

Developing Countries' Vaccine Manufacturers' Network International

Improving vaccination for all people



Developing Countries Vaccine
Manufacturers Network

Mission: our purpose and mandate



- To **protect all people** against known and emerging infectious diseases, by **improving the availability of high-quality vaccines** globally.

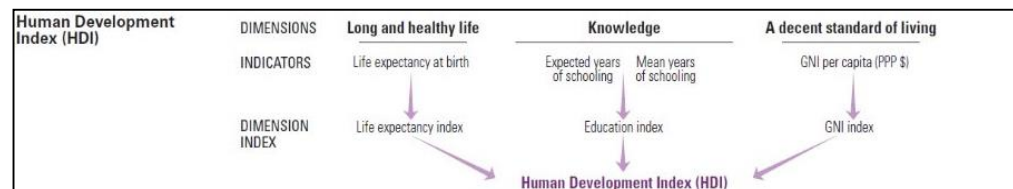
DCVMN International

- It is a **voluntary, non-governmental, non-partisan, not-for-profit, public health driven** alliance of vaccine manufacturers, research and policy organizations from all over the world.
- Operates based on **principles of international scientific, technical and economic cooperation.**

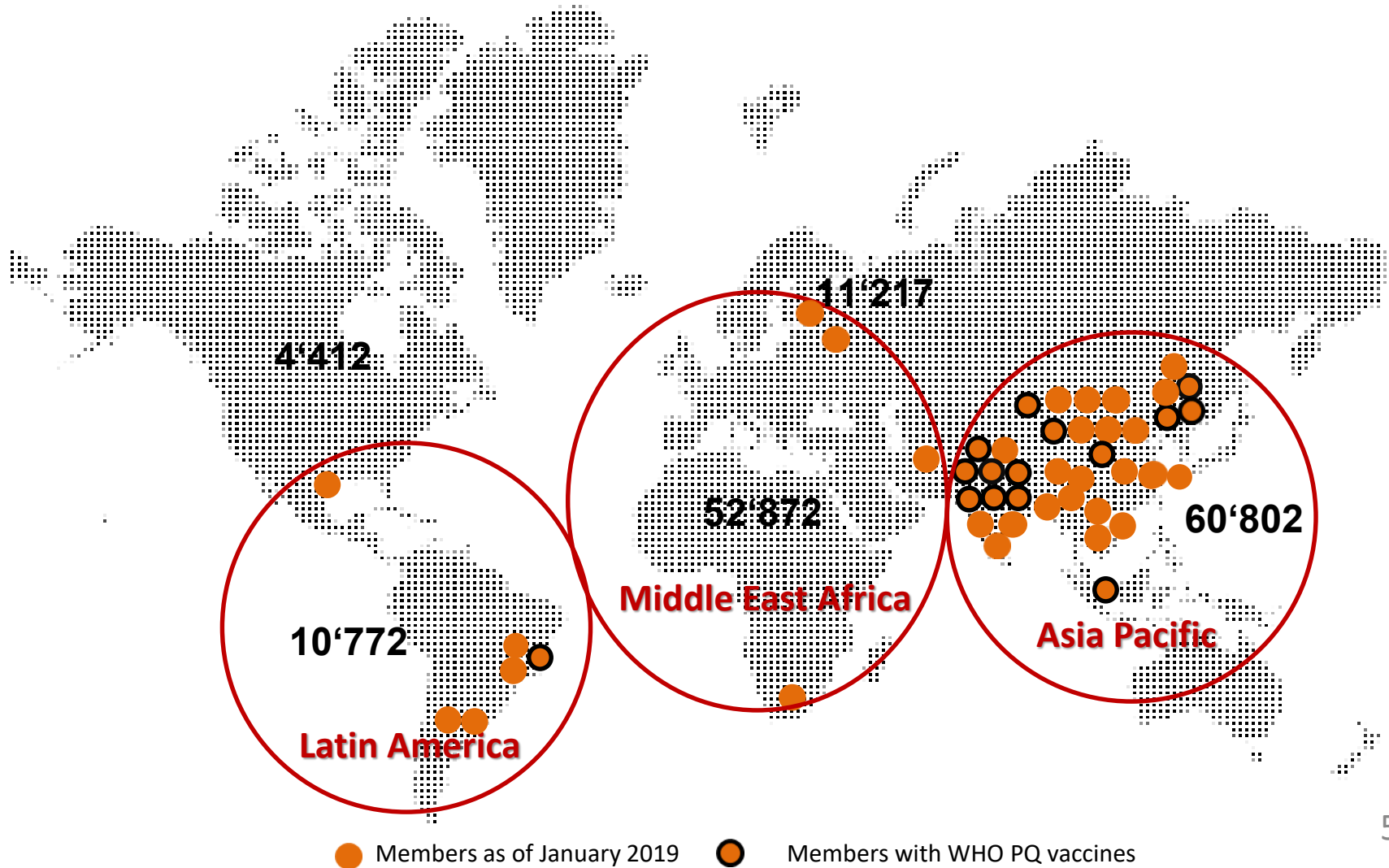
