PAVE 2016 Internships

I. World Health Organization, Immunization, Vaccines, and Biological Division (WHO IVB)
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   2. Cost of Pneumococcal and Rotavirus Surveillance as part of the Global Sentinel Site Vaccine-preventable Disease Surveillance Networks
   3. Policy Impact of the Global Sentinel Site Vaccine-preventable Disease Surveillance Networks for Pneumococcus and Rotavirus
   4. Supporting the Work of the Strategic Advisory Group (SAGE) on Immunization within the WHO Immunization Policy Unit
   5. Analysis of preferred product attributes for development of enteric vaccines for low and middle income counties
   6. Vaccine economic research studies in low and middle income countries (LMICs)
   7. Monitoring the progress of the Global Vaccine Action Plan (GVAP)

II. Gavi, The Vaccine Alliance
    1. Supporting implementation of the Gavi 2016-2020 data strategy and outcomes and impact measures

III. Center for Disease Control, Global Immunization Division (CDC, GID)
     1. Supporting the Work of the Global Measles Elimination

IV. PAHO
    1. Supporting capacity development around evidence-based immunization policymaking in Latin America and the Caribbean
Word Health Organization, Immunizations, Vaccines and Biological Division (WHO IVB)
WHO Internship #1

Development of surveillance standards for typhoid and other invasive salmonellosis

Background
There is a need to strengthen the surveillance of typhoid fever, paratyphoid fever and invasive non-typhoidal salmonella (iNTS) disease at the global level. While there are a number of surveillance projects or special studies on typhoid, paratyphoid and iNTS, there are still significant differences in surveillance capacity and practices among endemic countries and notable gaps exist in many countries. Ensuring that there are high performing surveillance systems in endemic countries is critical to ensuring that reliable data are generated in a sustainable way to support public health decisions on various control strategies. One of the essential steps in that direction is to develop and enhance the use of evidence-based surveillance standards, and to support the appropriate interpretation and use of surveillance data.

In regards to vaccination, developing reliable surveillance systems will help generate the data to support decisions on vaccine introduction and also to provide a sound basis for evaluation of vaccine impact (for typhoid vaccines in the short-term and in the longer for paratyphoid and iNTS vaccines.)

Scope of Work
The WHO/IVR seeks an intern to work under the supervision of WHO technical staff on the project to develop surveillance standards for typhoid and other invasive salmonellosis (during 2016-2017). The project will be accomplished in two phases and we are seeking initially an intern to work with us on

Phase 1. Further opportunity to be involved with the project through to the end of Phase 2 would be of merit, both for WHO and for the intern, therefore potential continued involvement can be discussed and tailored to the specific interests, experience and availability of the intern.

Phase 1: This phase (in 2016) will comprise a landscape review of current surveillance standards and surveillance systems, including national surveillance activities as well as special surveillance projects or networks that generate data on S. Typhi, S. Paratyphi and iNTS. The review will also focus on surveillance needs assessment (relevant to invasive salmonellosis) in endemic countries such as, availability or need for up-to-date technical guidance documents and tools, training needs, laboratory support (both capacity strengthening and resources) and data management needs. Specific needs for strengthening surveillance to support vaccine introduction and impact monitoring will be assessed.

The intern will be expected to assist WHO in (a) the development of the method and tool(s) for the landscape review, and to interact with key stakeholders for inputs to finalize the methods for the landscape review, and (b) conducting the landscape review and writing a report on the findings.

Phase 2: In the second phase of the project (in 2017) WHO will establish a technical working group to develop global surveillance standards and harmonized guidance documents for surveillance of enteric fever and iNTS. Guidance for strengthening surveillance to support vaccine introduction and impact monitoring will be a priority. The outcomes of the landscape review in Phase 1 will feed into the work of the technical working group.

2 MMWR 2014;63: 855-60.

It is intended that the work described herein will contribute to a published WHO technical document.

Skills necessary
- Fluency in English and good writing skills.
- Experience with vaccine preventable disease surveillance in general.
- Proficiency with Microsoft tools and other basic software.
- Experience conducting literature searches on PubMed and other common databases will be an advantage.
WHO Internship #2

Cost of Pneumococcal and Rotavirus Surveillance as part of the Global Sentinel Site Vaccine-preventable Disease Surveillance Networks

Background

Pneumonia and diarrhea are the two leading killers of children worldwide. Fortunately, vaccines exist that can prevent the leading cause of pneumonia (pneumococcus) and diarrhea (rotavirus). Both of these vaccines are currently underused globally, although much progress has been made over the past few years as countries have decided to introduce the vaccines into their routine childhood vaccination programs. The World Health Organization (WHO) recommends that countries conduct surveillance for these diseases to demonstrate the burden of disease and the impact of vaccine when it is introduced. Many countries conduct sentinel site surveillance for meningitis and pneumonia to monitor pneumococcus and for diarrhea to monitor rotavirus.

