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During the H1N1 Swine Flu Pandemic, scientists, international organizations and policy makers – who relied on the data and science-based predictions – were sometimes heavily criticized. Accusing voices were not at all silent: crying out loud that the whole pandemic was “invented” by the pharma industry in a conspiracy with international organizations. Allegedly, companies had bribed scientists and policy makers all over the world in order to sell more pandemic vaccines and antivirals. At the Fourth ESWI Influenza Conference, media relations were the topic of many formal and informal debates, demonstrating the key importance of interacting with stakeholders and managing the dialogue.

1. Efficacy vs. effectiveness

Attention was paid to the media discussions about the benefits of influenza vaccination of risk groups such as the elderly. These media discussions are often based on a dramatic misinterpretation of two scientific notions: efficacy and effectiveness of influenza vaccines. The debate in the media is largely based on effectiveness studies. These measure the level of protection offered by the influenza vaccine against influenza-like-illnesses, based on clinical studies. However, it is common scientific knowledge that influenza vaccines offer no protection against viruses other than the circulating influenza viruses. Hence, patients can still become ill or even die from pneumonia, bronchitis. . . despite the fact that they had been vaccinated against influenza. Consequently, the data of effectiveness studies should be interpreted with caution when attempting to demonstrate the benefits of influenza vaccination.

Ideally, the media debate is based on recent efficacy data. Efficacy is the level of protection offered by a vaccine and can only be demonstrated through laboratory investigation. However, ethical concerns stand in the way of generating new data. Obtaining accurate data on the efficacy of influenza vaccines in risk groups would imply laboratory controlled infection of a group of test subjects, where half of the group would be vaccinated against influenza and the other half would not. This is indeed ethically unacceptable, as it would lead to an unacceptable burden of disease in the non-vaccinated control group. However, the absence of evidence does not provide evidence of an absence of a beneficial effect. In addition, older efficacy studies, carried out in a time when ethical concerns were deemed less relevant, demonstrated efficacy levels up to 70% in the elderly. Thus, relying on effectiveness studies to demonstrate the benefits of influenza vaccines holds severe dangers to public health protection. Correct and science-based information is indispensable in any discussion.

2. Climbing out of the scientific ivory tower

On the other end of the debate are the influenza scientists. They have a moral obligation to share their knowledge and data and tell the world what they know and what they do not know. Vaccines can be life saving for patients at risk and not giving antivirals to critical patients, can be fatal. Hence, scientists must explain to the lay public what the state of the art of their field of expertise is. They should also share their knowledge gaps and uncertainties. After all, research on influenza is aiming at a “moving target”.

Scientists have yet another responsibility: to seek as many supporters for their messages as possible. If Jenner and Darwin would not have challenged and fought the clerical system and public outrage in their times, what would have happened to vaccination and the evolution theory? Having to fight non-scientific misconceptions and unfounded pressures from some sectors of the lay public has been the inevitable fate of scientists who tried to create a better world. And in our modern and mediatized world their task has not become easier. Indeed, scientists are not always appreciated for standing up. Evidently, scientific publications and communication among scientists are absolutely necessary. But sharing knowledge with the non-scientific world and explaining the benefits and uncertainties is probably equally important. Sending out timely warning signals is of even greater importance, also to people who'd rather not listen to them. Also through – yes indeed – media performances to convince specific groups of people (such as policy makers) so that they can advise on the right decisions and required measures to be taken in the light of the existing scientific evidence. All with the aim to reduce the burden of disease and to prevent unnecessary suffering and deaths.

To achieve this, scientists need to adopt a clever strategic approach. They need to cooperate with experts in communication strategies, who reflect on target audiences and on convincing messages. Experts who can ‘translate’ scientific data to groups of people who need this information in their daily practice. Experts who can distinguish between the right moments to speak up via specific communication channels and the right moments to remain silent since in some cases not communicating can be powerful too. Specialists who know how to communicate about the uncertainties that are inherent to science, who can explain why there is only one valid policy scenario: “to hope for the best, while preparing for the worst”, keeping in mind that influenza is a target that is constantly moving. Communication experts who can create a broad level of support for the key scientific messages and who can bring together all the relevant stakeholders, allowing them to develop science

based tailor made tools and creating a network of supporters who disseminate the correct messages.

3. Wanted: courageous scientists!

The above approach requires courageous scientists and opinion leaders in the international institutions and in the pharmaceutical industry alike. People who dare to speak and to collaborate with experts in communication strategies. Not only to spread their message as efficiently as possible, but also to attract new supporters, to reach out to the right target groups and, ultimately, to achieve their final goal: flu suffering and deaths should be reduced to the absolute minimum.

Common grounds can always be found, every situation can be turned into a win–win situation provided that all stakeholders are ready to see and serve the higher cause. Scientists can make the difference. After all, their knowledge is unique and of utmost importance to society. Their impartial objectiveness should be the starting point of the scientists' combat.

4. In conclusion . . .

Objectiveness is the asset of scientists. And yet, precisely this asset has been heavily questioned. During the H1N1 Swine Flu Pandemic, too many scientists have been accused of defending the interests of industry. If like in the old days, public institutions paid by national governments were to start developing and manufacturing vaccines again, would scientists be accused of defending the interest of those governments? The public sector has ceased to be a major player in the development and production chain of

medicines. If we want to secure the future development of novel and urgently required medicines against cancer, infectious diseases and other major human diseases, we will have to accept that the pharmaceutical industry has more than ever become a key player. Obviously, conflicts of interest may exist and can be problematic. Anyone working with industry must hence be open and transparent about these ties. But we will have to accept the notion that academia now have the moral obligation to collaborate in a transparent way with the pharmaceutical industry in order to ensure their discoveries eventually making it to the patient who urgently needs novel medicines. This requires public–private collaboration.

Conflict of interest

None declared.

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