



Webinar Series: The Role of Vaccination in
Maintaining Health and the Economy During
Pandemics

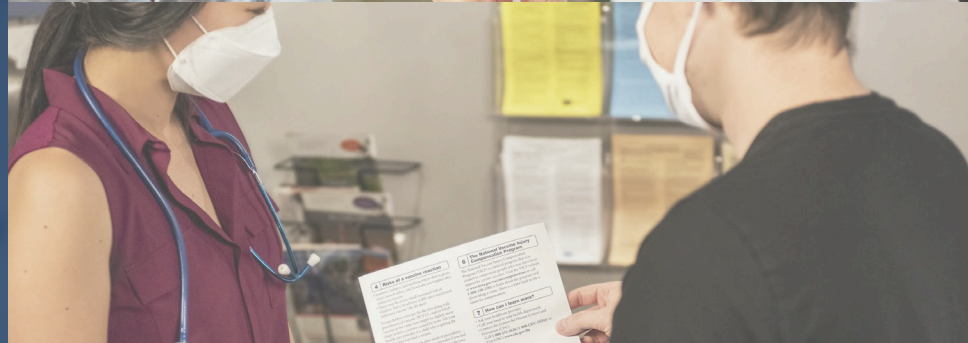
Cooperation to Secure Health & the Economy: The Arrival of the APEC Action Plan on Vaccination

<https://www.apec.org/vaccinestaskforce>

16 Sept 2021 21:00 (Washington, DC)

17 Sept 2021 9:00 (Singapore)

13:00 (Auckland)



Life-Course Vaccination & the COVID-19 Crisis

COVID-19 has affected immunization ecosystems in various ways:

- Significant immunization service interruptions (e.g., mass campaign suspensions, supply chain disruptions, etc.)
- Hesitancy as COVID-19 vaccines begin to enter the market
- Continuing and new immunization program financing needs
- Regulatory obstacles to effective and rapid delivery of vaccines

95% of economies in the Asia-Pacific region reported disruption to routine vaccination due to the COVID-19 pandemic.¹ The pandemic has resulted in **~23 million children globally** missing basic childhood vaccines through routine health services in 2020.²

The present moment offers APEC economies the opportunity to take action to help populations recover and revive economies in the wake of COVID-19, while also charting a course for more resilient and sustainable life-course immunization programs over the coming decade.

The Vaccines Task Force, through its recently endorsed action plan and 2021 programs, aims to support APEC economies to achieve the WHO Immunization Agenda 2030 (IA2030), with a focus on fostering vaccination across the life-course.

1) Harris, R., et al. Impact of COVID-19 on routine immunisation in South-East Asia and Western Pacific: Disruptions and solutions. <https://doi.org/10.1016/j.lanwpc.2021.100140>

2) WHO. COVID-19 pandemic leads to major backsliding on childhood vaccinations, new WHO, UNICEF data shows. <https://www.who.int/news/item/15-07-2021-covid-19-pandemic-leads-to-major-backsliding-on-childhood-vaccinations-new-who-unicef-data-shows>

APEC Action Plan on Vaccination Across the Life-Course

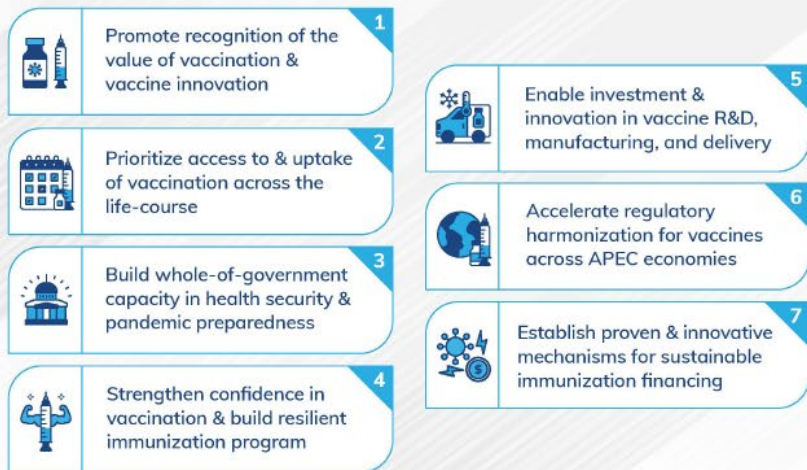
The APEC LSIF and HWG recently endorsed the Action Plan, a comprehensive strategy for enhancing the resilience and sustainability of life-course immunization programs in APEC member economies through 2030.

By 2030, all 21 APEC member economies will have implemented resilient and sustainable life-course immunization programs, with the objective of achieving widespread uptake of vaccination across the life-course and thereby protecting the health and wellbeing of all populations.



Core Recommendations of the APEC Action Plan on Vaccination Across the Life-Course

APEC economies should move to take measures to:



Under a life-course approach, immunization is recognized as a strategy to prevent diseases and maximize health over one's entire life, regardless of an individual's age. It is analogous to a life-course approach to nutrition and exercise.

