Global Forum for Health Research

First Global Symposium
ON HEALTH SYSTEMS RESEARCH
Science to accelerate universal health coverage

THE LANCET

GlobalForum
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Young Researchers for Health 2010

Health systems research:
towards universal health coverage

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Winners of the 2010 essay competition for the under-30s

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Winners of the 2010 **Young Researchers** Essay Competition

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Contents

Preface

In September 2006, the Global Forum for Health Research and The Lancet announced the results of their first joint essay competition for the under-30s, Young Voices in Research for Health, on the theme of combating disease and promoting health. Four winners came to that year’s Forum meeting in Mumbai, India, and impressed participants with their insights.

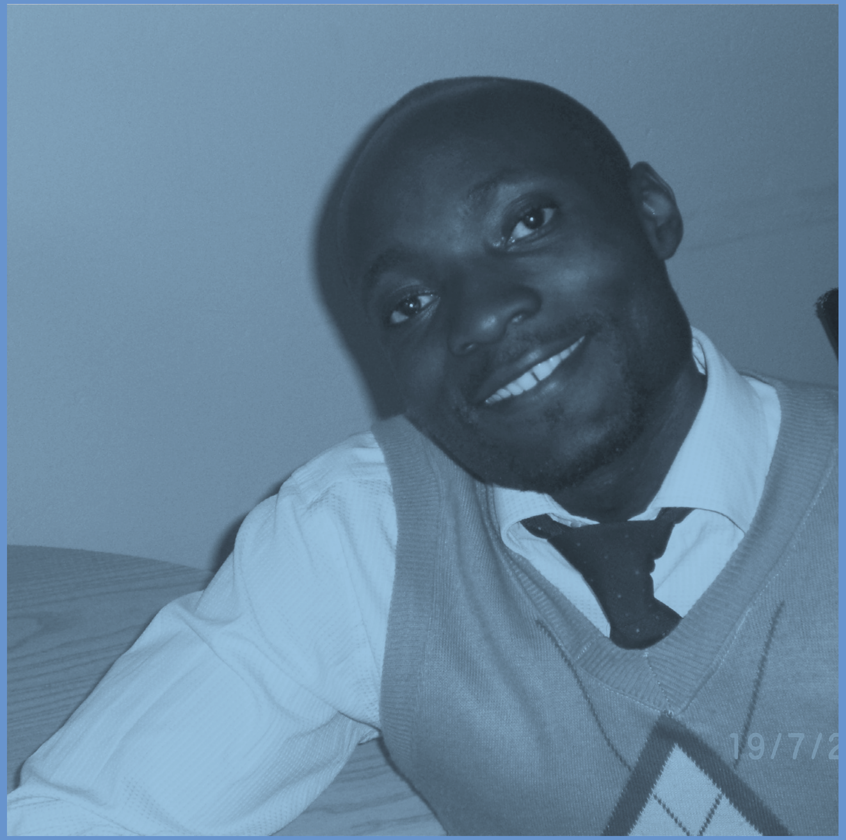
That was the beginning of a successful partnership that has to date seen the identification of just under 200 young and talented professionals from all regions of the world and their introduction, through the publication of their essays or their participation in the Forums, into the global network of decision-makers in health research.

The 2010 competition, organized under the auspices of the First Global Symposium on Health Systems Research in partnership with the Global Forum for Health Research and The Lancet, continues the principle of encouraging the next generation of researchers to consider the range and complexity of issues involved in research for health. Authors were charged to give a personal perspective on one of the four sub-themes of the symposium: political economy of universal coverage, health system financing, scale-up of health services or knowledge translation.

I would like to offer my congratulations to all those who made submissions to this process. The winners – **Bonventure Ameyo Masakhwe** from Kenya, **Margarita Bernales Silva** from Chile, **Leanne Idzerda** from Canada, **Laurence Lannes** from France, **Long Qian** from China, **Amrit Virk** from India and **Edwin Wouters** from Belgium – are invited to present their essays during the symposium, where they will meet leaders in their fields. I encourage them to challenge accepted practices, to tell the stories behind their texts, to bring fresh approaches to health systems, to share news of what works or visionary ideas about what could work.

I encourage you, Symposium participants or readers, to open your mind to their words, to take up their challenges and to benefit from the exchange.

Timothy G. Evans
Chair of the Steering Committee
First Global Symposium on Health Systems Research



Bonventure Ameyo Masakhwe
Kenya

Bonventure Ameyo Masakhwe, Kenya

Groves that grow on graves of knowledge

> “There are no incurable diseases – only the lack of will
>
> There are no worthless herbs – only the lack of knowledge”
>
> – *Avicenna (1593)*

“A journey through a thousand potholes begins with one tiny pothole,” jokes Kiprop as we settle into the backseat of the bus. Hawkers shove merchandise in our uninterested faces, begging us to purchase at least one item. They are interestingly aggressive, gravitating wherever there is a potential market. One, introducing himself as “Dr”, delves into a health-related topic, promoting a herbal product. We exchange knowing looks of disapproval, Kiprop and I. The authenticity of the information is questionable, and it is shocking the number of passengers buying this product he is offering at “half price”. Questions linger in my mind. I am stung by the urge to ask him about the accuracy of the talk and safety of this commodity but, amidst the unmet need, I realize that he will perhaps remain a “Dr” in the eyes of many. Could he be improved? I reflect...

Destination: Remote Lodwar district hospital in north-western Kenya, where Kiprop is the pharmacist and I a medical officer. We have with us the essential medicines. It is always a torturing, tortuous journey of over 300 kilometres of rough road through this arid part of Kenya. Safety is never guaranteed, with numerous episodes of banditry en route reported in the past. The vehicle turns into a dusty oven, baking us on a journey lasting between 12 hours and days. The occasional rains have heavily pounded the thirsty sandy soils, and flooding can mean camping by the roadside for an unknown number of days, the supplies delayed for that duration. The year: 2009, six years before the Millennium Development Goals deadline, and it is still the fate of this marginalized community to wait for universal healthcare, as we professionals assist this nation-building process. At the end of the month the government proudly pays us a hardship allowance of US$ 7.50 as testimony to its commitment to retaining doctors in hardship regions.

Objective: Universal Health Coverage.
This remains a dream to the marginalized people of poor countries. They are the ones still afflicted by neglected diseases earmarked for eradication decades ago. Communities in northern Kenya, for example, live in abject poverty with hunger a constant threat in a region endemic to leishmaniasis and echinococcosis. Therefore, with widespread malnutrition, insecurity and disease outbreaks due to low immunization coverage and neglected diseases prowling for human souls, pandemics like HIV/AIDS enjoy a disproportionate impact. Achieving universal health coverage would therefore depend on the ability of research efforts in pursuit of this noble goal to percolate into remote regions of the world. They remain a yardstick with which to evaluate our political commitment to truly demonstrate that health is a human right and our purposeful approach towards overall development. It is extremely necessary that the World Health Organization maps such regions in its agenda.

Access to essential medicines is of particular concern. The medicines we are carrying will remain expensive to the majority of patients despite the government’s cost-

Bonventure Ameyo Masakhwe, Kenya

sharing strategy in the current economic crisis. During global crises like this, medicines have historically featured prominently and in some cases have been used as tools in power bargains, as seen in the two world wars. Quinine, Salvarsan 606 and Germanin demonstrate this *(1)*. The Agreement on Trade-related Aspects of Intellectual Property (TRIPS), ensconced in good intentions, is silently perpetuating this power assertion by technologically advanced countries over developing ones. With its implementation, can technology be easily tapped from developed to developing countries to produce essential medicines? In a global crisis, is knowledge transfer that strengthens existing under exploited systems like traditional medicine not cheaper than technological overhaul? That being so, what blame should we, as researchers, apportion ourselves?

Research in alternative medicine in Africa is below par.

Health-care coverage in Africa could benefit from herbal medicine given the vast number of herbalists and diversity of plants with attributed medicinal value on its soil. Herbalists have, however, been wished away by the elite medics, sent to the grave with their knowledge, and indigenous trees have been replaced with exotic ones. Universities – foundations of research – have, ironically, superficially addressed traditional medicine in their curricula, maybe for completeness. Teaching in many accompanies a lack of local statistics. From a research perspective, is it not incomplete to study some diseases without looking at the modalities with which the people affected indigenously managed them? In Kenya today, one has to work hard to avoid the sight of a vendor of herbal remedies in public. The health education promulgated is mostly of doubtful authenticity, and remedies with unclear pharmacokinetics and pharmacodynamics pose dangers to unsuspecting consumers. This juxtaposes appreciation of traditional medicine against a knowledge gap between mainstream health-care workers, researchers and herbalists, and it suggests that increased research is needed for isolating beneficial from harmful remedies and promoting the former.

The interaction of these three groups begot important drugs in the past. Thus, morphine, a very potent analgesic, morphed from the opium poppy. Albert Niemann's isolation in 1860 of the active alkaloid from coca leaves earned him his PhD. He called it "cocaine", which became the first local anesthetic agent and formed the basis of subsequently synthesizing others in current use *(2)*. The standard artemesinin-containing therapy for malaria traces from Chinese herbalists. Quinine has remained a drug of choice in the treatment of complicated malaria for centuries now. Its antipyretic properties were appreciated in ancient Peru, then Europe. Its isolation by Pelletier and Caventou in 1820 from the cinchona bark played an integral role in the colonization of Africa *(3)*. The cinchona grove thus turned the "white man's grave", Africa, into a land of opportunity. By the Second World War, Holland was producing most of the world's cinchona bark. When it was conquered, the supply of cinchona to the allied forces was stifled. Quinine essentially helped shape the political history of the world as we see it today. A powerful drug with herbal origins, this.

Traditional medicine has without doubt increased health access in the Western Pacific region. In the period 1980–2000, the number of traditional medicine beds and staff

Bonventure Ameyo Masakhwe, Kenya

in China increased tremendously *(4)*. This draws on success from the utilization of knowledge from generations past. The developed community fails, however, to realize aspects in which the developing world could play a leading role in tackling its health problems – with support of course. A vacuum has hitherto existed in which the poor countries remain no more than markets for overseas drug companies. It is doubtless that advancements in therapy researched in a top-notch western laboratory today might hit Turkana after decades, in its obsolete form thanks to TRIPS. For example, while halothane has limited or no role in operating theatres in western Europe and the United States, it is essential at a remote district hospital in Kenya.

It was perhaps for this reason that traditional practice was appreciated in the Declaration of Alma-Ata *(5)*. Yet, still, developing sub-Saharan Africa begs for a banana to eat today without knowing how to plant the banana tree. This support through donation is highly appreciated. However, does neglect of traditional medicine not synergize TRIPS action to create sustained dependency on overseas multinational pharmaceuticals? Adoption in place of adaption has killed hopes that treatments for tropical diseases could be sourced from African medicine. In fact, discussions on access to antiretroviral, antimalarial, anticancer and tuberculosis drugs are conspicuously skewed around price reductions with little parallel research on candidate herbal remedies.

Instead of promoting dependency, therefore, organizations funding access to HIV/AIDS, tuberculosis and malaria drugs would commit a percentage of this funding to research on herbal remedies in recipient countries. Institutions and programmes involved in tropical diseases would give tropical medicines research enthusiasm equal to that accorded the diseases. A programme in the World Health Organization on alternative medicine taking a lead role in herbal research would come up with essential herbal remedies. Governments and researchers would strive to narrow the knowledge gap between herbalists and mainstream health-care workers. With more traditional practitioners in rural areas than doctors, increasing their knowledge on basic practices such as hand-washing, early referral and modes of disease transmission would improve health literacy in the population. Such relatively inexpensive task-shifting undertaken by the African Medical and Research Foundation in western Kenya saw contraceptive uptake by women of reproductive age increase from 10% to well above 25% at six pilot sites *(6)*. Accredited training of personnel in this field with official recognition and even employment by ministries of health would bring a totally different look to herbal medicine. With herbal medicine a specialization within medicine, not only would health-care coverage expand, but newer drugs might be developed. Patient safety and contact with remote, marginalized communities who appreciate herbal remedies would be desirable side-effects. Given the unmet demand, would this not act towards increased health coverage?

Arriving in Lodwar, I share my thoughts with Kiprop and pose this question to him. His response: *"A journey of a thousand miles starts with one step"*. We both laugh.

Bonventure Ameyo Masakhwe, Kenya

References

1 Kelsey FO. Events after thalidomide. *Journal of Dental Research,* 1967, 46(1199): 1201–1205.

2 Ritchie JM, Cohen PJ. Cocaine, procaine and other synthetic local anesthetics. In: Goodman LS, Gilman A, eds. *Pharmacologic Basis of Therapeutics.* 5th ed. New York, Macmillan Publishing Co. 1970:379-403.

3 Keusch GT et al. The global health system: linking knowledge with action – learning from malaria. *PloS Medicine,* 2010, 7(1):e1000179.

4 *Fifty-second session, Brunei Darusalam, traditional medicine,* 10–14 September 2001. World Health Organization and Regional Office for the Western Pacific, 2001 *(http://www.wpro.who.int/NR/rdonlyres/ADDFE18E-58EB-4F5C-9DDE-DC6B331D0ACB/0/RC5207.pdf,* accessed 5 May 2010).

5 *Declaration of Alma-Ata International Conference on Primary Health Care, Alma-Ata, USSR, 6–12 September 1978*. World Health Organization, 1978 *(http://www.who.int/publications/almaata_declaration_en.pdf,* accessed 3 May 2010).

6 *World development report 1993: investing in health, Vol. 1.* World Bank, 1993. Report number 12183.

Biography

Bonventure Ameyo Masakhwe was raised in Makunga near Mumias in Kenya. He was awarded a scholarship to study at the Institute for the Management of Information Systems at Strathmore University, Kenya in 2002, and he went on to graduate from the University of Nairobi in 2007 with a Bachelor of Medicine and Bachelor of Surgery (MB ChB). After an internship at Kericho district hospital, he served at the far-flung Lodwar district hospital in the underserved region of Turkana in northern Kenya, where he had the opportunity to manage neglected diseases like visceral leishmaniasis, echinoccocosis and neglected gunshot wounds. He has since secured an Italian Ministry of Foreign Affairs scholarship to study international health focusing on emergency and essential care at the University of Parma, Italy. His future plans involve pursuing international health policy and economics further.

Elizabeth Arend
USA

Elizabeth Arend, USA

The politics of the undeserving:
the foundation of historic opposition to universal health care in the US

On the morning of 22 March 2010, over 300 million Americans learned that the Obama administration had passed the most sweeping health-care reform bill since the establishment of Medicare in 1965. Tens of millions of uninsured and under-insured Americans now had hope of accessing affordable health care. Although this legislation falls short of providing health care for everyone in the United States (US), it is by far the largest step ever taken toward the goal of universal coverage. This may be hailed as a victory by those who have tracked the historic debate about universal health coverage back to the 19th century, but the timing of this legislation's passage begs the question as to why the world's wealthiest nation could not enshrine comprehensive health-care coverage for its residents into law until a decade into the 21st century.

American political structure and institutions

There are multiple arguments as to why the US has never before established universal health coverage (or legislated anything that came close) and grown to possess one of the greatest disparities in access to care and health outcomes – despite spending "substantially more on health care than any other nation" (*1*, p. 16). Navarro argues that the lack of universal care is grounded in the American "liberal" socio-political structure, in which "labor has been particularly weak and the capitalist class particularly strong" (*2*, p. 489). The "market reigns supreme. Capital has the strongest influence, labour the weakest… [S]uch… countries have a weaker commitment to redistributive policies and worse health indicators" (*2*, pp. 489–490). Steinmo and Watts, however, argue that the US never achieved universal health care because its "political institutions are structurally biased against this kind of comprehensive reform" (*3*, p. 329). The increasingly fragmented nature of the American political structure made it "almost impossible to pass legislation which was opposed by the most senior members [of Congress], even when their ideology was widely out of step with the majority of their party and even the nation as a whole" (*3*, p. 334).

The power of special interest groups

One of the main explanations for the failure of 20th century health reform was 'the relentless opposition of medical, business and insurance interests [that] pushed reformers to design health care proposals around placating their opponents" (*4*, p. 78). In 1917, the American Medical Association (AMA) reversed its initial support for health reform (*5*, p. 86), fearing that "physicians would lose their autonomy, be required to work in group practice models and be paid by salary or [capped] methods" *(6)*. When popular support for health reform emerged again following the Great Depression, the "opposition of organized medicine and its allies" forced President Roosevelt to exclude health insurance from the New Deal proposal (*5*, p. 87). The AMA helped to defeat the vast majority of pro-health insurance legislators in 1950, as universal coverage became a focal point of public concern. The AMA later joined the Nixon administration and other special interest groups in the early 1970s and introduced a bill to compete with national health insurance legislation. The competition ensured that neither side would win. The AMA thus "became a prominent example of interest-group exertion of power in America's fragmented political system" (*7*, p. 197).

Paternalism and socialism versus individualism

Historically, "entrenched interests tried to block national health insurance by skillfully manipulating [Americans'] deepest fears to protect what they regarded as their interests" (*7*, p. 94). It is hardly surprising that attempts to frame universal health care as a threat to American individualism were so effective, as it has been argued that Americans have "more negative attitudes about government" and "a culture…much more individualistic and independent than…anywhere else" (*1*, p. 17). For example, the president of the American Federation of Labor attacked mandatory health insurance as "an unnecessary paternalistic reform that would create a system of state supervision over people's health" (*8*, p. 2). Similarly evocative language was employed in the 1920s, when the Committee on the Costs of Medical Care's proposal of group medicine and voluntary insurance raised opposition and "the term 'socialized medicine' was born" *(6)*. This term was evoked again during the Truman administration, when polls reflected support for government-provided health insurance. This popular support, however, "was neither deep nor informed; socialized medicine was a tag that scared many… [N]o amount of presidential enthusiasm seemed adequate to generate majority support in Congress" (*7*, p. 195).

The politics of the undeserving

While each of these explanations for the lack of universal health coverage in the US has merit, one fundamental aspect of the cultural argument has been overlooked. American culture unequivocally values individualism, but even deeper than the American value of individual autonomy is the value of being "self-made", of pulling yourself up by your bootstraps and fulfilling the so-called American dream. Implicit in this dream is the belief that all Americans compete on a level playing field, and that it is up to the individual to make what she can of herself in this "land of opportunity".

The reality, however, is starkly different. Members of racial and ethnic minorities, recent immigrants, and the poor (identities that often intersect) do not compete equally in the American economy or society. These disenfranchised groups need to exercise their human right to health care most of all but have the least access to it – precisely because the concept of health as a human right does not resonate among most Americans or their government representatives. Regardless of its political structure, the clout of special interest groups or Americans' individualistic sentiments, the US could have established universal health care alongside other industrialized, democratic nations, had it not been for lawmakers' pervasive, fundamental belief that only some Americans are deserving of health care. Others are not.

This phenomenon was first made clear along racial lines in 1938, when southern Democrats joined Republicans to oppose Roosevelt's New Deal in part to protect segregation. Despite a public mandate to establish universal coverage in the mid-1940s, these groups opposed it, "partly in fear that federal investment in health care might lead to federal action against segregation at a time when hospitals were still separating patients by race" (6). As a result, for most of the 20th century, "racial discrimination deprived African-Americans of basic health care and forced them to concentrate on building their own... community public health movements" *(4)*.

The "others" highlighted in the most recent health-care reform debate included noncitizens. Many Republicans argued that "maximizing restrictions on legal and illegal immigrants [would] save money and prevent health care benefits from becoming a magnet that draws new migrants" to the US *(9)*, as they advocated a minimum five-year waiting period before legal residents could access health care under the new law. Supporters of this waiting period may argue that denying health care to noncitizens is purely a matter of fiscal responsibility, but this does not account for the federal money inevitably spent on noncitizens, regardless of their legality, in emergency rooms across the country when they are forced to seek care. As Professor Steven P. Wallace stated, "If you don't pay now, you're going to pay for them later" *(9)*. American lawmakers therefore did not face as much of a financial barrier to providing health care to noncitizens as they did a moral barrier. Noncitizens were simply not as deserving of health care as their citizen counterparts.

"Others" also included women who sought to exercise their reproductive rights. In a last-minute compromise that secured the bill's ultimate passage, Sen. Bart Stupak agreed to vote for the new legislation if the president applied the Hyde Amendment to the bill, which prohibits "the use of federal funding for 'any abortion' or for 'any health benefits coverage that includes abortion', unless the pregnancy is the result of 'rape or incest' or 'would...place the woman in danger of death unless an abortion is performed'" (10). Under this amendment, federal dollars would not pay for an abortion for a low-income woman, even if it would result in dire health consequences. This is ironic, considering that "these are the types of federal government intrusions into health care that opponents of public insurance plans usually decry" *(10)*. But, like the decision to deny health care to noncitizens, restricting women's access to legal abortion is a moral decision. Stupak claimed he "always supported health-care reform...[but] there was a principle that meant more to [lawmakers] than anything, and that was the sanctity of life" *(11)*. The amendment does not, however, seem to respect the sanctity of the life of women, nor their reproductive rights or individual autonomy.

If truly universal health care coverage is to become a reality in the United States, I do not believe that "every possible interest [would have] to be satisfied" *(3,* p. 360). One interest simply needs to trump them all: understanding that everyone is equally deserving of health care and upholding that health care as a fundamental human right.

References

1 Vladeck B. Universal health insurance in the United States: reflections on the past, the present, and the future. *American Journal of Public Health,* 2003 *(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1447684/,* accessed 5 May 2010).

2 Navarro V, Shi L. The political context of social inequalities and health. *Social Science and Medicine,* 2001 (*http://www.ncbi.nlm.nih.gov/pubmed/11330781,* accessed 8 May 2010).

3 Steinmo S, Watts J. It's the institutions, stupid! Why comprehensive national health insurance fails in America. *Journal of Health Politics, Policy and Law,* 1995, 20(2):329–372; DOI:10.1215/03616878-20-2-329 (*http://jhppl.dukejournals.org/cgi/content/ short/20/2/329,* accessed 5 May 2010).

4 Hoffman B. Health care reform and social movements in the United States. *American Journal of Public Health,* 2003 *(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1447696/,* accessed 3 May 2010).

5 Birn A et al. Struggles for national health reform in the United States. *American Journal of Public Health,* 2003, 93(1):86–91.

6 *Focus on health reform.* Kaiser Family Foundation, issue brief publication number 7871, 2009 *(http://www.kff.org/healthreform/7871.cfm,* accessed 7 May 2010).

7 Marmor T. The politics of universal health insurance: lessons from past administrations? *Political Science and Politics,* 1994, 27(2):194–198.

8 Palmer K. *A brief history: universal health care efforts in the U.S.* Physicians for a National Health Program, 1999.

9 Preston J. Health care debate focuses on legal immigrants. *The New York Times,* 3 November 2009 *(http://www.nytimes.com/2009/11/04/health/policy/04immig.html,* accessed 9 May 2010).

10 Annas GJ. Abortion politics and health insurance reform. *New England Journal of Medicine,* 2009, 361:2589–2591 (*http://healthcarereform.nejm.org/?p=2463,* accessed 6 May 2010).

11 Murray S, Montgomery L. House passes health-care reform bill without Republican votes. *The Washington Post,* 22 March 2010 *(http://www.washingtonpost.com/wp-dyn/content/article/2010/03/21/AR2010032100943_2.html?sid=ST2010032201830,* accessed May 4, 2010).

Biography

Elizabeth Arend graduated in 2002 with an independent major in feminist and gender studies from Bryn Mawr College, United States. As a Thomas J. Watson fellow, she travelled to Ireland, South Africa, Egypt and Holland from 2002-2003 to study reproductive health law and policy. As a Master of Public Health student at Johns Hopkins Bloomberg School of Public Health, she travelled to the West Bank and Gaza Strip to conduct research on public health and peace building in the Palestinian Self-Rule Areas. She has since worked in Ethiopia, South Africa and South Korea, and currently serves as the Associate Director of Monitoring and Evaluation and Research for Partners in Health in Rwanda.

Breannon Babbel
USA

Breannon Babbel, USA

The cost of reproductive repression: a case for universal health coverage

The year 1994 marked an international landmark in reproductive health and equality worldwide. It was during this year, at the International Conference on Population and Development (ICPD) in Cairo, that reproductive health and gender equality were deemed an integral element of overall health and well-being *(1)*. Countries attending the conference recognized universal health coverage as essential to ensuring that reproductive health needs are met for every individual. The global push for universal access to reproductive health services continues today. Reproductive health issues remain the leading cause of ill health and death for women of childbearing age and are the second-greatest cause of ill health for both men and women globally *(2)*. As a vital component for socioeconomic development, universal health coverage enables nations to meet reproductive health demands, consequently improving health worldwide.

Women's rights have long been on the international agenda as a fundamental United Nations principle. Without the acknowledgement of women's rights, work towards reproductive health rights is futile. A fundamental step towards securing women's rights globally occurred during the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) in 1979 *(3)*. Although it did not specifically address family planning or women's reproductive rights, the CEDAW set the stage for the advancement of reproductive health by initiating a treaty that committed signatories to ensuring equity, respect and fundamental freedoms for women and girls.

> **“Everyone has the right to the enjoyment of the highest attainable standard of physical and mental health. States should take all appropriate measures to ensure, on a basis of equality of men and women, universal access to health-care services, including those related to reproductive health care, which includes family planning and sexual health.’”**
>
> *– International Conference on Population and Development Principle 8, Cairo 1994*

It was not until the 1994 ICPD in Cairo, 15 years after the CEDAW, that women's reproductive rights were specifically targeted *(1)*. At this conference, led by the United Nations Population Fund (UNFPA), 179 countries agreed that meeting needs for education, health and reproductive health should be viewed not only as a priority but also as a necessary prerequisite for long-term, sustainable development. The conference acknowledged the connection between sustainable development and reproductive health and gender equality and, through the so-called Cairo Programme of Action (PoA), agreed upon an outline for progress in reproductive rights.

The first comprehensive document of its kind, the Cairo PoA defined the concept of reproductive health. This definition includes the basic recognition of individuals and couples rights to “decide freely and responsibly the number and spacing of their children and to have the information, education and means to do so” (*1*, p. 16). In addition, the PoA defined women's rights to include equality in relationships and freedom over matters related to their sexual and reproductive health. Another result of the programme was the development of six goals, one of which is to achieve universal access to reproductive health services by 2015 – an objective also recognized in the current United Nations Millennium Development Goals *(4)*.

Breannon Babbel, USA

Striving towards universal access to reproductive health services, the 2005 United Nations World Summit brought recognition of reproductive health and deemed it a human right *(5)*. With the knowledge that reproductive health conditions are the leading contributor to mortality and illness in women of childbearing age worldwide, the United Nations human rights declaration set reproductive rights as a priority on the international agenda. The UNFPA made family planning a priority to ensure that every pregnancy is wanted, every birth is safe and every female is treated equally, with dignity and respect.

Many nations have taken it upon themselves to work towards achieving the UNFPA standard, specifically in sub-Saharan Africa, where total fertility rates remain the highest in the world. Countries are acting on a national level to ensure universal access to reproductive health services. South Africa's constitution explicitly protects female reproductive health by guaranteeing the right to access "health care services, including reproductive health services" *(6)*. This distinction in reproductive rights demonstrates the high priority nations are placing on achieving universal access to reproductive health care.

Researchers in Botswana recently presented the study, *The contribution of the Botswana family planning program to the largest fertility decline in sub-Saharan Africa*, at the November 2009 International Conference on Family Planning: Research and Best Practices *(7)*. Although sub-Saharan Africa's average total fertility rate is 5.5 births per woman, Botswana is an exception in the region, with a rate of 3.2 in 2006, a notable decline from 7.1 in 1981 *(2)*. This decrease has been attributed largely to Botswana's national family planning programme, among other factors. Botswana's efforts towards both universal health-care coverage and reproductive health services help to explain this decrease; while public health clinics charge a small users' fee for most health services, maternal-child health and family planning services are provided free of charge *(7)*. Free universal access to reproductive health services is an essential element in Botswana's overall fertility decline.

In the United States, the acknowledgement that access to health coverage and access to reproductive health services are human rights continues to grow. However, Massachusetts is the only state in the United States with mandatory health insurance, and it is the closest to achieving universal coverage, with 94% of its residents covered through some form of health insurance *(8)*. Three years after implementing An Act Providing Access to Affordable, Quality, Accountable Health Care, researchers are attempting to identify the implications of universal health coverage in the United States. Whelan *(8)*, for example, recently analysed the impact of Massachusetts's near-universal health coverage and its effect on abortion rates. Since the introduction of the mandatory health insurance legislation, Massachusetts has seen a 1.5% reduction in abortion rates. Whelan argues this reduction demonstrates that federal subsidization of health services does not appear to increase abortion rates. The fear that government subsidization results in the over utilization of services can be countered with the hypothesis that abortion rates in Massachusetts saw a decrease due to improved access to family-planning services and antenatal care.

It has been well established that mothers and children are most heavily affected by a lack of family-planning services *(9)*. However, the negative impacts of poor reproductive health services on both families and society as a whole are often overlooked. The United States Agency for International Development estimates that global productivity lost to pregnancy-related deaths among women and infants is over $15 billion a year *(2)*. Lack of family planning contributes to high population growth, which in turn places increased demands on health-care systems *(10)*. At the societal level, socioeconomic development in low- and middle-income countries struggles to keep up with population growth. As a result, national goals to increase equity and reduce poverty fall short. Not only does universal access to reproductive care improve the lives of millions of women and children, it also benefits their families and communities, contributing to socioeconomic development. Increased access to family-planning and reproductive services also enables individuals to achieve their ideal family size and fertility. The result is fewer, better-spaced pregnancies that result in lower maternal mortality rates and improved health for both mothers and children *(9)*. Smaller families produce a decreased dependency ratio, allowing increased investment in the health, education and welfare of each dependent; this, in turn, produces economic benefits at both the household and the national levels through a demographic bonus *(9)*. A demographic bonus occurs when the average family size falls rapidly, resulting in more people of working age and fewer dependent children *(11)*. Universal access to reproductive health and family-planning services contributes to a healthier, better-educated and more skilled workforce.

Through efforts to promote and increase universal health coverage, the availability, use and funding of family planning programmes and services has increased worldwide *(12)*. Unfortunately, in many countries family planning services continue to fail to meet demand, as 20.4% of demand for family planning services is unmet in low-income nations, as is 12.4% in low-middle-income nations *(13)*. Estimated to cost roughly $4.50 per capita per year, universal access to reproductive health and family planning services would be the most cost-effective health intervention for decreasing maternal and child mortality, reducing poverty, ensuring environmental sustainability, and promoting development *(14)*. Women worldwide deserve freedom over their bodies, their fertility and their lives. Universal health coverage is a vital step towards ensuring this freedom and will further socioeconomic development across the globe. The social, economic and political ramifications of failing to meet reproductive health needs are far too great to ignore. Without domestic policy and action at the national level to ensure universal health coverage, current international initiatives will not succeed, and women and their families will suffer.

References

1 *Report of the International Conference on Population and Development.* United Nations Population Fund, 1994 (*http://www.un.org/popin/icpd/conference/offeng/poa.html*, accessed 10 May 2010).

2 *World Population Data Sheet.* Washington, Population Reference Bureau, 2007 (*http://www.prb.org/pdf07/07WPDS_Eng.pdf*, accessed 10 May 2010).

Breannon Babbel, USA

3 *Convention on the Elimination of All Forms of Discrimination against Women.* United Nations Division on the Advancement of Women, 2009 (*http://www.un.org/womenwatch/daw/cedaw*, accessed 10 May 2010).

4 *United Nations Millennium Development Goals: Goal 5.* United Nations Development Programme, 2010 (*http://www.undp.org/mdg/basics.shtml*, accessed10 May 2010).

5 *The 2005 World Summit,* United Nations, 2005 (*http://www.un.org/summit2005*, accessed 10 May 2010).

6 *Bill of Rights.* South African Government Information, 2009 (*http://www.info.gov.za/documents/constitution/1996/96cons2.htm#27,* accessed10 May 2010).

7 Leburu MV et al. *The contribution of the Botswana family planning program to the largest fertility decline in sub-Saharan Africa.* Kampala, Uganda, International Conference on Family Planning: Research and Best Practices, 15–18 November 2009 (*http://www.fpconference2009.org/media//DIR_169701/15f1ae857ca97193ffff8363ffffd524.pdf,* accessed 10 May 2010).

8 Whelan P. Abortion rates and universal health care. *New England Journal of Medicine,* 2010, e45:1–3.

9 *Family planning worldwide: 2008 data sheet.* Washington, Population Reference Bureau, 2008 (*www.prb.org/pdf08/fpds08.pdf,* accessed 10 May 2010).

10 *The status of family planning in sub-Saharan Africa.* United States Agency for International Development, 2009 *(http://www.usaid.gov/our_work/global_health/pop/news/issue_briefs/africa_region.pdf, accessed 30 September 2010).*

11 Birdsall N, Allen K, Sinding S. Population matters: demographic change, economic growth, and poverty in the developing world, 1st ed. Oxford: Oxford University Press, 2001.

12 Budget justification FY 2002, United States Agency for International Development, 2002 (http://www.usaid.gov/pubs/cbj2002, accessed 10 May 2010).

13 World health statistics: health service coverage, table 4. World Health Organization, 2009 (http://www.who.int/whosis/whostat/EN_WHS09_Table4.pdf, accessed 10 May 2010).

14 *Achieving health equity: from root causes to fair outcomes.* Commission on Social Determinants of Health, World Health Organization, 2007 (http://www.who.int/social_determinants/resources/csdh_media/cdsh_interim_statement_final_07.pdf, accessed 12 May 2010).

Biography

Breannon Babel completed a bachelor's degree in public health at Brigham Young University, and is currently attending Oregon State University where she is pursuing dual master's degrees in international public health and public policy. She is an advocate for achieving universal health coverage, particularly in the United States where she resides. Upon graduation, she plans to pursue a doctorate to further her research interests in reproductive health and family planning services. She currently works full-time for a local non-profit health care company, is an avid runner, and teaches fitness classes on the side.

