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OCCUPATIONAL HANDICAP-FREE LIFE EXPECTANCY IN BULGARIA 1976–1992 BASED ON THE DATA OF THE MEDICAL EXPERT COMMISSIONS

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Abstract—This article presents health expectancy calculations from Bulgaria for 1976–1992. The calculations are based on mortality statistics and data from a national information system from the Expert Medical Commissions on Working Capacity about loss of working capacity. Following internationally accepted terminology, the most appropriate term for the health expectancies presented here is 'occupational handicap-free life expectancy' (OHFLE). Life expectancies were calculated as partial life expectancies from ages 16 to 59. Health expectancy calculations followed Sullivan's cross-sectional method with age and sex specific prevalence data on occupational handicap. Around 1985 a three- to four-fold increase in these prevalences occurred. The distribution of occupational handicaps over sexes, age groups and severity levels, however, remained fairly constant. The results show a decrease both in partial life expectancy within the age range 16–59 and in OHFLE at the age of 16 for men. For women a more or less stable partial life expectancy and a decrease in OHFLE at the age of 16 was found around 1985. The introduction of more incentives for people who successfully registered probably caused the decrease around 1985. Major social changes may have acted as confounding factors for the fluctuations after 1985. On the other hand the findings may reflect real changes in population health due to an increasing incidence in some major disease categories. The nation-wide system for assessment and registration of health related working incapacity has proved a useful source for an attempt to calculate OHFLE. Given uncertainties about the population health underlying these changes in OHFLE, however, it is recommended that health interview and health examination surveys should be considered as alternative routes for achieving a more comprehensive picture of population health in Bulgaria. Copyright © 1996 Elsevier Science Ltd

Key words—health expectancy, occupational handicap, working incapacity, expert medical commissions, Bulgaria

INTRODUCTION

The continuing increase in life expectancy and the concurrent rise in chronic disease and disability—as can be observed in almost all developed countries—has raised the question whether the longer life expected will be spent in good or in poor health. Hence, there seems to be a tension between the length of life and its quality in terms of health. In the scientific debate concerning this problem three theories emanated. Some think it unavoidable that a higher life expectancy leads to a pandemic of chronic illness, the so-called 'expansion of morbidity' [1, 2]. Others claim that it must be possible to prevent or delay the onset of chronic conditions and achieve what is called a 'compression of morbidity' [3, 4]. The third theory implies a dynamic equilibrium where an age related increase of morbidity is supposed to be balanced out by better health in the younger generations [5]. Whatever the outcome of this debate, one thing is evident. Given the tension between the length and the quality of life, studying mortality and morbidity separately would prove a less effective strategy in understanding population health than combining mortality and morbidity data.

How the health status of a population can be estimated with one general indicator, therefore, is an important problem on which many researchers in the field of public health are concentrating. Health in all its complexity, however, is difficult to measure and express generally [6]. Thus the research aims to find a realistic indicator which reflects as effectively as possible the different aspects of health. As early as 1964 Sanders put forward the idea of a global measure of people's health status [7]. In 1971 Sullivan developed a method for the calculation of such an indicator by combining measures of mortality and morbidity [8, 9]. In the eighties similar calculations were made by researchers in a limited number of countries [10–16]. In 1989 an international network for the study of health expectancy and the disability process (known under the French acronym REVES)

was started [17, 18]. Since then the number of countries for which so-called 'health expectancies' were calculated has increased to 37 [19, 20]. Health expectancy as an indicator of principal importance has now also been accepted by WHO and included in the set of parameters used to present the health status of the population in European countries [21].

Most health expectancy calculations are based on data sources that originally were set up for other purposes. In this article we will report and discuss health expectancy calculations from Bulgaria based on data from a national system of information about prolonged and complete loss of working capacity.

MATERIALS AND METHODS

Description of the system for assessment of health related loss of working capacity

The existing system for establishing the state of health related working incapacity in Bulgaria covers the whole population of the working age, i.e. from 16 to 59 years old. Eligible persons in this age group—those who claim to be incapable of continuing their work due to health reasons—are examined and registered by medical commissions taking into consideration various medical and social factors. In this way, if applicable, a formal working incapacity status may be assigned. These commissions are located in the bigger hospitals in Bulgaria and are called 'Expert Medical Commissions on Working Capacity' (EMCWC). All commissions are comprised of the following experts: a specialist in internal medicine, a neurologist, a surgeon and a specialist in social care. If necessary other specialists may be included. The commissions meet several times a month. The individuals who wish to be examined visit the commissions with a report prepared by their personal doctor. Depending on the health of the person and his ability to fulfil his/her professional duties the medical specialists determine the appropriate state of working incapacity.

The system described above covers almost all cases with working incapacity because until 1990 people of working age were almost all employed and thus covered by the governmental social security system. Until that time practically no unemployment existed in Bulgaria. Those who did not work for any reason—for instance child care—also were allowed to apply for an examination by the EMCWC. It should be mentioned that the decision to visit the commission is personal. When an individual is acknowledged as (partially) incapable of working he/she gets some advantages like—depending on the severity of the incapacity—free medicines, free transport, electricity free of charge and an additional pension. So there are incentives for the people themselves which certainly will play a role in their decision to go the EMCWC. On the other hand, however, it is possible that due to various other reasons—for instance reluctance to bear a 'stigma' or fear of losing a job—some people with health problems do not wish to visit the commissions. As far as is known the number of these cases is not great. This gave us confidence to decide that the data from the EMCWC realistically represent the situation in Bulgaria and that we may use them for estimating health expectancy.

Definition of occupational handicap and different groups

In their judgement the EMCWC uses the word 'invalidity'. The definition of invalidity in Bulgaria is: "A status of the individual in which health impairments are prolonged, irreversible and progressive in character and, also depending on the personal skills, lead to work related professional incapacity for a long period of time or forever" [22]. The cases of temporary short-term loss of working capacity are not included. In this article we will apply the definitions accepted in the REVES network, which are based on the ICIDH, the International Classification of Impairments, Disabilities and Handicaps from WHO [23]. According to this classification 'impairment' is "any disturbance to the body's mental or physical structure of functioning'. 'Disability' is "any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being". 'Handicap' is "a disadvantage for a given individual, resulting from an impairment or a disability, that limits or prevents the fulfilment of a role that is normal (depending on age, sex, and social and cultural factors) for that individual".

The definition of invalidity as used in Bulgaria—which dates from some years before the publication of the ICIDH—is similar to the description of occupational handicap in the ICIDH, because the judgements of the medical commissions have to do with the social consequence of being able to participate in the labour force. Therefore the authors decided to use the term 'occupational handicap' instead of 'invalidity'. The use of the term 'occupational handicap' is also in line with the terminology as proposed and accepted within the REVES network for the different types of health expectancies [20, 24]. The most appropriate term for the health expectancies as presented in this article is 'occupational handicap-free life expectancy' (OHFLE).

The medical commissions distinguish several levels of severity. Group I—severe occupational handicap—contains the worst cases who cannot fulfil any professional activity. Within Group I a further distinction is made between persons who need assistance from others for daily living and those who don't. Obviously the cases which need such help are the severest. Here we will only present Group I as a whole. Group II—moderate occupational handicap—is the classification given to people who are not able to fulfil the professional duties they have been occupied with until that moment but who under