

BSI Response to Call for Evidence on Implementing the NHS Long Term Plan

British Society for Immunology

As an organisation, the British Society for Immunology, the largest immunological society in Europe, represents over 3,700 immunologists working in academia, clinical medicine and industry. Our objective is to promote and support excellence in research, scholarship and clinical practice in immunology for the benefit of human and animal health.

Public Health

Vaccination is often described as the one of the most important public health interventions in human history, second only to clean drinking water. It has eliminated entire diseases: smallpox went from an estimated 50 million cases a year in 1950 to being declared eradicated by the WHO by 1980ⁱ. Yet despite the enormous strides forward that public health in this country has taken because of vaccination programmes, in 2017/18, vaccination coverage across England declined for 9 of the 12 routine childhood vaccinations compared with the previous year, with MMR coverage falling for the fourth year in a row and DTaP/IPV/Hib coverage declining for the fifth consecutive yearⁱⁱ. We are already starting to see the effects of this, with a fourfold increase in confirmed measles cases in England in 2018 compared with the previous yearⁱⁱⁱ, and travel warnings in place for young people visiting mainland Europe^{iv}.

Despite anti-vaccine disinformation and rhetoric being a popular topic for the media currently, in the experience of the British Society for Immunology there is little evidence for this being either widespread or having a large effect on parents making the decision to immunise their children in this country. Instead, if the NHS Long Term Plan is to be successful in ‘improving immunisation coverage’^v, there must be a concerted effort to address the ‘3Cs’ identified by the World Health Organization (WHO): confidence, complacency, and convenience. These barriers range from the personal motivations of parents to the organisational delivery of immunisation programmes.

A study has linked the healthcare reforms introduced by the Health and Social Care Act 2012 with the decline in vaccination coverage in England, with MMR coverage at age 2 in 2012–13, before the Act’s implementation, at the highest level since the introduction of the vaccine in 1988^{vi}. The Act that came into force in April 2013 has had a number of unintended consequences, including the fragmentation of England’s immunisation programmes. Previously, Primary Care Trusts (PCTs) had been responsible for commissioning, coordinating and evaluating immunisation services, but the 2013 reforms resulted in the loss of certain PCT staff, including immunisation coordinators, who found their responsibilities divided amongst a number of different agencies. The ambition of the Long Term Plan to ‘[use] local coordinators to target variation and improve groups and areas with low vaccines uptake’ is something we welcome and hopefully will help to restore a focal reference point for providers and performance evaluation. It’s important to note here that the changes in public health budgets with a shift from the NHS to local authorities, means that there is an even less joined up approach now.

It is important, however, that there is adequate funding provided to ensure that each co-ordinator is able to manage a geographic area small enough to be realistically practicable: the areas covered by Public Health England’s (PHE’s) Screening and Immunisation Teams (SIT) are often significantly larger than the districts served by PCTs. It is important to realise that funding, while much needed, will not

34 Red Lion Square London WC1R 4SG

Tel: +44 (0) 20 3019 5901
bsi@immunology.org
www.immunology.org

alone solve the problem of declining vaccination coverage, and that only a multifaceted approach, taking into account the individual needs of different communities, will solve this manifold problem.

Besides the restoration of lost immunisation co-ordinator and immunisation manager posts, the British Society for Immunology believes that we will require: (1) more accessible services and more active outreach by health professionals into individual communities that are under-vaccinated; (2) the wider provision of vaccination services, e.g. school visits by community nurses and/or mobile vaccination services; (3) better training of health professionals on what vaccines are, what vaccines do, how they work and what is in them, so that they are more ably equipped to answer parents' questions; (4) increasing public awareness of the benefits that vaccination confers and the danger that the return of vaccine preventable diseases poses; and (5) provision of the right public health funding for vaccination services to function effectively, including provision for reaching under-vaccinated groups which costs more than standard provision, and funding communications to parents to improve their access to evidence based information.

All of the above will require adequate funding levels and a reversal of the cuts to public health funding that have been enacted over the last decade. Ignoring the benefit of public health interventions to the public purse in the long term is irresponsible. Vaccines are incredibly cost effective and analysis has shown that for every \$1 invested in vaccines, \$13 is saved in direct and indirect costs^{vii}. The United States Center for Disease Control and Prevention (CDC) estimated that for children born and vaccinated in the USA between 1994 and 2018, the country has saved almost \$406 billion in direct medical costs and \$1.88 trillion in societal costs^{viii}. The latter is due to productivity gains through a reduced economic disease burden such as increased lifetime earnings, better educational outcomes, greater female labour participation, and reduction in days lost to sickness or caring for a sick patient^{ix}. Indeed, the 2012/13 measles outbreak in Merseyside cost more than twenty times more (£4.4 million) than the vaccinations that could have prevented it (£182,909)^x.

