Editorial Comments

Epidemiology of CKD in Europe: an uncertain scenario

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In the large, diachronic scenario of systemic epidemiology, chronic kidney disease (CKD) is a component of a new epidemic of diseases that, over the twentieth century, replaced malnutrition and infection as leading causes of mortality in the population [1]. Neoplasia, cardiovascular and respiratory diseases and diabetes are ascending the priority rank in the global-health agenda. These diseases reduce life expectancy and engender disability in all population strata including the poorest segment of the population, a stratum still considered to be mainly hit by infectious diseases. Public health interventions calibrated to the level of challenge that these diseases impose are now considered as a great opportunity of averting death and adverse clinical outcomes in developed as well as in developing countries. In 2005, the World Health Organization (WHO) emphasized that chronic diseases are a global priority [2]. It was calculated that, if governments are able to put in place public health policies that produce a 2% yearly reduction in mortality rates for chronic diseases, an achievable goal, 36 million deaths would be prevented worldwide between 2005 and 2015 [3]. The WHO department of Measurement and Health Information estimates that almost 80% of life-years that could be gained by such policies would come from deaths averted in people aged under 70 years [3], i.e. from the most active population strata. Even more than a health priority, the goal of reducing mortality rates by chronic diseases is an economic priority because it could save about 10% of the loss in income due to death and disability which amounts to $8 billion in the developing countries only [4]. Limitation of two major environmental risk factors, salt intake and smoking, and the use of cardiovascular drugs in high-risk patients are of proven cost effectiveness not only in high-income but also in low- and middle-income countries [5]. Appropriate health policies could be very effective, and measures adopted over the last three decades in Poland and Finland are an instructive demonstration of how much can be achieved with simple, well-targeted interventions. In the early 1990s, the Polish government reduced subsidies on animal fats. Polyunsaturated oils such as soya bean and rapeseed oil substituted saturated animal fat in the diet of Polish people, and as a consequence coronary heart disease mortality dropped by more than 25% between 1991 and 2002, a dramatic effect which could not be explained by increased fruit consumption or decreased smoking [6]. The educational campaigns and public policies adopted in Finland in the 1970s [7] represent a paradigmatic example of how much can be achieved in terms of population health by the adoption of a well-articulated intervention plan.

In most western countries, the epidemic of cardiovascular disease, diabetes and neoplasia is receiving increasing attention by the public and policymakers. Yet, the CKD epidemic remains largely a ‘silent’ epidemic. The nephrology community is making a worldwide-extended, major effort for raising the status of CKD among chronic diseases, and the World Kidney Day has now become the icon of such a tantalizing effort [8]. Yet, the yields of these efforts have still to materialize. The face-to-face comparison with diabetes is a case in point. Diabetes and CKD have a similar prevalence in the general population, and part of the clinical outcomes of diabetes are accounted for by CKD triggered by this disease. Promoting prevention programmes focussing on diabetes is legitimately considered as a major public health goal in most western countries, and this disease is, in various European countries, included among priority research themes for funding. In contrast, most health authorities literally ignore CKD prevention. The improving Kidney Outcome Global Initiative (KDIGO) poses surveillance of CKD by periodic surveys or by specific registries as a means for monitoring the epidemic at country level [9]. Prevention of end-stage renal disease (ESRD) was set as a specific goal of ‘Healthy people 2010’, a health-promotion and disease-prevention initiative which was started in the USA in 1979 [10]. However, until very recently, official documents released by the European Community or by the majority of European Community governments did not even mention CKD as an issue of public health concern. A 2007 report on health in Italy [11], one of the largest European countries, released by the national institute of statistic (ISTAT) did not even include CKD among chronic diseases, and similar ignorance of the problem is traceable in contemporary documents prepared by high-level agencies of other countries.
The EUropean GLobal REport on Health (EUGLOREH) is a thorough report on the status of health in the European Union released on 20 March 2009 [12]. EUGLOREH results from a collaborative project of health authorities or institutions from all European countries and major intergovernmental, international and European organizations. This report is an important source of knowledge for setting future health policies at continental and country levels. It provides for the first time a very comprehensive overview of communicable and non-communicable diseases which are currently responsible for death, disability and poor quality of life in Europe. The preparation of EUGLOREH involved 170 experts and 3 years of work. The full document is quite ponderous, being about 500 000 words long, but two summaries have been produced alongside, an extended one (about 100 pages) and a synthetic one (about 40 pages), and the latter was translated into 20 national languages. Overall, it is the first valid synthesis of the status of health of European citizens and of risk factors responsible for major diseases as well as an account of the performance of the health services and of the main policies adopted at country level. This information is framed in a background considering the evolution of the socio-economic factors, migration, globalization, urbanization and other relevant factors. Importantly, this document identifies public health priorities, areas in need of scientific research and innovation and proposals for involving European citizens in health-promotion programmes. Thanks to the QUEST initiative [13] and to NEPHROQUEST [14], a project funded by the European commission which attracted the attention of the EUGLOREH coordination body, in the summer of 2008, the European Renal Association-European Dialysis and Transplantation Association Registry was invited to contribute to the report. Members of the Registry Committee and of the staff of the Registry collated published and unpublished statistics on the epidemiology of stages 3–5 CKD in Europe and combined these statistics with existing Registry data on ESRD and with information on public-health policies focusing on CKD in European countries. This material was compacted into a specific chapter which, after external review, was included into the main document of EUGLOREH. This chapter is now made available to interested nephrologists in the accompanying NDT Plus issue [15].

