Older Age Applicants: A Geriatrician’s Perspective

by Alvar Svanborg, M.D., Ph.D.
Beth Fowler Vitoux & George E. Vitoux
University of Illinois at Chicago
Distinguished Professor of Geriatric Medicine

Changes in the understanding of aging, vitality, and health of older people are to a great extent based upon findings in longitudinal epidemiological population studies. In the perspective of Insurance Medicine and their policies, the quantitative aspect implies the well-known graying of the majority of nations in the world. Both number and proportion of old people will increase. And in certain populations it is no longer so that a decline in infant mortality constitutes the main reason for increase in total life span. Instead the main reason for increased longevity is an extension of further life expectancy in the last part of life, e.g., after age 65 years. They live longer when they already are old. The qualitative aspect of insurance policies means that the vitality and health of older people are undergoing marked changes. The necessity for the insurance organizations, and especially Insurance Medicine, to improve understanding of aging and morbidity of the old, as well as the dynamics causing the remarkable ongoing changes in longevity, appears obvious. The aim of my presentation is to exemplify a few observations from recent research.

The most important recent research contributions influencing the evaluation of the older applicants by the specialist in Insurance Medicine I would like to try to summarize in three main statements:

- We know more now about how to distinguish between manifestations of aging and symptoms of disease. This has improved diagnostic and treatment criteria and lowered risks for misdiagnosis and mistreatment. It has allowed studies of aging per se also at ages when morbidity becomes common, and makes clear that aging in itself is influenced by exogenous factors such as personal life style, environment, and availability of adequate medical care, and not only on endogenous genetically determined factors.
- As a consequence of such exogenous influence, preventing or postponing measures are realistic not only for specific disorders, but also for certain negative consequences of aging, a reality that insurance medicine has to consider as an option for their clientele and hopefully also for their economical considerations.
- Certain disorders previously considered being more or less a consequence of aging per se – old and sick – is now understood to be related to the duration of exposure to risk factors more than to chronological aging in itself.

We grow old over a longer period of life than we grow. But it has been, and still is, generally accepted that although pediatrics should be responsible for understanding growing and maturation, adult medicine has not been obliged to understand aging and promote successful aging.

Most of my presentation will be based on our studies of 70-year olds in Gothenburg, Sweden, followed longitudinally from age 70–and under my responsibility up to the age 85. To this initial longitudinal study both age cohort comparisons with 70-year olds born five and ten years later, and a medico-social intervention study was added. The longitudinal study developed information of health versus disease, social living conditions, psychological, and physical performance as well as needs for different forms of care. The age cohort comparisons showed important difference in vitality and health between cohorts born 1901/1902 or five or ten years later. The intervention study tested the willingness and ability of older persons to change their personal life style in order to postpone negative consequences of aging.

Other population studies focusing on aging and health and with significant clinical and medical component are exemplified by the Baltimore Study of Aging (Shock et al.), the Framingham Study (Kennel et al.), the Finnish Study in Jyväskylä (Heikkinen et al.) and the study in United States of cognitive aging (shock et al.).
To what extent studies in more developed countries really are applicable for less developed populations has obviously to be questioned. The representatives at this meeting for many different countries are aware of not only the marked differences in longevity between developing and developed countries but also between subfraction sof populations in the same country. In some of the eastern European countries the longevity of males is around ten years shorter than in, e.g., Japan and Sweden. And more and more evidences suggest that some of these differences are due not only to differences in incidence and prevalence of disease, but also to differences in the rate and functional consequences of aging per se. Future ambitions must be to understand the reasons for differences in aging itself and how to correct unnecessary differences. It should also be pointed out that in developing countries where only a minority reach the age of, e.g., 65 years, i.e., only the fittest survive to that age which explains why further life expectancy at age 65 can be rather similar in developing and developed countries, which has obvious consequences for the evaluation of insurance programs for the applicants also in the developing parts of the world.

As mentioned, many observations show that aging in itself is influenced by personal life style, environment, and availability of adequate medical care. Examples of negative nature are that osteoporosis is accentuated by tobacco smoking, alcohol abuse, and physical inactivity. As one of the consequences, the incidence of hip fractures is markedly increasing in certain countries and increasing more than can be explained by the aging of the population. It is also reported that female smokers experience their menopause one and one half to two years earlier than non-smokers – a fact with influence not only on the development of osteoporosis, but also with other hormonla morphological and functional negative consequences. Positive ongoing trends have been shown for, e.g., cognitive function improving between age cohorts, and blood pressure decreasing. As far as medical care is concerned, reports indicate a trend that older persons in certain situations are discharged from hospitals quicker and sicker. Many frail older patients are discharged long before they are able to regain the level of function they had before admittance to the hospital and do not have the reserves to allow them to retrain themselves. Such a stepwise decline in function – without adequate “reactivation” – is unfortunately often the beginning of further devitalizing stepwise declining, and in many conditions can be counteracted by more adequate initial reactivation efforts.

Functions that can be preserved, or retrained after episodes of decline, are exemplified muscle strength and balance – both of them also exemplifying functions vital for quality of life. A reasonable loading of the skeleton can – besides nutritional factors, exposure to ultraviolet light, etc – contribute to a slowing down of the development of osteoporosis. And many observations indicate that osteoarthritis is not a direct consequence of the processes causing aging, which might indicate that osteoarthritis also might be shown to be at least partly preventable.

Examples of aging-related changes that are as yet not proven to be influenceable are the aging of the neuroconductive system implying increasing risks of rhythm. With increasing age both connective and muscle tissues undergo increasing stiffness, lowering the compliance of, e.g., the arterial and heart walls as well as the skin.

The important message is obviously that not only genetic factors influence aging, but also factors which are under our control.

When more knowledge became available about how to differenciate between aging and disease, it was also observed that many forms of morbidity considered to be a consequence of aging in itself was not directly caused by aging. This seems to be the case for, e.g., many cancer forms for which the duration of exposure toward cancerigenic compounds might play a greater role for the development of malignancy than aging per se.

The last period of life is often the one when previous investments in the form of insurance constitutes an important assurance for a reasonable quality of life. It is beyond my ability to predict the economical consequences not only the ongoing changes in longevity, different for males and females, and for more intervention oriented insurance system taking into account not only possibilities to postpone aging-related dysfunction, but also to support medical and other forms of services to avoid unnecessary decline in vitality. I believe that changes are already considered by the important life insurance institutions in the world – my evidence is that I was honoured to speak about aging during this important conference.

References

2 Svanborg A. Seventy-year-old people in Gothenburg. A popula-

3 Svanborg A. The health of the elderly population: Results from longitudinal studies with age-cohort comparisons. Ciba Found Symp 1988, 134:3-16.


