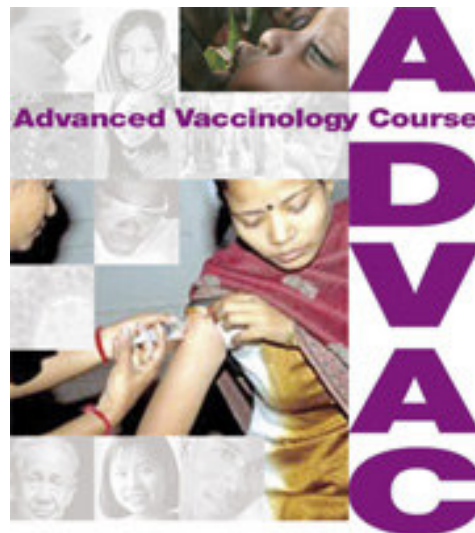




# Evaluation of 10 years of ADVAC (2000-2009)

The Advanced Vaccinology Course  
organized by Fondation Mérieux  
And the University of Geneva



## I. Summary

ADVAC, the advanced vaccinology course, is an intensive two-week training course co-organized by the Fondation Mérieux and the University of Geneva designed for experienced participants from academic and public health institutions of industrialized and developing countries, as well as for participants from the vaccine industry. Its goal is to create a critical mass of physicians and scientists worldwide with a sufficiently broad knowledge of vaccinology to be able to play a leading role in decision-making processes in their countries. Grants from the Bill & Melinda Gates Foundation and the European Commission, enable attendance of participants from developing countries and from Central and Eastern Europe.

Since 2000, 575 participants from 88 countries have attended ADVAC including 42% from developing countries. About 48% of them are women. The participants come from academic institutions (43%), governments (22%), the vaccine industry (21%), private non profit organizations (9%) and United Nations' agencies (5%). ADVAC has benefited from a faculty of 100 international experts in vaccinology.

At the end of 2008, at the approach of the ADVAC tenth anniversary, it has been considered important to know if and how the course had benefited to the participants from developing countries once they had returned home. A questionnaire has been sent via internet to 182 ADVAC participants from Africa, Asia, Latin America, the Caribbean and the Middle East. Forty five (45) questionnaires have been filled out representing a response rate of 25%. Among the respondents 15 are from Asia, 15 from Latin America and the Caribbean, 13 from Africa and 2 from the Middle East. The institutions of the respondents are mainly governmental and academic, but they are also private non-profit organizations, United Nation's agencies and the vaccine industry. The activities carried out by the respondents are diverse and most of the time multiple. They include research (89%), training and education (67%), policy making (49%) and medical care (36%), but also regulatory activities, vaccine development and production, and disease surveillance.

The survey showed that ADVAC has increased the capacity of the respondents to teach vaccinology, allowing them to disseminate new knowledge in their institution, country and sometimes at international level. Many of the respondents are involved in research activities and have been able to conduct new clinical trials. They are often part of national advisory groups and play a role in the introduction of new vaccines in their country.

ADVAC progressively fulfills its mission to create a critical mass of experts able to play a leading role in decision-making processes in vaccinology in developing countries. The task remains however huge and many more health professionals from developing countries, where the capacity in vaccinology is far from being optimal, need to be trained. The next ADVAC courses should pay more attention to and attract countries not enough represented from Africa, Asia, Latin America, Middle East, Central and Eastern Europe.

## **II. What is ADVAC?**

### **A - Description of the course**

ADVAC, the advanced vaccinology course, is an intensive two-week training course designed for experienced participants from academic and public health institutions of industrialized and developing countries, as well as for few participants from the vaccine industry.

Each year, 60 to 65 participants from all continents acquire a broad expertise on topics such as pre-clinical vaccine research, clinical trials, vaccine safety issues, epidemiological and economic aspects, vaccination strategies and communication, dispensed by a faculty of more than 60 international experts in vaccinology.

The overall goal of ADVAC is to create a critical mass of physicians and scientists with a sufficiently broad knowledge of vaccinology to be able to play a leading role in decision-making processes related to vaccines and vaccination strategies. The course offers the basis for stimulating international North-South cooperation and favors the development of a network of vaccinologists.

