

CENTER FOR VACCINE
INNOVATION AND ACCESS

Dynamics of vaccine uptake in developing country markets:

Achieving impact through
successful partnership-a case study
with JE vaccines

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Policy, Access, & Introduction

October 26, 2016



PATH/Gabe Bienczycki

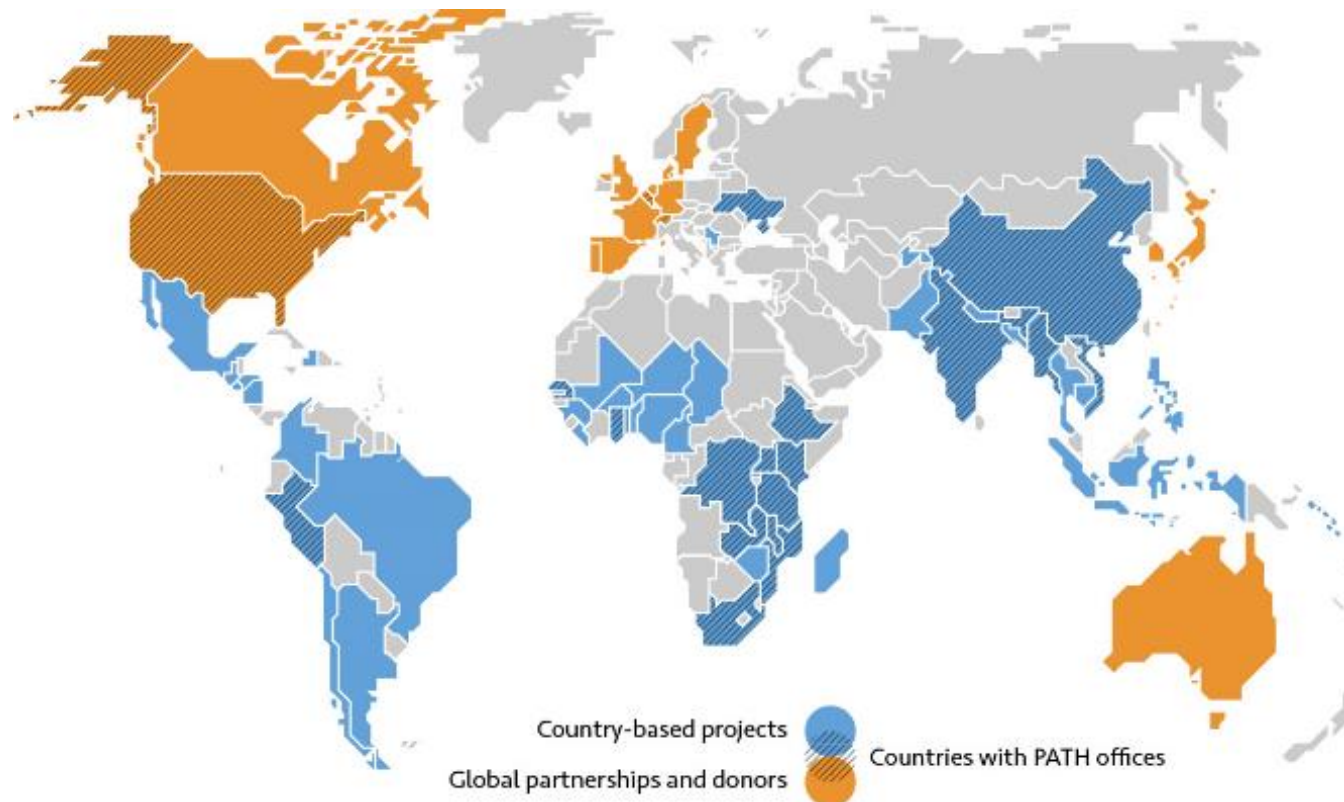


DCVMN Annual General Meeting

Buenos Aires, Argentina

PATH snapshot

Work in more than 70 countries. 150 million people reached each year on average.



We harness our
entrepreneurial insight,
scientific and public
health expertise, and
passion for health
equity...

...to save the lives
of women and children.

6 billion vaccine vial

monitors ensuring that vaccines
are potent when given

6.3 million people

reached with rice fortified
with critical micronutrients

6.2 million lives saved

with PATH-pioneered approaches
to malaria control

PATH's Center for Vaccine Innovation and Access

CVIA's primary objective is to accelerate the development and introduction of lifesaving vaccines for optimal public health impact in the world's lowest resource settings. We focus on vaccines that protect women and children from the leading causes of disease and death.

