**Inaugural Conference of the International Association of
Immunization Managers (IAIM), Istanbul Turkey, 3-4 March 2015**

Peter Carrasco¹

Carlos Franco-Paredes^{1, 2}

Jon Andrus¹

IAIM Secretariat:

Katie Waller¹

Alison Maassen¹

Emi Symenouh¹

Gabrielle Hafalia¹

¹International Association of Immunization Managers, Secretariat

Sabin Vaccine Institute, Washington, D.C., U.S.A

²Hospital Infantil de Mexico, Federico Gomez, Mexico City, Mexico

Correspondence:

Carlos Franco-Paredes, M.D., M.P.H.

5102 Grandview Drive

Albany, GA 31721, U.S.A.

Email: carlos.franco.paredes@gmail.com

Phone: (229)344-1748

Fax: (229)344-1748

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Role of management in achieving immunization goals

National and subnational managers play a major role in planning, organizing, and implementing their immunization program. The goal of their work is to reduce the burden of disease associated with vaccine-preventable diseases (VPD) through the implementation of accelerated control, elimination, and eradication strategies. Indeed, the eradication of smallpox relied on sound managerial strategies across all continents. The four basic core functions of effective management (planning, organizing, leading, and evaluating) are fundamental for achieving both better performing programs and the best possible public health impact.

The Expanded Programme on Immunization (EPI) was established by the World Health Organization (WHO) in 1974 with the purpose of providing routine childhood vaccines worldwide. Over the last four decades, EPI has saved millions of lives, not to mention the incalculable suffering that has been prevented. Over time, however, sustaining the gains achieved with routinely administered vaccines for not only targeting each new annual birth cohort, but also expanding the benefits of vaccines to other age groups, and concomitantly introducing new vaccines, poses a formidable managerial challenge for program managers. In this modern complex environment, sound managerial skills are essential to enable program managers to design innovative solutions, re-engineer or abolish old processes and structures, and re-tool human resources for achieving the successful implementation of immunization programs. Simply put, establishing effective management practices allows immunization managers to effectively fulfil their roles in reducing the global burden of VPD. Managers need to ensure that the activities of the

immunization program are firmly aligned with broader initiatives and strategies and to see the entire system and connect of all of its components.

Why an International Association of Immunization Managers?

In response to the abovementioned increasing challenges, the International Association of Immunization Managers (IAIM) is the first international professional association established to promote superior leadership and management capabilities of immunization managers. Launched in June 2013, IAIM is an initiative of the Sabin Vaccine Institute and is funded by the Bill and Melinda Gates Foundation. The overarching goal of IAIM is strengthening the managerial capabilities of immunization managers to improve program performance and attain national, regional and global immunization goals. The association has the following objectives: a) to establish a forum, with sound governance and organizational structure, from which to share best immunization-related policies and practices; b) to build and support international and regional networks of immunization managers; c) to develop technical and leadership skills within the immunization program manager community; and d) to promote the benefits of immunization with governments and other stakeholders.

To achieve these goals, IAIM organizes: regional meetings and international conferences, Peer to Peer Exchange Programs, a Training Scholarship Program and webinars (<http://iaimanagers.org>). To this end, in 3-4 March 2015, IAIM members of more than 70 countries from all WHO six regions (Americas, Europe and Central Asia, Middle East and North Africa, South and Southeast Asia, Sub-Saharan Africa, and Western Asia and

Pacific) gathered in Istanbul, Turkey, for the inaugural Conference of the IAIM. The two-day agenda covered an introduction to IAIM, and included presentations, a networking and a ‘breakout session’ regarding different topics covering: the Global Vaccine Action Plan; the Role of the immunization manager; presentations of the first round of the Peer to Peer Exchange Program; networking session where members discussed the importance of IAIM benefits; Public health intervention: from rapid response to understanding and prevention; Ensuring success of national immunization programs – in the United Kingdom; Managing the delivery of immunization services in the private and public sectors; Management of information systems for the EPI and an open forum session for IAIM members to discuss issues pertaining to the Association. All presenters were asked to highlight the essential management issues of each of the topics.

