Post-conflict healthcare reconstruction: Yemen and the window of opportunity for primary care

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Primary care, a key component of healthcare systems, is defined by the World Health Organization as "first-contact, accessible, continued, comprehensive and coordinated" care. It is cost-effective, equitable and leads to improved whole-person and population outcomes. Despite such benefits, primary care is often poorly promoted in developing countries, especially in post-conflict settings. This study considers the paradoxical benefits of primary care reported in Western countries and explores whether these benefits might make it particularly appropriate for post-conflict developing states. Yemen was chosen as a topical example to illustrate challenges facing understudied fragile states. The authors conclude that, given the progress in healthcare coverage achieved by neighboring Oman through primary care, Yemen would do well to adopt a similar approach. For Yemen to focus on primary care, political stability is essential and early steps towards primary care are imperative.

Introduction

Primary care is a key component of many healthcare systems and is defined by the World Health Organization as being "first-contact, accessible, continued, comprehensive and coordinated."[1] It is cost-effective, equitable and reported to lead to improved whole-person (i.e. rather than individual disease) and population outcomes.[2-4] Many explanations have been advanced for the benefits associated with primary care-based healthcare services in Western countries.[3,5-9] By drawing upon such sources and our training in and experience of general practice, we describe below the narrative of the benefits of primary care for improved access, comprehensive and coordinated care and a systematic population approach.

Improved access results from the proximity of local clinics to the community being served and the provision of confidential reception and consultation spaces that empower vulnerable patients to present complicated or embarrassing problems. Access is also facilitated by eliminating user fees or making them affordable to hard-to-reach populations. At the same time, primary care doctors contribute to improved access to secondary care (i.e. hospitals) by undertaking appropriate referral "gatekeeping."[10] In this way hospital resources can be used more efficiently, i.e. by patients who have been assessed in the community and found to have problems needing secondary care.

The provision of comprehensive and coordinated care can promote patient engagement and reduce cost where a wide range of common conditions are treated in the community. By becoming experts in managing early presentations of illness, primary care doctors can reduce upstream costs. Observant primary care doctors can reduce the need for diagnostic tests when patients first present, i.e. at times of clinical uncertainty. Providing care that is coordinated and not confined to an individual disease is increasingly relevant given the global rise in chronic illness and multimorbidity (the co-occurrence of two or more chronic medical conditions in one person).[11,12] All these benefits are enhanced by trust between doctors, patients and the community. Patients are more likely to engage when relationships with clinicians are long-term or established prior to illness onset and preventive interventions.[9] Likewise, effective primary care must be built upon positive relationships and long-term collaboration with specialist colleagues.[9] Finally, additional benefits may accrue where community doctors become even more engaged in communities by serving as advocates, for example spearheading local health campaigns to promote road traffic safety.[13]

Finally, population-based patient registration in primary care and unified electronic medical record (EMR) systems that are not confined to individual specialities or providers are beneficial to the community. These data also facilitate quality improvement activities (such as audits) and research.[13] In primary care, EMR systems can promote community-based universal coverage of preventive interventions by identifying unreached patients alongside implementation of national screening programs: the high consultation rate in primary care permits opportunistic interventions for patients who do not respond to formal invitations but attend with other symptoms.[14,15]

Despite the benefits of an effective primary care system described above, much of the public still believes it to be inferior to secondary care, particularly with regard to disease-specific treatment.[4] That perception may arise from the fact that primary care in many countries is a public service charged with providing universal coverage on a finite budget. In this situation, demand inevitably outstrips resources and frontline workers struggle to meet expectations of all users.[16] Public health services are particularly vulnerable to media reports about negative patient experiences and easily succumb to comparison with private alternatives. Therefore, market-based commercial services can become appealing to politicians and healthcare system planners who seek rapid, self-funding solutions to healthcare delivery.