Background



Vaccines save between 2 and 3 million lives every year, and are expected to keep millions of people out of poverty over the coming decade, clearly indicating a strong societal return on investment.^{1,2}



Vaccination can also reduce the risk of antimicrobial resistance (AMR) that emerges from the misuse of antibiotics against infectious diseases, which in itself is projected to take 10 million lives annually by 2050.³



It has been estimated that measles, rotavirus, and pneumococcal conjugate vaccines could ultimately help avert \$4.6 billion in out of pocket expenses in Gavi-eligible economies between 2016 and 2030.⁴



Another study estimates that by 2020, vaccinations administered since 2001 in Gavi economies will have averted as much as \$350 billion in total costs due to illness. A study of five major EU economies estimated that full implementation of a vaccination program for influenza alone could result in savings of over €1.6 billion in reduced primary care visits and hospitalizations.^{5,6}



One study of a Gavi proposal to extend the use of various childhood vaccines to 75 low-income economies found that the labor productivity benefits from expanded coverage alone could yield a return on investment of 12-18% between 2005 and 2020.⁷



In Indonesia, the cost of lost productivity resulting from influenza and resulting lower respiratory tract infections was estimated at \$866 million in one year alone, with an additional \$19.2 million in direct medical costs.⁸



In the US, the economic burden of adult-vaccine-preventable diseases was found to amount to as much as \$15 billion in a single year.⁹



With 50 million cases worldwide as of November 2020 (over a third in the APEC region), continuing spread, and no vaccine yet available on the market, the pandemic offers a stark demonstration of the opportunity cost of investment in immunization programs.¹⁰

Immunization programs also yield economic benefits. As demonstrated by a research study conducted in the Philippines, vaccination can induce improvements in test scores in children, which yields a return on investment as high as 21% when translated into the earnings of adults.^{11,12}



Learn more at <https://www.apec.org/vaccinestaskforce/Action-Plan>

Pillar 1

Promote recognition of the value of vaccination and vaccine innovation by policymakers and key decision-makers.

Target 1.1

By 2030, all APEC member economies have introduced standardized systems, based on the respective needs and priorities of economies, to generate data on direct and indirect benefits of vaccination that meet quality standards, including the full societal value, to drive policy decisions and prioritization

INDICATOR

Percentage of APEC economies that have in place a facility to generate data on both the direct and indirect benefits of vaccination

Target 1.2

By 2030, all APEC member economies have introduced value assessment frameworks that are used to drive policy and decision-making processes, taking into account direct, indirect, economic, and societal value of vaccination

INDICATOR

Percentage of APEC economies that utilize comprehensive value assessment frameworks for the evaluation of immunization programs' health, social, and economic impact to drive vaccine policy and decision-making

Target 1.3

By 2030, all APEC economies commit to incorporating the latest knowledge and data on the value of vaccination into the decision-making processes of leaders

INDICATOR

Percentage of APEC economies that have established a communications plan to translate data and analysis of value of vaccination into policy recommendations accessible to stakeholders

Pillar 2

Prioritize access to and uptake of vaccination across the life-course for all individuals

Target 2.1

By 2030, each APEC member economy has established comprehensive domestic immunization calendars and immunization programs that cover all stages of life (including all ages) to provide broad access to protection against vaccine-preventable diseases for all populations

INDICATOR

Vaccine coverage rate for routine immunizations in each APEC economy, and across the region as a whole

Target 2.2

By 2030, all APEC economies achieve full vaccine coverage for all populations where appropriate – including foreign residents, migrant workers, refugees and stateless persons – through immunization programs that ensure equitable access across the life-course

INDICATOR

Number of new vaccines, underutilized vaccines, and vaccines with expanded indications introduced into the public immunization programs of each APEC economy over the decade, including booster programs and travel-related vaccinations

Target 2.3

APEC economies regularly and creatively engage in impactful partnerships with stakeholders to encourage vaccination

INDICATOR

Percentage of APEC economies that have put in place a team and/or process dedicated to maintaining stakeholder partnerships to incentivize vaccines uptake

Pillar 3

Build whole-of-government capacity in health security and pandemic preparedness

Target 3.1

By 2030, all APEC economies have established mechanisms to effectively mobilize resources in order to deliver vaccines during health emergencies

INDICATOR

- Establishment of cross-sector dialogue mechanisms or fora to develop strategy for emergency resource mobilization
- Regular participation by APEC economies in the mechanism

Target 3.2

By 2030, all APEC economies have established recovery strategies for their immunization programs in the aftermath of acute health emergencies situations and/or humanitarian crises

INDICATOR

Number of APEC economies that have established not only a pandemic preparedness strategy, but also pandemic recovery strategy with “catch-up” immunization embedded into this strategy

Target 3.3

By 2030, all APEC economies have full surveillance and monitoring capacity to track any risk of health emergencies due to vaccine-preventable disease outbreaks, and to ensure progress towards vaccines uptake across the life-course

INDICATOR

Percentage of economies that have designed a comprehensive process for collecting and evaluating data on the uptake of vaccines, the status of infectious diseases, changing environmental conditions, and any emerging resistance patterns

Pillar 4

Strengthen confidence in vaccination and build resilient immunization programs

Target 4.1

By 2030, all APEC economies have established rapid, agile and responsive systems that can assess areas of systemic vulnerability, identify gaps, and mitigate the risk of threats to confidence

INDICATOR

Percentage of APEC economies that have put in place a team with the necessary skills and/or process designated to analyze system vulnerabilities and address emerging or potential threats to immunization

Target 4.2

By 2030, all APEC economies have full monitoring and response capacity to understand crises in vaccines confidence as well as the necessary strategies to address issues

INDICATOR

Percentage of APEC economies which conduct in depth domestic specific studies to understand barriers to vaccination

