

Consultation on European Union Balance of Competences

Research

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I have studied public health research at EU level, and across European countries, through EU-funded collaborative projects. I was founding member for the European Public Health Association, at a meeting held at University College London in 1990. From 2001-2007, I established and was Chair of the UK Faculty of Public Health European Working Group, and from 2008 I have been honorary 'Research Lead' for the European Public Health Association. I have been evaluator for research and project proposals for DG Research and DG SANCO since 2002.

My response is based on work for these projects:

SPHEREⁱ (Strengthening Public Health Research in Europe) (Funded by European Commission 6th Framework Research Programme - Policy theme)

STEPSⁱⁱ (Strengthening Engagement in Public Health Research) (Funded by European Commission 7th Framework Research Programme - Science in Society)

PHIREⁱⁱⁱ (Public Health Innovation and Research in Europe) (Funded by DG Health & Consumers Health Programme)

1. *Where has EU action had a **positive impact** for the UK on research, technological development, innovation or space? What evidence is there for this? Has EU action encouraged national action in any areas?*

EU action in 7FP should be considered from its four dimensions. 'Collaboration' has created linkages across member states, broadening the teams, delivering results more quickly. 'Ideas' has allowed researchers to new areas of funding. 'Mobility' has enabled considerable transfer of staff between countries – with many contributing to UK research. 'Coordination' has allowed UK to lead or participate in infrastructures and in support/coordination actions. There has been wide interest in FP7 as a source of both funds and knowledge, including for the UK National Health Service^{iv}

Our studies over the last ten years, comparing European health research systems, would not have been possible without FP6, FP7 and DG SANCO support. We have created new knowledge by leveraging our interests with partners across EU countries. There are occasional UK grants for bilateral research, but gaining knowledge collaboratively across Europe is not supported by UK funders.

PHIRE identified positive impacts of EU-support for public health innovation^v. We investigated eight EU-funded public health collaboration projects, and gained information from 108 respondents across 22 European countries, including UK. Three of the eight innovations were considered of high relevance by more than 60% of respondents, and at least 70% of informants considered 7 of the 8 innovation projects as of high or moderate relevance. Impacts were reported across governmental, professional and academic settings, with high impact on knowledge/awareness for at least 30%. Some projects had impacts within the policy cycle in particular countries, and connected strongly with academics and professionals. All the innovation projects were still active at European level up to seven years after their initial funding, indicating their sustainability. However, projects that were developed at local level had less visibility nationally, and some projects were unknown to national respondents.

As a reflection, it is important that benefits of EU action are seen in relation to all of EU, not just the 'return' to UK. Moreover, it is important to consider the less visible non-commercial impacts that contribute 'growth', in its larger meaning, beyond simple GDP.

2. *Where has EU action had a **negative impact** for the UK in these fields? What evidence is there for this? Has EU action prevented potentially useful national action in any areas?*

One negative area of EU action for the UK has been weak recognition of public health research within the EU FP7 programme. The FP7 Health collaboration programme has been very well funded (second to IT), at over €650 million each year. But public health research within this has been very poorly funded – at less than 5% of the total^{vi}. [The DG Research / Health programme's own figure is higher than this, but includes spending on non-European International Health']. This results from the poor

representation of public health concerns on the Health programme committee. The UK has a strong influence on this committee, but does not clearly take up the need for public health research there – much less than its advocacy for, for example, neurosciences. A significant reason for this is the lack of representation of the concerns of Ministries of Health at the Health programme committee. Essentially, the Health programme committee limits development of knowledge which could have major benefits for the health of people in UK

An example is the field of nutrition epidemiology. The European Prospective Investigation into Cancer and Nutrition (EPIC), led from UK, was funded by DG Health's cancer programme (and local funding, eg Cancer Research UK and MRC). EPIC recruited over half a million people in ten European countries: and has followed them for 20 years. EPIC has shown food as a controllable cause of cancer, with major implications for the UK (as well as European) food production and retail economy. But epidemiology was not included in FP7, except as a servant of 'omics' studies where again large numbers are needed because of heterogeneity). [A similar position exists for epidemiology of air quality and respiratory disease.] The UK is a world leader in epidemiology, but its limited inclusion in FP7 has diminished UK research analyses and contribution.

