



Food and health research in Europe: Structures, gaps and futures

Mark McCarthy^{a,*}, Elodie Cluzel^b, Kerstin Dressel^c, Rachel Newton^d

^a Department of Epidemiology and Public Health, University College London, 1-19 Torrington Place, London WC1E 6BT, UK

^b Euroquality SARL, 8 Rue Isly, 75008 Paris, France

^c Dialogik GmbH, Seidenstrasse 36, 70174 Stuttgart, Germany

^d SPI - Sociedade Portuguesa de Inovação, Avenida Marechal Gomes da Costa 1376, 4150-356 Porto, Portugal

ARTICLE INFO

Article history:

Received 9 February 2012

Received in revised form 5 November 2012

Accepted 19 December 2012

Available online 30 January 2013

Keywords:

Europe

Research policy

Health

Eating

Obesity

ABSTRACT

Background: Food and health research is concerned with production, marketing, choice, regulation and policy for food as it affects health, and the mechanisms and control of diet-related diseases, nutrition and obesity. It covers positive and negative impacts of food on health, as well as issues related to under and over consumption of food. The European Union-funded study FAHRE (Food and Health Research in Europe) has described structures and identified gaps and needs for food and health research across Europe.

Methods: FAHRE was conducted by a consortium of partners in 7 European countries, including private and public research organisations, university-based researchers and civil society organisations. National advisers in 32 European countries made reports on the structures of food and health research, and nine experts made reports on food and health research themes. At the end of this phase, a stakeholder conference was held to review and discuss the findings, and from this a Strategic Document was developed and distributed electronically for wider consultation at national level. This report presents the findings of the Strategic Document.

Results: FAHRE proposed that future research using public funding should address the global issue of unhealthy eating, including obesity, which causes preventable disability and disease, reduced working life and increased healthcare costs. FAHRE suggests a move of the focus of research from healthy food to healthy eating, and to overcome the existing separation between food research and health research through a shift of research towards food for health.

EU member states have widely differing national systems for research management, and information is poorly standardised for comparisons. There are many research programmes in both food and health, usually managed by ministries of science, but rarely in collaboration with ministries of health. Industry mainly contributes 'near product' research: few industry small and medium enterprises are engaged with food and health research, nor are civil society organisations. EU food and health research has been focused within the agriculture research theme, and not sufficiently linked to health research.

FAHRE recommends coordination of food and health research through an EU-level Coordinating Agency, with budget and representation from the three EU directorates Agriculture, Health and Research, the member states, and wider stakeholders including civil society and industry. There should be corresponding 'food and health research agencies' in the member states bringing together national policy-makers and stakeholders, and directing research funding. Food safety agencies may provide a model for this joint approach. Further proposals include strengthening social and policy research, accessing Structural Funds for research programmes, and more strategic approaches to determining research programmes and funding.

Conclusion: Food and health research in Europe should move from 'healthy food', which concentrates on food as a product, to research for 'healthy eating' which is concerned with appropriate intake and reducing disease. Coordination of research on this theme, at European level, and between member states, could deliver major economic and social returns.

© 2012 Elsevier Ltd. All rights reserved.

* Corresponding author.

E-mail address: m.mccarthy@ucl.ac.uk (M. McCarthy).

Introduction

The European Union (EU) programme for research 2014–2020, entitled ‘Horizon 2020’ (European Commission, 2011) is based on the argument that research provides knowledge for innovation, competitiveness and economic development (European Commission, 2010). While expanding the funding for investigator-led research, it also proposes more attention to research for industry, and research to address societal ‘Grand Challenges’ – including both food and health. However, the European Union funds only a small proportion of all European research. In preparation for the new programme, the European Commission made a call for a study to describe the current structures for food and health research in Europe and to make proposals on needs and gaps in support for research. FAHRE (Food and Health Research in Europe, 2011a) was proposed, and selected by peer review in response to the call. We present here findings for knowledge and discussion.

Food and industry

The food and beverage manufacturing industry had a turnover in 2009 of more than €900bn, providing employment for 4.8 million people in more than 300,000 companies, while consumers spent €1028bn on retail and food services in 2003 (Wijnands et al., 2007). Most enterprises are small, but the few large companies are very influential – for example, in the food manufacturing industries they hold roughly half of the market, and in retail the top 5 supermarkets have a combined share of around 70%.

