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Age- and disease profiles change, but the need for equitable access to adequate health services remains

The impact of ageing societies on the countries health services

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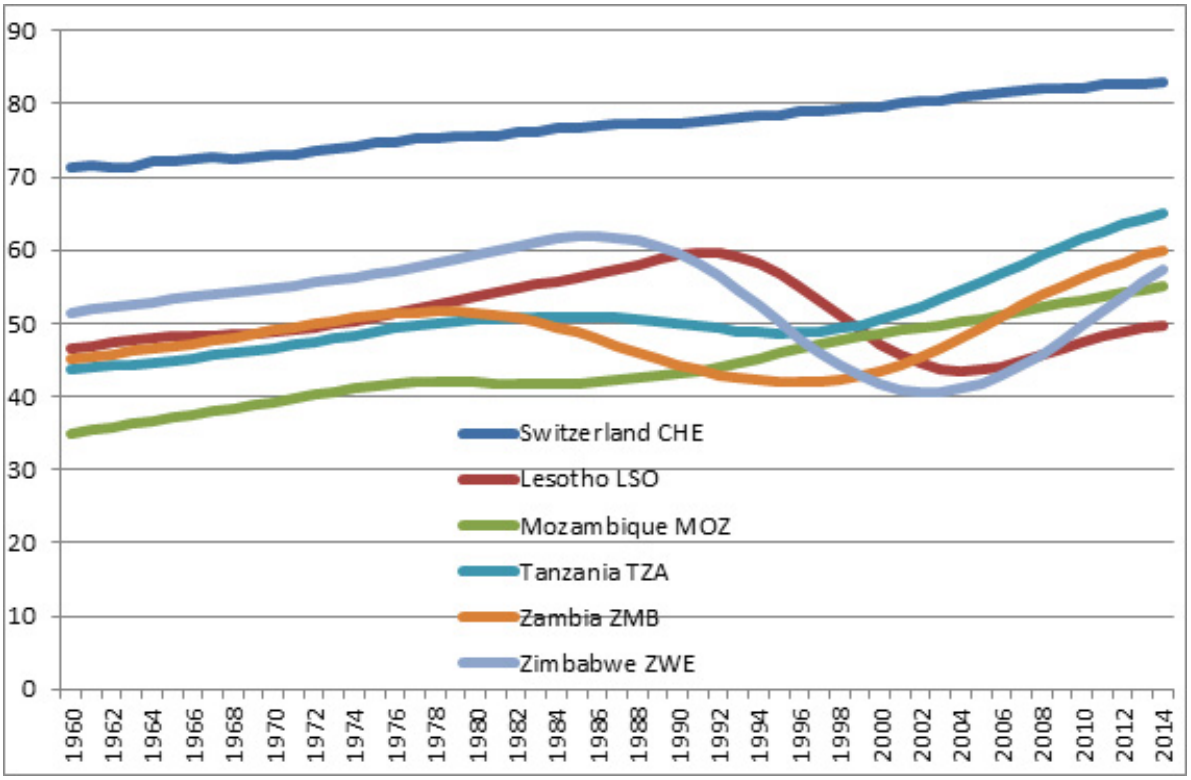
According to country reports, none of the health services appear to be prepared for an increasing number of outpatient consultations by older people, and the diagnosis and treatment of their age-specific conditions. SolidarMed presents knowledge gained in its intervention countries, and reflects about the impact of ageing societies on the countries' health systems.

(Photo: Nick Hartmann/ © SolidarMed)

Today, most of the world population can count on reaching more than 60 years of age and, as a consequence, population age distribution is changing: Current global models estimate, that by 2050, many country populations will be composed of about 1/3 of the individuals being 60 years or older (World report on ageing and health 2015). A glance at the countries where SolidarMed is involved demonstrates however, that while a general trend in ageing is visible, it may be context specific and appears to develop in a non-linear fashion over time.