Margarita Bernales Silva
Chile

Margarita Bernales Silva, Chile

Open minds before open doors

Universal health-care coverage has been defined as the appropriate access to promotional, preventive, curative and palliative health care when people need it and at an affordable cost *(1)*. In other words, universal coverage is the real ability of the population to use health services. The achievement of universal coverage requires at least two levels of analysis: an economic analysis to determine the most effective way to distribute resources, and a social analysis that considers the real needs of people and how those needs should be met. If these two types of analyses were made, and were reflected in the design of a health system, the result would be an inclusive health system that promotes assistance without any kind of discrimination: equitable health access and opportunity. Assuming this were feasible, I ask myself: If we can achieve the reduction of discrimination in health-care access, would we have true universal coverage? What happens if discrimination occurs when people are already inside the health system? What happens if people have health coverage but they do not want to use the health system? Considering these questions, I want to focus my analysis on universal coverage as the assurance of access to health care, beyond being eligible for it.

In countries such as Chile, the problem of health-care access is an issue of constant discussion and analysis for authorities. Important advances have been achieved, and the majority of Chileans have access *(2)*. This situation has positioned Chile among the countries with the best health indicators in the Americas *(3)*. However, as a health professional in direct contact with the community, I have been able to appreciate some real problems among the population that are not always reflected in the success indicators shown by authorities.

The following two actual examples may assist in understanding some of the problems that I have encountered.

Situation 1:

October 2008. Santiago, Chile. A man goes to a primary health care centre seeking help because his wife beats him. At that moment he does not have any physical issues, he shows neither wounds nor bruises, but he does not know how to cope with the situation and is having emotional problems. It has affected his work and his relationship with his children. This man is referred to the domestic violence programme, where he is interviewed by a psychologist who informs him that “unfortunately the programme attends only to men who are aggressors and women who are victims of domestic violence”. The professional offers him the alternative of referring him again to another professional who could care for his “mental problems” that are the consequence of the situation. However, by this time the man’s courage to seek help, and to acknowledge that his wife attacks him, has abandoned him, and he returns to his home without any help.

Why has this type of situation happened? Because health programmes are designed based on epidemiological indicators. These show that women have more problems with domestic violence and are usually the victims of such abuses *(4)*. If we maintain this level of analysis, the programmes designed to cope with domestic violence problems in the country, such as the one described in this situation, are appropriate. The system has answers for female victims and male aggressors, which is in accordance with the numbers. However, anyone who has had the opportunity of working in the community knows that epidemiological analysis does not necessarily present the real conditions and problems of people. In my experience of hearing from socially disadvantaged men in Santiago, Chile, their descriptions of violence problems in their families, they, too, can be victims. However, cultural pressures related to masculinity does not allow them to recognize the situation, and underreporting is one of the consequences. Furthermore, when they are finally willing to recognize the situation and to seek help, there is a lack of support for them from key people such as police officers or health professionals.

Situation 2:

March 2009. Santiago, Chile. A Mapuche (indigenous Chilean) woman goes to her first pregnancy consultation at a primary health care centre. The midwife explains and describes to her all care related to pregnancy and the process of labour that will take place at the local hospital. The woman has several questions and concerns: Who can be with her during labour? What will happen to her placenta at the hospital? The midwife answers that during labour only her husband can be present, and, in relation to the placenta, “I really do not know, but do not worry because people at the hospital will clean the area after the birth”. After that interview, the Mapuche woman decides not to return to the hospital and to give birth to her baby in her house instead with a traditional midwife who helps other Mapuches during labour.

What happened in this interview that led to this Mapuche woman deciding to have her baby at home? The answer might be simple: the midwife did not have knowledge of Mapuche culture or investigate the origin of the woman’s questions. Mapuches believe that, during labour, other women belonging to the community must be present to give energy during the process and to prevent bad spirits from interfering during the birth *(5)*. Furthermore, the placenta is very important for Mapuche women, and they usually bury it and then plant a tree in that place *(5)*. This situation represents a common problem in Latin America *(6)*. Maternal mortality is higher among native people. In some cases, this is because they do not have access to health services. However, when they do have access, they frequently do not want to go to hospitals because they feel that professionals do not respect their cultural beliefs.

What do both situations have in common? Both of these people had formal access to the Chilean health-care system, but they simply chose not to participate. For these patients, universal health coverage is simply a myth. If we go back to the definition of universal coverage as the possibility of accessing health-care services when people need them, then the questions are these: Who determines what the people’s needs are? As health professionals, do we really want to help people meet their particular needs? Or do we want to tell people how to behave and what to do? In other words, what is the value of opening the doors to our health services without opening our minds to real knowledge and the needs of others?

Margarita Bernales Silva, Chile

To provide a more suitable solution to individual needs, the first step is to establish a relationship with the people seeking care based on trust and genuine interest in their particular needs. How should we do that? In my opinion, we must implement two actions: the first should be to develop research strategies that consider the complexity of health phenomena; the second, to improve health professionals' training.

Health, as a social construct, requires that research strategies that consider social and community-oriented aspects be designed on a model that takes into account the multiple meanings that individuals may attach to their own care. There is no doubt about the importance of epidemiological studies, which allow a global view of the population's problems. However, we must remember that this big picture does not necessarily present the local realities of each person and community. If we complemented traditional epidemiological studies with qualitative methods that focus on particular social and cultural aspects, then our picture of the population would be more complete and clearer. The next step is for decision-makers to consider evidence from different types of methods and studies. Regarding training, future health professionals must be capable of adapting to different situations and respecting protocols and guidelines in a flexible way to meet people's needs. For instance, in the first situation, if the psychologist could not transfer the man to another programme, he or she could have performed an initial psychological intervention, affirming his problem recognition. The implications of those strategies would be better understanding community requirements based on scientific evidence, and health professionals capable of coping with those needs.

Universal social protection in health is a challenge for everybody. Leaders and politicians must undertake inclusive health reforms. Health economists must provide information about resource distribution. We, as health professionals, must develop competence in how to contact and interact with people in our roles as facilitators of health processes, being open to others and trying to remove – or be aware of – any type of prejudices. This might offer a path by which universal health coverage would become more real, generating a more inclusive system, in which every citizen could have his or her health care assured, and in which inclusion – and not standardization – would be the guideline.

Margarita Bernales Silva, Chile

References

1 Carrin G, James C, Evans D. *Achieving universal health coverage: developing the health financing system.* World Health Organization, 2005.

2 Encuesta CASEN, modulo salud. Chilean Ministry of Planning, 2006

3 Agencias acuerdan reducir muertes maternas. Pan American Health Organization, 2004 (*http://www.paho.org/spanish/dd/pin/ps040220.htm*, accessed 20 April 2010).

4 Estadísticas de violencia (Violence statistics). Gobierno de Chile-Servicio Nacional de la Mujer, 2010.

5 Alarcón A, Nahuelcheo Y. Creencias sobre el embarazo, parto y puerperio en la mujer Mapuche: conversaciones privadas (Pregnancy, delivery, and postpartum beliefs among Mapuche women: private conversations). *Revista de antropología Chilena,* 2008, 40:193–202.

6 Health situation in the Americas: basic indicators 2009. Pan American Health Organization, 2009 (*http://www.who.int/pmnch/topics/research_statistics/2009_pahobasicindicators/en/index.html,* accessed 20 April 2010).

Biography

Margarita Bernales Silva holds a bachelor's in psychology and a master's in health psychology from Pontificia Universidad Catolica de Chile. She is currently pursuing a PhD in community health at The University of Auckland in New Zealand. She has been awarded the Chilean governmental scholarship, Beca Chile, for her current studies. Margarita is a HIV consultant and has experience in training university students, health-care providers, and vulnerable men and women on HIV prevention issues. Her current areas of interest are gender health, cultural health beliefs and health systems.

Claire Élise Burdet
Switzerland

Claire Élise Burdet, Switzerland

Universal health care: a culture of care through culture

The scene has repeated itself more times than I can accurately record. A patient, usually a man aged 30–50 years, walks into my consultation room. I am a doctor working in rural KwaZulu-Natal, and I am sitting inside what is called the TB caravan. Twice a week up to 50 tuberculosis (TB) patients line up under white and blue striped tents for hours to be seen by the likes of me.

TB is endemic in KwaZulu-Natal. The contagious form is pulmonary TB, as patients cough up little droplets containing the responsible mycobacteria that cavitate their lungs. HIV-positive patients catch all kinds of TB, sometimes pulmonary but often also located outside of the lungs – TB spine, pleural TB, pericardial TB, TB meningitis – collectively termed extrapulmonary TB. So when my patient walks in after two, six or maybe even nine months of treatment – worse still, maybe after his second course of TB treatment! – I need to know what his HIV status is. If he is HIV-positive, he may well also need to start antiretroviral treatment to fight HIV, or his body will remain too weak to fight off TB properly, and he will simply relapse into TB again and again or, worse, develop a drug-resistant TB strain.

I am sitting in the TB caravan. To my right sits a TB nurse. He also functions as my Zulu interpreter and manages the flow of patients. The patient is ushered in, stumbling in with a general chest X-ray.

There ensues a greeting ritual, doubled by the ceremonial passing of the X-ray. *“Sawubona baba! Unjani?”* (Hi, how are you?) *“Ngiapila, dokotela, wena?”* (Fine, doctor, and you?) *“Ngiapilanami.”* (I am fine as well.) The patient volunteers the X-ray with one extended arm, supporting his extended elbow with the palm of his other hand. I grab the X-ray with both hands, also out of respect.

The patient has come for TB. He waited under a TB tent for hours, anxious to know how the TB is doing. Many people die of TB. The patient is being treated for TB, and so it is the TB that I must address.

I ask about the symptoms of TB and, at the same time, look at the patient’s weight. If the treatment is successful and the patient has adequate access to food, the jump in kilograms can be dramatic. A gain of 10 kilograms in two months of treatment is not uncommon – so much so that patients are sometimes barely recognizable.

Once we have dealt with the TB, I ask, as matter-of-factly as possible, about HIV – three extra letters, HIV, that the patient did not necessarily expect to be confronted with if he was waiting for hours under a TB tent.

Claire Élise Burdet, Switzerland

Some TB patients are properly “seized” by the health-care system. The TB acts as an alarm signal. All TB patients should be tested for HIV coinfection. If they test positive for HIV, we test their cluster of differentiation 4 plus (CD4+) blood levels to determine how well the immune system is working. Zulus call CD4+ “amasoldiers”. If these “body’s soldiers” are too few, the patient qualifies for HIV treatment sponsored by the South African government. By the time I see these patients in the TB caravan again, they will have gone through all the obligatory educational modules and started HIV treatment.

Other patients are more reluctant. It may even be their second course of TB treatment, perhaps even for an occurrence of TB in an extrapulmonary location, without their having been tested for HIV. When I ask them, they say that they are tackling one problem at a time, and that they want to first finish the TB treatment before they have to worry about something as difficult as testing for HIV.

Unfortunately, if they are HIV-positive and miss this window of opportunity for testing, they may not make it back to the hospital alive.

As soon as the patient speaks these words, the task at hand is clear. My stethoscope vanishes and I must use all the strength of persuasion that my wit and humour and theatricality can offer. I point towards the white gashes of TB troubling the ribbed cage of thoracic darkness, gesticulate far and wide as I speak of squashing the TB and the HIV, and — in my TB caravan with another 20 to 30 patients to go – try to get my patient to talk and, better still if I can, to laugh! If the patient talks, the dialogue is open and HIV is on the negotiating table. If the patient smiles, he may consider testing. If he laughs, chances are the stigma will fall to the bottom of the list and he will walk straight over to the adjacent caravan and test for HIV.

Where am I trying to go with this clinical narrative? South Africa benefits from a health-care system with considerable means compared with many neighbouring southern African countries. Access to health care is almost free. Yet getting patients to access the health care that they are rightly entitled to is not always as easy as simply making the service available. Universal health coverage is not synonymous with a culture of universality in health-seeking behaviour.

So what is the answer? How do you extend much-needed health coverage to the people that need it most? How do you get people who are HIV-positive and need HIV treatment to come to the realization that they need to access health services and start antiretrovirals now?

Of course, information on the illness is fundamental. But so much more than my rational explanations of disease, my attempts at theatricality and laughter are what enable me to build a relationship with these patients and link them with the care they desperately need. And so I believe that the basic tenets of any given culture must be integrated into the language of health care if there is hope to achieve any degree of universality in coverage. What is more universal than culture?

Claire Élise Burdet, Switzerland

Biography

Claire Élise Burdet studied biochemistry at the University of Ottawa, followed by medicine at the University of Lausanne where she graduated in 2006. She went on to train as a doctor in Scotland, Geneva, and more recently in Manguzi Hospital, a rural hospital in Northern KwaZulu-Natal, South Africa. Her current posting is in emergency medicine in Lausanne, Switzerland. Being faced with strengths and challenges in all of these different health-care settings, both resource-scarce and resource-rich, has nurtured her research interests. Above all, she holds a keen interest in seeing to it that systems work for their people, and not against them.

Jennifer Callaghan
USA

The role of health systems research in the successful scaling up of community case management of childhood illness

Annie sat in the shade of a large jacaranda tree with her wooden drug box and three chairs provided by the village headman. It was early in the morning, before the sun had fully risen over the rocky hills across Malawi's border with Mozambique. Annie was preparing to see the first patient at the village health clinic she operated. As one of Malawi's salaried community health workers, known as health surveillance assistants (HSAs), Annie (not her real name) provides community case management services to children under the age of five in Malawi's remote Nsanje District. On the day that our research team visited Annie, she assisted more than 20 sick children, treating uncomplicated cases of malaria, pneumonia and diarrhoea. Many of these children were carried at least five kilometres to the clinic, cradled against their mothers' backs by a colourful chitenje cloth. Yet the presence of this village clinic saved these mothers from having to travel four times the distance to the nearest first level health centre to seek care for their sick children.

I had the opportunity to visit Annie's clinic while coordinating an assessment of the quality of services provided by HSAs as part of the integrated community case management (CCM) programme in Malawi. Malawi's CCM programme is an important intervention in the country's strategy to achieve universal coverage of key child health interventions and to meet the Millennium Development Goal 4. Like Malawi, many countries in Africa and Asia are adopting CCM to increase coverage of curative interventions addressing the major causes of under-five deaths (1). This movement is consistent with the policy recommendations promoted by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), as well as with strong evidence for the effectiveness of simple interventions that can be delivered through CCM (2, 3, 4). Estimates suggest that up to 30% of under-five deaths in countries with high mortality could be prevented by universal coverage of oral rehydration therapy and zinc for diarrhoea, antibiotics for pneumonia and artemisinin-combined therapies for malaria (5). There is also growing evidence for adopting CCM for the prevention of neonatal deaths (6).

While there is excellent evidence that CCM programmes could greatly reduce under-five deaths in low-income countries, there is very little evidence regarding how countries can scale up CCM programmes to achieve universal coverage. Policy statements for CCM emphasize the need for health system supports such as supervision, drug supply and quality assurance mechanisms, and it is recognized that these factors are necessary for CCM programmes to be effective (3, 4, 7). However, most low-income countries struggle to deliver these critical health system supports to health facilities, as ensuring health system support to more numerous and remote workers in communities can seem an insurmountable challenge. If CCM programmes are unable to ensure a consistent supply of drugs and equipment, and to monitor quality, they will not realize their potential for contributing to child health goals. With the increasing adoption of CCM as a strategy for meeting child health goals and achieving universal coverage, implementation research in support of CCM programmes should be a top priority for health systems researchers. My experience participating in health systems research (HSR) on the CCM programme in Malawi provided insight into how HSR may contribute to improving the scaling up of CCM. Our team conducted both a quantitative assessment of the quality of care provided by HSAs and a qualitative case study of health system support. The survey included various methods (e.g. observations of case management with re-examination by a gold standard clinician, exit interviews with caregivers, and interviews with HSAs related to socio-demographic characteristics, CCM drugs and supervision) that allowed us to identify strengths and weaknesses in the performance of HSAs as well as the strengths and weaknesses of health system support. We analysed the results in conjunction with the Ministry of Health and partners, which contributed to the use of data for programme improvement. For example, the assessment demonstrated that the less than 40% of HSAs had received a supervisory visit for CCM in the previous three months. Based on these figures, the Ministry of Health planned changes to increase the frequency of supervision, including training lower-level supervisors on the CCM programme.

While the survey identified areas for improving programme implementation and health system support, the follow-on qualitative study was necessary for understanding the reasons that distinguish areas of strong performance from areas of inadequate implementation. Through in-depth interviews with district managers and focus group discussions with HSAs, we learned that job aid containing the CCM algorithm was a principal contributor to the high quality of care observed in the quantitative assessment. The qualitative research methods also enabled us to explore strategies for improving health system support and provided evidence for the importance of health system support in the CCM programme. For example, we learned that inadequate drugs and supplies lowered the community's opinion of CCM services and the motivation of the HSAs.

The type of HSR conducted by our team in Malawi is an important starting point for improving CCM to achieve universal coverage. While assessing programme implementation strengths and weaknesses is important, a larger goal for HSR is to develop and test strategies for successfully scaling up CCM in weak health systems. Although several organizations are actively engaged in operations research for CCM in low-income countries, there is inadequate attention or funding for this research. Many in the public health community agree that universal coverage cannot be achieved in poor countries without the successful scaling up of CCM programmes (7), yet we have much to learn about how to achieve this goal.

The strongest arguments in support of HSR for CCM are the efforts and hopes of community health workers like Annie and the communities that they serve. Every time I visit these workers I am awed by their efforts to treat sick children despite limited resources and difficult working conditions. The communities that rely on these workers, like the mothers and children visiting Annie's clinic in Nsanje, are also impressive in the support and appreciation of community-based programmes like CCM. Community health workers and their communities are the most important stakeholders in HSR towards scaling up CCM. For them, the benefits of HSR and programme improvements cannot arrive too soon.

References

1 Marsh DR et al. Community case management of pneumonia: at a tipping point? *Bulletin of the World Health Organization,* 2008, 86:381–389.

2 Sazawal S, Black RE. Effect of pneumonia case management on mortality in neonates, infants, and preschool children: a meta-analysis of community-based trials. *Lancet Infectious Diseases,* 2003, 3:547–556.

3 WHO & UNICEF. Joint statement: management of pneumonia in community settings. Geneva, World Health Organization & New York, United Nations Children's Fund, 2004.

4 WHO & UNICEF. Clinical management of acute diarrhoea: WHO/UNICEF joint statement. Geneva, World Health Organization & New York, United Nations Children's Fund, 2004.

5 Jones G et al. How many child deaths can we prevent this year? *Lancet,* 2003, 362:65–71.

6 Baqui AH et al. Effect of community-based newborn-care intervention package implemented through two service-delivery strategies in Sylhet district, Bangladesh: a cluster-randomized control trial. Lancet, 2008, 371:1936–1944

7 Haines A et al. Achieving child survival goals: potential contribution of community health workers. *Lancet,* 2007, 369:2121–2131.

Biography

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Chee Ho Julius Cheah
Malaysia

Chee Ho Julius Cheah, Malaysia

Lost in translation: bridging the evidence gap towards reducing health inequalities and improving health equity

Social inequalities in health – the unfair, unjust and avoidable systematic differences in health between groups within a society – has long been recognized as a silent threat across nations *(1)*. Historically, it has been stressed on the agenda of the World Health Organization to improve health equity since the Declaration of Alma-Ata in 1978, which recognizes the need to reduce health inequalities within and between countries *(2, 3)*. Recently the initiative has been rejuvenated through the establishment of the Commission on the Social Determinants of Health, which calls for the elimination of health inequalities to be the central goal towards achieving equitable health *(4)*.

As more evidence begins to surface stemming from the increasing interest in the etiology of diseases, a multitude of causal factors pertaining to health inequalities are progressively being discovered. The release of the historic Black Report in the United Kingdom (UK) has had a dramatic impact on the ways in which health and health care are observed, as it challenges the orthodox “downstream” medical approach and advocates a paradigm shift towards “upstream” social factors affecting health. The legacy it left behind was a surge in research on health inequalities both in the UK and abroad *(5, 6)*, and one of the notable advancements is the development of etiological pathway models. From the behavioural-cultural model first highlighted in the Black Report, various concepts have since been propagated, from psychosocial to materialist explanations, and to the recent life-course approach *(7, 8, 9, 10)*.

However, despite the accumulating scientific discoveries, incorporating science into policy and subsequently into practice is inextricably more than a two-step process. Rather, it is complex and cyclical, often inciting heated debates between the research expectations of scientists and the ideologies of policy-makers *(11, 12)*. Such polarized views hinder the effective development and implementation of health policies, creating barriers against achieving health equity.

Drawing on the life-course approach, this essay will seek to elucidate the pertinence of making science relevant and, amidst the sheer enthusiasms in research, that the existing gap between evidence and policy is a fact deserving much-needed attention from, and critical awareness in, the scientific community.

Integrating science into policy: health inequalities and the life-course approach

Scientific evidence can play a distinctive role in guiding policy options for addressing health inequalities. An evidence-based approach in principle can infuse a certain legitimacy and accountability into the policy- and decision-making process, and can also potentially shape subsequent actions and strategies, their implementation, and the impact of their outcomes *(13)*. However, a key challenge in developing intersectoral policies requires "an interdisciplinary science of health inequalities" that has yet to be strongly established (*14*, p. 2006). Current developments are modelled on the interactions of two fields of research: health inequality and social inequality. Engagements between the two fields gradually led to an infusion of the social structure within an epidemiological model. The recent incarnation contributing to this inter-disciplinary approach is the development of the life-course model, which emerged from the increasing amount of data gathered from maturing birth cohorts *(15)*.

The life-course approach pertains to the combination of biological and social elements which interact over the lifetime of an individual, across generations and throughout population disease trends *(16, 17)*. In terms of health and its underlying social determinants, an individual's biological state is seen as an indicator of his or her past social position, as past social experiences can be significant factors in the accretion of future advantages or disadvantages as one journeys through the social process *(9)*. Such advantages or disadvantages can occur cross-sectionally between different spheres of life (e.g. living conditions and working environment) and longitudinally throughout various life phases, and thus introduces a spatial dimension to socioeconomic status by shifting the science of health inequalities towards a broader social structure *(18, 9)*.

Pragmatism in knowledge transfer

That the views of researchers and policy-makers are often polarized has serious implications for how policies can be developed and delivered to address health issues. Policy-makers generally call for pragmatism or "what works", while researchers are inclined towards quality or "how it should work" *(19)*.

The study conducted by Petticrew et al. *(11)* found that policy-makers paid particular attention to the cost-effectiveness of policy and intervention programmes, owing to their need to consider budgetary constraints and ways to optimize funding allocations. This proves to be significantly difficult to determine under the life-course model, which explores the social determinants of health rather than a specific health problem. Policy-makers are very keen on budgetary savings in the short and long term, and often look for "best buys" on which to spend government budgets *(20)*. Policies on tobacco control, for example, are welcomed by policy-makers because the benefits of reduced smoking bring long-term savings for health services on smoking-related illnesses *(11)*.

Leon et al. *(21)* argued that the overwhelming attention diverted towards the factors operating across the life-course has overlooked the timeliness of evidence delivery and the preference for visible short-term results. He noted that, for chronic diseases with substantial latency periods, the outcomes in reductions of health inequalities due to current policy interventions are observable only in the distant future, and policies can thus be seen as failing to yield measurable and realistic results. Moreover, the pressing nature of the political environment makes time scale an important factor for policy-makers. When quick and short-term decisions are needed, many are willing to compromise on the quality of evidence for pragmatic reasons because "doing nothing is not an option" (*11*, p. 812).

Shiffman *(22)* described several factors that influence national policy agenda setting and shape political priorities, of which three are particularly pertinent: producing clear policy solutions, competing priorities and political transitions. Findings from the study by Petticrew et al. *(11)* indicated that policy-makers in general do not consider current research on health inequalities to bear much relevance to policy-making, and they tend to seek specific types of research evidence that can clearly indicate what needs to be done. The complexity of the different social determinants and indicators of health in the life-course perspective creates a lot of ambiguity that often falls short of indicating what exactly needs to be addressed and how. This is evident in the different local interpretations of health inequality issues in the UK, which hampers the delivery of effective interventions *(23, 19)*. Consequently, policy-makers tend to draw on a wide range of sources of evidence, informed guesswork and experiences to establish programmes addressing health inequalities *(24)*.

The intersectoral nature of the social determinants of health identified from the life-course approach further challenges the implementation of intersectoral policies. Besides departments competing for resources within the Ministry of Health, there is also competition between ministries for budget allocation and political priority. Since the determinants of health lie within the purviews of separate ministries, the Ministry of Health has limited jurisdiction in the event of conflicting policies. For example, loosening employment regulations to expand the labour market may override concerns on occupational safety and health *(25)*.

The political environment also plays a significant role in policy development. The political ideology of those in authority exerts powerful influence on how policies are informed, developed and executed. A classic example is the Black Report, which was commissioned by the Labour government in 1977 only to have its findings suppressed and ignored by the incoming Conservative government in 1978. It was only when Labour regained power in 1997 that the issue of health inequalities regained the public health spotlight *(26, 5)*.

Conclusion

As more concrete evidence of the existence of health inequalities has emerged, there has been a significant push from national governments and the international community to pursue intersectoral policies to address the social determinants of health. Frontrunners like the UK and the Nordic countries, as well as the World Health Organization, are increasingly seeking a scientific framework for decision-makers to provide an evidence-based guide to improve public health. Recent developments in the scientific community to further explain the phenomenon of social and health inequalities has arrived at the theoretical model of the life-course approach, which is gaining recognition for being able to capture both the dynamics and the health outcomes of social inequality.

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However, inasmuch as this new area of research has shown potential for identifying the root cause of disease, it faces considerable challenges in translating scientific evidence into workable policies. While researchers are naturally enthusiastic regarding their work, they should not confine themselves within the boundaries of their research and remain ignorant of the needs and circumstances of policy-makers. Researchers should be mindful that, in translating evidence into policies, the elements of timeliness, cost effectiveness and relevance are the key considerations of policy-makers. Yet the lack of constructive engagement between the two parties has polarized debates around the disconnection between research expectations and pragmatic needs, hampering policy development. The intersectoral nature of social determinants of health also presents a considerable barrier to the adoption of evidence generated by life-course studies, as intersectoral policies are extremely difficult to navigate without considerable conflict of interest between sectors. What is needed now are not just new discoveries, but efforts to bridge the evidence, policy and practice gaps through more meaningful engagements with the policy-making community.

References

1 Braveman P. Health disparities and health equity: concepts and measurement. *Annual Review of Public Health,* 2006, 27:167–194.

2 *Declaration of Alma-Ata.* International Conference on Primary Health Care, 6-12 September. Geneva, World Health Organization, 1978.

3 *Targets for health for all.* Copenhagen, World Health Organization, 1985.

4 *Closing the gap in a generation.* Commission on the Social Determinants of Health. Geneva, World Health Organization, 2008.

5 McIntyre S. The Black Report and beyond: what are the issues? *Social Science & Medicine,* 1997, 44(6):723–745.

6 Richmond C. Sir Douglas Black: professor of medicine whose famous report on inequality and health fell foul of the Thatcher government. *British Medical Journal,* 2002, 325:661–662.

7 van de Mheen HD et al. A lifecourse perspective on socio-economic inequalities in health: the influence of childhood socio-economic conditions and selection processes. In: Bartley et al., eds. *The sociology of health inequalities.* Blackwell Publishers, Oxford, 1998.

8 Bartley M. Health inequalities: *an introduction to theories, concepts, and methods.* Polity Press, Blackwell, 2004.

9 Blane D. The life course, the social gradient, and health. In: Marmot MG, Wilkinson RG, eds. *Social determinants of health,* 2nd ed. Oxford University Press, New York, 2006.

10 Law C. Life-course influences on children's future. In: Graham H, ed. *Understanding health inequalities,* 2nd ed. Open University Press, Maidenhead, 2009.

11 Petticrew M et al. Evidence for public health policy on inequalities: the reality according to policymakers. *Journal of Epidemiology and Public Health,* 2004, 58:811–816.

12 Whitehead M et al. Evidence for public health policy on inequalities: assembling the evidence jigsaw. *Journal of Epidemiology and Community Health,* 2004, 58:817–821.

13 Killoran A, Kelly MP. Towards an evidence-based approach to tackling health inequalities: the English experience. *Health Education Journal,* 2004, 63:7–14.

14 Graham H. Building an inter-disciplinary science of health inequalities: the example of lifecourse research. *Social Science & Medicine,* 2002, 55:2005–2016.

15 *Life course perspective on coronary heart disease, stroke, and diabetes: key issues and implications for policy and research, summary report of meeting of experts.* Noncommunicable disease and mental health cluster. Geneva, World Health Organization, 2001.

16 Bartley M et al. Health and the life course: why safety nets matter. *British Medical Journal.* 1997 314:1194–1196.

17 Galobardes B et al. Measuring socioeconomic position in health research. *British Medical Bulletin,* 2007:1-17.

18 Graham H. From science to policy: options for reducing health inequalities. In: Leon D, Walt G, eds. *Poverty inequality and health: an international perspective.* Oxford University Press, New York, 2001.

19 Killoran M et al. *Public health evidence: tackling health inequalities.* Oxford University Press, Oxford, 2006.

20 Wanless D. *Securing good health for the whole population.* HM Treasury, London, 2004.

21 Leon D et al. International perspectives on health inequalities and policy. *British Medical Journal,* 2001, 322:591–594.

22 Shiffman J. *Generating political priority for public health causes in developing countries: implications* from a study on maternal mortality. Washington, Center for Global Development, 2007.

23 Hunter D, Killoran A. *Tackling health inequalities: turning policy into practice.* London, Health Development Agency, 2004.

24 Coote et al. Finding out what works: *building knowledge about complex, community-based initiatives.* London, King's Fund, 2004.

25 *A conceptual framework for action on the social determinants of health.* Commission on Social Determinants of Health. Geneva, World Health Organization, 2007.

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26 Kelly MP. The development of an evidence-based approach to tackling health inequalities in Britain. In: Killoran M et al., eds. *Public health evidence: tackling health inequalities.* Oxford University Press, Oxford, 2006.

Biography

Chee Ho Julius Cheah is currently reading his master's in health systems and public policy at the University of Edinburgh. He is a Chevening scholar from Malaysia, and holds a Bachelor of Science in food studies. Prior to his master's, he was the policy and research manager for the health desk in the Federation of Malaysian Consumers Associations (FOMCA), a prominent umbrella body for organizations in Malaysia advocating for consumer rights. He has implemented numerous local and international health projects, represented FOMCA in national health policy meetings, and has spoken on a wide range of health issues including public nutrition, food safety, pharmaceuticals, and health-care financing.

Mrudu Herbert
India

Mrudu Herbert, India

The roads to redemption

> “History says, don’t hope
> On this side of the grave,
> But then once in a lifetime
> The longed for tidal wave
> Of justice can rise up
> And hope and history rhyme.”
>
> – *Seamus Heaney*

“On the road,” replied 17-year-old Laxmi with a shy smile.

I was taken aback, for I had just asked her whether she had delivered her two-month-old baby girl in her home or in a hospital. Laxmi told me how her 70-year-old grandmother had assisted the delivery as she lay on the hot asphalt screaming and sweating with the effort.

The semi-tarred road on which Laxmi gave birth is the only lifeline linking her tribal hamlet of Bhoothanahalli to the outside world. In this sleepy village in Karnataka, India, the availability of transportation – or rather the lack of it – is a serious hindrance, determining villagers’ access to health care. The only health centre is 10 kilometres away, reached only along a potholed road.

From my work with the women and children among the tribal folk in the village, I had understood that women preferred not to go to health facilities for their deliveries. Their children, most of whom had received not even a single immunization shot, were regularly susceptible to diarrhoea and pneumonia. Sanitary latrines were unheard of. Childhood malnutrition was widely prevalent. Family planning was something a couple resorted to when they were in dire need for some money, for the Indian government gave monetary rewards to couples adopting birth control.

A decade into the new millennium, the health system in India does have a few credits to its name. In pursuit of Health for All by the Year 2000 and lately the Millennium Development Goals, India has largely succeeded in bringing down rates of maternal and infant mortality. Smallpox and guinea-worm disease have been successfully eradicated. Polio is on the verge of eradication. But there is more to all this than meets the eye. India also has the highest tuberculosis burden in the world. Every other child in India is malnourished. Half of its women are anaemic. The failing public health care delivery system is on its last legs. The slow withdrawal of the state from its role as health-care provider is turning out to be the proverbial last nail in the coffin for the destitute, malnourished common man.

We have got it wrong, right from the basics. There is a disproportionate concentration of health services in India, with 75% of the medical care being clustered in the urban areas where only 27% of the population lives. This means that the majority of people in rural areas have to struggle for even basic access to health services. Infrastructural inadequacies like bad roads, as in the case of Bhoothanahalli, the unavailability of transport options and, very often, people’s lack of financial resources curtail access to health care in the simple sense of getting there. This inequitable access to health care is one of the crucial stumbling blocks of extending health coverage to all.

During the course of my work in Bhoothanahalli, I often asked women why they did not want to go to a health facility for childbirth. The women were unanimous in rejecting the government hospitals. “They take money and still don’t give proper treatment” was a common refrain. Corruption in government facilities has become institutionalized to the point of becoming a way of life. This objectionable practice has over the years eroded the trust of the public and the poor in government health facilities, further restricting their access to affordable health care. In rural areas absenteeism among health staff is high, further limiting the availability of services.

Another barrier in achieving universal health coverage is spiralling health-care costs. The Indian health scenario is witnessing an epidemiological transition. Communicable diseases like malaria are re-emerging along with escalating trends for noncommunicable diseases. This has created huge demand for health care, even in the rural areas. Yet government health facilities have been depleted by chronic underfunding over the years, leaving them unable to cater for burgeoning health-care needs. Accordingly, the rural populace is forced to purchase health care from private providers. The contribution of out-of-pocket household spending to the purchase of health care in India is as high as 72% *(1)*. The decline in government spending on public health coupled with the lack of a viable social insurance scheme often thrust many households into impoverishment. Any unforeseen health emergency can push a family teetering on the brink of poverty into abject penury.

