Looking at the Future of Geriatric Care in Developing Countries

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During the next 20 years, many less developed countries (LDC) will have age structures approaching those of the present time in more developed countries (MDC). This is occurring more rapidly in the LDC of Asia and Latin America. The future of aging populations in LDC is dependent on the degree of poverty in these countries. Poverty is a major determinant of disability and mortality in older persons. With the march of globalization, diseases in LDC are changing from infectious to noncommunicable diseases, such as diabetes. Nevertheless, infections such as tuberculosis still take a major toll on the elderly. The epidemiological transition in LDC has created a need for health care transitions from systems based on cure to ones that highlight prevention and long-term care. LDC have the opportunity to develop systems that differ from those in MDC by capitalizing on the lack of infrastructure to produce more home-based rather than institution-based long-term care systems. Involvement of the elderly in the planning of their own futures is of paramount importance. Appropriate planning now will decide the future of the elderly in LDC during the next 20 to 40 years.

The growth of the elderly population presents a new challenge to health systems and social support networks in many less developed countries where populations are becoming old before they become wealthy.

—A. Kalache (1)

Talking about the future is no easy task. In the past, you could rely on the Naiads, deities of prediction, and many other religious and magical methods of telling the future. Lately, prediction can be attained through the understanding of natural forces by methods developed under the Chaos Theory as happens with meteorology. Prediction, as well, can be based on statistical analysis, as prediction of life expectancies in actuarial analysis is now commonplace and allows us to approach prospecting. Prospecting has a double objective: the design and assessment of long-term alternatives and improving our knowledge about systems. The prospecting of aging, society, and health represents the challenge of gauging, in a timely manner, the health, social, and economic consequences of the demographic transition over the next years, to allow the countries to respond to these consequences through an in-depth restructuring of their health and social services. It also means to surmise and predetermine the future factors that are going to modify the diverse patterns of morbidity, disability, and mortality in a regional context.

In order to approach these prognostications, we have to consider the remote, intermediate, and proximal determinants of the health of the elderly, which are depicted in Figure 1.

Population aging has become a prominent topic as aging has emerged as a global phenomenon in the wake of the now virtually universal decline in fertility and, to a lesser extent, of increases in life expectancy. The theme is of immediate concern in developed countries, where aging is already well advanced and will continue, with serious consequences on every single aspect of life. It is also gaining importance in developing regions, where a number of countries have started worrying about the implications of population aging. Demographic aging in less developed countries (LDC) is very much influenced by the previous explosive demographic growth and the ensuing rapid fertility lowering, resulting in a fast and also explosive population aging. Furthermore, the growth of the elderly in these countries’ populations happens in a context of poverty, large heterogeneity, and profound inequity. Besides, in all less developed nations, they need to manage, at the same time, the extraordinary growth of the young population and of those of working age. Between the years 2020 and 2040, these countries will show age structures approaching that of the developed world today. Only 20 years are left to gather resources devoted to the care of the elderly and to develop an infrastructure for the same purpose.

Current demographic trends according to United Nations population projections (2) show that the differences between regions are considerable at the present time: a 15-point gap existed between the percentages for the least developed countries and the more developed regions in 2000. Eastern Asia is moving toward patterns similar to those of developed countries and the more developed regions in 2000. Eastern Asia is moving toward patterns similar to those of developed regions. Patterns in Latin America will be moving homogeneously in the same direction during the next 20 years or so. In this context, it is clear that population aging of the kind that raises serious economic and social issues in the more developed countries (MDC) is not such a distant
The economics of aging have been analyzed mainly in developed countries. In the very different context of developing regions with large informal sectors, flexibility of labor participation patterns, large nonmonetized economies, and lack of institutionalized pension systems, analyses have been much less detailed. Attention has focused principally on the negative consequences of aging, such as the problems regarding economic support for older people who no longer participate in the labor force, or do so with a low productivity, and problems regarding elder health care, like the financing of facilities and services and their adaptation to changing needs. In addition, the economics of aging in developing countries must be examined in the context of broader demographic changes, of which aging is only one aspect. We need a balanced, comprehensive view of the implications of these changes. During the demographic transition that these countries are now undergoing, the decline of fertility causes not only an increase in the proportions of older people, but also, conversely, a reduction in the proportions of younger people. Of particular interest is the proportion of people younger than 15 years of age, as they are also dependent, although to a lesser extent. So we must place projected aging within the context of overall age dependency. In recent decades, the most significant change in age structures in developing countries has been the reduction in the proportions of young people due to the decline in fertility rates. The proportion aged 0–14 has been declining in all the developing regions since 1970–1975. It will continue to decline, and the resulting reduction in numbers will be roughly as large as the increase in numbers of older people.