Parliamentary procedures and affairs of the association

The first items of the agenda were dedicated to informing the membership on: governance of the association, membership benefits, a strategy for expanding IAIM current membership, and an overview of the financial status of IAIM. The highlight of the first day was the selection by membership vote of the 13 members needed to fill the seats that constitute the Governing Council (GC) officials (2 members per region with the exception of Euro, which had 3 members). Immunization Managers Members also amended and ratified the bylaws that govern the affairs of the Association. The newly elected GC also selected individuals from the thirteen GC members for the positions for president, vice-president, treasurer, and secretary of the Governing Council. Duties and responsibilities of all GC members include: a) overseeing the affairs of the association, b)

116 planning activities such as IAIM conferences and regional meetings; c) advancing the
117 strategic goals of IAIM; and d) coordinating the implementation of activities emanating
118 from the decisions taken by the GC.

119 **Managerial challenges facing immunization managers**

121 Equally important, this inaugural conference provided members with a forum for sharing
122 managerial best practices through networking sessions, breakout sessions, and to discuss
123 managerial aspects of the different components of immunization program throughout
124 presentations. An important theme discussed throughout the conference for managers at
125 any level was the need to continually assess their competencies. Based on these
126 assessments, managers can then better determine if they need to acquire new
127 competencies in order to maintain and advance program performance. In this context, to
128 improve managerial competencies, the IAIM grants members with opportunities for peer-
129 to-peer exchanges and scholarship training opportunities. The peer-to-peer program
130 provides the opportunity for immunization managers who would like to advance their
131 knowledge and skills, and their country's immunization program, to visit an
132 immunization manager in a different country to learn from their program's successes and
133 challenges. The training scholarship program provides winning applicants with
134 opportunities to enroll in trainings, short courses and seminars. Training scholarship
135 awards are intended to target critical competencies and skill sets that immunization
136 managers deem important in order to improve the performance of their immunization
137 program. In 2014, IAIM funded three international peer-to-peer exchanges for members
138 to spend one week learning from a peer regarding a specific component of their

immunization program. Three members presented their experiences and lessons learned from their peer to peer exchange program (**Table 1**). Objectives of the visits included learning about: the composition and function of National Immunization Advisory Technical Groups (NITAGS), effective implementation of an HPV program rollout, and managing vaccine wastage by sharing best managerial practices of cold chain, and an introduction on how to go about viewing the requirements for assessing the performance of Management Information Systems (MIS). Conference participants were exposed to future opportunities to train or deepen their managerial competencies through peer-to-peer exchanges.

The Secretariat asked members to prioritize the roles of IAIM. Most members agreed to prioritize IAIM roles as follows: 1) providing opportunities for immunization managers to build managerial and leadership skills through training and peer-to-peer exchanges; 2) providing a forum for immunization managers to discuss their work and share best practices; and 3) fostering the visibility of immunization managers with governments and other key stakeholders. In addition, the IAIM inaugural conference highlighted key themes (**Table 2**) that EPI managers expressed in order to advance their managerial competencies to achieve the overall immunization program goals.

The presentation on the “Roles and the Responsibilities of Immunization Managers” emphasized the role that “experience” plays in helping managers to better manage complex policy environments at the national or subnational levels. In today’s world, possessing experience and leadership skills is crucial in managing the policy environment

in order to align both public governance and national and international stakeholders to obtain the political support for their immunization program and to obtain specific resources. The role of new technologies such as the use of smart phones, tablets, and electronic dashboards to improve data collection, analysis, and decision-making by immunization managers was discussed during this presentation.

Members also expressed their concern that management information systems (MIS) will require major improvements for supporting better decision-making at all levels. More specific concerns regarding MIS included: the importance of data quality, data collection of birth registries, linking vaccine supply information with vaccine stock management information; and the need for the implementation of financial management systems. In this context, all groups concurred with the need for promoting further training of human resources engaged at any stage of the MIS.

