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Commentary

Recognizing the Importance of Vaccine Confidence

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In the past thirty years we have seen dramatic advances in vaccine technology and development that have yielded vaccines to protect against the pneumococcus, Hib, rotavirus, HPV, and meningococcal disease amongst others (Parashar et al., 1998; Gessner and Adegbola, 2008; Khatami and Pollard, 2010; Lynch and Zhanel, 2010). We have also seen a paradigm shift in the availability of these vaccines in the developing world through the efforts of the Gavi alliance and WHO (Fund V). In addition, new vaccines are being developed to target diseases whose primary impact is in developing countries such as the malaria (Wilby et al., 2012) and meningococcal A vaccines (Kristiansen et al., 2013). These changes in technology and the distribution of vaccines have saved many lives and have the potential to save millions more if widespread vaccine use is sustained. Unfortunately, vaccines safety scares and loss of public and political confidence in vaccines and vaccination programs have the potential to negate these public health gains. As we have seen with the polio eradication program in Africa and Asia, bogus vaccine safety concerns and loss of public confidence in the polio vaccination program, whatever the scientific reality, can derail successful programs (Jegede, 2007). Similarly, unfounded vaccine safety concerns regarding the hepatitis B vaccine in France have led to low hepatitis B vaccination rates and persistent disease there (Marshall, 1998).

Thus, for vaccines to reach their full public health potential, it is critical not only that the vaccine be effective and that an appropriate delivery system exist, but there must also be public confidence in the vaccination program and the safety of the vaccines so that the vaccines are accepted by the public and actually utilized. In this issue of *EBioMedicine*, Larson et al. (2016) present the results of a landmark study evaluating public attitudes and confidence in vaccines in 67 countries. This study represents a critical step forward in focusing attention on the importance of monitoring and understanding public attitudes and confidence in vaccines.

The survey, which was part of a larger ongoing project, probed four key aspects: perception of the importance of vaccination, vaccine safety, vaccine effectiveness and any dissonance with religious beliefs. While the good news was that sentiments towards vaccination were positive overall, the results were very variable from country to country with 41% of respondents in France, for example, reporting that they did not believe vaccines were safe. Importantly, such attitudes have the potential to spread to other francophone countries and beyond with freely available on-line translation tools. Another important finding was that even individuals who believe in the importance of vaccination are susceptible to fears regarding vaccine safety. This points towards a fragility of overall confidence in vaccination in these individuals. Within a given country, low income was associated with more negative individual attitudes, but paradoxically countries with higher levels of schooling and better access to health care tended to have on average more negative attitudes towards vaccination. Greater education was associated with more positive attitudes towards vaccination generally, but was not associated with greater confidence in the safety of vaccines. All of these findings indicate that public attitudes towards vaccination and vaccine safety are complex and vary by country.

It is clear that many assumptions we have made regarding public confidence in vaccination and vaccine safety are challenged by the results of the Larson study. Given that maintaining public confidence in vaccines and vaccine safety is a key cornerstone of a successful, sustainable vaccination program, these findings dictate that we begin to monitor vaccine confidence on an ongoing basis and begin to assess interventions that can improve public confidence in vaccines and vaccination.

Disclosure

The author is a consultant for GSK Vaccines, Takeda Vaccines, Merck Vaccines, Protein Sciences, and WHO. He is also the chair of a IDMC for GSK.

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