ADVAC has been held at "Les Pensières", the conference centre of the Fondation Mérieux in Veyrier-du-Lac, since 2000. It is co-organized by the Fondation Mérieux and the University of Geneva. The main sponsors of the course are the Bill & Melinda Gates Foundation and the European Commission, which offer grants for participants from developing countries and from Central and Eastern Europe. Other educational grants are provided by private and public institutions from Europe and the United States (European Society for Paediatric Infectious Diseases, US National Foundation for Infectious Diseases, Fogarty International Center, US National Institute of Allergy and Infectious Diseases, US Centers for Disease Control and Prevention) and vaccine companies (Berna Biotech, GlaxoSmithKline, Merck & co., Novartis, Sanofi Pasteur, Sanofi Pasteur MSD, Shantha, VaxInnate, Wyeth). The World Health Organisation is also collaborating to ADVAC which serves for training some of its regional staff members.

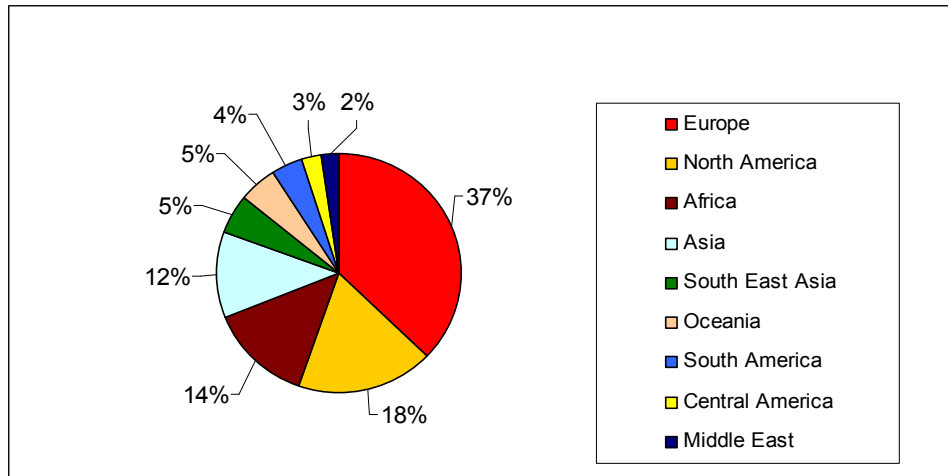
### **B – Composition of the scientific committee in 2009**

- Paul-Henri LAMBERT (course director) - University of Geneva
- Stanley PLOTKIN (senior scientific advisor) - University of Pennsylvania
- Philippe DUCLOS - WHO
- Adam FINN – ESPID
- Brad GESSNER – AMP
- Neal HALSEY - J.H Bloomberg School of Public Health
- Carole HEILMAN - NIH / NIAID
- Arndt HOEVELER - European Commission
- Christophe LONGUET - Fondation Mérieux
- Mark MILLER - NIH / Fogarty IC
- Regina RABINOVICH - Bill & Melinda Gates Foundation
- Susan REHM - NFID
- Claire-Anne SIEGRIST - University of Geneva
- Melinda WHARTON - CDC, Atlanta

### **C – Origin of the participants**

Since 2000, 575 participants have attended ADVAC coming from 88 countries. They belong to all continents: Europe (213), North America (104), Africa (78), Asia (69), South East Asia (30) Oceania (28), South America (24), Central America (16), Middle East (13) (figure 1).

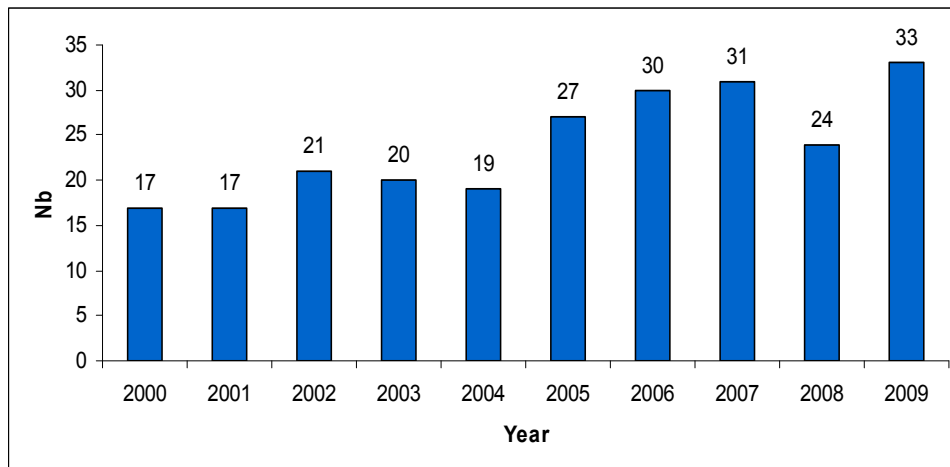
**Figure 1: Continent of origin of ADVAC participants**