Figure 2 summarizes as an example the expected changes in Mexico. This shift, and possible reduction, in the total burden of dependents per person in the active age groups, in turn, opens opportunities to re-direct investment in health and human development. The period during which the age dependency ratio declines has been described as a “window of opportunity.” This shift implies changing needs and, therefore, requires adaptations in health and social investment programs. For instance, as the overall costs of education for the society decline during this process, resources could be diverted to partially solve the additional health costs of aging.

ECONOMIC IMPLICATIONS OF AGING

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FINANCIAL CRISIS AND HEALTH OUTCOMES

For some elderly people, life will be better in the 21st century; for many, it will be worse; and for most, there will be, seemingly, little change. Human societies, of which the old are an integral part, are subject to economic, social, and political pressures. Two thirds of the world’s elderly in this century live in developing countries, the majority being very poor. The main underlying cause of ill health in most of these countries, poverty, will be relieved only very slowly—if ever. Poverty and economic crisis adversely affect mortality rates among the elderly, in women more than men, and the strength of that association has been increasing over time (5). In 1992, tightening of the embargo on Cuba increased the mortality in people older than 65 by 15%. Excess mortality was due mainly to influenza, pneumonia, tuberculosis, diarrhea, suicide, unintentional injuries, asthma, and heart disease (6). The economic crisis in Mexico has affected health outcomes particularly in the elderly population. Cutler and colleagues (7) analyzed the effects of economic crisis on mortality rates in Mexico in 1995 and noted that mortality rates have increased with economic crises, particularly among the elderly. They estimated the mortality changes between 1994 and 1996 were about 5%–6% worse than expected based on precise trends. This translates into about 20,000 additional deaths among the elderly (0.4% of the 5 million elderly). They conclude that economic crises seemingly affect mortality by reducing incomes and possibly by placing a greater burden on the medical sector. The elderly constitute a particularly vulnerable group in time of
The health of the elderly in developing countries is likely to be particularly sensitive to economic trends, and the supply of health services may not be effective in preventing this response. In the long run, however, there is some room for optimism as the process of globalization expands. Thus, the consequences of enhanced communications, trade, technological advances, and human mobility are already beginning to have an impact on economic and social development in many countries and, to some extent, should affect even the more developed nations. It is likely, however, that the ensuing rapid change and adjustment, particularly in countries with much illiteracy and few resources, will bring social disintegration, unemployment, and, for some, intensified poverty. But there will be increased prosperity for some others, and the healthier populations will live longer and demand better care. Present trends indicate that the gaps between rich and poor will widen both within and between countries and will be a long-lasting, if not permanent, feature of rapidly changing economies.

As developing countries struggle to cope with their economic problems, the aged individual is marginalized. The manifestations of poverty are much more severe for the aged. Rural poverty leaves older people alone in the village to look after themselves while the family migrates to urban areas in search of jobs. In the middle of competing priorities at national and family levels, the welfare of the elderly is given low or no priority.

One positive aspect of the economy of developing countries is the large informal sector. A majority of villagers are involved in agricultural work. In urban areas, there is much informal activity in commerce, services, and manufacturing. The “advantage” of such a system is that the worker never retires. He or she continues to work while he or she has enough health and strength. Thus, the proportion of aged who need support is theoretically smaller, and their life span tends to be shorter. On the other hand, this informal sector will not survive for long as globalization continues to advance to every corner of the world. The negative impact of this reality is that it does not provide any old age benefits, nor access to social security. As a result, the very old who stop working will face difficult times unless they have family members with resources to support them. In these societies, the elderly are more vulnerable to modern circumstances: they are disproportionately poor, and even though they continue their traditional roles, these are now less important in an increasingly materialistic and ever-changing society. Even those in the formal sector of the economy face difficulties. They constitute a “Short Changed Generation” (9): when younger, they “paid their dues”; when old, their turn for the pay-off has been begrudged through social change. They have been “devaluated, displaced, and a significant basis of their respect has been eroded” as a side effect of education of younger generations.

**Health Consequences of Demographic Aging**

The elderly, with their greater needs for health care, put considerable strains on systems of health care in all societies and provide additional urgency to the search for solutions. The ideal of healthy aging requires that the elderly share in the general facilities available to the population at large, but also have additional care to meet their special needs. These include the social and physical environments, the promotion of healthy lifestyles, and the provision of medical and nursing care. Freedom of access to the services is needed, but there is a large literature documenting ageism in health services (10). Few professionals choose to care for the elderly, and, as the majority of the world’s elderly are women, their low status in developing countries will continue to be a major barrier to their health as they age. Poverty is the greatest single cause of ill health at all ages, and while its reduction is not strictly a role of the health sector, it is certainly a prerequisite, for its persistence will continue to adversely affect any health intervention.