Life expectancies over time for countries/regions where SolidarMed is active. The drop in life expectancy in Lesotho and Zimbabwe were mainly due to the Aids epidemic. (Data source: data.worldbank.org)

Another review by UNICEF for the African continent confirms an increase in the percentage of people >60 years of age over time, however, at a slower pace, reaching about 20% of the total population by 2100 (UNICEF 2014). This positive trend in African countries is mainly due to the steep reduction in child mortality and the successes in the fight against Aids; in high income countries, however, it is closely related to old people living longer due to healthier lifestyles and good access to state-of-the-art healthcare.

In both cases, these predictable trends have profound implications on how societies will be organized in the future. Healthy, experienced, older individuals can contribute significantly to productivity and social life.

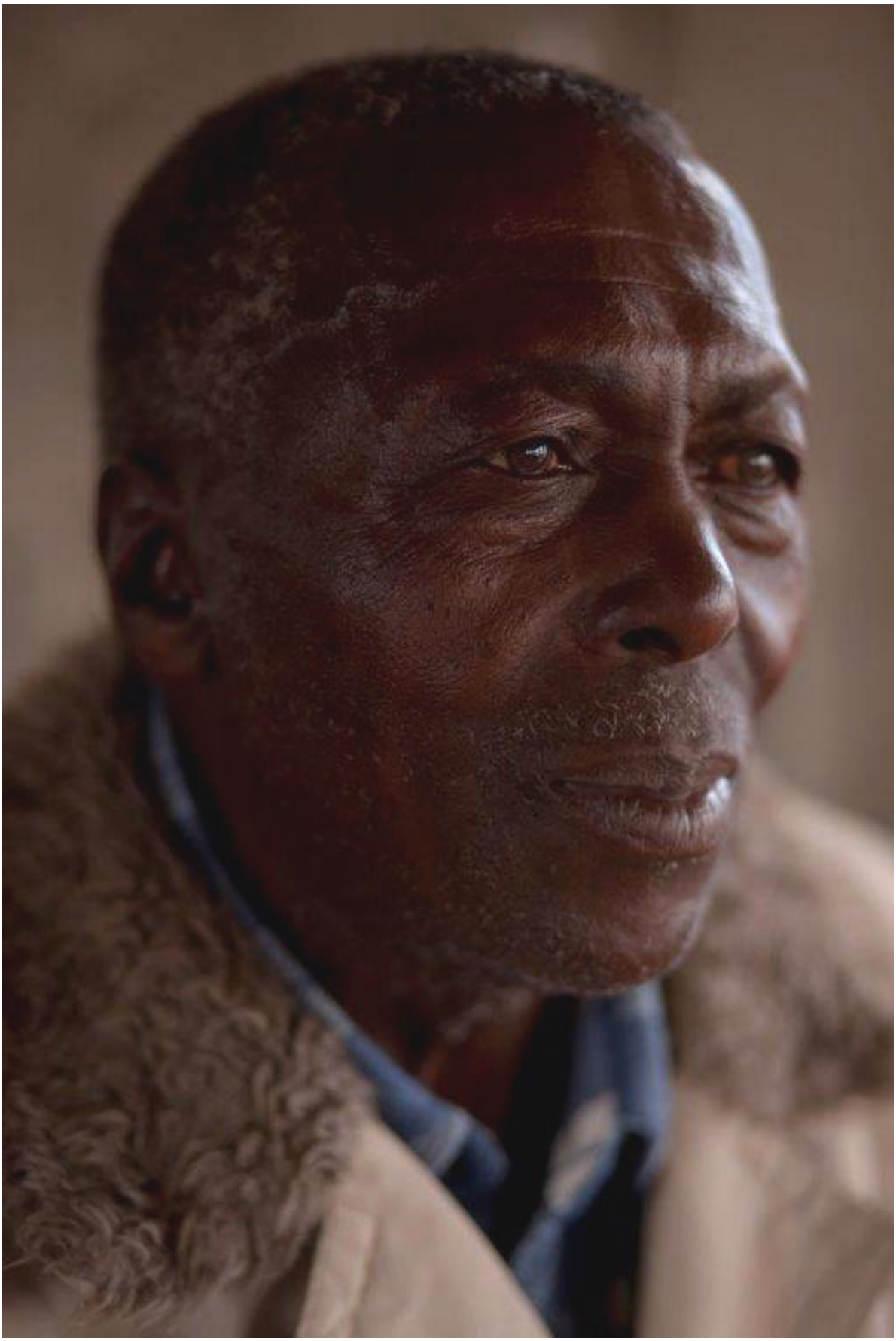
The demographic shift in lower income countries is known for a long time but still data are rarely available