By decreasing order of number, the countries of participants are: The United States of America (92), France (45), Belgium (27), India (26), the United Kingdom (21), Australia (17), Brazil (17), Switzerland (14), Thailand (14), South Africa (13), Canada (12), the Netherlands (12), Philippines (11), Germany (10), Italy (10), China (9), Korea (9), New Zealand (9), Nigeria (9), Denmark (8), Austria (7), Cuba (7), Egypt (7), Uganda (7), Finland (6), Hungary (6), Argentina (5), Israel (5), Kenya (5), Norway (5), Pakistan (5), Sudan (5), Sweden (5), Vietnam (5), Gambia (4), Iran (4), Malaysia (4), Poland (4), Senegal (4), Tunisia (4), Croatia (3), Czech Republic (3), Ghana (3), Greece (3), Guatemala (3), Japan (3), Lithuania (3), Mexico (3), Romania (3), Russia (3), Serbia (3), Sri Lanka (3), Tanzania (3), Zambia (3), Zimbabwe (3), Botswana (2), Estonia (2), Fiji (2), Panama (2), Tajikistan (2), Turkey (2), Ukraine (2), Uzbekistan (2), Azerbaijan (1), Bangladesh (1), Belarus (1), Bulgaria (1), Cameroon (1), Colombia (1), Costa Rica (1), Ethiopia (1), Georgia (1), Iceland (1), Ireland (1), Jordan (1), Latvia (1), Madagascar (1), Mali (1), Malta (1), Mozambique (1), Myanmar (1), Nepal (1), Palestine (1), Peru (1), Rwanda (1), Slovakia (1), Spain (1), Taiwan (1).

The total number of participants from developing countries, as defined by the World Bank, is 239 (42%). Thanks to grants provided by the Bill & Melinda Gates Foundation and the European Commission, this number has gradually increased to reach about half of the course participants since 2005, (figure 2).

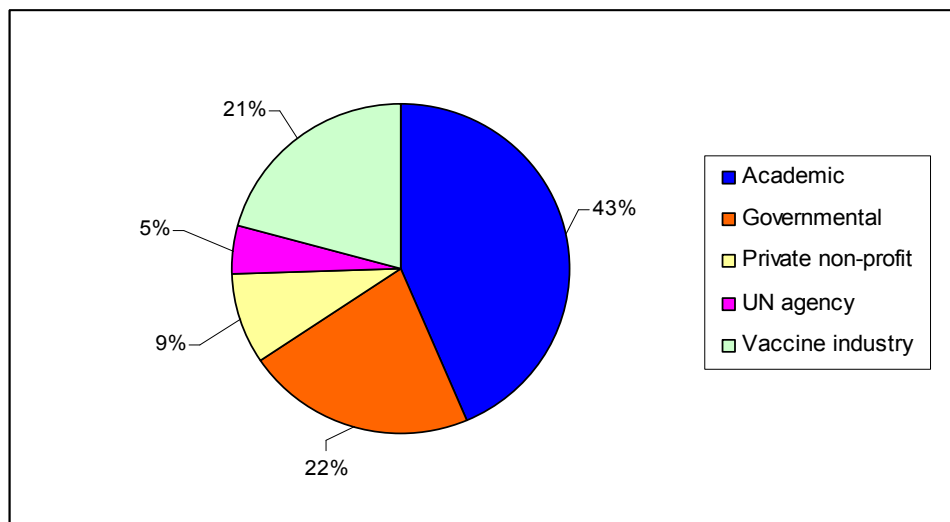
**Figure 2: Evolution of the number of participants from developing countries (World Bank classification)**



Among all the course participants 48% are female. Among the 239 participants from developing countries, 43% are female. The average age is 41 years, similar for participants from developing countries and the other participants, and similar for women and men.

The type of institutions of origin of the ADVAC participants is presented on figure 3.

**Figure 3: Type of institutions of origin of the ADVAC participants**



### III. The impact survey for developing countries

#### A - Objective

Every year ADVAC is thoroughly evaluated by its participants in terms of relevance of the topics and quality of the sessions in order to improve the quality of the course. Changes in the program are made accordingly by the scientific committee. At the end of 2008, at the approach of the ADVAC tenth anniversary, it has been considered important to know if and how the course has benefited to the participants from developing countries once they have returned home. A survey has been designed to assess the impact of ADVAC on their activities. It measures to which extent these

participants feel that their practice in vaccinology has improved after the course and if they consider that their participation to ADVAC has had an impact in their country. This survey informs the scientific committee of ADVAC to enable reflection on possible change in the course to better serve the needs of participants from developing countries.

