

## A note from the Chair:

*Dear colleagues,*

Welcome to this IPAC bulletin, which we're preparing in the week following the October SAGE meeting. I was pleased to present to that gathering an update on IPAC's activities, including our July meeting, highlighting our work on the Controlled Temperature Chain, Delivery Technologies (including the measles-rubella micro-array patch), Total Systems Effectiveness, Selective Vaccination in SIAs and the Dose Per Container Partnership, among others. This is publicly available on the SAGE website— accessible online at the link below:

[http://www.who.int/immunization/sage/meetings/2018/october/presentations\\_background\\_docs/en/](http://www.who.int/immunization/sage/meetings/2018/october/presentations_background_docs/en/)

As usual, this SAGE encompassed a variety of programmatic issues relevant to IPAC's mandate and constituency. Many presentations touched on the challenges inherent in over-reliance on supplementary immunization activities (SIAs, campaigns); including discussion of their expense, the times they fail, and their poten-

tial to either harm or benefit routine immunization. New approaches to delivery of vaccines in emergencies or where routine services are weak must remain a priority for IPAC to consider; whether this is through finding new models for SIAs or new ways to strengthen RI. SAGE has also asked IPAC to consider the programmatic aspects of responses to vaccine shortages, including the use of the Tropis needle-free injection device for intra-dermal delivery of inactivated poliovirus vaccine.

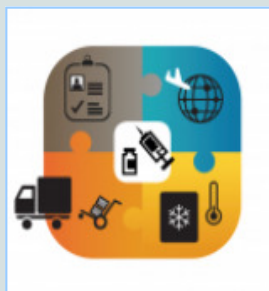
SAGE also saw some intense discussion of difficult issues; for example: what level of scientific evidence is needed to advise countries on the minimum effective schedule for human papilloma virus vaccine in an era of potential supply shortage, or on the vaccination of pregnant women with Ebola vaccines currently used in outbreak response studies. We also heard of the new downloadable, more modular WHO standards for surveillance of vaccine-preventable diseases, and the coordination of global immunization data sources, badged WIISE (WHO Immuniza-

tion Information System).

There was a clarion call from the Global Polio Eradication Initiative's Independent Monitoring Board for new thinking on polio responses, prioritising more integrated and responsive approaches. Integration was a common theme, especially when considering new global strategies and the role immunization can play in working for universal health coverage. I feel that it will be important for IPAC to consider what gains in demand and confidence might be achieved by making immunization service delivery more responsive to community preferences and needs. As always, these are my own thoughts on the meeting and I encourage you to visit the website and check out the presentations and background documents for yourself and to watch for the formal SAGE meeting report when it is published.

And... as my term as IPAC Chair comes to a close at the end of November this is the last time I will be writing this note for the Bulletin. I want to record my gratitude to the IPAC secretariat

- Continued on page 2 -



### Inside this issue:

IPAC welcomes new chair	2
New members announced	3
New approach to indicative wastage rates	3-4
Update on TSE Work stream	4
Farewell to Chris Morgan	5
Upcoming meetings and events	5
A final word from the IPAC Secretariat	5

## A note from the chair (cont'd from page 1)

(especially Anna-Lea Kahn and before her, the fabled Diana Chang Blanc) and WHO IVB staff more generally, acknowledging their inspiring work in the service of vaccinating the world's children; and to my colleagues on IPAC (including observers from various organizations) for so many stimulating and supportive interactions over the past five years. I am delighted to pass the IPAC reins into the capable hands of Dr Kelly Moore; who I believe will serve the Committee excellently as she draws on her deep experience of front-line programme management, high-level advisory committee work, and international engagement.