Developing Countries Economies



- developing economies according to the UN & IMF
- transitioning to developed economy



DCVMN 2019: 45 manufacturers from 14 countries/territories



number of birth cohorts 2015 regionally are indicated in black (x1000)

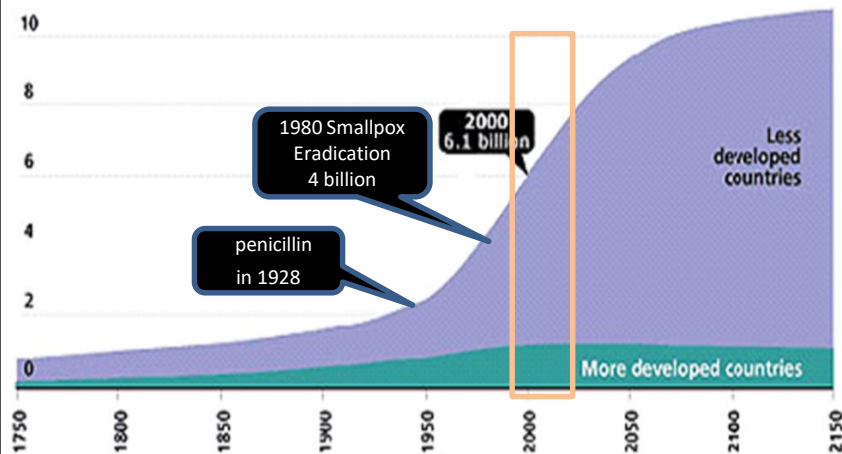
http://www.who.int/immunization/monitoring_surveillance/data/en/

Our Challenge : vaccination to all people

Our Chance: partnerships

The developing world needs more vaccines

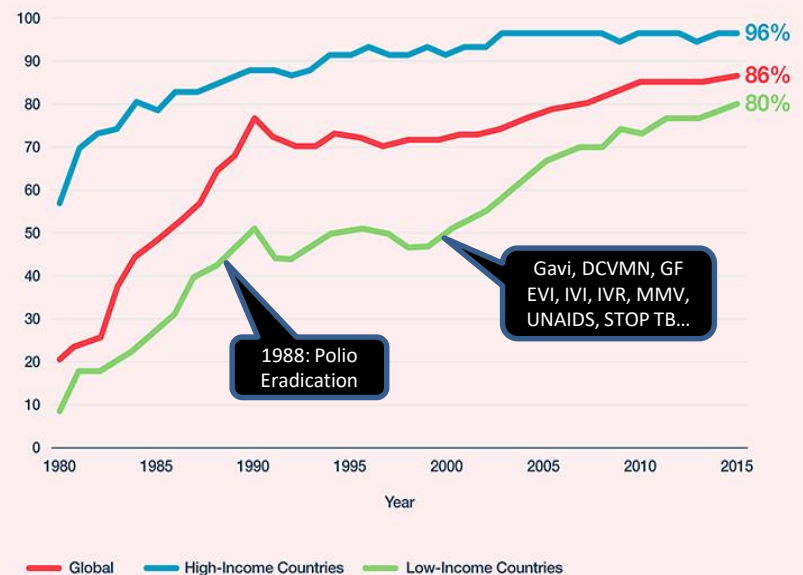
World Population Growth, 1750-2150
Population (in billions)



Source: United Nations, *World Population Prospects, The 1998 Revision*; and estimates by the Population Reference Bureau.