As seen in Switzerland, productive ageing is only possible if people can rely on a supporting health and social welfare system. Such systems are expensive and Switzerland struggles to keep these costs under control. In 2014, Switzerland spent about 71.2 billion CHF for health cost (Mediakommunikation, 21.04.16). More than 54% of these costs are incurred by persons over 60 years of age. 80% of the costs are generated by persons suffering from non-communicable diseases (NCD). Given 50% of these conditions are due to life-style factors, Switzerland has accepted a new NCD strategy based primarily on prevention through the promotion of healthier lifestyles, such as healthy nutrition, stop smoking and increase physical exercise (BAG 2013).

The demographic shift is more worrying in lower income countries, where people of all ages are still struggling to access basic primary health care. However, ageing also presents an intriguing opportunity to make health systems resilient for the upcoming challenges – in contrast to fixing them.

Progress to define strategies and actions has been slow if at all existing in these countries. In addition, data on the real burden of disease and barriers to healthcare linked to ageing are insufficient.

The demographic shift impacts countries across disciplines, but this article will focus on the focus area of SolidarMed: „health“ and „health care“. We hereby present knowledge gained in SolidarMed's intervention countries, and about the impact of ageing societies on the countries' health systems.



(Photo: © SolidarMed)

An old man in Lesotho

A recent observation and interview of an old man which we met in a health centre in Lesotho appears representative of the fate many elderly face in such countries.

Ntate Mputsoe from the village Ha Sephoko in Lesotho survived life-threatening infectious diseases, and the HIV epidemic. Today, he counts 82 years, an impressive age and almost double the average life expectancy in his country. Mr Mputsoe arrives later than normal at the primary health facility in Montmartre, as he passed by another village to receive his small pension, which at least helps him to survive under minimal conditions. *„My wife died several years ago"* he tells us, *„and my children have all left, as there were no perspectives for them in this remote mountain village"*.

The old man is happy about the new health facility which was constructed nearby. He regularly collects his medicines for hypertension there. The next hospital is in Thaba-Tseka is about 5 hours away by car or 15 hours away by horse – and therefore no alternative for the elderly of this region. Mr. Mputsoe relishes the regular check-ups at the health centre, and sits pleased and quietly while the nurse controls his blood pressure and weight.

Luckily, the old man is currently not suffering from arthrosis or similar conditions. This would not only hinder him to come to the health centre, but in the health centre, he would only receive pain killers – no further treatment is available. He cares for himself on a daily basis, and *„it becomes more difficult, year by year",* he reports, *„and my only hope relies on my neighbours and the health centre"*. Once his check-up is over, he says good bye and *„thanks for the medicine, it will fight my regular dizziness and malaise"*.

What we know so far: Health services are not prepared for consultations by older people

In all African regions, old age is highly respected. Nevertheless, contextual factors often limit the population to honour this respect to its full amount, most visible, when the elderly require constant and intensive care to survive.

The four selected exemplary countries – Lesotho, Mozambique, Zimbabwe and Zambia – still experience an enormous challenge in providing basic primary health care services to the majority of the population. This daily and silent catastrophe also hits older generations, which make up 3-6% of the population in these regions. While these numbers are still low, the trend is clearly increasing and urges to allocate resources towards ensuring universal access to health services. It goes without saying that the insufficient access to health care of adequate quality in rural African areas significantly contributes to early death. With 0.04 medical doctors and 0.42 nurses per 1000 inhabitants, the system in rural Mozambique – for example – is already considerably challenged. Missing prevalence data about chronic diseases make it even more difficult to have a conclusive detailed view of the situation. *„In our setting, old people are still affected by infectious diseases such as HIV, Malaria, TB and diarrhoea"* (Health professional, Mozambique).

