

Lessons From the Americas: Experiences with New Vaccines Introductions

Cuauhtémoc Ruiz-Matus Senior Advisor, Immunizations FCH/IM





Main topics

Background

- PAHO support to Member countries
- New Vaccine introduction
- New Vaccines Epidemiological Surveillance
- Introduction schedules PCV/Rotavirus

Lessons Learned

- Decision Making
- Vaccination Schedules
- Interchangeability of vaccines
- Conclusions





Activities that PAHO Supports for the Introduction of New Vaccines

- Collaboration in the development of national plans to strengthen operational capacities and to prepare human resources, the cold chain, waste management, etc.
- Efforts to strengthen integrated epidemiologic surveillance systems and the laboratory network (pre and post introduction)





Activities that PAHO Supports for the Introduction of New Vaccines

- Capacity building for cost-effectiveness analysis (ProVac)
- Legal and financial sustainability
- Strengthening of the Revolving Fund
- Alliances with partners
- Research and generation of scientific evidence





Year of the universal introduction of PCV, rota and HPV vaccines Countries and territories on Americas, November 2012

Year	Rotavirus: 16 countries/territories	Pneumococcal: 21 countries & 5 territories	HPV: 7 countries
2000	NA	USA	NA
2002/2003	NA	CAN 2002 BER 2003	NA
2006	BRA, ELS, USA, MEX, NIC, PAN, VEN	-	USA
2007	ECU	COR	CAN
2008	BOL	MEX, URU, GUY FRA	PAN
2009	COL, HON, PER, CAYMAN ISL.	PER, BAR, CAYMAN ISL	-
2010	GUT, GUY, PAR	ARU, BRA, ECU, ELS, PAN, NIC	-
2011	-	HON, GUY, CHI, COL, CUR	PER, ARG, MEX
2012	DOR	ARG, BAH, GUT, PAR, TRT	COL

"New Vaccines" in the Americas

According to data from the Joint WHO-UNICEF report for 2011

Rotavirus

 86% of the birth cohort in the Region were in countries that had already included the rotavirus vaccine into its regular program

<u>Pneumococcal</u>

 81% of the birth cohort in the Region were in countries that had already included the pneumococcal vaccine into its regular program

HPV

 51% of girls aged 10 -14 years live in countries that have included the HPV vaccine





Epidemiological surveillance Rotavirus and bacterial pneumonias/meningitis Region of the Americas, reported data to PAHO, 2011

Hospital sentinel surveillance	Countries
Rotavirus Diarrhea: 16 countries: 95 sentinel sites	BOL, BRA, CHI, COL, ELS, ECU, GUY, GUA, HON, NIC, PAN, PAR, PER, SUR, StV, VEN.
Bacterial pneumonias/meningitis 11 countries: 40 sentinel sites	BOL, ELS, HON, ECU, GUA, PAN, PAR, PER, VEN BRA (meningitis)







PCV introduction in Latin America and the Caribbean

- Different vaccination schedules
 - 3+0; 2+1; 3+1; with and without catch up
- Interchangeability of vaccines from different manufacturers (different carriers)
 - PCV 7 & PCV 13, PCV10
- Introduction of the vaccine based on different criteria:
 - high risk groups
 - poorest areas
 - higher mortality





Rotavirus introduction in Latin America and the Caribbean

- 2 different vaccines:
 - Monovalent Human
 - Pentavalent bovine-human reassortant
- Vaccine schedule: 2, 4, 6 months (pentavalent vaccine)
 2 and 4 months (monovalent vaccine)
- Upper age limit for administering the vaccine:
 - 15 weeks for the first
 - 32 weeks for Pentavalent
- Introduction of the vaccine based on different criteria:
 - high risk groups
 - poorest areas
 - higher mortality







Lessons Learned Decision-making

Essential

- Burden of disease evidence before introduction of the vaccine
- Vaccine introduction Plan
- Political advocacy Promotion

Important

- Disease surveillance before & after vaccine introduction
- Integration among EPI, epidemiological surveillance and laboratory
- NITAGs technical support in the decision of the vaccine introduction
- Vaccine laws to ensure vaccine sustainability
- Development of a permanent policy for the introduction of other vaccines





Lessons Learned Vaccination schedules

Essential

- Pneumonia and meningitis data specifically for age groups in order to choose the best schedule
- Coordination between EPI and ARN regarding vaccine registration in the countries

Important

- PAHO and WHO must recommend the best schedule before vaccine introduction in countries
- Inclusion of the new vaccine in the regular schedule
- Communication plan is just as important as technical plan
- Cold chain evaluation at different levels considering the volume of vaccines with different schedules





Lessons Learned

Interchangeability of different vaccines

Essential

- Scientific evidence regarding interchanging vaccines
- Countries should have a plan in order to avoid interchanging vaccines in some children
- Strengthen information system in order to register the different vaccines

Important

- Training of health workers at all levels on the different vaccines and schedules
- Revolving Fund is the best choice for the countries in order to buy vaccines with affordable prices and quality





Lessons Learned Number of vaccine doses: estimation for year of introduction

Essential

- The denominator should be 100% of the birth-cohort, using information from all available sources
- The year of the introduction of the new vaccine must be planned in detail with the cohort chosen to vaccinate, as well as whether or not to give catch-up doses

<u>Important</u>

- The percentage of vaccine loss must be based on past experiences of vaccine presentations used
- The target population, number of vaccine doses and other supplies should be included in guidelines and manuals at all levels





Conclusions

- The Region of the Americas is first to introduce rotavirus vaccine
- The experiences shared helped vaccine introduction in other countries and the introduction of other new vaccines
- Regional networks such as surveillance and adverse events contribute to provide information and evidence for decisionmaking
- Country participation on scientific and multi collaborative studies to evaluate effectiveness and safety of new vaccines
- Cost-effectiveness studies improves decision-making
- Introducing new vaccines at a universal level allows impact evaluation, reliable vaccination coverage and vaccination access equity





Conclusions

- Surveillance and burden of disease before and after introduction of vaccine and monitor the impact of these new vaccine
- NITAGs supporting country decisions
- Programmatic issues: cold chain evaluation; training; vaccine schedules; information system; AEFI system must be included in plan of the introduction
- Communication plan for health workers and population helps in the success of introduction process
- PAHO/WHO recommendations regarding schedules and vaccines help the country in decision-making
- Revolving Fund is the best mechanism to buy vaccines in the Region of the Americas





Thank you







