Primary health care in a changing world

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On the occasion of the 30th anniversary of the Alma Ata-declaration, it is a challenge to assess if the declaration is still relevant to primary health care[1] today. We describe how primary health care can contribute to the challenges of the changing world i.e. how primary health care may be shaped in the new health economy in a globalising world. We first look at the different challenges and see how primary health care tries to respond in different parts of the world. We look for commonalities in the different approaches and how they fit with the principles of primary health care. Finally, we offer reflections on the way forward.

Challenges for primary health care in a changing world

Today we face unprecedented **demographic and epidemiologic transitions.** The world population is aging with the proportion of over-75's becoming more important whilst the percentage of young people in the overall population gradually declining. In 2005, 19% of all deaths were among children and 53% were among people aged 60 and older. By 2030 the respective proportions will have changed to 9% and 62%. Non-communicable disease mortality will increase from 61% to 68%[2] and this trend will hold for Africa despite the HIV-AIDS pandemic and poor socio-economic circumstances. As the population is aging, the number of patients with 2 or more chronic conditions increases. There are considerable differences in healthy life expectancy all over the world: for the African region the healthy life expectancy is 40 years for males and 42 years for females, for the European region 62 and 68 years.[3] Positive news is that the number of deaths by HIV/AIDS decreased from 3,9 million in 2001 to 2,1 million in 2007.[4]

Scientific and technological innovations bring the prospect of new prevention and care possibilities. The understanding of the role that genes play in health and disease, will have an enormous influence on health care, especially in terms of diagnosis and prognosis. Information and communication technology creates opportunities for improved documentation of decisions at the point of care. New drugs are available and change the approach to diseases (from surgery to drug treatment). The development of Evidence Based Medicine provides an important tool to optimise frontline access to innovations. There are concerns about how the needs of developing

countries will be taken into account in the agenda-setting and how much all these developments will be driven by their developmental needs rather than by the market? How much will patient-centrednesscenteredness be maintained with threats to patient autonomy and the risk of decreased distributive justice?

One of the most important **cultural developments** is that "patients" are acting more and more as "consumers". This has consequences for the expectations and demands at the point of service delivery. Both in Western and developing countries there is an increasing "medicalisation" of daily life (e.g. through "the making of new diseases"[5]). Looking at **socio-economic developments**, there is an increasing gulf between poor and rich, and a growing concentration of wealth (and consequent power over health policy decisions) at the top of the income distribution. We are living in a "risk society" with ecological (food safety, climate change, water and air pollution), socio-economical and individualisation risks.[6]

Finally, an important challenge comes from **globalisation and "glocalisation"**. Changes in economic policy and capital account liberalisation have led to increasing participation of low-and middle income countries in the global economy. However, when comparing the period of 1960-80 with the rapidly globalising period of 1980-2000, slower growth of the per capita GDP is noted, as well as lesser progress in health outcomes, and a lesser progress in educational outcomes.[7] Also, conflicts and war in several parts of the world,world induce an increasing mobility and migration. On the other hand, there is a growing urbanization of the world's population. By 2030, 70% of the world population will live in cities. This means that (primary) health care systems will be faced with new challenges as the global problems become apparent at a more concentrated, local level ("glocalisation") and focused on the prevention and/or the rapid and appropriate response to disease outbreaks and disasters.

How does primary health care respond to the challenges of the changing world?

Twelve characteristics[8] define primary health care: it is general, accessible, integrated (including health promotion, disease prevention, cure and care, rehabilitation and palliation), continuous, it is a team-work, holistic, personal (focusing rather on the person than on the disease), family and community oriented, coordinated, confidential (respecting the patient's privacy), and plays an advocacy role.[9] The relevance of some of those principles is challenged by our "changing world": a "general" approach at a time when "sub-specialisation" is booming; "accessible" at a time when increasing dualisation and decreasing "solidarity" lead to more "out-of-the-pocket payment" at the point of service; "accessible" at a time when cultural diversity is seen as a "threat" rather than as an opportunity; "integrated" in a framework where there is increasing fragmentation with market-driven "for profit" stand-alone facilities; "continuous" at a time when people are constantly on the move and "care from the cradle to the grave" sounds very outdated; "family oriented" at a time when the "traditional family" is no longer the prevailing living unit; and "coordinated" at a time when quality of care for the patient with multi-morbidity is judged by guidelines created for single "disease management".

