


# Universal Health Coverage for chronic diseases – a challenge in low- and middle-income countries

By Svetla Loukanova, Steffen Flessa and Michael Marx

## Introduction

Health is a human right, but also a factor for development and economic growth. As it is a crucial element of human capital, the exclusion of a major share of the population in some low- and middle-income countries (LMICs) from health care is inacceptable. It is therefore not surprising that universal health coverage (UHC) has moved to the top of the political agenda in many LMICs and recently also to the top of the scientific agenda[1] (Sax J, 2012).

The concept of UHC predominates in government social security strategies in almost all LMICs (FCGH, 2012). It represents three related objectives: equity in access to health services, high quality of services (health promotion, prevention, curative services, rehabilitation, palliative services) and financially affordable health care. In the era of the envisaged post-Millennium Development Goals framework, the increasing prevalence of chronic non-communicable diseases (NCDs)[2] is becoming a major challenge not only in industrialised societies but also in LMICs (UN Report, 2013, Bloom et al. 2011, WHO World health statistics, 2013).

In this paper we discuss perspectives and possible prospects, taking into consideration that there is no single model for achieving UHC in the context of a growing chronic disease burden and demographic transition. The central focus is on the financial coverage of services for chronic care provision alongside the other dimensions of quality of UHC services and equity in access. This paper aims to contribute to the discussion on how to cope with these challenges and to show possible ways for a holistic approach to strengthening health systems. Moreover, it may inspire development partners to draw on experiences and health service delivery models from industrialised countries.

## Background

More than 80% of NCD-related deaths occur in LMICs and are attributed to four main high-incidence groups –of cardiovascular diseases (CVDs, 17.3 million), followed by cancer (7.6 million), respiratory diseases (4.2 million), and diabetes (1.3 million) (WHO Report, 2010). The rise of these lifestyle–related diseases in LMICs is the result of a complex pattern of social, economic, and behavioural factors. This upward trend is forecast to continue as epidemiological profiles and age structures of these countries shift further.

Strategies to attain UHC are becoming more challenging due to increasing prevalence of NCDs at all ages coupled with the rate at which the population is ageing. Worldwide the number of people aged 65 and above is projected to grow from 524 million in 2010 to about 1.5 billion in 2050, with the largest rates of increase in LMICs (UN World Population Ageing, 2013). In addition, a forecast of the population structure in a number of LMICs shows that chronic diseases of women, e.g. breast and cervical cancer, will be extremely prevalent. Thus, financial support for women will be crucial as elderly women are frequently poorer than men of the same age (UN World Population Ageing, 2013). The difficulty in ensuring concurrent equity, quality and financial sustainability under the umbrella of universal coverage comes not only from an epidemiological shift, but also from the dual burden of diseases (communicable and NCDs) and multi-morbidity on top of a continu-

[1] The paper uses the 2011 World Bank classification of lower-income and middle-income countries, including lower-middle and upper-middle countries, depending on a country's gross national income per capita. Here low-, lower-middle-income and upper-middle-income countries are indicated as LMICs.

[2] NCDs – this paper considers chronic non-infectious and non-communicable diseases with requirements for chronic care. This means predominantly CVD, cancer, respiratory diseases and diabetes. However, for LMICs the burden of some infectious, communicable diseases like AIDS, TBC, cervical cancer, that need chronic care should be taken into consideration.

giz

ous struggle with high neonatal and maternal mortality. Chronic NCDs at any age are becoming a huge challenge for UHC worldwide. The magnitude and impact on health care expenditures due to elevated health care utilisation and higher resources spent on the number of interventions required clearly represent a major challenge for healthcare systems (Kuo et al. 2013; Starfield et al. 2011).

The treatment of NCDs, such as diabetes or cardio-vascular diseases often requires long-term, if not life-long care. Thus, providing life-long access to drugs, medical services etc. is necessary and challenging, especially if coverage is to be steadily expanded. The objective of UHC for NCDs cannot be achieved where national health systems are weak. Health workforce shortages, interrupted provision of essential drugs and other supplies, financial barriers to care, ineffective governance structures and poor planning, insufficient health information, and inappropriate models for service delivery make the provision of services for NCDs difficult (Samb et al. 2011). In many countries the provision of even essential health care cannot be assured. Multiple vertical programs are often focused on just a few specific acute conditions (often infectious diseases) and are mainly linked to the current aid agenda. In the light of changes in demand (NCDs, treatment adherence pattern) and supply (poorly coordinated services and financial burden for governments), the focus in future UHC financing reforms in LMICs and in the context of strengthening health systems needs to be on interaction between all sectors targeting equity, quality and financial sustainability. The current discussion on UHC already reflects the incorporation of this concept in the international development agenda and post-MDGs debate (UN Resolution, 2012; WHO Report 2010). In pertinent literature, the term coverage has different meanings, e.g. financial coverage, services coverage, or both. In addition there is inconsistent usage of terminology as universal health coverage, universal health care coverage, universal health care, universal coverage, universal care appear to be interchangeable (Lancet, 2014; Evans et al. 2013; Kutzin et al. 2013).

