

INTRODUCTION

THE Executive Committee of the Continuous Mortality Investigation Bureau of the Institute of Actuaries and the Faculty of Actuaries has pleasure in presenting this, the thirteenth number of its Reports. This number contains a variety of reports relating both to the mortality investigations and to the PHI investigations.

The routine report on the Mortality of Assured Lives, Pensioners and Annuity-tants for 1983–86 was published in *C.M.I.R.* 11 in 1991. The first report in this number of *C.M.I.R.* updates that report, by comparing the experience with the new mortality tables, The “80” Series Tables, which were first published in *C.M.I.R.* 10.

The “80” Series Tables have also been published in a printed volume with that title, and in the Standard Tables Programme, a computer program for use on PCs, which has replaced the former system of publishing extensive monetary functions in printed volumes. Many actuaries are already making use of the Standard Tables Programme. Others who wish to find out more about it can apply to the Secretariat of the Bureau for information.

The second paper in this number of *C.M.I.R.* is a routine report on the Mortality of Assured Lives for 1983–86 according to Cause of Death. This continues to identify certain causes of death that seem to be successfully eliminated by medical underwriting of new policies, and also shows the differences between the causes of death among assured lives and among the general population.

The third paper presents graduated mortality tables that form a supplement to the “80” Series, based on the Combined Pensioners Experience 1979–82, that is including both pensioners who retire at or after their normal retirement date and those who retire before their normal retirement date. It is hoped that this table will find certain uses, but potential users are warned that it is not appropriate for every purpose.

In previous reports the Committee has often shown a way in which a recent standard table can be adjusted to approximate to current experience. This has been done in a comprehensive way for all the mortality experiences for 1983–86, and what have been styled “mini-graduations” are presented in the next paper in this number.

An important investigation by the Bureau into the mortality experience of smokers and non-smokers, as defined by life offices at the time policies are effected, commenced in 1988. After two year’s data had been collected the

Committee felt that the results were of sufficient interest to present them immediately, before waiting until the data to the end of the quadrennium (1990) was also available. The results for 1988 and 1989 confirm what was known from American studies, that the mortality rates of smokers are approximately double those of non-smokers. It will be interesting to see whether this continues as the investigation continues.

From time to time the Committee is asked how the mortality experience of individual offices varies around the average for all offices. After the 1924-29 investigation, tables of "light" and "heavy" mortality, constructed by putting together the data from selected offices, were published. It is difficult to find a way to let people know the inter-office variation, without releasing information that is confidential to individual offices. A method of doing this has now been devised, and the results are presented in the paper entitled "Inter-Office Comparisons".

In its large report published in *C.M.I.R.* 12. "The Analysis of Permanent Health Insurance Data", the PHI Sub-Committee presented certain methods of calculation that could be applied whatever the mathematical formulae for representing forces of recovery and of mortality among those claiming sickness benefits under PHI policies. In fact the formulae used were such that analytical methods of integration are possible, and these are presented in the next paper in this number. There are advantages in being able to do certain calculations exactly, without resorting to approximation.

A report as large as the one that appeared in *C.M.I.R.* 12 is unlikely to be entirely free of errors, and the Errata to that report appear next.

Finally, an Index to the first thirteen numbers of *C.M.I. Reports* has been prepared.

I should like to take the opportunity to thank Raymond Hayward for his many years of work as Secretary of the PHI Sub-Committee. His place as Secretary of that Sub-Committee and as Assistant Secretary of the Bureau has been taken by Peter McGurk, but Raymond continues to give us his assistance and advice as a member of the PHI Sub-Committee.

Others who have retired from the Committees of the Bureau are Bernard Brindley and Iain Lumsden, who have served on the Executive Committee, and Alan Jefferies who has served on the PHI Sub-Committee for some years. I thank all of them for their services.

I should like to welcome also John Lockyer and Ralph Garden to the Executive Committee. John Lockyer has been Chairman of the AIDS Working Party of the Institute of Actuaries, which has now been transformed into the AIDS Sub-Committee of the Bureau. We welcome him and the members of his Sub-Committee. Ralph Garden has served on the PHI Sub-Committee for several years.

Finally, I should like to pay tribute to the work of a former employee of the Bureau, Miss Kitty Hicks, who served the Bureau from 1961 to 1975. She died in 1992 in her 90th year.

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Chairman, Executive Committee