

Options and Opportunities for Health Science Research in Scotland

Professor Andrew Morris



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Biography

ANDREW MORRIS is Professor of Medicine and Dean of Medicine, University of Dundee, Scotland. He is seconded as Chief Scientist at the Scottish Government Health Directorate which supports and promotes high quality research aimed at improving the quality and cost-effectiveness of services offered by NHS Scotland and securing lasting improvements to the health of the people of Scotland.

His research interests span informatics and chronic diseases. He is Director of the Farr Institute in Scotland funded by the MRC and nine other funders and convenor of the UK Health Informatics Research Network, representing a £39M investment in health informatics research.

Abstract

Healthcare is arguably the last major industry to be transformed by the information age.

Deployments of information technology have only scratched the surface of possibilities for the potential influence of information and computer science on the quality and cost-effectiveness of healthcare. In this talk, the opportunities provided by computer science and "big data" to transform health care delivery models will be discussed. Examples will be given from nationwide research and development programmes that integrate electronic patient records with biologic and health system data. Two themes will be explored; specifically:

- How the size of the Scotland (5 million residents), allied to a relatively stable population and unified health care structures facilitate the application of health informatics to support nationwide quality-assured provision of diabetes care.
- How population-based datasets and disease registries can be integrated with biologic information to facilitate (i) epidemiology; (ii) drug safety studies; (iii) enhanced efficiency of clinical trials through automated follow-up of clinical events and treatment response; and, (iv) the conduct of large-scale genetic, pharmacogenetic and family-based studies essential for stratified diabetes medicine.