In assembling pertinent literature and data for the preparation of this work, we were struck by the fact that data on the epidemiology of CKD exists only in a tiny minority of European countries. We present in the accompanying NDT Plus issue [15] graphs showing the prevalence of CKD by age and sex in various European countries. These data have been obtained from published and unpublished statistics and from the Registry database. The graphs show the prevalence of CKD stages 3–5, 4–5 and 3–5 in the general population by age and sex in Ireland, England, Italy, Iceland and Norway. The data are presented by age strata and the graphs show the prevalence of CKD by age and sex in various European countries. Pertinent references are quoted in the main text.
European countries. It is perhaps because of this lack of information that just a few European countries started surveillance programmes on the CKD epidemic, and even less have put in place specific plans to halt this epidemic. The problem of CKD in Europe is perhaps less stringent than it is in the USA, but the need of establishing surveillance programmes in European countries is documented by data presented in Figure 1 where CKD emerges as a much prevalent chronic disease in the middle-aged and old population strata. It is remarkable that no clear public health policy has been hitherto identified to specifically face the high prevalence of CKD [16]. In this scenario, Britain is set apart as a role model in the fight against the CKD epidemic. Indeed, the introduction of CKD into the Quality and Outcomes Framework, established a new policy whereby general practitioners in the UK are rewarded also on the basis of how well they manage patients with CKD. This facilitates detection and timely treatment of CKD. During the first year of application of this quality improvement intervention, about 1.5 million people were diagnosed with CKD thereby creating an opportunity for earlier treatment and for timely nephrology consultation for patients with progressive or more severe nephropathies. Algorithm-driven, primary care, disease management programmes may reduce the rate of renal function loss in patients with CKD [17].

The nephrology community and patient organizations should start putting pressure on governments and health authorities for them to face the CKD epidemic. Resistance at country level for including CKD among chronic conditions of public health concern are motivated mainly by financial rather than by scientific reasons. As competition for health resources is bound to become harsher in the years to come, nephrologists should be aware that their patients expect from them leadership and direction in the fight against renal disease. In this respect, the chapter on CKD in Europe in the EUGLOREH report can be taken as useful documentation of the limited attention that CKD still receives in European countries and of the scarce knowledge we still have of this epidemic. Hopefully, this EUGLOREH chapter and literature published after the release of EUGLOREH [18–20] may form the knowledge basis for establishing a new course of action, a course based on a vast alliance of patients and professional forces aimed at promoting an efficacious fight to renal diseases in Europe.

Conflict of interest statement. None declared.

References

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