Global Vaccination Coverage at Its Highest

Coverage with three doses of diphtheria-, tetanus-, and pertussis-containing vaccines (DTP3), by country income levels, 1980-2015

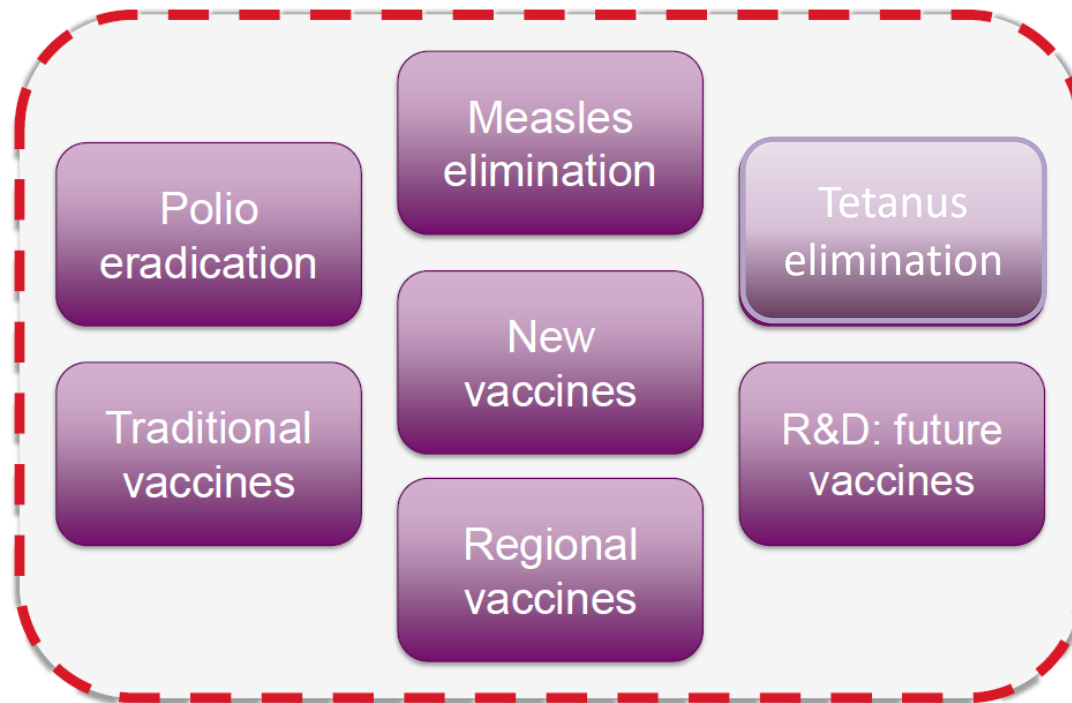


Source: WHO/UNICEF

<https://www.gatesnotes.com/2017-Annual-Letter>

DCVMN Contributions to the Global Vaccination Landscape

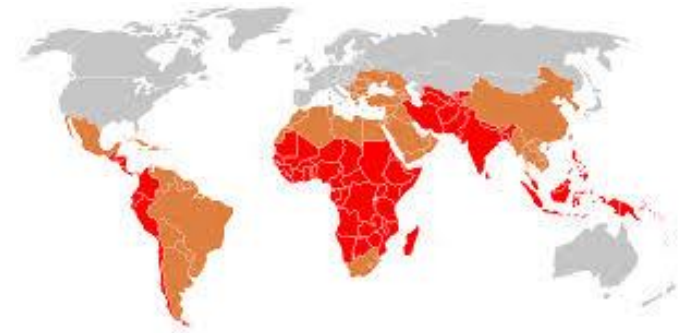
Synergies and shared learnings



