



## **UK Vaccine Industry Group: H1N1 (Swine flu) Response Review**

UVIG recognises the leadership position taken by the UK government in its approach to pandemic preparedness, and believes that the UK was one of the best prepared countries and responded well to the recent H1N1 pandemic. UVIG welcomed the UK decision to implement Advance Purchase Agreements for the H1N1 vaccine – a decision which provided reassurance for UK citizens, and enabled significant investment by industry in development, as well as informing individual company decisions on manufacturing capacity and avoiding the need for complex negotiations during a period of intense pressure. Immediately leading up to the declaration of a flu pandemic, and during the pandemic itself, the information made available by the government was, on the whole, clear, well explained and easily accessible. The weekly media briefings by the CMO were useful, and in the main, the media reported the facts in a calm and considered way. The government's plans for the immunisation of those at most risk from the virus were clear and well communicated.

Vaccine manufacturers take their public health responsibilities seriously, and have been preparing for many years to be able to provide a rapid pandemic response. This work has included the development and testing of new vaccines and technologies, the adaptation of facilities for pandemic vaccine production and the establishment of comprehensive plans to ensure an effective response during a pandemic. The practical experience learned from H5N1 ensured that, when H1N1 influenza emerged, each of these elements came together, resulting in the rapid development, production and supply of vaccines targeting the new strain. Throughout this process manufacturers followed comprehensive and well regulated procedures, working with public health authorities and regulatory agencies, to review and monitor the safety and efficacy of pandemic vaccines.

As with any major public health situation of this scale, it is important that national authorities undertake a careful analysis of the response to ensure that plans for a future pandemic are robust and effective. UVIG has identified the following areas for specific consideration:

### **1. Pre-pandemic strategy**

The UK Government has recognised the potential role of pre-pandemic vaccines as a component of a comprehensive pandemic plan. Pre-pandemic vaccination of those most likely to spread the disease or suffer complications could help reduce hospitalisations and deaths in vulnerable groups. Given the experience gained with the H1N1 pandemic, lessons learnt should also be incorporated into the Government's pre-pandemic vaccination strategy to ensure that it is robust, responsive and flexible to address the unpredictability of a pandemic.

### **2. Clear guidance on the implementation of scheduled vaccination programmes**

Routine immunisation plays a vital role in the prevention of ill health among the population, including the most vulnerable. It would be helpful to have greater clarity from the Government about its expectations for the implementation of scheduled immunisation programmes during a future pandemic, given the Government's strategy to limit numbers attending GP surgeries. This would enable vaccine manufacturers to plan effectively and support the Government and NHS in maintaining the public health benefits of routine immunisation.

### **3. Concerted ongoing communication efforts with healthcare workers and the public**

Uptake of pandemic vaccine was low. To some extent this poor uptake mirrors that of seasonal vaccines, which remains low amongst healthcare workers and a number of other risk groups. This situation may result in part from modern communications, which can encourage access to health information from a broad range of sources, regardless of scientific accuracy or balance. Improving immunisation rates in future will require new models of communication and the co-operation of all stakeholders, to ensure both healthcare workers and the general public trust the information provided and are motivated to act on experts' recommendations. These efforts could focus on education regarding the importance and safety of vaccination, and the comprehensive system that is in place to evaluate and monitor vaccine safety.

### **4. Boosting vaccine virus yields**

Influenza viruses are highly unpredictable and the production of vaccine viruses is challenging. Manufacturing yields from initial H1N1 vaccine viruses were lower than for seasonal strains<sup>i</sup>, and the additional work required to improve these yields impacted on the early availability of vaccines. The development of systems that would allow the WHO global network to rapidly identify those virus isolates with potential to produce high yielding reassortants could considerably improve vaccine supply. The initial stages of manufacture could be accelerated if manufacturers had early access to these reassortant vaccine strains for yield evaluation and initial seed production. This would allow manufacturers to move directly into production once the WHO global network had concluded its validation of the strains' characteristics. The support of the UK government in addressing this issue at international level would be welcomed.

### **5. Production capacity**

Pandemic vaccine manufacturing capacity is inextricably linked to seasonal influenza vaccine production, as both are produced in the same facilities using inherently similar processes. Maintaining vaccine production capacity will require ongoing policy support at national, European and global level to ensure robust and sustained demand for seasonal influenza vaccines; while reinforcing industry's ability to respond effectively in a pandemic situation, increased uptake of seasonal influenza vaccines will also provide positive public health benefits and could support increased public understanding of influenza.

### **6. At risk groups**

A thorough review of the data collated during the pandemic, particularly in the light of experience and evidence with 'pandemic at risk' groups, would help to reinforce key lessons that could inform future policy for both pandemic and seasonal influenza.

## **Conclusion**

UVIG welcomes the high quality of the government's response to the H1N1 pandemic. However, it is conscious that there remain a number of lessons to integrate into future planning, particularly as the H1N1 pandemic was not as severe as it could have been.

*21 May 2010*

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<sup>i</sup> WHO. Transcript of WHO virtual press conference of 6 August 2009. ([http://www.who.int/mediacentre/pandemic\\_h1n1\\_presstranscript\\_2009\\_08\\_06.pdf](http://www.who.int/mediacentre/pandemic_h1n1_presstranscript_2009_08_06.pdf)).