ProVac

Tools for evidence-based decisions on new vaccines

Pan American Health Organization

World Health Organization
REGIONAL OFFICE FOR THE Americas

Overview of the **ProVac Initiative**

Updated Dec. 2017

Goal of the ProVac Initiative

Strengthen **evidence-based decision making** on immunization to sustain and further the public health impact of **immunization programs**

ProVac's objectives

1. Develop tools and methods to support evidence-based decision making on immunization
2. Provide training to national multidisciplinary teams on tools and methods for evidence-based decision making on immunization
3. Generate evidence by providing direct technical support to national teams and groups responsible for making immunization policy recommendations

ProVac's areas of work

1. Economics of new vaccine introduction
2. Performance optimization of immunization programs
3. Post-introduction evaluation of vaccine impact
4. Strengthening of National Immunization Technical Advisory Groups (NITAGs) and PAHO's regional Technical Advisory Group on vaccine-preventable diseases (TAG)

What makes ProVac unique?

- ProVac does not only provide technical support to countries, but also builds in-country technical capacity by bringing together local experts from the ministries of health, other governmental agencies and academic centers.
- ProVac's approach to preparing and facilitating national economic analyses promotes country ownership of the process and of the findings. The end result is evidence-based decision making that is more likely to sustain the public health impact of the immunization program.
- The ProVac team is characterized by its technical expertise in economics, epidemiology and decision-support modeling. The team also has a deep understanding of the challenges faced by low and middle income countries when trying to make informed and timely immunization policy decisions. It includes members from PAHO's technical officers on immunization, the London School of Hygiene and Tropical Medicine (LSHTM), and the Center for Health Decision Science at the Harvard School of Public Health, as well as academic institutions in the Region of the Americas.
- ProVac models and tools are currently open access resources and have been used in partner collaborations to support countries in other regions of the world.

Key achievements

Training and direct technical **support** to countries for over **10 years**

300 participants from **25** countries were trained through **regional workshops** on vaccine economic evaluations

43 Country-level vaccine **cost-effectiveness** analyses

4 program **costing** studies

20 **NITAGs** strengthened through direct support

ProVac supports evidence generation to inform key immunization policy and programmatic decisions:

Before vaccine introduction	After vaccine introduction
• Estimation of disease burden and associated costs • Modelling incremental vaccine benefits, risks and costs • Cost-effectiveness analysis (CEA) • Budget impact analysis	• Post-introduction evaluation of vaccine impact (health and economic)

TIMELINE

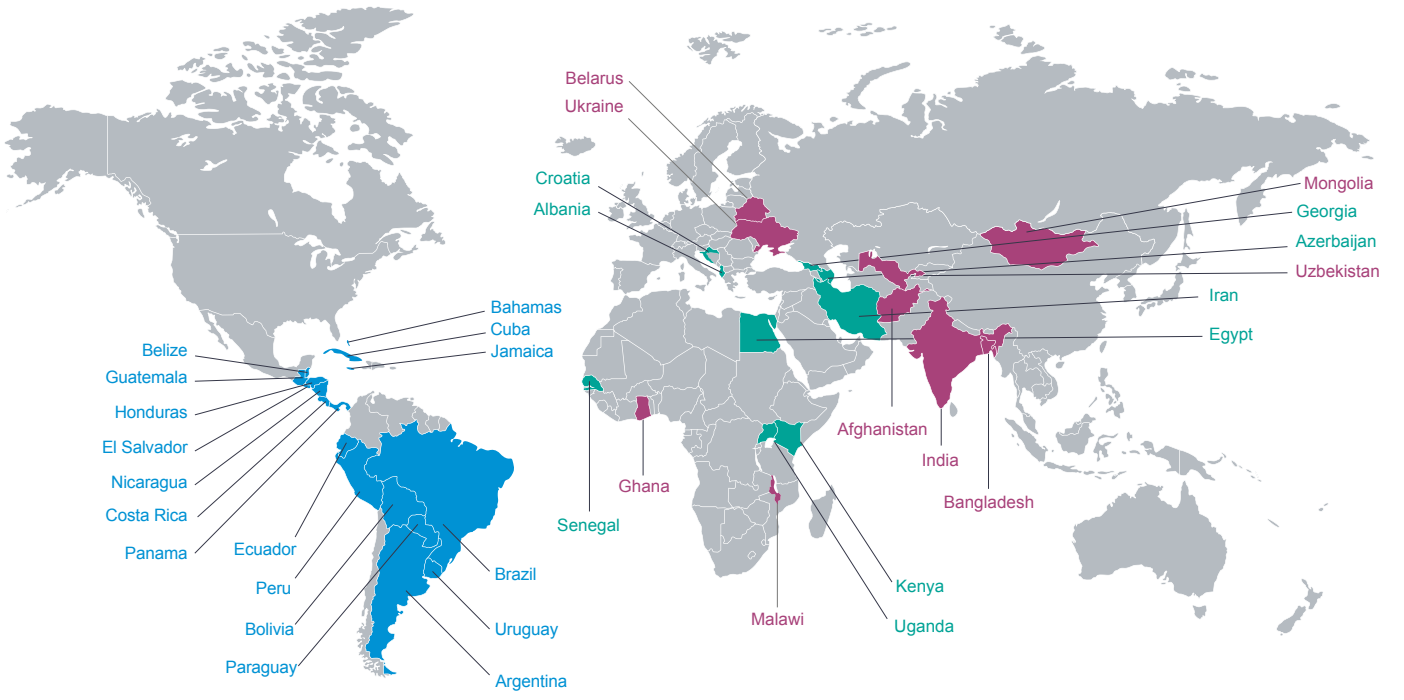
At any point:

- NITAG strengthening
- Immunization program costing
- Program performance optimization

Geographic scope

ProVac is a PAHO-based initiative that provides training and direct support to countries for national data collection and analyses in addition to conducting regional desk-based analyses. Although the initiative primarily focuses on countries of the Americas, tools and lessons learned have been shared with other regions of the world.

- Analyses with PAHO support
- Analyses with the ProVac International Working Group
- Analyses with support from other institutions



Specific activities ProVac supports

ProVac's objectives	ProVac's areas of work			
	Economics of new vaccine introduction	**Performance optimization of immunization programs**	**Post-introduction evaluation of vaccine impact**	**TAG strengthening**
1 Develop tools and methods to support evidence-based decisions on immunization	• Cost-effectiveness of new vaccines (UNIVAC model) • Includes estimation of disease burden, incremental program costs, potential disease costs averted.	• Total immunization program costing (COSTVAC tool). • Methods to evaluate strategies for vaccination coverage improvement.	• Guidance documents and standardized protocols for the evaluation of epidemiologic and economic impact.	• Guidance documents on processes and methods for evidence synthesis for NITAGs and the Regional TAG
2 Provide training to national teams on tools and methods for evidence-based decisions on immunization	• Workshops on the above topics.	• Workshops on the above topics.	• Workshops on the above topics.	• Exchanges between NITAGs • Trainings around evidence synthesis
3 Generate evidence for decision making on immunization by providing direct support to countries and performing regional desk exercises	• Country support for CEAs.	• Country support for immunization program costing, and efficiency studies.	• Country support for study implementation	• Suppport for evidence synthesis
	• Desk-based exercises to inform price negotiation, opportunity costs, regional recommendations	• Desk-based exercises to inform regional recommendations.	• Desk-based exercises to inform regional recommendations.	• Desk-based exercises to inform regional recommendations

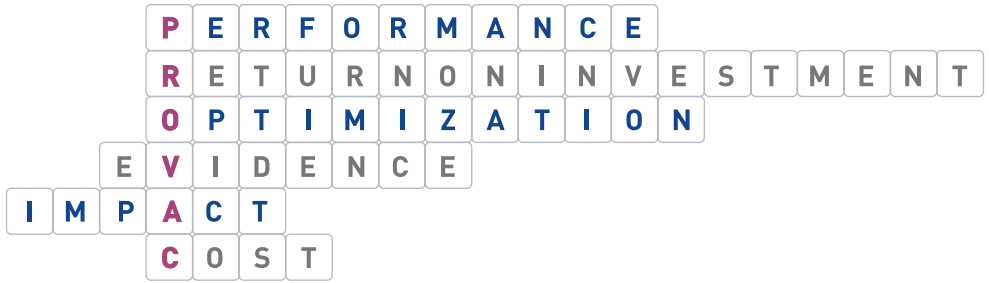
Examples of questions ProVac helps answer

- **Cost-effectiveness**
  - Is it cost-effective to introduce vaccine X in my country?
  - Is substituting vaccine X for Z cost-effective in my country?
  - Is reducing vaccine X's schedule from 3 to 2 doses a cost-effective strategy?
- **Performance optimization**
  - What is the total cost of the current immunization program in my country?
  - What are the bottlenecks in achieving optimal program performance?
  - Is X or Y a more cost-effective strategy for improving vaccination coverage in my country?
- **Post-introduction impact**
  - What is the epidemiologic and economic post-introduction impact of vaccine X in my country?
  - What are the broader economic benefits of the introduction of vaccine X?
- **Evidence synthesis and advisory body strengthening**
  - How do I conduct evidence synthesis to inform decision making on new vaccine introduction?
  - How do I document an evidence-based decision process?

The ProVac e-Toolkit

The ProVac e-Toolkit is an open-access repository for all finalized models, tools, guidelines, and publications relevant to the work of ProVac. It is used by partners, academics and other researchers. It can be accessed at:

www.provac-toolkit.com



Partners and collaborators:

Federal University of Goiás, Brazil

For further information, please contact:

Nathalie El Omeiri

ProVac Initiative
Comprehensive Family Immunization
Family, Gender and Life Course Unit
PAHO/WHO
525 23rd St NW, Washington DC 20037
+1-202-974-3130
elomeirin@paho.org