



**Life Sciences
Innovation Forum**

APEC LSIF Policy Dialogue:

**Enabling a Resilient
Vaccination Ecosystem**

28-29 January 2021



**Life Sciences
Innovation Forum**

SESSION 3

**Advancing Health Equity in the Asia
Pacific through a Life-course
Vaccination Strategy**

Youngmee Jee
Chief Executive Officer
Institut Pasteur Korea



APEC LSIF Policy Dialogue
29 Jan 2021

Advancing Health Equity in the Asia-Pacific through a Life- Course Vaccination Strategy

**Youngmee Jee (MD, PhD)
CEO, Institut Pasteur Korea**



Global Vaccine Action Plan

2011–2020

Global Vaccine Action Plan

In May 2011, a report by the Secretariat on the global immunization vision and strategy was noted by the Sixty-fourth World Health Assembly.¹ During the discussions the vision for the Decade of Vaccines (2011–2020) and the development of a Global Vaccine Action Plan were welcomed. Subsequently, the Executive Board at its 130th session in January 2012 considered the Global Vaccine Action Plan and provided guidance.² The Board also adopted resolution EB130.R12 on World Immunization Week.³ The final plan was endorsed at the 65th World Health Assembly in May 2012.



The vision

for the Decade of Vaccines (2011–2020) is of a world in which all individuals and communities enjoy lives free from vaccine-preventable diseases.

Dr. Seth Berkley
Chief Executive Officer
GAVI Alliance

Dr. Margaret Chan
Director General
World Health Organization

Dr. Anthony Fauci
Director
US National Institute of Allergies
and Infectious Diseases

Dr. Christopher Elias
President
Global Development Program
Bill & Melinda Gates Foundation

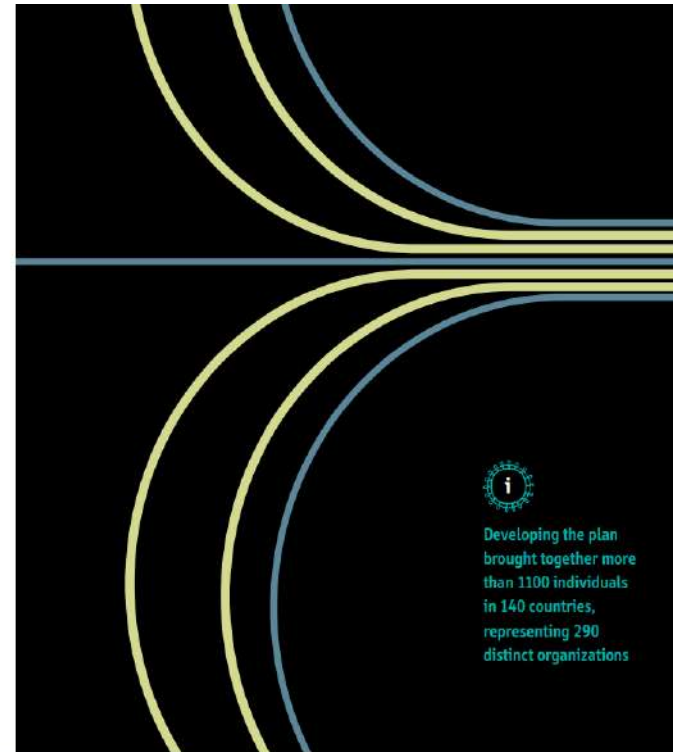
Dr. Anthony Fauci
Director
US National Institute of Allergies
and Infectious Diseases

Mr. Anthony Lake
Executive Director
United Nations Children's Fund (UNICEF)