Primary care, the UK National Health Service and international development

There are many countries that illustrate the positive impact that the primary care approach can offer in post-conflict healthcare reconstruction. The United Kingdom National Health Service (NHS) is one such example. The establishment of the NHS in 1948 represented a radical reconstruction of the healthcare system through social cohesion and a collective vision in the aftermath of the Second World War. Central to promoting universal access and containing costs was the decision to continue and expand a system based upon general practice. The belief that general practice should be affordable, equitable and accessible is just as important today and this belief explains why the UK government continues to promote general practice as the bedrock of the NHS. A preference for primary care is built upon evidence of its health benefits.[17] This includes international comparisons of healthcare systems led by the late American primary care researcher and advocate Barbara Starfield. Her research found better health outcomes for the primary care oriented nations even after controlling for income inequality and smoking.[18] Further evidence comes from British primary care researcher Dr Julian Tudor-Hart, whose data is considered to be the only controlled evidence of the long-term effect of any system of care.[19] Despite this affirmation of family medicine as key to a successful, multi-tiered healthcare system, health services in many countries remain dominated by specialist care, and primary care is only provided under the guise of emergency medicine within hospitals.

Primary care and social and economic development are also closely interwoven in less developed countries. This link is clearly made in the Alma Ata Declaration, a milestone in global public health adopted at an international conference held in Alma-Ata, Kazakhstan in 1978.[20] The declaration called for a wider vision of primary care under the umbrella of primary health care, a radical vision of universal health coverage, community engagement and rallying calls to address the economic determinants of global health inequalities.[21] Since Alma Ata, however, factors such as the debt crisis and the imposition of loan-linked structural adjustment programmes (SAPs) by the International Monetary Fund (IMF) and World Bank have undermined the ability of developing countries to shape their own healthcare agendas. SAPs are based on a free-market ideological approach and promote private local healthcare services over those provided by the state. Although impacts have been somewhat mixed in terms of healthcare provision, this trend has often been at odds with the effective implementation of state-run primary care systems.[22,23] As comparative studies on the impacts of SAPs across the developing world have shown, in many cases government-provided health services have been undermined and privatized services have led to higher service charges.[23,24] This privatization of healthcare, in turn, has contributed to rising inequality, reducing healthcare coverage and worsening health outcomes, consequences consistent with the perverse relationship described in the inverse care law.[25] This law was espoused by the Tudor-Hart study and seeks to account for inequality in health access that is observed both locally and internationally. The inverse care law also highlights the impact of profit driven services on access by making the following two fundamental claims about healthcare provision:

"The availability of good medical care tends to vary inversely with the need for it in the population served. The inverse care law operates more completely where medical care is most exposed to market force and less so where such exposure is reduced."[25]

Despite the above trends, certain countries have managed to resist the pressures to dismantle state-led healthcare systems and have fared better at shaping their own development trajectories. In this regard, the Cuban and Brazilian cases illustrate the positive impact primary care can have in periods of reconstruction following conflict, revolution and dictatorship. In Cuba during the late 1960s, for instance, the health care system was rebuilt from the bottom up following Fidel Castro's overthrow of the Batista dictatorship in 1959 and the six further years of regional rebellions which followed.[26] In Brazil, a period of military dictatorship that lasted from 1964 to 1985 had left a legacy of inequality, including unequal access to health care. Implemented in the face of pressures to privatize, the Brazilian primary care reforms provide further compelling evidence in support of primary care.[27]

Cuba is arguably the most striking example. There the market-driven privatization drive behind SAPs was side-stepped in favour of a primary care system funded by very low levels of spending and has led to health outcomes comparable to that of the richest countries. For instance, Cubans have the same life expectancy (78 years) as Americans but spend annually only 4% of the US expenditure per person.[28] Cuba has also shown remarkable success at reducing infant mortality rate (IMR) and controlling infectious and chronic diseases. For example, between 1975 and 2003, Cuba experienced one of the most rapid declines in IMR ever recorded.[24] Moreover, by combining primary care provision with a more general public health approach and community participation, Cuba's campaign against infectious diseases has been very effective. Indeed, a number of diseases have been eradicated, such as poliomyelitis in 1962 and measles in 1993, in many cases for the first time in any country.[29]

In 1988, following two decades of military rule, Brazil transformed its healthcare system from secondary and tertiary care (regional specialists or centers) to a comprehensive primary care system, directly inspired by Alma Ata.30 In a short period, this 'Unified Health System' has had a remarkable impact on Brazilian population health. Between 1995 and 2010 the proportion of underweight children under 5 fell by 67% and IMR dropped to 17 per 1000 births from a high of 48 per 1000.[31] Thus, if the Cuban and Brazilian primary care models could be successfully exported to other developing nations, the health benefits would be significant.

