

1.I. Workshop: Vaccinating Europe: challenges old and new

Organised by: EUPHA (IDC)

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Vaccines are among the most successful and effective public health interventions, saving two to three million lives each year globally. In 2017, 86% of children across the world have received their primary immunisations, the highest proportion ever achieved. Although vaccine coverage in the European region is generally high compared with other parts of the world, some new challenges have emerged. Highly mobile populations, difficulties in achieving or maintaining high vaccine coverage in routine vaccination programme, under immunised ethnic, religious or cultural minority groups, healthcare reorganisations, lack of funding and an increasingly visible and vocal anti-vaccination movement are all challenges to achieving herd immunity for vaccine-preventable diseases across Europe, resulting in outbreaks, disease and even death. This 90 minutes workshop, organised around 5 talks presenting perspectives from different parts of Europe followed by discussion, will explore some of these global, regional and local challenges, providing some insight into how they can be overcome in order to protect populations in Europe. The objectives of the workshop are to raise awareness of these emerging challenges across Europe and to provide suggestions about how to address them. The first presentation from the Vaccine confidence project (London School of Hygiene and Tropical Medicine) will set the global vaccine hesitancy landscape as the phenomenon is not limited to Europe. This will be followed by a presentation by the European Centre for Disease Prevention and Control about its role in addressing vaccine hesitancy in Europe. Then, Public Health England will

present results of a longitudinal “attitudes to vaccine” survey they have been conducting for several decades, providing some very useful insights into factors associated with positive attitudes towards vaccination. The last two presentations will describe some of the consequences of the challenges described above: first in Romania where a large measles outbreak has affected thousands and killed young, previously health individuals; and second, in Denmark where a powerful anti-vaccination movement has brought the HPV vaccine programme to a virtual halt. Speakers from these respective countries will reflect on these experiences and share their approach to addressing the situation.

Key messages:

- Achieving and maintaining high vaccine coverage in Europe is a challenge with complex, inter-related causes. Attitudes towards vaccines is a major factor.
- Providing tailored information to patients using the right channels and training healthcare professionals to address questions about vaccines are crucial in addressing this challenge.

The global vaccine hesitancy landscape

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Whilst most people vaccinate, some groups or individuals delay or refuse vaccines. Episodes of public concerns about vaccines have occurred around the world, spreading quickly

and sometimes seriously eroding public confidence in immunisation and ultimately leading to vaccine refusals and disease outbreaks. Dr Pauline Paterson, co-director of The Vaccine Confidence Project at the London School of Hygiene & Tropical Medicine, will present on the global vaccine hesitancy landscape.

The presentation will explore the need to pay attention to vaccine confidence based on surveys and case studies conducted by the Vaccine Confidence Project, including non-vaccination of measles containing vaccine (MCV) and concerns around HPV vaccine in Europe. Dr Paterson will introduce and describe the term 'vaccine hesitancy', and present findings from a 67-country survey on vaccine confidence, systematic reviews on vaccine hesitancy, a literature review on trust and confidence in vaccines during pregnancy, and a literature review of healthcare provider's individual vaccine hesitancy and their role in addressing vaccine hesitancy in their patients. Dr Paterson will finish by exploring current tools and activities focused on measuring and maintaining confidence in vaccines and addressing vaccine hesitancy.

This talk will highlight the importance of maintaining and improving vaccine confidence, and the diversity of concerns and perceptions about vaccines by time, context, geographical region and sub-population.

The ECDC role in strengthening the evidence base to address vaccine hesitancy

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As we enter into a new 'post-factual society' era, immunisation programmes are ushered into a new set of challenges calling for novel interventions to prevent or address public concerns around vaccination. Though the history of questioning the value of vaccination is as old as vaccines themselves, in recent years, increasing complacency towards the risk posed by diseases too often unseen, together with increasing risk aversion, have altered the balance of focus from the true benefits of vaccination to increased distrust and fear of side effects.

In most countries, such concerns mainly affect specific segments of the population. However, studies have shown that even vaccinated individuals can have apprehensions or doubts regarding vaccines. Hence, the adoption by the WHO SAGE of the term 'vaccine hesitancy', which intends to capture concerns in both vaccinated and unvaccinated individuals. Understanding and undertaking necessary action to address the issue of individuals who have lost or are losing confidence in vaccines is a multi-faceted public health challenge, as without adequate uptake levels, the benefits of vaccination could be lost. In addition, more and more studies show that healthcare workers themselves can be hesitant, whether considering vaccination for themselves, their children, or their patients.

In the face of such challenges, the ECDC has been increasingly providing scientific and technical support to EU Member States. The goal is to strengthen know-how and capability to develop more targeted and effective public health interventions that can prevent or address hesitancy. The ECDC has developed tools particularly targeted to healthcare professionals, in recognition of their fundamental and highly trusted role, and with a view to empowering them to become more effective advocates of vaccination. In addition, targeted research has been undertaken to shed light on vaccine-specific determinants of hesitancy, so as to inform relevant action accordingly.

