

## Guest Editorial

### **Brexit: a confused concept that threatens public health**

#### **Introduction**

Sometime within the next 2 years the United Kingdom (UK) will vote in a referendum to decide whether it remains a member of the European Union (EU) or leaves, in what would be termed ‘Brexit’, short for ‘British exit’.

The UK currently engages deeply with the European institutions on innumerable initiatives and a vote to leave would trigger an extremely complex programme of renegotiations, potentially lasting for a decade or more, on terms that Brexit proponents have been unable to specify. The process would be complicated further by renewed calls for independence in an overwhelmingly pro-EU Scotland.

Although polling data suggest that the determining factor will be attitudes to immigration,<sup>1</sup> the referendum is formally about the balance between advantages and disadvantages of EU membership. Here, we reflect on the impact that the EU has on public health in the UK, discussing the changes that Brexit would bring.

#### **Immigration**

Immigration is the issue on which those seeking Brexit have focused most. ‘Freedom of Movement’ is a core principle of the EU, enshrined in its treaties, alongside the other three basic freedoms of movement of goods, capital and services<sup>2</sup> and is a concrete manifestation of EU citizenship. However, the right of citizens from any country in the European Economic Area (EEA, comprising the EU plus Norway, Iceland and Lichtenstein) to work in the UK under the same conditions as British citizens has been a longstanding cause for complaint by some commentators. They argue that this equates to a lack of control over UK borders, which causes mass immigration and strains public services like the National Health Service (NHS), thus reducing quality of healthcare for everyone.

In reality, the reverse is more likely to be true. Research at University College London found that: ‘Between 2001 and 2011 recent EEA immigrants contributed to the fiscal system 34% more than they took out, with a net fiscal contribution of about £22.1 billion. In contrast, over the same period,

natives’ fiscal payments amounted to 89% of the amount of transfers they received or an overall negative fiscal contribution of £624.1 billion.<sup>3</sup> Thus, EEA migrants pay their way for public services and more. The paper also destroys the notion that Freedom of Movement lets in immigrants that contribute less than those from outside the EU. Quite simply, the UK is importing young, healthy and highly skilled immigrants from the EU whilst exporting several hundred thousand more costly pensioners to countries such as Spain and France.<sup>4</sup> Moreover, the Office for Budget Responsibility’s predictions of future economic growth are predicated on continued net immigration.<sup>5</sup> Without these movements, the national purse and, consequently, the financial plight of the NHS would be considerably worse.

#### **EU law and public health**

Those advocating Brexit often argue that the UK is subject to laws passed by distant unelected officials. In fact, European law is actually made jointly by democratically elected national governments, in the Council of Ministers, and the directly elected Members of the European Parliament. Let us consider how EU laws impact on determinants of public health and how our national public health legislation would realistically fare in their absence.

One area is the physical environment of the British Isles. Environmental issues have been a priority for EU legislation because pollution does not respect international frontiers. In the 1970s and 1980s, emissions of SO<sub>2</sub> from the UK were causing large amounts of ‘acid rain’, killing forests in Scandinavia. The EU issued a series of Directives that established limits on the sulphur content of fuels and also the quantity of sulphur emissions from power plants and industrial sites.<sup>6</sup> These Directives have been associated with an 80% fall in emissions in Europe. Concerns about the health effects of airborne particulate matter<sup>7</sup> led the EU to act on vehicle engine standards and, by 2005, it was estimated that total emissions from road traffic were 63% lower than they would have been in the absence of EU standards. Estimates suggest that a similar reduction was associated with measures directed at industry.<sup>8</sup> In 2015, only two of London’s boroughs met EU standards for NO<sub>2</sub> levels, causing the European Commission to launch action against the UK to enforce the Air Quality Directive. The ruling is of critical importance to the health of children, the

elderly and those suffering from chronic heart and respiratory conditions.<sup>9</sup>

EU directives have also addressed water quality, both for drinking and bathing, including the now well-known Blue Flag system for beaches. Although the UK has seen much recent improvement, only 77% of British beaches were rated 'excellent' in the EU's classification, lower than in many other member states,<sup>10</sup> again suggesting that EU action was driving the process.