Target 4.3

By 2030, all APEC economies have active and productive channels of engagement with healthcare professionals (HCPs) that help to educate and empower them to advocate for vaccination and provide reassurance to patients with doubts about vaccination

INDICATOR

- Percentage of economies that have put in place a communications team and/or process to build skills to manage patients who may be hesitant
- Percentage of APEC economies with well-defined scheduled for HCP vaccination

Target 4.4

By 2030, all APEC economies commit to incorporating the latest knowledge and data on the value of vaccination into the decision-making processes of leaders

INDICATOR

Percentage of APEC economies that have put in place a communications team with the skills to implement a communications program which promotes confidence in vaccination among the public and HCPs

Pillar 5

Enable investment and innovation in vaccine R&D, manufacturing, and delivery

Target 5.1

By 2030, all APEC economies establish policies and procedures that foster public-private dialogue between vaccine producers and governments in order to chart an optimal course for encouraging investment in innovation

INDICATOR

Percentage of APEC economies that have consolidated a private sector strategy to guide engagements with vaccine or broader pharmaceutical producers

Target 5.2

By 2030, all APEC economies maintain mechanisms to enhance producers' understanding of local demand and health needs, in order to inform R&D and reduce the commercial uncertainty of new investments

INDICATOR

Percentage of APEC economies that have consolidated a private sector strategy to guide engagements with vaccine or broader pharmaceutical producers

Pillar 6

Accelerate regulatory harmonization for vaccines across APEC economies

Target 6.1

APEC-wide endorsement of and adherence to a set of agreed regulatory practices including adherence to globally recognized regulatory harmonization recommendations and guidelines, in order to ensure effective supply chains and sufficient inventory

INDICATOR

- APEC-wide endorsement and recommendation for members to implement globally recognized regulatory harmonization guidelines for vaccines
- APEC workshops and capacity building to support implementation

Target 6.2

By 2030, all APEC economies have undertaken capacity building initiatives to accelerate adoption of globally recognized recommendations and guidance on regulatory harmonization for vaccines

INDICATOR

Percentage of economies where capacity-building trainings have been designed and initiated, involving coordination between global vaccine producers, local producers, and regulators

Target 6.3

Continuing multisectoral collaboration within and across APEC economies to ensure robust supply chain and access to vaccines across the globe

INDICATOR

APEC endorsement of recommendations on global vaccine supply chain security and incentives for investment and expanded access

Pillar 7

Establish proven & innovative mechanisms for sustainable immunization financing

Target 7.1

By 2030, all APEC economies make commitments on economy-wide immunization funding

INDICATOR

Percentage of APEC economies that have written and introduced an Economy-wide Immunization Plan with provisions for the life-course and concrete proposals for financing strategies

Target 7.2

Establishment of joint platforms within and across APEC economies in order to foster collaboration to identify and resolve financing challenges

INDICATOR

Percentage of APEC economies with health or other officials participating in an APEC-wide dialogue on financing strategies for immunization programs

Target 7.3

Each APEC economy utilizes decentralized strategies to the extent necessary in its given context, in order to facilitate local alignment of funding and needs

INDICATOR

Percentage of APEC economies that have conducted an investigation of the feasibility, benefits, and risks of introducing decentralized strategies into their immunization plans



Life Sciences Innovation Forum

Webinar Series:

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Nora Siagian
Senior Director, Vaccines Lead |
Pfizer EM Asia



Life Sciences Innovation Forum

Webinar Series:

The Role of Vaccination in Maintaining Health and the Economy During Pandemics



Dr. Lulu Bravo
Professor Emeritus | University of
the Philippines Manila
President | Immunization Partners in
Asia Pacific (IPAP)