Estimated numbers	Lesotho	Mozambique	Zambia	Zimbabwe
Average life expectancy (years)	50	53	60.8	60.7
%>60y (N total population)	6%	3.1% (>65y)	3.95%	4.8%
Average number of consultations / staff and day	20-25	20-25	3 (private clinic) 16 (health posts)	20-25
Medical doctor density / 1000 pop	0.049	0.04	0.17	0.08
Nursing staff density / 1000 pop	0.62	0.42	0.78	1.34
Health system readiness for geriatrics	No, but on the way	Not at all	Not at all	Not at all
Average distance (km)	20	7	6	10
Means of transport	Public buses	On foot	On foot, public buses	Foot, 'ox cart'

Note: If not otherwise stated, the information is based on local statistics, and spot observations.

Transport to the hospital. Long transport routes to health care facilities are cumbersome and costly, which are hardly affordable for many elderly people. (Photo: Edmund Revelian/ Kwa Wazee)

The exemplary story from Lesotho was also confirmed by reports from SolidarMed medical staff residing in the programme sites: *„a typical elderly person in my setting may not get a chance to see a health care worker until the advanced stages of disease.“* (Lesotho).

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This lack of access often results in communal organizations that care for the elderly. *„Older people in the district are mainly looked after by family members who live in the same household. The majority of the population are subsistence farmers who live off small household farms; water for most part must be carried from local water pumps. And, community structures, family and neighbours can provide only a limited support.“* (Mozambique). The pressure to succeed economically drives younger individuals to bigger cities, often leaving old family members alone in the rural area: *„ ...the elderly are increasingly living alone or with a few family members in some isolated settings. This is even more so if there is a physical or other disability.“* (Lesotho)

A review made by SolidarMed with terrifying facts

While elderly suffer from a lack of support in the communities a recent hospital outpatient chart review over a 3-months period in Zimbabwe confirmed the challenges at the health care provision level regarding the management of chronic diseases (SolidarMed unpublished data):

- 43.1% (571) out of a total of 1326 general adult consultations had one or more NCD diagnosis.

- 27.9% (112) of these patients had two or more NCD diagnoses (8.5% of all outpatients).
- 88.2% of „NCD“ patients had Hypertension, and 30.1% of them were newly diagnosed.
- 63.4% of (known) Hypertension patients showed uncontrolled blood pressure; and 12.9% of them were classified as severe hypertension WHO stage III.
- Diabetes mellitus accounted for 16.2% of cases, congestive cardiac failure for 12.4%. 62.5% had raised blood sugar levels.
- Chronic respiratory diseases and cancer were far less commonly observed (4.6% and 1.8%, respectively), most likely due to a lack of screening and appropriate diagnostic tools.
- No systematic NCD screening takes place in the outpatient department (apart from blood pressure measurement).
- 12.9% of outpatients came late for review, and 13.7% had at one point defaulted their treatment. Reasons were financial constraints, but also a misunderstanding of the relevance of regular reviews and continuous medication.

Among inpatients (average age 63.2 years), the general picture was similar, and repeated admissions were common with 13.2% having been admitted in the last 6 months.

1 October 2016, Buganguzi, Tanzania. For the first time at the local celebration of the International Day of the Older Persons 2016, old people were invited to test their eyes. Out of nearly 400, who registered for it, 141 were investigated on this day. (Photo: Edmund Revelian / Kwa Wazee)

No adequate treatment for older people is available

The findings of this review are also reflected in the day-to-day experiences from our staff. None of the rural sites provide adequate care to old people. Inadequate treatment further complicates matters and long-term (lifelong) prescriptions for chronic conditions such as diabetes or hypertension are challenging. „*Insulin treatment for diabetes mellitus is outdated and there are numerous related logistic issues such as: insulin or syringes not available, no cooling available in patients' homes, etc" (Zimbabwe).*