3. How and where has UK engagement, with partner countries or international bodies, both within and outside the EU, been helped or hindered by EU involvement?

The World Health Organisation has taken a strong interest in the use of science for health policy and practice (UNESCO does not lead), and promoted important international conferences and organisations including the Global Forum for Health Research, the Alliance for Health Policy and Systems Research. However, a proposed World Health Report for 2012 ("No Health without Research") did not emerge. WHO Europe does not fund research, and the European Advisory Committee on Health Research not been influential.

EU has worked with WHO and member states in standardisation of health statistics, of considerable value for comparative research on disease aetiology and interventions. Collaboration with European partners, eg work on the Global Burden of Disease, is also crucial for new initiatives in global health research^{vii}.

4. What benefits or difficulties has the objective of a European research area (ERA) delivered for the UK?

The harmonisation of practice across 28 EU countries is challenging: an ERA in public health research hardly exists. PHIRE showed that each Member State has its own health research strategy or law; most research programmes are restricted to researchers situated within the funding country; and there is almost no knowledge between countries of their research programmes and no coordination for them at European level. The recent EU-sponsored Joint Programming Initiatives for Food/Health and Neurodegenerative diseases are limited by the reluctance (including UK re-

search councils) of countries to share funds (the research community itself is less reluctant, if given the funds to administer).

5. How has the EU sought to coordinate the policy instruments at its disposal across different policy areas to create an enabling environment for researchers and innovators? How successful has this been?

There are various 'policy instruments', although the funding for them is small compared with the overall level of EU research funds (€7 bn per annum).

- As well as the discussion of Joint Programming above, for health research there is a strong need for much better coordination with the Joint Actions of DG SANCO (eg the UK could seek to have regular discussions between national representations for health and national representations for research). Similarly, there have been no opportunities to develop a Public Health Research ERA-net.
- 'Infrastructures' is a growing field. Both the UK MRC and EU RTD should change their current indifference and support infrastructures for public health research: linking access to the data sets across European countries could have immense advantages in power for UK researchers, at least as comparable as those for the USA.
- The International Collaboration (INCO) programme for health been much too limited: much more support should be given to research on international health systems. Compare, for example, funding at €200m each year for five years allocated to pharmaceutical companies for the IMI (Innovative Medicines Initiative).
- The programme of the Joint Research Centre is not entirely clear, but there is welcome news^{viii} that it will put effort into building coordination of national health databases such as for cancer registries – which are so important for demonstrating patient survival and the impact of therapeutic innovations beyond the clinical trial.

6. What could the EU most helpfully do to promote scientific and technological progress and innovation (including in the space sector)?

The greatest single action the EU could do is to bring together the health research capabilities of EU countries and coordinate research towards countries' collective health needs. At present EU research policy is developed through the Commission, but not as a dialogue with health research performers or users – including policy-makers and practitioners. It may be that industry is represented at EU level, but in the health sector medicines and devices are only a minor part of the total activity. There is no forum for determining what research is needed, what research knowledge is being used and how to demonstrate value for money to European citizens. This is a collective challenge for EU member states, to which UK could actively contribute and from which also it would gain.

The great potential of health science across Europe is not being used effectively. The issue is not changing 'competences', but of greater will of the existing EU member

states to work together. EU gets just 1% of GNP. Science is not a field needing legislation, nor (much) regulation. It needs well-funded structures, dialogue, critical review and openness.

7. Where might future EU level action be detrimental to your work in this area?

Horizon 2020 has two potential negative challenges for public health research. The first is the continued primacy of life sciences and biomedical research, and failure to include social sciences as equal disciplines within the Health theme (and within the European Research Council medical research boards).

The second is failure to engage with national health research needs and programmes through interaction and coordination with stakeholders, including public health researchers, professionals, NGOs, national funding agencies and ministries of health. PHIRE held national workshops in 22 EU countries to explore public health innovations and research structures. There is a considerable need to strengthen these national consultations and European coordination

8. Where might action at national rather than EU level be more appropriate / effective?

The limited European research funds should go towards enhancing cross-national collaboration. This would include reducing the funds being allocated to the European Research Council, which essentially replicate the funds available for competitive research through national research councils, and would enable better dialogue across countries for stakeholders in interdisciplinary fields.

