Books & Electronic Media

Health financing for poor people: resource mobilization and risk sharing

Editors: Alexander S. Preker, Guy Carrin
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This authoritative and well presented book provides a very welcome analysis of the challenges related to shortages of financing for health — and the problems caused by a lack of financial protection and exclusion from social pooling mechanisms — that face poor agrarian and marginalized urban populations around the world. The book evolved from background work carried out for the WHO Commission on Macroeconomics and Health, with the mandate to "examine alternative approaches to domestic resources mobilization, risk protection against the cost of illness, and efficient use of resources by providers." It is divided into three parts, each of which consists of several chapters: part 1 discusses global and regional trends; part 2, country case studies; and part 3, expenditure gaps and development traps.

One of the book's strengths is its systematic assessment of experiences with community financing for health care — and its critical evaluation of the pros and cons of community financing. It provides a useful typology of the multiplicity of community-based financing schemes that have been described in recent years, separating them into: 1) cost-sharing schemes, based on patient out-of-pocket payments managed with community involvement; 2) community prepayment plans, which pool resources to be used by members in case of illness; and 3) provider-based health insurance, where a hospital or other health-care provider forms the basis for a risk-sharing pool. All of these schemes share a "predominant role of collective action in raising, pooling, allocating or purchasing, and supervising the management of health-financing arrangements."

The schemes that the book uses to illustrate these descriptions are very heterogeneous. They include hospital-based prepayment plans in Kenya and Uganda; district-level financing plans with government involvement; a financing pool plan run by the Grameen Bank in Bangladesh; and the Cooperative Medical System, which, before its collapse in the 1980s, covered 90% of China's rural population. Although diverse, these schemes share common goals — to mobilize financial resources for health, to protect individuals and households against costs of illness, and to give communities a say in the management of their health care.

How have community financing schemes fared in meeting these goals? The evidence is mixed. Despite a flourishing of interest in the schemes, apart from China there are no credible estimates of the numbers of people or the percentage of national populations that are covered by community financing. The ability of the plans to raise revenues for health care is generally recorded as the percentage of the recurrent, local costs of providing health care. Studies that have measured revenues and costs are not standardized; they show a wide range of estimates — generally far short of 100% cost recovery, even after excluding capital costs and centralized administration. For hospital-based plans, cost-recovery rates are much lower; for example, 2.1– 7.2% for three such plans in Kenya, Uganda, and the United Republic of Tanzania.

Although there is very little evidence for the effectiveness of health-care plans in protecting against the costs of catastrophic illnesses, some plans do well in terms of social inclusion. The Grameen Bank health scheme in Bangladesh, for example, covers 58% of the poor population in its areas of operation, compared with 1.8% of the non-poor. However, the book voices the concern that many community plans may leave out the poorest groups, who are unable to pay even modest premiums or user charges. Without an external subsidy, the poorest may well be excluded from participation.

Community-based health-care plans have other weaknesses. For example, they are generally unable by themselves to raise sufficient revenues to pay the costs of curative health care for their members. This is particularly true for catastrophic illnesses — including HIV/AIDS — and chronic diseases that are increasingly prevalent in countries experiencing the epidemiologic transition. Health-care plan managers often lack the skills necessary to run health financing collection and health delivery systems. And, as long as they are based on voluntary membership, such plans are subject to the principle of adverse selection — individuals who are sick and know that they will probably need services are more likely to join than those who are healthy and present minimal risk.

Community financing plans should therefore be seen as a complement to, and not a substitute for, government involvement in health financing. Ideally, such plans provide a step in the transition toward larger, more stable, and better-financed risk protection pools. The Republic of Korea and China (Province of Taiwan) provide excellent examples of settings that have incorporated previously existing agrarian-based rural risk-sharing schemes into near-universal national health insurance programmes.

The book calls on governments to take the necessary steps to enable community-level plans to be more effective and to help make the transition to larger participant pools. Governments can subsidize the financial contributions of poor households, facilitate links with public and private provider networks, and provide reinsurance against the expenditure fluctuations that plague small insurance pools. If governments — and the donors that support them — can effectively take these steps, many of the world's poor who are currently excluded from financial protection against the costs of health care will benefit. ■

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The life and death of smallpox

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The white horse of the Apocalypse — pestilence — is by definition a symbol of disease. Few communicable diseases appear to qualify as suitable candidates – cholera, plague, epidemic typhus, or perhaps HIV infection. (But these were arrivistes awaiting "civilized" societies before they struck and spread.) As Ian and Jenifer Glynn chronicle in this book, smallpox is a good choice for Armageddon's harbinger, since it is a disease of antiquity whose impact on humankind far surpassed other epidemic diseases. Despite its alleged natural extinction, smallpox may forever loom as a terrible threat for generations to come. In this book, the authors eloquently describe and trace this hearty double stranded DNA virus, which evolved from a mammalian virus (perhaps camelpox) over eons; it has scarified people from pre-history through to recent times, and, as they point out, may conceivably do so again in the future.