## B - Methodology

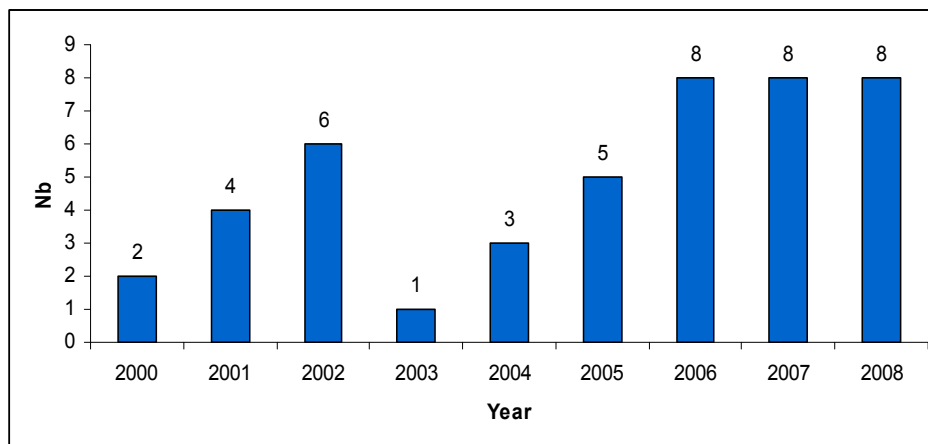
A draft questionnaire, designed by the Fondation Mérieux and submitted for review to the ADVAC scientific committee, has been tested by a dozen participants and reformulated according to the comments. A list of 182 ADVAC participants from developing countries has been made for the years 2000 to 2008. This list included participants from Africa, Asia, Latin America & the Caribbean and the Middle East. The final questionnaire, accompanied by a cover letter, has then been sent to them, using their e-mail address available at the time of their participation to ADVAC. The e-mail proposed a link to a website where they could fill in an online form. The questionnaire was accessible during October and November 2008. The data have then been exported to Excel 2003 for analysis.

## C - Results

### 1) Characteristics of the respondents

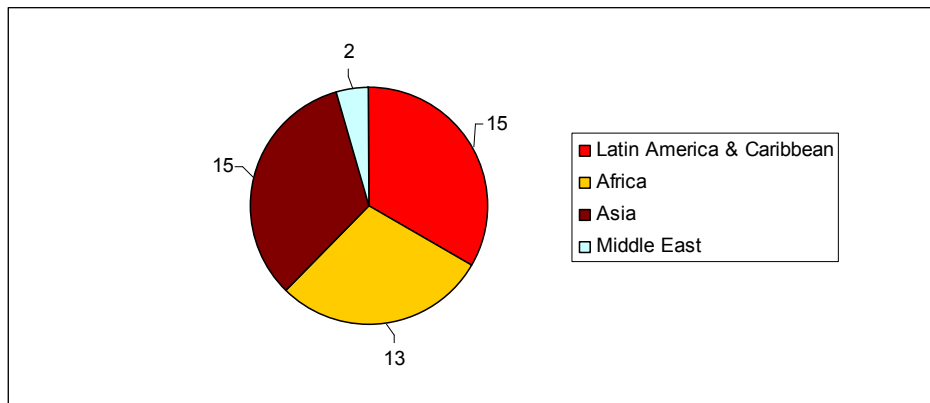
Forty five (45) questionnaires have been filled out representing a response rate of 25%. More than half of the responses are obtained from participants of the last three courses (figure 3).

**Figure 4: Number of respondents per year of participation to ADVAC**



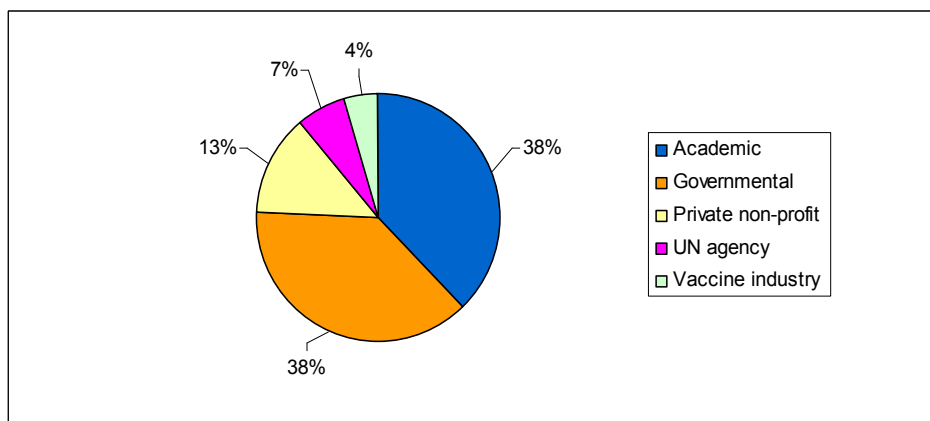
Among the respondents, 25 (55%) are men and 20 (45%) women, corresponding to the gender ratio of the participants to ADVAC. The respondents per region are shown on figure 4. With 15 responses out of 31 requests, Latin America & the Caribbean have the highest response rate (48%). The response rate from Asia is 19% (15 responses out of 77 requests), from Africa 20% (13 responses out of 66 requests) and from the Middle East 25% (2 responses out of 8 requests).