*GAVI Alliance Board meeting
Dhaka, 16–17 November 2011*

DCVMs preventing regional infectious diseases

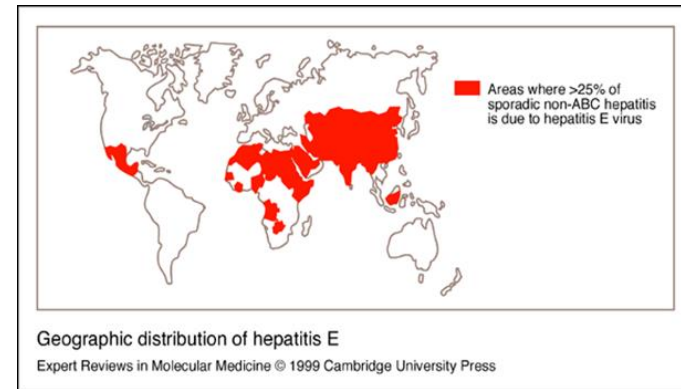
New conjugated Typhoid Fever vaccines



MenAfriVac™



Hepatitis E vaccine



Japanese encephalitis



Yellow Fever Vaccines



EV-71 Enterovirus, HFM

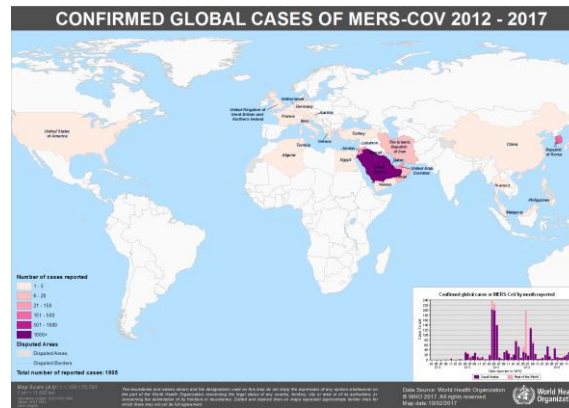


Outbreaks with epidemic potential

Ebola



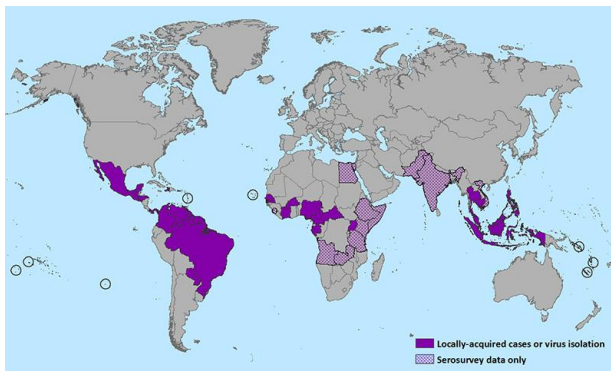
MERS



