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## *Feature*

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# Aging: A Challenge Beyond the Year 2000<sup>1</sup>

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The many important issues emerging as a consequence of the aging of modern populations are immensely serious. Ironically, these issues have arisen largely as the result of a major success story that has been unfolding in the latter part of this century. That is, the combined efforts of national agencies and international organizations have caused most countries to experience reductions in fertility, infant mortality, and communicable disease mortality. That has shifted those countries toward a new situation where the major causes of death are noncommunicable diseases—and where the populations have higher life expectancy, lower birth rates, and lower infant and communicable disease mortality. As a result, we are now witnessing a longevity revolution that is particularly evident in developing countries and that constitutes a social phenomenon without known historical precedent.

In 1980 there were 370.8 million people

worldwide who were 60 years of age or over, and who accounted for 8.5% of the world's total population. Projections for the year 2025 indicate that by then this population will total 1.1 billion people accounting for 12.5% of the world's population.

By that time an estimated 72% of these older people will be living in developing regions. Brazil, for example, which saw the number of residents 65 and over increase by 83% between 1970 and 1980, will have to respond to the needs of an elderly population estimated at over 30 million by 2025 (1). And in China, should the current public policy of quickly lowering fertility rates be effectively implemented nationwide, it would make approximately 40% of the population 65 or older by the middle of the next century. This would probably make China the fastest-aging country of that period (2).

At present, rapid expansion of the world's elderly population is placing increasing strains on the scarce resources of developing countries, at a time when they are still facing problems with their younger populations. In this vein, a WHO study conducted in four developing countries of the Western Pacific Region showed that the pressing problems of the elderly persons studied revolved mainly around lack of economic resources and limited access to health ser-

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vices (3). Likewise, a similar WHO study conducted in 12 Latin American countries revealed problems of essentially the same nature (4).

Of the problems involved, that of housing seems to be relatively less critical, because traditional family and community support structures still afford protection for the old. Many developing countries are now assuming that this state of affairs, based upon extended family structures and traditional values respecting the elderly, will continue to prevail; but experience is rapidly showing that this may not be so.

Depopulation of rural areas and concomitant development of urban megalopolises is leading to circumstances where prospects seem bleak: Either the elderly migrate with their children to the cities—where they are unproductive, lonely, and isolated; or else they remain in rural areas—where survival depends on support by their distant children. These transitional patterns need to be studied further to elucidate the consequences for informal care, and to determine whether and how the needs of the elderly are being met. This is important not just for the elderly but for society as a whole—because when older people become isolated, economically inactive, and dependent, their “weight” on society is felt as a costly burden.

There is a challenge, therefore, that goes well beyond the WHO goal of Health for All by the Year 2000. It is a challenge demanding policies and programs that will reduce the burden of the aging population upon national economies and societies, policies and programs that will ensure the availability of health and social services for older people and will promote their continued enjoyment of a socially and economically productive life.

Among other things, such policies and programs must recognize that in most

countries elderly women outnumber elderly men. Indeed, the social, economic, and health problems of the elderly are predominantly problems of elderly women. This pattern, which has long been acknowledged in the developed countries, is now becoming progressively more marked in developing nations.

Also, advancing age increases susceptibility to chronic long-term disease and disability. This increases the demand for medical, social, and economic services, and introduces these issues into the formulation of national and international policies and programs. Therefore, plans that set targets for measures promoting health and preventing disease among older people are essential if the developing countries are to avoid the staggering burdens of expensive medical care now experienced by the developed countries.

Consequently, applying behavioral sciences to promote healthier lifestyles emerges as the next great public health endeavor in the developing world. Among other things, this endeavor must render the concept of health promotion useful and operational in nations with a wide range of different health conditions. Otherwise, developing countries around the world will be heading toward the general demographic and health profile now presented by the developed countries as they pass through different phases of development (5).

In sum, the rapid increase in the relative and absolute numbers of older people (and also in the proportion of the very old), particularly in the developing countries, presents a considerable challenge for public policy. The World Health Organization’s Director-General has assigned priority, therefore, to the issues associated with aging of the world’s population (6).

WHO’s efforts to address the health problems of aging began in 1979 when the World Health Assembly adopted its first resolution directed at providing

health care for the elderly (7). Since then, many activities have been developed, in collaboration with WHO's Member Governments, to address the problems of aging within a life-course context.

This life-course context is important because people do not suddenly become old at age 60; rather, aging represents the accumulation of a lifetime of interacting social, behavioral, and biomedical processes. Therefore, the goal is to promote health and well-being throughout the entire life of the individual, as well as to find ways of securing comprehensive care services for the elderly—especially the frail elderly.

WHO has also recognized that planning for care of the elderly within the context of national development plans goes beyond the problem of budgets and resources. It is important for all countries, especially developing countries, to be aware of the ongoing demographic shift toward older populations. Such awareness was stimulated by the historic World Assembly on Aging, convened by the United Nations in 1982 (8); but unawareness remains a persistent problem, partly for lack of the accurate data needed to formulate policies and programs.

