include:

- Repayment schedules and interest rates to maximise contribution to increase income;
- Registration of assets used as collateral or purchased with loans in women's names;
- Incorporating clear strategies for women's graduation to larger loans;
- Loans for new activities, health, education, housing;
- Range of savings facilities which include confidential higher interest deposits with more restricted access to enable them to build assets protected from demands of other family members; and
- Loans to reinforce and strengthen male responsibilities for household well-being.

Given the fact that improving micro-credit service delivery to women and youth is one of the key targets of the recent Micro Finance Policy and Implementation Strategy, the potential for increasing access to quality financial services for women is high. However, concerted efforts are necessary to make policy commitments which are then followed through in targeted initiatives. Actuaries have been operating in this area for a few years and are growing familiar with the requirements for micro-finance and micro-insurance in these markets.

Gender Budgeting involves the gender analysis of budgets to ensure the inclusion of the needs and expectations of different groups (women and men) into the planning and resource allocation of national- and local-level development practices. Gender budgeting makes better utilization of existing resources to equally benefit women and men. Recently some African countries have started to apply the gender budgeting approach.

In 2002 the Government of Rwanda, with the support of development partners, launched a pilot initiative to integrate a gender dimension into the budgets of 5 line ministries and five provinces. Unfortunately, this project has not yet been fully implemented to allow for an appreciation of the benefits of the exercise. The Ministry of Finance and Economic Planning, in collaboration with the Ministry of Family Promotion and Gender, developed Gender Budgeting Guidelines that provide detailed steps and procedures to be followed to institutionalize the gender budgeting process. The guidelines are intended to provide a

framework for mainstreaming gender into the planning and budgeting processes (African Development Bank Group Rwanda, 2008).

#### Zimbabwe

In Zimbabwe's first and second parliamentary elections since independence in 1980, the percentage of women in parliament increased to 10%. Although women constitute half of the population in Zimbabwe, they are still underrepresented in decision-making processes in Zimbabwe. The barriers to women's equal representation lie in the elements of poverty, cultural values and political cultures which exclude women. (Chantal Rowena, 2009)

#### Women in Parliament in Zimbabwe

Year	% Seats
1980-84	9%
1985-90	8%
1990-95	14%
1995-00	14.1%
2000-05	9.3%

Source: EISA, 2002

Both the electoral laws and the constitution of Zimbabwe make no provision for the special representation of women in publicly elected bodies. Nor do they make any provision for quotas but instead permit the implementation of affirmative action programs (EISA, 2008). These affirmative action programs ensure that women are placed in certain positions within institutions based on that fact that these positions have in the past been dominated solely by men.

The ruling party in Zimbabwe, the Zimbabwe African National Union – Patriotic Front (ZANU-PF), adopted a 25% quota for female candidates for the National Assembly in 2005, despite the fact that significantly less than this is held by women (Chiroro, 2005). These quotas are said to be a result of intense lobbying by women's movements. The implementation of the quota is a direct reflection of the marginalisation of women and also the belief that men are more powerful within the party (Chiroro, 2005). The Movement for Democratic Change (MDC), the main opposition of the ZANU-PF, provides that one third of its National Council be women (Sachikonye, 2005) but faces similar challenges in implementing these quotas.

#### 16 APPENDIX C

OVC initiatives within several countries will now be considered.

### South Africa

South Africa has enjoyed great economic development but continues to experience social ills very similar to other African countries. The main cash transfer supporting children living in poverty is the Child Support Grant, introduced in 1998. Two other grants granted to target childhood poverty are the Foster Care Grant which is paid to guardians of children who are legally placed in the care of someone who is not their parent, and a Care Dependency Grant which is paid to the carers of children who suffer from severe physical or mental disability and who are cared for at home. These grants are all means-tested.

In South Africa, the Government spends 12 % of its total budget on social grants, making the country proportionally one of world's biggest spenders on Social Security. The social grants system has grown from 2.5 million recipients in 1998 to 13 million in 2009, largely as a result of the extension of the child support grant, which reached 9 million children under the age of 15 in 2009. Close to half a million orphaned children are in the care of families who receive a foster grant.

### Kenya

The U.S President's Emergency plan for AIDS Relief provides funding for programs that supply wide-ranging services to OVC and their families. These programs provide support in the form of education, vocational training, food aid, support groups for guardians, home visiting HIV education, recreational opportunities and individual counselling for children.