**Figure 5: Distribution of respondents per region**



The institutions of the respondents are mainly governmental and academic, but they are also private non-profit organizations, United Nation’s agencies and the vaccine industry (figure 5).

**Figure 6: Type of institutions of origin of the respondents**



The activities carried out by the respondents are diverse and most of the time multiple. They include research (89%), training and education (67%), policy making (49%) and medical care (36%), but also regulatory activities, vaccine development and production, and disease surveillance for few respondents.

## 2) Key findings

The most obvious impact of ADVAC is the increased capacity of the respondents to teach vaccinology. Most of them have teaching responsibilities at institutional, national or even international level, and participate in the dissemination of knowledge in vaccinology. The ability of the “ADVACers” to participate in research, decision-making and program implementation in their countries has also been strengthened by the course, as well as their skills to communicate on vaccinology. Awareness on ethical issues and safety issues has increased among them. The impact of ADVAC on the respondents’ career seems somewhat contrasted: If some of them have their career significantly boosted after the course (if not due to the course), many of them consider that ADVAC has had a limited impact on their career. For many, ADVAC provided an opportunity to build relationships with international experts among the alumni and the faculty, but distance and activities

are barriers for some respondents. Publishing in vaccinology has been possible for several ADVACers thanks to the course. Most of the respondents feel that their participation to the course has a positive impact on their institution and their country. Some of them have been able to conduct new clinical trials, introduce new vaccines in their country and/or advise the ministry of health, as part of the national immunization advisory group.

The "collective fund of knowledge" has been felt increased particularly when several experts from the same institution/country have attended ADVAC.

Most of the respondents express the need for refresher seminars for themselves and in-country courses to improve access to vaccinology education for their peers.

The detailed responses to the survey are presented in annex.

### **3) Discussion**

This survey cannot be considered representative of the opinion of all the ADVAC participants coming from developing countries: except for the participants from Latin America, too few responses were obtained to allow generalization. The assessment of the impact of ADVAC through the perception of the participants to the course tends to overestimate the impact of the course and does not measure it directly and independently. The results of this survey should therefore be analyzed carefully and not be taken at face value.

However this questionnaire provides a first assessment of the benefits of ADVAC for the surveyed participants once they have returned to their countries, at least how they perceive these benefits.

## **IV. Conclusion**

Creating a critical mass of physicians and scientists with a sufficiently broad knowledge of vaccinology to be able to play a leading role in decision-making processes related to vaccines and vaccination strategies is a long term goal. With almost 600 participants in ten years, including 42% from developing countries, ADVAC is progressively but significantly contributing to achieving this goal. A faculty of 100 international vaccinology experts, and alumni from all over the world, from governmental, academic, private non-profit organizations, United Nations' agencies and from the vaccine industry have enabled the development of a unique international North-South, public-private network.

The survey conducted end of 2008 among participants from Africa, Asia, Latin America and the Middle East has shown that ADVAC has increased the capacity of the respondents to teach vaccinology and to disseminate new knowledge in their institution, country and sometimes at international level. Many of the respondents are involved in research activities and have been able to conduct new clinical trials. They are often part of national advisory groups and play a role in the introduction of new vaccines in their country.

ADVAC progressively fulfills its mission to create a critical mass of experts able to play a leading role in decision-making processes in vaccinology in developing countries. The task remains however huge and many more health professionals from developing countries, where the capacity in vaccinology is far from being optimal, need to be trained. The next ADVAC should pay more attention to and attract countries not enough represented in the course, from Africa, Asia, Latin America, Middle East, Central and Eastern Europe.

Date: December 1<sup>st</sup>, 2009

Authors: Aurélie Guillaud, Katia Mielczarek, Martina Gliber, Christophe Longuet

Acknowledgments: Paul-Henri Lambert, the Scientific Committee, the ADVAC alumni, with special thanks to those who participated in the evaluation survey.