To this end, a few years ago WHO's Advisory Committee on Health Research recommended creating an international research program on aging that would be an integral part of the Organization's program on health of the elderly. This recommendation was adopted by the World Health Assembly in May 1987 (9).

An important step supporting this endeavor was taken the following June, when WHO and the United States National Institute on Aging signed an agreement to establish the research component of the program on health of the elderly on the grounds of the U.S. National Institutes of Health. The arrangement has provided a unique opportunity

for WHO to complement its international capabilities while working with the talents of the host organization.

To date, many scientists worldwide have already participated in preparing the program's research agenda, and it is expected that the undertaking will develop an international network of collaborating institutions—with active cooperation being provided by both industrialized and developing countries.

In general, experience has shown cross-national research to be a powerful tool for identifying both universal and special risk factors underlying disease and disability among the elderly, and also for revealing protective factors promoting healthy and productive aging. At present, social and behavioral scientists need to know where to direct their investigations so as to help optimize older people's potential and actual strengths and their opportunity to play rewarding social roles. Such research can benefit older people in developed as well as developing countries.

The WHO Research Program on Aging, which will emphasize cooperation and exchanges between industrialized and developing countries, will identify institutions and researchers capable of participating in its cross-national research agenda and making significant contributions to the world's knowledge of aging. Related measures designed to strengthen national research capabilities in developing countries have been shown to be an effective point of entry for promoting and developing national policies and programs.

The Program will have four initial research priorities: determinants of healthy aging; nutritional changes associated with aging, with special emphasis on osteoporosis; age-associated dementias; and age-related changes in immune function.

The research on determinants of

healthy aging will pursue one of the most promising avenues for identifying the biological, psychosocial, cultural, environmental, and economic factors affecting healthy aging and the health and social needs of aging populations in different geographic and socioeconomic settings. This research is to include generation of data that will provide a sound foundation for planning the long-term care needs of the elderly within the infrastructures of the existing national health services (10).

Some age-dependent diseases (those that inevitably increase with age) present a special challenge to health care providers. In the United States, for example, the cost of treating osteoporosis and about 700,000 new osteoporotic fractures every year exceeds 7 billion dollars annually (11).

Despite these facts, serious gaps still exist in human knowledge of osteoporosis and osteoporotic fractures, especially regarding cross-national epidemiologic data on how to prospectively identify older women at risk of fractures, how to identify the factors that protect them against fractures, and how to prevent and arrest bone loss (12).

Regarding age-associated dementias, the prevalences of these rise markedly with age and threaten to inundate the aging world with devastating disease that imposes a heavy burden on families and the health care system.

Population-based data on age-associated dementias are not yet available from developing countries. The cross-national multicenter study of the WHO Research Program on Aging will use an etiologically oriented epidemiologic approach to secure such data.

The value of scientifically sound cross-national studies of this kind is considerable. Differences in the incidences of such dementias in different countries or distinct subpopulations may yield clues

about risk factors that might then lead to new hypotheses about etiology (13). For example, differences in the prevalence of Alzheimer's disease might be explained by cultural, environmental, genetic, or health care differences. Comparison of the frequencies in two or more countries might make it possible to hold constant some of the variables involved and measure the effect of others with greater precision. Furthermore, cross-national studies could enhance our understanding of the fundamental biology of aging and help us to assess the efficacy of using different means to prevent, treat, and care for individuals with dementia.

Of course, age-dependent conditions will build up as the population ages. The challenge for researchers is to find ways of delaying the onset of these conditions, and ultimately to postpone the onset of destructive and debilitating conditions such as dementias or hip fractures through the time when death occurs from other causes (14).

It is in this spirit of respect for the highest human values and out of a desire to maintain solidarity with all members of the human family that WHO wishes to see the slogan "Add Life to Years" acted upon throughout the world. In seeking this action, and by pinpointing the faults in our responses to the needs of older persons, we are becoming increasingly aware of both a risk and a hope: The risk is that we may see the fate of our aged grow worse if nothing is done; the hope is that we may truly be able to add life to years.

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## *Paralytic Shellfish Poisoning*

Between October and December 1989, an outbreak of paralytic shellfish poisoning occurred in the Central American Isthmus and Mexico. Humans contract the disease by eating bivalves whose tissues have accumulated toxins produced by certain unicellular organisms on which they feed. These organisms can become suddenly abundant, a phenomenon known as "red tide." During the outbreak, 106 cases and 3 deaths were recorded in El Salvador, 99 cases and 4 deaths in Mexico, and 7 cases, all of whom recovered, in Guatemala. The population in all the countries of the Isthmus was alerted to the hazards of eating shellfish; in Guatemala and El Salvador, shellfish harvesting was temporarily prohibited. The Guatemalan Ministry of Health is convening a subregional meeting on the subject in October 1990 that will bring together representatives of the countries, international scientific experts, and representatives of fishing cooperatives and fishermen's unions.

Source: PAHO, *Epidemiological Bulletin* 11(2):9, 1990.