

Are European immunisation programmes recession proof?

D O'Flanagan (darina.oflanagan@hse.ie)¹, D Lévy-Bruhl², S Salmaso³

1. Health Protection Surveillance Centre (HPSC) Health Services Executive (HSE), Dublin, Ireland
2. French Institute for Public Health Surveillance (Institut de Veille Sanitaire, InVS), Saint-Maurice, France
3. Istituto Superiore di Sanità, Rome, Italy

Citation style for this article:

O'Flanagan D, Lévy-Bruhl D, Salmaso S. Are European immunisation programmes recession proof?. *Euro Surveill.* 2011;16(17):pii=19855. Available online: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19855>

This article has been published on 28 April 2011

The activities during the European Immunisation Week demonstrate a common momentum by member states of the World Health Organization (WHO) European Region to increase the success of immunisation programmes through advocacy and targeted communication. These efforts ultimately aim to raise awareness and reach people who have not been immunised or did not receive all recommended vaccinations. Fifty-two countries agreed to participate in 2011, the largest number since the first European Immunisation Week in 2005 [1]. This proves increasing political commitment to vaccination throughout the region. It's thus a good time to celebrate advances in vaccination programmes as the first decade of the 21st century has been the most productive in the history of vaccine development. New life-saving and disease-preventing vaccines, such as conjugate vaccines against pneumococcal and meningococcal disease, human papilloma virus (HPV) and second-generation rotavirus vaccines have been developed, and others will soon be available.

These exciting advances, however, must not hide some major challenges of vaccination programmes in the European Region. The first one is illustrated by the failure of reaching the European measles elimination goal by 2010 [2]. In early 2011, thirty countries in the region have reported a marked increase in measles cases, with over 6,500 cases as of 20 April 2011 [1]. This demonstrates the difficulty in reaching in our societies the required high proportion of immune subjects, including the 95% coverage of those targeted for vaccination with two doses of a measles-containing vaccine, as a result of several problems. Firstly there is a growing paradigm where people feel more than in the past responsible for their own health. They wish to choose their own medical care in a context where vaccination is victim of its own success. As vaccine coverage has increased, the incidence of vaccine-preventable diseases has fallen and diseases as well as the related suffering have become less visible. At the same time as the perception of risk associated with the preventable disease has declined, concern about potential side effects of vaccines has increased.

Today, many are questioning national and regional vaccination strategies and methods for setting recommendations, asking for the reassessment of the benefit/risk balance at their own individual level i.e. 'This vaccination is good from a public health perspective but do I really need it?' while failing to recognise that the solidarity and cooperation of all are needed to ensure the additional gain of herd immunity. This balance is often negatively biased by misinformation or rumours circulating through the new media (Internet, social networks), which creates doubts and fears. The example of the low vaccine coverage against the 2009 pandemic influenza A(H1N1) in 2009/10 in most members states is an illustration for this [3]. A paper by Betsch in this issue of *Eurosurveillance* discusses the increasing influence of the Internet on vaccine decisions and specifically investigates the influence of anti-vaccine information [4].

To counter the potential negative impact of misinformation, rumours and other misconceptions, well-targeted information and social mobilisation campaigns are required to transform passive acceptance of immunisation into a well-informed demand for vaccines that can protect against life-threatening diseases [5]. Such a transformation requires investment in form of human and financial resources and a strong commitment from health authorities. This is sometimes lacking. Again, using measles prevention as an example, the investment (time, energy, money, identification of innovative communication or vaccine delivery strategies and the staff to do it) required to gain the few per cent of coverage needed to reach the herd immunity threshold through reaching those underserved or reluctant, is considered in many countries as not worth the investment. The challenge is to convince decision makers that 90% coverage in children is unsatisfactory and that even 1% of the number of measles cases that occurred in the pre-vaccination era must now be considered a public health emergency! European failure to meet measles elimination means we must increase investment in supplementary and outreach vaccination activities to ensure we reach also underserved

and marginalised groups. In addition those older children and young people who are vulnerable due to sub-optimal immunisation coverage in the past should be offered catch-up opportunities to complete the recommended schedules. Failure to do so will leave Europeans susceptible to importations of measles as illustrated in the communication from Brown et al. in this issue describing the recent appearance of a novel measles G3 strain in multiple European countries [6]. Furthermore, Wicker et al. highlight in their paper that also healthcare workers need to be educated and convinced about the necessity to protect themselves and their patients through for example influenza vaccination [7]. Previous papers in this journal have demonstrated the same for the measles, mumps, rubella vaccine [8-10].

The second challenge is the growing gap in the number of vaccinations offered by the various European countries as new vaccines are marketed. These new vaccines are generally much more expensive than those that have been used for a long time. In the context of growing financial constraints, cost becomes a major impediment in integrating these new vaccines. The example of vaccination against HPV is illustrative of this situation, as shown by the results of the Venice surveys [11,12]. The financial barrier is documented in those surveys by the answers to the question: 'Why did you not introduce the HPV vaccination?' for which the main reason was: 'because of the cost of the vaccine or cost/effectiveness issue'.

The recent financial challenges threaten to unravel hard-won gains particularly in countries hardest hit by the economic turmoil. Many countries are now facing down-sizing of staff working in public health services. With an emphasis on protecting front-line services, vaccine programme functions such as collection of data on vaccine preventable diseases and monitoring vaccine coverage may be threatened. Effective surveillance systems are indispensable in guiding policy decisions for the introduction of new vaccines, monitoring their impact on disease incidence, and conducting post-marketing surveillance to ensure their safety.