## Annex: Detailed responses to the impact survey in developing countries

### Impact on practices

#### Q1. Has ADVAC helped you consider ethical issues in your practice of vaccinology?

**Considerably (58%)**

To a limited extent (38%)

Not applicable (4%)

Selected comments:

"Ethical issues are one of the subjects you can never forget in vaccinology and in regards of this, the course helps substantially." (Cuba – ADVAC 2001)

"I received some knowledge by attending the course but all aspects of ethics in research were not discussed." (Sri Lanka – ADVAC 2002)

"Understanding ethical issues related to the principle of justice and product access." (Thailand – ADVAC 2004)

"Limited because of my previous experience in this field, but I think that the discussions were very rich." (Brazil- ADVAC 2006)

"As a responsible officer for the review of Clinical Trial Application of both vaccines and drugs, the knowledge gotten from ADVAC course has really helped me during protocol review of such application though much of such ethical consideration is being done by ethics committees." (Nigeria – ADVAC 2008)

#### Q2. Has ADVAC helped you conduct clinical trials?

**Considerably (42%)**

To a limited extent (36%)

Not at all (9%)

Not applicable (13%)

Selected comments:

"After attending the course we created a clinical trials unit which is now one of the international unit of clinical trials." (Egypt – ADVAC 2001)

"Expansion on best practices and GCP." (Thailand – ADVAC 2004)

"The outcome of all lectures definitely helps us to solve our further problems." (Iran – ADVAC 2006)

"It has provided insight into handling trial participants, basic programmatic issues dealing with vaccine trials which has enabled me design a influenza vaccine trial that is being planned for India" (India – ADVAC 2008)

"I had already participated from clinical trials before, but the ADVAC course highlighted some aspects of that practice that made me more conscious of my role as an investigator." (Brazil – ADVAC 2008)

#### Q3. Has ADVAC helped you participate in policy making?

**Considerably (49%)**

To a limited extent (33%)  
Not at all (4%)  
Not applicable (13%)

Selected comments:

"I am responsible for evaluation of all human vaccines before licensing, am a member of the expert committee in AEFI monitoring, head of NCL/Sri Lanka. ADVAC course helped me immensely to perform my work for the ministry of health." (Sri Lanka – ADVAC 2002)

"I would not include policy making as a major strength of the 2002 edition of ADVAC" (Brazil – ADVAC 2002)

"In most of the new vaccines we recommended, through advisory committee, age and the best time to introduce most of the new vaccines" (Panama – ADVAC 2006)

"Being a member in the child health policy team." (Sudan – ADVAC 2006)

"It has given me a broad base of vaccinology and the confidence to participate in policy making" (South Africa – ADVAC 2007)

#### **Q4. Has ADVAC helped you work on regulatory issues?**

Considerably (27%)  
**To a limited extent (36%)**  
Not at all (16%)  
Not applicable (22%)

Selected comments:

"I have participated in the training of personnel of regulatory bodies of Latin American countries for the approval of HPV vaccines." (Colombia – ADVAC 2002)

"Regulatory issues were not detailed." (Mali – ADVAC 2002)

"This is not my area of work." (India – ADVAC 2003)

"Due to changes in general politics of the country, it is difficult to contribute highly in these matters." (Iran – ADVAC 2007)

"In my regulatory capabilities, the knowledge gained from the training has helped me tremendously in making regulatory decision on either clinical trial regulation or granting marketing authorization." (Nigeria – ADVAC 2008)

#### **Q5. Has ADVAC helped you work on safety issues?**

**Considerably (49%)**  
To a limited extent (40%)  
Not at all (2%)  
Not applicable (9%)

Selected comments:

"To evaluate vaccine safety at time of licensing, in quality assurance and also when used in the field." (Sri Lanka – ADVAC 2002)

"I participated in evaluating safety and immunogenicity of the ALVAC HIV-1 vaccine." (Uganda – ADVAC 2002)

"Exposure to interpreting safety data." (Thailand – ADVAC 2004)

"The learning was helpful to ensure that trials are conducted to international standards."  
(India – ADVAC 2006)

"Have trained immunization officers on injection safety." (Nigeria – ADVAC 2008)

**Q6. Has ADVAC helped you improve your practice with patients?**

- Considerably (18%)
- To a limited extent (36%)
- Not at all (4%)
- Not applicable (42%)**

Selected comments:

"I am biologist and have no relationship with patients." (Argentina – ADVAC 2000)

