

The importance of Health Research in Horizon 2020: Diabetes as a model of a chronic disease and the need for sustainable funding

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Abstract

Diabetes is one of the most common chronic diseases and is estimated to affect more than 32 million European Union (EU) citizens, which is nearly 10% of the total EU population. An additional 32 million EU citizens are not yet diagnosed or have pre-diabetes, and rates of diabetes are expected to further rise as the population ages. Annual costs of diabetes in 2010 were approximately €300 billion, and the European Parliament now considers diabetes an epidemic. Horizon 2020, the upcoming European Commission Research Framework Programme, will dictate how much funding is available for scientific research in Europe. EURADIA, the Alliance for European Diabetes Research, is working to ensure that Horizon 2020 will allocate sufficient funding to health research in light of the increasing economic consequences of chronic diseases such as diabetes.

Keywords: Diabetes, Treatment, Europe, Funding, Horizon 2020

Diabetes in the European Union

Diabetes is one of the most common chronic diseases and is estimated to affect more than 32 million European Union (EU) citizens, nearly 10% of the total EU population.¹ An additional 32 million EU citizens are not yet diagnosed or have pre-diabetes.

Type 1 diabetes still cannot be prevented, and its risk factors remain unclear, whereas the complications of type 2 diabetes are preventable through early diagnosis and lifestyle changes. However, type 2 diabetes is frequently diagnosed too late,

and 50% of all people with diabetes are unaware of their condition.²

Diabetes is responsible for over 10% of healthcare expenditure in most EU member states.³ Average healthcare costs for an EU citizen with diabetes are estimated to be €2100 per year.¹ A recent study of the direct and indirect cost burden of diabetes in five EU countries estimated a total of €188 billion for 2010.⁴ Linear extrapolation suggests an annual cost of approximately €300 billion in 2010 for the EU.

EURADIA and funding for diabetes research in Europe

EURADIA, the Alliance of European Diabetes Research, is a unique alliance of non-governmental organisations and pharmaceutical companies with the mission of improving the lives of people affected by diabetes by promoting diabetes research funding in Europe through advocacy and communication. The DIAMAP project, funded by the European Commission, and managed by EURADIA, has examined spending on diabetes research. According to DIAMAP, a total of €0.5 billion was spent on diabetes research in 2008.⁵

EURADIA is continually communicating the message that without greater investment in diabetes research on improving diabetes prevention and care total costs of caring for people with diabetes will continue to rise as the population ages along with an increase in co-morbid conditions, especially heart disease, stroke, blindness, amputation, and kidney failure.

Health research budget in Horizon 2020

Currently, EURADIA is awaiting results of discussion around the legislation for Horizon 2020, the

European Research Framework Programme, which should be in place by the end of 2013.⁶ Horizon 2020 is a financial instrument that implements the Innovation Union, a Europe 2020 initiative aimed at securing Europe's global competitiveness. Horizon 2020's goal is to create new growth and jobs in Europe, and it runs from 2014 to 2020 with an €80 billion budget. Horizon 2020 contains two pillars – *Excellent Science – Research Infrastructure* and *Societal Challenges – Health, Demographic Change, and Wellbeing* – that address infrastructure and funding of scientific investigation for chronic (non-communicable) diseases such as diabetes. Horizon 2020 was developed with the input of many stakeholders and with the help of position statements from many academic institutions and advocacy groups, including EURADIA. EURADIA continues to work with the European Commission to ensure that diabetes research receives adequate funding, as this condition affects so many people.

The European Commission's Seventh Framework Programme (FP7) provided €55 billion for science and research between 2007 and 2013. Although this was increased to €80 billion in Horizon 2020, the proportional allocation for health research decreased from 12% in FP7 to 10% in Horizon 2020.⁷ The Alliance for Biomedical Research in Europe had led a campaign for increased spending on biomedical research to 20% in Horizon 2020, with the aim of speeding the translation of basic science discoveries to healthcare delivery.⁸

Urgent societal challenges

The European Commission has stated that biomedical and public health research contributing to chronic disease prevention and treatment are among the most important areas of research.⁹ Europe's investment in research must correspond to this policy. Therefore, EURADIA urges that the budget for research in healthcare be allocated to reflect urgent societal challenges, in particular:

- *Chronic diseases* (diabetes, cardiovascular diseases, cancer, chronic respiratory diseases, and mental disorders), which account for approximately 86% of deaths and 77% of the disease burden in the European region.¹⁰
- Changing demographics and the ageing population. The population in Europe is ageing,¹¹ so that diabetes is becoming more common.¹²

In March of 2012, the European Coalition for Diabetes, of which EURADIA is a founding member, drafted *The European Parliament Resolution*

on Addressing the EU Diabetes Epidemic, which calls on the Commission to develop and implement a targeted EU Diabetes Strategy via an EU Council Recommendation on diabetes prevention, diagnosis, management, education, and research.¹³

Structural and societal challenges to maintaining European excellence in science

Health research in Europe is in urgent need of better coordination: common resources and an overall science policy are needed. The Alliance for Biomedical Research in Europe proposed creating a European Council for Health Research to be modelled loosely on the United States National Institutes of Health. The purpose of this agency would be to improve competitiveness and excellence in science in Europe, while offering direct benefits to the health and quality of life of EU citizens. EURADIA strongly supports this plan and has made their position known to the European Parliament.¹⁴

Europe has a history of excellence in clinical research that has been lost in recent years to the USA due in part to a lack of training and professional opportunities. At the same time, European citizens are not offered equal participation in clinical studies and are therefore losing opportunities to improve their health and quality of life. Renewed excellence in this critical area could be addressed by creating disease-focused clinical research infrastructure under the umbrella of the proposed European Council for Health Research. EURADIA proposes that a European Platform for Clinical Research in Diabetes (EPCRD)⁵ coordinate European efforts in this area. This platform would mediate sharing of resources, training, and standardised protocols. EURADIA is currently developing the EPCRD via a consultation process. Documents and a questionnaire are available at www.EURADIA.org.

New longer-term instruments are needed to ensure sustained funding under Horizon 2020. The lack of sustainability in funding in FP7 has reduced the return-on-investment for scientific research. This reflects a broader need for long-term, scientifically based strategic planning and science policy in Europe.

DIAMAP, the first European health research road map for diabetes⁵ was followed by FUTURAGE, a road map for ageing research,¹⁵ and ROAMER, a road map for mental health research in Europe.¹⁶ Under Horizon 2020 this road map approach could be extended to the entire health research space. The experience and knowledge gained from

these road maps would give the newly proposed European Council for Health Research a strong foundation for coordinating the European biomedical research effort⁷ and provide the European Commission with a useful benchmark against which future developments could be measured.

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Author information

Sarah Hills trained as a nurse at the Middlesex Hospital and the London Chest Hospital in the UK (1980–1986). She worked for the European Association for the Study of Diabetes (EASD) and managed the editorial office of *Diabetologia* (1987–1997) in Uppsala, Sweden and Pisa, Italy. Sarah became the administrator for the European Group for the Study of Insulin Resistance (EGIR) and in 2001 manager of the multi-centre FP5 RISC (Relationship between Insulin Resistance and Cardiovascular Disease) project coordinated at the University of Pisa. From 2008 to 2010 Sarah was manager of the FP7 DIAMAP (Road Map for Diabetes Research in Europe) project. Sarah has also been active in FEND (Foundation for European Nurses in Diabetes) and was the Editor-in-Chief of the journal *European Diabetes Nursing* from 2004 to 2010. Sarah is currently Executive Director of EURADIA.

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