The mission of the WHO Expanded Programme on Immunization is to make vaccines available to all children worldwide. As part of that mission, the WHO Expanded Programme on Immunization (EPI) coordinates a global sentinel site surveillance network for pneumococcal and rotavirus disease which currently includes more than 200 surveillance sites in more than 60 countries.

Very little is known about the cost of surveillance at a country level. A couple of recent publications have estimated the cost of meningitis surveillance in two African countries1 and of integrated vaccine-preventable diseases in Costa Rica.2 This data is essential for countries to understand the costs of conducting surveillance and how to budget for this as part of their vaccine monitoring plan. In order to assist countries in their surveillance, we propose a project to determine the cost of surveillance for pneumococcus and rotavirus.

Scope of Work

The WHO EPI is seeking an intern to work under the supervision of WHO technical staff to undertake a project with the following aims:

- Conduct a systematic literature review of published surveillance costing studies for pneumococcus, rotavirus, meningitis, pneumonia, and diarrhea
- For areas where there are gaps in the published data, gather primary data from surveillance sites on the costs of surveillance. We would propose using a micro-costing (or ingredients) approach, which determines the amounts of resources used in surveillance and their unit costs.

The detailed terms of reference can be tailored to the specific interests and experience of the intern. A peer-reviewed publication can be developed from this project if the intern is interested. We will support the intern in the literature review, data analysis, and writing.

Skills Necessary

- Undergraduate degree, with some training in epidemiology
- Excellent written and verbal communication skills in English
- Proficiency with Microsoft Excel, email and word processing software
- Experience with literature searches on PubMed and preferably other databases

Skills Helpful but not Necessary

- Training and experience in infectious diseases and economic and surveillance studies

Supervisor: Adam Cohen
WHO Internship #3

Policy Impact of the Global Sentinel Site Vaccine-preventable Disease Surveillance Networks for Pneumococcus and Rotavirus

Background

The mission of the Expanded Programme on Immunization of the World Health Organization (WHO) program is to make vaccines available to all children worldwide. Vaccines against pneumococcus and rotavirus have the potential to save millions of lives globally, but are underused. Along with Gavi, WHO works with countries to develop evidence through surveillance and special studies to decide whether to introduce these vaccines into their routine immunization schedule. This evidence can be communicated in report, publications, and presentations to national decision makers, including those in National Immunization Technical Advisory Groups (NITAGs).

The World Health Organization (WHO) recommends that countries conduct surveillance for pneumococcal and rotavirus diseases to demonstrate the burden of disease and the impact of vaccine when it is introduced. WHO Expanded Programme on Immunization (EPI) coordinates a global sentinel site surveillance network for meningitis and pneumonia to monitor pneumococcus and for diarrhea to monitor rotavirus. These networks, which currently include more than 200 surveillance sites in more than 60 countries, were started in 2009 and have been used by many countries to guide evidence-based vaccine policy decisions. In order to justify the continued support of these surveillance systems, it is necessary to determine how surveillance data has been used at a country, regional, and global level. We propose a project to determine the use of country-level surveillance data for pneumococcus and rotavirus vaccine policies.

Scope of Work

The WHO EPI is seeking an intern to work under the supervision of WHO technical staff to undertake a project with the following aims:

- Conduct a review and survey of how pneumococcal and rotavirus surveillance data has been used to influence and make evidence-based national vaccine policy decisions. This could include conducting a survey or interviewing regional and country WHO offices and surveillance sites and reviewing published and gray literature that reports on surveillance data

The detailed terms of reference can be tailored to the specific interests and experience of the intern. This information may be used in WHO and Gavi documents, reports, and publications of the global sentinel surveillance networks. A peer-reviewed publication may be developed from this project if the intern is interested. We will support the intern in the literature review, data analysis, and writing.