We explore how, in different continents, primary health care stakeholders have responded to these challenges, focusing on relevance, equity (including accessibility), quality and cost-effectiveness as a framework for analysis.

In Thailand, in the 1990's, change of health care delivery was introduced through small scale experimental new style health centres which was eventually developed into a national policy. the government has been convinced that change in the health care system was needed and pPrimary health care was in the forefront of that change. The aims were threefold: to increase equity, to improve quality and to give a human dimension to health care (see Appendix 1).

Physicians moved outside the hospital setting and there was a shift from specialist-in-hospital-care to practitioner-in-community-family-care. Capacity problems are addressed with an intensive training programme and support of staff. In South-Africa the political change at the end of apartheid has put equity on the health policy agenda (Appendix 2). Primary health care developed as a result from a combined effort at different levels: the district health system that created the structural context, departments of family medicine and primary health care at universities and training institutions for primary care nurses and mid-level care workers that established appropriate training programs to build the appropriate human resources and the government that embraced primary health care in its strategy. In the USA, primary care has traditionally been very weak. The disappointing results of the actual technology-driven and market oriented health care system, called for the adoption of the concept of the primary care "medical home" system to coordinate care. This concept is applied in different states e.g. in New Mexico, where it is an integer part of a strategy to address the challenges by cultural diversity and geographic and financial barriers to adequate health care. The University of New Mexico developed a web-based primary care referral programme in order to connect the uninsured to a medical home. The "health commons" are a new concept in community-based care, which attempts to address the social determinants of disease, utilising an intersectoral approach (Appendix 3). In Belgium, due to the lack of a structural framework for primary care (no patient list, no gate keeping, fee-for-service with a focus on curative services), an incremental approach to strengthen primary care has been developed, mainly focusing on improvement of access and quality assurance. Implementation however is difficult as policy-development is based on continuous compromise between insurance and health profession organisations. Apart from the traditional fee for service, innovative primary health care centerscentres have developed, working in a capitation system, without financial barriers, and developing an integrated approach, with special attention for vulnerable groups. In order to address the upstream causes of disease, the centerscentres develop a "Community Oriented Primary Care"-strategy, focusing on empowerment and social cohesion (Appendix 4).

Primary Health Care in the new health economy: a SWOT-analysis.

Although there are huge differences in the context in which primary health care has developed in the past decades, the examples from 4 continents illustrate that a primary health care-based approach tackles the challenges of the changing world. It will be important to monitor in the future to what extent it contributes in terms of equity (access, reducing social inequalities in health), quality (both process and outcome) and influence morbidity and mortality. Looking at the described examples, there is an interesting convergence: on the one hand countries with limited nurse-based and hospital related health care (example, Thailand) or with a system based on district health hospitals with related nurse-based clinics (SA), discovered the importance of a comprehensive, holistic primary health care clinician, a "family physician", to improve performance of the primary health care team. On the other hand, countries with a strong person oriented family medicine tradition (Belgium, United States) demonstrate the need for an interdisciplinary community oriented primary health care team, practising Community Oriented Primary Care, involving the local population, and working towards intersectoral action for health.