> *„I had numerous encounters with elderly patients who defaulted their treatment because they could not come to the health facility (transport costs, no accompanying relatives available)". (Zimbabwe).*

Diagnostic capacities and tools are partly available, often not used or even completely missing. „*Psychiatric conditions are not diagnosed in the first place, but there are also very limited treatment options; and cancer-treatment options are only available in central hospitals, which are often out of reach for many patients*" (Zambia). The underreporting of specific NCDs makes it very difficult to estimate the burden of the disease conditions in the actual local population. „*…due to the underdiagnosed/non-treated hypertension, there is a reasonable amount of cerebral vascular disease and stroke as well as cardiac failure. These patients cannot be treated effectively in this setting",* (Mozambique).

The added challenge of the mere access to care further complicates the matter*: „The distance to the health centre, plus the lack of knowledge and insight into health prevention hinders prompt diagnosis and treatment in this group*" (Lesotho).

According to our rapid assessment, health systems should most urgently be strengthened to screen for, diagnose and treat hypertension, cardio vascular conditions, degeneration of the musculoskeletal system and depression. Current health providers in rural areas only offer very limited services for chronic diseases: „*Only limited diagnostic tools are available for ischemic heart disease. Psychiatric conditions, and depression in particular, are widely neglected...while we have effective treatment for hypertension and cardiac failure, we do not have it for ischaemic heart disease and chronic respiratory diseases are still being treated with oral betasympathomimetics and no inhalative steroids are available",* (Zimbabwe). Other conditions may require larger interventions at the health provider level, but also at community level to change perceptions and health seeking behaviour. Broader universal health coverage themes such as financing remain largely unaddressed.

> *„Insulin treatment for diabetes mellitus is outdated and there are numerous related logistic issues such as: insulin or syringes not available, no cooling available in patients' homes, etc“ (Zimbabwe).*

Health workers are not adequate trained

But not all is based on missing equipment and medicine. Health staff is often not adequately trained to actually diagnose, interpret and treat the conditions of elderly or NCDs in general. *„…we already routinely measure blood pressure in HIV patients, however, due to low understanding of hypertension amongst clinical staff, it often goes untreated“* (Mozambique). *„Chronic respiratory diseases are diagnosed clinically and may often be misclassified as TB and the like. Early diagnosis of/screening for cancers does not take place except for cervical cancer, so many patients present in late stages only“* (Zambia).

A chronic disease model is missing

Additional forms of clinical interventions are necessary to keep people active and productive in old age, such as *„provision of walking aids, screening for hearing and vision with provision of adequate hearing devices and glasses“* (Lesotho). Often, these supports are not free and not part of the Primary health care package, which again puts old people in a disadvantage to remain a contributing member of society. With elderly patients, the question of palliative care becomes increasingly relevant, which however, appears to be a challenging concept in these settings.

> *„The challenge of palliative care remains; I have to admit that I do not have any idea where to start here, since it hasn't even found its way into people's awareness...“ (Zimbabwe).*

Diagnostic guidelines reflecting programmatic and clinical aspects as well as information on the real-time availability of essential medicines for NCDs are widely unavailable in these settings.

In all, primary care systems in many of our sites appear to have developed into a service that delivers episodic care (e.g. antenatal care, under-five clinics, acute illnesses). In general, it lacks continuity for NCD care, and does not support a chronic disease model, which requires multiple levels of intervention: community education, prevention, screening, treatment and palliation.

(Photo: © SolidarMed)

What can be done

The demographic transition will undoubtedly bring new challenges and have profound impact on how health systems are strengthened and how people are trained. One immediate possible solution may lie in integrating the additional necessary services, allowing task shifting and improving access to care. From the experience of HIV care models, several lessons can be learnt and adapted for the elderly care and chronic disease management:

Learning from HIV care models?