Skills Necessary

- Undergraduate degree, with some training in epidemiology
- Excellent written and verbal communication skills in English
- Proficiency with Microsoft Excel, email and word processing software
- Experience with literature searches on PubMed and preferably other databases

Skills Helpful but not Necessary

- Experience in surveillance and infectious diseases

Supervisor: Adam Cohen
WHO Internship #4

Supporting the Work of the Strategic Advisory Group (SAGE) on Immunization within the WHO Immunization Policy Unit

Supervisors:
Dr Philippe Duclos, Dr Melanie Marti

Background:
SAGE is the principal advisory group to WHO for vaccines and immunization. It is charged with advising WHO on overall global policies and strategies, ranging from vaccines and technology, research and development, to delivery of immunization and its linkages with other health interventions. SAGE is concerned not just with childhood vaccines and immunization, but all vaccine-preventable diseases as well as cross-cutting issues such as pain mitigation during immunization and vaccine hesitancy. Under the supervision of the Senior Health Adviser of the Immunization Policy Unit, Dr Philippe Duclos, and the Medical Officer, Dr Melanie Marti, the intern will contribute to the work of the unit and assist in the formulation of evidence-based policy recommendations for immunization and the improvement of the related processes for the development of such policies both at global and country level. In particular the intern will be tasked to facilitate the functioning of SAGE, its related working groups and the development of global vaccination guidelines (vaccine position papers) and possibly to contribute to the strengthening of National Immunization Technical Advisory Groups and the monitoring of this activity.

Scope of work:
• assist with the functioning of SAGE meetings if within period of the internship (October 2016)
• retrieve, review, summarize and present evidence relevant to SAGE and/or its related working groups (Working Groups established or in the process of establishment: Maternal and neonatal tetanus elimination and overall tetanus prevention; Oral Cholera Vaccine; Typhoid Vaccine.)
• attend SAGE working group and editorial board meetings (the IVB editorial board oversees the production of vaccine position papers)
• assist with drafting of WHO vaccine position papers
• critically appraise and assess the strength of evidence and assist with the provision of evidence to recommendation tables in support of key recommendations
• develop summary of WHO position papers as power point presentation to be published on WHO website
• help with improvement of standard operating procedures for SAGE and its Working Groups
• assist with SAGE related communication activities, such as the update or revision of SAGE websites or key documents

Skills necessary:
• Experience in the field of vaccinology and immunization
• Background in epidemiology, capacity to analyze data (quantitative)
• Good writing skills
• Proficiency with literature searches on PubMed and preferably other databases
• Tact and ability to work with people of different technical and cultural backgrounds
• Proficiency with email, web and MS Office software (Word, Excel, PowerPoint)
• Fluency in English
• Experience in the field of communications, legal or policy/decision making would be an asset
• Working knowledge of either of Arabic/Chinese/French/Spanish/Russian would be an asset
• An understanding of GRADE methodology and its strengths and limitations and/or skills in the field of communication would be an asset.

The specific activities and project(s) will be agreed with the intern and will depend on period set for the internship, its duration, as well as the skills and interest of the incumbent and evolution of the needs.

Supervisors: Philippe Duclos & Melanie Marti
WHO Internship #5

Analysis of preferred product attributes for development of enteric vaccines for low and middle income counties

Background:

The Initiative for Vaccine Research (IVR) group within the Immunization, Vaccines and Biologicals (IVB) Department is committed to accelerating the introduction of new and improved vaccines, as well as facilitating research and development into the next generation of vaccines and technologies.

Globally, there are nearly 1.7 billion cases of diarrhoeal disease every year, many with acute and chronic effects. A vaccine exists for the most common cause of diarrhea in children (rotavirus), and other common causes of diarrhea have vaccines under development, namely Enterotoxigenic E. coli (ETEC), Shigella, and norovirus. ETEC and Shigella are two of the most significant pathogens that cause moderate-to-severe diarrhoea among children < 5 years old in Africa and South Asia. Killed (ETVAX) or live attenuated (ACE527) whole vaccine approaches, in combination with the adjuvant Double Mutant Heat Labile Toxin (dmLT), are the most advanced ETEC candidates. Several Shigella vaccine candidates, based on live attenuated or sub-unit approaches, are also in Phase II clinical studies. Shigella vaccine candidates are somewhat behind ETEC vaccine development, but both are facing similar challenges with respect to requiring multi-valent approaches, assay standardization, identifying correlates of protection, and defining appropriate clinical trial endpoints and clinical trial design of endemic field studies. In addition, the field is uncertain whether stand-alone vaccines or combinations should be prioritized, and at which point the focus should shift in the development pipeline.

Norovirus infection causes an estimated 200,000 deaths per year, globally. The leading vaccine candidate is about to enter phase IIb efficacy testing, and is a combination approach based on two of the most predominant genotypes currently in circulation.