The presentation by two paediatricians from the private sector (South Africa and Switzerland) and one from the EPI immunization manager from Albania, regarding the delivery of immunization services highlighted that immunization services are considered a public good. However, how a country goes about delivering this ‘good’ is different when comparing government offered immunization services with the delivery of services by the private sector. They concurred on the need for having: 1) adequate patient interface program and communication materials; 2) constant attention to training of human resources and certification programs; 3) assessing all components of immunization program performance in all sectors; 4) quality data that needs to be shared

by public and private services, and 5) coordination of norms and performance standard measurements on the part of national authorities.

The role of immunization managers in the era of globalization and emerging infectious diseases

Keynote speaker of the conference was Dr. William Foege, Professor Emeritus, Emory University, U.S.A. Dr. Foege discussed the history of vaccination and the contributions of health workers in applying managerial approaches for achieving successful immunization practices in eliminating and eradicating VPD. Dr. Foege highlighted the central role of management in achieving immunization goals. He spoke about the fact that the actual application of vaccines to decrease the burden of disease comes down to effective management. He stated that *“Management is the catalyzer as to whether a body of science changes the world or not. The idea of management assist us in producing vaccine, storing vaccine, getting the vaccine through customs, developing immunization schedule, training vaccinators, evaluating the vaccination program to see if its working, and carrying out surveillance systems. Solving problems every day relies on solid managerial principles by immunization managers”*.

Dr. David Heymann, Head of the Centre on Global Health Security, Chatham House, United Kingdom, presented on public health emergencies and recommended an innovative approach that shifts from the traditional knee-jerk rapid response of controlling an outbreak, to an approach requiring understanding the animal and human risk factors at the source of the epidemic. He also provided an overview of different

emerging infections that have dominated the 20th and 21st Centuries, with a particular focus on the recent Ebola epidemic in West Africa. Dr. Tom Cherian, Coordinator, Program and Impact Monitoring of WHO Department of Immunization, Vaccines, and Biologicals, provided a clear overview of the GVAP and an update on country progress, and remaining challenges in meeting GVAP goals and objectives. This progress is measured using six immunization-specific targets including increasing DTP3 coverage, introduction of under-utilized vaccines among low and middle-income countries, interruption of polio transmission, global elimination of maternal and neonatal tetanus, and measles and rubella elimination (**Table 3**). Unfortunately, progress is lagging in five of the six GVAP objectives.

Conference Evaluation

Using interactive polling technology, 90% of members at the meeting indicated that the organization of the meeting was excellent to very good (**Table 4**). Members also indicated that 95% would renew their membership. Members also provided feedback on relevancy and usefulness of informational content of the presentations with respect to their day to day work; over 80% of respondents indicating the they found meeting's content either somewhat useful to extremely useful; 74% of respondents indicated that they found the informational content of the presentations with respect to their day to day work very useful to extremely useful.

Participant feedback indicates that the establishment of the first global professional association dedicated to immunization managers fosters professional development by

231 accessing training opportunities; participating in regional meetings and association
232 conferences; sharing management tools, and networking with their peers across the globe.

233 To measure the success of the inaugural conference, the IAIM Secretariat is collecting
234 data on the rate of renewals of memberships, and of the number of new memberships.
235 The second measure of success will be gauged by the number of applicants and grantees
236 receiving peer-to-peer exchanges and training scholarships awards; the third measure of
237 success will be the degree of stakeholder involvement at our meetings as measured by
238 their attendance at meetings/conferences and their collaboration with the association in
239 working on selected managerial issues of mutual interest.

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264 **TABLES**

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266 **Table legends**

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269 **Table 1. First Round of Peer-to-peer exchanges of the IAIM**

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272 **Table 2. Key themes highlighted during the inaugural international conference of**
273 **the IAIM, Istanbul Turkey, 3-4 March 2015**

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275 **Table 3. Global Action Vaccine Plan (GVAP) six immunization-specific targets -**
276 **World Health Organization (WHO)**

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278 **Table 4. Conference evaluation, of the IAIM, Istanbul Turkey, 3-4 March 2015**