The introduction of user fees has been attempted as another means of harnessing finances for health facilities. As is evident from studies done in India, user fees cause falling utilization of public health facilities, especially by poor people *(2)*. Though user fees help supplement income, more often than not they create financial barriers for the poorest of the poor and lower their access to health care. Along with other hidden costs like lost wages and transport charges, user fees create only additional liability.

The angst and desperation in the voices from Bhoothanahalli got me thinking about what is to be done. The problem in remote rural areas like Laxmi’s village is not just one of lack of health care. The looming question is one of social justice. Very often it can be seen that inequalities in health reflect the inequalities in other social determinants like education, income, housing, etc. Unless we address these basic concerns, no real progress can be made in ensuring equitable and universal health care for such vulnerable communities. Improving schools, roads and access to safe drinking water and sanitation is an indispensable part of building a viable health-care system. Consecutive governments drawing up plans for spending on health care simply cannot afford anymore to overlook pressing needs for basic amenities.

Policy-makers can start by ensuring access to basic health care. What the inhabitants of the numerous Indian villages like Bhoothanahalli primarily need are good roads. This single step can give them access to better education, better employment opportunities and, most of all, timely health assistance. Timely access to health facilities can make

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a significant difference, as in the case of a pregnant woman with uncontrollable haemorrhaging, a snake bite or a sick child suffering an acute asthmatic attack.

At both the primary and the secondary level, a huge clean-up act is needed to regain the people's trust in government health facilities. Good personnel-management policies like recognizing and rewarding good performance, and disciplining absenteeism, corruption and negligence of duties, are the need of the hour. The morale and motivation of the health staff can be kept high by opening up promotional avenues for professional competence and providing opportunities for training and thereby skill enhancement. The government is currently making laudable efforts to increase the availability of doctors in rural areas by giving them incentives like early promotions, better pay and opportunities for further studies.

A social health insurance scheme that cross-subsidizes the poor and the aged from the premiums of the rich and young can ease the woes of health-care financing. But in the current scenario it will take many years and strong political will before such a system can be put in place. In the meantime, strengthening the referral system so that referred cases are given priority at the secondary and tertiary level can improve health outcomes.

India is an up-and-coming power in information technology. At the tertiary level, this can be exploited to advance access to health care even in remote areas. The use of telemedicine facilities can play a major role in delivering health care and in training. It can also help cut health-care costs by avoiding the need for transportation to a distant health facility.

When all is said and done, political commitment is required to bring about any significant change in the health-care agenda. There is an urgent need for increasing government spending on health care. Currently, only a paltry 0.9% of the gross domestic product is spent on health care, as against the 5% recommended by the World Health Organization *(3)*. It is high time that the priorities changed. Health is a fundamental right of the people and not charity from the rulers.

Like many other mothers, Laxmi dreams that her daughter will grow up, go to a school and, if possible, become a doctor. But that is not her priority. In a sombre voice, she expresses hopes that one day there will be a road to her village – a road that would throw open a world of opportunities for her daughter and for the generations to come, a road to justice, to equality, to emancipation.

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References

1 Devadasan N, Nandraj S. Health insurance in India. In: Devadasan N, ed. *Planning and implementing health insurance programmes in India.* Bangalore, Institute of Public Health, 2006.

2 *National health policy* 2002. New Delhi, Government of India, Ministry of Health and Family Welfare, 2002.

3 *Report of the national commission on macroeconomics and health.* New Delhi, Government of India, Ministry of Health and Family Welfare, 2005.

Biography

Mrudu Herbert was born and raised in south India and graduated as a medical doctor from the University of Calicut, Kerala, India in 2007. After a year of service under the state government as a medical officer in a primary health care setting, which opened her eyes to the tribulations faced by the people of rural India, she has been pursuing her residency in preventive and social medicine from Bangalore Medical College and Research Institute since 2009. She currently devotes part of her time towards collecting data on maternal and child practices of a tribal population, which also contributes towards her dissertation. In future, she hopes to work at the policy-making level to effect real change.

Rebecca Hodes
South Africa

How health systems research championed South Africa's roll-out of antiretroviral treatment

In 1946, the World Health Organization (WHO) was founded to monitor and improve the health of people across the globe. Its constitution stated, "The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being" *(1)*. Its creation was soon followed in 1948 by the Universal Declaration on Human Rights, which included the right to health.

For the subsequent three decades, a slew of covenants confirmed states' commitment to the fulfilment of this right. This culminated in the Declaration of Alma-Ata *(2)*, by which signatories pledged not just the development of comprehensive health-care systems but also the "equitable distribution of resources for maintaining health". As a consequence of Alma-Ata, WHO designed an ambitious implementation plan named Health for All by the Year 2000.

Three years later, in 1981, the Centers for Disease Control began to study an illness related to compromised immunity among gay men in the United States. As the etiology of HIV/AIDS was initially mysterious, it cast modern medicine as fallible. The spread of the disease raised doubts about the feasibility of international commitments to comprehensive health care. And, although the precise routes of HIV transmission were established by 1984, public fears about casual contagion continued to fuel stigma surrounding the virus.

By the early 1990s, the mood of public health specialists was one of "collective gloom" *(3)*. Research towards possible vaccines or cures had yielded little. But 1996 saw a profound advance in the development of effective HIV treatment with the emergence of highly active antiretroviral therapy (HAART). HAART drastically reduced the number of AIDS deaths and AIDS-related hospital admissions in states where populations were afforded public access *(4, 5, 6, 7)*. This remarkable medical advance made HIV/AIDS comparable to other chronic but manageable illnesses.

Numerous policy-makers discounted the possibility of an antiretroviral rollout in the developing world, particularly in Africa. They argued that the drugs were too expensive and health systems too fragile to sustain their distribution. The perceived patient culture was pitted against the complexity of adherence, with an influential aid official opposing the African rollout on the basis that patients could not keep track of the time and would default on their regimens *(8)*. Brazil was one country where public health officials quickly overcame these concerns. Its national treatment programme was established in 1996 and is today a model of universal coverage.

Although South Africa and Brazil have similar socioeconomic contexts and comparatively strong health systems, South Africa's political leadership did not follow suit in making HAART publicly available in the 1990s. Perhaps caught up in the fervour of the democratic transition, the government somehow ignored the rise of the epidemic and, in the closing years of the 1990s, did little to scale up treatment, testing or prevention. But the issue of human rights was at the forefront of public rhetoric at this time. South Africa's civil society began to mobilize around the right to health care and for public access to antiretrovirals.

The potential expense of the prevention of mother-to-child transmission (PMTCT) programmes plummeted in 1999, when the HIV Network for Prevention Trial (HIVNET) 012 proved that a single dose of nevirapine reduced perinatal transmission *(9)*. In spite of this medical advance, the South African government decided against the nationwide implementation of PMTCT. The Treatment Action Campaign (TAC), an AIDS activist group at the forefront of the fight for public access to PMTCT, took the government to court over this decision.

TAC's victory in the courts was a landmark in South African jurisprudence regarding the right to essential health care. The case was decided partly on the strength of TAC's supporting affidavits, perhaps the most critical of which was authored by a health systems researcher. This affidavit by Helene Schneider *(10)* used the government's own published reports to prove that there was adequate latent capacity within public health care structures to provide nevirapine in antenatal clinics. This disqualified the government's argument that its health systems would buckle under the implementation of PMTCT.

Further evidence from the South African Intrapartum Nevirapine Trial proved that nevirapine was effective in the local context, debunking the government's contentions about its utility in a South African setting *(11)*. Lastly, the cost-effectiveness of PMTCT implementation was calculated by the economist Nicoli Nattrass *(12)*, discounting government claims that it could not afford the drug. The strategic alignment of judicial activism, health systems research, evidence from medical trials and the modelling of the fiscal gains of treatment, won public access to antiretrovirals for pregnant women in South Africa.

Although the constitutional court had ordered the government to roll out PMTCT, health officials continued to drag their heels, limiting access to antiretrovirals to pregnant women for PMTCT rather than scaling up treatment for all patients in need. The Health Department continued to argue that treatment was unaffordable and that poor South Africans would fail to adhere to antiretroviral regimens. In response, health researchers and activists continued to collaborate to defeat these claims.

In April 2000, three antiretroviral pilot programmes were started by Médecins Sans Frontières (MSF) in the informal settlement of Khayelitsha. The purpose was to prove that poor patients could adhere well to treatment, despite its relative complexity. When the study was published, the adherence rates of the patients in the study were the highest on record, highlighting the efficacy of "treatment literacy" *(13)*. These findings provided activists and researchers with powerful evidence to support a public antiretroviral programme, but the government still refused to expand treatment access beyond pregnant women. So, in 2003, MSF launched an antiretroviral clinic in the rural village of Lusikisiki in the Eastern Cape. It aimed to show that the lessons of the Khayelitsha clinic could be applied in a rural context, despite weak health capacity and high HIV prevalence.

In the face of mounting evidence, the political climate began to change. The Nelson Mandela Foundation formed a partnership with MSF to support the Lusikisiki clinic, and Mandela himself opened the clinic, wearing a t-shirt that stated "I am an HIV treatment supporter" *(14)*. Six months into the project, 95% of patients showed an undetectable viral load. After one year, no patients had been lost to poor follow up, and the pilot's survival rate was 84% *(15)*.

In 2003, the South African cabinet finally committed the government to providing antiretrovirals in the public sector. Civil society organizations and health researchers established the Joint Civil Society Monitoring Forum on Antiretrovirals to ensure that the Health Department fulfilled its treatment mandate. Copious research on the antiretroviral rollout and South Africa's health system followed, and the strategic alliance between activists and health researchers increasingly included government officials *(16, 17, 18, 19, 20, 21, 22)*.

Recent research published in the Lancet argued that the ratification by 170 states of numerous human rights treaties had little effect on their health outcomes *(23)*. While South Africa's constitution and inclusion in various human rights declarations committed the state to comprehensive health care for all, access to antiretroviral treatment was granted only through the alignment of activists and health researchers and their use of compelling evidence in support of a national rollout. However, the struggle for access to AIDS treatment in South Africa was based on the state's obligations to treat the disease under the country's constitution and other international human rights frameworks.

According to Paul Farmer, as the year 2000 approached and universal health care remained a chimera, a joke about the Declaration of Alma-Ata did the rounds of international health circles (24). Apparently the typist had hit 2 instead of 3, and instead of "Health Care for All by the Year 3000", the rallying cry had mistakenly been brought forward by a millennium. For Farmer and Walton *(24)*, it was the AIDS epidemic that reinvigorated the call for universal health care by showing that tremendous advancements in health could be made with sufficient political will and resources.

Today, concerns are mounting about the sustainability of the antiretroviral rollout, as international donor support dwindles. For South Africa, where a decade of AIDS denial has given way to a renewed commitment to combating the disease, this shift in donor priorities has come at an unfortunate time. International declarations will do little to commit governments to providing universal access if the resources are not available to finance these programmes.

As was the case with the struggle for PMTCT, practical, evidence-based research on the impact of AIDS treatment programmes on health systems is vital to combat new myths about why AIDS drugs should be withheld from Africans. It is this kind of research that provides activists with the support they need to hold their governments and the international community accountable for providing lifesaving medicines to those who need them.

(This essay is dedicated to Andrew Warlick. My thanks to Gregg Gonsalves, whose recent writings greatly influenced this essay [25, 26].)

References

1 *Constitution of the World Health Organization.* 1950. (*http://apps.who.int/gb/bd/PDF/bd47/EN/constitution-en.pdf*, accessed 16 May 2010).

2 *Declaration of Alma-Ata.* 1978. (*http://www.who.int/hpr/NPH/docs/declaration_almaata.pdf,* accessed 16 May 2010).

3 Iliffe, J. *The African AIDS epidemic: a history.* Cape Town, Double Storey Books, 2006.

4 Autran B et al. Positive effects of combined antiretroviral therapy on CD4+ T cell homeostasis and function in advanced HIV disease. *Science*, 1997, 277(5322):112–116.

5 Gulick RM et al. Treatment with indinavir, zidovudine, and lamivudine in adults with human immunodeficiency virus infection and prior antiretroviral therapy. *New England Journal of Medicine* 1997, 337(11):779–781.

6 Fox R, Gourlay YJ. The impact of highly active antiretroviral combination therapy in HIV infected patients in Glasgow. *Health Bulletin (Edinburgh),* 2000, 58(4):309–315.

7 Jordan R et al. Systematic review and meta-analysis of evidence for increasing numbers of drugs in antiretroviral combination therapy. *British Medical Journal,* 2002, 324(7340):757.

8 Donnelly J. Prevention urged in AIDS fight: Natsios says fund should spend less on HIV treatment. *Boston Globe,* 7 June 2001.

9 Guay LA et al. Intrapartum and neonatal single-dose nevirapine compared with zidovudine for prevention of mother-to-child transmission of HIV-1 in Kampala, Uganda: HIVNET 012 randomized trial. *Lancet,* 1999, 354(9181):795–802.

10 Schneider H. Replying affidavit in the case of TAC v Minister of Health. 2001 (*www.tac.org.za*, accessed 16 May 2010).

11 Moodley D et al. A multicentre randomised controlled trial of nevirapine versus a combination of zidovudine and lamivudine to reduce intrapartum and early postpartum mother-to-child-transmission of Human Immunodeficiency Virus Type 1. *Journal of Infectious Diseases,* 2003, 187(5):725–735.

12 Nattrass N. Replying affidavit in the case of TAC v Minister of Health. 2001 (*www.tac.org.za*, accessed 16 May 2010).

13 Médecins Sans Frontières South Africa, Department of Public Health at the University of Cape Town & Provincial Administration of the Western Cape, South Africa. *Antiretroviral therapy in primary health care: the experience of the Khayelitsha programme in South Africa. Geneva,* World Health Organization, 2003.

14 Médecins Sans Frontières. We are alive – Mandela inaugurates ART site near his birthplace. 2003. (*http://www.msf.org/msfinternational/invoke.cfm?component=article&objectid=FEDDDD5B-DEE7-4A56-942BA28AF2C13B25&method=full_html*, accessed 16 May 2010).

15 Beresford B. Reflections and lessons from frontline treatment providers. *Development Update: From Disaster to Development: HIV and AIDS in Southern Africa*, 2004 5(3):265–275.

16 Peterse I, Swartz L. Primary health care in the era of HIV/AIDS: some implications for health systems reform. *Social Science & Medicine,* 2002, 55(6):1005–1013.

17 Kober K, Van Damme W. Scaling up access to antiretroviral treatment in South Africa: who will do the job? *Lancet,* 2004, 364(9428):103–107.

18 Doherty TM, McCoy D, Donohue S. Health system constraints to optimal coverage of the prevention of mother-to-child HIV transmission programme in South Africa: lessons from the implementation of the national pilot programme. *African Health Sciences,* 2005, 5(3):213–218.

19 Chopra M, Ford N. Scaling up health promotion interventions in the era of HIV/AIDS: challenges for a rights based approach. *Health Promotion International,* 2005, 20(4):383–390.

20 Schneider H et al. Health systems and the implementation of disease programmes: case studies from South Africa. *Global Public Health,* 2006, 1(1):49–64.

21 Schneider H et al. Health systems and access to antiretroviral drugs for HIV in southern Africa: service delivery and human resources challenges. *Reproductive Health Matters,* 2006, 14(27):12–23.

22 Ojikutu B. Introduction: the realities of antiretroviral therapy rollout: overcoming challenges to successful programmatic implementation. *Journal of Infectious Diseases,* 2007, 1(196):Suppl 3L S445–448.

23 Palmer A et al. Does ratification of human-rights treaties have effects on population health? *Lancet,* 2009, 373(9679):1987–1992.

24 Walton D et al. Integrated HIV prevention and care strengthens primary health care. In: Saussy H, ed. Partner to the poor: *a Paul Farmer reader.* London, University of California Press, 2010. pp. 270–286.

Rebecca Hodes, South Africa

[25] Gonsalves G. Bill Easterly's burden. In: *The future of development human rights and international aid beyond the economic crisis.* Robert L. Bernstein International Human Rights Fellowship Symposium. New Haven, Yale University, 8–9 April 2010. *(http://asiacatalyst.org/blog/2010/04/bill-easterlys-burden.html,* accessed 16 May 2010).

[26] Gonsalves G. Let them eat cake: economists, AIDS drugs and social and economic rights. 2010. (*http://writingrights.org/2010/04/14/let-them-eat-cake-economists-aids-drugs-and-social-and-economic-rights-gregg-gonsalves/,* accessed 16 May 2010).

Biography

Rebecca Hodes has a PhD from Oxford University and is the Deputy Director of the AIDS and Society Research Unit, University of Cape Town. Her research focuses on access to medicines and activist responses to the global financial crisis. She is currently converting her doctoral dissertation into a book about HIV depictions on South African television. She is the co-founder of the Student HIV/AIDS Resistance Campaign, the largest student HIV organization in South Africa. In 2009, she managed the policy, communications and research department of the Treatment Action Campaign.

Leanne Idzerda
Canada

Leanne Idzerda, Canada

Universal health care: who are we missing?

The First Nations of Canada, the Aboriginal people of Australia, the Sinti in Germany, Travellers in the United Kingdom, the Kale in Finland, the Roma in eastern Europe, the Maori in New Zealand, and the ultra-poor in South Africa, India and Brazil – all these people have something in common. They live in countries with universal health systems, where the delivery of health services to people in need – regardless of ability to pay – is deemed a human right *(1)*.

And yet, diabetes prevalence in Canadian First Nations is three times the national average *(2)*. Travellers in the United Kingdom, derogatorily termed Gypsies, are significantly more likely than the general population to have a long-term illness or disability *(3)*. Deaths from cardiovascular disease in Australia are three times higher for Aboriginal people than for non-Indigenous people *(4)*.

These statistics beg the question: Why do some sub populations have worse health outcomes than the general population? The first reason may be that people's health is affected by the place they occupy in society (5); for example, early childhood development, housing and social protection may affect a person's vulnerability to illness *(6)*. The second reason may be that one's actual use of health services is substantially lower than is theoretically assumed *(7)*.

If we as citizens and governments have prioritized affordable health services for all, why is it that the sub populations with the greatest need are the least likely to use health services *(8)*, even in high-income countries such as Australia, Canada and the United Kingdom?

To answer this question, we will look at one woman's story – a story that is lived by thousands of women in eastern Europe and echoed by disadvantaged populations around the world.

This is the story of Jelena, a Roma (or Gypsy).

Jelena was married at 17 to a 21-year-old boy from a neighbouring settlement in Serbia. She was ecstatic when she gave birth to her first child at 18. By 25, she had three children and had four abortions. Jelena and her family were forcibly moved from their home to prefabricated housing in an industrial area on the outskirts of Belgrade. Her youngest son suffered from recurring respiratory infections from breathing factory pollution all his life. She tried to take him to the clinic, but it was far to travel, and, because he did not have a Serbian birth certificate, she feared that the doctor would not see him.

Jelena died last year at the age of 48 from cervical cancer. She, like many other women, saw a doctor only when the bleeding and pain got too severe. When she was told by the nurse that she should have had regular check-ups, she responded that check-ups were performed during pregnancy, but she did not know that she should still have them or why they were important.

Universal health care is seen as the solution for disadvantaged people like Jelena and her family. It is assumed that anyone in need merely has to appear at a clinic to be treated. But how can this be true when there are people like Jelena dying of preventable diseases in countries where health care is both accessible and affordable? Although universal health care is a giant step in the right direction, it alone is not enough. The following four areas were deemed important to the achievement of universal health care during research conducted in partnership with the Roma population in Serbia: (i) the inclusion of equity into policy, (ii) recognition that lack of access is more than just an issue of poverty, (iii) education on the importance of preventative care and (iv) recognition that health service delivery is more than merely appearing at a clinic.

The inclusion of equity into policy is a necessary, but not a sufficient, condition for improved access to health services

Universal health care is enshrined in the Serbian constitution *(9, 10)*. Despite the government's commitment to equitable access, the Roma still suffer worse health, and are less likely to access the health system, than the general population *(11)*. Equitable policy does not necessarily translate into on-the-ground impact. Governments need to implement specific programmes that target disadvantaged groups. An example of such a programme can be found in Mexico where conditional cash transfer programmes, which provide money to poor families if they bring their children to health centres, have been very successful in increasing the number of children who receive medical attention *(12)*.

Being disadvantaged is more than just about being poor

If the health system was missing people just because they are poor, as is often depicted in the literature, then the Roma population should show a similar burden of illness and access to health services as the poorest 20%. The data, however, show that the poorest 20% of the general population is on average healthier than the Roma and that this group is also much more likely than the Roma to access health services *(11)*. The reason for this is that the Roma are not just poor, they are also disadvantaged in other ways such as their place of residence, ethnicity, occupation and educational attainment *(13)*. Jelena does not need just money, she also needs transportation to the clinic, education on the importance of cervical cancer screening and a health system in which she can be confident that her needs will be taken seriously.

People do not necessarily know when they should access health services

The health-care system assumes that people know when they should see a doctor. In reality, there are some situations in which it is obvious that medical attention is required, such as a broken arm, but the majority of situations are not so straightforward. Jelena must decide whether her child's respiratory infection is serious, or whether he merely has a prolonged cold. She must also recognize the importance of preventative measures, such as a Pap smear. People use three heuristics to decide whether something warrants a doctor's visit: (i) their own experience, (ii) the knowledge or experience of friends and family, and (iii) educational materials such as the Internet or pamphlets. A young mother may call her mother or search the Internet to find out whether her child's respiratory infection is serious enough to warrant a visit to the doctor. Another might have read in a magazine about the importance of Pap smears for the early detection of cervical cancer. Disadvantaged people such as Jelena may not have a social network they can turn to for advice. Moreover, they may not have access to the Internet or printed materials, and, even if they do, they may not be able to read the materials. Educational materials outlining when it is important to seek medical attention need to be delivered to disadvantaged populations via media that they can access and understand such as pictures, radio or television *(14)*.

Access to a health system means more than just showing up at a clinic

A universal health system is often imagined as a hospital or clinic that is free and available for anyone to use. The reality is much more complex. Jelena, for example, not only needs to physically reach the clinic, she and her child also need to have a health card. She must be able to afford user fees. The doctor must be trained to recognize acute respiratory infection as serious and know how to diagnose and treat it. The diagnostic tests and treatment must be culturally acceptable to Jelena, and she must be willing and able to administer the full course of antibiotics to her child. All these conditions must be fulfilled before we can say that Jelena and her child's health needs are met *(7)*.

Universal health care has been deemed a human right. One only needs to look at the international support for the recent health-care reform in the United States to see the importance that countries and their citizens have placed on equitable access to health services. We cannot, however, claim to have universal access if there are still sub populations, like Jelena and her family, that are not able to access health-care services effectively.

When universal health care was proposed, it was intended to reach everyone, especially the most vulnerable. The ideals behind this system are commendable, but unless we focus on the four areas identified above there is a good chance that the most vulnerable will be missed. We need to ensure that health systems target interventions at disadvantaged populations, recognize that marginalization is more than poverty, educate vulnerable people on the importance of health care and disease prevention, and recognize that health service delivery is more than just about appearing at a clinic or hospital. If we do not do this, Jelena, like thousands of other Roma, Aboriginal, Maori, Kale, Travellers and Sinti people around the world, will not be given the opportunity to enjoy the same health status as the rest of the population. That the most vulnerable people in our society are being missed disgraces us all.

References

1 Evans T, Van Lerberghe W. *World health report: primary health care now more than ever*. Geneva, World Health Organization, 2008.

2 Health Canada. ***Diabetes among aboriginal people in Canada: the evidence.*** Government of Canada report, 2000.

3 Parry G et al. ***The health status of Gypsies and Travellers in England.*** Report of Department of Health Inequalities in Health Research Initiative, Project 121/7500, 2004.

4 Australian Indigenous ***HealthInfoNet. Summary of Australian Indigenous health.*** 2009 ***(http://www.healthinfonet.ecu.edu.au/health-facts/summary,*** accessed 6 May 2010).

5 Marmot M. Achieving health equity: from root causes to fair outcomes. ***The Lancet,*** 2007, 370(9593):1153–1163.

6 *Closing the gap in a generation: health equity through action on the social determinants of health.* Final report of the Commission on Social Determinants of Health. Geneva, World Health Organization, 2008.

7 Shengelia B et al. Access, utilization, quality, and effective coverage: an integrated conceptual framework and measurement strategy. ***Social Science and Medicine,*** 2005, 61(1):97–109.

8 Hart JT. The inverse care law. ***The Lancet,*** 1971, 297(7696):405–412.

9 Simic S et al. Do we have primary health care reform? ***Health Policy***, 2010, 96(2):160-169.

10 ***Constitution of the Republic of Serbia, Article 68.*** Government of Serbia, 2002.

11 Idzerda L. ***Effective coverage of primary healthcare services for the Roma population in Serbia,*** University of Ottawa, Canada [thesis], 2010.

12 Rawlings LB, Rubio GM. Evaluating the impact of conditional cash transfer programs. ***The World Bank Research Observer,*** 2005, 20(1):29-55. DOI:10.1093/wbro/lki001.

13 Tugwell P et al. Applying clinical epidemiological methods to health equity: the equity effectiveness loop. ***British Medical Journal,*** 2006 332(7537):358–361.

14 Coulter A, Ellins J. Effectiveness of strategies for informing, educating, and involving patients. ***British Medical Journal,*** 2007, (335):24–27.

Biography

Leanne Idzerda recently completed a Master of Science in Health Systems at the University of Ottawa, School of Management. Her thesis analyses the barriers the Roma population face when trying to access health services. She also works on a variety of projects at the Centre for Global Health Research including outcome measures in rheumatology, health literacy, patient reported outcomes and the equity-oriented toolkit. In addition, she has also worked as an assistant editor for the Journal of Clinical Epidemiology. She is particularly interested in migrant populations, post-conflict development, and the building of health system infrastructure.

Priya Iyer
USA

Priya Iyer, USA

For true universal coverage:
health systems research on male partner involvement

As dusk settled around us, we began to organize medications and prescription pads, and to mobilize those in the surrounding community. Families who were gathered around their television sets peeped through their windows or stepped outside of their houses to assess the newcomers in their community. Young children raced to our mobile health clinic to ensure that they got the first glance of the doctor. Slowly, a long line of patients formed outside of the van.

I was here in the slums of Chennai, India, to help improve the operations of this mobile clinic through a qualitative study, and I soon began to notice some patterns. Many women were attending the clinic without their husbands, and they often presented sexually transmitted diseases. In addition, many women came to the clinic in place of their husbands to describe their husbands' symptoms or pick up their medication.

As one young woman completed her check-up with the doctor, I began to collect data from her through the usual series of questions. When we finished, she put her hand on my shoulder, looking into my eyes with wild desperation. Within a few minutes, she divulged to me that her husband was an alcoholic, and, with her income alone, she managed to feed her children and maintain their hut in the slum. Often, her husband would return home in a drunken stupor, abuse her and steal her meagre earnings to indulge in another bottle. She had begged her husband to come to the clinic with her multiple times, but he refused. "How can I convince him to come to the mobile clinic, so someone here can speak with him about what he's doing to us and to his body?" she asked me in Tamil. I assessed the complexity of her question. She had the right to an adequate response, but would the health system in which I worked provide her with a solution?

Across the globe, funding mechanisms for programming have often focused on empowering women and children to seek health care as an absolute means to improving health outcomes. The Obama administration's Global Health Initiative, for example, has showcased its commitment by funding maternal and child health programmes around the world *(1)*. This is crucial to improving the health outcomes of a wide range of diseases. However, where do males and male partners fall into this paradigm?

We have become numb to the data that tells us that men do not seek health care as often as women, and that men often have poorer health outcomes than women when both sexes have the same condition *(2)*. To address this we must consider the reasons why many men do not enter health-care settings and how this has adversely affected our concept of a health system. I would go so far as to say the model of empowering only women to seek health care and overlooking men has been counterproductive. How do we expect to achieve universal health-care coverage within these confines?

The health system should encourage men to take responsibility for their health and to share responsibility for the health of their children. This proposed model serves a threefold purpose: First, it can be a partial solution to addressing poor health outcomes in men. Second, it will remove the additional burden placed upon women. If the man does not attend a clinic, a woman often seeks the doctor's advice on her husband's or partner's behalf. Third, it encourages male involvement in improving outcomes throughout maternity care for both his partner and their child. I will focus on the third purpose because of the nature of my current work.

As the national HIV advisor for maternal and child health, I oversee the prevention of mother-to-child transmission (PMTCT) of HIV in Guyana. In our country, as in India and many other countries, men rarely attend antenatal clinics with their wives or partners. In 2009, only 5% of male partners were being tested for HIV through antenatal care (ANC)–PMTCT services in Guyana. Again, I was faced with a similar broad issue as in India: male involvement in maternity care.

Closing this gap could speak to a laundry list of needs to improve health decisions and outcomes, including the prevention of unintended pregnancies through better links with family planning, well-informed infant feeding choices, the early initiation of and adherence to antiretroviral treatment during pregnancy, the prevention of incident HIV infections between partners and pregnant mothers, and averted HIV infections in infants. PMTCT medication uptake in labour and delivery wards for HIV-positive women was 45% for women who did not receive couples counselling and testing, or little more than half the 87% for women who received the intervention. In addition, 11% of HIV-positive women who did not receive couples counselling and testing chose not to breastfeed, compared with 38% of those who did receive the intervention *(2)*. Scientists often write off male involvement as a "soft issue" without any evidence. However, the data shows us otherwise.

As I began to plan the formative research we would conduct to design evidence-informed interventions to address male partner involvement in PMTCT, the phrase health systems strengthening research began to seep into my day-to-day work. It popped up in meetings with the minister of health, partnership framework discussions between the ministry and United States government, and the literature that came across my desk. I had toyed with the phrase a few times, but I was still uncertain of its implications.

I wondered if it was simply another fancy phrase coined in lieu of offering a solution to improving health outcomes? How did advocates of health systems strengthening research expect funders to pour money into this area when defined metrics to measure health system impacts were non-existent? How would this concept affect the research I embarked upon as programme head? To staunch my outpouring of questions, I rummaged through a number of publications but found myself particularly glued to

Systems thinking for health systems strengthening. This publication nudged me to apply concepts of health systems strengthening research to formative research, interventions and the metrics utilized to measure their impact.

I began to realize that it was imperative to frame the problem in the context of the community as a whole, rather than that of only those who sought formal health care. If we did not consider the large proportion of male partners who did not enter clinics, we could not develop the appropriate health systems research questions that would lead to effective policy formation. It was also imperative to consider the additional burden on health workers, the additional test kits necessary, and links with care and treatment that may be necessary, among other things. In the end, male involvement would become a culture, not only in PMTCT, but in maternal and child health care as a whole. Ideally, we would even be able to measure post-intervention impacts on general maternal and child health outcomes *(4)*.

As programme heads embark upon interventions that improve male partner involvement, they must consider system-wide impacts, and not just programmatic consequences. In Guyana, this type of research is possible because the minister of health has keenly declared as a national priority engaging boys and men in sexual and reproductive health.

This shift in thinking and political and donor commitment is needed not just in Guyana but worldwide to achieve the ambitious Millennium Development Goals. Improving maternal health, the fifth goal, is particularly lagging. In India, for example, the stark reality is that the country still accounts for almost a quarter of all maternal deaths worldwide (5). The percentage of maternal deaths has barely decreased over the past 15 years in India, demonstrating the urgent need to look to alternative, evidence-informed solutions such as engaging men in maternity care.

I walk into a postnatal clinic in Guyana to meet with one of the health workers. The sticky air induces sweat drops to trickle down the faces of those in the waiting room. I see two men accompanying their children and wives to the postnatal clinic, but 10 women are in the room. The road ahead is not smooth, but we have at least found a path to achieving health care for all.

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References

1 *Implementation of the Global Health Initiative: consultation document.* Washington DC, USA. Global Health Initiative, 2010.

2 Pinkhasov RM. Are men shortchanged on health? Perspective on health care utilization and health risk behavior in men and women in the United States. International Journal of Clinical Practice, 2010, 64(4):475–487 (*http://www.medscape.com/viewarticle/717462,* accessed 15 April 2010).

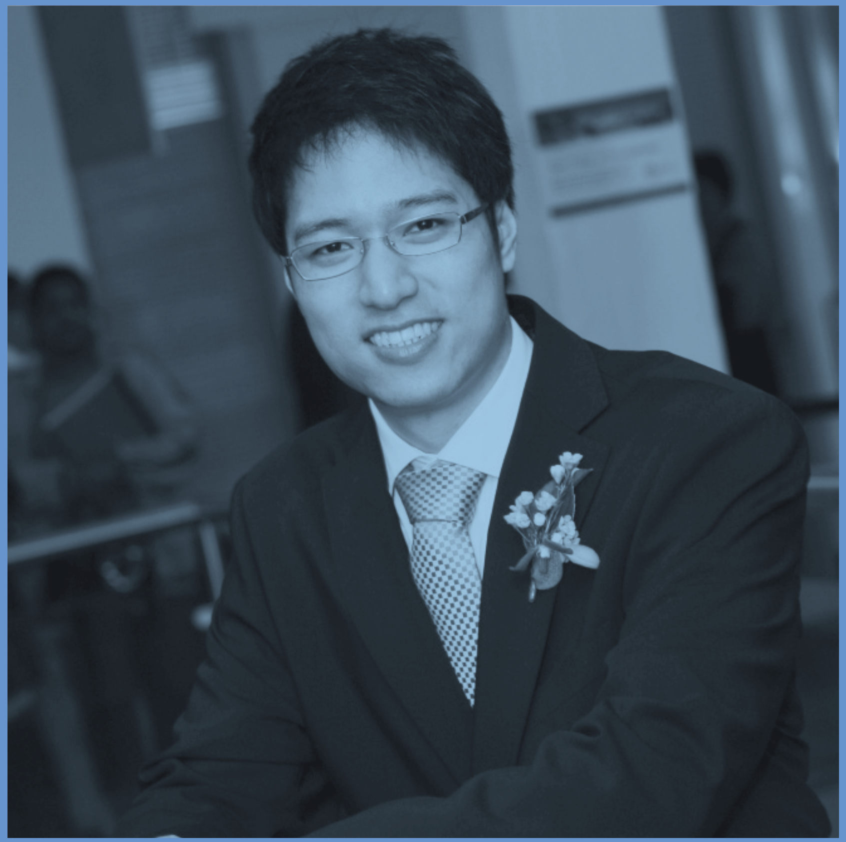
3 Farquhar C. Antenatal couple counseling increases uptake of interventions to prevent HIV-1 transmission. *Journal of Acquired Immunodeficiency Syndrome,* 2004, 37(5):1620–1626. (*http://journals.lww.com/jaids/Fulltext/2004/12150/Antenatal_Couple_Counseling_Increases_Uptake_of.16.aspx,* accessed 20 April 2010).