The WHO is considering expanding its efforts in enteric vaccine development, in order to support consensus building, guidance and decision-making in this area, in readiness for Phase III studies. WHO coordinates a global sentinel site rotavirus surveillance network and, in line with this, is considering how to expand the network to monitor for other enteric pathogens with vaccines in development.

Scope of Work:

The WHO IVR seeks an intern to work under the supervision of WHO technical staff of the vaccine development group to prepare a briefing document on the product development aspects for enteric vaccines, for low and middle income countries. Preparation of the document will require thorough literature review as well as synthesis of proposed areas of research, surveillance, and development, and rationale for the developmental approach. Disease areas are likely to focus on Shigella, ETEC and Norovirus. The document will be used to support a grant application, and serve as a literature review/opinion to be published.

Skills Necessary:

- Undergraduate degree in sciences, with some training in epidemiology/immunology and infectious diseases.
- Solid organizational experience, the ability to plan independently and prioritize tasks
- Excellent written and verbal communication skills

Supervisors: Birgitte Giersing/ Vasee Moorthy
WHO Internship #6

Vaccine economic research studies in low and middle income countries (LMICs)

Background:

Over the next decade several new vaccines will become available against infectious diseases of major public health importance. Public health decision-makers will need to make choices, between vaccines and between other preventive interventions. New vaccines (e.g. pneumococcal, rotavirus and human papillomavirus vaccines) and vaccines in the pipeline (e.g. malaria, dengue, typhoid vaccines) are more expensive compared to the dollar cents traditional vaccines costs (e.g. diphtheria, tetanus, pertussis, polio, measles and tuberculosis) while countries increasingly have to carry the full costs of vaccination programs. Among other things decision makers need information on the relative cost-effectiveness (CE) of vaccines compared to other preventive interventions.

In order to assist countries in the collection of local economic evidence for vaccine introduction decisions WHO is engaged in performing systematic reviews of published costing and cost-effectiveness studies of different vaccines available and the creation of global vaccine economic impact data bases with information generated from WHO vaccine specific analytic economic tools in low and middle-income countries. These reviews and global data bases are a crucial and integral part of various work packages ongoing within the WHO Initiative for Vaccine Research (IVR) such as the WHO Vaccine Preventable Disease Burden and Impact Framework under guidance of Immunization and Vaccines related Implementation Research (IVIR) Advisory Committee, the WHO Task Force on influenza data for impact modeling, WHO Cervical Cancer Prevention and Control Costing Tool (C4P) and WHO Papillomavirus Rapid Interface for Modelling and Economics (PRIME). The WHO Guide on standardization of economic evaluations of immunization programs and the Broader Economic impact of vaccines framework are a generic key documents in WHO IVR’s work on vaccine economics.

Scope of Work:
The WHO IVR seeks an intern to work under the supervision of WHO technical staff of the implementation research group to undertake a project with the aim to perform systematic reviews of published cost-effectiveness and costing studies and/or to assist in the development of economic impact databases from low and middle income countries for various vaccine preventable disease such as cervical cancer, influenza, dengue, pneumonia, rotavirus, cholera, typhoid etc.

The detailed terms of reference can be tailored to the specific interests and experience of the intern. It is intended that a review publication will arise from this project.

Skills Necessary:
Fluency in English
Proficiency with quantitative research
Proficiency with Microsoft Excel, email and word processing software
Proficiency with literature searches on PubMed and preferably other databases
Training and experience in health economics

Supervisor: Raymond Hutubessy

1 http://www.who.int/immunization/research/committees/ivir_ac/en/index2.html
4 See http://whqlibdoc.who.int/hq/2008/WHO_IVB_08.14_eng.pdf
5 http://www.biomedcentral.com/1741-7015/13/209
WHO Internship #7

Monitoring the progress of the Global Vaccine Action Plan (GVAP)

Objectives:

Background:
The Global Vaccine Action Plan (GVAP) — endorsed by the 194 Member States of the World Health Assembly in May 2012 — is a framework to prevent millions of deaths by 2020 through more equitable access to existing vaccines for people in all communities. GVAP aims to strengthen routine immunization to meet vaccination coverage targets; accelerate control of vaccine-preventable diseases with polio eradication as the first milestone; introduce new and improved vaccines and spur research and development for the next generation of vaccines and technologies. In May 2013, the Sixty-sixth World Health Assembly noted the Secretariat’s report with its proposed framework for monitoring, evaluation and accountability as well as the process for reviewing and reporting progress under the independent oversight of the Strategic Advisory Group of Experts on immunization.