APEC : BUILDING VACCINE CONFIDENCE FOR LIFECOURSE IMMUNIZATION

PROF EMERITUS LULU C BRAVO MD
UNIVERSITY OF THE PHILIPPINES MANILA

17 September 2021

Vaccine confidence cannot be
increased by
facts and education alone

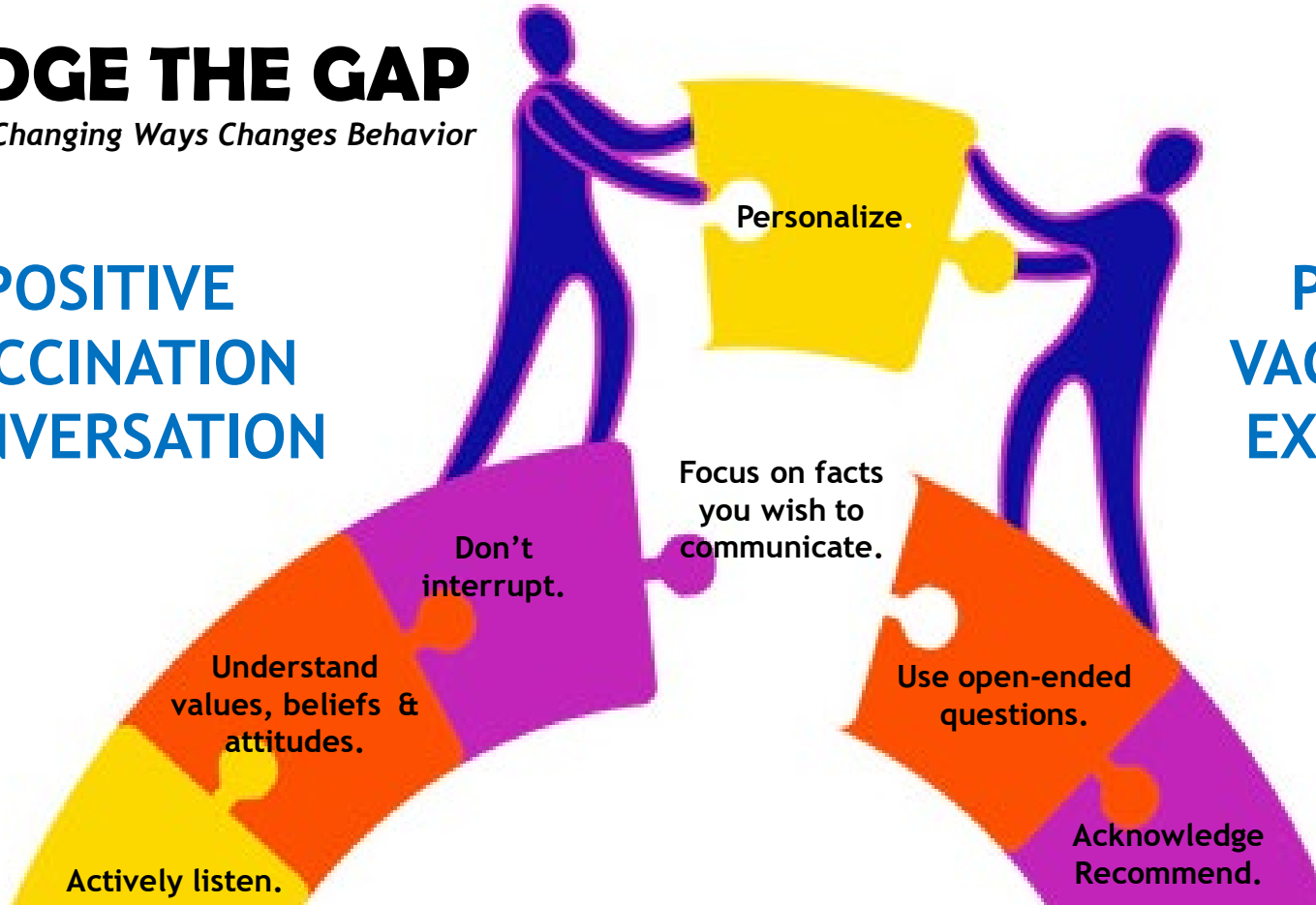


BRIDGE THE GAP

Changing Ways Changes Behavior

POSITIVE
VACCINATION
CONVERSATION

POSITIVE
VACCINATION
EXPERIENCE



RESILIENT and SUSTAINABLE IMMUNIZATION SYSTEMS

- Supportive and Positive Community and individual experiences
- Effective Health systems, Policies and Program Coordination
- Government and Stakeholders Leadership and Commitment (including Private Sector)

VACCINE RESILIENCE

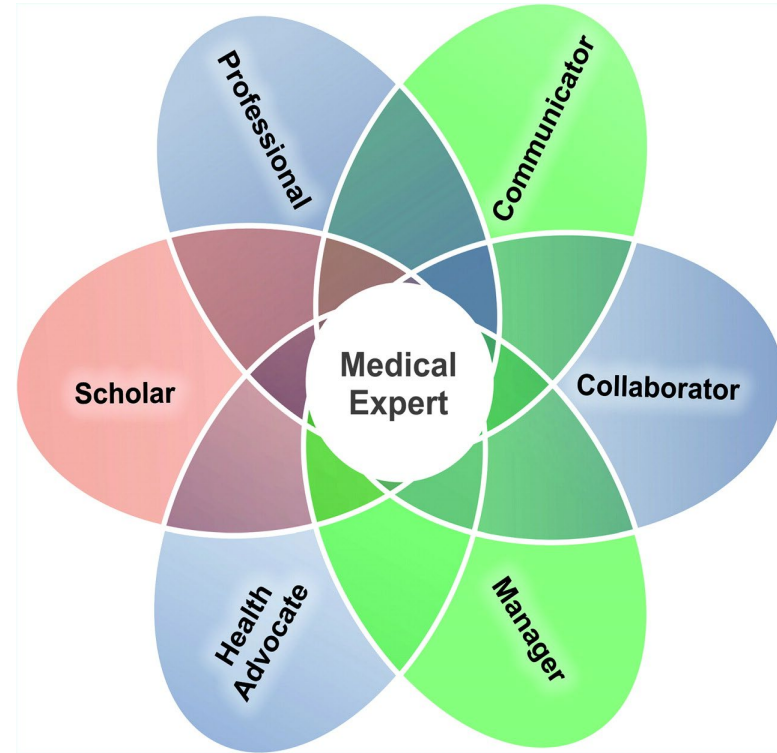
“Immunization Programmes that are able to withstand major shocks and disruptions, to quickly adapt to changing circumstances and to maintain high vaccine uptake and acceptance over time”

Gathering **Experts** to be Involved Who Would Respond with : Transparency, Empathy, Equity, Equality, Timeliness, Honesty and Confidence



Where to find the experts:

- ❖ International and regional agencies
- ❖ Domestic agencies
- ❖ Professional, research and service organizations
- ❖ Former senior government officials and retired academics
- ❖ The “Sanjay Gupta” wannabes



THE WAY FORWARD....