9. How could EU and national policies and funding streams interact better?

A significant example is in food and health research. The European Union spends much more money on animal and plant health research than it does on human health – under the rubric of ‘food safety’. Europe produces and retails food that is declared ‘safe’, and yet has major impacts of disease burden (cancer, heart disease and diabetes). Much could be done to reorient European food ‘safety’ research towards intervention research at local, national and European levels to deliver practical benefits to European citizens.

10. What impact would any future enlargement of the EU have on this area of competence?

Research and innovation are leading elements of Europa 2020 strategy. The regional funds for 2007-2014 gave specific support for research and innovation for the 12 European new member states. There has been some use of these research funds for health research, but the larger new member states have been less clear on how the substantial level of funding is used^{ix} Nevertheless, overall the allocation of Structural Funds for research has stimulated modernisation of national research structures and programmes, and future enlargement countries would be likely to benefit in the same way. Neverthe-

less, there needs to be much closer discussion on how Europe's research funds are used. For example, there has been much more funding towards infrastructures such as laboratories for genomics than for the necessary statistical systems and analysis needed for public health research. The UK could pay much more attention to how other member states use the structural funds, and what the collective benefits will be.

11. *Are there any other points you wish to make which are not captured above?*

The (UK) Department of Health, in its Call for Evidence on the Review of the Balance of Competences, made the following points:

1.16.

The (Europe 2020) strategy recognises that since health is determined to a large extent by factors outside the health area, an effective health policy must involve all relevant policy areas, such as social and regional policy or research. All EU policies are required by the EU treaty to follow this "Health in all Policies".

Thus 'Research for Health' (as it is nowadays referred to by WHO, and the Global Forum for Health Research) includes research across a wide range of fields

10.1. The current EU public health programme covers 2008-13 ... provides funding to organisations such as voluntary sector bodies, charities, NGOs and university departments for projects that provide EU added value.

"Voluntary sector bodies, charities, NGOs" are the partners for knowledge in the not-for-profit fields that predominate in medicine. They are the equivalent of SMEs, as instigators and users of innovation, in the commercial sector. And note the importance of 'university departments' also – there is increasing government and professional emphasis for the university sector on dissemination, uptake and impact of research.

17.1. Research and development, including the Framework Programme, will be considered by a separate balance of competences review to be led by the Department for Business, Innovation and Skills in the second semester (spring 2013). We would welcome evidence from the health sector about the impact of this EU competence through this call for evidence

DH is a major funded of research, through the National Institute for Health Research and the Policy Research programme, so it will have given evidence directly to BIS as well as requesting it from the consultation. Such DH evidence would presumably include analysis of how the existing FP7 Health programme, including Collaboration calls and funded projects, European Research Council funded research, Joint Programming and Infrastructures, fit with the DH-sponsored research.

Public Health England is currently consulting on research for a ten-year forward strategy. The review questions are:

- Main technology and research trends that will drive your field of public health science in the future;
- The scientific and research capabilities and facilities that these trends will require.
- External factors/drivers that might change the requirements for your field of public health science;
- Major challenges/opportunities (arising from the research and technology trends and other factors) surrounding the future of your area of public health;
- The role of Public Health England in public health science in a ten year timeframe, both nationally and internationally

From a UK national perspective, there is a considerable overlap between public health and research, and that research sciences are fundamental to future practice

The following comments respond to the introduction to the BIS consultation call.

[15.] Data on the UK position may be gained from OECD, but more comprehensive comparisons against all EU countries would be obtained from ERA-Watch and the papers supporting Horizon 2020, and the Innovation Union. In SPHERE, we found that the UK has the highest production overall of public health research, papers across European countries, but not the highest per capita – the Scandinavian countries perform better^x.

[16.] The reasons for ‘success’ in research systems are not well understood. From the perspective of public health research, the UK and Scandinavian countries have national health systems that encourage collaboration and innovation for public good, rather than privatisation of knowledge and less interest in research as a public good in countries. Thus, it seems that the greatest benefit for public health research is a ‘mixed’ funding system, whereby the traditional biomedical sciences are supplemented by funds from the health care system and from independent funding bodies, for example, the Swedish Council for Health, Working Life and Welfare supported by the National Swedish Board of Health and Welfare, and the Wellcome and the Health Foundation in the UK.