It is also essential that we continue to ensure that all vaccines in our programmes continue to be reviewed and where no longer indicated discontinued after careful evaluation. Such a review has recently led the United Kingdom Joint Committee on Vaccination and Immunisation to consider cessation of the elderly pneumococcal polysaccharide vaccine programme [13]. In recent years countries such as France and Finland have discontinued routine universal BCG programmes [14,15].

On a more positive note, these recessionary times may be the impetus needed to review the process whereby European countries procure vaccine. In many countries vaccine procurement is devolved to local levels, losing the economies of scale that national procurement of

vaccines can provide. We could learn from the experience of other WHO Regions such as provided by the Pan American Health Organization (PAHO). In 1979, PAHO established a revolving fund to help all countries in the region become more self-sufficient in the purchase of vaccines for routine immunisation [5]. The pooled fund is able to secure low vaccine prices through large volume contracts with manufacturers.

As the current economic downturn unfolds, it will be important for governments to sustain and, when possible, increase investments in immunisation. Comparison of vaccination programmes with other healthcare interventions indicates that vaccines are often one of society's best healthcare investments [16]. We, public health experts, need to ensure that we provide policy makers with the evidence to justify their investment decisions and ensure that our vaccination programmes are recession proof.

References

1. World Health Organization Regional Office for Europe (WHO). Measles outbreaks spread across Europe: European Immunization Week offers chance to promote immunization. Copenhagen:WHO. 20 Apr 2011. Available from: <http://www.euro.who.int/en/what-we-publish/information-for-the-media/sections/latest-press-releases/measles-outbreaks-spread-across-europe-european-immunization-week-offers-chance-to-promote-immunization>
2. Lopalco PL, Martin R. Measles still spreads in Europe: who is responsible for the failure to vaccinate?. *Euro Surveill.* 2010;15(17):pii=19557. Available from: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19557>
3. Mereckiene J. Overview of pandemic A(H1N1) 2009 influenza vaccination in Europe. Preliminary results of survey conducted by VENICE, 2010. Lisbon: European Scientific Conference on Applied Infectious Disease Epidemiology (ESCAIDE). 13 Nov 2010. Available from: http://ecdc.europa.eu/en/ESCAIDE/ESCAIDE%20Presentations%20library/ESCAIDE2010_Late_Breakers_Mereckiene.pdf
4. Betsch C. Innovations in communication: the Internet and the psychology of vaccination decisions. *Euro Surveill.* 2011;16(17):pii=19849. Available from: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19849>
5. World Health Organization (WHO), UNICEF, World Bank. State of the world's vaccines and immunization, third edition. Geneva:WHO. 2009. Available from: http://whqlibdoc.who.int/publications/2009/9789241563864_eng.pdf
6. Brown KE, Mulders MN, Freymuth F, Santibanez S, Mosquera MM, Cordey S, Beirnes J, Shulga S, Myers R, Featherstone D. Appearance of a novel measles G3 strain in multiple European countries within a two month period, 2010. *Euro Surveill.* 2011;16(17):pii=19852. Available from: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19852>
7. Brandt C, Rabenau HF, Bornmann S, Gottschalk R, Wicker S. The impact of the 2009 influenza A(H1N1) pandemic on attitudes of healthcare workers toward seasonal influenza vaccination 2010/11. *Euro Surveill.* 2011;16(17):pii=19854. Available from: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19854>
8. Botelho-Nevers E, Chevereau L, Brouqui P. Letter to the editor. Spotlight on measles 2010: Measles in healthcare workers – vaccination should be revisited. *Euro Surveill.* 2010;15(41):pii=19687. Available from: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19687>
9. Parent du Châtelet I, Floret D, Thiolet JM, Lévy-Bruhl D. Authors' reply. Spotlight on measles 2010: Measles in healthcare workers – vaccination should be revisited. *Euro Surveill.* 2010;15(41):pii=19685. Available from: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19685>
10. Botelho-Nevers E, Cassir N, Minodier P, Laporte R, Gautret P, Badiaga S, et al. Measles among healthcare workers: a potential for nosocomial outbreaks. *Euro Surveill.* 2011;16(2):pii=19764. Available from: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19764>

11. King LA, Lévy-Bruhl D, O'Flanagan D, Bacci S, Lopalco PL, Kudjawu Y, et al. Introduction of human papillomavirus (HPV) vaccination into national immunisation schedules in Europe: Results of the VENICE 2007 survey. *Euro Surveill.* 2008;13(33):pii=18954. Available from: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=18954>
12. Dorleans F, Giambi C, Dematte L, Cotter S, Stefanoff P, Mereckiene J, et al. The current state of introduction of human papillomavirus vaccination into national immunisation schedules in Europe: first results of the VENICE2 2010 survey. *Euro Surveill.* 2010;15(47):pii=19730. Available from: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19730>
13. Department of Health (DH). JCVI advice on pneumococcal polysaccharide vaccination programme. 16 Mar 2011. Available from: http://www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Dearcolleagueletters/DH_125195
14. Lévy-Bruhl D, Paty MC, Antoine D, Bessette D. Recent changes in tuberculosis control and BCG vaccination policy in France. *Euro Surveill.* 2007;12(37):pii=3268. Available from: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=3268>
15. Zwerling A, Behr MA, Verma A, Brewer TF, Menzies D, Pai M. The BCG World Atlas: A Database of Global BCG Vaccination Policies and Practices. *PLoS Med.* 2011;8(3):e1001012.
16. Chabot I, Goetghebeur MM, Gregoire JP. The societal value of universal childhood vaccination. *Vaccine.* 2004;22(15-16):1992-2005.