In this paper UHC for chronic diseases refers to the three-dimensional concept of equity in access to health services, high quality of services (health promotion, prevention, curative services, rehabilitation, palliative services) and financially affordable chronic care (WHO Report, 2012).

In LMICs the projected cumulative global economic loss due to NCDs for 2011-2030 is estimated at USD 21.3 billion (World Economic Forum, 2011). Recent studies show that NCDs impose a heavy financial burden on many affected households, where the medicines are usually the largest cost component (Kankeu et al. 2013; Engelgau et al. 2011; Thakur et al. 2011). Various studies also show that existing health insurance could not alleviate the financial burden caused by chronic diseases much in cases where there out-of-pocket payments are significantly higher (Fang et al. 2012).

Under these conditions it is debatable whether the chronic care models and UHC concepts from industrialised countries are suitable for simply adapting to the context of LMICs. Financing models like the UK tax-based one risk pool model or the German multiple risk pool model, which relies on household premiums and payroll taxes, or various such models from France or Canada could not be simply adapted and implemented in LMICs, as they are highly dependent on the economy, infrastructure and human resources available. Nevertheless, the lessons learned in the process and approaches to achieving this level of coverage are valuable experience for LMICs, helping to answer questions about what this would mean for UHC and what is transferable to these countries.

**BOX 1: Diabetes Disease Management Programs in Germany**

*'.... Diabetes disease management programs (DMPs) delivered in primary care settings were introduced in Germany nationwide in 2003. Using compulsory requirements determined on behalf of the German Ministry of Health, sickness funds arrange contracts with primary care physicians. Participation for doctors and patients is voluntary, but participating doctors are obliged to keep within the conditions of the program. The German DMPs have been designed to improve the quality of care for patients with chronic diseases, reduce complications, improve patient oriented outcomes, and lower costs. Currently about 2.7 million patients with type 2 diabetes are enrolled. The diabetes DMP includes the implementation and audit of evidence-based clinical guidelines using quality indicators and quality assurance measures, with feedback to participants on their level of performance. It also includes regular recalls for patients and shared individual goal setting by the patient and the physician, with consideration of the individual circumstances and risk profiles. Statutory nationwide evaluation of all DMPs is mandatory for all sickness funds.*

*Results: (i) Patients with type 2 diabetes who participate in the German primary care–based diabetes disease management program (DMP) receive systems-based, multifaceted, and patient-centered interventions; (ii) Participation in the DMP was associated with reduced mortality after 3 years. Although this reduced mortality cannot be attributed directly to the DMP, extension of the approach within primary care contributed to increased life expectancy for patients with diabetes'* (quotation from Miksch et al. 2010). In the situation of an increased burden of chronic diseases in LMICs and inefficient usage of available resources, this experience may inspire reform programs in other countries.

## How are UHC and NCDs linked?

### (i) Health care financing strategies and mechanisms for treating chronic diseases in LMICs

The challenge of including NCDs in universal financial coverage requires action in several key directions: (i) establishing mechanisms for resource mobilization; (ii) estimating the costs of enhancing coverage and assessing the financial risk; (iii) defining the schemes for financing services; (iv) defining all services for NCDs included in the package and estimating their cost and the reimbursement rates for primary and hospital care, rehabilitation and palliative care.

In recent years many developing countries have adopted the implementation of UHC in their political and health policy agenda envisaging the coverage of chronic care (WB Universal Health Coverage Study Series, 2013, please see Box 2).

**BOX 2: UHC implementation in South-East Asia examples from Indonesia and the Philippines**

On January 1, 2014 Indonesia began to roll out its plan to provide UHC, the Badan Penyelenggara Jaminan Sosial (BPJS). Under the scheme, health insurance is to be extended to the entire population by 2019, including also coverage of services such as screening tests for early detection of breast and cervical cancer. However, the low and unequal distribution of doctors and inpatient care across the country as well as the continuous lack of pooling of finances and non-coverage of part of the population by the program for poorest (JAMKESMAS) make the progress towards UHC challenging and unpredictable. This is even more important for NCDs and life-long care (Indonesia studies towards UHC, Lancet 2014).

Another example is the implementation of UHC in the Philippines, also referred to as Kalusugan Pangkalahatan (KP), which is the main subject of the Administrative Order of the Department of Health of 2010. This government agenda is directed towards 'provision to every Filipino of the highest possible quality of health care that is accessible, efficient, equitably distributed, adequately funded, fairly financed, and appropriately used by an informed and empowered public' (Administrative Order, 2012).

In principle there are three fundamental barriers to universal financial coverage for chronic care in LMICs: the lack of resources, the overdependence on direct payments (formal or informal) at the time people need care (especially life-long care), and the inadequate and inefficient use and distribution of available resources (WHO Report, 2010). This illustrates the urgency of improving financial risk protection in health care in LMIC settings and ensuring that NCDs are taken into account in these systems (Kankeu et al. 2013).