4 Adam T, de Savigny D, eds. Systems thinking for health systems strengthening. Alliance for Health Policy and Systems Research, 2009.

5 *AIDS + MDGs.* Africa. Joint United Nations Programme on HIV/AIDS, 2010.

Biography

Priya Iyer was born and raised in Kansas and moved to New York City to undertake study at New York University. She then later earned her Master of Public Health—Epidemiology degree at Columbia University in 2009. Both of her parents immigrated to the United States from India in the 1970s, and their commitment to their careers in health care is what prompted her interest in the field. She is currently working as the National HIV Advisor to Maternal and Child Health for the Ministry of Health in Guyana. She is particularly passionate about the intersection between epidemiology and the law, and hopes to pursue a law degree with a focus in international public health.



Henry Ko
Australia

Henry Ko, Australia

Fostering better shared decision-making in universal health coverage in the face of hype, hope and evidence

Meet Alice. Alice is a 40-year-old mother of two teenage children who has been battling breast cancer for five years. She lives in Australia, where there is universal health coverage, a subsidized pharmaceutical benefits scheme and good oncology services. Her first-line chemotherapy has failed, and now she has been advised by her oncologist to try second-line chemotherapy with a new chemotherapy drug; it's been formulated through nanotechnology that the federal government has recently subsidized for second-line treatment for breast cancer. It is reported to be better than the original formulation of the drug, but there are some controversial issues. Under the recent government decision to subsidize the use of the new formulation, the universal health coverage system will make it relatively affordable for her *(1)*. Her oncologist is also enthusiastic about this advance in nanotechnology-based chemotherapy. However, the hospital pharmacies are reluctant to stock it. The main consideration in their reluctance is that it has not been proven that the nanotechnology formulation is any more effective than the original formulation *(2)*. Pharmacies are also cautious about spending more money on a new drug that is not proven to be more effective than the original formulation. So now there is a fight between Alice, other cancer patients and oncologists, on the one hand, who want the new drug available, versus the pharmacists, who are more cautious about it. So why was this new formulation subsidized in the first place if it was not proven to be any more effective than the original formulation? Why are patients and oncologists proponents of this nanotechnology drug that has no clear advantage over the old drug? Was it the hype, people's hopes or the buried evidence? This example highlights a pitfall in the decision-making process that urgently needs to be fixed.

I argue that there is too much hype and sensationalization surrounding medical therapies, and that decision-making in a system of universal health coverage can be unwisely based on this. We urgently need better dissemination of quality evidence to guide decision-making to protect health budgets and public safety. This can be done though better industry transparency and monitoring, more evidence-based and scientifically rigorous knowledge translation to all stakeholders, strengthening the scientific literacy of the public, and empowering consumers to use medical evidence and political savvy for health-care decision-making.

Decision-making shared among the government, consumers and health-care professionals in a system of universal health-care coverage is a minefield of hype and hope interspersed with scientific and clinical evidence. Because pharmaceutical companies are attracted to having their drugs on the market thanks to government subsidies on their drugs, they may market their drugs as being more beneficial than what they really are *(3)*. There is much

hype and hope surrounding many medical therapies, especially new treatments such as the nanotechnology chemotherapy drug Alice and patients like her are lobbying hospitals to purchase. Over recent decades, pharmaceuticals and medical devices have become very profitable businesses that have relied on hype and hope, promising revolutionary treatments for everything from burns and broken bones to diabetes and cancer. Companies may market their newest treatments as groundbreaking or revolutionary without concrete evidence. These claims may be further fuelled by the popular media and word of mouth. What makes the case of Alice even more controversial is that the public has traditionally held ambiguous views about the safety of medical nanotechnologies *(4)*.

A system of universal health coverage is effective when all stakeholders – the government, health-care professionals, industry and consumers – get a say in the decisions. However, a pitfall opens when input is based on hype and poor evidence about medical treatments, which can mislead consumers. Health-care professionals, in pursuit of providing cures for their patients, can be influenced to think that a treatment is clinically effective, when it really is not, by misleading marketing or so-called "marketing-based medicine" *(3)*. For deciding whether or not to subsidize treatments based on clinical effectiveness and cost-effectiveness, there needs to be adequately trained people in the decision-making process (e.g. systematic reviewers and health economists) who have the knowledge and skills to evaluate medical therapies so that the public's safety is maintained and money is wisely spent. However, current decision-making processes are not immune from hype and poor evidence. Decision-making processes can be contaminated by processes that are not explicit or transparent, untrained people analysing the information, and the influence of strong consumer lobbying pressure to subsidize a treatment.

One solution is to disseminate quality evidence and facts more effectively. Evidence-based health care and comparative effectiveness research are increasingly being used to facilitate better decision-making in public policy, funding policy and health communications *(5, 6)*. Three main groups – academia and industry, policy-makers and regulatory bodies, and the general public – use and disseminate information. There needs to be increased interaction and information flow among these groups (6). Science communication has a central role in conveying evidence to the public and advocating for rigorous and transparent systems for ensuring that factual and "spin-free" information reaches society. In Alice's case, hope and hype overtook the facts. There was no quality evidence to prove that the new nanotechnology drug was more clinically effective than the older generic formulation *(2, 7)*. However, it was subsidized because the pharmaceutical company's report claimed it was more cost-effective than the old treatment *(1)*. Cancer patients and oncologists misguidedly lobbied health services for the new nanotechnology drug to be introduced, but very few people knew that the new drug was approved based on questionable evidence of cost-effectiveness and clinical effectiveness. This example highlights the danger of poor communication among stakeholders and poor dissemination of the information and evidence behind the claims.

For quality communication and information sharing to occur, and hopefully improved shared decision-making, there needs to be quality information. Better industry transparency and

Henry Ko, Australia

monitoring, more evidence-based knowledge translation, and a public with strengthened scientific literacy are needed. Consumers, the government and health-care providers are usually not privy to industry processes or industry-sponsored clinical trials, but this needs to change. The unpredictable real world of patients who use medicines can be very different to the relatively short-term and controlled environments of clinical trials. This is why ongoing pharmacovigilance and data sharing regarding adverse consumer events are important as methods to collect and disseminate information on medical treatments after government subsidizing has begun. This should be the responsibility not only of the government and industry, but also of consumers themselves, who should be proactive in recording their own experiences. Once more information is collected, we need to guarantee information flows to all stakeholders and ensure everyone acts on that information. Also, through the increased use of evidence-based health care, comparative effectiveness research and scientific literacy, all stakeholders should become more savvy and informed about how to cut through the hype and hope advertised for medical treatments and act upon real clinical evidence.

Consumers are a key source of information and can contribute much value to decision-making regarding health and medicine policy because many are increasingly scientifically and politically literate thanks to increased access to medical information. This is enabling informed and meaningful contributions from the public, from everyday health-care decisions to national health-care policy issues *(8)*. We should not underestimate the impact on consumers' power of the high-quality medical information that is being disseminated via government initiatives, independent consumer organizations, universities, health organizations and the popular media. Consumers' power in lobbying the government should not be underestimated in a universal health-care system. As is the case in Australia, Canada, the United Kingdom and other countries, collaboration with consumers is an important part of decision-making processes for things such as developing clinical practice guidelines, as occurs in the United Kingdom's National Institute for Health and Clinical Excellence, or reviewing subsidies for medical treatments, as occurs in the Australian Pharmaceutical Benefits Advisory Committee. Though this consultative process, patients benefit from improved safety and effectiveness and contribute valuable perspectives and information to shared decision-making processes.

So what happens to Alice? Because of the hype and hope that was falsely generated, and because the government had approved subsidizing a drug on the basis of unconvincing evidence, there is still a battle pitting patients and oncologists against hospital pharmacy departments about providing the nanotechnology drug. Even though there is no evidence of the effectiveness of the new drug, the public perception is that it is a new saviour for cancer patients. What would serve Alice and the public better would be increased dissemination of scientific information and high-quality evidence of medical therapies to all stakeholders involved in health-care decision-making, and to have greater reliance on rigorously researched information that is not biased or hyped. Alice and others like her would appreciate a universal health-care system funded by taxpayers that is based on quality evidence and clinical effectiveness rather than on poor evidence or sensationalization.

Henry Ko, Australia

References

1. *Positive Recommendations made by the PBAC – December 2008.* Pharmaceutical Benefits Advisory Committee.*(http://www.health.gov.au/internet/main/publishing.nsf/Content/pbacrec-dec08-positive,* accessed 16 May 2010).
2. Ko H, Turner T. ***Albumin-bound paclitaxel for patients with metastatic breast cancer: evidence review.*** Melbourne, Centre for Clinical Effectiveness, Southern Health, 2009.
3. Spielmans GI, Parry PI. From evidence-based medicine to marketing-based medicine: evidence from internal industry documents. ***Bioethical Inquiry,*** 2010, 7(1):13–29.
4. Besley J et al. Interpersonal discussion following citizen engagement about nanotechnology. ***Science Communication,*** 2008, 30(2):209–235.
5. Hockman M, McCormick D. Characteristics of published comparative effectiveness studies of medications. ***Journal of the American Medical Association,*** 2010, 303(10):951–958.
6. Phillips KA, Bero LA. Improving the use of information in medical effectiveness research. ***International Journal for Quality in Health Care,*** 1996, 8(1):21–30.
7. *November 2008 PBAC outcomes – 1st time Decisions not to recommend.* Pharmaceutical Benefits Advisory Committee *(http://www.health.gov.au/internet/main/publishing.nsf/Content/pbacrec-nov08-first-time-rejections,* accessed 16 May 2010).
8. Ko H. The public production and sharing of medical information: an Australian perspective. ***Journal of Science Communication,*** 2010, 1:1-10. (*http://jcom.sissa.it/archive/09/01/Jcom0901%282010%29A03/Jcom0901%282010%29A03.pdf*, accessed 16 May 2010).

Biography

Henry Ko is a researcher in evidence-based healthcare with the Centre for Clinical Effectiveness at Southern Health, Melbourne, and the National Health and Medical Research Council Clinical Trials Centre at the University of Sydney, Sydney, Australia. He has been engaged in the public communication and socio-cultural examination of health biotechnologies, and has research interests in regenerative medicine, health and biotechnology regulation, consumer engagement in healthcare decision-making, and the role of engineering and design thinking for creating innovative solutions in healthcare systems. Henry is also currently furthering his interests in health and development by undertaking studies in development economics.

Rositsa Koleva-Kolarova
Bulgaria

Rositsa Koleva-Kolarova, Bulgaria

Financing the health system in Bulgaria: who is better at providing universal health coverage and equity, Semashko or Bismarck?

Introduction

Health-systems financing differs across countries, but the issues and questions that decisions-makers and health professionals face are quite similar: How do we provide universal health coverage for all citizens? How do we ensure high quality in the delivered services given the limited resources? Do we provide equal access to everybody? And does that guarantee health equity for all?

The issues are numerous and they reveal the challenges health system financing is facing nowadays to satisfy growing demand for sophisticated and high-quality health care for the ageing population while containing expenditures and achieving cost-effectiveness. People want to know how much money is spent and on what, and who is covered and what the benefits are *(1, 2)*.

Policy- and decision-makers are held responsible for the provision of health coverage for all citizens, and they should ensure that even the most disadvantaged groups are granted equal access to all types of care *(3)*. Coverage and health equity problems are widely discussed, and many strategies and policies are being drawn up to address them. These problems are quite acute in new European Union member states and former communist countries such as Bulgaria. Bulgaria shifted from general taxation (the Semashko health-system model) to a social health insurance system (the Bismarck model) with the introduction of the Health Insurance Act in 1998. The change aimed to address issues of quality, effectiveness and access to health care *(4, 5)*.

This paper will examine the two different approaches for financing the Bulgarian health system and their implications for universal health coverage and health equity. The analysis will encompass the advantages and disadvantages of both the previous and the current system and provide data from research in the field. Therefore, the paper will provide a short description of the main sources of health systems funding and discuss the positive effects and drawbacks of each with respect to ensuring universal health coverage and equity.

Overview of the Semashko system in Bulgaria

Before 1989, the Bulgarian health system was financed through general taxation. The sources of health-care finances were general taxes, and responsibility for their pooling and allocation was shared among government agencies and the Ministry of Health. The main areas of expenditure were hospital and specialized care, and health-care

Rositsa Koleva-Kolarova, Bulgaria

providers were paid on a monthly wage *(4, 5)*. The allocation of resources was made on the basis of political decisions rather than on the real health needs of the population. The government tried to ensure that all districts were provided with enough facilities – polyclinics, regional hospitals and specialized in-patients establishments – but there were still regions that were undersupplied. Universal coverage was provided for the whole population, and all types of health care were free of charge, irrespective of the person's income *(4, 5)*.

On paper, everybody was granted equal access to health care and had the right to receive benefits according to health needs. However, in reality, equal access, especially to secondary and highly specialized care, was often impeded by the unequal geographic and regional allocation of resources. Thus, urban populations in general had better access to care than the rural inhabitants *(4, 5)*.

To gain access, patients often provided informal payments to health-care providers (6, 7). That was especially the case for specialized and hospital care, provided in big towns and the capital. Although the issue of under-the-counter payments was not recognized and discussed, their amount was steadily rising and current research reveals that this practice started in the communist years *(6, 7, 8)*.

After the fall of the communist regime in 1989, many changes took place. The health-care sector was no exception. New governments claimed that, since the communist system of central planning and financing had proven its inefficiency, it should logically be replaced by free-market, private establishments. The collapse of the socialist regime led to many crises, and market-oriented reforms were believed to be the cure.

Overview of the Bismarck system of compulsory health insurance in Bulgaria

Along with the introduction of the free market, the policy of changing the financing mechanism of the Bulgarian health system was definitely pro-western with the belief that everything that was not communist was intrinsically better. Although some researchers suggested that Bulgaria was not ready to switch from general taxation to social health insurance because of financial and regulatory shortcomings *(9)*, the political will was clear. Bulgaria was striving for European integration and bringing it in line with latest developments in European Union countries could be nothing less than beneficial.

Thus, the Semashko model was replaced by the Bismarckian health-insurance system through the Health Insurance Law passed by the Bulgarian Parliament in 1998 (4, 5). The new health insurance law states that there is to be only one health insurance agency, called the National Health Insurance Fund, collecting obligatory health insurance payments from every Bulgarian citizen and purchasing health services on behalf of them. According to the law, individuals are given the opportunity to purchase additional insurance with private health insurance funds, but this does not exempt them from making compulsory health insurance payments. Ten private health insurance funds are currently registered in Bulgaria. They offer insurance covering the full range of services, even those guaranteed by statutory provision *(4, 5)*.

Rositsa Koleva-Kolarova, Bulgaria

The social health insurance system is compulsory for every Bulgarian citizen and even for foreigners who permanently reside in the country. The monthly contribution is a percentage of income, with payment shared by employers and employees. The groups exempted from obligatory contributions are children aged 0–18, pensioners, the poor, and some socially deprived groups.

The system stipulates universal coverage and equal access to care. On paper, both vertical and horizontal equity are granted *(10)*, but in reality many people have lost their health insurance rights because of their failure to pay their monthly contributions, and the amount of informal and out-of-pocket payments made to gain access to specialized and hospital care has increased.

Discussion

Since the introduction of the health insurance system, many doubts about its effectiveness and implications for universal coverage and health equality are raised. Was the establishment of the National Health Insurance Fund as a monopoly the right choice? What would have happened if the National Health Insurance Fund had been introduced along with one or more private health insurance funds? What would have happened if the law allowed citizens to choose which health insurance fund they could purchase?

The introduction of a single health insurance agency contradicted the initial goals of the reform of moving towards a market orientation of the system and competition among providers that would bring better quality, wider access and improved efficiency. People are denied the freedom to opt-in or opt-out, as the insurer is the only one available and paying health contributions is mandatory. However, if you fail to contribute, you lose your health insurance rights, which expels you from the system. The only other option is to be engaged in voluntary health insurance schemes.

The voluntary health insurance system is not well developed in Bulgaria and, as in many European Union health systems, provides coverage for richer and better-educated or professionally placed people; it clearly presents barriers to access for older and unhealthy people. Voluntary health insurance funds in Bulgaria try to skim the cream by pooling young, healthy people with high-paid occupations and cover them for all health risks included in the compulsory scheme, thus creating a parallel health insurance system that is reserved only for the rich and the young.

So who is better at providing universal coverage and health equity in Bulgaria – Semashko or Bismarck? The literature and the observations of the author suggest that universal coverage was more achievable under Semashko. Back then, failure to contribute monthly to health insurance or to pay taxes did not expel people from the system, as is the case nowadays. However, when equal access to care is considered, both systems have their shortcomings. Under-the-counter payments from patients to gain access to specialized or hospital care were common under the Semashko model, and the share of such payments and of other out-of-pocket spending has grown even under the Bismarck system.

Rositsa Koleva-Kolarova, Bulgaria

Conclusion

It is evident that the current health insurance system in Bulgaria has many shortcomings. It indisputably has brought many benefits, but further research and evidence-based policy decisions are needed to improve coverage and equity of access to health care for all Bulgarian citizens.

References

1 Evans RE. Financing health care: taxation and the alternatives. In: Mossialos E et al. (eds). ***Funding health care: options for Europe.*** Buckingham: Open University Press, 2002.

2 Cutler DM, Zeckhauser R. The anatomy of health insurance. In: Culyer AJ, Newhouse JP, (eds). ***Handbook of health economics.*** Amsterdam: Elservier, 2000:563–643.

3 Kutzin J. A descriptive framework for country-level analysis of health-care financing arrangements. ***Health Policy,*** 2001, 56(3):171–204.

4 Koulaksazov S et al.. ***Health care systems in transition: Bulgaria. European Observatory on Health Care Systems, 2003, 3(2):1–187.***

5 Balabanova D, McKee M. Access to health care in a system transition: the case of Bulgaria. ***International Journal of Health Planning and Management,*** 2002, 17:377–395.

6 Balabanova D, McKee M. Understanding informal payments for health care: the example of Bulgaria. ***Health Policy,*** 2002, 62:243–273.

7 Balabanova D, McKee M. Reforming health care financing in Bulgaria: the population perspective. ***Social Science and Medicine,*** 2004, 58:753–765.

8 Georgieva L et al. Bulgaria: health system review. ***Health Systems in Transition,*** 2007, 9(1):1–156.

9 Pavlova M, Groot W, van Merode GG. ***Appraising the financial reform in Bulgarian public health care sector: the health insurance act of 1998***. Health Policy, 2000, 53:185–99.

10 *Terminology – a glossary of technical terms on the economics and financing of health services* (document EUR/ICP/CARE0401/CN01). Copenhagen, World Health Organization Regional Office for Europe, 1998.

Biography

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Laurence Lannes
France

Laurence Lannes, France

Rwanda et couverture de santé universelle: modèle ou miracle ?

Quand on voit les difficultés rencontrées par les États-Unis, la plus grande puissance du monde, pour assurer une vraie couverture à l'ensemble de sa population, il paraît presque ironique de se pencher sur la question de la couverture de santé universelle dans les pays en développement. S'il est si difficile de garantir l'accès aux soins à chaque individu dans le pays qui dépense le plus pour la santé, comment y parvenir dans les pays d'Afrique subsaharienne, caractérisés par la fragilité de leur système de santé et par de très faibles niveaux de dépenses publiques ? Pays riches, pays pauvres, même combat : les barrières financières à l'accès aux soins sont universelles. Leurs conséquences le sont également : inégalités concernant l'accès aux soins, l'état de santé de la population et le risque de dépenses catastrophiques.

Les pays francophones d'Afrique de l'Oouest qui, dès les années 1980, ont été les pionniers de la mise en place des mutuelles de santé communautaires, offrent-t-ils un modèle d'accès à la couverture de santé universelle pour les pays en développement ? Il semble que non, car malgré des débuts prometteurs, ces pays ne bénéficient encore aujourd'hui que d'un très faible taux de couverture.

Voilà un tableau bien sombre : pas de modèle américain, pas de modèle parmi les pionniers africains des mutuelles de santé. Et s'il fallait chercher un modèle là où on ne s'y attend pas ? Au Rwanda, par exemple ? Ce pays nous apporte en effet la preuve que des progrès rapides vers la couverture de santé universelle peuvent être réalisés.

La rwandaise

Le Rwanda est devenu aujourd'hui un modèle dans le domaine de la santé par l'ampleur et la rapidité de ses avancées en matière de financement, d'accès équitable aux soins et d'indicateurs de santé.

Bien que ses structures sociales, institutionnelles et économiques aient été détruites au cours de la guerre civile et du génocide de 1994, le Rwanda s'est rapidement relevé. En une décennie, ce pays est passé d'une des pires situations sanitaires du continent à une situation intermédiaire. Le taux de mortalité infantile est passé de 121 % en 2000 à 86 % en 2005 et à 62 % en 2008 *(1,2)*. Si le Rwanda poursuit ainsi ses efforts, il pourra atteindre l'objectif du millénaire pour le développement relatif à la santé infantile (OMD 4).

Contrairement à la population de nombreux pays africains, celle du Rwanda bénéficie d'une solide protection financière grâce aux mutuelles de santé. Ces dernières ont connu un succès spectaculaire, notamment à partir de 2006, lorsque tous les soins curatifs ont été inclus dans le paquet de bénéfices. La couverture des mutuelles de santé est ainsi passée de 7 % en 2003 à 74 % en 2006 et à plus de 85 % en 2008 *(3)*. Les plus vulnérables ne sont pas en reste, puisque des mécanismes de subventions croisées permettent la prise en charge des indigents et des personnes vivant avec le VIH. Autre fait remarquable : alors qu'avant 2006 les mutuelles étaient encore l'apanage des plus riches, deux ans plus tard elles couvraient uniformément la population (analyse quantitative effectuée par l'auteur, *4*).

Si de nombreux facteurs ont contribué à l'augmentation de la demande en soins au Rwanda, l'appartenance à une mutuelle de santé reste le facteur déterminant. Ainsi, le pourcentage de femmes ayant accouché dans un centre de santé est passé de 35 % en 2006 à 53 % en 2008. L'écart entre femmes assurées et non assurées est important : en 2008, 55% des assurées ont accouché dans un centre de santé, comparativement à seulement 40% chez les non assurées (analyse quantitative effectuée par l'auteur, *4*).
Comment expliquer un tel succès ?

La croissance très rapide des mutuelles de santé a indiscutablement contribué à améliorer la situation sanitaire de la population rwandaise. Cependant,c'est aussi – et surtout – la « vision » du gouvernement rwandais, et plus particulièrement du ministère de la Santé, qui a créé les conditions de ce succès. Cette vision repose sur trois piliers : l'accès aux soins curatifs grâce aux mutuelles de santé, l'accent sur la prévention des principales maladies grâce à la gratuité des soins préventifs et l'approche contractuelle (PBF ou Performance-Based Financing/Financement basé sur la performance) pour motiver le personnel de santé et améliorer la qualité des soins *(5)*.

Le succès rwandais s'explique par la stimulation simultanée de la demande et de l'offre de soins pour assurer à la population un meilleur accès à des soins de santé de qualité. En effet, il est peu probable que, sans incitation à le faire, le personnel de santé, dont la rémunération est très faible, aurait fourni les efforts nécessaires pour satisfaire la demande accrue en soins de santé. Cette stratégie a porté ses fruits : après deux années de mise en œuvre dans la moitié du pays, l'approche contractuelle a permis une amélioration à la fois quantitative et qualitative des services de santé offerts à la population rwandaise. Le nombre d'accouchements a ainsi augmenté de 7 % dans les structures sanitaires appliquant l'approche contractuelle *(6)*.

Une autre clé de ce succès est la décentralisation, qui a opéré le transfert des responsabilités administratives, financières et de prestation de services au niveau des districts. Elle a facilité l'appropriation par les décideurs locaux des politiques de santé décidées au niveau central et a favorisé leur suivi régulier.

Plus qu'un modèle...

Mutuelles, incitation à la performance et décentralisation représenteraient donc la recette miracle ? Malheureusement, ce n'est pas certain, car certaines raisons du succès rwandais sont à chercher ailleurs.

D'une part, la bonne gouvernance en général et celle du système de santé en particulier ont fortement contribué au succès des stratégies de financement de la santé. Grande réceptivité au changement, forte volonté politique et disponibilité des ressources sont autant de facteurs qui favorisent la réussite des réformes au Rwanda *(7)*.

Laurence Lannes, France

D'autre part, sur un continent où la corruption est endémique, le Rwanda fournit des efforts considérables pour lutter contre ce fléau. C'est en effet le pays le moins corrompu d'Afrique centrale et de l'Est *(8)* et il va sans dire qu'une même politique enregistrera des taux de réussite très différents en fonction du niveau de corruption.

Le Rwanda, c'est aussi une culture très marquée de la performance, du contrat et des résultats. Il s'y exerce une forte pression, à tous les niveaux, pour rendre des comptes et atteindre des objectifs ambitieux. L'Imihigo, par exemple, est un contrat entre le Président de la République du Rwanda et chaque Maire de District permettant de suivre la performance des districts, notamment en matière de santé. L'adhésion aux mutuelles est ainsi l'un des quinze indicateurs portant sur le secteur de la santé *(7)*.

… un idéal à poursuivre

L'expérience rwandaise est instructive à bien des égards, car elle montre que des progrès significatifs en matière de couverture universelle des soins de santé peuvent être réalisés en conjuguant les stratégies de stimulation de l'offre et de la demande de soins. Elle montre également l'importance de l'accès équitable aux soins par la mise en place de mécanismes de subventions croisées pour la prise en charge des plus vulnérables. Elle montre, enfin, les avantages liés à la décentralisation pour asseoir les réformes et assurer leur mise en œuvre effective au niveau local.

Il est probable que les résultats du Rwanda ne pourront pas être directement observés ailleurs en raison des facteurs politiques et culturels qui en font une sorte d'exception africaine, notamment en ce qui concerne la bonne gouvernance, le faible niveau de corruption et la culture de la performance.

Mais qui dit exception ne veut pas nécessairement dire miracle. Même si le modèle rwandais n'est pas universel, il permet néanmoins de voir ce qui peut être réalisé dans un environnement favorable aux réformes. S'inspirer du modèle rwandais, c'est s'engager en faveur d'une meilleure gouvernance, d'un renforcement des systèmes de santé et de la mise en œuvre effective de politiques ambitieuses. Alors, miracle, modèle ou idéal, peu importe, ce qui compte, c'est que l'expérience rwandaise soit une source d'inspiration et d'espoir pour nombre de pays en développement.

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References

1 National Institute of Statistics of Rwanda/Institut National de la Statistique du Rwanda. *Demographic and health survey 2005.* Kigali, 2006.

2 National Institute of Statistics of Rwanda/Institut National de la Statistique du Rwanda. *Interim demographic and health survey 2007-2008.* Kigali, 2009.

3 Rwanda Ministry of Health/ministère de la Santé du Rwanda. *Ministry of Health Annual Report 2008.* Kigali, 2009.

4 The World Bank/La Banque Mondiale. PBF Impact evaluation database, 2010.

5 Kayonga C. Event summary notes – Towards universal health coverage in Rwanda. Washington, D.C., Brookings Institution, 2007.

6 Basinga P et al. Paying primary health care centers for performance in Rwanda. Washington, D.C., The World Bank, 2010.

7 Brinkerhoff D, Fort C, Stratton S. *Good governance and health: assessing progress in Rwanda.* USAID (Agence américaine pour le développement international), 2009.

8 Transparency International/Transparence International. Corruption perceptions index 2009 -regional highlights: Sub-Saharan Africa, 2009.

Biography

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Li Qian
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Progress and challenges of universal health-care coverage in China

No real progress toward universal health-care coverage can be achieved in China without increasing coverage for its vast rural population. In the 1950s, China initiated its rural cooperative health scheme, which developed dramatically and reached a peak in 1978, providing insurance coverage to nearly 90% of the rural population *(1)*. The scheme quickly collapsed in the 1980s, however, as the dismantling of China's rural collective economy amputated its sources of funding. Insurance coverage plunged to 5% in 1985 *(1)*. Since 2003, the Chinese government has reprioritized its efforts in rural health and invested heavily in establishing the new rural cooperative medical insurance (NRCMI). Significant progress has been made over a fairly short period, with coverage standing at over 94% in 2009 *(2)*.

In addition to this important step toward universal coverage in China, coverage for urban residents has also been significantly increased and enhanced. Three major forms of insurance provide health coverage for urban residents: (i) urban employee basic medical insurance (UEBMI), which provides coverage to formally employed urban residents, (ii) free medical care (FMC), a legacy plan that used to cover most urban residents but is now mainly for civil servants and other quasigovernmental workers, and (iii) urban resident basic medical insurance (URBMI), newly established in 2007 and covering urban children, seniors and other people without formal employment. The three urban insurance systems combined had extended coverage to 71.9% of urban residents by 2008 *(3)*.

China also has a medical assistance scheme that provides certain coverage to the poor and weak in both urban and rural areas. Although commercial insurers are becoming more active, they essentially provide additional benefits on top of the government plans. Full-service commercial plans are uncommon.

Clearly, China has made impressive progress in almost achieving universal coverage over a short period. The efforts for its rural population are particularly admirable. However, there are still significant challenges to achieving genuine universal coverage in China.

Firstly, one important purpose of universal coverage is to improve the equitability of access to health care. Despite the process in increasing rural coverage, the urban-rural gap in access to care remains wide, if not further widened. The amount of insurance protection between UEBMI and NRCMI is strikingly different. For instance, the annual reimbursement cap in Bejing from UEBMI is 300 000 yuan (US$ 44 360), while the annual cap for most NRCMI is generally lower than 40 000 yuan. With this variation in financing, it is no wonder the benefits of medical services, technologies and drugs covered by the two programmes are significantly different.

Secondly, even if China further closes the gap in insurance protection and benefits, rural areas are plagued by the problem of much lower health service capacity, even for primary health care, due to the skewed distribution of human resources for health. This skewed distribution is reflected not only in the number of health workers per 1000 in population (6.2 in urban areas versus 2.6 in rural) but also by their quality, as indicated by their educational attainment, with 42.8% of urban doctors possessing undergraduate degrees or higher but only 12.9% of rural doctors *(4)*. Although facilities in villages and rural townships have greatly improved with much-enhanced investment from the government, it has been widely reported that much of the equipment and technology provided are not fully utilized for lack of qualified health workers. Significant errors in diagnosis and treatment in China's rural areas have been frequently reported.

Thirdly, another rural challenge is to enable health coverage for China's migrant workers. Although data are difficult to get, it is believed that the number of migrant workers in China is more than 100 million, most of whom migrate from rural areas to cities as temporary workers. They are the gears of China's economic engine but have long been denied any social benefits including health coverage. Very little has been done to provide health protection to this large floating population. Even if migrant workers have NRCMI coverage in their home area, the programme is largely not portable. The fluidity of this population will make it challenging to find an effective mechanism to manage their coverage, even if the political commitment and economic means materialize.

What is more, the efficiency of China's universal coverage is also in question. Government plans have evolved into a complex system that is neither coherent nor coordinated. The Ministry of Labour and Social Security and its provincial and local departments manage UEBMI and the URBMI. The Ministry of Health and its provincial and local departments control NRCMI and, in many cases, also manage free medical care. The medical assistance scheme is managed by the Ministry of Civil affairs. To make things worse, UEBMI programmes in different provinces and cities differ significantly from one another in premiums, benefits and reimbursement procedures. UEBMI in different administrative regions can be understood as de facto different plans. The administrative cost due to this unnecessary bureaucratic structure is likely to have contributed to rising health-care costs, as hospitals have to have different systems supported by real resource inputs to manage this great variety of government insurance plans. All plans organize their own purchasing of drugs, which has made pharmaceutical companies spend enormous resources on attending to the so-called "group purchase of drugs" at many places. At the same time, the two ministries, health and social security, have long been known to compete with each other over the control of insurance plans. It is hotly debated whether the Ministry of Health is an appropriate agency to manage NRCMI, as it also manages, controls and, to some extent, owns the rural health-care delivery system. The question is how the Ministry of Health can represent both the providers of care on the supply side and the recipients of care on the demand side. Changes have been seen in some provinces such as Ningxia, where the control of NRCMI was transferred to the Social Security Department earlier this year. But the controversy is far from over.

Last but not the least, it is questionable that the current pace of the development of universal coverage in China is sustainable. Over the past several decades, unprecedented economic development has taken place in China, and the government's input in financing universal coverage has been greatly strengthened, as suggested by recent progress toward NRCMI, the significant enhancement of UEBMI and the addition of URBMI. The big question is whether the government will continue to maintain flexibility with such huge financing. Will China's economy be able to keep up with this development? Will beneficiaries be satisfied with the ever-increasing need for better coverage? Sooner rather than later, China will need to work on alternative ways of financing its multiple state health plans.