„Antiretroviral treatment cards can be translated into NCD treatment cards, which indicate the medication, important lab results, next appointments and laboratory test which are due. Decentralization of services, integration of NCDs in ART clinics represent a mutual benefit: NCD patients can be included in the existing structures, the stigma of HIV would be removed from these "chronic diseases clinics", and the higher risk of co-morbidities in people living with HIV could also be addressed efficiently" (Zambia). In a recent study in Lesotho (Labhard N. et al, 2016), screening of HIV patients for risk factors for cardio vascular diseases and diabetes (IDF) was successfully implemented and resulted in 22.2% of women and 6.3% of men among 1'166 HIV positive patients on treatment (65.8% female) being at increased risk of developing a chronic condition. In other sites, integration of HIV and chronic disease services have been intended, but with limited success, calling for more intensified programmes. *„…the HIV clinic also provides chronic care for patients with Non-HIV chronic diseases... but it is limited to a few patients with hypertension"* (Mozambique).

Are Community health workers able to build up home care systems?

Lack of access to health services remains the greatest barrier. Innovative transportation options or home-based follow up visits may represent feasible solutions, while waiting for infrastructure and human resources to catch up. Community health workers appear to be the first available starting point to build up home care systems; however, some opinions clearly distance themselves from the overload of this lay staff, and question the sustainability aspect of such intervention. *„The country/health system cannot at present support a sustainable home care system".* (Mozambique).

On the other hand, „elderly patient groups" – analogue to the Community HIV adherence groups – could provide a promising model to retain elderly chronic patients in care. In Zimbabwe, differentiated models of care are a recognised approach to decentralise and improve retention in care. Out of clinic models, including Community ART Refill Groups (CARGs) for HIV patients are being promoted. This same model can integrate care for patients with other chronic diseases like NCDs.

Given the missing information on the size of the burden, *„...screening of NCDs (DM, HT, Chronic respiratory diseases, cancers) in the elderly and younger patients..."* appears to be a first step to recognise, adapt and prepare health care delivery systems in time, before the demographic shift hits them. This involves not only ensuring equipment and treatment, but importantly an *„… increase in the capacity building of health care workers to manage and support the elderly and their*

specific conditions", (Lesotho), which may also include *„…better accessibility of care, consistency of care – especially with regards to multi-morbidity and the associated multi-drug treatment which might cause interactions – and improved palliative care, especially pain and anxiety management"* (Zambia).

To ensure functionality of elderly, and therefore increase their wellbeing, decrease their dependency of family members and increase their physical „value" as contributor to the society *„walking aids, hearing aids, with associated diagnostic tools and the support of home visits"* (Lesotho), appear an obvious requirement

What is crucial for SolidarMed programme countries:

1. Health education and equitable access to basic and affordable health care

Finding practical solutions to integrate specific interventions to tackle elderly care and NCDs, fighting communicable diseases and HIV and ensuring safe motherhood is clearly a priority for future health system strengthening endeavours directed towards universal health coverage. An appropriate response to health care for the elderly, including NCDs, will require a well-resourced multi-sectorial ventures.