Changing attitudes to childhood immunisation in English parents

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Objectives

We undertook a national survey of parental attitudes to childhood vaccinations and compared results with those in earlier comparable surveys covering a 10 year period.

Methods

We randomly selected 275 nationally representative sampling locations in England. Interviewers identified eligible primary care givers (referred to as parents) of children aged from 2 months to <5 years and conducted home-based interviews between January and April 2015. We aimed to recruit 1000 parents of children aged 0–2 years and 1000 of children aged 3–4 years. The questionnaire covered all aspects of the immunisation process, vaccines administered in pregnancy and from infancy to pre-school with a maximum of 86 mixed questions.

Results

Interviews were completed with 1792 parents of whom 1130 had children aged 0–2 years and 999 had children aged 3–4 years; 337 had children of both ages. The findings showed that confidence in and acceptance of the vaccination programme was high. Only 2% of parents reported refusing vaccination whilst 90% reported vaccinating their children automatically when due. Almost all parents (97%) consulted web-based resources for information on vaccination. Parents who used chat rooms or discussion forums for this purpose were significantly more likely to say they had seen something that would make them doubt having their child(ren) immunized (31% compared to 8% amongst all parents). Health professionals and the NHS were seen as the most trusted source of advice on immunisation (90% agreed/strongly agreed with each). Very few parents did not trust these sources (4% and 3% disagreed, respectively).

Conclusions

Health professionals remain extremely important in communicating information about vaccination and are highly trusted by parents; a trust that has increased in recent years. Despite most parents seeking information on the Internet, trust in and advice from health care professionals appeared to be key factors influencing parental decisions.

Measles in Arges county, Romania, 2017

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Romania has seen an increase in reported measles incidence since January 2016. Investigation revealed the virus was imported into highly mobile and under-immunized groups of population from a Northern district of Romania spreading across several regions. As of April 2017 there were 4881 cases and 22 deaths, mainly in western regions of the country.

Arges county, geographically situated in the middle of the country, has around 600,000 residents and reported no measles between 2014–2016. In February 2017, a 4 months old resident of a local village was confirmed with measles. The case travelled to Germany during the 13 days prior to rash onset, and he was the index case of a localized cluster of four confirmed cases. Genetic sequencing identified a B3 strain similar to those isolated in the current Romanian outbreak. MMR vaccine coverage in Arges county ranged between 87% and 91% for one dose during 2012 – 2016 and between 85% and 90% for 2 doses in 2012–2014, but it is difficult to estimate

for 2015 – 2016 due to changing the age for the second dose from 7 to 5 years old and moving the vaccination service from school-based medical offices to family medicine offices in 2015. Vaccine supply failed at times over the past 5 years, leading to vaccine shortages and accumulation of un-/under-immunized. Together with resistance and lifestyle of some population groups, this challenged the immunization system. Although surveillance sensitivity was below WHO standards in Arges during 2014 – 2016, which may have led to missing sporadic measles cases occasionally, we think it is unlikely that measles surveillance missed measles clusters or transmission chains in Arges county during 2016. A supplementary MMR immunization activity initiated by the Ministry of Health in January 2017 to catch up the un-/under-immunized children and offer protection to those 9 to 11 months old, has not been yet supported with the necessary MMR vaccine.

Addressing HPV vaccine hesitancy in Denmark

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Background

Vaccination of 12-year-old girls against human papilloma virus (HPV) was included in Denmark in 2009. Since 2014, increased public concerns about vaccine safety have resulted in a dramatic decrease in vaccine uptake from 79% in birth cohort 2000 to 17% in birth cohort 2003. In 2016, we initiated an investigation to better understand parents' and girls' knowledge, attitudes and decision patterns regarding HPV

vaccination in order to design an information campaign and increase future uptake.

Methods

We applied a mixed-methods approach: 1) a media analysis investigating online trends and mapping the media consumption of parents and daughters; 2) focus group interviews with mothers and daughters looking at knowledge and risk assessment, credibility of stakeholders, household dynamics and message framing; and 3) a survey including a representative sample of 1000 parents segmenting the target group and validating the conclusions from the focus groups.

Results

Thirty-four percent of survey respondents were vaccine hesitant. The hesitant respondents had lack of knowledge on several HPV-related questions and facts on the vaccine. Mothers are the primary household decision makers regarding HPV vaccination of their daughters. They gained access to vaccination information mainly through Facebook. Three main messages showed potential for convincing hesitant parents to vaccinate: 1) risk of cervical cancer opposed to risk of adverse events; 2) international consensus on vaccine effectiveness; and 3) high incidence of HPV infection in young women.

Conclusions

Using the knowledge gained, an information campaign will launch in 2017. It will feature on Facebook, a website and on printed material and focus on delivering messages to convince hesitant parents to vaccinate. A broad network including medical and patient organizations consigned the campaign and WHO Europe supports the initiative. Impact will be continuously evaluated using HPV-vaccine uptake.