THE STRATEGIES

- Research and Innovation
- Planning to forecast future situations and help policy development
- Understand socio-cultural and political contexts
- Develop effective dialogue and communication platforms involving all key stakeholders
- **Continue efforts to ensure that politicians and policy makers understand the nature of evidence. (SCIENCE)**



“SCIENCE FOR HUMANITY, SCIENTISTS WITH SOULS”

... TRANSLATE SCIENCE INTO ACTION...

Thank you!



Life Sciences Innovation Forum

Webinar Series:

The Role of Vaccination in Maintaining Health and the Economy During Pandemics



Stacey Knobler
Vice President, Vaccine
Innovation & Global
Immunization



The Impact of Life-Course Immunization on Health & the Economy in the APEC region and the role of international cooperation

September 17, 2021

Stacey L. Knobler, MSc

Vice President, Vaccine Innovation & Global Immunization



Core Recommendations of the APEC Action Plan on Vaccination Across the Life-Course

Pillar 5

Enable investment and innovation in vaccine R&D, manufacturing, and delivery



Target 5.1

By 2030, all APEC economies establish policies and procedures that foster public-private dialogue between vaccine producers and governments in order to chart an optimal course for encouraging investment in innovation

INDICATOR

Percentage of APEC economies that have consolidated a private sector strategy to guide engagements with vaccine or broader pharmaceutical producers



Target 5.2

By 2030, all APEC economies maintain mechanisms to enhance producers' understanding of local demand and health needs, in order to inform R&D and reduce the commercial uncertainty of new investments

INDICATOR

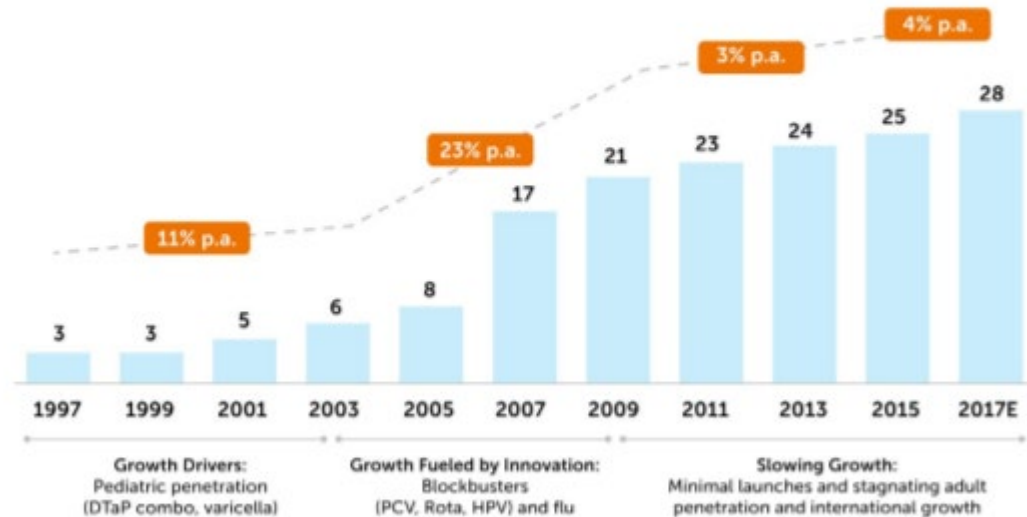
Percentage of APEC economies that have consolidated a private sector strategy to guide engagements with vaccine or broader pharmaceutical producers

The Bad News

Figure 1: After a period of rapid growth, vaccines sales have slowed in recent years

Global Vaccines Sales, 1997 - 2017

US \$, Billions



Source: EvaluatePharma, September 2018; McKinsey & Company internal analysis of data

Figure 2: The number of vaccine programs in development has flattened over the past 2 years

Vaccines in Development Globally (Phase I to Pre-Registration), 2007 - 2017

No. of Products



Source: Pharmaprojects, September 2018; McKinsey & Company internal analysis of data

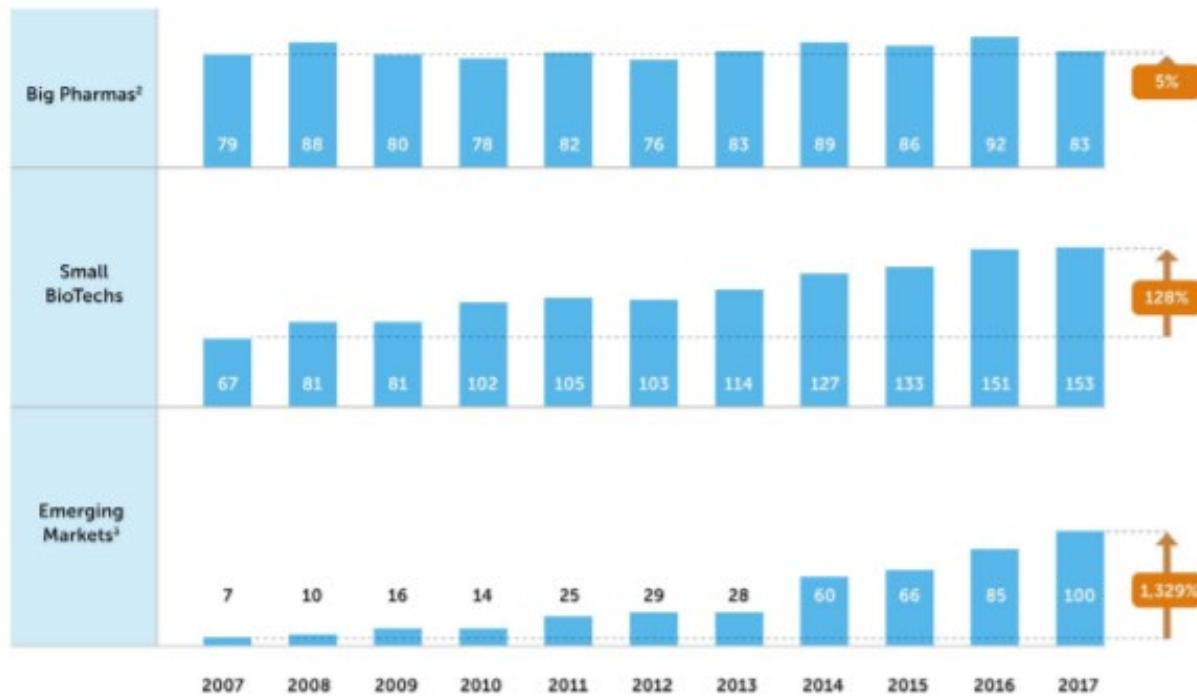
- Slowing revenue growth
- Flattening of the Development Pipeline
- Declining numbers of vaccine candidates reaching clinical studies
- Remaining unmet population health needs for vaccine-targetable diseases