Researchers in universities are paying increasing attention to addressing the challenges of universal coverage in China. However, the quality of the research has not been on a par with international norms. Most research is descriptive, providing weak evidence for decision-making. It is clear that all the challenges mentioned above will require much more evidence and innovation in search of solutions. Researchers in China – particularly young researchers – must think out of the box and develop strong experiments with scientific evaluation. Universal health-care coverage in China still provides both challenges and opportunities for researchers dedicated to this area.

References

1 Liu XZ, Cao HJ. China's cooperative medical system: its historical transformations and the trend of development. *Journal of Public Health Policy*, 1992, 13:501–511.

2 *Bulletin about China health.* Beijing, Ministry of Health, 2009.

3 *Analysis report of national health services survey in China, 2008.* Beijing, Center for Health Statistics and Information, Ministry of Health, 2009.

4 Sudhir A et al. China's human resources for health: quantity, quality, and distribution. *Lancet,* 2008, 372(9651):1774–1781.

Biography

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Long Qian
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Paying for maternal health care in rural China: how affordable to the poor?

On a cloudy day in December, Chen, a township doctor, agreed to take me to a woman's home for postnatal care. When we arrived there, a little girl was sitting in front of the door and doing her homework. The cold wind made her face red. The little girl stood up and told her mother that we had come. The room was dark. A baby was sleeping while the mother sobbed in the bed. I felt very troubled. Chen told me her story on our way back to the township hospital. One year ago, she had an unplanned pregnancy that was not authorized by local family planning office, in line with the one-child policy. But she and her husband decided to have the baby anyway. She suffered a complication during the delivery at the township hospital and was transferred to the county maternal hospital for a caesarean delivery. There, she and her baby were saved. However, she and her husband fell deeply into debt because of the substantial expenditure for the delivery. Her husband had to work longer hours now and even started to complain to her.

"She is very poor," Chen said. "This is not the first time that I saw her crying. It is so cold today, but the older daughter does her homework outside to save a little electricity. But she is lucky. At least, she and her baby survived."

Lucky? A description by Ronsmans came to mind: Maternal death in the 21st century is a "problem essentially only for the poor and one virtually eliminated for people with the means and status to access health care" *(1)*. It highlighted socioeconomic disparities in access to maternal health care, especially lifesaving care, resulting in inequality in maternal mortality. I believe this tragedy continues.

Maternal health is more than survival, though the maternal mortality rate was chosen as the outcome indicator to monitor progress towards the Millennium Development Goal. Good maternal health is important to the welfare of entire households and especially to children, who rely on their mother´s care and emotional support. When that mother looks at her baby with such sad eyes, can we say we are moving closer to achieving the goal?

I and colleagues made an analysis based on data on births occurring from 1998 to 2007 recorded in two cross-sectional national household health services surveys conducted in 2003 and 2008. In 1998–2007, total expenditure per facility-based delivery increased by 152% in rural China. In 2007, the out-of-pocket expenditure of low-income rural households per facility-based delivery was 13% of the mean annual household income. For low-income women who have a caesarean delivery, the burden was even higher, with a third of the mean annual household income spent on delivery. This constitutes a great risk for families suffering poverty induced by health-care costs. In addition, there are many costs for prenatal and postnatal care and lots of hidden costs including

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transportation, lodging, food and time for women and their accompanying family members. Looking at these numbers always reminds me of a mother's shocking sobs and her daughter with a frozen red face.

Difficult and costly access to health care is not a new issue in China, especially in rural areas. The root cause may be the current health-financing mechanism. The cooperative medical system (CMS) was a rural health insurance scheme financed by commune welfare funds, but it collapsed following rural economic reform in 1979, which changed the collective system for the household responsibility system. This left 90% of the rural population without insurance coverage *(2)*. The central government took a series of initiatives to re-establish the CMS in the late 1980s that failed because of insufficient government financing *(3)*. When health-system reforms were launched in the 1980s, the government allocation to health care dramatically shrank to a mere 10% *(4)*. The financing gap had to be filled by user fees, and maternal health care is no exception. In 2002, fee-for-services income accounted for 82% of the total revenue of maternal health institutions in rural China *(5)*.

The decentralization of health institution management and profit-related bonus payments for health-care providers have catalyzed medical cost inflation. The unit price of basic health-care services is still strictly controlled, but the quantity of service provision and the price of high-technology investigations and treatments are not effectively controlled. The administratively controlled pricing of medical services gives providers strong incentives to provide more procedures, especially more profitable high-technology procedures. Harris's study in rural China reported that the frequent use of ultrasound tests for prenatal care was to generate more revenue for the salaries and pensions of hospital staff *(6)*. It has also been argued that providers' profit-seeking behaviour fuels the epidemic of caesarean delivery in rural China *(7)*. As childbirth is such an important event, women may adhere to all doctors' suggestions even though they will be left debt-ridden.

To protect rural populations from medically induced impoverishment, the new cooperative medical system (NCMS), was introduced in 2003. This rural health insurance operates on a voluntary basis and uses funds pooled from central and local governments and individual contributions. The county government can decide the contents, coverage and model of reimbursement to suit local conditions, but the Ministry of Health develops overall strategies and policies. In 2008, 92% of the rural population was enrolled in the NCMS *(8)*.

The NCMS has a maternity benefit package that varies in its design and implementation across counties. Usually, the package provides reimbursement for facility-based delivery, either as a fixed proportion of expenditures or a fixed amount. Reimbursement may be the same or different for vaginal and caesarean delivery.

Only a few counties have included part of prenatal care in the package of the NCMS. Does the NCMS make maternal health care affordable to the rural women? I am afraid that the answer is no. Our study found a marked increase in total and out-of-pocket expenditures per facility-based delivery in rural areas during the period when the NCMS was launched. Similar results have been reported in a study of urban China, finding that the use of expensive care increased after the introduction of a health insurance scheme, resulting in an increase in out-of-pocket expenditures *(9)*. As providers' profit-seeking behaviour interacts with health insurance, it is not surprising that the NCMS increases the cost to women rather than protects them from catastrophic payments.

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Another concern is that an unauthorized pregnancy cannot draw benefits from the maternity benefit package in the NCMS, which reflects a dilemma facing maternal policy. I joined a population-based cross-sectional survey in two rural counties in western China in 2008, and unauthorized pregnancies accounted for one third of the total, half of them to low-income families. Those families face double financial pressure: considerable cost for maternal health care and a substantial fine for an unauthorized birth, which may induce some of them not to seek care. Others suffer long-term social and economic consequences.

Guided by a people-centred principle, the Chinese government has committed to increasing government funding for health care. It aims to achieve universal access to basic health care with maternal health care as one of the targets. New money will be injected to build the capacity of the public health system and improve the basic medical security system, including urban and rural health insurance systems and a financial assistance scheme for poor people.

The challenge is how to transform increased investment into efficient health-care delivery? Translating knowledge and evidence generated from health-system research into policy and practice is crucial. How many systems should we have? Some researchers proposed a case-payment method instead of fee-for-services payment to avoid provider-induced services that are not medically necessary. How it would work remains to be seen. I also doubt how effective the NCMS scheme is, which is not based on evidence, in providing financial protection to women. The experience of effective payment for care is still limited. Great efforts should be made to fill the knowledge gap and build a bridge for conveying knowledge into practice.

I saw a highlighted sentence in a newspaper: "The one-child policy is not immutable". Since 1994, the orientation of Chinese family planning has shifted from a focus on birth control to a focus on integrated birth planning, aiming for high-quality and safe reproductive health care, poverty alleviation and economic development. I believe that the current policy dilemma can be negotiated and solved. From the perspective of cost-effectiveness, the integration of family planning with maternal health care could be a good option. Of course, this must be based on evidence, too.

Once, I visited a good friend and saw her hold her baby and sing lullabies. How peaceful! I told her that not every mother could enjoy this happiness. She smiled and replied, "You are working on it, are you not?" I looked at her and kept her words in my mind.

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References

1 Ronsmans C, Graham WJ. Maternal mortality: who, when, where, and why. ***Lancet,*** 2006, 368(9542):1189–1200.

2 Wang Y. Development of the new rural cooperative medical system in China. ***China & World Economy,*** 2007, 15(4):66–77.

3 Feng X et al. Cooperative medical schemes in contemporary rural China. ***Social Science & Medicine,*** 1995, 41(8):1111–1118.

4 Yip W, Hsiao WC. The Chinese health system at a crossroads. ***Health Affairs,*** 2008, 27(2):460–468.

5 Guo Y, Zakus D, Liang H. China: policy and practice of MCH since the early 1990s. ***Maternal China Health Journal ,*** 2008, 12(2):139–148.

6 Harris A et al. Consequences of birth policies and practices in post-reform China. ***Reproductive Health Matters,*** 2007, 15(30):114-124.

7 Bogg L et al. Dramatic increase in Caesarean deliveries in the midst of health reforms in rural China. ***Social Science & Medicine,*** 2010, 70:1544–1549.

8 ***Summary of health statistics in 2009.*** Beijing, Ministry of Health, 2009 ***(http://www.moh.gov.cn/publicfiles/business/htmlfiles/zwgkzt/ptjty/digest2009/T7/sheet002.htm).***

9 Wagstaff A, Lindelow M. Can insurance increase financial risk? The curious case of health insurance in China. ***Journal of Health Economics,*** 2008, 27(4):990–1005.

Biography

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Inez Mikkelsen-Lopez
Australia

Inez Mikkelsen-Lopez, Australia

Is universal coverage the right goal?

Universal coverage is often held up as the pinnacle of achievement for a country's health system. It was defined by the Commission on the Social Determinants of Health assembled by the World Health Organization as "a situation where the whole population of a country has access to good quality services according to needs and preferences, regardless of income level, social status, or residency" *(1)*.

Yet access to health services does not necessarily translate into use and benefit. Efforts to improve universal coverage have usually been based on extending insurance schemes to cover the population against large health expenditures or expanding health infrastructure and supplies. While focusing on inputs is important, it does not indicate whether they are being used appropriately or have actually improved the performance of the health-care system *(2)*. For example, a country could purchase enough essential medication to cover the population yet still experience stock-outs. This could occur for numerous reasons including problems with the procurement-and-supply chain, weaknesses in forecasting abilities and methods, and possible leakage of drugs. The implications are that patients may have to turn to the private sector, where drugs and services are likely to cost more. Or, worse, patients may decide to go without the health service.

This has two major consequences. Firstly, it can depress public health overall if people cannot get the medication or care they need. Secondly, it can further marginalize the poorest segments of the population and thus have serious equity implications. To be effective stewards of the health system, decision-makers need to measure the performance of the health system routinely to see if essential services are actually being delivered and properly used. Although universal coverage is the subject of this year's essay competition, its limited capacity to assess usage may lead one to ask how useful a concept it really is? I would argue that the goal of health systems should be to achieve fully effective coverage rather than universal coverage.

Effective coverage extends the concept of universal coverage to include the concept of need (both perceived and true), quality (including that of provider) and utilization *(3)*. It thus provides guidance on whether people who need a service are actually receiving it and likely to benefit from it. Effective coverage has been applied by Lozano et al. *(4)* in Mexico to benchmark the performance of the various states in Mexico's decentralized health system. Benchmarking encouraged decision-makers to focus more on the quality of services provided instead of simply striving for universal coverage. The results illustrated that there were variations in effective coverage among states with similar resources, suggesting that some states were performing more efficiently than others. Decision-makers at the state level therefore became accountable to the central government and their populations.

Effective coverage could be further improved by a better understanding of governance weaknesses in a health system. Governance is usually improved by strengthening the transparency of information, encouraging participation from the public and being responsive to their demands, holding decision-makers accountable, and building good system designs. Improving governance in a health system could be expected to lead to improved effective coverage, as health systems would be better able to respond to the demands of their populations, those managing them would be able to make evidence-based decisions using transparent information about need, and nonperforming health officials could be held accountable – all of which would improve the quality of service and, most likely, increase utilization.

Returning to the earlier example, if decision-makers purchased enough drug supplies to cover the population at risk of a particular disease and designed a system so that, in theory, the population would receive these drugs at little or no cost, they might believe that they have come close to achieving full universal coverage. Yet full effective coverage would be achieved only if all the people who needed the drug took the drug and the drugs were effective. A stock-out of an essential drug at the distribution point, such as a health facility or local dispensary, would tend to reduce effective coverage because services that were needed and most probably demanded were unavailable. Utilization would be reduced as only people with means could afford to purchase supplies from the private sector. A stock-out occurring where there are sufficient resources in terms of medicines entering the country is a clear indication of weaknesses in governance in the health system. This suggests that the system design is flawed and possibly that accountability mechanisms are weak if no one is held to account and sanctioned.

In my opinion, stock-outs could be avoided by implementing a few changes. For example, most health systems produce data on the number of patients seen at health facilities and the quantity of drugs received at the facility and distributed to those patients, yet few systems require that these statistics be converted into managerial information by reconciling them for internal consistency. Reconciling the data could inform policy-makers about whether drugs were leaking out of the system and where these leakages occurred. Responding vigorously to stock-outs would demonstrate to health workers that their vigilance in recording accurate health statistics was being acted upon, providing further encouragement to continue recording data as accurately as possible. Improving transparency by allowing public access to information on stock levels and posting official fees at health centres would also aid in informing the public of the situation regarding stocks and their rights to free health care. To improve participation and use, the government could set up community health boards and ensure that they had sufficient resources to conduct campaigns, the capacity to forecast demand in supplies, and the mandate to hold potentially corrupt health-care staff accountable.

In the current economic situation, with some donors scaling back their aid commitments, countries face even greater pressures to ensure that resources are well allocated among legitimate competing demands. Decision-makers need to know whether investments are being used efficiently to produce better health outcomes. Expanding the coverage of insurance, hiring and training more staff, building new facilities and purchasing additional

Inez Mikkelsen-Lopez, Australia

supplies are all resource intensive. Paying staff who are frequently absent from work, or subsidizing essential drugs that do not end up at public facilities, cause substantial inefficiencies and health losses. This is of particular importance to developing countries, which usually have weaker health systems and have to deal with heavy disease burdens with limited funds. Good governance takes into account the complexities and realities of health systems in developing countries and, together with systems thinking *(5)*, improves the effectiveness of appropriate interventions and policies.

Is universal coverage the right goal? Probably not. Universal coverage is a normative concept and does not indicate whether services are being used by all who need them to produce health gains, and it provides little guidance about what defines "quality" in terms of service delivery. Its biggest shortcoming, however, is that it provides insufficient guidance in terms of how stewards should evaluate their health systems' performance. Effective coverage is likely to be a more useful concept for decision-makers, and it has been demonstrated to be a practical tool for measuring how well a health system actually performs.

In summary, the role of decision-makers should be more than simply ensuring that services are physically and financially available. Rather, through good governance, stewards of the health system can ensure that benefits are felt throughout society, especially by those who are most in need.

References

1 Knowledge Network on Health Systems. ***Challenging inequity through health systems,*** final report. Geneva, World Health Organization Commission on Social Determinants of Health, 2007.

2 Lewis M, Pettersson G. ***Governance in health care delivery: raising performance,*** draft report. Washington, World Bank, 2009.

3 Shengelia B et al. Access, utilization, quality, and effective coverage: an integrated conceptual framework and measurement strategy. ***Social Science and Medicine,*** 2005, 61:97–109.

4 Lozano R et al. Benchmarking of performance of Mexican states with effective coverage. ***Lancet,*** 2006, 368:1729–41

5 de Savigny D, Adam T (eds). ***System thinking for health systems strengthening.*** Geneva, Alliance for Health Policy and Systems Research, 2009.

Biography

Inez Mikkelsen-Lopez is currently pursuing a PhD in health systems at the Swiss Tropical and Public Health Institute in Basel. Her research centres on constructing and evaluating a framework to assess health system governance in a low-income country with the aim of illuminating areas of health system weaknesses, so that future governance-level interventions can be designed and applied. Prior to starting her PhD, she graduated with a Master in Health Economics from the University of Queensland in Brisbane, and entered the Junior Professional Associate Program at the World Bank. Her ambition is to contribute to knowledge on health systems development with the goal of addressing the issues of inequity and inefficiencies.

Job Siekei Mogire
Kenya

Job Siekei Mogire, Kenya

Do something!

"Daktari, habari ya asubuhi (Doctor, good morning)," the matron greets me pleasantly as she hurries on. *"Mzuri sana!* (Excellent)," I answer lightly.

After a few metres, she suddenly stops and turns around to face me. *"Daktari*, our oxygen supply has run out," she says. "And the anaesthetist is not showing up today. She's sick."

"Thank you for informing me, Matron." She is an asset – industrious and innovative, a joy to work with.

I surreptitiously stifle a yawn as I make my way to the small, unfurnished doctor's office at the end of the dimly lit corridor. I am unquestionably fatigued. My head thumps like a wild blacksmith's workshop. I can't see properly, my eyelids are heavy, and I feel a little drowsy.

Two doctors resigned earlier this month, leaving me as the only medical officer in this hospital. I have been on three weeks' duty back to back, night and day. This morning I overslept and could not beat the downtown traffic gridlock in time for the morning report. Yet, the bus I was on followed a siren-blaring ambulance most of the way.

It is 08:23, and the outpatient waiting room is already packed with patients. Some more still trickle in. With austere patience and unrelenting hope, they sit there waiting to be served. The creaking of the waiting benches and door hinges, the clatter of the modest surgical equipment, the moans and groans of patients nursing pain, the conversational overtones all blend to fill the overcrowded waiting bay with a cacophonous symphony. Meanwhile, the staffers busy themselves performing their heroic duties to alleviate the trauma rolling in through the door.

Despite the wearying haze all around me, I calmly enter the emergency room sporting an energetic demeanour. Right on my heels, an accident victim is wheeled in on a makeshift wooden stretcher. She is bruised and bleeding profusely from an extensive scalp laceration. Her pink blouse is blood-soaked, her jeans skirt torn and her right knee severely bruised.

Her little daughter clamours towards me, *"Daktari*, my mum's dying!"

She looks six or seven, welling tears, so fervent that for a moment she distracts me.

"Do something, *Daktari*!" she says, fiercely tugging at my white dustcoat as I grab some gauzes to apply just enough pressure to keep her mother's blood from spurting everywhere and her now precarious life from escaping through the gaping laceration to oblivion.

I need to suture the wound but there are no sterile gloves. Patients have to buy these for themselves from the suppliers across the road. So, the husband runs for some. He returns in an instant, having bought a pair of low-priced, low-quality surgical gloves. Regrettably, the right-hand glove gets torn as I put it on. He eagerly runs for another pair and a bottle of mannitol, too. He still has to go for more fluids, photocopy a head-injury chart, and buy some analgesics and antibiotics.

Job Siekei Mogire, Kenya

The matron rushes in anxiously. *"Daktari,* I am told a grisly accident along Suneka Road has resulted in three deaths and several injuries."

"Oh, no," I mumble to myself and carry on with my subroutine. So, here is yet another day.

It is 14:24. I am just finishing up suturing my 18th patient. Five more are still waiting, and so is my round of the inpatient ward.

I straighten myself up. "Please prepare the next patient," I request the nurse.

"Gosh! *Daktari*, you look so exhausted," she remarks tenderly. I smile back, yawning feebly. My stomach rumbles hungrily. I can hardly hold myself up. Nevertheless, I still have to hang on.

As I persist in my thankless task, my mind wanders for a moment to contemplate the challenges facing my colleagues and I as we struggle to offer services to this poor population. The district hospital serves over 400 000 people and is also designated to receive referrals from rural health centres *(1)*. This is a population experiencing a growing burden of disease and disability, exacerbated by the HIV/AIDS epidemic and its comorbidities, malnutrition, and respiratory and diarrhoeal diseases. It is a largely poor and uninsured population, heavily reliant on out-of-pocket health-care financing. Consequently, cost remains a major barrier to access.

Nonetheless, the hospital is ill furnished for patient care. It is supply-deficient with a severely under-stocked pharmacy, an erratically functional theatre, and a grounded ambulance. Despite frequent power blackouts, the hospital has no generator. There is no reliable water supply either. The few pieces of equipment are poorly maintained. For example, the X-ray, anaesthesia machines and oxygen concentrators have broken down, and there is no ready way to repair them.

Records indicate that 68% of the patients served in this hospital can be effectively cared for by elementary outpatient treatments *(2)*. However, the delivery of these life-saving interventions is hindered by the persistent insufficiency of basic renewable supplies. The majority of the referrals made to the provincial hospital are attributable to these inadequacies. Paradoxically, the referrals delay access and aggravate costs without improving the quality of care. Mortalities from easily manageable medical conditions continue to occur.

In Kenya, this hospital is no exception. A recent evaluation of 24 district hospitals serving over 12 million people in western Kenya reaffirmed consistent insufficiency in

Job Siekei Mogire, Kenya

crucial service-delivery facilities *(2)*. In this setting, the delivery of basic care is severely constrained, especially by an inadequate workforce and infrastructure. Poor governance and lack of accountability in the management of resources has hindered progress even where resources are made available. A large number of patients do not access the care they deserve.

Staff shortages are glaring and morale dwindling. Moreover, health-care workers' welfare is mostly neglected; my workload is unacceptable, remuneration deplorable and working conditions depressing, with disturbing occupational exposure to infectious disease. Nevertheless, richer countries unaccountably continue to absorb health workers from poor nations without recompense *(3)*.

Since district-level services provide the majority of service contacts in Kenya *(4)*, a district focus is essential to improving the quality, equity and accessibility of care. Health workers, not politicians, should be empowered to lead the requisite health-system reforms. The primary aim is to provide relevant, accessible services at the point of need. The priority-setting process should therefore be devolved to the district level. District health management should be systematically strengthened to respond to local needs based on disease-burden measures, cost-effectiveness and capacity considerations. Otherwise, striking a balance between finite resource limits and supply pressures on the one hand, and stakeholder interests and needs on the other, will be elusive.

We have to optimize the use of the available resources. Ongoing operations research is a useful tool for balancing needs and resources. With a little more astute planning and partnerships, we can envision and build a health system for all that is still personal to each, focused on prevention as much as on cure, and genuinely geared towards putting real control into the hands of providers and users. Such a system would boost equitable health care for all and liberate users from cost-constrained access to care. We ought to deliberately embrace demand-side resource allocation, mend what is broken, start small in our efforts to scale up, build on what exists and systematically encourage sustainable partnerships with all relevant sectors and stakeholders.

We must equip and empower the health facilities, assess specific needs and designate budgetary allocations to address them. We can provide reliable electricity and water supplies to health centres and district hospitals, and ensure the timely delivery of supplies. We can give district hospitals more autonomous control of the district budget to meet local needs. This will increase the amount of health resources reaching the point of care from the current 40% to over 70% and promote the equitable distribution of national allocations *(5)*. The need to equip existing facilities is greater than that of building new ones, since most of the existing facilities function suboptimally. Each district hospital requires a functional ambulance.

From what we have learned, we can develop a needs-based strategy for recruiting and deploying public health human resources to rationalize the distribution of personnel in the health ministries. We can reward, attract and retain good talent. I am a medical doctor, solemnly dedicated to utmost respect for and service to humanity, to preserve health and relieve suffering. I do not want to emigrate; I love my country and my job, too. I am prepared to attend to patients. However, currently I am overworked, undersupplied and gradually wearing out. I require appropriate resources, a reasonable workload, decent remuneration and meaningful professional development opportunities. I have no doubt my colleagues feel the same way, too.

Job Siekei Mogire, Kenya

"Daktari, mama's face is still swollen!" the young girl says, suddenly regaining my attention. "Do something!" she implores gracefully. Her father's earnest expectancy invigorates me.

Health care is not a privilege to be purchased but a moral right to be secured for all *(3)*. Therefore, the patients we attend to deserve equitable care, notwithstanding their ability to pay. It is our collective solemn obligation to ensure that comes about. These suggestions are only a beginning, because we have to start somewhere.

It is 20:55. I have been in the midst of this traffic pandemonium an hour now. The problem persists and is getting worse. We must DO SOMETHING!

References

1 Ndavi PM, Ogola S, Kizito PM, Johnson K. ***Decentralizing Kenya's health management system: an evaluation,*** working paper No. 1. Nairobi, Macro International Incorporation, 2009.

2 Mogire JS et al. ***It's broken, mend it before scaling up: severe emergency care facility inadequacies in a resource-limited setting.*** Conference abstract of the First Global Symposium on Health Systems Research, Geneva, 2010.

3 ***The world health report 2008: primary health care (now more than ever).*** Geneva, World Health Organization, 2009 (***http://www.who.int/whr/2008/en/index.html,*** accessed 19 February 2010).

4 Nyanjom O. ***Inequality in Kenya's health sector.*** Nairobi, Regal Press Kenya, 2006.

5 Opon C. ***Towards an integrated decentralization policy in Kenya.*** Nairobi, ActionAid International Kenya, African Research and Resource Forum, Social Sector Division, 2007.

Biography

Job Mogire is a young medical officer currently working in Kenya. He graduated from Moi University following extensive community-based education and service under an innovative medical education curriculum, entailing early clinical exposure to the practice of medicine in the Kenyan public health sector. He is a global health enthusiast and an avid reader and writer who is interested in operations research, health policy, and global health and systems research. He is a health rights activist who focuses on access to health services for all, ability to pay notwithstanding. He intends to enrol in a MPH in the near future.

Aftab Akbar Ali Mukhi
Pakistan

Aftab Akbar Ali Mukhi, Pakistan

A BASIC approach to universal health coverage

Introduction

Ever since the World Health Organization envisioned Health for All at Alma-Ata in 1978 *(1)*, there have been numerous ideas and propositions put forward by academia, professionals and political powers about how to achieve this feat. There have been debates about modes of insurance *(2)*, vertical versus horizontal health interventions, collaboration between different actors involved in the process of health-care delivery and much more. But, in light of my own experiences in a developing country setting like Pakistan and of being educated in a developed country setting in the United Kingdom, I would like to propose a BASIC approach that incorporates five principle strategies that address the five underlying issues that have hindered our progress towards attaining universal health care around the globe.

The BASIC approach

Let me first state that BASIC is an acronym that gives us the fundamental components of the approach:

- B is for brain retention
- A is for accountability
- S is for sharing knowledge, resources and expertise
- I is for an integrated approach to development
- C is for community participation and active involvement.

I believe that, if any health-care system could integrate all these elements into its ideology and dynamics of its health provision, the dream of universal health coverage that has so far proved to be distant and unachievable could become a real possibility.

Brain retention

Let us talk about the first element of this approach, which is brain retention. The counter phenomenon of brain drain has proved to be a real barrier to the development of quality health infrastructure and for laying down the foundation for strengthening health systems in impoverished settings *(3)*. Industrialized countries like Britain were among the first to suffer by virtue of the migration of their health-care workforce to North America after the Second World War; but then the same developed nations used doctors and nurses trained in developing countries as new blood to maintain the life of their own systems, thereby putting the health systems in those poorer nations on life support, struggling to survive and function *(4)*. One could argue that, in the context of a globalized world, this is rather inevitable, but cannot these richer countries help develop a conducive and productive environment in those poorer countries from which they recruit trained health professionals, to eliminate the impetus for these health professionals to migrate to developed countries for economic and social reasons? There are no financial incentives for highly educated health professionals and researchers in developing countries. Furthermore, social and political instability have provided reasons for these individuals to leave their home countries *(5)*. The spirit of humanity demands that those who are capable of supporting such nations should come forward and help them rather than just extract the human resources for their own health systems from already weakened health infrastructure.

Accountability

The second pillar of this approach is accountability. According to the Global Corruption Report 2006, each country on this planet faces corruption in some form or another, be it in the health sector or some other domain. But this evil has definitely played a paramount role in paralysing health systems in developing countries *(6)*. A result of corruption is the poor quality of health services because of the depletion of economic resources, as well as the effect of limiting health coverage to deserving segments of the population. There is growing evidence that political actors play a significant role in promoting counterfeit medicines in the developing world *(7)*. There is also anecdotal evidence that similar forces have been involved in the misuse of donor funds that were primarily intended to improve the health of the population. There is a dire need to make these actors accountable for every penny they receive and for their policies and actions. Simultaneously, donor agencies need to be more vigilant if they want their money to be spent correctly, on the right people for the desired outcomes in terms of improving access to health. Poor governance in recipient countries *(8)* and loose monitoring and evaluation by the funding bodies should not result in the improper use of financial resources.

Sharing of knowledge and resources

The third thing that is important in terms of ensuring universal health coverage is the sharing of knowledge and expertise by developed countries to improve the performance of health systems in developing countries. Why is it that we strive to share the strains of influenza viruses only when we are threatened with the outbreak of a global influenza epidemic *(9)*, and why is it that only at this time do we talk of global alliances and the need for collective action? Why do we not talk about collaborating with educational and research institutions in the developing world for the purpose of transferring and disseminating advances and innovations in technology and the latest understanding regarding diseases and their agents? The only time we show our concern for people in Africa is when we have to carry out human clinical trials *(10)*. The way forward for the true purpose of development is the extension of a helping hand by actors in the developed world, including academic institutions and governments, to their counterparts in less-developed countries to strengthen their capacity in research and development. Rather than making people in developing countries subjects of experiments, influential figures in developed countries should make them partners toward the common goal of equitable access to resources and opportunities, including health care.

Integrated approach to development

I would like to take this opportunity to express my admiration for the idea of an integrated model of community development, the fourth element of the BASIC approach to achieving health for all. The World Health Organization defines health as the "state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" *(11)*, yet most of our health interventions target objectives like the eradication and containment of disease and improving access to health-care facilities. What we neglect during this whole process is that there are other dimensions of life that are equally important to the holistic development of individuals and the societies in which they live. In this context, I would like to draw the attention of academic circles to the model adopted by the Aga Khan Development Network, which is an umbrella under which various agencies work in different sectors like education, health, culture, rural support and tourism, etc., for the purpose of making those populations self-reliant and conscious of their needs, including health *(12)*. To achieve universal health coverage, we need to improve these people's quality of life. To me, one effective way of doing this is addressing all the facets of development of a single population at once, rather than subjecting them to different interventions at intervals.

Community participation and active involvement

Lastly, to achieve the goal of health for all, we need to actively engage the communities and people in true needs assessment, planning and action. This translates into the fifth and last component of the BASIC approach, which is community participation. There is no need to reiterate that this was the idea presented in the original Declaration of Alma-Ata *(1)* and wherever it has been put into practice with the true spirit, communities and populations have reaped the rewards. One of such example is the Community Development Project through Basic Development Needs Approach in Iran, which yielded immense benefits by having the community itself identify and address community needs *(13)*. Similarly, the Jamkhed Project in India since 1970 and the Kakamega Project in western Kenya from 1974 to 1982 are prime examples of success through active community participation and involvement *(14)*.

Conclusion

In my honest opinion, these constituent elements of the BASIC approach should be the focus of attention and guidance for the future development of policies and strategies aimed at achieving universal health coverage. Brain retention could ensure continuity of quality human resources. Holding policy-makers and governments accountable would result in the equitable distribution of resources, thus promoting health. Sharing knowledge would reduce disparities between different geographic regions and nations of the world that also differ in their capacity to generate knowledge. Implementing integrated models of community development would ensure the long-term sustainability of health and social interventions. And involving communities in writing their own destinies would strengthen their sense of self development, self-assessment and self-evaluation.

References

1 *Declaration of Alma-Ata: international conference on primary health care, Alma-Ata, USSR, 6–12 September 1978.* World Health Organization, 1978 (*http://www.who.int/hpr/NPH/docs/declaration_almaata.pdf,* accessed 17 May 2010).

2 **Lu RJ, Hsiao WC.** Does universal health insurance make health care unaffordable? lessons from Taiwan. *Health Affairs,* 2003, 22(3):77–88.

Aftab Akbar Ali Mukhi, Pakistan

3 Hagopian A et al. The migration of physicians from sub-Saharan Africa to the United States of America: measures of the African brain drain. *Human Resources for Health,* 2004, 2(17).

4 Wright D, Flis N, Gupta M. The 'brain drain' of physicians: historical antecedents to an ethical debate, c. 1960–79. *Philosophy, Ethics, and Humanities in Medicine, 2008, 3(24).*

5 *Dodani S, LaPorte R.* Brain drain from developing countries: how can brain drain be converted into wisdom gain? *Journal of the Royal Society of Medicine,* 2005, 98(11):487–491.

6 Transparency International. *Global corruption report 2006: corruption and health.* London, Pluto Press, 2006.

7 Gautam CS, Utreja A, Singal GL. Spurious and counterfeit drugs: a growing industry in the developing world. *Post Graduate Medical Journal,* 2009, 85:251–256.

8 Berndtson K et al. Grand challenges in global health: ethical, social, and cultural issues based on key informant perspectives. *PLoS Medicine,* 2007, 4(9):e268.

9 Fidler D. Influenza virus samples, international law, and global health diplomacy. *Emerging Infectious Diseases,* 2008, 14(1): 88-94.

10 Hassani B. Trials by fire: the case of unethical clinical trials in the countries of the south. *University of Toronto Medical Journal,* 2005, 82(3):212–216.

11 *Constitution of the World Health Organization.* International Health Conference, New York, 19–22 June 1946.

12 Aga Khan Development Network organogram (*http://www.akdn.org/organigram.pdf,* accessed 17 May 2010).

13 Asadi-Lari M et al. Applying a basic development needs approach for sustainable and integrated community development in less-developed areas: report of ongoing Iranian experience. *Public Health,* 2005, 119(6):474–482.

14 Rosato M et al. Community participation: lessons for maternal, newborn, and child health. *Lancet,* 2008, 372(9642):962–971.

Biography

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Jenneken Naaldenberg
Netherlands

Jenneken Naaldenberg, Netherlands

Translating knowledge or creating a shared language?

He was sitting behind his desk. Looking around the room, he saw the familiar faces of his colleagues, policy-makers he had been working with for many years now. They had just received the latest research results from the municipal health services, universities and national health research institutes. The ageing population, defined by the institutes as aged over 60, was not doing particularly well. A shocking thought crossed his mind: He belonged to this population! He felt quite healthy, though. In any case, they had to decide today which of the pressing problems they would include in their healthy ageing policy for the coming years. Was loneliness a more severe problem than being overweight? Should they focus on mobility challenges or, instead, on the care-giving burden? As they discussed these issues, he actually started to feel a bit weak. Maybe his age was getting to him.