Scope of Work for GVAP Monitoring and Evaluation

- Participate to the data analysis for GVAP Indicators, prepare graphs, tables and maps for the secretariat report
- Collaborate with Technical Focal Points to develop a narrative report based on data analysis
- Develop innovative visual data representation to facilitate the understanding of the weaknesses and challenges countries are facing in the immunization area
- Review and finalize GVAP secretariat report
- Present an analysis to the internal weekly scientific workshop

Required skills and knowledge:

- knowledge in basic epidemiology,
- advanced skills in data analysis (using excel and statistical software),
- written and verbal communication, including the ability to write quickly and accurately

Period for the internship: June-July-August

Note: Discussions would be held with the selected candidate to determine a mutually agreeable and specific scope of work that draws from the above points.

Supervisor: Kamel Senouci

6 http://www.who.int/immunization/global_vaccine_action_plan/en/
7 http://www.who.int/entity/immunization/global_vaccine_action_plan/GVAP_Annex6.pdf
Gavi, The Vaccine Alliance
Gavi Internship #1

Supporting implementation of the Gavi 2016-2020 data strategy and outcomes and impact measures

Objectives:

Background:
Gavi, The Vaccine Alliance, has a strategic framework for the 2016-2020 period which includes a strong focus on data availability. For the first time, this framework includes a Disease Dashboard with indicators for tracking empirical "real-world" measurements of health impact to which Gavi, the Vaccine Alliance contributes, with an emphasis on the largest drivers of Gavi contributions to health impact (i.e. pneumonia, diarrhoea, Hepatitis B and measles). The Gavi secretariat, along with a Technical Consultation Group of research and technical experts, will work in 2016 to launching the Disease Dashboard.

The strategic framework for 2016-2020 includes a strong emphasis on data availability, quality, and use at the sub-national, national and global levels. The three focus areas for data are: immunisation delivery, coverage and equity, vaccine preventable diseases surveillance and vaccine safety.

Under the supervision of the Head of the Programme Outcomes and Impact team, Dr Hope Johnson, the intern will contribute to the work of the team and assist in implementation of the Gavi 2016-2020 data strategy and outcomes and impact measures (e.g. reductions in U5 mortality, DALYs and future cases and deaths averted) including the Disease Dashboard.

For more information on the Gavi 2016-2020 strategy please see: http://www.gavi.org/About/Strategy/Phase-IV-2016-20/

Scope of Work:
- Provide support to the Programme Outcome and Impact team to facilitate implementation of the Gavi 2016-2020 data strategy and outcomes and impact measures including the Disease Dashboard and key indicators like Under 5 Mortality.
- Perform literature reviews and/or landscape analyses on specific topic(s) of interest for the data strategy and analysis of availability of empirical health impact data for potential monitoring in the disease dashboard.
- Suggest and develop materials for communicating and visualization of indicator data (including information on indicator definition, data sources, strengths and weaknesses, etc.)
- Compiling information and preparing documentation and presentations for Technical Consultation Group meetings, Action Labs, internal and external meetings, etc.
- As and when required, the intern may be asked to provide support to other activities/projects or to help out on day-to-day operational work.

Note: Discussions would be held with the selected candidate to determine a mutually agreeable and specific scope of work that draws from the above points.

Necessary skills:

Languages: Fluency in English. Working knowledge of French or other UN language is desirable.

Computer skills: Proficiency with Microsoft Excel, Word, PowerPoint and e-mail. Experience with database software such as Microsoft Access and statistical software such as Stata is desirable.

Other skills and experience:
- Strong research skills, including quantitative and qualitative analysis methods;
- Excellent written communication and presentation skills;
- Ability to work independently and demonstrate initiative and flexibility;
Center for Disease Control, Global Immunization Division (CDC, GID)
CDC Internship #1

Supporting the Work of the Global Measles Elimination

Background:

In 2012, the World Health Assembly endorsed the Global Vaccine Action Plan (GVAP), with the objective to eliminate measles in four World Health Organization (WHO) regions by 2015, and in five regions by 2020. Measles infection results in an illness characterized by fever and rash, and severe cases can result in pneumonia, blindness and death. WHO has estimated that 114,900 measles deaths occurred globally in 2014, and 267,482 cases were reported worldwide through case-based reporting. Thus, despite a 79% decrease in measles mortality and a 73% decline in measles incidence during 2000-2014, from 146 to 40 cases per million population, measles continues to be a major source of morbidity and mortality worldwide. Measles vaccination has prevented an estimated 17.1 million deaths during 2000-2014, but immunity gaps still exist. In 2014, the estimated coverage with the first dose of measles-containing vaccine (MCV1) was 85% globally. Only 154 (79%) countries had introduced a second dose of MCV by 2014, and global MCV2 coverage was 56%. Many countries administer MCV through mass immunization campaigns; however, data from administrative coverage and post-campaign coverage surveys suggest that most countries fail to reach the 95% coverage benchmark. Thus, much remains to be done to increase coverage to assure population immunity to measles, in order to reach the measles elimination goals.