Appendix 5 summarises the key elements of a SWOT-analysis of primary health care. Primary health care has a lot of **strengths :** it responds to the "human needs" for a comprehensive patient- centeredcantered approach when suffering from health problems and it has (at least in Western Europe) a strong historical development building on a variety of traditions. Since the 1990's it has developed a switch from "experienced based medicine" toward "evidence based medicine", underpinning guidelines and protocols. A challenge I how to reconcile an EBM-approach with the important role traditional healers play in developing countries, where they are the first contact of the population with the health care system. More and more the involvement of the patient (for example, through self-help groups), has become a cornerstone of the primary health care-approach. An increasing community orientation has contributed to close the gap between

primary health care and public health (see figure 1). Nowadays the evidence points in the direction that countries with a strong primary health care system, achieve better outcomes with a more cost-effective use of resources and more equity. But there are also **weaknesses :** solidarity and equity, underpinning the values of primary health care, are increasingly under pressure since 1989, and certainly after the 9/11 events in 2001. There are important gaps remaining between primary health care and public health; between health and welfare; between cure, care and promotion, prevention. A minority of health systems in the world are primary health care-oriented; most are hospitalo-centred. The **opportunities** for primary health care are globalisation with increased possibility to network and exchange experiences, the increasing international political attention for the need of universal coverage in order to make health care accessible and the role primary health care can play in this process, the development of interdisciplinary team work and subsidiaritysubsidiary in patient management, the growing evidence of cost-effectiveness of strategies based in primary health care, the positive experiments with intersectoral action for health, involving sectors like urbanisation, economy, housing, education at different levels of society and the growing evidence of the contribution of a strong primary health care system to empowerment of individuals and "social cohesion". However, important threats may challenge the future of primary health care: globalisation is both an opportunity and a threat (e.g. trough the international brain drain). Increasingly, all over the world market mechanisms are being introduced in primary health care. The challenges will be how these mechanisms may be able to contribute to relevance, equity, quality and cost effectiveness of the primary health care system and whether they will be a threat to a comprehensive and holistic approach. New initiatives like "walk-in clinics" although responding to the "consumerism"-trend lead to fragmentation and are not cost-effective. In developing countries, there is an increasing tension between vertical disease-oriented programs (focusing on Aids, Malaria, and Tuberculosis) and the development of primary health care. In order to avoid "internal braindrainbrain drain" (from local primary care to vertical programs) investment of donors in strengthen primary health care is needed. World wide there is a continuous threat of underfundingunderfunding primary health care both at the level of infrastructure and human resources.

In Western Europe, there is increasing attention to "disease management," establishing path ways through primary and secondary (and sometimes tertiary) care, for certain patient groups (for example, e.g. diabetes, cancer, COPD,...). The aim is to is to improve quality of care through integrated multi-disciplinary protocols, based on sound evidence. In countries where increasingly market-mechanisms are introduced, parts of this program are outsourced to specific care providing companies. However, there is growing concern about the comprehensiveness of care when patients are treated by different service entities. Especially with the increasing problem of "co-morbidity," there is a need for holistic integration, that may lead to "adaptation" of the targets in the different disease-oriented guidelines, and shift the focus from "problem-oriented" to "goal-oriented" care, putting the patients' functional aspirations at the centercentre of the care,.[12, 13]

The way forward.

The SWOT-analysis makes clear that only a strong commitment of governments towards strengthening primary health care may be able to achieve the objective of care that is relevant, equitable, high-quality and cost-effective. The World Health Report 2008 may be a starting point for clear engagements to give a new impetus for primary health care in order to achieve the Millennium Development Goals. A worldwide global primary health care plan is needed, and WHO should set the agenda for this development, creating a specific primary health care department, that cuts across the vertical disease oriented programs in the organisation. There is a need for analysis of policy development and dissemination of best practices, using an open method of coordination. In Latin America, the Pan American Health Organisation report "Renewing primary health care in the Americas" has described how this could work for the Americas[14]. An important effort is needed at the level of recruitment, education and retention of primary health care

workers: primary care nurses, family physicians, midlevel care workers. There is a responsibility for professional organisations (for example, World Organization of Family Doctors-Wonca) and universities and institutions for higher education to train appropriate providers and for governments to set up mechanisms that make it possible for providers to continue to work in remote and rural areas, townships,…