The case above illustrates the importance of knowledge translation, as policy-makers will have to translate the presented research results into healthy ageing policies. The 2010 Global Symposium on Health Systems Research defines knowledge translation as “translating health system knowledge into policy and practice”. This definition underlines the need to translate scientific knowledge for further use in policy and practice.

But what about the other way around? What about the knowledge that is present within policy and practice? Should we not translate this knowledge into research as well? Experiences of those working in the field can provide insights that are valuable to research. Besides, people in the field encounter many practical health-system challenges like how to reach hard-to-reach groups and how to mobilize people. Researchers often have a hard time translating practical problems into sound research questions and try to study real life problems in controlled research settings, only to find out that the results of their research do not quite match reality, either because of deviations from this initial problem during the research, or because the practical setting has changed during the attenuated research process.

The policy-maker in the example above encountered some difficulties prioritizing health issues concerning the ageing population. Of course, policy-makers are not the only stakeholders involved. Concerning healthy ageing, for instance, it would be interesting to see how welfare organizations perceive age-related issues:

The weekly team meeting at the welfare organization was running quite smoothly. They were moving down the agenda at a nice pace, and the chairperson was content. Before closing the meeting, a last round of pressing queries was to be made. “We have just received the new targets set by the municipality. If we want to compete for funding we should submit some ideas that focus on either loneliness, being overweight or mobility. Any ideas on approaches?” An animated discussion followed. The organization provided a wide array of services, almost all of them fitting the requested profile. One of the employees voiced a concern shared by many others: “We already provide many services, but they are used mostly by active older persons. How do we reach those who need these services most? How do we tailor our services to hard-to-reach groups?”

This team meeting at the welfare organization raises new issues. To be able to prevent loneliness or weight or mobility problems, they seem to need information on how to reach frail members of their target group. Since they brought the target group into the discussion, let us ask Mr Mulder, aged 83, what he thinks about this issue. He may just now be reading about the new policy plans in the local newspaper:

One of the headlines in the local newspaper catches Mr Mulder’s eye: “80% of the elderly in the region feels lonely”. It strikes him as a sad thought. His wife passed away only two years ago, and he could easily have been one of those 80%. He counts himself lucky – lucky to have grandchildren that like to come over every now and then. He talks with them about politics, current affairs, the weather and, of course, soccer. His newspaper always provides him with enough interesting material for a conversation. And then there is his neighbour, who sometimes comes around for coffee and a chat. Mr Mulder finds great comfort in that. Once, his neighbour had invited him to come along to choir practice. Mr Mulder would never have gone there by himself; he would not sing even while taking a shower – well, until that evening. Now he did sing. Two evenings a week at choir practice and even in the shower. He smiled. No, he really had been lucky. Maybe he should invite someone along as well.

Mr Mulder also brings new information to bear. His grandchildren, his neighbour, his newspaper and the invitation to join the choir prevented him from becoming lonely. The know-how of the policy-makers, the welfare organization and Mr Mulder all provide insights that can inform research and complement research results. Realizing this, we may need to change the description of knowledge translation to “translating health system knowledge into policy and practice, and knowledge from policy and practice into research”.

The examples above originate in qualitative research *(1, 2)* in the healthy ageing programme of the academic collaborative centre AGORA in the Netherlands *(3)*. They show how the combined information from research, policy and practice creates a richer picture of the issue in question. Following the examples above, the policy-makers will know about the practical problems professionals encounter. Mr Mulder can elaborate on his strategies to avoid loneliness and the way a personal invitation from his neighbour made him do something – joining a choir – he would not have done otherwise. This may be information, or knowledge, professionals can use to involve those hard-to-reach groups.

In the case of AGORA, loneliness was selected as the main focus for the healthy ageing programme. However, the combination of knowledge and interactive discussion with stakeholders resulted in a project that aims to engage ageing individuals in social activities. Active older people are invited to organize an activity and invite less-active

Jenneken Naaldenberg, Netherlands

older people in their neighbourhood to participate *(4)*. Of course, the project also aims to reduce loneliness. Instead of selecting an existing intervention to prevent loneliness, this co-created project includes essential points raised by the various stakeholders. This creates a better fit to the specific context in question and addresses several other essential issues, like involving hard-to-reach groups.

This way of sharing thoughts and experiences and combining them into action creates a shared language. Translation of knowledge becomes less of an issue, and maybe this justifies a final change in its definition for knowledge management: facilitating the co-creation of health-system knowledge by the combined efforts of research, policy and practice.

References

1. Naaldenberg J et al. Ageing populations' everyday life perspectives on healthy ageing. Submitted for publication, 2010.
2. Naaldenberg J et al. Intersectoral collaboration and coordinated action for healthy ageing in a systems thinking perspective. Presented at the International Union for Health Promotion and Education conference, Geneva, 12–16 July 2010.
3. Naaldenberg J et al. Elaborating on systems thinking in health promotion practice. ***Global Health Promotion,*** 2009, 16(1):39–47.
4. Lezwijn J et al. Neighbors Connected: the interactive use of multi-method and interdisciplinary evidence in the development and implementation of Neighbors Connected. ***Global Health Promotion,*** accepted for publication, 2010.

Biography

Jenneken Naaldenberg studied management, economics and consumer studies at Wageningen University, specializing in sociology of consumers and households. Since June 2006, she has been working on a PhD concerning knowledge management and coordinated action for healthy ageing. She is interested in the 'salutogenesis' approach, which focuses on how people stay healthy instead of what causes disease.

Serah Nduta Njenga
Kenya

Serah Nduta Njenga, Kenya

Delivering post-rape care services in Kenya: utilization of health systems research to inform policy and practice

Sexual violence is a pervasive global health problem and human rights issue. It has devastating effects on the lives of survivors in terms of the long-term consequences on their health and mental well-being, including increased vulnerability to HIV/AIDS and other sexually transmitted infections *(1)*. Its impact affects not only the health-care system but also social policy, imposing an economic burden as well as complicating service delivery. As sexual violence is a multifaceted problem, it requires myriad responses to redress it, including comprehensive sets of policies, legislation and programmes to effectively meet the health and justice needs of survivors.

The health sector sits at the nexus of prevention and care regarding sexual violence. It depends on appropriate and informed psychological, physical and biological outcomes and provides primary evidence to be used by the criminal justice system for legal redress. The World Health Organization has documented that health workers who provide care to survivors of sexual assault often lack training on how to respond to sexual violence and collect forensic evidence, and therefore experience challenges in providing adequate medical and emotional care to survivors of sexual violence *(2)*. Health systems research is required for health interventions that include gathering information and doing critical evaluations to inform service delivery, policy formulation and programming *(2)*.

In Kenya, sexual violence is almost invisible, with no accurate data and limited literature about the topic. Community cultural mores hinder reporting, which makes the problem difficult to assess. By 2003, reporting by health-care workers at primary health care and voluntary counselling and testing (VCT) centres showed growing numbers of rape victims, while the available literature and anecdotal evidence from health facilities showed knowledge gaps in handling issues of sexual violence. The national priorities reflected in the National Gender Mainstreaming Strategic Plan for HIV/AIDS revealed the need to scale-up post-rape care (PRC), with a special focus on providing infrastructure, capacity and political support nationally *(3)*.

In 2003, Liverpool VCT, Care and Treatment (LVCT), a Kenyan nongovernmental organization, conducted a qualitative situation analysis in three districts to describe the policy and practice requirements for delivery of post-rape care services in limited resource settings. The health and criminal justice systems and the rehabilitation services at the local and national level participated in the study, in which capacity for delivering comprehensive PRC services was assessed. The primary outcomes analysed in this study included the quality of care given, acceptability by providers and uptake by survivors of sexual violence.

The study reported on the diversity of legal and constitutional definitions of sexual violence and community understanding and interpretations, clarity regarding forced and consensual sex, the cultural mores of masculinity, and differing experiences and service-provider responses to sexual violence. In addition it found a lack of standards, policy, coordination or delivery mechanisms for survivors of sexual violence. Meanwhile, the examination of victims, the provision of post-exposure prophylaxis (PEP) and HIV-prevention therapies, and the documentation of sexual violence were inconsistent *(3)*.

The study findings indicated that survivors receiving counselling were likely to complete PEP and that poor PEP adherence was linked to the nondisclosure of sexual violence and HIV testing. Training for health-care providers significantly improved provider competence.

The study results were treated as a simple PRC systems algorithm to assist in clinical care and were used to develop counselling protocols and targeted training for health providers in three district hospitals. The study provided evidence for policy decisions, and gender concerns were included in reproductive health policy developed in association with national guidelines on the medical management of rape and sexual violence, the PRC form used by health-care workers to document cases of sexual violence presented to them, and the national training manual used to train health-care workers on the system of documentation and evidence collection.

Improved delivery of PRC services was envisioned by the end of the study, but still lacking was a practical implementation framework for policies and services that would clearly outline the roles of the survivor, health-care workers and police with regard to handling evidence after sexual violence has occurred. This means that there were practice gaps in terms of service delivery, which raised new research questions.

Follow-up research was undertaken to respond to emerging issues. In 2007, LVCT commissioned, in collaboration with the Division of Reproductive Health under the Ministry of Health, an exploratory study in three provinces to “describe the current practices and gaps in the collection, storage, analysis, documentation, and transportation of evidence collected from survivors of sexual violence at the hospitals and police stations”. The objective of this study was to develop and test a model for the chain of evidence for PRC services in public health settings *(4)*.

Qualitative methods were used to collect data from study respondents drawn from two district health facilities, two police stations, three civil society organizations and one government chemist. Study findings showed service delivery and policy-related gaps such as challenges posed by high evidentiary requirements regarding the collection, storage and documentation of evidence. Knowledge of how to retrieve and analyse evidence collected from survivors was lacking, as was clarity on the minimal evidence required for conviction and operational standards for the proper maintenance of collected evidence in laboratories. Other challenges were issues of community involvement in sexual violence responses, the handling of child survivors and adult male survivors, the nature of legislation regarding health workers testifying in court, and how to link the health sector and the criminal justice system in their handling of sexual violence.

These challenges pose serious barriers to PRC service delivery, as does inadequacy in managing survivors because PRC services are provided from different service delivery points. These challenges have implications for policy such as providing quality medico-legal evidence to be used by the prosecution, the dismissal of sexual violence cases because of poor documentation and the settling of cases outside legal-medical frameworks *(4)*.

Lessons from these experiences have been systematically documented and synthesized to create a policy framework and guidelines to better meet the medical, psychological and justice needs of survivors of sexual violence and to enhance strategies for its prevention that can be scaled up in Kenya and beyond. The study findings informed the revision of national guidelines on the medical management of rape and sexual violence, as well as how PRC is used to facilitate the collection of legal-medical evidence. The findings are currently being used to revise the training manual for health-care workers. One study output was the elucidation of minimal requirements for evidence collection and handling in Kenya.

Kenya erupted in violence after disputed election results in 2007. Over 300 000 people were displaced, many ending up in camps. An increase in cases of sexual violence was reported at this time. The national response for survivors was wretched, which indicated that despite strides in policy, the country was ill equipped for disaster and conflict management. There was no coordinated response mechanism or system for providing PRC services. The police were mainly engaged in peacekeeping, and the provision of medical care was almost impossible. The national guidelines were revised to include a section on PRC in times of conflict and disaster, but these revisions have yet to be tested.

The utilization of health systems research has renewed realization of the right to health, providing advocacy and support for a radical reorientation of health care for survivors of sexual violence in all situations. LVCT's experiences and lessons thus demonstrate the need to build an interface between research and its utilization for policy reforms and the continuous strengthening of service delivery.

References

1. *Global perspectives on sexual violence: findings from the world report on violence and health.* National Sexual Violence Resource Center, 2004 (http://www.nsvrc.org/sites/default/files/Publications_NSVRC_Booklets_Global-perspectives-on-sexual-violence.pdf, accessed 30 September 2010).

2. *Sexual violence: strengthening the health sector response.* Geneva, World Health Organization, 2010 (*http://www.who.int/violence_injury_prevention/violence/activities/sexual_violence/en/index.html,* accessed 14 May 2010).

3. Kilonzo N et al. Post rape services in Kenya: a situation analysis. Nairobi, Liverpool VCT, Care and Treatment, 2003 (*http://www.liverpoolvct.org/reports/postrape_services%20in_kenya-a_situation_analysis.pdf,* accessed 14 May 2010).

4. Ajema C et al. Standards required in maintaining the chain of evidence in the context of post rape care services: findings of a study conducted in Kenya. Nairobi, Liverpool VCT, Care and Treatment, 2009 (*http://www.liverpoolvct.org/images/downloadable/chainofevidencereport.pdf,* accessed 14 May 2010).

Biography

Serah Nduta holds a bachelor's degree in sociology from Maseno University, Kenya. She has participated in research studies aimed at informing HIV/AIDS service delivery and related policies, in Kenya and beyond. She spearheaded the compilation of A handbook on Best Practices Regarding HIV/AIDS for People with Disabilities, and co-authored policy briefs on 'Community practices post-sexual violence: Implications on the uptake of services and delivery of care' and 'Policy and practical implications in delivery of medico-legal services to survivors of sexual violence in Kenya'. She's currently a Research Assistant at LVCT and undertaking an online writing publications course at ESE: O Campus.

Oluwatosin Omole
Nigeria

Oluwatosin Omole, Nigeria

A sacred duty to guarantee health care? Rethinking the roles of the mobile phone and trade unions in the bid for universal health coverage

Introduction

> When your neighbour dies from measles, during child birth, or from malaria, rather than conclude it was an act of God, as “God wanted it”, think, ask, and act on the failures: the missed chance at vaccination, inadequate antenatal care, [inability to pay for health care] or non-existent emergency services that might have prevented these deaths. The alternative would be to conclude that God really has a problem with us Nigerians if His “acts” are intended to cut our lives short; why else would he let so many of us die from causes no one else is dying from? WE [NEED TO] ASK THE HARD QUESTIONS.
>
> *–Nigeria Health Watch 2010*

I have just concluded my year as preregistration house officer at one of Nigeria’s top tertiary and referral hospitals. The experience was an eye-opener for me, especially regarding the stark realities of poverty in Nigeria. I encountered hundreds of helpless relatives of patients to be admitted who wept, knelt or prostrated themselves as a cultural gesture of appeal to doctors to attend to their patients. I tried my best, but often my hands were tied because the relatives could not afford basic consultations. I remember a man whose son had a typhoid perforation. He came to the hospital with only 150 naira (about US$ 1), which could cover the cost of just one consultation. The man was still begging around for funds when his son passed on. This experience, like many other heart-breaking and pathetic sights, made me begin to ask the hard questions and start thinking critically about the state of health care, in Nigeria specifically and Africa generally, and how to ensure some form of access to health care, even for the poor.

However bad the health system in many African countries is, millions still cannot afford to pay for even bad health care. They end up dying from malaria, cholera and other diseases that could have been readily cured. In Nigeria, there are currently 5.3 million people (3.73% of the population) benefiting from the National Health Insurance Scheme *(1)*. This figure is made up of government workers and others who work in the formal private sector. This leaves a deficit of about 96% of the population who have no access to health insurance. What happens when they fall ill?

Alternative payment methods for health insurance

The truth is that Africa has not effectively addressed the problem of funding access to health, and this is the crucial missing link in developing a truly modern health service.

Oluwatosin Omole, Nigeria

A large percentage of health care access at all levels is gained through out-of-pocket expenditure, and this is wrong and unfair; health insurance exists to correct this abnormality. For health insurance to function effectively there must be regular payment of a premium. In many developed societies, this premium is deducted directly from the bank account of the insurance holder. However, in many African countries, this is almost impossible because the banking culture is poor and sometimes non-existent. Most people who need health insurance do not have bank accounts and are in the informal sector of the economy – petty traders, roadside mechanics, newspaper vendors, carpenters, farmers and taxi drivers who have no guaranteed regular income. How do we ensure access to health care for this critical yet unreached and uninsured segment of the population?

I propose two methods by which this part of the population can have access to some form of health insurance.

Mobile phone-based health insurance

The explosive spread of mobile phone networks across the developing world has created a unique opportunity to significantly transform how countries tackle global health challenges. According to the GSM Association, a global trade group representing leading mobile operators, it is expected that 85% of Africans will live in areas with mobile phone coverage by the end of 2010.

The idea this figure generates is that at least half of Africa's population has access to mobile networks that often require prepayment to work. Mobile phone-based health insurance would reach these people for two reasons. Firstly, mobile phone access cuts across all strata of society and covers almost everybody. Secondly, it would eliminate the issue of direct debit from a bank account. The preferred method of payment for mobile services in most of Africa is the prepaid option.

How would this work? Every SIM card sold at designated outlets would be registered with a mobile phone company. Registration would include the personal details of existing and new subscribers. At the point of registration, individuals already on a health insurance scheme would show their insurance cards, automatically exempting them from registering with the mobile health insurance scheme. Each time a subscriber recharges, the mobile phone company would automatically deduct 1–10% of the recharge value. In Nigeria, for example, a 400-naira recharge card would actually provide 360 naira worth of talk time. The remaining 40 naira (10%) would go into the health insurance account.

All mobile phone operators would have corresponding health insurance companies, allowing subscribers to have a range of health insurance companies to choose from. The money deducted from each subscriber's phone payment would automatically be transferred monthly to the health insurance company the subscriber chose. A cap would be set on the amount that could be deducted per year, and payments would stop once it was reached. Health insurance plans would therefore be based on how much is deducted from each mobile subscription. The federal government would make a matching contribution.

Oluwatosin Omole, Nigeria

Individuals with multiple phone subscriptions would register one of them for the mobile phone health insurance scheme and inform the operators of their other registered subscriptions. Validity periods would be shortened to prevent individuals from registering a subscription but refusing to top it up with credit.

Children younger than 18 years old would be excluded from the scheme and insured under their parent or guardian. Contract and post-paid subscribers would pay their monthly bills plus an extra predetermined percentage for the scheme. Uneducated and rural people would register with the scheme with the help of local governments where they reside.

Union-based health insurance

Almost every profession in Africa is unionized. Taxi drivers, farmers, carpenters, tailors and even commercial motorbike riders all have their unions, which meet regularly. They form the bulk of Africa's uninsured population. Members of these unions often make daily contributions in the form of a cooperative scheme. Utilizing these unions would be a creative way to ensure access to health care. My proposal is that a certain percentage of the daily contribution be directed towards the union health insurance scheme, or that unions be educated and advised by primary health care insurance agents on how much each member should pay and that amount could be an additional contribution.

How would this work? Individuals who are not government workers or members of the formal private sector would register with the union of their profession. Each of the unions would register with a particular health insurance company in their locality, then deduct 1–10% from the daily contribution each member makes. This would be forwarded to the insurance company on a weekly or monthly basis and the insurance holders' accounts credited. Insurance plans would be based on how much was contributed.

Conclusion

For either of these schemes to work, there must be formal legal and institutional promotion of health insurance. Governments must have the political will to implement the recommendations and make health insurance compulsory for every citizen. Governments must address the inequitable provision and distribution of medical facilities. A large percentage of the disease burden in sub-Saharan Africa is in rural areas that often have fewer health-care facilities. The facilities should be where the diseases are. Where there are facilities, human resources become a problem. Health insurance awareness must be created. People's minds must be disabused and wrong mind-sets about health insurance must be changed. Individuals must also be carried along in policy formulation and implementation. Governments need to work hard towards defusing the public's lack of trust in the government to make this work. In times past, schemes like this have been implemented and money deducted, but there was nothing to show for it in terms of service. This is a very important element of sustainability.

Poverty and the lack of access to basic social and health services is at the centre of what defines developing countries, and that is really where attention should be focused in trying to find solutions to problems in these countries. This preliminary list of issues

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needs further study, reflection, research and, most importantly, action. Undoubtedly, the continuing discourse on health coverage will provide new directions for understanding and ensuring universal access to health care in sub-Saharan Africa in the near future.

References

1 Muanya C. *What hope for the National Health Insurance Scheme in 2010?* Nigeria Health Watch, 2010 (*http://www.nigeriahealthwatch.com/2010/01/what-hope-for-national-health-insurance.html,* accessed 19 April 2010).

Biography

Oluwatosin Omole graduated as a medical doctor from the Obafemi Awolowo University, Ile-Ife, and completed his housemanship at the University College Hospital, Ibadan, Nigeria. He was the African Regional Assistant on reproductive health and HIV/AIDS for the International Federation of Medical Students Associations and the co-editor the African Youth HIV/AIDS Best Practices Handbook. He has received awards for his work on notable public health initiatives. He plans to study a Master of Public Health/Master of Business Administration and is passionate about building health systems that work for Africa.

Nithiah Thangiah
Malaysia

Nithiah Thangiah, Malaysia

Socio-economic inequalities in healthcare utilization in Malaysia

Almost everywhere in the world, health-care systems are facing the challenge of rising costs for health care, and Malaysia is no exception. Health-care expenditure in Malaysia, as a percentage of gross domestic product, experienced an increasing trend from 3% in 1997 to 4.7% in 2007. Health-care expenditures are thought to have increased due to growing demand for health-care services. This situation imparts greater pressure on the Malaysian government to increase its resources and spending for health care. However, the biggest concern is how much of government financial subsidies directed to health services are reaching the neediest and most socially disadvantaged groups in Malaysia. Past studies have shown that financial subsidies to government health services hav often benefited the rich more than the poor. Evidently, many countries do not channel sufficient resources to the poorest people. Lately, issues of overcrowding and long waiting time in Malaysian public health care facilities have caused reason to wonder if these facilities catering mainly to the poor are also welcoming the more affluent people in the society. This could be the true situation, as recently many private general practitioner clinics, especially in large urban centres, have been reported to be underutilized. Hence it is imperative to know the extent to which public and private health care facilities in Malaysia are reaching the least advantaged subpopulations and, contrarily, the most advantaged. One way to find out is by measuring socioeconomic inequality in health-care utilization.

Socio-economic inequality in health-care utilization can be defined as differences in the prevalence of care-seeking between people of lower and higher socioeconomic status. The health-care utilization variable is observed by looking at the prevalence of outpatient and inpatient treatment in public and private health facilities in Malaysia. Health-care utilization data from the National Health and Morbidity Survey conducted in 1996 and 2006 by the Ministry of Health facilitates the measurement of inequality in health-care utilization. The primary tool for measuring inequality involves the use of concentration curves and concentration indexes that identify inequality in health-care utilization among Malaysians, with regard to the three leading socioeconomic variables of income, education and occupation. The concentration index measures the extent of inequality in health-care utilization that is associated with socioeconomic status, thus indicating whether the utilization of a particular health service is concentrated more among those from lower or higher socioeconomic groups.

When comparing 1996 to 2006, the use of public outpatient treatment measured across all three socioeconomic indicators of income, education and occupation was found to be less in favour of the least-advantaged groups. Although pro-poor, narrowing inequality toward the direction of equality raises concerns; the poor or socially disadvantaged are the ones most in need of care. Inequality in the use of public health care facilities are hoped to increase and not decrease. One way to ensure a health-care system that is equitable and socially just in the public sector is by making sure that a larger proportion of health-care use is concentrated in the hands of the poor and disadvantaged. But if a discomforting shift towards higher use of public outpatient treatment by the more advantaged continues to occur, the Malaysian health-care system might just be heading towards inequity. And, unfortunately, the pattern of distribution proves to be the same for all three socioeconomic indicators in reaffirming this trend. Hence, doubts on overcrowding and long waiting times in public health care facilities is in fact a result of the more affluent people using public facilities as well. The seemingly increased use of public health care facilities by the well-off is a clear sign that public health care subsidies targeting the poor will progressively be shared more equally across all socioeconomic groups, which is not favourable from the perspective of equity. The crunch has not yet been felt, as the trend has not reached an alarming stage. Inequality in private outpatient services increased in favour of the rich over the 10-year period when measured by income per household member. Widening gaps in private health care facilities are acceptable as they indicate private health care use to be more concentrated in the hands of the richest. The private health care sector, which is intended to reduce the workload of the public sector, is an obvious choice for those with the highest purchasing power.

Nithiah Thangiah, Malaysia

As for public inpatient admissions, minor changes in the pattern of inequality over the decade appeared to move in different directions for three socioeconomic indicators. Across income, inequality showed a slightly more pro-poor pattern of utilization over the years. Although small, this trend is an improvement that indicates higher use of inpatient care by the poor and reflects that public hospitals are in fact being built in poverty-stricken areas. Across education, although very small as well, the changes in inequalities appeared to be less in favour of the least educated. By occupation, it remained the same. Private inpatient admissions, just like private outpatient services, became more pro-rich, with rather significant changes over the years when measured across income. Although the shift toward higher use by the rich is perceived to be fair, there are, however, some troubling implications. The trend of increasing use of private health care implies increasing out-of-pocket payments for health care. This form of payment could lead to catastrophic expenditure on health that could easily turn rich households into poverty-stricken ones. Apart from out-of-pocket expenditures, increased private health care utilization as a result of an increasing number of insured individuals could also be a reason for concern because having insurance can lead to problems of moral hazard in which individuals make less effort to take care of their health, thus ending up getting ill more often and overutilizing health services. Also, wide insurance coverage can lead to another problem of supplier-induced demand in the private sector, in which opportunistic, profit-driven physicians lure patients into additional and unnecessary medical treatment. These issues, if left unattended to, would lead to further increases in private health expenditure, causing health care costs to rise more than necessary. One way to overcome all these problems is to integrate the dual-tiered public and private health care system in Malaysia to allow universal coverage of health care in the country to fall under one regulatory body. This would encourage better targeting and monitoring of the uneven distribution of both public and private health care facilities in the country.

The results from measuring socioeconomic inequality in health-care utilization shows that Malaysians from least-advantaged backgrounds are significantly more likely to obtain treatment from public health care facilities but less likely to consult private ones. Conversely, people from more advantaged backgrounds are more likely to seek private health care. This finding indicates that Malaysia has a fairly equitable health-care system. Inequality in health-care utilization that favours people from less-than-average backgrounds in public health care facilities is undoubtedly fair. The skewing of public health care utilization towards the most vulnerable and neediest groups reflects a fair distribution of financial and health-care resources. Likewise, inequality favouring the better-off in private health care facilities is also deemed to be fair, as it lessens government subsidies to people who do not need them. Government subsidies can then be channeled to people who rely heavily on the public sector.

The Malaysian government is undeniably doing an excellent job of ensuring that the poor and needy receive the health care they need, as the use of public health care facilities is fairly dominated by the least-advantaged groups. Nevertheless, the absence of continued widening of inequality, especially in public health care use, reflects a need for new initiatives to reach vulnerable groups even more effectively. This is important to ensure that public resources and subsidies can carefully target those most in need, to ensure the inequality in the Malaysian health-care system remains fair and just for all. The resulting pattern of health-care utilization is clearly an outcome of Malaysia's far-reaching national health policies, which are indeed designed based on equity and serve the interests of the entire population without neglecting vulnerable groups. On the whole, the implications of this study are hoped to translate findings from statistically sound and evidence-based health economics research into policy information to guide the Malaysian government in policy-making.

Bibliography

- *Annual report 2006,* Kuala Lumpur, Ministry of Health Malaysia, 2007.
- Benjakul S. *Equity of health care utilization by the elderly population in Thailand during the periods of the economic bubble and after the economic crisis: human security and health policy options policy and governance.* Keio University, Japan, 2004 (Policy and Governance Working Paper Series No. 52).
- Braveman PA et al. An approach to studying social disparities in health and health care. *American Journal Public Health,* 2004, 94:2139–2148.
- Calman K.C. Equity, poverty and health for all. *British Medical Journal,* 1997, 314:1187–1191.
- Chee HL. *Current health care financing issues in Malaysia,* Asia Research Institute, 2004 (Working Paper Series, No. 18).
- *Code and picture book.* Kuala Lumpur, Institute of Public Health, Ministry of Health Malaysia, 2006.
- *ENHR: An essential link to equity in developement* – country report malaysia. Kuala Lumpur, Institute of Public Health, Ministry of Health Malaysia, 2000.

- Fuller M, Lury D. *Statistics workbook for social science students.* Oxford, Philip Allan, 1977.
- Gwatkin D. *Free government health services: are they the best way to reach the poor?* Oxford, Oxford University Press, 2003.
- Hai Zhong. Equity in pharmaceutical utilization in Ontario: A cross-section and over time analysis. *Canadian Public Policy,* 2007, 33(4):487–507.
- *Health facts 1995-2008,* Kuala Lumpur, Ministry of Health Malaysia, 1997-2009.
- Kakwani NC, Wagstaff A, van Doorslaer E. Socioeconomic inequalities in health: measurement, computation and statistical inference. *Journal of Econometrics,* 1997, 77:87–103.
- Keskimaki I. How did Finland's economic recession in the early 1990s affect socioeconomic equity in the use of hospital care? *Social Science & Medicine,* 2003, 56:1517–1530.
- Kohler H. *Statistics for business and economics,* 3rd ed. New York, Harper Collins College Publishers, 1993.
- Lim TO, et al. Use of renal registry data for research, health-care planning and quality improvement: what can we learn from registry data in the Asia–Pacific region? *Nephrology,* 2008, 13:745–752.
- Mackenbach JP, Kunst AE. Measuring the magnitude of socioeconomic inequalities in health: an overview of available measures illustrated with two examples from Europe. *Social Science & Medicine,* 1997, 44:757–771.
- Morris S, Sutton M, Gravelle H. Inequity and inequality in the use of health care in England: an empirical investigation. *Social Science & Medicine* 2005, 60:1251–1266.
- Muhamad Hanafiah, J. Public health care provisions: access and equity. *Social Science & Medicine,* 1996, 43(5):759–768.
- *National household health expenditure survey,* Department of Social and Preventive Medicine, Faculty of Medicine, University of Malaya, 1996.
- Newbold KB, Eyles J, Birch S. Equity in health care: methodological contributions to the analysis of hospital utilization within Canada. *Social Science & Medicine,* 1995, 40(9):1181–1192.
- O'Donnell O, et al. *Analyzing health equity using household survey data: a guide to techniques and their implementation.* Washington, World Bank, 2008 (WBI Learning Resources Series).
- O'Donnell O, et al. *Who benefits from public spending in healthcare in Asia?* Rotterdam, Erasmus University and Colombo, IPS, 2005 (EQUITAP Working Paper, No. 3).

Nithiah Thangiah, Malaysia

- Quek KL. The Malaysian healthcare system: a review. Centre for Poverty and Development Studies, 2006 (*http://cpds.fep.um.edu.my,* accessed 1 February 2010).
- Rozita Halina H. Financing health care through general taxation in Malaysia. In: *Conference proceedings for the International Conference on Evidence-based Practice: toward evidence-based policymaking in health sector developement,* Kuala Lumpur, Institute of Public Health, Ministry of Health Malaysia, 2001.
- Rozita Halina H et al. Health care demand analysis: models and policy simulations for Malaysia. In: *Conference proceedings for the International Conference on Evidence-based Practice: toward evidence-based policymaking in health sector developement, Kuala Lumpur,* Institute of Public Health, Ministry of Health Malaysia, 2001.
- Sararaks S, Maimunah AH. Recent illness/injury and health seeking behaviour. In: *Report of the Second National Health & Morbidity Survey Conference, 20-22 November 1997, Hospital Kuala Lumpur.* Kuala Lumpur, Public Health Institute, Ministry of Health Malaysia, 1997.
- *The Health for All policy framework for the WHO European Region.* Geneva, World Health Organization, 2005.
- *The second national health and morbidity survey 1996, general findings; The second national health and morbidity survey 2006, health utilization; The third national health and morbidity survey 2006,* general findings. Kuala Lumpur, Institute of Public Health, Ministry of Health Malaysia, 1997 and 2008.
- Whitehead M. The concepts and principles of equity and health. *International Journal Health Services,* 1992, 22:429–445.
- Wonderling D et al. *Introduction to health economics.* Open University Press, McGraw-Hill Education, 2005.
- Yam HK et al. Public and private healthcare services utilization by non-institutional elderly in Hong Kong: is the inverse care law operating? *Health Policy,* 2009, 91(3): 229-238.
- Zere E, McIntyre D. Equity in self-reported adult illness and use of health service in South Africa: inter-temporal comparison. *Journal of Health, Population and Nutrition,* 2003, 21(3):205–215.

Biography

Nithiah Thangiah recently obtained a Master of Applied Statistics from the University of Malaya, Kuala Lumpur, Malaysia. She is currently attached to the Department of Social and Preventive Medicine under the Faculty of Medicine, University of Malaya. Her interest in health systems research developed while she worked as a researcher at the Institute of Health Systems Research, Ministry of Health, Malaysia. She is a highly enthusiastic young researcher who is interested in studies on equity and population health. She is working on publishing her recently completed research paper on socioeconomic inequalities in healthcare utilization, and hopes to undertake PhD in the future.

Kingsley Nnanna Ukwaja
Nigeria

Kingsley Nnanna Ukwaja, Nigeria

Improving universal child health coverage in Africa: where we got it wrong

Jumoke is a 30-year-old petty trader who brought her two-year-old son to the health centre after he had suffered a week of fever, coughing and fast breathing. On the day these problems started, she visited a drug store and patent medicine vendor (PMV) in her neighbourhood, bought some antimalarial and antipyretic drugs, and gave them to him for three days. But the problems persisted. On day four of his illness, she took him to a bigger PMV who prescribed camosunate-[1–5 years], a combination of amodiaquine and artesunate pre-packaged for children aged 1 to 5 years, for three days. After the medication, her child's condition worsened. She returned to the latter PMV, who advised her to bring the child to the health centre. On reaching the health centre, she discovered that the user fee, which had been US$ 0.20 a year earlier, had increased to US$ 1.50. She could not pay the fee because she had exhausted her finances on the PMV visits and transportation to the hospital.