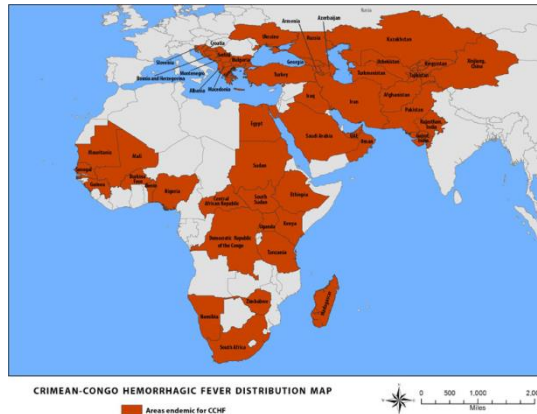
LASSA



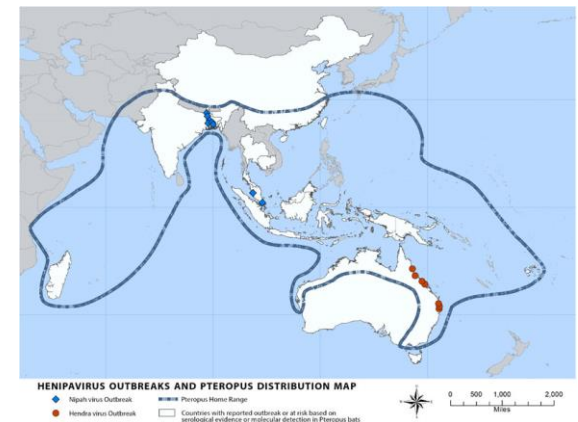
ZIKA



CCHF



NIPAH



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Initiatives to Support DCVMN Members to improve vaccine supply globally

Proposal 2019-2021

BILL & MELINDA
GATES *foundation*

Initiatives to Support Members



BILL & MELINDA
GATES *foundation*

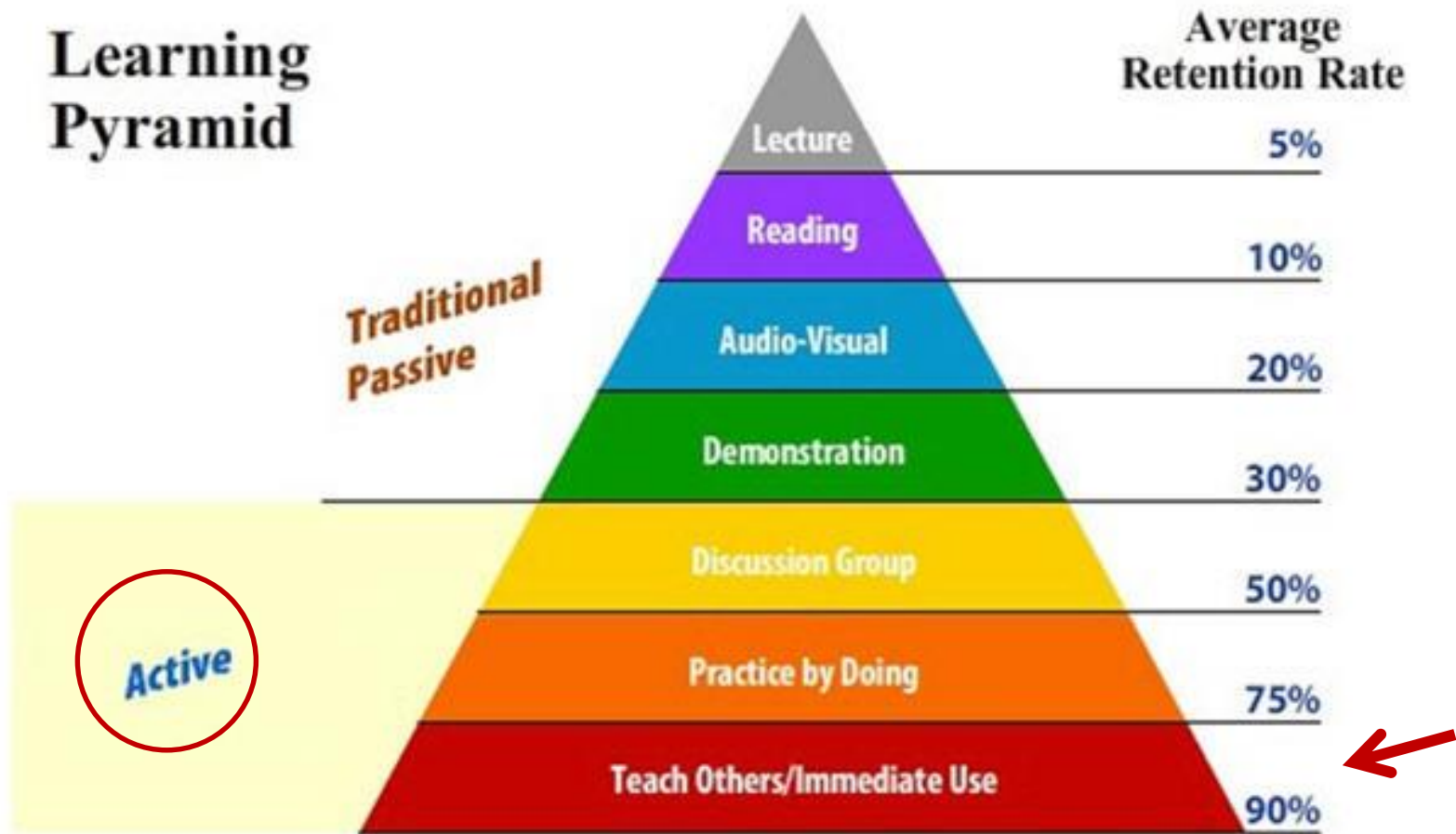
Our main 3 goals are to:

