

Living to 100 and Beyond: Survival at Advanced Ages

Session 5: Risk Factors Session – Part I

Discussant: John W. Paddon, FSA, MAAA

Consulting Actuary

Mortality at Advanced Ages

Michael R. Virga, ASA, MAAA, EA

Factors Affecting Mortality in a Small Sample of Older Adults

Bruce L. Jones, PhD, FSA, FCIA

Hyuk-Sung Kwon

Donald H. Paterson

David A. Cunningham

John J. Koval

Detection and Significance of Frailty in Elderly Insurance Applicants

Robert J. Pokorski, MD, FACP

My thanks to Bob Johansen, and the Society staff, for the opportunity to participate in the discussion of the Virga, Pokorski and Jones papers. This entire symposium is a tribute to Bob and his efforts, over the last months, to make it a reality during this week. We all owe him a vote of thanks for this.

A few observations on these three papers. I was struck, first of all, by their built-in diversity, in a relatively brief space -- US and Canada; their references to the medical, actuarial, governmental, academic and demographic fields; as well as the life, health, annuity, long-term care and pension product lines. But also of interest was how certain aspects of one paper, although seemingly unrelated to other papers, tied together unusually well -- making the whole body of these 3 presentations significantly greater than the sum of their separate parts.

In its own special areas of interest, each paper sets a solid base for future research, study, discussion and integration of some new, forward-looking ideas. Technical terms, particularly those which are medically-related, have been carefully and clearly defined; without undue disruption of the overall flow and conciseness of the 3 papers, or their overall understandability.

Mr. Virga's paper on Old Age Mortality is a valuable, timely addition to the body of mortality tables that are based on millions of exposures, and are produced by our industry. If at all feasible, this entire study of the experience of retired Federal employees needs to be updated and published each year (not one-shot), so that (in addition to other significant "plus" features) it can become a long-range source of more credible, up-to-date exposure and mortality data for this very representative group of US lives. This will be especially helpful for future research and measurement at ages over 90; and for ascertaining, long-range, in conjunction with other available data, whether or not the outer limit of mortality survival (Omega) is increasing.

The Virga paper can also serve as a valuable prototype for many users and analyzers of large data bases, who are now increasingly able to use much more powerful computer tools than ever, to produce meaningful results in a far shorter time frame. Smaller studies can be processed in a matter of seconds, assuming there are the time and financial resource allocations to permit this, by those in charge of setting research priorities.

Dr. Pokorski's comprehensive analysis and measuring of PPT (physical performance test) results, should become a useful abridged tool for risk measurement and projection. Its methodologies are closely related to the work Dr. Jones and his university colleagues have done in their paper. The cross references to other similar work, in the bibliographies of both of these papers, will also be valuable sources for

new research methods, as well as the synthesizing of work previously done.

Obviously, for the overall research process to continue to operate effectively, there must be a high degree of agreement and co-operation in many areas.

- a. Setting the scope and purpose of projects, so they are feasible
- b.. Determining who does the work and how soon; and the resources to be used
- c. Finding reasonable cost estimates for each project, as well as who pays.

In addition to the above, my hope is that symposiums such as the current one can be held on a regular basis, perhaps every 3 or 4 years. One useful and essential byproduct of these gatherings might be the forging (via meaningful agreements and co-operative efforts) and the strengthening of the ties between, and among the many organizations represented here. By so doing, we can facilitate many more, and more useful, practical research projects. Clinical, mortality and statistically-related efforts could be completed and circulated, world-wide, long-term; perhaps through the use of formal and informal research "clearing-houses".

We need every possible kind of co-operation and agreement in these research areas, particularly to overcome the inevitable turf and financing problems that can arise. Doing so will produce a significantly expanded base of useful information that can address emerging problems and megatrends in the insurance, pension, demographic, financial, medical, environmental, and political arenas; not to mention our world and society at large.

Thank you again for this opportunity to share these thoughts today.