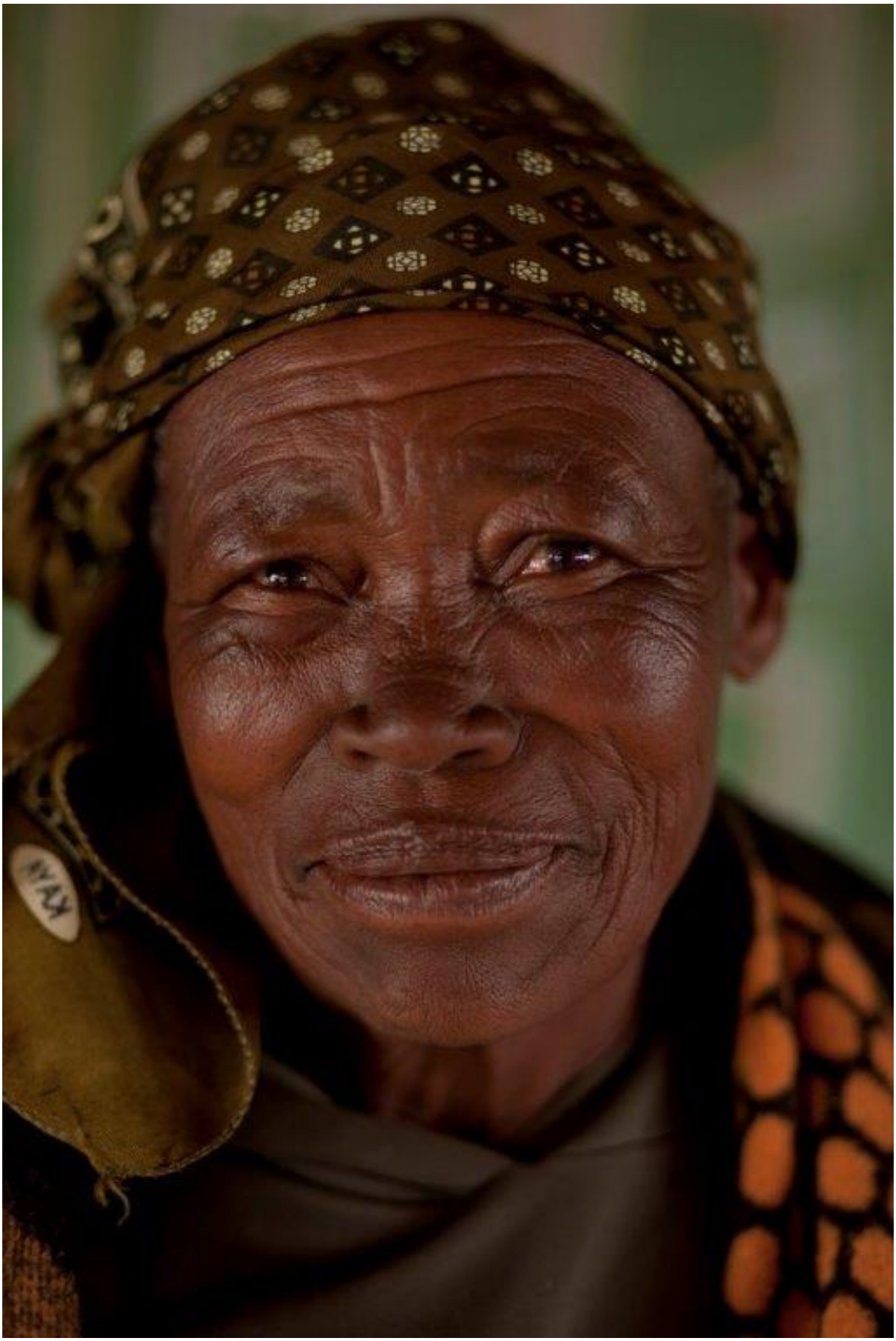
The health systems of our programme countries will be heavily challenged by their ageing societies and accompanying shift in the disease profile marked by a significant increase in chronic diseases. However, it is important to note, that – without interventions - also younger people will be affected by an increase in NCDs and will therefore make up a considerable proportion of chronic diseases in these countries. The equitable access to basic and affordable health care continues to be an enormous challenge for a majority of the population, including old persons. Health staff coverage continues to be low – especially in rural areas – and current procedures to screen and treat chronic diseases are basic and national guidelines are sometimes missing or weakly followed. Furthermore, population health education has not yet sufficiently included chronic diseases to educate the public on better lifestyle as a prevention measure and commitment at national level is still weak.

2. Further research in order to find cost-effective solutions and to establish an integrated chronic disease management model

Documentation, surveillance and research play an important role for the national authorities to estimate the burden and economic size of the challenge, its consequences on the health system and the timing of individual interventions.