[17.] Innovation arises in different countries in different ways. UK benefit will come through both leadership and collaboration. And ‘research investment’ is not the only – or even main – driver of economic growth. Globally, the fastest growers are using others’ knowledge – it is the ability to apply any knowledge for innovation that creates a competitive edge. Moreover, many public service innovations do not necessarily increase ‘growth’ in a narrow form, such as eg GDP, but broadly as quality or length of life.

[21.] The statement of UK research funding appears to have excluded substantial areas of the UK health research budget. Apart from MRC receiving around £0.76bn in 2012/2013^{xi}, there is almost £0.94 billion from the Ministry of Health’s National Institute for Health Research^{xii} (which is a funding body, not a provider ‘institute’), and over £1 billion from Wellcome Trust and the ‘disease’ charities^{xiii}. This would appear to make a

substantial difference to the level of funding identified by BIS, and our EU relative position.

[25.] To observe UK as a 'strong player' in current EU research is a rather limited statement. One could expand by considering 1) input to the programme committees 2) input to commentaries about the development of the EU research programmes 3) input to evaluation committees; 4) the work of scholars and institutional research systems in preparing, submitting and eventually (if successful) administering, reporting and disseminating research.

UK representatives at European Commission meetings are chosen by public agencies that are accountable finally to Parliament. Similarly, the UK at the Council of Ministers has a governmental position. While the lead time for development of EU policy and priorities is long, there is UK governmental involvement. In the Horizon 2020 programme, the European Research Council is to provide funds for 'own initiative' proposals (usually national research teams), while the Societal Challenges will be cross-national research to identifiable concerns and themes. The Commission's Directorate for Research and Innovation seeks to present annual calls that represent both scientists' current concerns and also public concerns. Examples of exceptional funding in the health field have been, for example for fields of emerging infectious diseases, and for patient safety research.

[27.] Innovation is supported widely in the EU programmes. From the Health perspective, the important funding has come through the DG SANCO programme. This is specified as for demonstration projects rather than original research, but nevertheless replication in different settings is an important element of the non-absolute sciences. (Replication of results is one of criteria for causality in epidemiology; meta-analysis of different but similar research studies is the foundation of knowledge for the Cochrane collaboration – itself a UK innovation)

UK has had particular strength in leadership in FP7 on social sciences research. English is now the language of science, primarily through historic American leadership. But EU public health researchers are increasingly using English also for grant proposals and peer review as well as publishing^{xiv}.

ⁱ <http://www.ucl.ac.uk/public-health/sphere>

ⁱⁱ <http://www.steps-ph.eu/>

ⁱⁱⁱ <http://www.eupha.org/phire>

^{iv} http://ec.europa.eu/research/horizon2020/pdf/contributions/post/united_kingdom/national_health_service_european_office.pdf#view=fit&pagemode=none

^{iv} http://www.nhsconfed.org/NATIONALANDINTERNATIONAL/NHSEUROPEANOFFICE/INNOVATION_EU_FUNDING/Pages/Innovation_EU_funding.aspx

^v Voss M, Alexanderson K, McCarthy M. Measuring the Impact of public health innovations in Europe. European Journal of Public Health 2013 17 Suppl2: forthcoming.

^{vi} http://www.steps-ph.eu/wp-content/uploads/STEPS_Report.pdf

^{vii} doi:10.1016/S0140-6736(13)61046-6

^{viii} <http://www.euresearch.ch/index.php?id=1479>

^{ix} <http://www.health-policy-systems.com/content/pdf/1478-4505-10-12.pdf>

^x eurpub.oxfordjournals.org/content/17/suppl_1/2.full; <http://sjp.sagepub.com/content/36/3/225.extract>

^{xi} <http://www.mrc.ac.uk/Utilities/Documentrecord/index.htm?d=MRC009224>

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https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/215416/dh_130371.pdf

^{xiii} <http://www.drwf.org.uk/Information/LatestUpdates/tabid/706/View/true/ParentId/460/Default.aspx>

^{xiv} Grimaud O, Devaux S. Health needs and public health functions addressed in French public health journals. Eur J Public Health . 2007;17 Suppl 1:38-42.