The development of mechanisms for resource mobilisation and sustainable health financing is essential in order to reduce inequities in provision of and access to health services for chronic diseases. Examples from various countries show different mechanisms for raising supplementary funds for health on top of the scarce common financial resources for health coming from taxes, government subsidies, or external funds for specific programs. Such mechanisms induce economic growth (World Bank, 2012) and give higher priority to health in government budget allocations, finding new or diversified sources of domestic funding such as introduction or inter-sectoral reallocation of taxes (Kenya, South Africa, Sierra Leone). In addition, energy subsidy reforms in many countries are a potential measure for reducing NCDs (IMF, 2013). Furthermore, innovative visionary financial mechanisms can increase the flow of financial support for chronic care from external donors (for example an envisaged Global Social Protection Fund (Basu et al. 2014) or a European Enhanced Cooperation Arrangement (Lopez et al. 2013)). Currently there is a wide range in the percentage of government expenditure out of GDP allocated to health, from at least 5% in countries in Africa up to 10–12% in South Asia (WB, % of GDP on health, 2013).

On the other hand, the distribution of the available resources needs to be well planned. The treatment of NCDs is frequently very expensive and takes a long time. Thus, pooling of risks is even more important. Consequently, disease risk adjustment and assessment of economic burden (microeconomic and macroeconomic impact), definition of priorities for investment (through analysis of existing cost-effectiveness evidence) and estimation of the cost of enhancing coverage for chronic care are required. There is no consensus on risk assessment and the countries use different approaches to financial risk assessment for NCDs. Calculating the cost of expanding services for chronic care is a complex task for LMICs, as the data is extremely limited. The information required on disease prevalence, share of population in need of services, incremental cost needed to implement services, as well as the unit cost (per capita) are unknown for most of the LMICs. Aside from this, the political will and real implementation of identified government priorities should be considered a serious challenge.

In order to know how far the coverage could be expanded towards equity, quality, financial affordability and sustainability, it is also necessary to know the cost of services for NCDs. In most LMICs this estimation is lacking because of a lack of reliable data. The WHO estimates that a basic benefit package will cost on average around US$60 per capita by 2015; however, this figure varies widely between different countries (WHO, Working Paper Series, 2011; Elovainio et al. 2013). Therefore one can talk of a 'transition' towards UHC for chronic diseases. In this connection certain steps are planned (in a global aspect) for collection and assessment of the data needed for the 'transition'. The WHO suggested a global 'price tag' for all LMICs through information collection in order to establish a financial planning tool for scaled up delivery of a defined set of population-wide and individual health care interventions for NCDs (World Economic Forum, 2013). Following this, there is a need for conceptualizing appropriate schemes in the context of each country and integrating the analysis into the health system planning, as well as possible modelling of the return on investments.

One of the main challenges is to define what services should be included in this package for universal coverage. Apart from minimum health care packages there are not many initiatives specifically targeting NCD coverage in LMICs, or at least they are always on the second line after provision and coverage of basic primary care services. The main mechanism applied is the inclusion of medicines for chronic diseases in the essential drugs lists, although their lack of availability is often the reason for poor distribution, access and coverage of all patients who are in need.

Against this backdrop, recent discussions refer to the aspect of identifying essential packages for NCDs (basic CVD, diabetes, pulmonary, mental health and cancer essential package) based on cost-effective population-wide interventions that are at lower cost and financially feasible for scaling up. The WHO identified a set of evidence-based 'best buy' interventions for CVDs, diabetes and cancer that are feasible and appropriate for scaling up within the constraints of LMIC health systems (WHO, Scaling up action against NCDs, 2011). For example, in primary care facilities these interventions include counselling and multidrug therapy for diabetes, for people with >30% CVDs risk or treatment of heart attacks with aspirin, Hepatitis B immunisation to prevent liver cancer, and screening and treatment of precancerous lesions to prevent cervical cancer (Stenberg et al. 2012). In macroeconomic terms it is estimated that the expected economic benefit of a 10% mortality reduction in CVDs for a period 2011 – 2025 is US$377 billion, compared with the cost of intervention of US$120 billion (World Economic Forum, 2013). There is empirical evidence that the assessment of efficiency in purchasing the scheme could be based either on the number of the high risk population covered (Krug et al. 2009; Moreno et al. 2011), or on measuring the value of insurance provided through an 'extended' cost-effectiveness analysis (CEA), meaning assessment of the health gained per monetary unit and financial protection benefits (Verguet et al. 2014). In the context of NCDs it is more reasonable to buy financial protection through early treatment at much lower cost, rather than to cover later extensive hospital treatments.

Where the essential package for NCDs is defined, very often the lacking or limited health insurance coverage for NCDs is reflected in low claim and low reimbursement rates for NCDs in existing insurance schemes (Jamison et al. 2013). There is available data from studies in different countries, showing very low reimbursement rates for diabetes (Ramachandran et al. 2007; Khowaja et al. 2007; Kapur et al. 2007), CVDs (Heeley et al. 2009), cancer (Obi et al. 2008; Zhou et al. 2008) or respiratory diseases (Sun et al. 2009). In addition reports showed that in most developing countries, more than 50% of the total health expenditures are out-of-pocket (WHO Global Health Status Report on NCDs, 2010). There is a discrepancy here in the prepayment and pooling of resources as basic principles of financial risk protection, especially important for provision of chronic care. In LMICs, increasing the size of the compulsory prepaid pool of funds regularly requires transfers from general revenues (Kutzin et al. 2012).