Within this context, SolidarMed's focus on finding cost-effective solutions to improve equitable access to quality health care has the opportunity to target the problem in its programme countries at the core: Infrastructure, human resource training, mentoring and retention, quality of care, health education and transport; each requiring cost-effective and sustainable solutions in such underserved areas. An integrated chronic disease management model will likely be the most sustainable approach. While health services and care networks for the elderly can already be supported now, an existing HIV chronic care platforms can be leveraged. Social science research is needed to increase the knowledge about elderly people in such contexts, the limits,

barriers and determinants of healthy ageing and ways to increase it within individual societies. Strategic and technical support from such an experienced country as Switzerland should also not be undervalued. Such ventures are often neglected, due to the so differing context. However, the current strategy in Switzerland till 2020 is to focus on prevention of NCDs, and this may be a cost-effective solution in poorer countries, to avoid the threatening overload of current health facilities and need for expensive chronic treatments, and therefore avoid building up costly health care systems.



(Photo: © SolidarMed)

The sustainability of all these interventions, however, will heavily depend on solving the above basic access barriers first. A major challenge is the resources needed from governments and donors the same, which require long-term commitments from all actors.

SolidarMed is ready to meet the challenge and has included chronic diseases in its programme area

SolidarMed strives to improve the health of 1.5 Million people in its programme area, independently of age or gender. It does this through targeted health system strengthening efforts that benefit more than one target group. To ensure the coverage of the current and future spectrum of diseases, SolidarMed has included non-communicable and chronic diseases as thematic area, and commenced in 2015 to investigate the issue in more detail. As such, SolidarMed reacts to the demographic shift, which increasingly threatens already fragile health systems.

For SolidarMed, the main „immediate" priorities within its programme areas are therefore:

- Work intensively towards addressing the overarching challenge of equitable access to primary health care;
- Integrate within existing services the care needed for the elderly and other neglected populations through training, reinforcement of protocols and new diagnostic technologies, while taking care that the quality of already available services does not suffer.
- Further develop care models for specific groups, (e.g. the elderly population) based on its vast experience of HIV care (e.g. patient-managed care, patient-centred care).
- Implement long-term monitoring/surveillance systems for specific conditions, to collect much needed evidence and inform and influence policy in a timely fashion.
- Advocate for healthier life styles and inform the population on chronic diseases and its causes through inclusion of specific messages into already existing communication channels.
- Build bridges from the health sector to other important, and related sectors such as social welfare, registry system and education to align interventions and increase overall impact.

As such, SolidarMed is also aligned with the revised *WHO strategy on healthy ageing (WHO 2015)* with its strategic objectives to ensure functional ability in older age:

- commitment to action on Healthy Ageing in every country;
- developing age-friendly environments;
- aligning health systems to the needs of older populations;
- developing sustainable and equitable systems for providing long-term care (home, communities, institutions); and
- improving measurement, monitoring and research on Healthy Ageing.

And another major challenge: How to convince donors?

Obviously, the possibilities for SolidarMed to assist governments effectively in all those areas are often limited by available funds, which often are not earmarked for specific populations, such as elderly. As such, advocacy amongst stakeholders and donors in high-income countries appears

to be an adequate parallel activity to increase awareness and enable specific actions on the ground to improve the living conditions of this often neglected and currently abandoned but important segment of the population.

SolidarMed is the Swiss organisation for Health in Africa.

Its overarching goal is to improve the health care of 1.5 Million people living in 5 countries in sub-Saharan Africa (Lesotho, Mozambique, Zambia, Zimbabwe and Tanzania). SolidarMed' s vision is that all people have equal and financially secured access to good health care and can thus exercise their right to dignity, self-determination and best possible health in all circumstances of their life. Currently, infectious diseases and maternal, neonatal, child and adolescent health are focus themes of the programme.

SolidarMed addresses the multifaceted challenges through focused – geographically and thematically – and cost-effective, sustainable health system strengthening measures in the areas of primary health care, human resources, community empowerment and evidence-based policy dialogue. Through the transversal benefits of good health, it therefore strives to directly contribute to the Sustainable Development Goals 1, 3, 5, 8, 10 and 17 (Transforming our world: the 2030 Agenda for Sustainable Development).

To reach this goal, SolidarMed is dedicated to investigate barriers and determinants of good health, which can vary considerably between geographical sites, cultures, age groups, gender and minority groups. Context-related factors are ever more important and past experiences repeatedly showed, that e.g. successful interventions for one age group may not benefit the other.

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