The Good News

Figure 5: The market is starting to see an increase in the number of overall new programs, largely driven by small biotechs and emerging market players

Vaccine Development Programs Globally¹

Number of Programs



¹ Includes only infectious disease vaccines, both prophylactic and therapeutic; excludes all cancer vaccines.

² Refers to top 20 players with vaccines pipelines, including in-licensed products.

³ Including Japan.

Vaccines and their importance as an indispensable public health tool are at the forefront of global conversations due to COVID-19

Investing in Vaccine R&D & Life-Course Immunization to Achieve Health and Economic Security: Learning from the COVID-19 Pandemic

Key Targets for Innovation-Driving Investment

- Science & Technology Innovation
- Process Innovation
- Health Systems & Program Design Innovation

- Critical role of **public sector research to drive innovative breakthroughs** that can be taken up by private sector developers
- Power of public-private partnerships and the role of public-sector governments to **de-risk private sector engagement** and investment in vaccine research and development
- A growing understanding of **vaccines as a public good** that drives not only improved health outcomes, but both economic security and economic development
- **Matching the needs and priorities of defined population economies to innovation R&D investments** to produce the development of **vaccines with feasible and sustainable product profiles** to drive demand, uptake, and optimize health outcome improvements
- Develop future investment to **optimize procurement strategies** (consider regional economy pooling) to reduce cost and to better define and secure market demand
- Reimagine health system vaccination program and infrastructure investments to **account for the need to reach populations across their lifespan with vaccine delivery services**



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Carlos Kuriyama
Senior Analyst, Policy
Support Unit | APEC
Secretariat



The Importance of International Cooperation to Roll Out Vaccinations to Fight COVID-19

Carlos Kuriyama, Senior Analyst
Policy Support Unit, APEC Secretariat

Webinar on Cooperation to Secure Health & the Economy: The Arrival of the APEC Action Plan on Vaccination

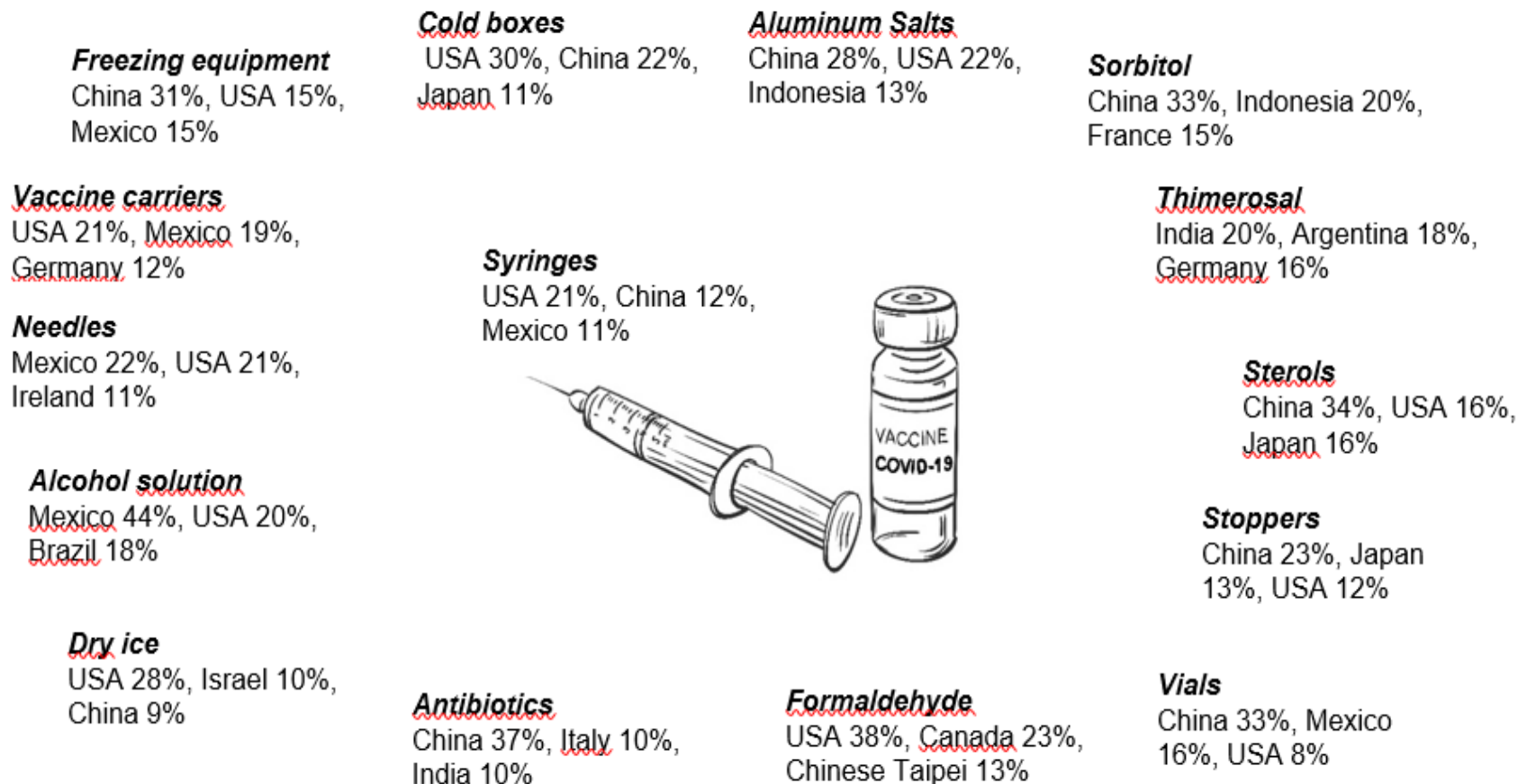
17 September 2021 (SGT)