By 2020, it is estimated that three quarters of all deaths in LDC will be attributable to noncommunicable diseases such as diabetes mellitus, cardiovascular disease, and cancer. Furthermore, older people in LDC are expected to experience more chronic disease and disability than is usual in more developed societies.

In 1971, Abdel Omran first proposed the concept of an epidemiological transition (11). Today, this approach in population studies is widely used. Nevertheless, this concept is probably outdated, as it has become clear that the evolution of the epidemiological profile in different regions of the world follows no single pattern. In Latin America’s experience, this transition shows some particular characteristics such as multiplicity—there is not one single way to
follow but several possible roads—and vulnerability of the transitional course (12). In these countries, the improvement of living standards has not been uniform for the population as a whole, and the vulnerability of the poor sector is growing as a consequence of economic programs that have not favored them. Negative consequences are manifest in a greater morbidity and mortality in those vulnerable groups. So, morbidity patterns are not uniformly shifting toward degenerative disorders as infections—tuberculosis, in particular, as its incidence is rising—still take a heavy toll on our elderly. Also, the evolution of chronic and degenerative disorders suffers a heavier influence of nutrition in its pathogenesis and outcome (13) as is the case with diabetes, whose high prevalence is associated with an even higher prevalence of other coronary risk factors, and both are associated with an increased risk of functional impairment. And last but not least, even though we may suffer from the same diseases, different outcomes follow very often, as is the case with diabetes (14): Mortality in diabetes mellitus differs in LDC as compared to MDC, reflecting poor health care in general and diabetic care in particular. In MDC, the major killers are coronary artery and cerebrovascular disease; in LDC, infections and chronic renal failure are the leading causes of death. Trends in functional health status also differ, as morbidity, rather than compressing, still tends to expand. The correlation between a growing life expectancy and compressing morbidity is not clear cut; risk of morbidity is higher, and morbidity tends to be more devastating. Consequently, the risk of functional impairment is higher. Some questions about the epidemiological transition in these countries remain open: To what extent do successive cohorts of elderly people become either more frail or more robust? Will the “emerging” morbidity and mortality causes be the same as in MDC? Can disability be reversed by treating chronic disease? Are the elderly able to benefit from health and social interventions in this context?

**The Much Needed Transition in Health Systems in LDC**

Extension of human life imposes a new vision of the health of the elderly comprising self-sufficiency, economic independence, and individual development. But, how can this new paradigm be integrated into the health services of LDC, which at present are primarily oriented toward curative care? We need a reevaluation of these health care models looking toward restructuring to fulfill the requirements of an epidemiological scenario that is undergoing a rapid transformation. All this is in the face of the challenge of balancing priority of care for the health problems characteristic of these countries, along with the care of the elderly. Indeed, this is a double challenge: caring simultaneously for the aged and for an aging population. This means a need for a life-span perspective in health services planning and development.

Health systems in many of these countries such as Mexico are undergoing a rapid and profound financial reform leading to privatization. In this context, it must be underlined that elderly individuals when sick face higher expenses in face of lower incomes and that the transition from public to private responsibilities carries some risks—the “cream skimming” of private sectors selecting those younger and wealthier, and selective exclusion of women, the poorer, and the older who tend to remain under the public sector’s responsibility. In such circumstances, the state with fewer and fewer resources will have to face a growing demand of services that will come mainly from the older and the poorer. There is an urgent need for specific policies created to compensate for this reality.