In Nigeria, malaria and pneumonia accounted for 20% and 23% of childhood deaths in 2005 *(1)*. In sub-Saharan Africa, both diseases cause almost 40% of under-five deaths *(2)*. Several approaches have been used to reduce morbidity and mortality due to malaria, like free malaria drugs at public health facilities and the home management of malaria (HMM) strategy. In 2005, the World Health Organization (WHO) recommended that children with fevers should be treated at home with antimalarials *(3)*. Nigeria and most African countries have now adopted the HMM strategy (4). Although symptoms of malaria and pneumonia overlap in African children *(5, 6)*, and the United Nations Children's Fund and WHO currently recommend that both childhood malaria and pneumonia be managed together in the community *(7)*, no African country has such a policy.

In Nigeria, from 2000 to 2007, an average of 34% of febrile children received antimalarials, and only 32.8% with acute respiratory infection (ARI) were taken to a health facility during the same period *(8)*. To date, the major emphasis of large malaria programmes funded by the likes of the Global Fund to Fight AIDS, TB and Malaria has been to strengthen the distribution of artemisinin-based combination therapy malaria drugs through public health facilities *(9)*. Achievements reported so far show that this strategy has not achieved anything close to the Roll Back Ma¬laria Strategy goals of treating 80% of people who have malaria by the end of 2010. What has been missing is recognition that much of malaria treatment occurs in the home and that the HMM strategy requires households to obtain many of the medicines they use in the community through PMVs *(9)*. No data is regularly collected on children who are managed in this setting. Furthermore, most campaigns for under-five care in Africa are directed at promoting the management of fevers, and there is no key action required by mothers to undertake at home for ARI. The questions then are these: Where do mothers seek care for their children's ARIs? Could such places

be optimized for pneumonia and malaria treatment? Jumoke's child had clinical malaria with symptoms of ARI, and she sought prompt and appropriate care based on the HMM strategy, but she never got it near her home.

We conducted studies to determine where mothers sought care for their children's recent respiratory illness and, regarding children who were brought to the health centre, evaluate the pre-hospital source of care and its determinants *(10)*. For children with recent ARIs in the community, 55% received care in the informal sector. Overall, 45% received care from PMVs, 33% from public health facilities, 13% from private clinics and 5% from traditional healers. Our second study showed that 75% of children with ARIs received some care at home prior to visiting a health facility. Of these, 53% got their drugs from PMVs and another 10% got drugs previously obtained from PMVs. Mothers' main reasons for not seeking early hospital care were wanting to try home management first (43%), waiting to see if the child would improve (14%) and lack of money (27%). The main reasons why their sick child was eventually brought to the hospital were that the child's condition worsened (90%), a family member advised it (5%), a PMV advised it (2%), and money, transport or time became available (3%).

Jumoke's story and our study indicate that most mothers in Nigeria seek care for their children's respiratory illness at PMVs. Of those who eventually sought care at a health facility, three fifths had tried drugs obtained from PMVs, and they had visited the health facility only when, in their opinion, the child's problem had worsened. Thus, a potential fallout of the HMM strategy in Africa is mothers of children with other illnesses like ARI accompanied by fever may want to try home management first with PMVs, or wait to see if their child's illness resolves itself.

Health systems should deliver prompt, effective, safe and quality interventions to children with minimal waste of resources. In Asia, central to scaling up any successful health service delivery intervention to underserved communities is the creation of trained human resources responsible for such interventions: barefoot doctors in China; lady health workers in Pakistan; primary service-trained medical providers in India; community health workers in Thailand, Bangladesh and Cambodia; and village health workers in Laos. In Africa, many vertical health programmes are introduced using either already overstretched health manpower; volunteers such as role model mothers, drug distributors or volunteer community health workers; and/or PMVs. Severe manpower shortages mean that good public health services cannot be delivered at public facilities. As volunteerism is not sustainable, the poor in remote rural communities are left with PMVs.

Although they are considered to be informal partners in health and their role is downgraded by development agencies, PMVs could fulfil this role in Africa with little input. Malaria intervention reviews have shown that PMVs are the first choice of treatment for 15–82% of the population with the median at around 50% *(11)*. Also, they meet all five dimensions of access: availability, accessibility, accommodation, affordability and acceptability (12). Furthermore, they are found in all countries in Africa and offer good coverage. For example, in Benue state in Nigeria, a study found one PMV for every 3250 residents but only one primary health care facility for every 10 000 residents *(13)*. Although these statistics and our study results do not in themselves justify the use of PMVs, they underscore the importance of ensuring that PMVs have the capacity to provide safe and quality services to the communities they serve.

PMVs have been successfully used to deliver several interventions for malaria and child health in Africa like the distribution of insecticide-treated bed nets and the HMM strategy (11). When trained, they could also be used for treating childhood malaria and pneumonia. Although it could easily be argued that many of the drugs that PMVs provide or the dosages they prescribe – or both – are inappropriate, more would be gained by improving their services than rejecting them. If 20% of the funds for childhood malaria interventions were directed to guarantee the quality of care from PMVs, we could train and supervise 1000 PMVs in each African country to manage childhood malaria and pneumonia and create quality artemisinin-based combination therapy, antibiotic procurement, supply chains by providing incentives, monitoring and evaluation, and referral services. In addition, another 5% of this funding could be used for community-based behavioural change campaigns instructing mothers of children with pneumonia or/and malaria symptoms to seek appropriate care at registered PMVs. Over the next five years, we would expect at least 80% coverage of child health for malaria and pneumonia treatment in Africa. In pilot studies, PMVs have been successfully trained to deliver these services and educate caregivers of under-fives, with promising results *(14)*.

Admittedly, the success of this PMV intervention would require government oversight in each country. Africa needs a paradigm shift from 'business as usual' to help child health interventions reach the poor. The modest achievements of child coverage interventions obtained so far mean we have gotten it wrong. All user fees for under-fives must be abolished in all public health facilities. And we must harness available and accepted informal care providers like PMVs to deliver child health services and scale this up across Africa. When this is done, mothers who want to try home management first – and mothers like Jumoke, who sought prompt care for her child – would all receive appropriate care. I am sure that, with increased child health coverage, most of Africa will be on track to achieve the child health Millennium Development Goal.

References

1 *Country health system fact sheet 2006, Nigeria.* Geneva, World Health Organization, 2006 *(http://www.afro.who.int/index.php?option=com_docman&task=doc_download&gid=1287&Itemid=2111).*

2 Bryce J et al. *WHO estimates of the causes of death in children. Lancet* 2005, 365:1147–52.

3 *The Roll Back Malaria Strategy for improving access to treatment through home management of malaria.* Geneva, World Health Organization, 2005 (*http://www.searo.who.int/LinkFiles/Reports_RBM_Strategy.pdf,* accessed 15 May 2010).

4 *The national strategies and guidelines for home and community management of malaria.* Federal Ministry of Health, Nigeria, 2005 .

8 Ukwaja KN, Olufemi AB, Talabi AA. Clinical overlap between malaria and pneumonia: can malaria rapid diagnostic test play a role? *Journal of Infection in Developing Countries,* in press.

9 Kallander K, Nsungwa-Sabiti J, Peterson S. Symptom overlap of malaria and pneumonia – policy implications for home management strategies. *Acta Tropica,* 2004, 90:211–214.

10 *Management of pneumonia in community settings,* joint statement. Geneva, World Health Organization and New York, United Nations Children's Fund, 2004 (*http://www.unicef.org/publications/files/EN_Pneumonia_reprint.pdf,* accessed 15 May 2010).

11 *World health statistics 2009.* Geneva, World Health Organization, 2009 (*http://www.who.int/whosis/whostat/EN_WHS09_Full.pdf,* accessed 15 May 2010).

12 Brieger W. Home and community management of malaria: the sometimes forgotten component. *Africa Health,* 2009(Nov):18–20 (*http://www.africa-health.com/articles/november_2009/Home%20and%20community%20management%20of%20malaria%20the%20sometimes%20forgotten%20component.pdf,* accessed on 15 September 2010).

13 Ukwaja KN, Olufemi AB, Talabi AA. *Childhood acute respiratory infection in Nigeria: exploring symptoms and practices in the community and health centre.* Abstract of a preliminary report submitted to the Department of Primary Health Care, Abeokuta-South LGA, Ogun, Nigeria, 2010.

14 Brieger W et al. *Interventions to improve the role of medicine sellers in malaria case management for children in Africa.* London, Malaria Consortium and Arlington, Virginia, BASICS for the United States Agency for International Development, 2005. (Prepared for Roll Back Malaria Strategy's subgroup for communication and training and malaria case management working group.)

15 Penchansky R, Thomas, J. The concept of access: definition and relationship to consumer satisfaction. *Medical Care,* 1981, 19:127–140.

16 Kombe G et al. *Nigeria health system assessment 2008.* Maryland, Abt Associates Inc, 2009.

17 Greer G et al. *Improving management of childhood malaria in Nigeria and Uganda by improving practices of patent medicine vendors.* Arlington, Virginia, BASICS II for the United States Agency for International Development, 2004.

Biography

Kingsley Ukwaja holds a Bachelor of Medicine/Bachelor of Surgery from Usmanu Danfodiyo University Sokoto, Nigeria. He is currently undertaking his residency in internal medicine at Ebonyi State University Teaching Hospital, Abakaliki, Nigeria and will soon be pursuing a Master of Public Health in international health. He recently completed his one year of community service under the National Youth Service Corps during which he explored factors affecting early/appropriate care for children with pneumonia. His personal goal is to assist Nigeria in controlling infectious respiratory diseases and in developing a health system that is accessible to all citizens. His research interests are infectious respiratory diseases, international child health and health systems.

Amrit Kaur Virk
India

Amrit Kaur Virk, India

Expanding access to health services through health insurance programmes in developing countries: the case for a context-driven research agenda

Raju, my part-time cook's six-year-old son, had to be hospitalized three times last year. He suffers from a medical condition that has stunted his physical and mental growth and makes him prone to periodic, particularly violent seizures. His mother, Vimla, has gone from pillar to post to get him treated, making countless trips to doctors in many of Delhi's well-known public and private hospitals. Through an acquaintance at the city's premier public hospital, Raju managed to get a spot in one of its busiest and hardest-to-get wards. The state-run hospital, subsidized by government funds, did not charge any consultation fee or bed charge for inpatient care. Despite this, Raju's illness has resulted in Vimla running up debts of several thousand rupees, well over one year of the salary she earns from cooking and cleaning in two other households besides mine. The reason for this is that each episode of illness involved expensive tests and costly drug purchases from private diagnostic centres and pharmacies, not to speak of the daily cost of travelling nearly 40 kilometres from their home in the southern suburbs to various medical facilities in the city.

Nevertheless, Vimla considers herself lucky to have at least avoided the exorbitant rates for treatment in a private hospital. This is no wonder, considering that the majority of people in India are forced to pay large sums of money in out-of-pocket expenses for private medical services – in many cases impelled by the inadequate supply and poor quality of public facilities *(1)*. Vimla's case also highlights a wider trend documented by research across many low- and middle-income countries of the lack of financial protection from ill-health pushing people into indebtedness and poverty *(2)*.

Against this background, there is now growing interest among national and international policy actors in mainstreaming social and community-based models of health insurance across many developing countries *(3)*. Consistent with such trends in policy ideas, India is also pilot-testing models of health insurance targeting its poor and underserved communities. The latest initiative is a national health insurance scheme called the Rashtriya Swasthya Bima Yojana (RSBY), launched in April 2008 *(4)*.

The RSBY is a government-funded health insurance programme for workers in the informal sector and their families in India who are listed as living below the official poverty line. Its main objective is to improve impoverished households' access to hospital care up to an annual limit of about US$ 600 per family. The yearly insurance premium is paid by the

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government on behalf of enrolled families. Briefly, the RSBY functions in the following manner. Through a bidding process, an insurance company is selected to implement the RSBY in a district. The insurance company enrols eligible families and sets up local networks of hospitals to be part of the programme. RSBY policy encourages insurers to engage local nongovernmental organizations to assist with enrolment and outreach work with poor families. Beneficiary households are issued a smart card, much like a bank ATM card, that they can use at all participating hospitals and clinics nationwide. The RSBY is modelled on a classic money-follows-patient model. This is a demand-led model that empowers beneficiaries to choose their health-care providers. It is expected that providers will compete to attract poor customers in the programme, thereby engendering greater efficiency and better quality in health services.

In principle, prepayment through health insurance could improve poor families' access to health-care services in developing countries. However, the implementation of health insurance programmes across many low- and middle-income countries is challenged by fiscal and institutional constraints particular to such settings *(5)*. These constraints could affect the long-term viability and success of the programmes. A context-specific and nuanced investigation into such issues could provide vital information for developing countries contemplating health insurance and planners rolling out the RSBY across India. Some of these issues are outlined below.

First, health insurance programmes that target poor households in many developing countries including India could find it particularly difficult and costly to reach informal workers. This is not only because they are dispersed across occupations and employers, but also because of the acute shortage of administrative and managerial resources to reach these workers *(6)*.

Add to these two problems a third issue: the lack of effective regulation *(7)*. The poor capacity to monitor service use, implementation targets or contractual obligations could compromise the quality of programmes and lead to serious fraud and gaps in provision. The RSBY's technology-enabled smart card is expected to avoid some of these problems by automatically updating enrolment and transaction figures. But assessments are needed of how this would work in the field. This analysis will have important lessons for other health insurance programmes elsewhere.

Fourth, for programmes using means- or asset-tested targeting, as the RSBY does through official lists of impoverished households, it is vital to prevent those who are ineligible from getting the card and to facilitate membership for those who are eligible. This is vital considering the poor record of some developing countries in targeting people for social assistance *(8)*.

A fifth and related issue is rampant corruption in many developing countries. Illegal and unethical practices, such as providers demanding bribes and informal payments from patients, are commonplace *(9)*. The RSBY's smart card is expected to avoid some of these problems by eliminating cash transactions, but whether it works in practice as it was designed to, needs to be assessed.

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Sixth, public health insurance programmes are not insulated from problems resulting from the implicit nature of insurance mechanisms. Planners have to be vigilant against the inherent tendency of health insurance to encourage certain kinds of self-interested practices by insurers, health-care providers and beneficiaries *(10)*. Insurers are tempted to keep their costs low by 'cream-skimming', or selectively recruiting low-risk individuals that are unlikely to need health services *(11)*. Providers are tempted to provide more treatment to insured members if they are paid a fixed cost per intervention. Similarly, health-care users who are assured medical treatment paid for by a third party can be perversely motivated to overuse health-care services. Tendencies to selectively enrol members or overprescribe services or be intemperate in the use of health care are often curbed through features built into the policy's design. For example, the RSBY uses the family, not the individual, as the unit of enrolment. This minimizes the risk of insurers cream-skimming. Similarly, measures such as government-set treatment rates are in place to allay moral hazards in the RSBY and prevent reckless actions by providers and beneficiaries. Such perverse incentives are certainly not particular to developing countries but could be made worse by their lack of capacity for enforcement and regulation.

Seventh, there are doubts about the long-term viability of programmes like the RSBY focusing on demand at the expense of work to strengthen the supply of health care *(12)*. For instance, providers may not find RSBY members to be lucrative consumers and could turn them away, as anecdotal reports from nongovernmental organizations seem to suggest. More dramatically, providers may not be enthusiastic about signing up for the RSBY at all. Early reports from RSBY implementation in certain states indicate that providers are unwilling to negotiate on treatment costs and are not open to the idea of cashless transactions *(13)*. This could pose serious supply-side problems.

To sum up, health insurance programmes could be a means to improve people's access to services and a stimulus for competition-induced efficiency among insurers and providers. However, this assumes that a given policy will be implemented as planners designed it and will yield the expected results. Moreover, people's access to health care and how it is delivered to them is mediated by the social context *(14)*. Quantitative measures of coverage and utilization will be important indicators of patterns and associations, but research informed by a qualitative approach is equally important. Exploring people's experiences of health insurance programmes is an important part of understanding how a policy's content, processes and outcomes relate to one another and to the local context *(15)*.

Vimla's case illustrates the point. Conversations with her make it easy to see how she and her family may easily be among the one-quarter of Indians estimated to fall into poverty each year from hospitalization-related expenses *(16)*. However, under current norms of estimating poverty in India, Vimla and her family are not sufficiently deprived to qualify as living below the poverty line. Such issues need to be brought to light and debated to get a context-specific understanding of people's experiences of health insurance programmes or their lack thereof. In-depth qualitative studies undertaken with this purpose will contribute to our understanding of health insurance as a mechanism for universalizing health care in the resource-constrained settings of the developing world.

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References

1 *Morbidity, healthcare and condition of the aged.* Delhi, National Sample Survey Organisation, Ministry of Statistics and Programme Implementation, Government of India, 2006 (National Sample Survey 60th Round, Report No. 507).

2 Van Doorslaer E et al. Effects of payments for healthcare on poverty in 11 countries in Asia: an analysis of household survey data. *Lancet,* 2006, 368:1357–1364.

3 *Social health insurance: a contribution to the international development policy debate on universal systems of social protection.* Discussion paper. Bonn and Berlin, Deutsche Gesellschaft fur Technische Zusammenarbeit and Federal Ministry for Economic Cooperation and Development, 2005; *Social health insurance: selected case studies from Asia and the Pacific.* New Delhi, World Health Organization Regional Office for South-East Asia, 2005.

4 RSBY website (*http://rsby.in/*, accessed 1 May 2010)

5 De Allegri M, Sauerborn R. Community-based health insurance in developing countries. *British Medical Journal,* 2008, 334:1282–1283.

6 Conn CP, Walford V. *An introduction to health insurance for low-income countries.* London, Department for International Development, Health Systems Resource Centre, Institute for Health Sector Development, 1998.

7 Carrin G. Social health insurance in developing countries: a continuing challenge. *International Social Security Review,* 2002, 55(2):57–69.

8 Harvey P, Slater R, Farrington J. Cash transfers – mere “Gadaffi syndrome,” or serious potential for rural rehabilitation and development? *Natural Resource Perspectives,* 2005, 97. London, Overseas Development Institute.

9 Lewis M. *Governance and corruption in public healthcare systems.* Washington, Center for Global Development, 2006 (Center for Global Development Working Paper No. 78).

10 Conn CP, Walford V. (1998) *An introduction to health insurance for low-income countries.* London, Department for International Development, Health Systems Resource Centre, Institute for Health Sector Development; Criel B. *District-based health insurance in sub-Saharan Africa. Part I: from theory to practice.* Antwerp, Studies in Health Services Organisation and Policy, 1998.

11 Devadasan N (ed). *Planning and implementing health insurance programmes in India. An operational guide.* Bangalore, Institute of Public Health, 2006.

12 Ahuja R. Health insurance for the poor. *Economic & Political Weekly,* 2004, 34(28):3171–3178; Gumber A, Arora GK. Health insurance: still a long way to go. Seminar, 2006, 568:37–45; Desai S. Keeping the “health” in health insurance. *Economic and Political Weekly,* 2009, 44(38):18–21.

Amrit Kaur Virk, India

13 *Implementation of Rashtriya Swasthya Bima Yojana by Oriental Insurance Co. Ltd,* presented at the National Workshop on RSBY in Thiruvanthapuram, Kerala, on 28–29 October 2009. Oriental Insurance Company, 2009. (www.rsby.in, accessed 15 January 2010).

14 *Equitable access to healthcare and infectious disease control concepts, measurement and interventions.* Report of an international symposium in Rio de Janeiro, Brazil, on 13–15 February 2006. Geneva, United Nations Research Institute for Social Development, 2006.

15 Walt G, Gilson L. Reforming the health sector in developing countries. *Health Policy and Planning,* 1994, 9(4):353–370.

16 Peters DH et al. *Better health systems for India’s poor: findings, analysis, and options.* Washington, World Bank, 2002.

Biography

Amrit Kaur Virk is a doctoral student at the Department of Social Policy, University of Oxford, United Kingdom. She has a multi-disciplinary academic background with previous degrees in journalism, political science and sociology from the Universities of Delhi and Cambridge. Her career so far includes three years of work on HIV/AIDS and sexual health projects in India. On completing her DPhil, she plans to continue her work on health issues in India and other low-resource settings.

Shelina Visram
UK

Shelina Visram, UK

"It's not a textbook thing, is it?"
The use of lay knowledge in promoting health and increasing equity in more economically developed countries

The phrase "economically developed countries" is deliberated used in the title of this essay to draw attention to the fact that many affluent societies are insufficiently developed with respect to other aspects of well-being. Persistent health inequalities are an example of the way in which developed countries are as likely as less-affluent countries to be less developed in terms of social justice. In the United Kingdom (UK), public health has improved considerably over the last century, yet the gap between those at opposite ends of the social spectrum continues to grow. Men in the central London borough of Kensington and Chelsea live on average 83.7 years, while the average life expectancy for their counterparts in the Carlton area of Glasgow is just 53.9 years *(1)*, the lowest in Europe. How can it be that a community in a so-called "developed country" has a life expectancy that compares badly with almost anywhere in the world? What can and should the health service do to address this situation?

> **"All professions are conspiracies against the laity."**
>
> *–George Bernard Shaw, 1911*

Over the past few generations, the diseases afflicting the developed world have undergone dramatic changes. Polio, diphtheria and many other infectious diseases are disappearing, while two thirds of all deaths in the UK can now be attributed to cancer, coronary heart disease and stroke (2). These shifts are generally equated with a decrease in suffering and attributed to more and/or better medical care, though there is no evidence that a direct relationship exists. For example, almost 90% of the decrease in scarlet fever, diphtheria, whooping cough and measles in children took place before the introduction of antibiotics and extensive immunization. The advances have largely been a result of economic growth, which has contributed to rising standards of living, improved education, better nutrition and better housing. However, some segments of the population have not benefited from the improvements to the same extent as others. At the same time, individuals from these groups are more likely to exhibit "unhealthy" behaviours such as smoking, consuming a poor diet and physical inactivity, which are known to be major determinants of morbidity and mortality.

Health-related behaviours are often referred to as preventable lifestyle factors that, when they are subject to an appropriate behavioural intervention, can be reversed, resulting in health improvement. Examples include smoking-cessation services and weight-management programmes, which have the potential to increase health inequality by being more attractive and accessible to the middle classes. Furthermore, the separation of lifestyles into different elements reinforces the biomedical model of health, wherein the biological is emphasized at the expense of the social, and the physical to the detriment of

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the psychological. This results in the decontextualization of health behaviours by failing to consider how these factors interrelate and neglecting the real issues that people face in their lives. The resistance of disadvantaged groups to lifestyle advice often reflects a valid lay epidemiology whereby "unhealthy" behaviours can be deemed a rational response to everyday reality *(3, 4)*. A common example is the use of smoking as a coping mechanism in stressful situations.

Lay knowledge represents a "privileged" form of expertise about health, which poses an epistemological and political challenge to the institutional power of expert knowledge *(4, 5)*. Medicine rests upon the concept of disease as something that can be treated objectively, while lay knowledge is rooted in the subjective experience of illness. This tension is growing in importance with the inadequacy of medical explanations for many common lifestyle-related conditions and with explanations becoming so reductive they exclude what is significant to the individual. The anthropologist Cecil Helman suggested that modern medicine carries the risk of dehumanizing the patient by focusing on events within the body and creating "paper patients", i.e., emphasizing written records over patients' narratives *(6)*. There have consequently been calls for new ways of humanizing medical practice to respond to changes in the financing, organization and delivery of health care, which have resulted in a fundamental shift in the relationship between patients and care providers.

Recent years have seen a reconceptualization of patients as clients or consumers, particularly with the individualistic ethos of the lifestyle approach and neoliberal resurgence in public policy. A key public health document entitled Choosing health: making health choices easier was published by the UK government in 2004 *(2)*. This policy emphasized consumer choice and personal responsibility for health, while paradoxically acknowledging that socioeconomic disadvantage limits opportunity and restricts choices for many of those in the poorest health. Rather than aiming to improve their circumstances, the intention was to help these individuals cope better with their continuing disadvantage through a mix of education, advice and personal support to make informed lifestyle choices. Much of this work will be carried out by health trainers, who occupy a new non-professional workforce role in the National Health Service. Rather than having any sound empirical or theoretical basis, the introduction of this new role seems to imply a widespread recognition that health professionals have failed to meet the needs of people living in local communities.

The concept of lay, indigenous or paraprofessional health workers is not a new one. It is born out of the belief that every community has people to whom others turn naturally for help and advice, and is supported by theoretical arguments from anthropology positing the existence of folk and popular (lay) health systems alongside the formal system. These theories suggest that, whereas health professionals may be the most effective at treating disease, indigenous folk healers may be better suited to dealing with illness *(7)*. The evidence for the effectiveness of lay-led programmes has so far been mixed, but there are good arguments for identifying and training people who share the language, beliefs and cultural characteristics of the communities they support to act as 'cultural brokers' between the various health systems. Programmes that rely on lay workers have proliferated in the United States since the 1960s, when the role was implemented to provide mandated outreach services in poor neighbourhoods and migrant labour camps. In addition, developing countries frequently rely on lay workers where professional providers are scarce.

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The UK model is situated towards the primary prevention end of the health-care continuum, rather than playing a significant role in diagnosis, treatment or disease management. This is due to universal health system coverage and the high quality of primary care in this country. However, the inverse care law continues to operate, such that individuals from poorer areas tend to experience further disadvantage in terms of their access to, uptake of and outcomes from a range of health services and interventions. The aim of the health trainer is to facilitate the uptake of preventative services, as well as encouraging healthier behaviour and engaging groups that are typically hard to reach. Roughly 1-2% of the population is not registered with a general practitioner, yet this figure is 8% among the clients of health trainers, indicating that they have achieved some success in engaging marginalized or excluded groups *(8)*. A possible explanation is that a shared cultural identity between health trainers and service users makes it easier for them to access these individuals and understand their health needs. In my research, clients frequently make comments such as "they're on my wavelength" and "she's just one of us", bringing benefits in terms of "experience of the community", rather than textbook knowledge.

The health trainer role is relatively new and, in many areas, still being integrated into local health systems. There has been mild resistance, reportedly due to some professionals perceiving it as a "cheap way of ousting existing staff" and expressing concerns about the quality of the service. Lay or paraprofessional workers are likely to play an increasingly important role in health-care environments that are challenged by limited financial and human resources and expanding populations with chronic illness. There is some concern that these developments, combined with increasing lay knowledge of health, have undermined the cultural authority of doctors and weakened the monopoly of medicine. Hence, moves towards greater control and choice for patients and the public have naturally been met with scepticism and anxiety by some health professionals.

Despite the provocative quote at the start of this essay, the intention has not been to suggest that health professionals have no role to play in promoting health or enhancing equity. Instead, I would like to see greater pluralism in health systems and more openness to lay participation, with rejection of expert-dominated relationships in favour of more egalitarian models of client-provider partnership. The UK health trainer role is beginning to generate evidence to suggest that lay workers can be effective in terms of reaching populations that are unlikely to access formal health-care services. If the role is to be successful, the value accorded to different types of knowledge needs to be much more equal than at present. Lay expertise should be seen as a valuable source of experiential knowledge to be used in contextualizing and delivering all services seeking to improve health equity.

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References

1 Gillan A. In Iraq, life expectancy is 67. Minutes from Glasgow city centre, it's 54. ***Guardian,*** 21 January 2006.

2 Department of Health. ***Choosing health: making healthy choices easier.*** London, The Stationery Office, 2004.

3 Popay J, Williams G. Public health research and lay knowledge. ***Social Science & Medicine,*** 1996, 42(5):759–768.

4 Popay J et al. Theorising inequalities in health: the place of lay knowledge. ***Sociology of Health & Illness,*** 1998, 20(5):619–644.

5 Popay J. Whose theory is it anyway? ***Journal of Epidemiology and Community Health,*** 2006, 60:571–572.

6 Helman C. ***Culture, health and illness,*** 5th ed. London, Hodder Arnold, 2007.

7 Kleiman A. Concepts and a model for the comparison of medical systems as social systems. In: Curver C, Stacey M (eds). ***Concepts of health, illness and disease: a comparative perspective.*** Lemington Spa, Berg, 1986:27–47.

8 Carse R. A view from the top? In: ***North east health trainers: 3rd Annual Health Trainer Conference*** at Gateshead, UK, on 26 March 2010.

Biography

Shelina Visram graduated from Oxford University, United Kingdom, in 2003 with a Bachelor of Arts in human sciences with honours. She began working for Northumbria University, Newcastle-upon-Tyne, United Kingdom, as a research assistant in 2004, where she developed a keen interest in health promotion. After completing a part-time Master of Public Health at Northumbria University in 2007, Shelina was awarded a doctoral research fellowship by the National Institute of Health Research in 2008. This fellowship has enabled her to design and conduct a project exploring the use of lay health trainers in the National Health Service. Her thesis is due for submission in September 2011.

Yohann White
Jamaica

Yohann White, Jamaica

Health systems research: towards universal health coverage

> “This is the way it was done... When I was young we all just caught these illnesses...got over them...and developed our own immunity.”
>
> *– Mother of two in Middlesex, England, fearful of the measles vaccine (1)*

As soon as parents hear of a child sick with measles, they start buying candies and calling other parents to take their kids to a “measles party” for a natural dose *(2)*. How do we explain to these mothers their mistake? Mathematically? – that one person with measles could spread it to 16 others; that stopping measles requires that more than 9 of every 10 people get the vaccine *(3)*; and that, as more people refuse the vaccine, we could be heading for a massive outbreak that could also kill. Or do we explain in terms of ethics? – that vaccination protects not only their children but the broader society from measles and its possible dangerous complications. It would be desirable to extend such a benefit to everyone, resulting in the greatest good to the greatest number of people. Indeed, a safe and effective vaccine is arguably one of few things able to garner support from the often competing Kantian philosophy and Utilitarian perspectives.

In stark contradistinction, the adage to never to count your children until after the measles is well known to mothers in the developing world, reminding us of the nearly 400 000 children who die annually because they cannot access the vaccine, though it costs less than one dollar to immunize a child *(4)*. This is unconscionable neglect – indeed, carnage by inaction. Incredibly, the United Kingdom spends millions on media campaigns persuading women to accept the human papilloma virus vaccine that protects against strains causally implicated in cervical cancer. It costs more than the measles vaccine but is similarly effective and is covered under the National Health Service with little or no direct costs to recipients. But it will perhaps be more than a decade before that becomes the reality in developing countries. Though a world apart, these mothers share one thing in common: a loss of trust in the civic institutions and leadership of their respective countries. A deficit in governance may be the single greatest factor threatening to upend the successes of the noble, innovative and responsive leadership of recent global initiatives to improve access to vaccines.

Global efforts like the Measles Initiative, Global Alliance for Vaccines and Immunization (GAVI) and Program for Appropriate Technology in Health (PATH) have been nothing short of miraculous. From 2000 to 2008, 700 million vaccine doses were delivered to children aged from 9 months to 14 years. Such heroic initiatives have resulted in an increase in measles vaccination coverage from 73% in 2000 to 83% in 2008, and a decline of nearly 80% in the number of lives lost to measles *(5, 6, 7, 8)*. Ten years ago, Africa had three fourths of the countries that accounted for the majority of measles deaths. Today, there has been a 93% reduction in measles deaths in Africa. Novel management strategies and a bottom-up micro-planning approach are advocated by the Measles Initiative. Improving access to vaccines as part of a holistic approach to health-care delivery resonates well with community leaders and end-users. In several places there is access to vitamin A supplementation and insecticide-treated bed nets alongside vaccines. Other strategies include improving staff retention policies in Ghana and Zambia to counter the existing brain drain *(9)*. Increased community participation in health-care planning has positively affected the health system in Viet Nam *(6)*. Improving access to vaccines cannot be divorced from improving health systems.

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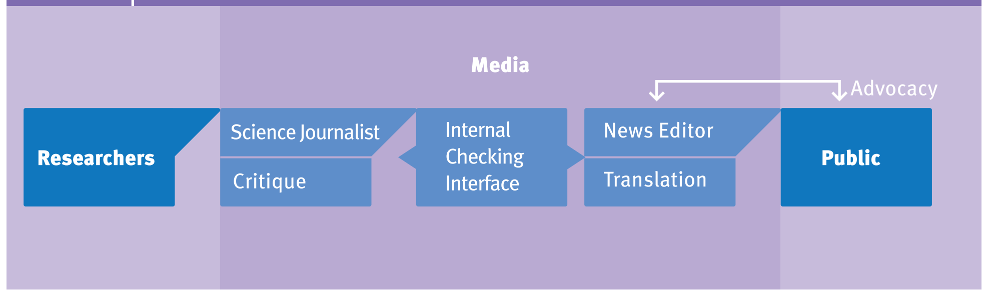
Under the bold leadership of GAVI, the most innovative of all has been advance market commitments, through which manufacturers receive volume and market assurances as security and incentive for responding to the needs of poorer countries. Critics have lambasted such partnerships, characterizing them as incestuous and unethical. They argue that it is a cover for a means to an end for industry and that policy-makers’ endorsement of such initiatives undermines their constituents’ autonomy. What we too often fail to recognize – and admit – is that vaccine manufacturers cannot exist without money. The free market economy drives the innovation required for improving human lives. In the words of Bill Gates, “Society underinvests...in innovations that would mostly benefit poor people...because the poor can’t generate a market demand” *(10)*. It may be true that fundamental innovations will always come from science-based advances *(11)*, but it will require revolutionary leadership to ensure access.