Advancing Free Trade
for Asia-Pacific **Prosperity**

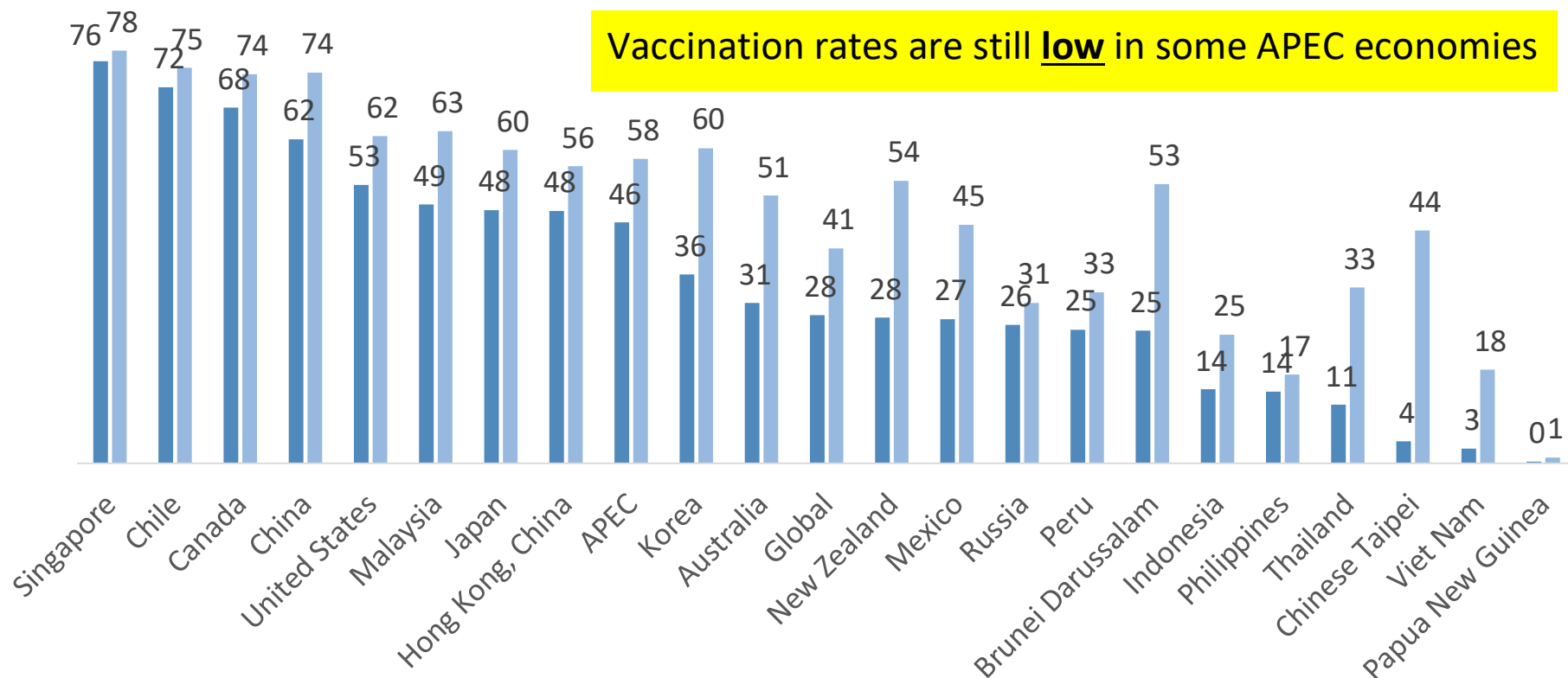
Vaccine supply chain is complex. International cooperation and trade facilitation are very important

Main sources of APEC imports of supplies and equipment necessary for production, distribution and administration of vaccines, 2019 (Share in APEC imports)



Around 45.8% of APEC's population is already fully vaccinated (as of 07 September 2021)

■ % of population fully vaccinated ■ % of population who received at least one dose



Global vaccination rates are also low, only 28.1% of the world population is fully vaccinated. Situation critical in most low income and lower-middle income economies with only 8.3% of the population fully vaccinated.