DISEASE AREAS

Enteric and Diarrheal Diseases

rotavirus • enterotoxigenic *Escherichia coli* • *Shigella ssp.* • poliovirus

Malaria

Plasmodium falciparum • *Plasmodium vivax*

Respiratory Infections and Maternal Immunization

pneumococcus • meningococcus • group B *streptococcus* • *B. pertussis* • influenza virus • respiratory syncytial virus

Zoonotic, Emerging, and Sexually Transmitted Infections

human papillomavirus • Japanese encephalitis virus • dengue virus • yellow fever virus • outbreaks

Our work spans the entire vaccine development and delivery spectrum



RESEARCH/DESIGN

- Identify potential vaccine leads and approaches
- Conduct initial candidate evaluations
- Address country needs and priorities in product development

DEVELOP/VALIDATE

- Assess proof of concept/efficacy in low-resource settings
- Generate evidence for regulatory review and approval
- Support quality manufacturing and adequate supply

APPROVE/RECOMMEND

- Facilitate World Health Organization prequalification and regulatory approval at national level
- Enable evidence-based decision making for public financing and global and national policies

INTRODUCE/OPTIMIZE

- Support countries on planning, preparation, and introduction
- Capture learnings from early adopters
- Ensure sustainable supply

SCALE-UP/APPLY

- Facilitate wide-scale use
- Measure impact

Japanese encephalitis
vaccine impact:

Achieving success
through collaboration



Japanese encephalitis (JE): A brief introduction

- JE: mosquito-borne flavivirus; closely related to dengue and West Nile viruses.
- Leading viral cause of encephalitis in Asia.
- Nearly 3 billion people live in JE-endemic regions.
- Children and rural poor suffer the greatest disease burden.



Solomon T, Dung NM, Kneen R, Gainsborough M, Vaughn DW, Khanh VT. Japanese encephalitis. *J Neurol Neurosurg Psychiatry*. 2000 Apr;68(4):405-15.

6th PATH-CNBG Overall Steering Committee Meeting
10th Anniversary of Partnership

第六届中生-帕斯全方位指导委员会会议——合作十周年纪念



Our Partnership with Chengdu Institute of Biological Products (CDIBP)

- Partnered on pivotal clinical trials to establish vaccine safety and immunogenicity outside of China
- Provided technical and financial support to pursue WHO prequalification and meet rigorous international standards of quality, safety, and efficacy
- Assisted in the design and financing of a new manufacturing facility to ensure high-quality, adequate, stable vaccine supply, while scaling up production for international export
- Provide continued technical and manufacturing support to advance vaccine availability and maintain good manufacturing practice standards
- Established a low, public-sector vaccine price for JE-endemic countries through our collaborative agreement
- Monitor JE vaccine supply to meet country demand