A "window of opportunity" for primary care: the example of Yemen

The concept of the "failed" or "fragile" state emerged in the early 1990s and remains a controversial interpretation of the social, political and economic situation in countries such as Yemen.[32,33] The current state of health and healthcare in Yemen has its roots in a turbulent series of political and economic events. Between 1988 and 1993, the nations of North and South Yemen experienced a traumatic civil war that ultimately led to their official reunification as a single country in 1994.[34] Early hopes of development and prosperity were quickly scuppered by internal political disputes, intra-religious clashes and the emergence of terrorist groups. In this precarious situation many citizens have become victims of violence, and the fragile economy has continued to deteriorate.[35] As a result, the public sector has been neglected, and government spending is often redirected to other areas such as fuel subsidies and defense, slowing reconstruction of the healthcare system.[36] This state of affairs is evident in the total annual expenditure per capita on health of $63, a level significantly lower than neighboring countries such as Saudi Arabia ($608) and Oman ($520).[37]

Only a fraction of healthcare expenditure is covered by the government, with 73% of health costs being met throughout-of-pocket payments.[37] Where government health services do operate, there is significant urban-rural inequality; although the majority of the population lives in rural areas, they receive only a quarter of total health service expenditure.[29] Recent media reports state that 70% of the Yemeni population has no access to healthcare at all, and no national vaccination programs exist.[38] At the same time, there is evidence of significant mortality associated with chronic diseases; as late as 2002, death from chronic disease was believed to account for 43% of all deaths in Yemen.[39] A further problem has been the emergence of terrorist attacks that target hospitals.[40,41] Given these challenges, it is unsurprising that Yemen should have poor key health outcomes such as high maternal and infant mortality rates.

Improving healthcare and public health services in Yemen is clearly dependent upon achieving political and economic stability. At that moment, politicians and the international community will face a choice over the direction of healthcare provision. One way

forward is a primary care-based sustainable and equitable model of healthcare. This approach has borne fruit in Yemen's neighbor, Oman.[42] In Oman, near universal access to health care was achieved within a generation by adopting a primary care approach. This choice makes sense as both countries share similar geographic and cultural characteristics, such as significant rural populations.[43] Central to making healthcare acceptable in the Middle East is delivering it in a way that is sensitive to both culture and religious faith. The community-based approach of family medicine is ideally placed for those needs, in part because it values the role of female healthcare professionals within the primary care team. Through trusted relationships with patients, female clinicians have privileged access to women and children, in particular for delivering key antenatal care interventions (such as triaging cases that are safe for community delivery) and childhood immunization. In Yemen and neighboring countries, this increased role for female doctors is essential as it is culturally unacceptable for female patients to consult male clinicians.44 These challenges highlight the importance not just of cultural sensitivity but also the need for local leadership in healthcare service development.

Conclusion

Primary care offers advantages to patients and can reduce upstream healthcare costs for service planners. Many of these, however, are not immediately obvious and may be eclipsed by hospital-based, high-tech solutions. One situation in which private providers and technological solutions can be particularly tempting is in the post-conflict setting. However, in countries such as Yemen, the challenges of high chronic disease rates, poor infrastructure, insurgency and its citizens' lack of experience of hospital medicine clearly favor a primary care approach. The adoption of a primary care-based healthcare system is contingent not only upon political stability and leadership but also on a willingness to recognize the "window of opportunity" for determining the direction of a country's healthcare services post-conflict. Grasping the nettle at the start is critical because the experience of countries such as the USA and Saudi Arabia highlights significant barriers to converting a specialist-based health service to a primary care one.

By adopting primary care, Yemen would be building upon not just the examples of the UK, Cuba and Brazil but also its neighbor Oman. A future commitment to primary care could lay the groundwork for a coordinated, culturally-sensitive healthcare service to provide preventive medicine and high quality community-based care. A primary-care based healthcare system would also endorse the value of integrated care by implementing primary care before (or, at least, alongside) hospital-based services. To that end, primary care is the first step toward and logical foundation of an integrated, multi-tiered system in the reconstruction of healthcare services, including in the redevelopment of "fragile" states. Central to such development is promoting primary care with local leaders and healthcare planners. Key selling points include reduced costs, improved coverage (particularly in rural areas) and a community-based approach. This would allow governments to gain trust from their citizens, something that in itself represents a first tangible step towards healthcare development.

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