Investment in public health, including vaccination services, is the only way to tackle the long term problem of spiralling healthcare costs. Governments have been historically reticent to make the investment needed, partly because future savings will appear on the balance sheets of their successors but will make no difference to their own present day bottom line. It is time to move beyond this short term thinking and make difficult choices today for both the future health and finances of the nation. Not making the right decisions now will have dire consequences for child and adult health in years to come, with the possibility of diseases that disappeared for a generation returning with a renewed vigour, causing deaths and lifelong disabilities.

Education and Training

Education and training for health professionals on vaccines appears to be a neglected part of the health workforce's curriculum. Additionally, there appears to be some confusion over who is responsible for this training. In an April 2019 answer to a written parliamentary question, a then Minister in the Department for Health and Social Care (DHSC) responded that responsibility for ensuring health professionals are adequately educated about vaccines is an issue for individual providers^{xi}, despite Health Education England, an organisation that exists to ensure that the NHS workforce has the

34 Red Lion Square London WC1R 4SG

Tel: +44 (0) 20 3019 5901
bsi@immunology.org
www.immunology.org

‘right...skills, at the right time and right place’^{xii}, being a non-departmental public body of the DHSC with ministerial oversight from that same department^{xiii}.

Public Health England’s ‘Green Book’, ‘*Immunisation against infectious disease*’, is the primary resource for medical professionals and other frontline staff who are seeking information on vaccines and vaccinations^{xiv}. It is available online only, rather than printed form, meaning everyone that uses it as a reference will benefit from any updates. It is an excellent publication, providing in depth information on everything from storage and distribution of vaccines, to immunisation procedures, to a disease section that ranges from anthrax to yellow fever, with explanations of each disease and vaccine, and spans a total of 35 chapters. No one is arguing that there is a dearth of information available to NHS staff immunising our children.

There is a need, however, for education and training on the less technical aspects, e.g. how to talk to parents who are still deciding whether or not to vaccinate; how to discuss the risks of vaccination vs non-vaccination; how to answer specific questions around vaccines from concerned parents. There is evidence that it is helpful to speak to parents using a mixture of science and personal anecdote using a storytelling narrative^{xv}. All of this requires education and training at a national standard in a way that does not exist at the moment. Investment in this workforce training will result in it being easier to make progress towards the NHS Long Term Plan’s ambition to increase the uptake of vaccines. Not doing so will mean that we are giving up one of our most important tools, the effect of which will contribute to the abovementioned negative public health outcomes with both the associated financial and health costs and increase pressure on public services that will have to contend with the consequences.

ⁱ [WHO, Smallpox](#)

ⁱⁱ [NHS Digital, Childhood Vaccination Statistics 2017-18](#)

ⁱⁱⁱ [Public Health England, Laboratory-confirmed cases of measles, rubella and mumps, England: October to December 2018](#)

^{iv} [Public Health England, Measles and summer travel to Europe, 2019](#)

^v [NHS, Long Term Plan, June 2019](#)

^{vi} [BMC Health Services Research, “It’s a complex mesh”- how large-scale health system reorganisation affected the delivery of the immunisation programme in England: a qualitative study](#)

^{vii} [Pediatrics 2014; Apr; 133\(4\): 577-85, Economic evaluation of the routine childhood immunization program in the United States, 2009](#)

^{viii} [CDC, Childhood Immunization Update March 2018](#)

^{ix} [BMC Public Health 2012; 12: 878, Systematic review of studies evaluating the broader economic impact of vaccination in low and middle income countries](#)

^x [NIHR, Dealing with a measles outbreak cost 20 times that of increasing vaccination cover, June 2016](#)

^{xi} [Written Parliamentary Question 238206](#)

^{xii} [Health Education England, About](#)

^{xiii} [Care Act of 2014](#)

^{xiv} [Public Health England, Immunisation against infectious disease](#)

^{xv} [Human Vaccines and Immunotherapeutics 2013; Aug 1; 9\(8\): 1795–1801; Story and science, How providers and parents can utilize storytelling to combat anti-vaccine misinformation, 2013](#)