Historic Moment: JE Vaccine WHO Prequalification

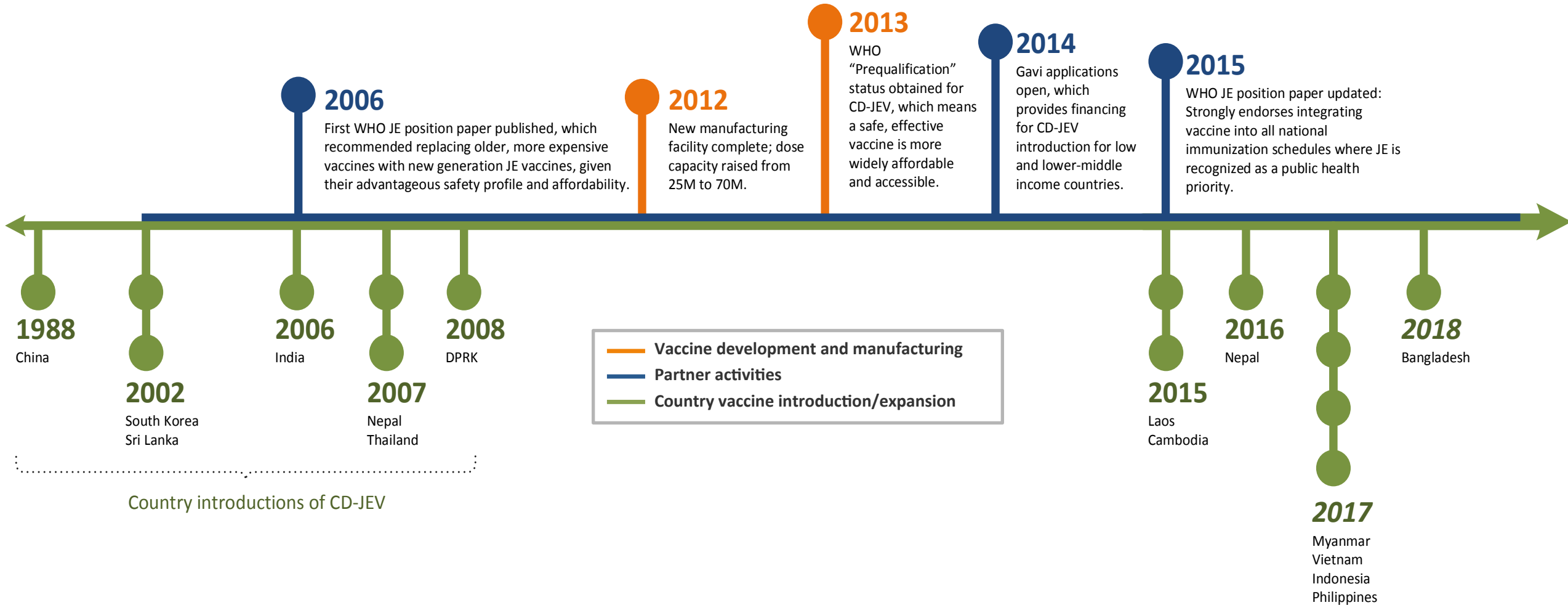


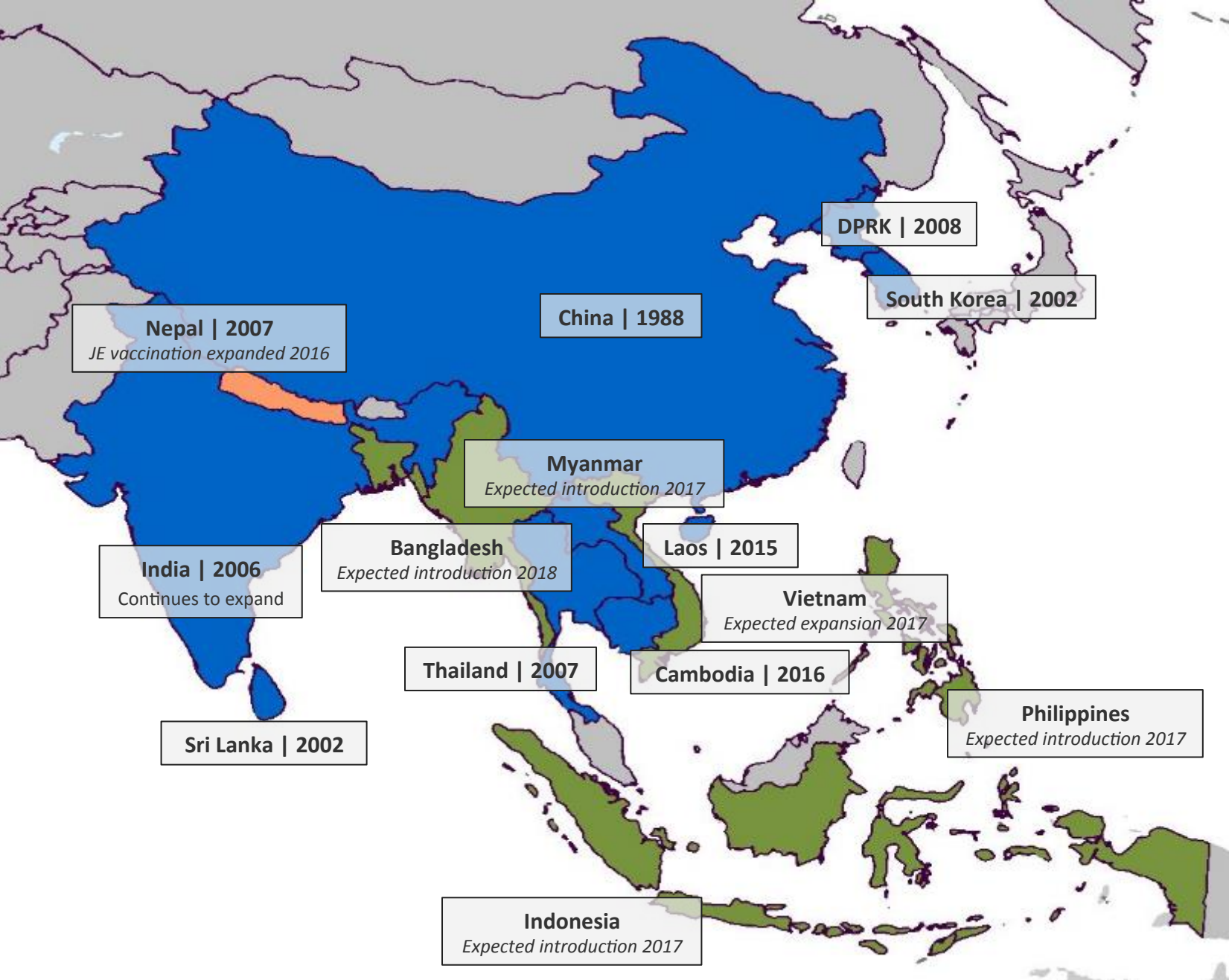
Other Key Wins

- A **180 percent increase** of CDIBP's JE vaccine annual production capacity as result of a newly constructed, GMP-compliant facility
- CDIBP can produce **70 million doses per year on average**, versus the 25 million doses per year produced in the older, recently-retired facility
- Within months of WHO PQ, **Gavi opened a funding window to support JE vaccination catch-up campaigns** for children less than 15 years of age
- From 2003 – 2017, an **estimated 308 million children** outside of China will be vaccinated by CDIBP's vaccine
- Through recent negotiations of a fair public health price that reflects actual vaccine production cost at CDIBP, we increased the likelihood of vaccine uptake by all countries with a high JE burden, not just Gavi countries. It also ensured sustainable vaccine production until 2033. **CDIBP's JE vaccine remains one of the most cost effective vaccines on the market.**



Key Milestones in JE Control and Prevention





Note: Years correspond to year that CD-JEV was incorporated into childhood vaccination programs



Thank you!

Questions?