The EU has been especially active against tobacco, which is among the leading causes of premature death among Europeans. Despite sustained challenges from national governments including, for many years, the UK, it has banned advertising in all those settings over which it has jurisdiction, in other words where there is a cross-border element, such as television and newspapers. The latest Tobacco Products Directive substantially extends restrictions on marketing and limits the use of additives designed to appeal to children.<sup>11</sup> Drawing on encouraging evidence from elsewhere, recent UK governments have gone beyond the EU legislation, a freedom explicitly permitted by the Directive, with bans on smoking in public places and the proposed implementation of standardized packaging. However, outside the protections granted by EU law, it is plausible that the UK would be a prime target for the tobacco industry, just as has been the case in Switzerland.<sup>12</sup>

Even where its power to legislate is limited, the EU has been able to target funds and establish mechanisms for information exchange to encourage healthy public policies. An example is road safety. In 2001, the EU set a target of halving the yearly number of road deaths by 2010, providing funding for improved road infrastructure and improving vehicle safety standards. These changes are viewed as contributing to the 43% decline in road traffic deaths that has been achieved.<sup>13</sup>

Many benefits to UK public health from EU legislation would likely be retained after a Brexit, either by choice or demanded by the EU as a trading partner. Even a country such as Vietnam is required to implement policies on governance and human rights, similar to those rejected by supporters of Brexit as unwarranted interference in UK affairs, if it seeks to trade with the EU.<sup>14</sup> Almost certainly, the EU would require the UK to continue to comply with many EU public health policies, such as those on tobacco, as a condition of entry into the single market, as is the case with Norway. However, there would also be huge pressures to engage in removal of public health protections in an economically struggling post-Brexit world.

The adverse economic consequences could be substantial, with estimates of Brexit's impact on GDP ranging from -9.5 to +1.6% by 2030.<sup>15</sup> Open Europe, generally seen as Eurosceptic, provides the most optimistic of these numbers, but +1.6% is their 'best case scenario' and involves the UK entering into liberal trade arrangements worldwide, whilst pursuing large-scale deregulation at home, to degrees that the report's authors argue

would be unpalatable to the UK public.<sup>16</sup> They also note that 'leaving without a preferential agreement would dent UK GDP significantly' and that, once the decision to leave is made, the UK, with its 73 MEPs, would have no further input into what was offered.

## Research

The benefits of common legislation coupled with targeted funding are perhaps best exemplified in the EU science programme. Over the last decade, the EU has tripled its science budget,<sup>17</sup> even as investment by the UK has shrunk.<sup>18</sup> The current 7-year EU science programme, Horizon 2020, disburses €80 billion and facilitates collaborations worldwide. The UK is, for now, at the epicentre of this global collaborative hub and participates in more projects than any other member state.<sup>19</sup> Post-Brexit, the UK might be able to participate, as do Switzerland, Norway and Israel, among others, by buying into the programme but it would have no input to policy. Moreover, its participation would depend on what the EU would allow. When Switzerland recently took measures to reduce immigration from the EU its involvement was reduced by 40%.<sup>19</sup> However, the loss would not just be in monetary terms; in the UK, international collaborative research has 1.42 times more impact than that conducted only domestically.<sup>20</sup> Perhaps more importantly, any threat to the UK's multi-national coordination roles on the EU science programmes would hit hard. The UK has consistently led more EU health-related projects than any other country.<sup>21</sup>

There are also structural benefits in the form of health-related EU institutions. British public health specialists have played important roles in the European Centre for Disease Control and Prevention which compiles surveillance data from across Europe, develops shared methodologies and standards, and co-ordinates emergency responses. The European Medicines Agency, based in London, is by no means perfect, but its streamlined approach avoids the need for national approvals of medicines in all 28 member states.

## Conclusion

As even this superficial examination shows, a vote to leave would only be the beginning of a very long, complicated and painful process, the result of which is impossible to predict with any certainty. The UK would still be required to adopt most aspects of EU policies and standards. It would have to pay to participate in EU structures. However, it would have no say in these matters and, in many instances, participation would be based on much less favourable terms than the remaining member states. The idea that any country can act entirely independently in a globalized world, or should do, is a dangerous fantasy. The case for remaining rests not only on the absence of any coherent vision of what would happen if

the UK left. The EU has provided continued bold and effective action on public health policy and designed an excellent funding framework for collaborative health research. The loss of the UK's strong participation and policy voice in the EU would, as Lord Hague, the former Conservative Foreign Secretary, recently quipped 'not be a very clever day's work'.<sup>22</sup>

## Conflict of interest

M.M. is President of the European Public Health Association. M.G. is the Programme Director of Scientists for EU.