**Chris Morgan**

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*C. Morgan: Outgoing IPAC Chair*



*K. Moore: Incoming IPAC Chair*

### *A word from the incoming chair:*

To complete the handoff from Dr Chris Morgan, I would like to close this Chair's note by thanking him publicly for his strong and steady leadership of IPAC over the past 4 years. Chris has set a high standard, kindly and steadfastly ensuring broad and constructive input in our discussions and distilling those discussions to their most critical elements for reporting. I will strive to follow his example and thank him for his mentorship thus far. I look forward to serving alongside IPAC's newest members: Dr. Paba Pali-hawadana, Dr Baoping Yang, and Dr Pape Faye. We will learn more about these new members in the coming months. I wish you all well as we prepare for 2019.

**Kelly Moore**

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*"The IPAC Secretariat is pleased to announce the selection of Dr Kelly Moore from Nashville, Tennessee to serve as the next Chair of IPAC."*

## IPAC welcomes Dr Kelly Moore to new role

The IPAC Secretariat is very pleased to announce that following a lengthy internal review process, during which multiple candidates were considered, IVB leadership has confirmed the selection of Dr Kelly Moore to serve as the next Chair of IPAC.

Dr Moore became a member of IPAC in 2016, while she was also serving as Director of the Tennessee Immunization Program (TIP) in the State of Tennessee Department of Health and member of the U.S. Centers for Disease Con-

trol and Prevention (CDC) Advisory Committee on Immunization Practices (ACIP). Dr Moore recently left the TIP which she directed for a 14 year tenure and is presently a Clinical Assistant Professor of Health Policy at the Vanderbilt School of Medicine and serves as an advisor and consultant on immunization policy and practice. She has championed evidence-based improvements in end-user vaccine storage and handling at the state and national level with a variety of organizations, including the U.S.

Association of Immunization Managers (chair, VSH Committee), NSF-International (Joint Committee on U.S. Vaccine Storage Equipment Standards) and as a member of the International Association of Immunization Managers.

Dr Moore received her medical degree from Vanderbilt Medical School and her Master of Public Health from Harvard School of Public Health. She also served as an EIS Officer with the CDC.

## Three new members join IPAC

Change is in the air for IPAC. While the Committee must adjust to new leadership, both across IVB (welcoming the new EPI Coordinator, Dr Ann Lindstrand and soon, a new IVB Director, Dr Kate O'Brien) and within the Committee (bidding a fond farewell to the departing Chair, Dr Chris Morgan, and congratulating Dr Kelly Moore on her new role as his replacement), there will also be new members joining IPAC's ranks. The Secretariat conducted a comprehensive recruitment process during the course of September which culminated in the

review of some very strong candidates and a final decision to increase the number of new members to be selected to a total of three. The latter decision was driven by the interest to improve IPAC's geographical diversity, as well as increasing the extent of country programme-based expertise and experience within the Committee.

We are delighted to welcome **Dr Pape Faye** from Senegal; **Dr Paba Palihawadana** from Sri Lanka; and **Dr Baoping Yang** from China, who officially became IPAC's

newest members in the beginning of October. Brief biographies of each will shortly be available on the IPAC page of the WHO website.



## Revising global indicative wastage rates: an initiative for better planning and forecasting vaccine needs - by Rachel Bauquerez

Providing potent vaccines available through effective immunization supply chains is at the heart of the global health community to increase immunization coverage and to reduce under-5 mortality. Forecasting is an essential element in ensuring that these potent vaccines reach children in need throughout the world by producing and procuring the right quantity of vaccines and delivering them through efficient supply chains until service.

As it is factored by countries into both their quinquennial and annual forecasting efforts, vaccine wastage is of paramount importance. The waste and therefore the wastage rate also have a considerable impact on the immunization programmes. EPI managers are responsible for finding that delicate balance of ensuring an optimal coverage, with the lowest vaccine wastage,

using the most convenient (and available) vaccine presentation that can not only allow the immunization of as many children as possible, but match their available cold chain space.