- A) build **technical capabilities** and strengthen capacity of MFs to produce and deliver quality vaccines across the long-term,
- B) proactively engage DCVMN members on priority issues shaping the broader landscape (e.g., **regulatory knowledge**, supply chain, etc.) and
- C) establish more systematic and **proactive dialogue with international bodies** to shape the thinking on high priority DCVM issues.

Interviews and extensive discussions were conducted with members and 6 initiatives were **recommended:**

1. Training: Expand current QMS programs to include training on GMP, GCP, GLP, GDP, PV, and other issues as they arise
2. Expert networking: best-practice sharing, peer to peer communications through expert working groups and hands-on training
3. **Support established efforts to advance regulatory convergence approaches on a regional basis**
4. Increase access to international expert consultants for needed ad hoc support
5. Use AGM to engage members on new technology adoption
6. Support for pharmacovigilance (PV) projects to enhance vaccines safety monitoring

1. Teach to Reach



Source: National Training Laboratories, Bethel, Maine

2. Expert Networking

- Enhance **best-practice sharing**, and peer to peer communications through expert working groups and hands-on training, as possible
 - Supply-chain experts working group
 - QC assays & technologies
 - Biosafety/Biosecurity expertise
 - Formulation & filling expertise
 - Clinical studies
 - Etc...

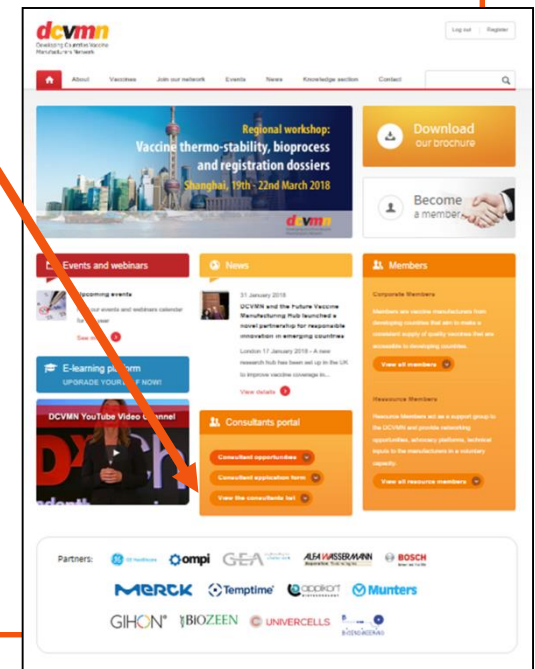
3. Foster dialogue to advance regulatory convergence approaches

Challenges to registrations were identified by an independent expert consultant and discussed with members

- ✓ Create **consensus among manufacturers from both DCVMN-IFPMA** on key points for dialogue before communicating with NRAs
- ✓ Two papers published to increase awareness of challenges and solutions
- ✓ Supporting engagement of DCVMs in regulatory open discussions at stakeholder meetings, as for example:
 - **AVAREF, ICDRA, ASEAN, PANDHR, CoRE** as appropriate
- ✓ Study on changes/variations to improve vaccines' access