A clear research agenda has to be set at different levels: at the **macro**-level there is a need to understand better how sustainable primary health care-oriented health systems may be developed and how primary health care, through intersectoral action for health may contribute to address the social determinants of health. Research is needed to understand better how measures taken in different domains (finance, economy, urbanisation,…) may affect health systems ("health system impact assessment"). Research in primary health care should address the assessment of improvements that the Quality Chasm report is calling for in 6 dimensions of health care performance: safety, effectiveness, patient-centrednesscenteredness, timeliness, efficiency and equity[15]. At the **meso**-level, we need research about models that bridge the gap between primary health care and public health, that investigate how professionals, civil society organisations and population can interact to strengthen primary care, and what are the best ways of organising the "micro- systems" that deliver care. To look at the primary health care as a "complex adaptive system"[16], could be a worthwhile approach.

At the micro-level a better understanding of how the concept of "patient-orientation" can be put in practice in different cultures should be better understood and more insight is needed in experiences of patients in the health care system. The focus on evidence based medicine and implementational guidelines, may not divert primary health care workers from the broader perspective: therefore "medical" evidence should be complemented with "contextual evidence" and "policy evidence"[17]. Certainly for patients with multi-morbidity, there is a need to deviate from the disease-oriented guidelines, integrating context as an important frame of reference.

In the meantime primary health care workers will have to try to navigate adequately between **"computer"** and **"compassion"**, between **"convergence"** (following guidelines) and **"context"** (looking at variability), between "control" (to reach the targets e.g. in pay-for-performance) and **"complexity"**, between health as an individual **"commodity"** (in a market-context) and more social cohesion and equity in the **"community"**. ■

Appendix 1
Thailand

In Thailand, until the 1990s, primary health care consisted of health centres that started out as "antennas of hospitals." The focus of the care was on technical adequacy and clinical decisions, not on patient centeredness and quality of human relations. Family medicine appeared as a new specialty in Thailand in 1998. The first health centre to feature the family practice model was established in 1991. It was intended as a step in changing the health care system.[18] Today, family medicine, embedded in primary health care, belongs to the Thai health vocabulary and committed family practices give substance to the concept and function as demonstration and training centres. Health policy explicitly links universal coverage, first-line health service strengthening and family medicine development. Family medicine has seen an academic break-through in the last 5 years and is now recognised as a speciality in its own right. The Ministry of Public Health sees in family practice the potential to change health care delivery in Thailand to. They hope that family practice can bring a new style of relating to patients, with a new understanding of the process of health and illness, and a new emphasis on illness prevention and coordination of care. They hope family practice will lead to improved access to care, increased emphasis on prevention at the community level and reduced cost of care.

In contrast to the Western model of family practice (which remains largely focused on point-of-contact care) in most areas of Thailand, health needs and limited resources amplify the importance of action at the community level. Physicians must be able to move outside the hospital setting, conceptually and literally, in order to have an impact on the health problems of the communities they serve [19].

By the increased focus on family medicine development under the new Thai Universal Coverage policy, primary care units were strengthened, shifting the centre from specialist-in-hospital to family practitioner-in-community. The emphasis on primary care in the Universal Coverage scheme represents a bold departure from the traditional, hospital-dominated Thai health care system. Initial problems with this new scheme included a shortage of doctors to staff primary care units, necessitating use of hospital doctors who rotated out to the clinics. They were far too few and they lacked skills and an orientation toward integration of prevention and health promotion. Thus, nurses and health workers serve as the backbone of service delivery at primary care level and will remain so until - and unless - the allocation of sufficient family doctors and and primary care-oriented nurses. So far, high level policy makers have not been prepared to put in place the staff management mechanisms needed to support such redeployment[20], and institutional capacity for this change is not yet adequate. Moreover, stewardship and regulatory functions are among the weakest functions of the statestill weak without. Clear clear definitions are needed aboutof the benefits package for primary care, its goals and operational targets, how to monitor indicators, and what rewards and sanctions there will be if quality is not maintained. These unfinished agenda items need very careful monitoring and evaluation for further improvement of the overall system to promote family practice, until it becomes the standard of service of the Thai health care system.