Before 2000, there was limited interest in the issue of vaccine wastage, until the introduction of pentavalent vaccine in 2000, at a cost per dose of \$3.50\*. The immunization community started to realize that considerable savings could be made on vaccine costs by assessing the financial impact of wastage, which therefore needed to be quantified. In the absence of widespread vaccine wastage monitoring systems at country level, and to facilitate estimation of vaccine needs and cost, WHO defined indicative vaccine wastage rates per specific vial size and vaccine in 2002. These estimated indicative vaccine wastage rates are still

used to date to conduct vaccine forecasts and estimate supply needs. Nevertheless, they have reached their limits: being the same for each antigen by available presentation for every country, this "one-size-fits all" solution does not reflect the reality of vaccine wastage at country level (and within the country, at various service delivery points).

### A three-step approach towards more tailored wastage rates

In order to ensure vaccines are available at all times to immunize children and that immunization programmes are managed at the right cost, it is fundamental to revisit global indicative wastage rates, which can benefit all stakeholders. Immunization supply chain experts are now confident that tailored wastage rates per vaccine for each country is within reach, although it may take time to achieve this objective.

- Continued on page 4 -

**(CONT'D FROM PAGE 3)**

Since 2005, WHO and its partners have worked tirelessly to improve the support they provide to countries in forecasting their needs and help them get a more accurate picture of their wastage rates. In 2016, WHO committed to update global indicative wastage rates. Based on country studies, it was demonstrated that wastage rate follows a binomial distribution. This model, last presented at the October 2015 IPAC meeting, would help countries to more accurately estimate their wastage rate, based on specific data collection. A key aspect of this new method is that wastage rate calculation and its accuracy is a continuous

effort, as continuous a posteriori data reporting (after the immunization sessions) would allow more granularity and therefore more accurate wastage rates.

Recently, WHO pursued this effort and a set of intermediary steps have been developed to refine global indicative wastage rates based on existing country data. Some steps will run in parallel with others and the work started in 2018. It is expected that 2019 will be the year when the first results should be visible. In addition, a tool (an Excel matrix) to calculate the wastage rate at any level of the supply chain is now being developed. The tool will still require further testing and the aim of turn-

ing the spreadsheet into a web application will be explored in 2019.

This proposed approach, as well as the tool, will be presented to the immunization supply chain experts at the 5<sup>th</sup> Vaccine Management and Handling Workshop in December 2018 for further feedback. IPAC members will have the opportunity to review and make further recommendations at its next 2019 meeting, on assessing how this approach and new tool could contribute to more effective immunization programmes, as well as contributing to the Global Vaccine Action Plan (GVAP) goals for improved coverage and equity.

\* UNICEF Supply Division Data

## Update on WHO's Total System Effectiveness (TSE) work stream — by Siobhan Botwright (TSE Project Manager)

Since review by IPAC in July 2018, the TSE team has conducted further workshops in Mali and Thailand, which have provided opportunities for further learning and optimisation of the TSE concept and decision-support process. The initial country consultations culminated in a TSE Steering Committee meeting during September 2019, to discuss the outcomes from the TSE

country consultations and to propose a scope for TSE moving forward. The meeting was attended by TSE Steering Committee and Modelling Working Group members, in addition to representation from pilot country focal points. At the close of the meeting, it was recommended that TSE continue to focus on supporting product selection decisions in immunisation, and that TSE should give coun-

tries a voice to influence global supply and R&D of vaccines and delivery technologies. Specifically for country-level decisions, the group concluded that the focus should be to develop flexible tools that can be adapted to country context, following key recommendations from IPAC.

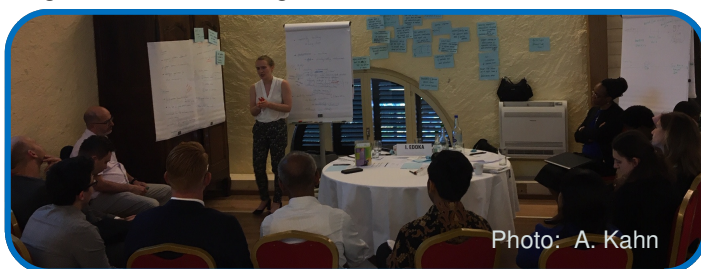


Photo: A. Kahn

Work has continued in developing a TSE toolkit, composed of a main decision-support tool that guides the user through steps of the process for choosing a vaccine product. A preliminary tool based on the Public Health England (PHE) Prioritisation Framework was successfully trialled in Mali (August 2019). Alongside the main decision-support tool, a key element of the

TSE toolkit will be a TSE immunisation barriers analysis tool, which supports a focal point within Ministry of Health to collate and synthesise available country-level information on barriers to immunisation and health systems constraints, in order to inform product choice.

