



Reflections from Turkish Public Health Genomics Task Force

Bayram Serdar Savas

Turkish Center for Public Health Genomics and Personalized Medicine (TOGEN), Member of the Steering Committee of Public Health Genomics European Network (PHGEN)

Correspondence to: Bayram Serdar Savas, TOGEN, Hacettepe University Science Park (Teknokent), Kulucka Merkezi No:10 Beytepe, 06800, Ankara Turkey. E-mail: ssavas@itt.gen.tr

Dear Sirs,

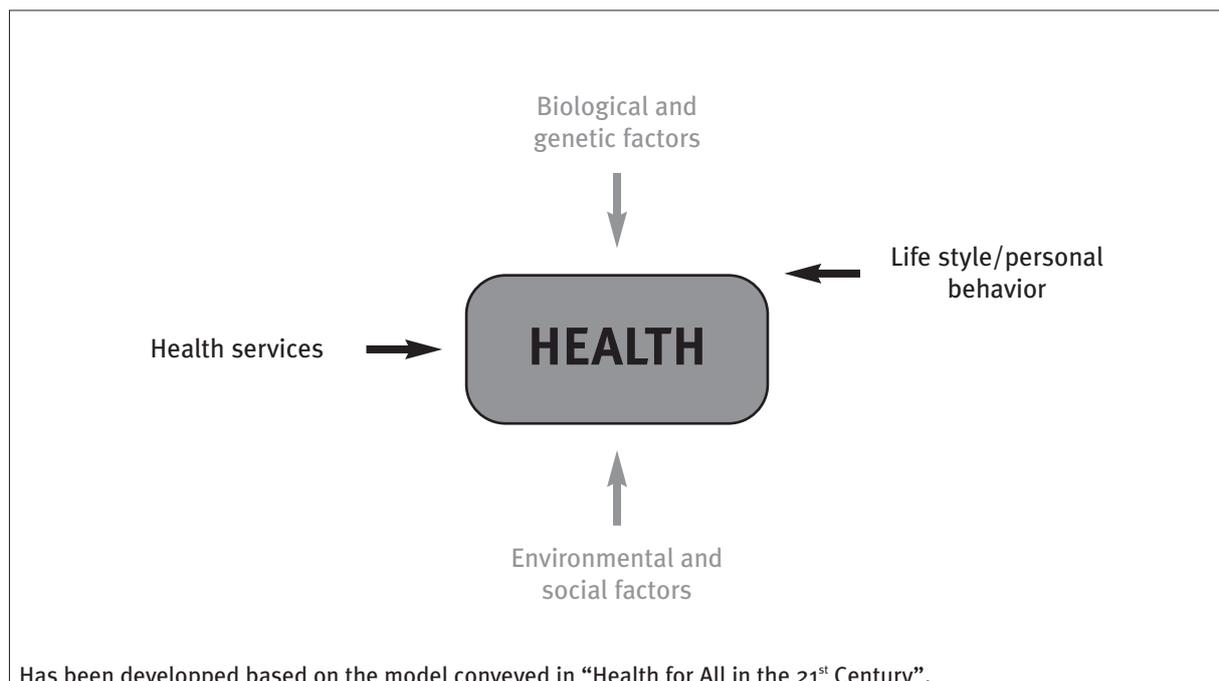
The forth phase of the epidemiological and demographic transition has brought populations to a lower fertility status with extended life expectancy. The diseases of this phase are chronic and complex diseases, which mainly stem from the complex interaction of the human genome with life style factors. Cardiovascular and cerebrovascular diseases, cancers, diabetes and osteoporosis are among major chronic and complex diseases, which account for approximately 86% of all deaths and 77% of the burden of disease in Europe (Preventing chronic diseases: a vital investment. Geneva, World Health Organization, 2005).

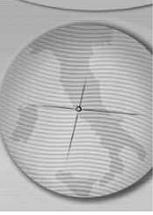
The way we view health and disease from the perspective of chronic and complex diseases, the main determinants of health - including those that are biological and social, is illustrated in Figure 1.

The strong interaction of biological and genetic factors with life style factors in the development of chronic and complex diseases has brought us to a new understanding of 'genetics', where genetics is not only related to the study of rare hereditary disorders, as understood in 'conventional' medical genetics. As science reveals more about the genetic basis of these common diseases, genetics and genomics are increasingly becoming a part of daily practice in various branches of medicine. At this point, new issues and problems arise related to various aspects of this new potential practice; such as the implications for nutrigenetics and pharmacogenetics; the clinical utility and validity of genetic tests; as well as the ethical, legal and social aspects of public health genomics.

Public Health Genomics European Network (PHGEN), an EU project that runs from January 2006 to December 2008, aims to deal with these issues in the European context. This networking exercise covers all EU Member States, Applicant Countries and EFTA-EEA (European Free Trade Association-European Economic Area) countries.

Figure 1. Determinants of health from the perspective of chronic and complex diseases





Turkey has been an active participant in this new area of public health genomics, with members in the PHGEN network and TOGEN - Turkish Center for Public Health Genomics and Personalized Medicine. The mission of TOGEN is to catalyse the transfer of genetic developments to the health of individuals with a public health vision. TOGEN is the third public health genomics center in Europe, and a cooperating institute of PHGEN.

As a part of its aims, PHGEN has called upon its members, in 2006, to set up national task forces. The first National Task Force (NTF) was Turkish, which held its first meeting on June 19th, 2006, in Ankara. The participants were academics on (participant numbers in brackets) medical genetics, medical biology, law, public health, deontology and ethics, pharmacology, endocrinology, nutrition and dietetics, cardiac surgery] as well as a general practitioner and a health policy specialist.

The meeting focused on the basic concepts and the framework of public health genomics. The issues discussed were as follows:

- How genomic information can be used in the area of public health?
- What are the mechanisms to use this information?
- What is the cost of this information? Is it cost effective?
- What are the needs in terms of human resources (education and training) and infrastructure?
- How the taxonomy should be determined?
- How to formulate the interdisciplinary work?
- How to develop good practice recommendations and examples?
- What are the potential research areas?
- The need to prepare a national programme/document to set the picture
- What should the organization of the National Task Force look like?
- What are the legal, ethical and social aspects of the issue?

The Turkish National Task Force has put together an action plan for the preparation of a draft policy document. It will cover the basic concepts, framework and implication areas of public health genomics from the Turkish perspective. In addition, an inventory which lists people, institutions and projects that are related to public health genomics, will be prepared to be included in this document. A policy and awareness meeting (in the form of a workshop or a conference) for further discussion of the relevant issues is planned for Spring 2007 with wider participation of public health and medical professionals.