Ian Glynn, a neurophysiologist, has previously written a heady but readable book on the thinking process; Jenifer Glynn, an historian, has previously written a biography of a Victorian publisher and edited a series of turn-of-the-century letters. Her knowledge of and access to obscure historical works on epidemics and the numerous observations on smallpox, variolation and vaccinations are clearly evident. Why the authors chose this disease is not explained nor is how they may have divided their research agendas, but these questions are moot since the book is a seamless, exciting, refreshingly original work seeded with fascinating facts and lore about smallpox. It supersedes many older, fusty treatises and most other recent books that discuss either limited times and locales where smallpox struck or how it might be transmuted into a weapon.

Over the last quarter of a century there has been a surge in popular historical accounts of major infectious diseases, particularly smallpox. A search at amazon.com for books published from 1979 (the year of extinction) up to the present found approximately 100 with smallpox in their titles. Not surprisingly, most of these were written over the last five to ten years. So, what makes this new book an original and worthy read?

The life and death of smallpox is a kaleidoscopic 288-page work that is pleasing, colourful, complex, and full of surprises. Unlike other books on smallpox (or other diseases with ancient lineages), it is not unduly Eurocentric in its approach. While the narrative follows a time line, one reads about European epidemics alongside companion accounts about Africa, the Middle East, Asia, and the Americas. These accounts are accompanied by numerous references and footnotes. And, when the topic does involve Europe (particularly Edward Jenner's England), citations and correspondences are supported in delicious detail. The authors rely on many letters and documents, sometimes choosing to editorialize on their content or question the wisdom of their writers. Often when a particular individual is identified, he/she is accompanied by a mini-biography that may have little to do with smallpox but is always fascinating in content (Charles Marle de la Condamine, while collecting cinchona seeds in the Amazon region first heard about the benefits of inoculation from Portuguese missionaries and later published them in a memoir; Daniel Bernoulli used calculus and the laws of chance to estimate smallpox mortality rates in France; Abraham Lincoln developed symptoms of smallpox a few hours after delivering his Gettysburg address; and as a youngster Wolfgang Amadeus Mozart survived the disease, although his sister did not.)

Controversies surrounding indiscriminate use of variolation may have been justified by earlier physicians and statesmen, but it is surprising to read about the Jennerian epigones and nay sayers who created the cognitive dissonance surrounding vaccination practices that has endured for over two hundred years following Jenner's discovery. The very origin of anti-immunization efforts began with these anti-vaccinationists. It resonates with another familiar note associated with today's measles–mumps–rubella vaccine/autism debate and other, more established concerns about adverse immunization reactions. The dispute surrounding vaccination continued in Europe, the Americas and elsewhere throughout the nineteenth and twentieth centuries, despite the shockingly large numbers of victims who died from smallpox. The authors document dozens of situations around the world where the absolute numbers of ill and dead are quite sobering.

The final three chapters of the book address the campaign that was planned to lead to the demise of smallpox in East Africa and the Indian subcontinent. A map of India is used to demonstrate the electric speed of spread of smallpox — from Jamshedpur in the state of Bihar to other parts of the country, but a map of other Indian states and Bangladesh might have been helpful in orienting the reader to the common borders these territories shared with each other in those last few years of eradication efforts. The detailed strategy and final implementation of WHO's tactics in India, then Ethiopia, are reviewed as well as the peri- and post-eradication concerns: continued active surveillance mechanisms, newer vaccine candidates and antiviral agents, and the growing realization of what natural eradication might mean to the world — the advent of biowarfare (BW) and bioterrorism (BT). While the book might be considered a graphic obituary for a sociopath, the authors suggest that its title could easily be *The life and death* and possible resurrection *of smallpox* if the pathogen were to be used as a BT agent. This affords the authors an opportunity to provide a brief overview of BW/BT agents actually used or created for use by various nations over the millennia. Although most readers may have heard many of these stories before, they fit snugly into a recent update on today's emergency planning and response efforts against smallpox and other biological weapons of mass destruction. It is also pointed out that the vaccinia virus offers many other exciting opportunities as a vehicle for delivering cancer treatment and developing other immunizing agents. The authors clearly enjoy their chosen topic, as well as Dr Jenner and his discovery. Their book is a pleasure to read, but readers should be warned that the authors' enthusiasm is quite infectious. ■

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