Ms. Joy Phumaphi
Executive Secretary
African Leaders Malaria Alliance

Introduction

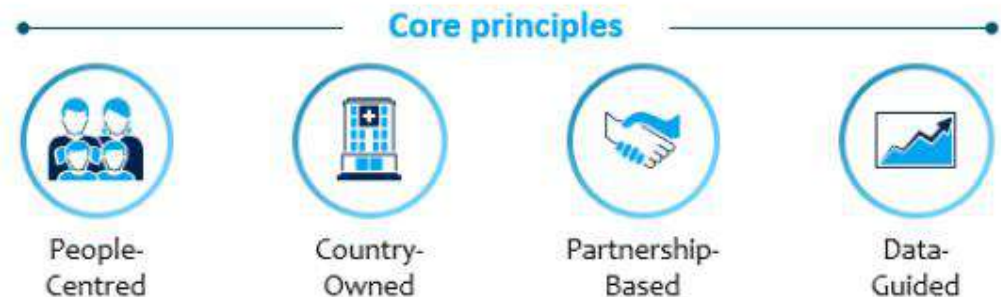
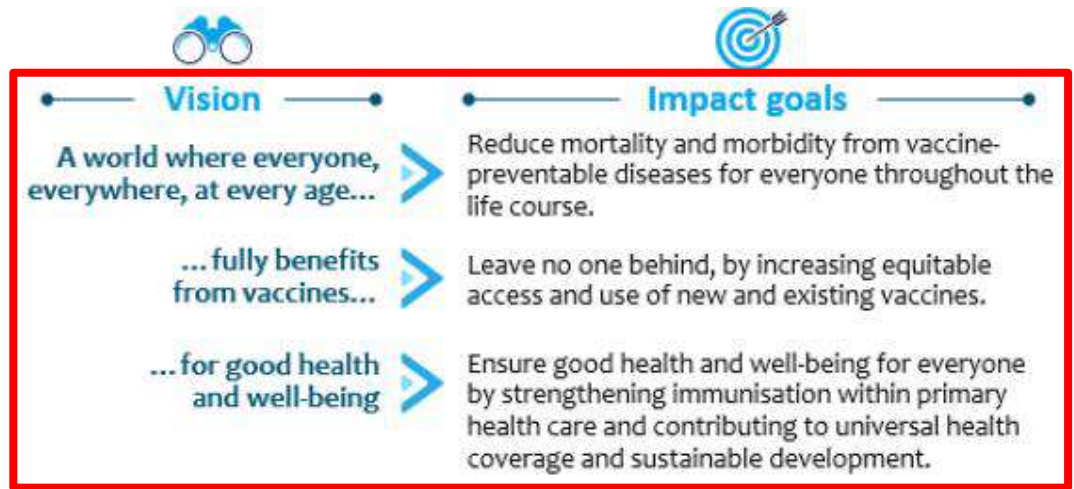
The Global Vaccine Action Plan builds on the success of the Global Immunization Vision and Strategy, 2006–2015, which was launched in 2005 as the first 10-year strategic framework to realize the potential of immunization. Developing the plan has brought together multiple stakeholders involved in immunization, including governments and elected officials, health professionals, academia, manufacturers, global agencies, development partners, civil society, media and the private sector, to define collectively what the immunization community wants to achieve over the next decade. In total, the global consultation process reached over 1100 individuals representing more than 140 countries and 290 organizations, and included two special sessions to brief representatives of the Permanent Missions of the United Nations Offices and other Intergovernmental Organizations in Geneva and New York.



Developing the plan brought together more than 1100 individuals in 140 countries, representing 290 distinct organizations

Endorsed by WHA65 (2012)

Immunization Agenda 2030 (IA2030) sets an ambitious, overarching global vision and strategy for vaccines and immunization for the decade 2021–2030.



Immunization Agenda 2030
A global strategy to leave no one behind

Global, regional and national goal- and target-setting should be:

- aligned with the vision of IA2030;
- responsive to changing trends and conditions;
- aligned with broader health agendas (SDG3, primary health care and universal health coverage);
- ambitious but achievable and measurable to ensure accountability;
- linked to an action and a work plan; and
- designed to reinforce previous commitments (for example, the disease-specific goals listed in Table 1).

Polio eradication, neonatal tetanus elimination, measles and rubella elimination, cholera control, elimination of viral hepatitis as a major public health threat, control of vector-borne diseases, elimination of yellow fever, meningitis epidemics, reduction of seasonal flu burden, zero deaths from dog-mediated rabies by 2030





Among Asia-Pacific Economic Cooperation (APEC) countries,

11.2%
of the population is 65 years or older.