In addition, paying for benefits or per capita, for example, can control the cost of chronic diseases (Chen et al. 2010) and even in LMICs, where service provision is low, this can have a very positive effect on increasing utilisation (Jahn et al. 2013).

**BOX 3: Costing of Non-Communicable Diseases in Cambodia**

The budget impact of diagnosis and treatment as well as the allocation of scarce health care resources must be based on reliable cost estimates. However, the costs of diagnosis and treatment of non-communicable diseases are frequently not available in resource-poor countries. The Royal Government of the Kingdom of Cambodia recently approved the new NCD-strategy and is in urgent need of an evidence base for its new strategy, in particular for two of its focus diseases – diabetes and cervical cancer.

GIZ contributes to implementing the new NCD strategy. One element is the costing of screening and treatment of diabetes and cervical cancer. A literature analysis conducted for the two diseases demonstrated that there is no reliable cost estimate available for Cambodia. Consequently, micro costing is performed for a specific model of diabetes screening and treatment (Peer Educator Network MoPoTsyo), and for the screening for and treatment of pre-invasive cervical cancer. As a third step, the budget impact of a nation-wide roll-out of these interventions will be analysed based on Markov and Systems Dynamics models. This then allows an assessment of the cost-effectiveness of basic interventions such as the improved availability of insulin and cryotherapy. The final objective of these costing studies is to provide an evidence base for the budget allocation by a government striving to achieve universal coverage for its population – including those with non-communicable diseases (Flessa, 2014).

In addition the global trend of rising cost for health services should be considered, which for OECD countries is around 4% per year (Arrow et al. 2012). This is linked to the growth of GDP and increasing demand for NCD services in the context of population aging and shift of diseases. At the same time it is questionable whether the expenditure on administration of respective programs for chronic diseases is well invested.

### (ii) Equity and UHC for chronic diseases

Overcoming the issue of equity in access to health care and equity in financing is a big challenge. Many aspects in financing services for NCDs mentioned above, such as government tax funding, are critical for redistribution and thus equity in access to services. This seems to be particularly important with regard to NCDs, as they cannot be financed merely via contributions or co-payments.

On the path to UHC, focusing on inequalities is paramount, especially considering different dimensions such as age, gender, rural/urban, or minorities. Many LMICs are developing their health financing systems in a way that allows access to health services for everyone, including the poor, and avoids financial difficulties in paying for health care. Worldwide there are various existing financial mechanisms in place for indigenous groups and the poor as well as universal schemes as e.g. in Thailand and some Indian states,

allowing coverage and access to basic health care services. In the context of NCDs, however, these experiences are quite scarce, as NCD services are mostly not sufficiently covered in the benefit package due to its relatively high costs. Universality, however, can only be achieved when governments cover the health costs of people who cannot afford to contribute.

An alternative example is the introduction of a community-based national strategic plan for NCDs to further strengthen the control of CVDs and diabetes in Malaysia (National strategic plan for NCDs in Malaysia, 2010), but this so far lacks detailed financing mechanisms. The role of community-based approaches and non-governmental organisations including health provision and financing are well known and recognised in different regions of the world (Arifeen et al. 2013). Community-based health programs (CBHPs) have made great progresses in coverage in many countries such as Brazil, China, Colombia, Ghana, Kyrgyzstan, India, Indonesia, Rwanda, Sri Lanka and Thailand (Krishnan et al. 2011; Chand et al. 2012). However, the service provision for NCDs is questionable in terms of quality and sustainability. Donors like MISEREOR (a faith-based organisation in Germany) target integration of the CBHPs into the conventional health care programs, which would contribute substantially to program efficiency and effectiveness. Once the government identifies UHC as a priority, it can build on existing informal schemes to set up more formal systems for NCDs coverage.

Another substantial measure for avoiding exclusion of the poor from services for chronic care is the removal of user fees and co-payments. In many countries abolition of user fees or incentives targeting the most vulnerable are successful measures. In addition, mechanisms for financing of the poor like Health Equity Funds for funding of poor chronic patients through the use of vouchers (as in Cambodia, Pakistan, Brazil) or Conditional Cash Transfer (like the Progresa program in Mexico or the Bolsa Familia Programme in Brazil) have shown some impact on mortality rates in the respective countries.