4. Access to International Experts

- **DCVMN's Consultants Portal at www.dcvmn.org**
- Consultants register themselves in the DCVMN database
 - Centralized pool of expertise
 - Transparency on qualifications
 - Consultants based in 22 countries
 - Declared availability to DCVMN and to Members
 - Not working for other manufacturers and “moonlighting”
- > 100 registered consultants; ca. 50% already “engaged” by DCVMN



5. Engage members on innovative technologies adoption

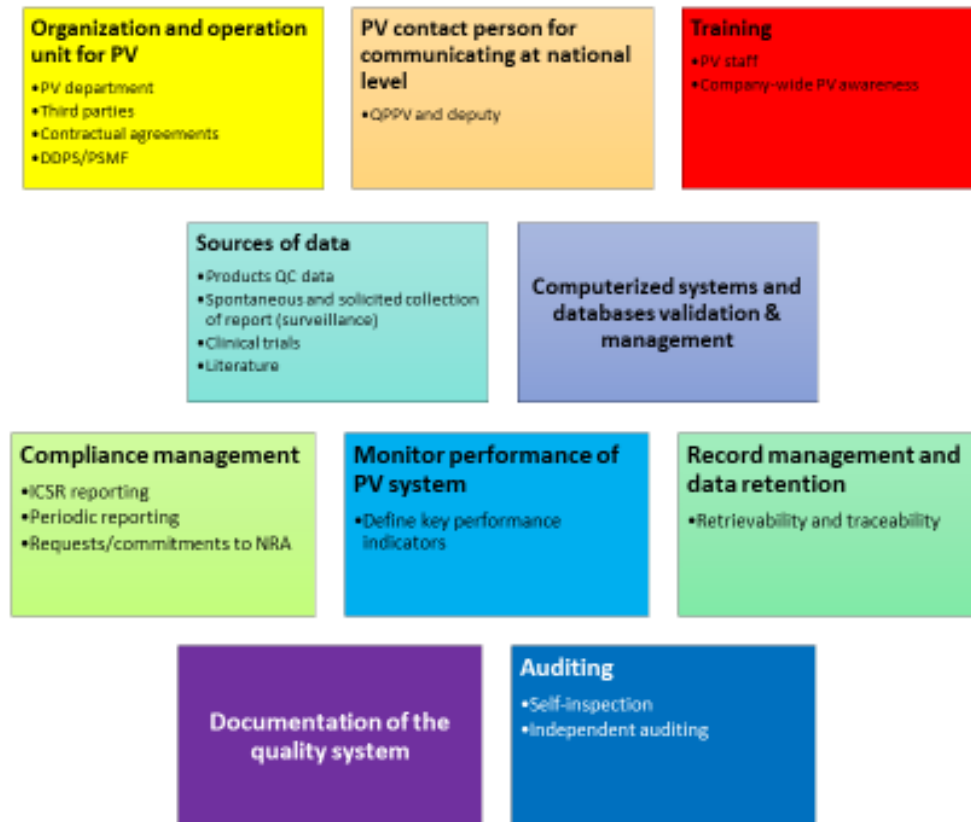


30th October 2018, AGM,
Bill Gates: “looking forward to the partnerships
we can have over the next decade”