Japan: 27%
Korea: 15%

Philippines: 4.8%

STRATEGIC PRIORITY 3.

Coverage & equity

Goal Everyone is protected by full immunization, regardless of location, age, socioeconomic status or gender-related barriers.

- Objectives**
- Extend immunization services to regularly reach "zero dose" and under-immunized children and communities.
 - Advance and sustain high and equitable immunization coverage nationally and in all districts.

STRATEGIC PRIORITY 4.

Life-course & integration

Goal All people benefit from recommended immunizations throughout the life-course, effectively integrated with other essential health services.

- Objectives**
- Strengthen immunization policies and service delivery throughout the life-course, including for appropriate catch-up vaccinations and booster doses.
 - Establish integrated delivery points of contact between immunization and other public health interventions for different target age groups.

STRATEGIC PRIORITY 3.

Coverage & equity

Key areas of focus

Disadvantaged populations: Identify and address low coverage throughout the life-course of the poorest and most disadvantaged individuals and communities.

Barriers to vaccination: Identify barriers to uptake of vaccination services due to age, location, social and cultural and gender-related factors, and use evidence-based approaches to overcome these barriers to achieving high, equitable coverage.

Gender-responsive strategies: Understand the role of gender in accessing vaccination services, and use gender-responsive strategies to overcome the barriers faced by recipients, caregivers, service providers and health workers.

Measles as a tracer: Use measles cases and outbreaks as a tracer to identify weaknesses in immunization programmes, and to guide programmatic planning in identifying and addressing these weaknesses.

Learning from disease-specific initiatives: Use the experience of disease eradication and elimination initiatives in reaching the most marginalized populations, and integrate successful strategies for delivery and accountability into immunization programmes, with the full integration of disease control perspectives into primary health care.

Context-specific interventions: Develop, evaluate and scale up innovative, locally tailored, evidence-based, people-centred approaches to reach poorly served populations.

Implementation research: Strengthen local capacity to conduct implementation research to identify factors that affect the equity of immunization coverage, interventions that enhance coverage and equity and promote use of the results to implement locally tailored, context-specific interventions and innovations to address inequities.



STRATEGIC PRIORITY 4

Life-course & integration

Key areas of focus

Mobilizing support: Raise awareness of the benefits of vaccination beyond early childhood, through adolescence and in priority adult groups such as pregnant women, health workers and older adults.

Evidence-based delivery practices: Identify and evaluate new delivery strategies for increasing coverage of recommended vaccines throughout the life-course.

Missed opportunities: Implement proven approaches to reduce the number of missed opportunities by integrating immunization into other primary health care planning, health registers and other record-keeping systems, and streamline use of all encounters with the health system to verify and provide missed vaccines and other essential health interventions.

Cross-sector collaboration: Form collaborations to integrate age-appropriate and catch-up vaccination into public and private health services, emphasizing the reciprocal benefits of receiving vaccines with other health interventions. Establish collaboration beyond the health care sector to ensure integration of immunization into context-specific programmes such as for education, nutrition, water and sanitation, care of older people and women's empowerment.

Policy environment: Promote changes in legislation or in the policy of immunization and other programmes to extend the national focus beyond early childhood immunization. Form new collaborations and private-sector partnerships to mobilize financing for vaccination of older age groups.

Tracking vaccination status: Institute policies for monitoring vaccination coverage at different ages and facilitating administration of vaccines throughout the life-course.

Vaccine development: Generate evidence on the disease burden among older age groups, the potential of vaccines to decrease it and the programmatic implications for introducing the vaccines.



IA2030 Life-course Approach

Ensuring immunization for all ages

- Expanding the benefits of vaccination to all age groups offers tremendous opportunities, but it will require **major shifts in immunization programmes.**
- As more vaccines become available for older age groups, new methods will be necessary to deliver **integrated, people-centred health services.**
- Programmes will also have to respond to **significant global demographic shifts**: Regions such as Africa are undergoing rapid population growth and a resulting “youth bulge”, while others are experiencing significant population ageing. These shifts will have a **major impact on the design of immunization services.**
- Furthermore, **booster doses should be introduced for lifelong protection** against diphtheria, pertussis and tetanus.

