FRONTIERS

A Better Pill

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Cuba is a prime example of how poor countries can develop world-class systems of health-care.

The twentieth century was marked by an unprecedented rise in life expectancy and an equally impressive decline in infant mortality in the developed world. The twenty-first century might see similar trends take hold in the developing world.

Improvements in global health, however, have not been evenly distributed. Inequities in morbidity, mortality and other health indicators persist both among and within developing countries, and it is often children, women and the elderly who suffer the consequences of inferior care.

At the same time, the developing world has experienced a dramatic increase in the incidence of HIV/AIDS, tuberculosis, malaria and other communicable diseases. In addition, such lifestyle diseases as obesity, hypertension, diabetes and cancer are also on the rise. Poverty, malnutrition, poor education and limited access to health-care services adversely impact the lives of hundreds of millions of people in the developing world.

The state of a nation's economy is an important factor in determining the state of its health-care system. Nevertheless, there are 'rich' developing countries with poor health-care systems and 'poor' ones with excellent health-care systems.

Cuba is a case in point. This small island nation, with a population of just over 11 million people and a per capita annual income of US$4,200, enjoys levels of health comparable to developed countries. According to the World Health Organization, life expectancy in Cuba is 78.3 years as compared to 80 in Italy and 76 in Germany. The infant mortality rate is 5.3 per 1,000 live births as compared to 3.36 in France and 6.3 in the USA. The major causes of death in Cuba are cardiovascular disease, cancer, cerebrovascular ailments, influenza and accidents. The list is comparable to that of rich countries. Polio, malaria, tetanus, diphtheria, measles, rubella and mumps are either fully under control or have been eliminated. Leprosy, hepatitis B and meningitis are no longer health problems in Cuba. A national HIV/AIDS programme assures free antiretroviral treatment for all patients.

The strength of Cuba's health-care system lies in its capacity — its state-of-the-art medical facilities, and the knowledge and skills of its medical researchers and practitioners. This is especially true in the fields of biotechnology and pharmaceuticals. Today, Cuba has some 71,000 physicians and 57 scientific institutions dedicated to health research. In addition, there are nearly 250 hospitals and 500 fully staffed health-care clinics. Some 15,000 community-based outpatient medical centres take care of everyday medical needs. Cuba has the capacity to meet about 80% of the domestic demand for pharmaceuticals. The nation's research and development firms produce human vaccines for both domestic use and export, to combat, for example, hepatitis B, meningitis B and C, and *Haemophilus influenzae* type B.

Cuba's health-care system has focused on prevention and primary care. Free and universal access to health care has been enshrined as a fundamental right of all citizens, and is a key responsibility of government. The high ratio of physicians (Cuba has more than twice as many per capita as the USA; that is, 6.4 compared with 2.56 per 1,000 people), the system's focus on both physical and mental health, the long-standing efforts to build research capacity and the international character of health-care efforts (Cuba has established health-care missions in 68 countries staffed by over 25,000 Cuban doctors) all help to drive the nation's health-care excellence.

Nearly 11% of the government's budget is spent on health-care. Money is important but the system's success is due to other factors as well, most notably equitable access to food, education and employment. Indeed, the money invested in health-care would probably have been less well spent if principles dealing with excellence and access had not been adopted and implemented. Health-care is an economic challenge. Yet, it is also a political and ethical challenge.

Today's world is a global village, characterized by growing concentrations of people in large cities, increasing global commerce and travel, persistent pockets of poverty (characterized by a lack not only of financial resources but also of food, education and health-care), and social and political tensions and conflicts. In the developing world, water is scarce, sewage systems are inadequate and migration from rural areas to cities is accelerating. The consumption of natural resources is taking place at an unprecedented rate, adversely affecting the quality of the air, water and soil. Improving health care in the face of these challenges is a daunting task. No wonder, then, that communicable and non-communicable diseases are on the rise in many low-income and middle-income countries. Yet, as the experience in Cuba demonstrates, the challenges can be met.

Building health-care systems supported by skilled health-care workers, and strong medical clinical and research facilities, are the keys to success. But such efforts are not sufficient, and by themselves will not solve a nation's health-care problems. The principal challenges lie in social justice and universal access. Making health-care a fundamental right of all citizens, and ensuring that the government fulfils this right, would go a long way to improving health care even in the poorest countries. ■

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