Appendix 2
South-Africa

The Primary Health Care approach has old roots in South Africa with the development of Community-Oriented Primary Health Care in the 1930s but was smothered under apartheid in the 1950s and Family Medicine was merely limited to private practice.21 The National Health System has attempted to transform apartheid legacy of hospi-centric care since the late 1990s towards the priority of primary health care. With the shortage of doctors this has been principally with nurse-based clinics (supported by doctor visits) in a strong public health approach of Health Districts. There is a strong community and programmatic orientation based on District Health Services (DHS) however this has become increasingly limited by few doctors visiting clinics, patient complaints about the quality, verticalisation of disease-oriented priority programmes and patients bypassing clinics to get to doctor-based hospitals.

Family Medicine, now a specialist discipline and more progressive in embracing the challenges of a new South Africa, is in a growing partnership between universities and provincial Departments of Health since the 2000s and progressively placing Family Physicians (FPs), based in district hospitals, community health centres, clinics and community to improve quality of clinical care. Family Physicians offer nurses supervision, manage medical referral to hospitals and link the community to district hospitals. The principles of the DHS and Family Medicine are growing in alignment. Family Physicians are however grappling with the difficulties of new role definitions and clinical teamwork. Appropriately trained Family Nurse Practitioners are producing access, higher quality health care and outcomes but there are cautions regarding the equivalence of care and productivity savings versus salary differentials.[22,23] The Mid-level worker is also a new part of the mix to develop more roles in the light of doctor shortages and is being supported by Family Physicians in South Africa as procedural assistant in District Hospitals.[24] The private health sector (consuming more than 60% of health-expenditures which serve less than 10% of the population mostly with specialist hospital care) is also attempting to manage health care costs with primary health care, more for protecting markets than for expanding access [25] .

Appendix 3
United States and New Mexico

The United States is grappling with the most expensive system of care in the world. Consuming 16% of the gross domestic product, it performs poorly compared to other industrialized countries. The U.S. has no universal system of healthcare, no guaranteed access to basic services, and 47 million of its people have no health insurance. Policies established long ago favour overuse of expensive technologies in the face of underfunding of prevention and primary care. High medical student indebtedness upon graduation and high income disparities between procedural specialties and primary care (being almost 4:1) attract medical to the more lucrative subspecialties. Whereas the primary care physician workforce comprises about 40-50% in Canada and the United Kingdom, it is at about 25% and falling in the U.S. With a dearth of primary care doctors, there is a growing use of expensive emergency rooms for primary care needs.

On the national level, the three primary care specialties of Family Medicine, Internal Medicine and PediatricsPaediatrics as well as the nation's professional academic organization, the American Association of Medical Colleges have called for the adoption of the concept of a primary care "Medical Home" system to coordinate care[26]. The concept is gaining favour as the rising investment in medical care in the country has little to show for it in terms of health outcomes. The concept promotes increasing incentives for provision of primary care, for use of preventive measures and coordination of care management, and for inter-professional team approaches to care for those with co-morbidities and disease management of complex, chronic diseases.

New Mexico represents the extreme of healthcare challenges in the U.S. It is a large, but sparsely populated, poor, rural south-western state in which the majority of the population is ethnic minority (42% Hispanic, 10% Native American and 2% African American), presenting a rich cultural diversity with linguistic, geographic and financial barriers to adequate healthcare. There is a substantial portion of the state's population who are illegal immigrants from Mexico and Latin America. While they form a vital part of the rural and urban economy, they are often ineligible for publically funded health services and so their use of primary and preventive services is very low. These special challenges have stimulated important innovations in primary care.