These industries face several challenges simultaneously: to supply safe and affordable food in sufficient quantity; greater demand from growth of world population; increasing competition; environmental sustainability; and concerns for health. Three issues stand out from a health perspective. Food safety, protecting consumers from food chemical or biological contamination, is an important practical issue, especially as food is traded across many jurisdictions, but has been already addressed closely by the European Union and member states. The second issue is environmental: ‘organic’ food may be preferred by consumers on ethical grounds, but appears to offer few extra benefits for health (Dangour et al., 2009; Smith-Spangler et al., 2012). The third concern, now of greatest public health impact, is the food diets that people eat.

Food and health

The United Nations General Assembly in September 2011 identified food, along with tobacco, alcohol and exercise, as a major global cause of chronic disease. In Europe, poor diet (and lack of exercise) cause up to one third of deaths from cardiovascular diseases, and (with alcohol) of intestinal cancers (Eurodiet, 2000; World Cancer Research International, 2009; European Chronic Disease Alliance, 2011). The main mechanisms are: damage of blood vessels, affecting the heart, the brain, and the peripheral arteries, caused by high intake of saturated fats; strokes and heart disease from high blood pressure due to excess salt intake; adult-onset diabetes due to excess sugar and fat intake; two common cancers – of the bowel and the breast – related to a high fat diet; and obesity, rapidly increasing across the world, raising the risk of all these diseases.

By contrast, the components of balanced diets – including sufficient portions of nuts, fresh fruit and vegetables – are health promoting. The World Health Organisation (2008) and the Food and Agriculture Organisation (2011) have recommended major changes in diets: to reduce saturated fats, salt and sugar; to increase fruits, nuts and vegetables; to eat less red meat and more fish; and to drink less alcohol. And public policy and personal

health are linked with commercial interests: as fewer people in Europe now grow and cook their own food, the food industry has increasing impact on eating behaviour. Concern for commercial pressures on children’s diets, for example, reflects the larger issue of personal choices by the whole population.

Methods

FAHRE was established as a partnership of research organisations, management companies and civil society organisations in seven EU member states (FAHRE, 2011b). In its first phase, FAHRE (2011c) mapped existing food and health research in 32 European countries. Experts were identified in each country, a questionnaire schedule for collecting information was constructed, and the experts completed the schedule through direct contacts and internet resources within their countries. The country reports are presented at the FAHRE (2011) web page. A summary report was constructed from the individual country reports, describing the strengths and weaknesses of the research systems at national level (FAHRE, 2011c).

Following this, thematic experts in nine fields (food processing, food safety, policy, consumers, regulation, population, diseases, nutrition, and research structures) were appointed, and used the 32 country reports and secondary sources to determine research needs, gaps and overlaps in each field (FAHRE, 2011d), and as a collective report (McCarthy et al., 2011).

In the third phase, FAHRE consulted the stakeholders from research, industry, research governance and civil society organisations identified in the mapping to develop a strategy for food and health research policy and funding. Participants at an international workshop discussed the first phase results and proposed areas of focus and important issues to investigate further. The proceedings (FAHRE, 2011e) were used as input for a 2-week online discussion between food and health research funders, researchers and industry representatives, using a web-based tool. Furthermore, the results of FAHRE were presented and discussed at various multiplier events. An elaborated version of the draft paper was then subject of an e-consultation of stakeholders throughout Europe. The findings from all of these processes are included in this paper.

Results

Food research for health

European research on food related to agriculture was reviewed for the Standing Committee on Agricultural Research (SCAR, 2008) of the European Commission. Bibliometric mapping in 33 countries and a survey of the research capacity in 14 countries showed that agrifood research is strong in Europe overall, although less in the EU new member states. But for this study, only one part (“human nutrition” – including “functional food, conventional food, nutrigenomics, food and diet related diseases, food pattern and health, consumer habits”) of 11 agri-food academic fields addressed research on human health. A slightly more positive position was indicated by the report “Shared Infrastructures” for the Standing Committee on Agricultural Research (2010). Here, of 69 proposed research initiatives for food, six concerned human health: others were on agriculture, biology and environment.

The European Commission’s Research Directorate’s programme for Food, Agriculture and Fisheries, and Biotechnology, includes ‘Food, health and wellbeing’. Almost 50 collaborative projects have been funded in the past decade that address so-called ‘functional foods’, with an expenditure by the EU alone of €150 million euros, and involving more than 500 partners from academia and industry

Download English Version:

<https://daneshyari.com/en/article/5070691>

Download Persian Version:

<https://daneshyari.com/article/5070691>

[Daneshyari.com](https://daneshyari.com)