https://www.dcvmn.org/IMG/pdf/bill_gates_kunming_video_news.pdf

6. Pharmacovigilance (PV) to improving vaccines safety monitoring

Building Blocks of Efficient Quality Systems for Pharmacovigilance*



*Courtesy of O. Menang, PATH

Memberships and Strong Partnerships towards building healthy countries

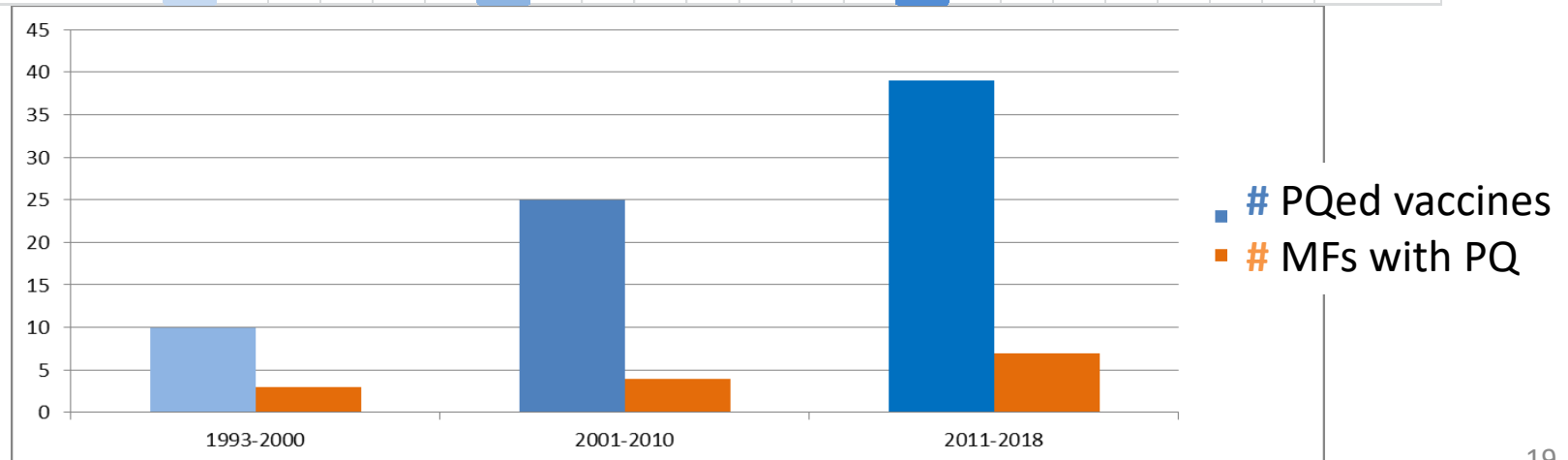


Credit: <http://www.vibincblog.com/?tag=partnership>

“Coming together is a beginning;
keeping together is progress;
working together is success.”

Number of DCVMs PQed vaccines over 25 years:

Manufacturer/Year	1993	1995	1996	1997	1999	2000	2001	2003	2004	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	PQ vaccines	
Bharat/India																			1		2	1	4	
BioE/India													1		1	2	1	2		1		1	9	
BioM/Brazil							1				1												2	
CNBG/China																	1				1		2	
EuBiologics/Korea																			1		1		2	
GreenCross/Korea														1	1	1				1	1		5	
Green Signal/India																			1				1	
Haffkine/India										1			1	1									3	
LG Chem/Korea			1													1				1			3	
Panacea/India																	1					1	2	
Biofarma/Indonesia				2	2		1	1	2	1			1	1	1			1	1				14	
Serum Institute/India	1	3				1		2	1	2		1		3		1	1	2	1	1		2	22	
Sinovac/China																					1		1	
Total	13	1	3	1	2	2	1	2	3	3	4	1	1	3	6	3	5	4	5	5	4	7	6	70
# PQ vaccines	10						23								39									



(*Sanofi = 30; GSK = 17; Seqirus = 6; MSD = 4; J&J = 2; Pfizer = 2 among others MFs)

https://extranet.who.int/gavi/PQ_Web/

DCVMN Collaborating organizations and Partners

Imperial College
London

BILL & MELINDA
GATES foundation

Temptime®

GE Healthcare



MERCK



BIOENGINEERING

GEA



BIOZEEN



ALFA WASSERMANN
Separation Technologies

IQVIA™

Center for Vaccine
Ethics and Policy
UPenn | Wistar Institute | CHOP



BAUSCH+STRÖBEL®

GIHON

UNIVERCELLS



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Individually we are one drop, together we are an ocean

Ryunosuke Satoro

DCVMN International

www.dcvmn.org