Martin McKee, Michael J. Galsworthy

*London School of Hygiene & Tropical Medicine, 15-17 Tavistock Place, London WC1H 9SH, UK*

*Address correspondence to Martin McKee,  
E-mail: martin.mckee@lshtm.ac.uk*

## References

- Nardelli A. EU referendum: polling reveals freedom of movement most contentious issue. *The Guardian*, 2015. <http://www.theguardian.com/news/datablog/2015/oct/09/eu-referendum-polling-reveals-freedom-of-movement-most-contentious-issue> (23 December 2015, date last accessed).
- McKee M, Mossialos E, Baeten R. *The Impact of EU law on Health Care Systems*. Brussels: PIE-Peter Lang, 2002.
- Dustmann C, Frattini T. The fiscal effects of immigration to the UK. *Econ J* 2014;**124**:F593–643.
- The Economist. The balance of ailments. 2014. <http://www.economist.com/news/britain/21635041-britain-imports-young-sprightly-migrants-and-exports-creaky-old-ones-balance-ailments> (23 December 2015, date last accessed).
- Office for Budget Responsibility. Economic and Fiscal Outlook March 2015. London: OBR, 2015.
- Vestreng V, Myhre G, Fagerli H *et al.* Twenty-five years of continuous sulphur dioxide emission reduction in Europe. *Atmos Chem Phys Discuss* 2007;**7**:5099–143.
- European Environment Agency. Air Quality in Europe - 2011 Report. Copenhagen: European Environment Agency, 2011.
- European Environment Agency. Impact of Selected Policy Measures on Europe's Air Quality. Copenhagen: European Environment Agency, 2010.
- Faustini A, Rapp R, Forastiere F. Nitrogen dioxide and mortality: review and meta-analysis of long-term studies. *Eur Respir J*. 2014;**44**:744–53.
- European Environment Agency. European Bathing Water Quality in 2014. Copenhagen: European Environment Agency, 2015.
- European Union. Directive 2014/40/EU of the European Parliament and of the Council of 3 April 2014 on the approximation of the laws, regulations and administrative provisions of the Member States concerning the manufacture, presentation and sale of tobacco and related products and repealing Directive 2001/37/EC. *Off J Eur Union* 2014;**L127**:1–38.
- Lee C-Y, Glantz SA. *The Tobacco Industry's Successful Efforts to Control Tobacco Policy Making in Switzerland*. San Francisco: Center for Tobacco Control, Research and Education, Tobacco Control Policy Making: International (University of California), 2001.
- Mackenbach JP, McKee M. A comparative analysis of health policy performance in 43 European countries. *Eur J Public Health* 2013;**23**:195–201.
- European Commission. The EU and Vietnam finalise landmark trade deal, 2 December 2015. <http://trade.ec.europa.eu/doclib/press/index.cfm?id=1409> (26 December 2015, date last accessed).
- Kent N. *Brexit: What Would Happen if the UK Voted to Leave?* London: British Influence, 2015.
- Swidlicki P, Ruparel R, Booth S *et al.* *What if...? The Consequences, Challenges & Opportunities Facing Britain Outside EU*. London: Open Europe, 2015.
- Galsworthy M, Davidson R, Skentelbery C. Scientists for EU Campaign – evidence presented to the House of Lords Select Science and Technology Committee (EUM0058), 4 December 2015. <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/science-and-technology-committee-lords/relationship-between-eu-membership-and-the-effectiveness-of-uk-science/written/24828.pdf> (26 December 2015, date last accessed).
- UNESCO. UNESCO Science Report 2015: Towards 2030. Paris: UNESCO, 2015.
- European Commission. Horizon 2020 First Results. 2015. [https://ec.europa.eu/programmes/horizon2020/sites/horizon2020/files/horizon\\_2020\\_first\\_resultspdf](https://ec.europa.eu/programmes/horizon2020/sites/horizon2020/files/horizon_2020_first_resultspdf) (23 December 2015, date last accessed).
- Adams J. Collaborations: The fourth age of research. *Nature* 2013;**497**:557–60.
- Galsworthy MJ, Irwin R, Charlesworth K *et al.* An analysis of subject areas and country participation for all health-related projects in the EU's FP5 and FP6 programmes. *Eur J Public Health* 2014;**24**:514–20.
- Hague W. Why I will be voting to stay in Europe. *The Telegraph*, 22 December 2015. 2015. <http://www.telegraph.co.uk/news/newstoppers/eureferendum/12064244/Why-I-will-be-voting-to-stay-in-Europe.html> (26 December 2015, date last accessed).