#### (iii) Quality improvement as a tool for transition to UHC.

Many authors see quality improvement (QI) in health care as an instrument for extending the coverage for NCDs. Examples include supply side interventions in Thailand to improve the quality of care and build greater patient confidence in the system (Limwattananon et al. 2007). Nevertheless, the availability, affordability and quality of chronic care services in most LMICs is currently lacking or insufficient in order to achieve universal coverage. In addition, the effective coverage in the context of human resources is crucial. It reflects the availability, accessibility, acceptability and quality of human resources for health, known as the AAAQ dimensions (Campbell et al. 2013). It is important for each of these components to put functioning structures that really work into place. This is the aim of numerous reforms and restructuring of the health systems in many countries to address the challenges of providing quality care for chronic diseases. There are different existing models with innovative approaches for restructuring systems, such as DMP or the innovative care for chronic conditions framework of the WHO (ICCC) (WHO Global Report, 2002; Sharma, 2013). Initiatives to develop a DMP similar to that existing in Germany are already in place in some countries, like Indonesia, but are still underdeveloped and with low utilisation rates of the package included. When it comes to improving the quality of services, a multi-perspective approach targeting various dimensions of quality needs to be developed. Quality measures (QM) should be used as a tool for cross-cutting health systems strengthening efforts. Here a service provider perspective has to be matched with the perspective of clients/patients and purchasers. Agreed common standards are still lacking and measurement of quality is still imprecise.

Despite the many efforts to create standards and guidelines for better quality of services, the lack of harmonisation of approaches and tools contributes to a waste of financial and human resources. Mushrooming QI and QM initiatives sometimes compete with one another and risk overwhelming ministries and health facilities through an overabundance of differing approaches and tools, all claiming to produce better quality of care. Moreover, for most of the QI initiatives evidence of effectiveness and efficiency is still weak, and the different tools are not always easy to integrate into existing systems such as supportive supervision, performance-based payment, result-based monitoring, or Health Management Information Systems (HMIS).

#### (iv) UHC measurement

The need to come up with an objective and workable ways of measuring progress towards UHC is paramount. The targets and indicators of UHC have recently been discussed as possible goals of the post-2015 development agenda and reflect the three UHC dimensions: (i) the percentage of cost prepaid at the point of service for prevention, promotion, treatment, rehabilitation and palliative care (the rest of out-of-pocket expenses); (ii) the percentage of the population covered; (iii) the percentage of services covered by the prepaid schemes at community, primary, secondary and tertiary levels. In terms of measurable results, the proposed indicators include certain sets of outputs, individually selected by the countries, and outcomes in addition to those of the World Bank and WHO. These organisations are proposing two targets relating to UHC – one to end impoverishment caused by health expenditures and one to achieve 80% coverage among the poorest 40% of the population for two composite measures for MDGs 4, 5 & 6 and NCDs (WB Monitoring progress towards UHC, 2013).

So far there has been no agreement on whether to move all dimensions of UHC for NCDs simultaneously or first to focus on moving one or more dimensions while waiting for the other. Cost-effectiveness studies on NCD coverage

show different dimensions in the coverage, depending on the national starting point and context. Specifically for chronic conditions, a two–step approach is recommended, looking at the burden of disease level (for CVDs, chronic respiratory diseases, cancer and diabetes) and tracer indicators for coverage at intervention level, NCD risk behaviour reduction, level of prevention (vaccination) and NCD treatment (outpatient and inpatient). To measure financial risk protection an indicator based on the incidence of catastrophic health expenditures due to out-of-pocket payments is planned.

## What to do? – Way forward for LMICs and development cooperation

The prerequisites for universal coverage of chronic diseases are sufficient health care budgets, equity and quality of services. However, in many LMICs these preconditions are not achieved.
In the context of appropriate approaches for development cooperation, there are several key issues to be considered.

### (i) The role of a multi–sectoral approach in UHC for chronic diseases and good governance

Many argue that UHC cannot be seen in isolation at country level, but needs to be viewed in a wider international context and as part of the global agenda for social protection. The coordination within the health system and partnerships involving health and non-health actors are mandatory for achieving UHC for NCDs. This is already addressed in existing strategic NCD plans of different countries, but to a large extent not yet implemented. There is a need to overcome the poorly developed health systems with predominantly individual programs and to look at the opportunities for integrated social protection systems, which combine the multi-sectoral with the systems approach. The successful transition towards UHC requires consideration of activities within the political, macroeconomic (income and rise in health spending, increase in share of health spending that is pooled rather than paid out-of-pocket by households) and sociocultural context of each country (Savedoff et al. 2012). The aid organisations and private sector could be seen as facilitators of these processes.

### (ii) Sustainable and affordable health financing approaches for NCDs

The potential trade-off between choosing interventions that bring high financial gains per cost spent and those that focus more on health gains is currently under discussion. There is a need for further research and evidence from specific interventions to prove the usage of one or the other. In addition, there are different approaches to UHC and 'progressive universalism' (Gwatkin et al. 2011) is an approach that includes the poor from the start with non–simultaneous progress in the three dimensions of UHC. There is strong evidence that raising funds through compulsory prepayment is the most efficient and equitable path towards UHC for chronic care. This naturally requires going beyond vertical programs, which currently seem to predominate in many LMICs in budget terms. A mix of different 'pro-poor' pathways to achieving UHC, including government co-funding of insurance for essential healthcare interventions for NCDs and a larger benefit package, funded through a range of financing mechanisms, with poor people exempted from payments, offers additional opportunities (Global Health 2035, Lancet 2013). Furthermore, there is a need to explore options of a subsidized 'risk adjustment mechanism' for financial mechanisms like CBHI or health equity funds to expand health insurance coverage of 'bad risks'.