"Just about informed consent, because I do not work directly with patients."  
(Cuba – ADVAC 2001)

"Not very detailed in the class." (Mali – ADVAC 2002)

"I am able to deal with parents of children who seek vaccination much more competently.  
I am involved in creating a module for parents seeking advice on optional vaccines."  
(India – ADVAC 2008)

"By updating the knowledge and skills of my nurses." (Nigeria – ADVAC 2008)

**Q7. Has ADVAC helped you implement vaccination programmes?**

- Considerably (44%)**
- To a limited extent (18%)
- Not at all (4%)
- Not applicable (33%)

Selected comments:

"With knowledge gained at ADVAC I became part of the National Commission of Vaccination and I participate in the decision-making of vaccination programmes"  
(Argentina – ADVAC 2000)

"That did not seem to be a major purpose of the course. Nevertheless many of the discussions provided useful insights on programmatic issues discussed in the Advisory Committee for the Brazilian National Program of Immunization, which I have joined since 2004." (Brazil – ADVAC 2002)

"Introduction of Pentavalent vaccine in the routine immunization" (Sudan – ADVAC 2006)

"The updates were very useful to think through and put perspectives of the developed and developing world." (Kenya – ADVAC 2007)

"I have monitored and supervised 2 immunization campaigns and currently implementing an integrated measles immunization campaign." (Nigeria – ADVAC 2008)

**Q8. Has ADVAC helped you inform the media and the public?**

- Considerably (47%)**
- To a limited extent (36%)
- Not at all (4%)

Not applicable (13%)

Selected comments:

"I am contacted frequently as an expert on rotavirus disease and vaccine and I keep in mind the advice given at ADVAC about bridging to the message." (India – ADVAC 2003)

"I am a member of the African Rabies Expert Bureau – StopRage. There is a communication aspect in which we work with the media to inform the people about rabies" (Senegal – ADVAC 2004)

"I use to have good contacts with media, but after ADVAC I feel more comfortable. In this particular area, it is very important to learn how to manage problems, emergencies and polemics." (Brazil – ADVAC 2006)

"I have updated the knowledge of my team members (State immunization team) and we are all involved in advocacy and media enlightenment. I have just had a radio news interview programme on immunization." (Nigeria – ADVAC 2008)

"ADVAC focus on adverse events following immunization (AEFI) has helped me a lot as trainer at national level to train other health workers in AEFI management specially tackling AEFI rumours and media" (Nepal – ADVAC 2008)

**Q9. Has ADVAC helped you publish articles about vaccinology?**

Considerably (22%)  
**To a limited extent (53%)**  
Not at all (16%)  
Not applicable (9%)

Selected comments:

"Regulatory affairs are not always so ready to publications. Nevertheless we were able to publish in Vaccine which was of great use at that time." (Argentina – ADVAC 2000)

"The activities in the course enhanced your vision and scope - It is important when you write articles in international journals - On the other side I improved my scientific status." (Cuba – ADVAC 2001)

"I have published many scientific papers in both local and international journals. I have received a presidential award for research in 2002 for one of the articles." (Sri Lanka – ADVAC 2002)

"I have participated in publishing articles in Immunology that are relevant for HIV vaccine design. The course provided better understanding of biostatistics and epidemiology" (Uganda – ADVAC 2002)

"We published article on Hib epidemiology." (Sudan – ADVAC 2006)

**Q10. Has ADVAC helped you teach vaccinology?**

**Considerably (87%)**  
To a limited extent (4%)  
Not at all (2%)  
Not applicable (7%)

Selected comments:

"I increased my teaching activities at national and international level." (Cuba – ADVAC 2001)

"I am responsible for training of all categories of health care staff including undergraduate and post graduate medical officers in vaccinology." (Sri Lanka – ADVAC 2002)

"I had co-facilitated the Regional Vaccinology Course in 2008." (Kenya – ADVAC 2007)

"In my vaccinology course for Ph.D. students." (Iran – ADVAC 2007)

"When I teach immunization to medical students, residents in Pediatrics and in Pediatric Infectious Diseases, I like to highlight the immunologic aspects of vaccination and the epidemiological impact of vaccine administration. At ADVAC, I was very glad to see that those points are considered important topics by many experts on Vaccinology." (Brazil – ADVAC 2008)

## Impact on career and network

### Q11. Has ADVAC helped you expand your career opportunities?

Considerably (33%)

**To a limited extent (40%)**

Not at all (20%)

Not applicable (7%)

Selected comments:

"I finished my PhD in 2005. In 2006 I was nominated as Director of the WHO/PAHO Collaborator Centre for the Study of Viral Diseases." (Cuba – ADVAC 2001)

