Budgetary Cuts for the CDC's Office of Public Health Genomics (OPHG)

It is with surprise, sadness, and some degree of concern that we learn of the budgetary cuts that will be imposed by the US Centers for Disease Control and Prevention (CDC) on its Office of Public Health Genomics (OPHG). The Office will lose more than 90 percent of its budget, starting in the fiscal year 2012, from $11,558,000 in 2010 to $749,000 in 2012. The restructured office will continue to:

- provide public health genomics expertise to the agency and public health partners as relevant to CDC's mission;
- inform agency leadership and programs about emerging genomic applications anticipated to impact the health of the population and issues relevant to CDC's mission; and
- facilitate the implementation of genomics with CDC programs, other agencies, and external partners in order to improve population health.

Yet with such a massive reduction in resources, it is difficult to see how it will be able to continue to have the impact that it has had in the past. The efforts of Dr Muin Khoury, founder of the OPHG in its previous incarnation, are known the world over. His success in bringing genomics to the attention of public health practitioners in the USA and globally is amply shown by the evidence. His enthusiasm for his subject and his tenacity in catalysing action in this field can be seen each time he interacts with his audience.

All responsible public agencies recognise and will accept budgetary constraints over the coming years, provided they are proportionate, fair and rational. However, a cut of the size envisaged by the CDC is of such a magnitude that we suggest that those charged with the management of the CDC have failed to comprehend the strategic importance of genomic science for the health of individuals and populations. They have, instead, perhaps focused too much on the importance of present gains, and have not grasped the need to establish the strategic infrastructure that will in the future catalyse the translation of genomic and the wider biomedical sciences for the benefit of individuals and populations.

The vision for the future of genomics research, its contribution to human health and disease, and how a path towards an era of genomic medicine may be best charted has just been articulated by the National Human Genome Research Institute (NHGRI) in *Nature*. As we stated in our recent commentary on that vision, *'although the paper refers only to 'medicine' and not 'public health', many of the domains discussed are very firmly within the compass of applications at the population, as well as individual, level'*. The incoherence of the CDC's decision with the NHGRI's vision of the future speaks to one thing and one thing alone. It is that many of those involved in public health, including those (and perhaps particularly those) at senior level have failed to understand the importance of modern biomedical science. They will consequently be ill prepared for the genomic revolution and its role in improving the health of populations across the world.

In making these statements we are not complacent about the fact that, to date, despite the hype, the complexities of modern biology are such that the improved health outcomes that can be directly attributed to genomic research are relatively limited – even though there are spectacular successes, such as the single gene subsets of various common cancers, or the part

played in stemming epidemics such as SARS and influenza. With an exponentially increasing knowledge of biological mechanisms at a molecular and cellular level, there can be no doubt that with time these successes will increase and that the impact of the science on human health will be greater as each decade unfolds.

CDC's decision sends a signal that will amplify the unhelpful and manifestly untrue impression that there exists an antithesis between public health and clinical medicine; and the implication that social and biomedical models of disease sit on different sides of an academic fence. Nothing is further from the truth; both are equally important; and both social and biologically based interventions will be necessary for the improvement of the public's health. In future years, those whose policies will best succeed in tackling the public health problems that beset us, such as obesity, heart disease, cancer and infectious diseases, will be those best able to integrate environmental, social and biological thinking as they formulate policy and strategy.

The more progressive Schools of Public Health realise this and some are making huge efforts to bring public health genomics into their curricula, notwithstanding their understanding that the rewards will be neither simple nor quick. The role of the public health practitioner is not that of researcher in basic genomic science, but as one able to use research in the translation of such science into clinical and public health practice. As conceptualised in the HHRGI strategic plan, it is to use the science not just to advance the practice of medicine but to improve the effectiveness of healthcare that is most needed and most required. This is the role of the public health community and so well carried out by the OPHG.

From this side of the Atlantic, we mourn the decline of the OPHG and the negative impact this will have on public health practice in the USA. The PHG Foundation, not being subject to the vagaries of public funding, will continue to champion the cause of public health genomics. We are optimistic that Dr Khoury will carry on unbowed as leader of the OPHG, a small but vital member of the international public health genomic movement. We, along with his friends and colleagues in the USA and across the globe, will continue to give him our full support. We ourselves are entirely certain that in the next few years the short sighted nature of the CDC's decision will be made manifest for all to see.

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