In no other arena has there been a greater deficit in leadership than has been recently observed in journalism. The media play a key role in shaping the way people understand issues. The media are a civic institution in which people have placed a tremendous amount of trust. In 2009, there was a measles outbreak in Wales; in England, increasingly larger and more frequent outbreaks presage an impending epidemic *(3)*. This comes on the heels of the notorious ‘research’ article published in one of our most esteemed scientific journals linking the measles–mumps–rubella (MMR) vaccine to autism. In addition to the scrutiny of the peer-review process that ensued, the media failed to examine or report on methodological shortcomings of the study in question. Fearful that reporting on the lack of scientific rigour of that study would have undermined their sensationalized story, they are as guilty of misleading and endangering the public as the original study author *(12)*. The present state of affairs concerning the media is one in which scientific knowledge generated by researchers is simplified by passive journalists and channelled to a receptive, unquestioning public *(13)*, ignoring the reality that the world of research is, necessarily, often riven with cantankerous debate *(14)*. In addressing the challenges of everyday life, laypeople employ a range of strategies (among which a traditionally “scientific” approach may not be the most important) that draw upon a variety of resources including culture, emotions, ethics, trust and customs to produce satisfying results congruent with their values and conscience *(13)*.

In one study, fewer than 50% of the American public thought the media were doing a good job for society, compared with 80% who viewed scientists favourably and only 40% who thought government regulators were functioning well *(15)*. What is needed is a model in which appropriately qualified science-specialized journalists can critique what is churned out by the research community *(16)*, and in which media practitioners ensure that accurate information is transmitted to consumers (Figure 1). Instead, the present status quo is a lack of original critical reporting, replaced by ‘wholesale journalism’ to fill the widened void as shrinking staff aim to fill multimedia and internet platforms. It is wholesale journalism that gave more than 50% of British residents the impression that the scientific community was conflicted regarding the safety of the MMR vaccine *(17)*, despite nearly all scientists and experts having rejected such claims. The media have faltered big time, but this is an opportunity for a paradigm shift wherein shrewd media practitioners become effective translators, influence policy priorities and act as public advocates.

Figure 1 **Stewardship model for the media in science**



"No cause and no conflict can be greater or more urgent than the cause of protecting all children", read a joint press release from the United Nations Children's Fund and the World Health Organization *(18)*. So central is a free and functioning press to democracy and the people's well-being that corrupt governments often find it necessary to usurp their role. Poor infrastructure, ubiquitous 'landmines' and displaced populations are the results. An entire generation of children went unimmunized because of war in Angola, causing one child death per day. Under the Taliban regime in Afghanistan, health workers were prevented from reaching vulnerable populations for vaccination. Poor governance seems to have no prejudice for so-called failing states; flagship democracies like India are not living up to their obligations to their most vulnerable citizens. Most deaths due to measles today occur in India. Too many states lack the political and financial commitment without which global efforts to improve vaccine access will stall *(19)*.

The stewardship of a competent and free press is vital to uncovering the poor governance that impedes our leaders' investment in health, understanding how the resulting stagnant infrastructure and health systems impede access to health services, and empowering people by advocating community-participatory approaches that lift health systems. Through the effective translation of scientific knowledge generally, and highlighting and advocating the expansion of proven approaches specifically, a functional and ethical media will have the capacity and responsibility to positively affect policy and practice.

References

1 *Children infected at 'measles parties'.* British Broadcasting Corporation, 2001 (*http://news.bbc.co.uk/2/hi/in_depth/health/1448848.stm,* accessed 14 April 2010).

2 Dillner L. *The return of the measles party.* Guardian, 25 July 2001 (*http://www.guardian.co.uk/lifeandstyle/2001/jul/26/healthandwellbeing.health,* accessed 14 April 2010).

3 Jansen VA et al. Measles outbreaks in a population with declining vaccine uptake. *Science,* 2003, 301(5634):804.

4 Measles Initiative. 2010 (*http://www.measlesinitiative.org,* accessed 16 April 2010).

5 *Investing in immunisation through GAVI Alliance: the evidence base.* Global Alliance for Vaccines and Immunisation, 2010 (*http://www.gavialliance.org/resources/GAVI_Alliance_Evidence_Base_March_2010.pdf,* accessed 26 April 2010).

6 *Immunization maintains strong performance made in last quarter century.* Program for Appropriate Technology in Health, 2005 (*http://www.path.org/news/pr-051004-WorldVaccineCongress.php,* accessed 26 April 2010).

7 World Health Organization. Global reductions in measles mortality 2000–2008 and the risk of measles resurgence. *Weekly Epidemiological Record,* 2009, 84(49):509–516.

8 *Measles: key facts.* Geneva, World Health Organization, 2009 (*http://www.who.int/mediacentre/factsheets/fs286/en/index.html,* accessed 16 April 2010).

9 Anyangwe SCE, Mtonga C. Inequities in the global workforce: the greatest impediment to health in Sub-Saharan Africa. *International Journal of Environmental Research and Public Health,* 2007, 4(2):93–100.

10 Gates B. Innovation: the difference between a bleak future and a bright one. 2010 annual letter from Bill Gates (*http://www.gatesfoundation.org/annual-letter/2010/Documents/2010-bill-gates-annual-letter.pdf,* accessed 22 April 2010).

11 Gates B. Microsoft Government Leaders Forum Europe 2006, Lisbon, Portugal, on 1 February 2006 (*http://www.microsoft.com/presspass/exec/billg/speeches/2006/02-01GLFEurope.mspx,* accessed 23 April 2010).

12 Goldacre B. Expert view: the media are equally guilty over the MMR vaccine scare. Guardian, 28 January 2010 (*http://www.guardian.co.uk/science/2010/jan/28/mmr-vaccine-ben-goldacre,* accessed 23 April 2010).

13 Gregory C, Miller S. Caught in the crossfire? The public's role in the science wars. In: Labinger JA, Collins H (eds). *The one culture?* Chicago, University of Chicago Press, 2001:61–72.

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14 Hornig S. Reading risk: public response to print media accounts of technological risk. *Public Understanding of Science,* 1993, 2(2),95–109.

15 Hornig-Priest S. US public opinion divided over biotechnology? *Nature Biotechnology,* 2000, 18:939–942.

16 Williams A, Clifford S. *Mapping the field: specialist science news journalism in the UK national media.* Cardiff, Cardiff University School of Journalism, 2009.

17 Parents *'misled' by media over MMR.* British Broadcasting Corporation, 19 May 2003 (*http://news.bbc.co.uk/2/hi/uk_news/wales/north_west/3038607.stm,* accessed 16 April 2010).

18 *UNICEF, WHO call for Uganda cease-fire for mass immunization against measles.* United Nations Children's Fund, 2003 (http://www.unicef.org/media/media_14923.html, accessed 16 April 2010).

19 *Vaccine policy leaves millions at risk.* British Broadcasting Corporation, 20 November 2002 (*http://news.bbc.co.uk/2/hi/health/2492471.stm*, accessed 16 April 2010).

Biography

Yohann White received his medical training at the University of the West Indies, Jamaica, graduating with honours in medicine and therapeutics. He was producer of 'Radio, M.D.', a health programme for the university's radio unit. Following on from that programme, he implemented a special study module in 'The use of radio in health promotion/education' for medical students. He holds a Diploma in Vaccinology from the Institut Pasteur, Paris, and is presently a PhD candidate in immunology at Kagoshima University, Japan. He is also a member of the American Society of Haematology. He founded GrataFoundation.org, a non-profit research organization aimed at improving gender and sexual health in the community.

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Global healthcare: where there is a will, there will be a way

Describing, comparing and evaluating health systems all over the world is a delicate and complex matter. It is perhaps not wealth that is the core issue as to why health care is not widespread globally *(1)*. It may also have much to do with political will and governmental disposition *(2)*. There is a health-care disparity worldwide, with many nations unable or unwilling to provide accessible health care to all citizens. Governments worldwide need to start comprehending that health care is not a privilege but a fundamental right that should be granted to all citizens *(3)*. In this paper, I will briefly discuss the complexity of scientific global research on health systems from a social perspective. Then I will demonstrate what scientific health service research could contribute to the improvement of health systems on a global and national level.

Why it is complicated

When discussing changing health systems globally and making health care accessible to all, we should be cognizant that many country aspects are involved and that it is usually quite difficult to motivate a government to transition in a certain direction. Many governments have various dispositions on how health care in their countries should be handled. These dispositions are most often systematically rooted in many factors, such as the environmental or political situation, social history and country background. Seldom is health-care access simply a matter of wealth or economics *(2)*.

It is conceptually quite difficult to try to disconnect these factors when considering which type of health system fits a certain country. For example, we cannot separate the fact that social history or politics has just as much influence as other, more monetary or logistical factors when governments begin to weigh the decision to make health care accessible for all. Take for instance Muslim countries. The Muslim influence is dominant in these nations and greatly influences political investments, as Dekmejian notes *(4)*, and it is important to recognize that Islam is not a religion in the western sense but is deeply intertwined with the culture, laws and policies of the Middle East. This example illustrates how social components may affect political decisions. It also shows the complexity of identifying causal pathways in health service research. Therefore, when advocating global health care or researching how we could possibly attain it, points such as these should be taken into consideration.

No blanket systems

No nation has outlined a perfect system, and research has shown that even those systems that are universal in nature, such as in Scandinavia, are not doing as well from a health standpoint as once thought *(5)*. This highlights that even modern, robust systems may not work in other nations. Clearly, one blanket health system cannot be imposed on the entire world, as the political histories and country backgrounds are too different. Global health has to remain pluralistic, and we cannot skip over the impact of politics, religion and tradition, etc., when attempting to deduce either empirically or politically how we hope to implement worldwide health-care access for all.

Research on national factors is the first step

Nevertheless, despite the complexities involved on the social side of obtaining global health care, it remains an urgent and important matter, which certainly warrants further scientific health systems research. Previous studies on this matter, however provisional, can be very important for stimulating an interactive communication network between parties such as governments, nongovernmental organizations and other institutions or actors that are concerned with the issue of global health care.

It is very important that we describe, compare and evaluate each other's health systems and learn from each other's experiences to shape every country's individual health system; not by imitation, but by learning about the differences and commonalities, as well as the problems and advantages. This will help us to identify which parts of the health system can be adapted or altered in various countries to improve the current situation and possibly achieve the goal of health care for all.

Currently, investigators have been carrying out systematic research aimed at examining the role national factors have on population and individual health. They are trying to explore and distinguish the differences between countries in the hope of identifying how to improve the health situation. These studies have produced interesting results that may prove beneficial in the quest to achieve global health care. For example, studies have found that the environment and country location has a direct influence on population and individual health *(6, 7)*. This further provides evidence that it is very important to take into account the context of the country, because when thinking about global health care we cannot impose one country's context on another.

In addition to this, other studies have explored political traditions or welfare regimes to examine how security provided by the government in the form of basic social services (i.e., housing, education, health care, pensions, etc.) affects public and individual health (8, 9). For example, research has shown that public health, measured as an aggregate infant mortality rate, is directly related to the political system *(10)*. The phenomenon of examining welfare regimes is not new, but the incorporation of regime theory into health epidemiological studies is a novel approach (11). Results observed from these types of studies might be used to advocate, propel and shape health policy that may directly influence social investments made in particular countries.

Global comparative studies are vital

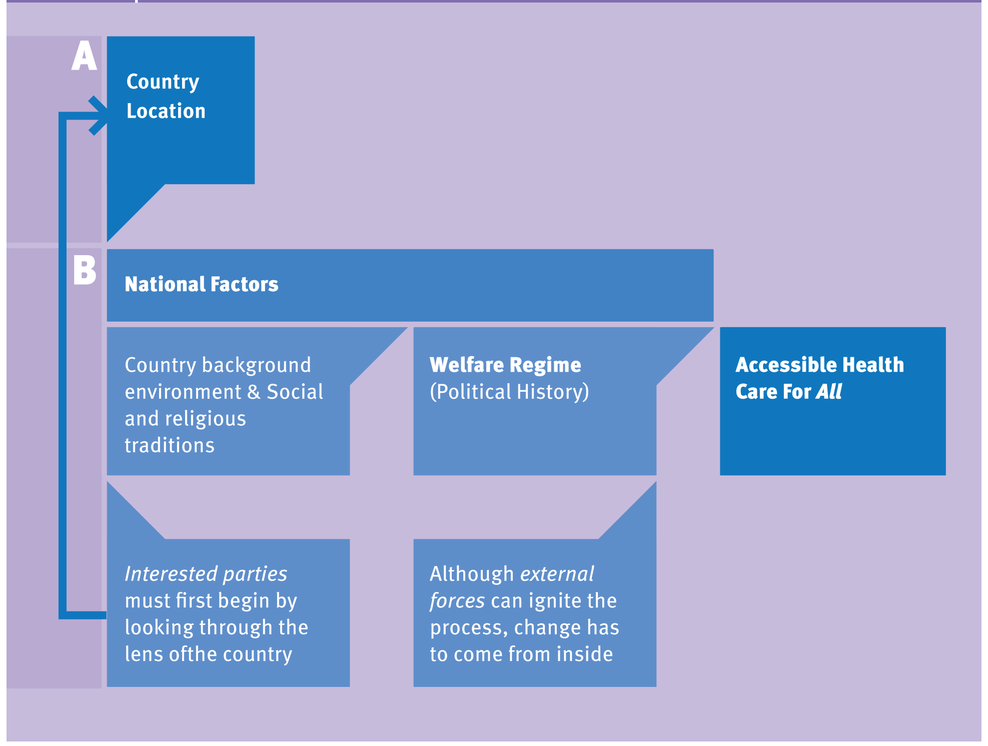
Most studies of national determinants of health to date have investigated only the western European and North American experience. Some studies have incorporated central and eastern Europe and south-east Asia into their investigations *(12, 5)*. However, there is noticeable neglect of less affluent countries, with only a few studies focusing on low- and middle-income nations. It is a pity that very little attention has been given to low- and middle-income countries, considering that, if national factors are examined from a global perspective, a more complete picture can be ascertained about health systems worldwide. Examining health systems globally may show, for example, that Europe has something to learn from Asia or vice versa.

To further stimulate this movement towards global health care, more politically themed policy and health research should be carried out with particular emphasis placed on low- and middle-income countries. If nations begin to see how they are measuring up globally health-wise from a political perspective, which is very much synonymous to a policy standpoint, perhaps they will have no choice but to embark on a process of change. Moreover, this type of research may help to stimulate mutual aid and show countries how they can best help a neighbouring nation in need achieve global health care.

Social process of change

The frame of reference depicted in Figure 1 is an illustration of the social factors that should be considered when examining the process that might lead to global health care for all. It can be improved by further global comparative research, but nevertheless it is useful as a starting point.

Figure 1 **Social process of change that may be the first step in globally achieving accessible health care for all**



As depicted at level A, the country location is the main factor that remains stable. The country location provides substantial information on the factors that can be influenced, which is represented at level B. For example, a country's national factors, such as the political history or welfare regime, are rarely static and can be amended at will *(13)*. Level B contains elements that may lead to altering the manner in which social protection is extended to citizens. In Figure 1, welfare regimes are isolated, since regimes alone have the power to put policy change in motion.

Further, it is up to the actors within nations to start the process of transition. Although in practice this may be difficult, it is not impossible. This health care transition process can be observed in Viet Nam, Thailand and Latin America *(1)*. This is why it is imperative that, on a global level, we continue to advocate that governments (i.e. welfare regimes) alter their political disposition to reflect more accessible health care policies. It is certainly not an impossible mission, because where there is a will there will be a way.

Conclusion

There is no 'one size fits all' solution to global health care. However, even though the subject of worldwide health care is multifaceted, as long as global comparative health service research is valid and inclusive we may be able to ascertain what solution works for each country.

References

1 Garrett L, Chowdhury M, Pablos-Mendez A. All for universal health coverage. ***Lancet,*** 2009, 374:1294–1299.

2 Carrin G et al. ***Bulletin of the World Health Organization,*** 2008, 86(11):857–863.

3 Backman G et al. The right to health: from rhetoric to reality. ***Lancet,*** 2008, 372:2047–2085.

4 Dekmejian R. The anatomy of Islamic revival: legitimacy crisis, ethnic conflict and the search for Islamic alternatives. ***Middle East Journal,*** 1980, 34(1):1–12.

5 Eikemo T et al. Health inequalities according to educational level in different welfare regimes: a comparison of 23 European countries. ***Sociology of Health and Illness,*** 2008, 30(4):565–582.

6 Arah OA. On the relationship between individual and population health. ***Medicine, Healthcare & Philosophy,*** 2009, 12:235–44.

7 Witvliet M et al. Variations between world regions in individual health: a multilevel analysis of the role of socioeconomic factors. Submitted.

8 *Navarro V* et al. The importance of the political and the social in explaining mortality differentials among the countries of the OECD, 1950–1998. ***International Journal of Health Services,*** 2003, 33(3):419–94.

9 Chung H, Muntaner C. Welfare state matters: a typological multilevel analysis of wealthy countries. ***Health Policy,*** 2007, 80(2):328–339.

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10 Navarro V, Shi L. The political context of social inequalities and health. ***Social Science & Medicine,*** 2001, 52(3):481–91.

11 *Beckfield J, Krieger N.* Epi + demos + cracy: Linking political systems and priorities to the magnitude of health inequities – evidence, gaps, and a research agenda. ***Epidemiologic Reviews,*** 2009, 31:152–177.

12 Gough I. Globalization and regional welfare regimes: the East Asian case. ***Global Social Policy,*** 2001, 1(2):163–89.

13 Wood G, Gough I. A comparative welfare regime approach to global social policy. ***World Development,*** 2006, 34(10):1696–712.

Biography

Margot Witvliet is completing a PhD at the Academic Medical Center at the University of Amsterdam. Together with Dr Anton Kunst, Dr Onyi Arah and Professor Karien Stronks, she is working on a global health project focusing on investigating the health effects of politics. Her specialisation is social epidemiology, multilevel modelling and global public health. She completed her Bachelor of Arts in psychology at the University of Colorado at Boulder (United States), and her Master of Science in health psychology with a particular emphasis on research methods, at the University of Leiden, the Netherlands.

Edwin Wouters
Belgium

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No one should walk alone: achieving universal treatment access through community mobilization

On 11 February 1990, a dignified yet defiant Nelson Mandela walked out of Victor Verster Prison in Cape Town, South Africa, free after 27 years. In his autobiography, Long Walk to Freedom, Mandela describes how he literally walked towards freedom, at the same time as sharing this freedom with the nation *(1)*. South Africa was now well on its way to harvesting the fruits of liberty and human rights.

History taught us that a number of obstacles severely hampered this walk to freedom, one of them being the subject of this essay: the HIV/AIDS epidemic. The epidemic renders the country's continued journey to freedom, democracy and prosperity increasingly difficult. In 1994, at the time of the first democratic elections, HIV prevalence among women attending antenatal clinics stood at 7.6%. By 2008, this figure was almost four times as high at 29.3%. At 5.7 million, South Africa has the largest number of HIV-infected people of any country in the world *(2)*.

Those who are not infected, dying or dead are equally affected by the epidemic because HIV/AIDS is not solely a public health problem; it has become one of the greatest social, economic and humanitarian crises. The disease not only affects the human body by causing suffering and premature death, it also profoundly affects the social, political and economic fabric of society. The epidemic destabilizes the nation as parents and workers succumb to AIDS-related illnesses; social structures and the division of labour in households, families and communities are disrupted; and essential social processes and functions sustaining order are upset or discontinued. In one way or another, HIV/AIDS affects all South Africans.

Fortunately, the development of life-saving antiretroviral drugs brought new hope. In high-income countries, combination highly active antiretroviral therapy (ART) has extended and improved life for many people living with HIV/AIDS. ART transformed HIV/AIDS from a fatal disease into a more manageable chronic illness. In 2003 – at long last – the South African cabinet announced that the government would, as a matter of urgency, start implementing ART in the public health sector. This would become the largest and most costly public health programme ever introduced. The long walk to ART commenced. In such an endeavour the possibility exists that things could go wrong – on both the provider and the recipient side of the health system. Because of the scale of the epidemic, its resource-intensive demands and doubts about the potential for success of a large-scale ART programme in a setting with high HIV prevalence and limited resources, researchers around the world looked at the initial results of the South African public ART programme with Argus's eyes. In collaboration with the Centre for Health Systems Research and Development (CHSRD) of the University of the Free State, I too studied the virological, immunological and quality-of-life outcomes of the programme *(3)*. The study shows that the South African public ART programme can be effective and efficient in delivering high-quality care resulting in favourable ART outcomes. This confirms universal treatment access as a key policy priority.

However, a number of programme characteristics and health system constraints hamper the successful scaling up of treatment in South Africa.

Firstly, the heavy HIV/AIDS burden, together with the urgency to increase patient numbers, resulted in a strongly vertical approach to programme implementation. Ample research shows that there was hitherto only minimal integration of ART services into other district-based primary health care (PHC) services. This creates the risk of ART facilities becoming "islands of excellence in seas of under provision" *(4)*. ART facilities have a dramatic, positive impact on the lives of patients enrolled in the programme, but still – after seven years of implementation – it unfortunately and inequitably serves only 40.2% of South Africans currently in need of ART *(2)*. To spread the gains of ART over the entire population in need, it is imperative to gradually move away from this initial vertical implementation towards a horizontal approach that fully integrates ART into the district-based PHC system and renders ART more readily accessible to the masses of HIV/AIDS patients in need.

Secondly, while ART is available and highly effective, it is complex to manage. Lifelong treatment with at least three antiretroviral drugs is necessary. Therapy requires high adherence to be effective. Thus a successful ART programme involves far more than patients taking their pills on a daily basis. Because the epidemic not only affects the body but also has clear socioeconomic dimensions, any successful solution to the epidemic needs to address this multidimensionality. Therefore, the implementation of the ART programme should not only be well integrated into the PHC system, it should also be comprehensive in addressing the social and economic dimensions and needs of HIV/AIDS care (e.g. social support, socioeconomic status and education) to break the cruel cycle of social and economic poverty, high-risk sexual behaviour, and HIV/AIDS.

Finally, against the daunting challenge to move beyond a single-purpose, vertical programme towards an integrated PHC approach and, at the same time, address the socioeconomic factors that continually fuel the epidemic, one could well ask who will do the job. The inadequate supply and poor retention of skilled health professionals is deplored as the single most serious obstacle to implementing the national treatment plan in South Africa. Thus far, the largely doctor- and nurse-driven implementation of ART has become increasingly unable to bridge the gap between the islands of excellence and the majority of HIV/AIDS patients drowning in a sea of under provision.

However, the unavailability of skilled personnel cannot be a justification for paralysis on the road to a comprehensive and integrated ART programme, including universal ART coverage. Following my own research in collaboration with the CHSRD, I propose that community participation can positively influence ART programme outcomes by addressing the above-cited needs associated with ART scale-up *(5, 6)*. This can be done

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in a threefold manner: Firstly, community support initiatives – such as community health workers, treatment buddies and patient support groups – can act as multipurpose health workers who link HIV/AIDS care to other equally important PHC programmes such as controlling tuberculosis. Secondly, community care providers can broaden HIV/AIDS care beyond mere medical care tasks by providing social support and counselling. In this way, community support initiatives meet the emerging needs associated with chronic AIDS care, for which, as a result of worsening shortages of health professionals, their roles are becoming progressively limited to technical, medical and nursing tasks. Finally, communities can thus be considered an under-exploited resource for building and strengthening the capacity to care for chronic disease that is needed to successfully scale up ART in the public sector, as well as to integrate a comprehensive HIV/AIDS strategy into the general health system. Without the involvement and mobilization of communities, the South African ART programme will probably be ineffective in translating its ambitious policy intentions into favourable and sustainable ART outcomes.

Initial ART outcomes show great promise for the future, but there is no room for complacency. By providing ART services to fewer than half of the HIV/AIDS patients in need of ART, the programme has passed only its first hurdle. Many obstacles remain on the road to universal access. However, scaling up treatment cannot be allowed to fall short of expectations, because statistics from the Joint United Nations Programme on HIV/AIDS demonstrate that young, productive South Africans are dying of AIDS at a rate of 1,000 per day, which is equivalent to a 9/11 attack every three days *(1)*. Expanding the public ART programme so that it reaches all South Africans in need is a conditio sine qua non that will require community involvement. It is, after all, an epidemic that affects all South Africans and therefore needs to be addressed by all South Africans. The road to the successful management of the South African HIV/AIDS epidemic is still a long and hard one. As Mandela said:

I have walked that long road to freedom. I have tried not to falter; I have made missteps along the way. But I have discovered the secret that after climbing a great hill, one only finds that there are many more hills to climb. I have taken a moment here to rest, to steal a view of the glorious vista that surrounds me, to look back on the distance I have come. But I can rest only for a moment, for with freedom comes responsibilities, and I dare not linger, for my long walk is not yet ended. (1)

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References

1 Mandela N. (1994) ***Long walk to freedom. The autobiography of Nelson Mandela,*** London, Little, Brown and Company, 1994.

2 ***UNAIDS outlook report.*** Geneva, Joint United Nations Programme on HIV/AIDS, 2010.

3 Wouters E et al. State of the ART programme: clinical effectiveness and physical and emotional quality-of-life improvements in the Free State Province, South Africa. ***AIDS Care,*** 2009, 21:1401–1411.

4 Buse K, Waxman A. Public-private partnerships: a strategy for WHO. ***Bulletin of the World Health Organization,*** 2001,79:748–754.

5 Wouters E et al. Impact of baseline health and community support on antiretroviral treatment outcomes in HIV patients in South Africa. ***AIDS,*** 2008, 22:2545–2549.

6 Wouters E et al. Public-sector ART in the Free State Province, South Africa: community support as an important determinant of outcome. ***Social Science & Medicine,*** 2009, 69:1177–1185.

Biography

Edwin Wouters is a postdoctoral fellow of the Research Foundation Flanders, working at the Research Centre for Longitudinal and Life Course Studies (University of Antwerp). His doctoral research (2005-2009) focused on the social aspects of HIV/AIDS care in southern Africa, with a special interest in social support, stigmatization and quality of life. For this research, he closely collaborated with the Centre for Health Systems Research and Development (CHSRD) at the University of the Free State in South Africa. His doctoral research and associated international publications earned him the 2010 Matthieu Encouragement Prize. His recent appointment as a research associate of the CHSRD enables him to pursue his studies about the impact of community participation and integrated health systems on public health outcomes in resource-limited settings.

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Stories of knowledge translation: lessons learned from three years of experience working in a policy research unit under the Thai Ministry of Public Health

Introduction

Quality research can increase opportunities for publications or influence policy and practice. Evidence-based policy has become well-known and accepted by decision-makers and users. To link research and influence, knowledge translation should be introduced as essential. In this context, 'knowledge' specifically refers to sound scientific research aiming to support policy and practice.

The idea of writing up this knowledge-translation topic came up last month when I became involved in an interesting policy process, presenting research findings in a monthly ministerial meeting. As I am a researcher in an affiliate unit of a semi-autonomous research arm of the Ministry of Public Health – the Health Intervention and Technology Assessment Program (HITAP) – I have had opportunities to become involved in the policy process. This essay aims to share experiences of translating research into policy and practice during my three years working in HITAP.

Ministerial meeting: a direct channel for knowledge translation

This research topic was initiated by the Bureau of Health Policy and Strategy under the Ministry of Public Health, as there were a number of requests for a clear policy from hospitals under the ministry, hospitals in the private sector, and companies that import medical devices.

The plan from February 2010 was to present research findings in monthly ministerial meetings of the health minister, permanent secretary and heads of all departments. However, the health minister resigned after being accused of corruption. The case was related to expensive medical devices purchased under the government's United Thais, Strong Thailand Project. On 26 March 2010, there was a call from a secretariat team with the information that the topic would be reconsidered. Early in the morning of the meeting day, the agenda was suddenly withdrawn, as it was said to provide 'sensitive' policy recommendations.

Findings indicated that there were a number of acts that did not comply with regulations *(1)*. This was because health professionals gave priority to patients' benefits. Moreover, they wanted to have autonomy in their areas of expertise and to overcome bureaucratic problems. Finally, a senior decision-maker suggested that there were other, informal channels for the use of this evidence. The research team was advised to develop a brief

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note summarizing the findings, including recommendations to the permanent secretary, for further consideration.

Social movement: alternative knowledge translation channel

The Center for Alcohol Study, an autonomous research institute under the Thai Health Promotion Foundation, requested from HITAP a study on the social costs of alcohol consumption. It was expected that the results would be used to support the promulgation of an alcohol act. Eventually, the Alcohol Control Act, announcing a ban on all alcohol advertising, an increase in the age at which people were permitted to buy alcohol and the designation of alcohol-free zones, was accepted by the Cabinet on 31 March 08.

Alcohol impacts such as road accident injuries and violence have been recognized for many years. However, there was no measurable evidence to present to society or the government, which benefits greatly from alcohol taxes, how great the impact was. Although the Thai government collect more than US$ 2 billion in alcohol taxes in 2008, findings indicated that the direct and indirect costs of alcohol consumption – including health-care expenditures, lost productivity, law enforcement and property loss due to accidents – meant Thai society actually shouldered costs twice as high as the monetary benefits obtained from alcohol taxation *(2)*.

This knowledge was used by civil society to support a movement in favour of the act. The translation of this research could be easily understood by the general public, which already recognized alcohol as a top-ranked risk. These factors brought success to the process.

Management of knowledge and targeting stakeholders: mixing of translation channels

Evidence on the human papillomavirus (HPV) vaccine is special, as there are different types of knowledge produced. Each study targeted different stakeholders. HITAP conducted four related studies on (i) the development of policy strategy for the prevention and control of cervical cancer in Thailand *(3)*, (ii) a feasibility study for scaling up the cervical cancer prevention scheme, (iii) a HPV vaccine marketing strategy study observing inaccurate promotion on the Thai market *(4)*, and (iv) a study on the role of evidence from health-care technology assessment in policy decision using a case study of the HPV vaccine *(5)*.

These study results were distributed to targeted stakeholders. For example, the information on the vaccine's value for money was presented to decision-makers at the national level and vaccine companies, while information on inappropriate marketing strategies was presented to the Thai Food and Drug Administration, as the responsible agency, and to consumers. Findings from the feasibility study were presented to the Department of Health and Department of Medical Services, which is responsible for cervical cancer screening.

Knowledge translation in these cases is interesting, as it was found that a single set of evidence is not enough because every policy involves various stakeholders with different social values and benefits. The process of knowledge translation enhanced the capacity of both researchers and stakeholders.

Three key findings

High-quality research alone is not enough to translate research into policy and practice; knowledge-translation skills are also required *(6)*. All the presented cases proved that, to translate knowledge into policy and practice, academic power alone is unquestionably not enough. Also needed is support from political and social movements, described by Wasi as the "triangle that moves the mountain" *(7)*.

These cases suggest that there are three keys to enhancing the use of research in policy and practices.

Process is as important as knowledge creation. Academic integrity and research quality are crucial, as they are the foundation of successful knowledge translation. Publishing internationally is one common method. In addition, consultations of experts and stakeholders are required for the entire process. This not only supports academic integrity but also creates a sound process. Involving stakeholders in early stages – in the formulation and fine-tuning of research questions – is as important as producing quality research. HITAP employed a process of topic selection in which stakeholders were allowed to propose and prioritize research topics. This process helped facilitate the involvement of stakeholders, which is key to success and ensures that the right questions are researched as well as subsequent acceptance by stakeholders.

There is always a channel of knowledge translation. Past experience has shown that every prioritized research topic has suitable channels for advancement. Some work may be advanced through policy forums such as the ministerial meeting. Others, such as the Alcohol Control Act case, may be more suitably promoted through social movements or the national health assembly. Moreover, the establishment of formal and constructive channels, such as links between research institutes and their users, is suggested.

Capacity building and sustaining young researchers Knowing how research translates into policy and practice is valuable and a continuing quest. Thus, it is essential to support a new generation's involvement in this process by providing opportunities for them to learn from real experiences. It should be considered a part of knowledge management rather than a single case of knowledge translation *(6)*. However, simply recruiting young researchers is not enough. It is also imperative to create a good working environment and to provide close supervision by experienced researchers *(8)*.

Personal reflection to knowledge translation

From my three years' experience working in a policy research organization, I have learned and gained fruitful experience regarding the importance of capacity building and sustaining young researchers. In my view, an opportunity to involve them in knowledge translation is an important factor that greatly inspires and makes a career as a researcher an effective one.

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References

1 Yothasamut J, Teerawattananon Y, Hengboriboonpong P. *Public-private partnership in health sector: collaborative framework for Ministry of Public Health's hospitals and private sector.* Nonthaburi, Bureau of Health Policy and Strategy, Ministry of Public Health, 2010.

2 Thavorncharoensap M et al. The economic costs of alcohol consumption in Thailand, 2006. *BMC Public Health* (in press).

3 *Research for the development of an optimal policy strategy for prevention and control of cervical cancer in Thailand.* Nonthaburi, International Health Policy Program & Health Intervention and Technology Assessment Program, 2008.

4 Putchong C et al. *The dissemination of information about Human papillomavirus (HPV) vaccine via printing media in Thailand and the effects of this information for knowledge, attitude and vaccination decision among women in Thailand.* Nonthaburi, Health Intervention and Technology Assessment in Thailand, 2009.

5 Tantivess S et al. *The role of health technology assessment evidence in decision making: the case of human papillomavirus vaccination.* Nonthaburi, Health Intervention and Technology Assessment Program, 2009.

6 Chunharas S. An interactive integrative approach to translating knowledge and building a "learning organization" in health services management. *Bulletin of the World Health Organization,* 2006, 84:652–657.

7 Wasi P. "Triangle that moves the mountain" and health systems reform movement in Thailand. *Human Resources for Health Development Journal,* 2006 4:106–110.

8 Pitayarangsarit S, Tangcharoensathien V. Sustaining capacity in health policy and systems research in Thailand. *Bulletin of the World Health Organization,* 2009, 87:72–74.

Biography

Jomkwan Yothasamut graduated with a Master of Arts in Social Development in 2006 and a Bachelor of Arts with 2nd class honours in economics in 2005. In November 2006, she was involved in the establishment of the first health technology assessment (HTA) agency in Thailand and has been working as a researcher for the agency ever since. Her recent works focus on capacity building in health policy and systems research, particularly on HTA and healthy public policy. She has contributed to publications in leading international journals, and earned the Best Research of the Year award at the annual conference of the Thai Ministry of Public Health in 2008.

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