**We are currently looking for a consultant to undertake the preliminary work for the TSE immunisation barriers analysis tool** and would be very grateful for any suggestions (Contact Siobhan Botwright at [botwrights@who.int](mailto:botwrights@who.int) to request a copy of the TOR or to suggest a potential candidate for this consultancy).

In 2019, TSE will place a greater focus on collaboration with WHO regional offices to develop and implement TSE. There will be a concurrent increase in focus on the supply/R&D work stream for TSE, to show proof-of-principle for mechanisms to synthesise country product priorities at the regional and global levels, and to effectively communicate LMIC priorities for existing and future pipeline products.



## IPAC bids farewell to Chris Morgan

It's with a heavy heart that we must part ways with Dr Chris Morgan who has served IPAC not only as our fearless leader for the last five years, but as a very active and invaluable member. Chris joined IPAC in August 2011 and was named Chair in November 2013, taking over from Shelley Deeks. In order to be able to make time for IPAC, he actually changed dissertation topics for his ongoing PHD work, to make it more relevant to IPAC.



Photo: K. Moore

Chris Morgan & Ann Lindstrand

Chris has never missed an IPAC meeting in his 7 years of service, having attended 9 meetings, including 5 as Chair, and plenty more WHO working group meetings on behalf of IPAC, including IVIRAC, and even VIPS next month. He has also contributed generously to 15 issues of the Quarterly IPAC Bulletin!

So it was with genuine gratitude that Chris was presented a plaque honouring his service by EPI Coordinator, Ann Lindstrand, on behalf of the entire WHO IVB Department, as well as the IPAC Secretariat and Committee. We're also pleased to reassure you that this is not the last IPAC will see of him. Chris will continue to serve on both the VIPS Steering Committee and the CTC Working Group, both of which have strong ties with IPAC. So this is less of a "farewell" and more like a "Thanks and see you around, Chris!"

## Upcoming Meetings & Events:

- ⇒ 8-9 Nov 2018 —Geneva, Switzerland: **VIPS Steering Committee meeting**
- ⇒ 15 Nov 2018 —Geneva, Switzerland: **MI4A Advisory Group meeting**
- ⇒ 26-27 Nov 2018 —Barcelona, Spain: **HPV Coverage Methodology working meeting**
- ⇒ 26-30 Nov 2018 —Cape Town, S.Africa: **Global Rotavirus and Pediatric Diarrhea and Invasive Bacterial disease surveillance Meeting**
- ⇒ 28-29 Nov 2018 —Geneva, Switzerland: **GAVI Board Meeting**
- ⇒ 5-6 Dec 2018 —Geneva, Switzerland: **Global Advisory Committee on Vaccine Safety (GACVS)**
- ⇒ 5-7 Dec 2018—Copenhagen, Denmark: **WHO/UNICEF Vaccine Management and Handling Workshop**



## A final word from the IPAC Secretariat

Mark your calendars: new IPAC meeting dates have been set! The next IPAC meeting is scheduled to take place on **10-13 June 2019** at WHO Headquarters (Salle A) in Geneva, Switzerland.

I also would like to inform you that it has also been decided to reduce the frequency of the IPAC Bulletin. This will consequently be the final issue of 2018 and as of next year, this Bulletin will become biannual, with issues released in April and October. I therefore take this opportunity to wish you a pleasant end of the year and a fruitful start to 2019, during which I look forward to plenty more interaction and collaboration.

*The IPAC Secretariat Team*