With 25% of both girls and boys below the age of 18 having lost at least one parent, it is clear that there are many potentially vulnerable children in the country. In 2009, 1.2 million OVCs were due to HIV/AIDS. This figure is not widely accepted within the country and has been estimated by other statistical reports to be as high as 2.3 million. These children lack access to basic needs due to high levels of poverty. In Kenya, OVCs account for 30% of the children living in poverty. The majority of children who are not registered are orphans. The OVCs are seen to start school later and drop out earlier than other children (Institute for Development studies, 2009).

The Children Act of 2001 was developed in response to the United Nations Convention on the Rights of Children (UNCRC). A National Steering Committee (NSC) on Orphans and Vulnerable Children (OVCs) was set up in May 2004 and is currently headed up by the Ministry of Home Affairs. A National Policy for OVCs based on the feedback from the Rapid Assessment, Analysis and Action Planning Process was conducted in July 2004. This was done with the support of the Department of Children Services, within the Ministry of Gender, Children and Social Development and the Steering Committee.

The 7 Priority Strategic Areas identified that form the basis of this are:

- a) Strengthen the capacity of families to protect and care for OVC;
- b) Mobilize and support community- based response;
- c) Ensure access for OVC to essential services, including but not limited to education, health care, birth registration, psychosocial support and legal protection;
- d) Ensure that improved policy and legislation are put in place to protect the most vulnerable children:

- e) Create a supportive environment for children and families affected by HIV/AIDS;
- f) Strengthen and support national co-ordination and institutional structures; and
- g) Strengthen national capacity to monitor and evaluate program effectiveness and quality.

The Kenyan government implemented a Cash Transfer program for OVCs. The intention was to support very poor households that take care of OVCs to enable them to take care of those children and help them to grow in a family setting. Organisations such as UNICEF, DFID and the World Banks have assisted Kenya in cash transfers resulting in Kenya's national cash transfer program increasing its coverage from 12,500 vulnerable households at the end of 2007 to 75,000 by the end of 2009. The government has increased its funding for social protection considerably, which ultimately will enable close to 250,000 children to have better access to nutrition, education, health and birth registration services.

### Zimbabwe

Despite there being over a million orphans in Zimbabwe, as of 2006, only approximately 527 000 of them received any kind of external support (National AIDS Council, 2011). Given the economic decline that was witnessed within the country from 2008 to 2010 this is likely to have dropped drastically.

State intervention in Zimbabwe has been in the form of public assistance, food hand-outs and school fees. The key attributes which are used by Zimbabwe to analyse the gaps inherent in child social protection programs are:

- Predictability Beneficiaries should know when to expect the service or access benefit;
- Consistency Beneficiaries have a certainty that the service will be provided;
- Transparency Beneficiaries selected in a clear and understood fashion or criteria;
- Sustainability long-lasting effects or benefits; and
- Quality Whether services are of high standards to meet identified needs (Gandure, 2009).

Zimbabwe has a legal framework and two key national policies that support children. There is a Children's Act, the Guardianship of Minors Act, the Maintenance Act, and the Child Abduction Act, all of which are related to the protection and development of orphans and vulnerable children. National policies include the National Orphan Care Policy and the National AIDS Policy. These policies identify opportunities to provide care and support for vulnerable children in accordance with the country's legislative framework, the cultural tradition of caring and the collaborative approach, which exists between government and the civic society, especially the six-tier safety net mechanism. These six are the nuclear family, extended family, community care, foster care, adoption and institutional care. The new 2013 Constitution has made more practical provision for OVCs, enabling legislation to be practically applied instead of being merely theoretical.

The government, in collaboration with UN agencies and civil society have collaborated to provide programs such as Basic Educational Assistance Module (BEAM), Child Adoption, Institutional Grants, Free treatment Orders and National Action Plan (NAP) for OVC.

BEAM assists vulnerable children with the payment of levies, tuition and examination fees. This caters for orphans and vulnerable children with ill, disabled or single parents or who come from very poor families. Selection of beneficiaries takes place at school level by committees which consist of parents and school authorities. The aim of the program is to reduce the number of children dropping out of school, and reaching out to children who have

never been to school due to economic hardships. Despite the efforts here and the increasing assistance, less than 20% of children enrolled in this project actually receive assistance. The program faces unpredictability in the arrival and the amount of funding. Excluded from those eligible for benefits are OVCs with learning difficulties as well as those who live far from schools, further reducing predictability, consistency, transparency, sustainability and quality, making it difficult for orphans and vulnerable children to depend on the program for social protection.