**Resource Allocation in Health Care**

When dealing with the economics of aging and the financing of care, optimal allocation of health care resources is very difficult in LDC. Several issues need to be considered: Population aging, social security and pension reform, health care financing and provision of care systems at the individual and societal level, and long-term care. Nevertheless, awareness of issues concerning older populations remains low. At the simplest level of analysis, concern for aging is merely a function of the proportion of older people in a population. Where that proportion is low, the magnitude of related issues is limited. This does not mean that those issues are easy to handle, because a poor society will have difficulties tackling even a modest per capita burden. When the proportion of older people starts increasing, it is important to start acting upon the related issues in a progressive fashion; otherwise, the magnitude of the delayed tasks would become unmanageable. The rate of increase is also to be considered for it is usually small at first, but as fertility decline accelerates, the growth in the proportion of older people will also accelerate. This can easily be anticipated, although not precisely forecasted, and public strategies need to take it into account. The overall demographic context drives the possibilities of responding to the challenge of aging; in particular, a diminishing proportion of children enables reallocating resources from the needs of these to the needs of the increasingly elderly population. At the present time, one concern is that in the countries that are rather advanced in the transition, not enough has yet been done to take advantage of the situation by adequately investing in the future. These countries need to assess the needs of the older people, in particular their very basic needs—food, health, housing, etc. Some of them have done it, as is the case of eight Latin American countries conducting a coordinated survey named SABE (Salud y Bienestar en el Envejecimiento) (15) promoted by the Pan American Health Organization. This survey compares needs with available resources: the nature of livelihoods and the extent of family support, trends in living arrangements, and changes in household structures; this will allow policy makers to consider the possible need to supplement the role of family networks and of the civil society at large; the prospects for further involvement of the elderly in the labor force and the desirability or feasibility of such an involvement as well as the rapidity of growth of the sector, socioeconomic differences, gender differences, urban-rural differences, the impact of early life experiences on aging, and the dynamics of intergenerational transfers as well as the demands on the health sector that will ensue.

Countries with more lead time at their disposal now have the possibility of planning well ahead for the necessary adap-
tions. In this perspective, they should define long-term strategies to partially reorient public investment efforts as well as training programs; set up public mechanisms for welfare where feasible; and foster or assist with the development of targeted initiatives and institutions in the civil society.

The desired objectives of public policy on aging are to promote an optimal physical and mental functioning through lowering the incidence of chronic diseases and disabilities; making available sufficient resources specifically devoted to this purpose; promoting intergenerational transfers in every possible level; promoting elderly empowerment through combating poverty; and engaging older persons in decision making and in productive activities. At the same level, there are several prerequisites for optimal health care of the elderly: universal access to primary medical care and population-specific interventions with an emphasis on health promotion and disease prevention, as well as development of home and community care. In all these levels, participation of the older person must be encouraged.

Departing from these considerations, several issues are raised: How to strengthen the informal support of the family, which is weakening because of the economic crisis? Is there any possibility of developing a social security for those in the informal sector? How do these countries protect the interests of the aged as they restructure their economies in the era of globalization? Are there any lessons to be learned from developed countries in these issues?

Overcoming marginalization is the main issue. Poverty is its main instigator: economically, it implies being at the periphery; politically, it means being out of decision making; and socially, it means being cut off from the appropriate life and culture of the society. Empowering the elderly through ensuring elderly people’s participation in society is a need, and it means the avoidance of marginalization. The crucial issue is the avoidance of poverty. Mutual support structures could provide older persons with more control over their own lives, but such organizations will not be able to satisfy the basic needs of elderly people. Improving social services is also an urgent need, for the aging situation will generate a tremendous demand for public services. Some of these will be very basic, such as food and shelter, and others not so basic, as in dealing with disabilities. In order to improve these services, the first step is probably to recognize aging as an emerging and significant issue; second, to consider that a large majority of elderly people will have neither savings nor access to social security benefits; and third, to recognize that their need of social services will be high and ranging from basic to rehabilitative services. The development must be on the basis of the existing informal support system for the aging and the existing social service infrastructure. In this context, adult day care centers can be developed with little additional input. Most LDC cannot afford to develop specialist geriatric services. Special provisions will have to be made in the existing health system in order to train primary care professionals in the field of geriatrics.

Traditional values and financial constraints limit the development of long-term care in these countries. Elderly people living in institutions are as little as 0.1% in Iran, 0.6% in Botswana, or 0.9% in Mexico compared to 7.5% in Switzerland. Ironically, this lack of infrastructure opens the way to create alternative, community-based, long-term care systems. For long-term care, it would be feasible to develop home care and community residences taking advantage of the indigenous culture and creating nurturing environments at lower costs. At the same time, training healthy older adults to become home care workers in their neighborhoods would be possible, and this would enhance community involvement.

**Conclusion**

Planning for health care of the elderly in less developed nations is already a must, as aging and health care are already significant emerging policy issues in these countries. We currently do not have enough data to address these issues because economic status and health have not been integrated into a single survey design. The PAHO (Pan American Health Organization) Action Plan on Aging 1999–2002 addresses this problem, proposing the development of research programs, information diffusion, human resources development, and policy planning for development of community programs of primary health care of the elderly.

Those of us living in LDC have a 20-year window of opportunity. We must consider the economy and the limitations it determines. We must favor the empowerment of the elderly through the combating of poverty. Finally, to face the challenge of aging, we have to consider it imperative that the World Health Organization primary health care programs address the foreseeable risks of health care systems reform and health promotion.

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