Increasingly, measles incidence consists of a bimodal distribution, including infants <9 months of age (the usual recommended age for MCV1 administration in measles endemic countries) and older children and adults. In November 2015, the WHO’s Strategic Advisory Group of Experts (SAGE) on Immunization issued new guidance on administration of MCV among infants < 9 months of age and among HIV-infected children. Further work remains to be done by SAGE on the potential impact of conducting mass vaccination campaigns on children 5 years of age and older and other means of closing immunity gaps. These analyses are ongoing, and include evaluation of the impact of measles immunization strategies (such as mass immunization and introduction of MCV2) on measles incidence, epidemiologic analyses of age-distribution of cases, and the correlation of age-specific measles incidence with immunity gaps from serological surveys. Novel strategies addressing means to close immunity gaps in all age groups will become increasingly important as a tool for measles elimination.

In addition, in December 2015 the Gavi Alliance Board approved a new package of support for measles and rubella, including an integrated package of support for MCV campaigns, outbreak response funds, support for measles-rubella vaccine (MR) introduction and MCV2 introduction. Gavi-eligible countries will be able to apply for MR support through approval of 5 year MR strategic plans. At this stage, much work remains to be done to develop guidelines to operationalize the design of the 5 year MR strategic plans. These strategic plans will be important guideposts to help the countries succeed in their national and regional elimination goals.

PAVE interns will be supporting the CDC measles team in the analytic and programmatic projects listed below.

Scope of work*:

- Support the analytic work of the SAGE MR working group as described above
- Assist in the analysis of measles serosurveys in relation to measles epidemiology
- Assist in the review and analysis of data to support the introduction of MCV2
- Assist in conducting post MR campaign surveys including analysis of coverage data
- Assist in designing programmatic guidelines for developing MR strategic plans for Gavi support
- Support transition of polio-affected countries to measles elimination focus

Skills necessary:

- Languages: fluency in English
- Computer skills: Proficiency in Microsoft word, Excel, PowerPoint and email.
- Experience in the field of vaccinology and immunization
- Background in epidemiology, capacity to analyze data (quantitative)
- Good writing skills

*The exact project will depend on the status of interim progress and the program needs in relationship to the timing and duration of the internship and the interest and skill set of the intern.
PAHO Internship #1

Supporting capacity development around evidence-based immunization policymaking in Latin America and the Caribbean

Background

Vaccines are among the most cost-effective health interventions available. However, resources for health are scarce in many countries and governments must make rational resource allocation decisions to maximize the use of public monies to achieve the most health possible for their populations. Many factors at a national level may influence the degree to which a vaccine is considered ‘good value’ for money, including extent of the health problem (disease burden), price of vaccine available to the country, cost of healthcare and other epidemiological issues. Therefore, the Pan American Health Organization has developed a capacity-building effort to train Member States on the development and use of cost-effectiveness analyses to inform their own national decisions called the ProVac Initiative.

This Initiative aims to develop tools for economic evaluations and provide training to public health professionals on their use. ProVac is currently developing a new tool to compare multiple vaccines within a single framework. This tool, called UNIVAC, will be launched at a regional workshop in late 2015. Additional training and technical assistance support will be needed at country-level to implement this tool and others.

Scope of work

- Assist in testing and reviewing a beta version of the UNIVAC, Excel based, cost-effectiveness tool to evaluate Hib, rotavirus, pneumococcal conjugate and human papillomavirus vaccines.
- Support the development of virtual training exercises
- Test training exercises
- Support the development of introductory materials for training exercises
- Perform other duties as needed, such as literature searches for default data

Desired skills and experience

Proficiency in English and Spanish (advanced reading level at very least)

Experience with literature searches; use of PubMed and other database search resources

Basic knowledge of health economics concepts

Experience or desire to learn about immunization in low- and middle-income countries

Name of Supervisors

Cara Janusz

PAHO, FGL/IM