### (iii) Strengthening the government's role to better steer the coordination of a variety of QI approaches and tools

This calls for a QI framework that has the capacity to harmonise the different QI initiatives. This framework should be based on standards and indicators that are objective, valid and verifiable in order to provide increased transparency at national, regional and district level. Moreover, it should have the power to easily integrate all existing QI Initiatives. This indicator-based framework will thus become a valid navigation system for policy makers at Ministry of Health and regional levels, as well at the operational level of the health facilities.
The indicator framework could become a holistic performance management instrument. It can be linked with other elements of improving health system performance, including health financing, accreditation, benchmarking at facility, regional and national level, disease management, training and clinical audits.

**BOX 4 Kenya Quality Model for Health (KQMH) Indicator Framework**

In Kenya, quality in health has always been on the national policy agenda. The Health Policy Framework commits to 'supporting provision of equitable, affordable and quality health and related services at the highest attainable standards to all Kenyans' (Kenya Health Sector Strategic & Investment Plan, 2012-2017). To address the aim of the MoH for scale up of the Kenya Quality Model for Health (KQMH) at national level, GIZ is working in partnership with the evaplan/AQUA consortium and the Nairobi based Institute for Health Policy and Management Research (IHPMR) to operationalise KQMH (GIZ Kenya Health Sector Program). The designed KQMH Indicator Framework is a participatory indicator-based system that approaches quality from various perspectives, including patient and staff. The system is based on the European Practice Assessment (EPA) model, the modified RAND/UCLA (University of California, Los Angeles) method and builds on GIZ's Systemic Quality Improvement (SQI) approach and previous support in improving quality in the health sector by operationalising the Kenya Quality Model for Health (KQMH)

through the development and monitoring of scientifically validated indicators. After the translation of the indicators into survey and assessment tools the approach features 4+1 characteristics and elements: (i) multiple perspective (patient safety is assessed from management, staff and patient perspectives); (ii) quality audit (through external trained facilitator); (iii) feedback (the collected data is used to measure indicators); (iv) benchmark (the results of one hospital can be compared with the mean of the results of all other hospitals); (v) +electronic support (web-based software eases data assessment, calculation of indicators and provision of immediate results and fast feed-back). Each of the tool indicators is scored on a scale of 0-100. The KQMH Indicator Framework, with its precision of measurement, can be used as a holistic performance management tool by linking it to other performance management systems at country level. In addition, it has the power to integrate in existing quality improvement initiatives, creating synergies and harmonising different QI- approaches. (https://www.visotool-kenya.com 2013)

**(iv) Human resources capacity building and UHC for chronic diseases**

Implementation of the quite ambitious agenda of UHC in many countries will require not only a good system based on law, regulation and good governance, but also capable human resources who run it. The new system needs a new set of skills and will open a new job market in the area of social security and health care provision. Development of new training formats in social security is urgently needed for qualification in the area of social security system development, analysis, monitoring and evaluation. In this context existing human capacity building programs consisting of a mix of theoretical and practical experience as well as transnational peer learning as supported by German development cooperation through GIZ[3] form a solid base for further increasing urgently needed capacity, particularly when linked to the strengthening of local academic and training institutions in LMICs.

[3] International Leadership Training in 'Social Security' for middle level management staff from Cambodia, Indonesia, Philippines, Viet Nam (2006-2014); Capacity Building for Effective Health (2010-2013); Online course in 'Pension Provision for an Aging Population in South-East Asia' for middle-level management staff from Cambodia, Indonesia, Philippines, Viet Nam (www.giz.de)

## References


Administrative Order 20100036 of the Department of Health on 'The Aquino Health Agenda: Achieving Universal Health Care for All Filipinos' (2012) (http://www.doh.gov.ph/sites/default/files/Kalusugan%20Pangkalahatan.pdf).

Arifeen L, Christou A, Reichenbach L et al. (2013). Community based approaches and partnerships: innovations in health service delivery in Bangladesh. Lancet, 382: 2012–26.

Arrow K, Dasgupta P, Goulder L et al. (2012). Sustainability and the measurement of wealth. Environment and Development Economics, 17:317-353.

Basu S, Stuckler D, McKee M. (2014). An alternative mechanism for international health aid: evaluating a Global Social Protection Fund. Health policy and planning, 29 (1): 127-136.

Bloom D, Cafiero, ET, Jané-Llopis, E et al. (2011). The global burden of NCDs. Geneva: World Economic Forum.

Campbell J, Buchan J, Cometto G et al. (2013). Human resources for health and universal health coverage: fostering equity and effective coverage. Bull World Health Organisation, 91:853–863.

Chand, S. Silent Killer. (2012). Economic Opportunity. Rethinking Non-Communicable Disease. Center on Global Health Security. Briefing Paper. (http://www.chathamhouse.org/sites/default/files/public/Research/Global%20Health/0112bp_chand.pdf)

Chen JY, Tian H, Taira Juarez D et al. (2010). The effect of pay for performance program on patients with diabetes. American Journal Management Care, 16:11-19.