Adoption has faced challenges in Africa despite being widely utilized in Western countries. This may be due to factors such as inheritance, totems and fear of avenging spirits (Powell, 2006). Informal adoptions may be taking place but are not often recorded. Vacancies of social workers supposed to act as guardian ad item during the adoption process in the Department of Social Services were as high as 39% in 2010 (Wyatt et al., 2010). Recent reports have indicated that positions are not filled due to budgetary constraints. The vacancies have also resulted in reduced monitoring and evaluation, with some of the institutions operating without a qualified social worker (Sunday Mail, 2011).

Institutional Care is provided for disabled, homeless and delinquent children through 8 children's institutions, 3 Rehabilitation Centres for persons living with disabilities and 1 Repatriation Centre for the destitute. The DSS provides financial support granted to children registered with the DSS. Despite there being over a million OVCs, only 5000 are living at the institutions (UNICEF, 2001).

Free treatment orders result in the provision of free medical services to economically deprived children and adults unable to cover medical fees. The duration of coverage varies by the illness and services can only be accessed at government facilities. Over the past decade, the scheme has faced many changes primarily due to insufficient government funding and shortages of doctors and drugs, making the free treatment orders ineffective as social protection.

A critical feature that has been noted in Zimbabwe is the importance of strengthening the community support structures within Africa as the institutionalization of OVCs is not the optimal solution given the history of African families. Some of the aforementioned benefits can be used to do this. For example, intensifying cash grants can strengthen the ability of the community to absorb these children into loving homes. This has been noted in non-African countries as well.

#### Tanzania

In 2002, it was estimated that approximately 5 million children in Tanzania live in extreme poverty (National Census, 2002). 42% of the orphans are due to HIV/AIDS. 53% of them are cared for by the elderly, 12% live in child-headed households and only 1% receive support from relatives.

The Department of Social Welfare, within the Ministry of Health and Social Welfare is responsible for the well-being of vulnerable children. USAID and FHI have provided support in developing the national standards of OVCs. The DSW has led the development of a National Costed Plan of Action to guide the OVC response. The NCPAA created the Most Vulnerable Children Committees at the village level to assist in identifying OVCs, assessing needs and mobilizing resources. It is important for these Committees to focus on MVC rather than OVC because of a myriad of factors which include but are not limited to:

- limited resources (most MVCs have little access to training, resources, or other support);
- the fact that not all orphans are vulnerable;
- and the existence of significant factors other than HIV/AIDS that lead to vulnerability, such as poverty (Kaare et al., 2005).

Tanzania has adopted a largely community-based targeting approach in reaching out to OVCs. Conning & Kevane (2001) define community-based targeting as a policy of contracting with community groups or intermediary agents to have them carry out one or more of the following activities:

- Identify recipients for cash or in-kind benefits;
- Monitor the delivery of those benefits; and
- Engage in some part of the delivery process.

Community- based targeting (CBT) represent innovation in provision of social safety nets to the poor, in that it relies on the poor in screening, monitoring and accountability. Better targeting is achieved through use of local knowledge. CBT also allows for local definitions of deprivations and risks, thus limiting chances of poor performance in targeting.

In order to provide leadership in provision of care and support to OVCs in Tanzania, the National Guidelines for Community-Based Care, Support and protection of OVC were formulated in 1994 and reviewed in 2003.

Eligibility and inclusion for care and support as defined in the guidelines include: orphan-hood from HIV/AIDs, abandonment or neglect. Other forms of vulnerabilities that may make an OVC eligible for care and support intervention, include reduced capacity to cope with calamities, lack of access to education, health, welfare, safety, play and participation in decision-making in matters affecting their lives, and inadequate caring services. Major risks targeted in the guidelines include OVC exposure to diseases, poor nutrition, violence, neglect, exploitation and lack of access to opportunities for capability development.

Assessment of OVC programs in Tanzania have revealed a bias towards AIDS induced orphans which may be as a result of the definitions often adopted which have an AIDS component. More worrying is the fact that there seems to be neglect of HIV positive children below 5 years of age though eligible for protection under the guidelines. This has been reported in other countries. If we look at studies related to health provision at young ages, these are the most critical ages where children should be given the greatest attention if they are to have a chance at reaching their full potential in adulthood. Karim (2003), in his study of HIV positive children in an orphanage at Igogwe hospital observes that most orphans, all of whom have lost their mothers at birth, are likely to die before their fifth birthday because of lack, or deprivation of HIV screening and treatment services.

Only 1.2% OVCs who require support for secondary education receives support from OVC programs.