"I was enabled to discuss about HPV vaccination and participate in the rapidly evolving field of HPV vaccine introduction." (Colombia – ADVAC 2002)

"Validated my desire to be a vaccinologist." (Thailand – ADVAC 2004)

"I am still in same post but with greater confidence and respect from colleagues." (South Africa – ADVAC 2007)

"I have been nominated by my country's Paediatric Association to write a position paper on behalf of the National association to the Federal Government on routine immunization practice in Nigeria." (Nigeria – ADVAC 2008)

### Q12. Has ADVAC helped you exchange with a wider international network?

Considerably (42%)

**To a limited extent (49%)**

Not at all (7%)

No answer (2%)

Selected comments:

"Even with limitations due to distances and activities contacts through ADVAC were very sound and helped me a lot. I wasn't able to become part of an international network." (Argentina – ADVAC 2000)

"I have participated in international projects and invited as speaker in international meeting" (Cuba – ADVAC 2001)

"I have expanded my collaborations with researchers in other sites and countries." (India – ADVAC 2003)

"We have the alumni discussion on e-mail which is useful to share experiences" (Kenya – ADVAC 2007)

"ADVAC gave me the opportunity to get in touch with many people who work on research on vaccines. I hope to continue to get in touch with them and to participate in different international trials." (Brazil – ADVAC 2008)

#### Impact on institution

#### Q13. Has your participation to ADVAC had an impact on your current institution?

**Yes (67%)**

No (31%)

No answer (2%)

#### Selected comments:

"It is very difficult to determine, but I have spread the knowledge acquired during my training and have recommended the course to other colleagues."

(Colombia – ADVAC 2002)

"I was able to establish the National Control Laboratory for vaccines in my institution and am the head of NCL. ADVAC was the place where I got the basic foundation to establish the NCL /Sri Lanka which is recognized by the WHO." (Sri Lanka – ADVAC 2002)

"It helps me to be eligible to participate in clinical researches that are organized in my institution in collaboration with another institution." (Senegal – ADVAC 2004)

"To learn new technology in the field of vaccinology and related immunology has impact in our teaching." (Iran – ADVAC 2006)

"With three ADVAC trainees, the institution is positioned to inform policy and conduct pertinent research that will serve our country. We have several vaccine related research and policy ventures planned for the next three years." (India – ADVAC 2008)

#### Impact on country

#### Q14. Has your participation to ADVAC had an impact on the country where you are practicing?

**Yes (73%)**

No (27%)

#### Selected comments:

"From my country Argentina there are other participants from National Institute of Virology who benefited from the course and who have been able as myself to use any new knowledge in our current activities: Developing new vaccines, designing new clinical trials to license products among others." (Argentina – ADVAC 2000)

"I was able to introduce several vaccines in Sri Lanka. I am also the national advisor for vaccines in the ministry of health." (Sri Lanka – ADVAC 2002)

"Not yet but I project to participate in the immunisation advisory group of the health department of my country. I am the only medical advisor for travel medicine in my country." (Senegal – ADVAC 2004)

"Introduction of Pentavalent vaccine in the routine immunization since January 2008." (Sudan – ADVAC 2006)

"ADVAC focuses on global vaccinology, but a developing country from a southeast region will have more impact from vaccinology course at regional level." (Nepal – ADVAC 2008)

**Q15. In summary, would you consider that ADVAC has impacted:**

Your profession?       **Yes (91%)**  
Your institution?       **Yes (87%)**  
Your country?           **Yes (80%)**

Selected comments:

"The impact may be beyond my country, considering the work as a consultant for the World Health Organization, and the training of international students at the institution where I work." (Brazil – ADVAC 2002)

"To get recognition locally as a vaccine expert and also in WHO."  
(Sri Lanka – ADVAC 2002)

"Three people from my institution have attended the ADVAC course; it elevates our collective fund of knowledge." (Thailand – ADVAC 2004)

"I support the sub region in East and south Africa and it is not only me who benefits from my skills, my institution and the countries that I support are beneficiaries."  
(Kenya – ADVAC 2007)

"The extent of national impact is still very small. We need a critical mass of vaccinologists in a large country like ours to see impact." (India – ADVAC 2008)

**Q16. Do you have proposals to help ADVAC have a further impact in the country where you are practicing?**

At this open question most of the respondents express the need for in-country courses to reach more health professionals and refresher seminars for themselves as vaccinology is an evolving field. With the support of ADVAC professors, former "ADVACers" would be ready to play a leading role in regional courses in local languages.