Elovainio R, Evans DB. (2013). Raising and Spending Domestic Money for Health. (http://www.chathamhouse.org/publications/papers/view/191335).

Engelgau M et al. (2011). Capitalizing on the Demographic Transition: Tackling Non-communicable Diseases in South Asia, Washington, DC: World Bank.

Evans D, Hsu J, Boerma T. (2013). Universal health coverage and universal access. Bull World Health Organisation, 91:546–546A.

Fang K, Shia BC, Ma S. (2012). Health insurance coverage, medical expenditure and coping strategy: evidence from Taiwan. BMC Health Services Research, 12:442.

FCGH-Framework Convention on Global Health. (2012). Joint Action and Learning Initiative on National and Global Responsibilities for Health.

Flessa S. (2014). Costing of Non-Communicable Diseases in Cambodia. DGGÖ, 2014.

GIZ Kenya Health Sector Programme (http://www.gizkenyahealth.com/blog/?p=9796).

Global health 2035: a world converging within a generation. (2013). The Lancet Commission on Investing in Health. Lancet, 382: 1898–955.

Gwatkin DR, Ergo A. (2011). Universal health coverage: friend or foe of equity? Lancet, 377:16061.

Heeley E, Anderson CS, Huang Y, et al. (2009). Role of health insurance in averting economic hardship in families after acute stroke in China. Stroke, 40:2149–2156.

Indonesia strides towards universal health care. (2014). Editorial. Lancet, Vol. 383.

International Monetary Fund (IMF). (2013). Energy subsidy reform: lessons and implications. Washington, DC: International Monetary Fund.

Jahn, A, Paul F, Beiersmann, C. (2013). Peer review: results-based financing of maternal and newborn health care in low and lower-middle income countries. Heidelberg, 2013.

Jamison DT, Summers LH, Alleyne G et al. (2013). Global health 2035: a world converging within a generation. Lancet,7;382 (9908):1898-955.

Kankeu HT, Saksena P, Xu K, Evans DB. (2013). The financial burden from non-communicable diseases in low and middle-income countries: a literature review. Health Research Policy and Systems, 11:31.

Kapur A. (2007). Economic analysis of diabetes care. Indian J Medical Research, 125:473-482.

Khowaja LA, Khuwaja AK, Cosgrove P. (2007). Cost of diabetes care in outpatient clinics of Karachi, Pakistan. BMC Health Services Research, 7:189.

Krishnan A, Ekowati R, Baridalyne N et al. (2011). Evaluation of community-based interventions for non-communicable diseases: experiences from India and Indonesia. Health Promotion International, 26 (3): 276-289.

Krug ME, Goldman E, Galea S. (2009). Borrowing and selling to pay for health care in low and middle-income countries. Health Affairs, 28: 105666.

Kuo R, Lai M. (2013). The influence of socioeconomic status and multi-morbidity patterns on healthcare costs: a six year follow-up under a universal healthcare system. International Journal for Equity in Health; 12:69.

Kutzin J. (2013). Health financing for universal coverage and health system performance: concepts and implications for policy. Bull World Health Organisation, 91(8): 602-611.

Kutzin J. (2012). Anything goes on the path to universal health coverage? No. Bulletin of the World Health Organization, 1;90(11):867-8.

Lancet series. (2014). Universal Health Coverage. Vol 383.

Limwattananon S, Tangcharoensathien V, Prakongsai P. (2007). Catastrophic and poverty impacts of health payments: results from national household surveys in Thailand. Bull World Health Organisation, 85(8):600-6.

Lopez V. (2013). Financial Transaction Tax Receives Strong Support from the European Parliament. (http://www.isglobal.org/en/healthisglobal//customblogportlet/570432?p_r_p_564233524_userId=90253).

Miksch A, Laux G, Ose D, Joos S, Campbell S, Riens B, Szecsenyi J. (2010). Is there a survival benefit within a German Primary Care–based Disease Management Program? The American Journal of Managed Care. Vol 16: N 1, p 49.

Moreno Serra R, Millet C, Smith PC. (2011). Towards improved measurement of financial protection in health. PLoS Med. 8: e1001087.

National strategic plan for NCDs in Malaysia. (2010) (http://www.moh.gov.my/images/gallery/nspncd/NSPNCD.pdf)

Obi SN, Ozumba BC. (2008). Cervical cancer: socioeconomic implications of management in a developing nation. Journal of Obstetrics and Gynaecology, 28:526-528.

Ramachandran A, Ramachandran S, Snehalatha C et al. (2007). Increasing expenditure on health care incurred by diabetic subjects in a developing country: a study from India. Diabetes Care, 30:252-256.

Samb B, Van Bolhuis A, Alwan A, Etienne A. (2011). Delivering universal primary care services for non-communicable diseases: The need for stronger country health systems. Chapter 4: Improving disease management, WHO, Geneva.