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Table 1

Peer Grantee	Peer Supporter	Objective(s)	Lessons Learned
Dr. Kelly Moore, Director, Tennessee Immunization Program, Tennessee Department of Health, USA	Dr. Silvia Bino, Institute for Public Health in Albania, EPI Manager, Albania	<ul style="list-style-type: none"> - To learn best managerial practices of cold chain and managing vaccine wastage - To learn about potential performance improvements of immunization management information systems (MIS) 	<ul style="list-style-type: none"> - Use of vaccine vial monitor (VVMs) to prevent vaccine wastage and potential implementation of this technology in the U.S. - This exchange also provided her with an opportunity to see immunization practices from a different perspective
Dr. Aisha Alshammary, National Manager of EPI, Ministry of Health, Saudi Arabia	Dr. Melinda Wharton, Centers for Disease Control and Prevention, Atlanta GA, Director National Center for Immunization and Respiratory Diseases	<ul style="list-style-type: none"> - To learn the structure and proceedings of the Advisory Committee of Immunization Practices (ACIP) - To learn about CDC surveillance activities surrounding influenza and other vaccine preventable diseases 	<ul style="list-style-type: none"> - The Saudi Arabian National Immunization Technical Advisory Group (NITAG) was restructured and new policies are currently being instituted - Strengthening of national surveillance activities of influenza and rotavirus infections
Molly Howell, MPH Immunization Program Manager and Assistant Director, Division of Disease Control, North Dakota Department of Health, USA	Dr. Brenda Corcoran, National Immunisation Office, Dublin, Ireland	<ul style="list-style-type: none"> - To learn how the immunization program in Ireland achieved high immunization coverage with HPV and apply the managerial decisions used to increase HPV vaccine uptake in North Dakota (given existing low vaccination uptake to date in her State) 	<ul style="list-style-type: none"> - A pilot school clinic to administer HPV vaccine to adolescents in North Dakota is planned; and upon learning if this pilot clinic improves HPV vaccine uptake, then this model will be implemented throughout North Dakota

Table 2

- Providing training opportunities at regional meetings or international conferences to discuss current operational programmatic challenges and identifying potential managerial solutions is very useful for in solving an issue that some programs are facing (i.e managerial skills to deal with anti-vaccine groups)
- Creating networks of peers among immunization managers for exchanging knowledge for sharing best practices and experiences is valuable to promote innovative ideas and solutions for improving program performance
- Receiving technical updates on communicable disease, such as Ebola outbreaks and new immunization technologies, permit managers to determine how events or technologies to be introduced could be managed to mitigate the impact on the functioning immunization programs; or applied to improve performance
- Foster the visibility of immunization managers and their programs within Ministries of Health and stakeholders is a key challenge that remains to be addressed in many countries that are resource poor
- In lower and middle-income countries the immunization management information system is out of date and cannot produce the required information at all levels for making the best decisions
- Managers need to review and update the competencies and skills of their staff to ensure that they possess trained staff to secure effective execution of program activities

Table 3

<i>Goals</i>	<i>Progress</i>
DTP3: National vaccination coverage of 90% in all countries by 2015, with no districts less than 80%	Off-track
Introduction of under-utilized vaccines: At least 90 low or middle income countries to have introduced one or more such vaccines by 2015	On-track
Polio: No new cases after 2014 (“interruption of transmission of wild-poliovirus”)	Off-track
Maternal and neonatal tetanus: Global elimination by end-2015	Off-track
Measles: Elimination from three WHO regions by end-2015	Off-track
Rubella: Elimination from one WHO region (other than AMR/PAHO) by end-2015*	Off-track

* GVAC aims for five regions to eliminate rubella by 2020, but so far only two have established such a goal AMR/PAHO for 2010 (eliminated rubella in 2009) and EUR for 2015 which is not on track. However, global rubella coverage is around 40%, and one third of the 196 countries have not yet introduced rubella.

Table 4

Theme/topic *	Evaluation
Overall organization of the meeting	Excellent to very good 90%
Content of the conference	Critical information 32%; Very useful 44% and somewhat useful 24%
Whether members will renew their IAIM membership	Renew their membership 95%
Prioritize IAIM Benefits	IAIM conferences and meetings 40%
	Training Scholarship Program 31%
	Peer-to-peer exchange programs 26%

* The evaluation included 17 questions that were answered by 111 participants