Global COVID-19 vaccine production is not enough yet to satisfy world demand

	Accumulated production (# of doses, billion)
May 2021	2.1
June 2021	3.1
July 2021	4.6
August 2021	6.1
September 2021 (forecast)	7.5

Total global production is forecasted to reach **12.2 billion by the end of 2021.**

Around **14 billion doses** are required to **fully vaccinate 90% of the world population**, assuming 2 doses per person

Very challenging task. Global market of **all types of vaccines (for any disease)** in 2019 was equal to **5.5 billion** doses.

Massive collaboration among vaccine producers, supply chain participants, public sector and academia to accelerate **development, production and authorizations for emergency use.**

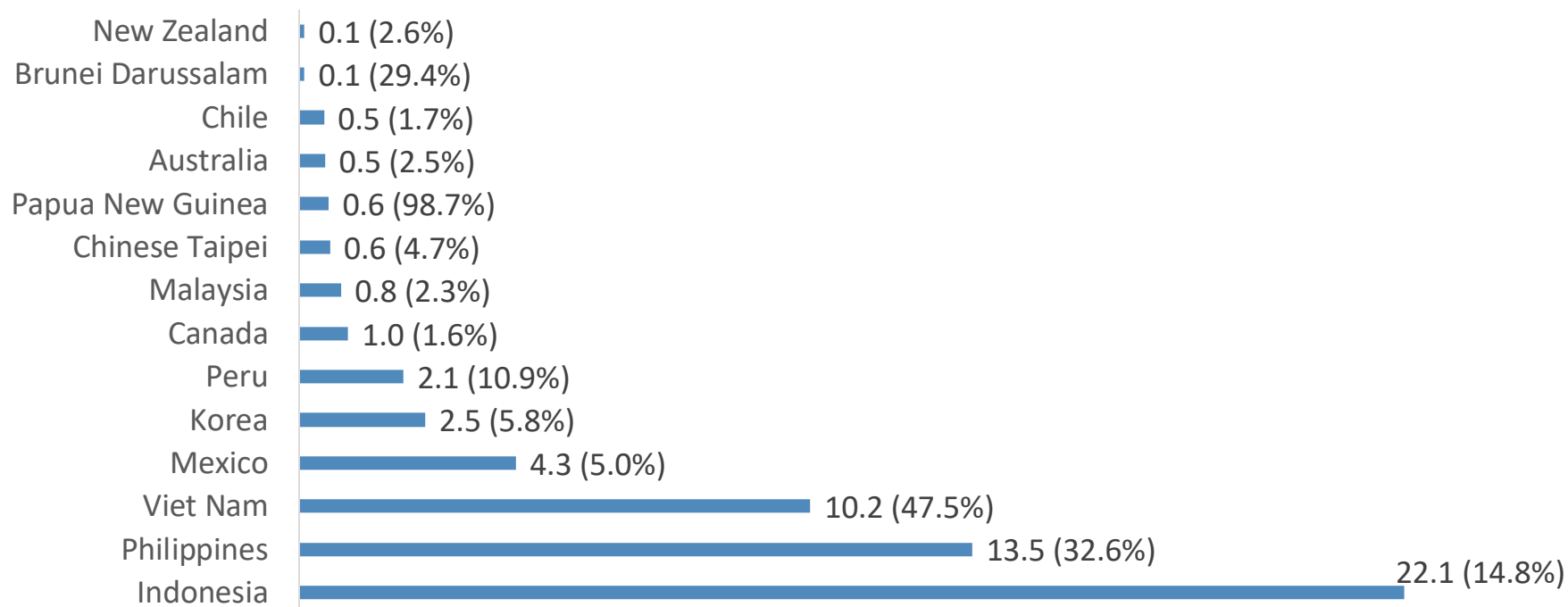
Production increasing significantly, particularly in the **APEC region and Europe.**



Asia-Pacific
Economic Cooperation

Only 1.8% of delivered vaccines in APEC were received via the COVAX facility

Doses received via the COVAX facility (number in millions and % share to total delivered)



COVAX has only distributed 256.7 million doses as of early September 2021. Low-income and lower-middle income economies require 7.1 billion doses to fully vaccinate 90% of their population.



**Asia-Pacific
Economic Cooperation**

Many issues are affecting COVID-19 vaccines, more international collaboration is needed

- **Complex supply chain.** COVID-19 vaccine is sensitive to disruptions in any of its components. Cold chain equipment and storage required, even in communities away from main urban centres.
- **High MFN tariffs** for some vaccine-related products (e.g. alcohol solution, vials, freezing equipment, etc.)
- **Export restrictions and prohibitions** on COVID-19 vaccines and related supply and equipment could affect supplies to the APEC region.
- **Bottlenecks in intellectual property rights** could affect plans to expand vaccine production in the short term.
- **Good Manufacturing Practice** is a **requirement** to produce any vaccine. **Divergences in protocols** among economies could complicate plans to ramp up vaccine production of COVID-19.

Find out more

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**Asia-Pacific
Economic Cooperation**