Savedoff WD, de Ferranti D, Smith AL, Fan V. (2012). Universal health coverage 2. Political and economic aspects of the transition to universal Health coverage. Lancet, 380: 924-32.

Sax J. (2012). Achieving universal coverage in low – income settings. Lancet, 380: 944-47.

Sharma J. (2013). Chronic disease management in the South-East Asia Region: a need to do more. WHO South-East Asia Journal of Public Health.

Starfield B, Kinder K. (2011). Multi- morbidity and its measurement. Health policy, 103:3-8.

Stenberg K, Chisholm D. (2012). Resource needs for addressing Non-communicable disease in low- and middle-income countries. Global Heart, 7(1): 53-60.

Sun Q, Liu X, Meng Q, et al. (2009). Evaluating the financial protection of patients with chronic disease by health insurance in rural China. Int J Equity Health, 8:42.

Thakur et al. (2011). Social and Economic Implications of Non-communicable diseases in India. Indian J Community Medicine, 36 (Suppl 1): S1322.

UN Report of the Global Thematic Consultation on Health. Health in the post-2015 Agenda (2013). (http://www.worldwewant2015.org/health)

UN resolution "Transition of National Health Care Systems towards Universal Coverage" (2012) (http://pnhp.org/blog/2012/12/13/united-nations-passes-resolution-supporting-universal-coverage/)

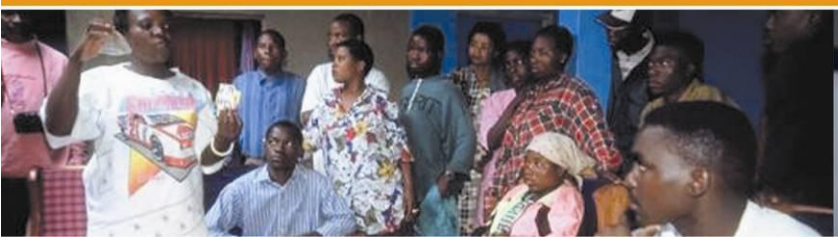
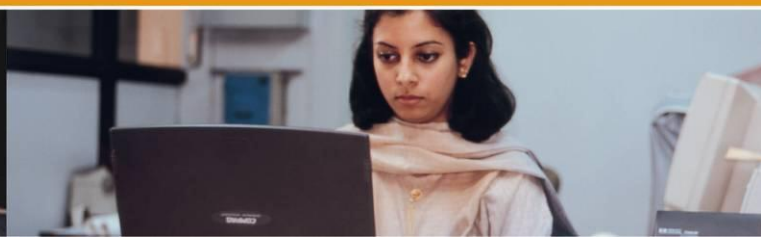
United Nations World Population Ageing, New York (2013) (https://www.un.org/en/development/desa/population/publications/pdf/ageing/WorldPopulationAgeingReport2013.pdf.

Verguet S, Laxminarayan R, Jamison D. (2014). Universal public finance of tuberculosis treatment in India: and extended cost-effectiveness analysis. Health economics. doi: 10.1002/hec.3019.

World Bank (2013). Monitoring progress towards Universal Health Coverage at country and global levels-a framework. (http://www.who.int/healthinfo/country_monitoring_evaluation/UHC_WBG_DiscussionPaper_Dec2013.pdf)

WHO Report 2010. (2010). Health systems financing: the path to universal health coverage, WHO Geneva. (http://www.who.int/whr/2010/10_summary_en.pdf)

WHO Global status report on non-communicable diseases (2010). (http://whqlibdoc.who.int/publications/2011/9789240686458_eng.pdf?ua=1)

World Bank data on % of GDP spent on health (2013) (http://data.worldbank.org/indicator/SH.XPD.TOTL.ZS)

Working Paper Series of the Studies in Health Services Organization and Policy. (2011). UHC A background document developed for the Belgian Development Cooperation, WHO. (http://www.chathamhouse.org/sites/default/files/public/Research/Global%20Health/0513_healthfinance.pdf)

WHO. (2011). Scaling up action against non-communicable diseases: how much will it cost? (http://whqlibdoc.who.int/publications/2011/9789241502313_eng.pdf)

WHO World health statistics (2013) (http://www.who.int/gho/publications/world_health_statistics/EN_WHS2013_Full.pdf)

WHO Innovative Care for Chronic Conditions: Building Blocks for Action. (2002). WHO Global Report. (http://whqlibdoc.who.int/hq/2002/WHO_NMC_CCH_02.01.pdf?ua=1)

Zhou B, Yang L, Sun Q, et al. (2008). Social health insurance and drug spending among cancer inpatients in China. Health Affairs (Millwood), 27:1020-1027.

Published by:

Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

Registered offices: Bonn and Eschborn

Dag-Hammarskjöld-Weg 1-5
65760 Eschborn, Germany
T +49 61 96 79-1446
F +49 61 96 79-11 801446
E social-protection@giz.de
I www.giz.de/social-protection-systems

April 2014, Issue No. 22

Editor: Cormac Ebken, Planning Officer Social Protection
Editor-in-chief GIZ Discussion Papers on Social Protection:
Uwe Gehlen, Head of Section Social Protection