Absence of both a comprehensive assessment of the social welfare workforce and a coordinated plan to strengthen the workforce has prevented efforts from achieving the desired impact; as a result, there is an acute shortage of social workers. The few individuals who are employed as social workers are often ineffective and difficult to retain. This is due to myriad factors, including the inability to access existing training and professional development opportunities, under-appreciation for social work as a profession, lack of resources, supervision, and support to carry out social work tasks, and poor compensation and work environments. Social workers generally are undertrained, poorly distributed, and overworked.

There is a poor understanding by the general public about the role of social workers, including the perception that anyone can be a social worker and that the profession requires no formal education or training (Kacholi, 2012). The 2009 Law of the Child Act provides clarification on the role of social workers and strengthens the focus on their role to protect children from abuse, neglect, violence, and exploitation. This law also links social workers with the judicial system and other sectors to maximise the effectiveness of the Government's response. The implementation framework for the law is under development, and the implications of this new legal framework for social welfare officers will be factored into the new NCPA for MVC (2011–2015) and the development of a national child protection system.

# Nigeria

In 2008, there were an estimated 17.5 million OVCs in Nigeria (FMWA & SD, 2008). This is clearly a grave problem for the nation.

Until recently, the response to the crisis of OVCs in Nigeria has been mostly concentrated at communities and families. However with the burden of poverty, HIV/AIDS and increasing number of orphans, the communities can barely cope. A scaled-up national response led by government at all levels is required to adequately address the issue of OVCs.

In 2004, UNICEF, USAID and UNAIDS supported an OVC Rapid Assessment, Analysis and Action Planning process in 2004. A host of partners also supported the development of a Budgeted National Action Plan which provided the framework for the national response to OVC in Nigeria for a period of five years.

The National OVC Plan of Action provides key actions for scaling up OVC support in six technical components which are:

- Service delivery;
- Environment;
- Education;
- Health;
- Household -Level Care and Economic Strengthening;
- Psychosocial Needs and Social Protection; and
- Monitoring and Evaluation Framework.

The Nigerian Government has produced the National Guidelines and Standards of Practice on orphans and Vulnerable Children to provide comprehensive, efficient and effective care, support and protection of OVCs.

There also exists a National OVC M&E Framework that aims to:

- Guide the systematic data collection, analysis, reporting, use and feedback at Federal, State and Local levels:
- Facilitate the standardisation of M&E methodologies and tools across multiple actors at various program levels so that meaningful comparisons can be made over time;
- Define the selected M&E indicators in line with national strategic objectives and targets;
- Identify capacity needs for the full implementation of the M&E Plan; and
- Provide the platform for partnership, networking and collaboration to enhance the sharing and utilization of information among stakeholders for effective program implementation.

This plan is very elaborate in terms of the roles and responsibilities of the stakeholders, the processes to follow within assessment and service delivery and reporting.

There are five models of care in Nigeria:

- a) community-based care;
- b) informal foster care;
- c) institutional care:
- d) home-based care; and
- e) mobile care services.

Community-based care is the most dominant model and the one promoted by the national policy. The OVC programs implemented by national organisations and international implementing partners align with the areas of care stipulated by the National Guidelines and Standards of Practice as defined by the 2007 national needs assessment. These outline the minimum package of services and rights that each child should receive:

- a) food and nutrition;
- b) education;
- c) psychosocial support;
- d) healthcare;
- e) shelter;
- f) child protection;
- g) clothing; and
- h) household economic assistance.

Although there are neither nationally aggregated data on coverage of services, nor data on numbers of OVC most in need of services, anecdotal evidence shows that the current scale of services is far from reaching a significant number of the millions of OVC in need. Not only is the response inadequate in scale but also in scope, including programming gaps in specific service domains, geographical coverage, and age-groups.

Generally, there are disparities in urban versus rural coverage of services, with more services in urban areas, despite more OVC in rural areas, while some areas with much higher prevalence of OVC are less covered than those with lower OVC prevalence. The feedback mechanism from data to planning therefore requires closer attention.

While it is clear that the age group for OVC is from zero to seventeen years, there is a definite need for programs to cover vulnerable youths as they transition into adulthood (18 years). There are very few programs covering this age-group, and yet this is the age-group most in need of more assistance in higher education and skills training, which are more expensive and therefore less affordable.

Most 80% of the organisations indicated inadequate financing as the main constraint and the fact that close to half of the organisations are funded by international donors, signifies the need to seriously explore long-term sustainable financing for OVC programming.