



Alumni Interview

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ADVAC 2010

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What did ADVAC bring to you on both a personal and professional level?

I believe this course benefitted me greatly as it equipped me with additional skills and knowledge to further specialize and enhance my public health profile in Vaccinology. It assisted me to operate on a higher strategic, advocacy and leadership level in Malawi, herewith strengthening my commitment to developing world populations in Africa.

What in your opinion have been the most important advances and challenges in vaccinology over the past 20 years?

Over the past 20 years, vaccinations have been the most effective medical intervention to reduce death and morbidity caused by infectious diseases. Smallpox has been eradicated and most of the viral and bacterial infections that traditionally affected children have been greatly reduced thanks to national immunization programs, in both developed and less-developed countries.

A study on the effectiveness of Rotavirus vaccine in Malawi has found that the risk of diarrhea has reduced by 64% and the number of hospital admissions due to severe diarrhea reduced by 43%, since the introduction of the rota-vaccine in 2012. The rotavirus vaccine is found to be highly cost-effective in Malawi and giving the vaccine to children can lower illness costs to families. Although the vaccine efficacy is lower in African countries when compared to Europe or the Americas, the vaccine prevents more rotavirus diarrhea episodes in Africa because of a higher rate of severe disease in this part of the world: the glass of preventing severe episodes of rotavirus diarrhea might be only half-full, but the ultimate effect depends on how big the glass really is!

Amongst the challenges in vaccinology is that many diseases are not yet preventable by vaccination, and vaccines have not been fully exploited for target populations such as adolescents (no HPV vaccine in most African countries up to now), the elderly and pregnant women.

Particularly in Africa, there is an important gap towards expansion of vaccinations due to the lack of a sufficient capacity to manufacture vaccines. Local development and production of new vaccines could make vaccination programs sustainable in less-developed countries, once GAVI support is over.

Anti-vaccination opinions represent an important cause of reduced vaccination coverage, especially in developed countries, leading to recurrence of infectious diseases for which vaccines have been available for a long time!

Why does this field remain so important?

Vaccines remain the most efficient tool for the prevention of infectious diseases both in developed and developing countries. Using the example of the introduction of rotavirus vaccines, rotavirus diarrhea kills almost half a million infants and young children each year. Over 90% of these deaths occur in developing countries, where access to simple, lifesaving treatment is limited. Rotavirus is found everywhere, regardless of hygienic conditions, and almost all children will have suffered from a rotavirus infection by the time they reach the age of 5 years. Since improvement in sanitation and hygiene will not substantially decrease the incidence of rotavirus disease, the prevention of childhood deaths caused by rotavirus infections in less-developed countries will mainly require the use of rotavirus vaccines.