To connect the uninsured to a medical home, the University of New Mexico developed a web-based primary care referral program, called the "Primary Care Dispatch."[27] It allows clerks discharging patients from the emergency room or hospital to assign them to a primary care medical home in their neighbourhood or community. This innovation has led to a 31% reduction in these indigent patients' subsequent use of the emergency room.

The underlying social causes of ill health—such as poverty, racism, high income disparities and high dropout rates from school, are not addressed in the current healthcare system. However, they should be a central concern of primary care providers, for they are on the frontlines seeing the impact on health of social forces in the community. Thus, the "Health Commons" was created in New Mexico[28]. It is a newer concept in community-based care which attempts to address the social determinants of disease by creating a seamless system of social, behavioralbehavioural and medical services for the indigent, uninsured and undocumented (illegal) populations built around a primary care home. Community health priorities drive the clinic agenda and the community and clinic are linked by community health workers. Economic and community development are a feature of some of the sites, and employment and housing services and legal assistance are a component of others. There are now five Commons sites that have sprung up in the state with more planned.

Appendix 4
Belgium

In Belgium, the last 30 years have seen a very laborious development of primary health care; the hospital-centric systems with direct access to any provider of facility for the patient, operating in a fee-for-service system with a 30% cost-share by the patient, has not been a favourable environment for the development of primary health care. This system has been maintained through continuous registration where insurers and professional organisations compromise about the development of the fee-for-service system. In Belgium, initiatives by motivated health professionals and by civil society started the development of interdisciplinary "community health centerscentres", with a focus on equity and community participation. The health centerscentres negotiated the creation of a capitation system, without financial barrier, for enrolled patients. This optimised access to care, especially for the socially vulnerable groups. With an increasing attention to equity in health care mechanisms were established by the government to enhance insurance (with almost 100% coverage) and to stimulate access and quality. Accessible care was developed for "illegal people", offering them access for "urgent medical care: but in practice, this concept was interpreted as "all the care needed". Apart from personal care, orientated towards individuals and groups, community oriented primary care actions were developed.[29] This approach starts from information collected at the primary health care level, sometimes supplemented with surveys and focus groups. The information is then shared with the local community and a "Community Diagnosis" is established. The local community participates in priority setting, and development of an action plan. Outcomes are monitored to inform local health policy. Examples are actions to address poor physical health of youth through the creations of play grounds and organisation of activities and actions to improve access to dental care[30]. Nowadays, the focus is on strengthening home care, development of disease management and implementation of guidelines with a focus on quality improvement. A fundamental bottleneck is the distribution of the political decisions over different levels: the federal government is responsible for the payment-mechanisms of health care providers and hospitals, whereas the regional government holds responsibility for prevention, organisation of home care and nursing homes and ambulatory mental health care. The same institution may be dependent on different authorities which hinders the development of a comprehensive care model. A global health plan, defining the objectives and targets for the future is missing.

Appendix 5 : SWOT-analysis of Primary Health Care

Strengths

- The "human need" for a comprehensive patient-centeredcantered approach of health problems
- The historical development
- EBM, Underpinning guidelines
- Involvement of the patient
- Community Orientation

Weaknesses

- Solidarity and equity under pressure
- Gaps between: PHC and public health; health and welfare; cure care and promotion, prevention
- Lack of PHC-oriented health systems (hospitalocentrism)

Opportunities

- Globalisation
- Universal Coverage
- Interdisciplinary Team-work and subsidiarity in patient management
- Cost-effectiveness
- Intersectoral action for health
- Contribution of PHC to empowerment and "social cohesion".

Threats

- Globalisation (e.g. brain drain)
- Privatisation and market mechanisms
- Vertical donor-funded disease oriented programs
- (Reductionist) disease-management and fragmentation
- Underfunding
- Consumerism

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