PERSPECTIVE

Life-course immunization as a gateway to health

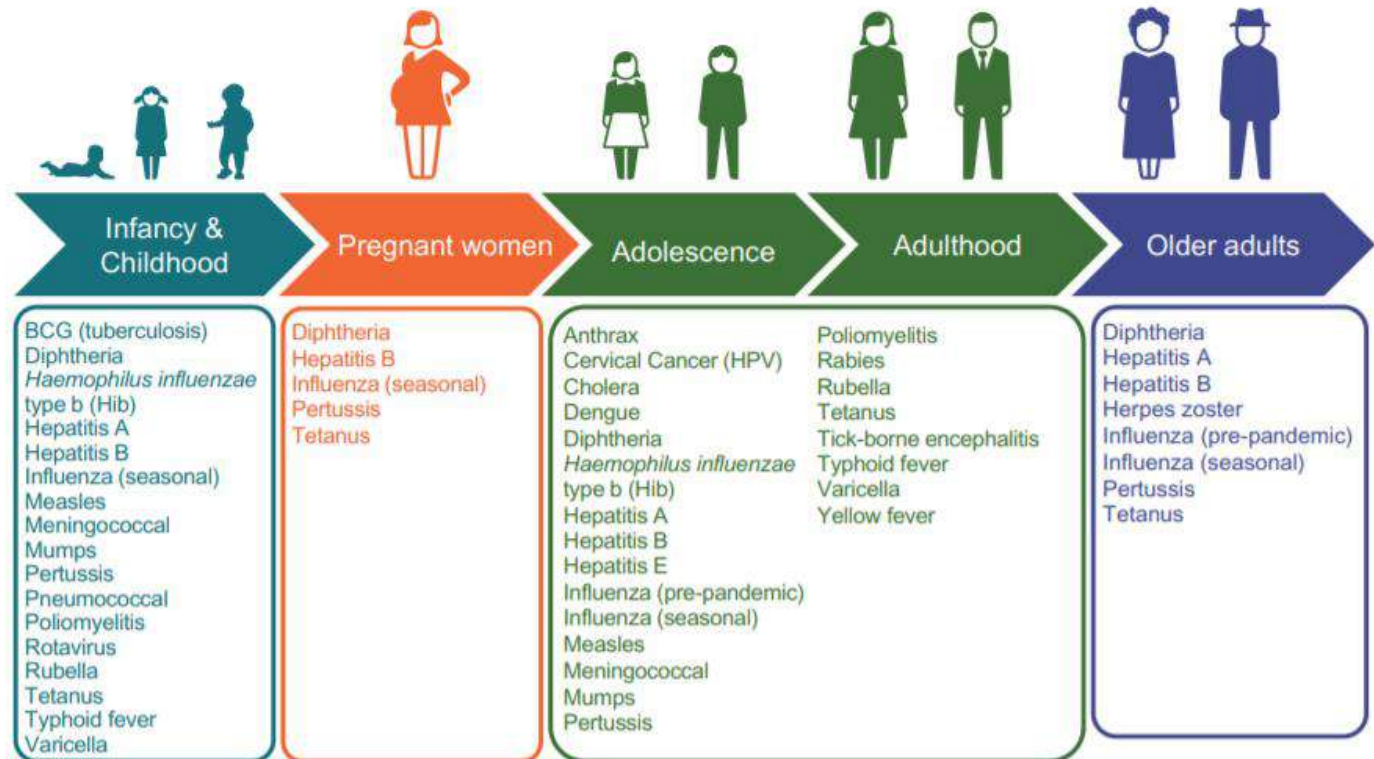


Figure 1. Licensed vaccines support immunization for all age groups. BCG, Bacillus Calmette Guérin; HPV, human papillomavirus.

PERSPECTIVE

Life-course immunization as a gateway to health

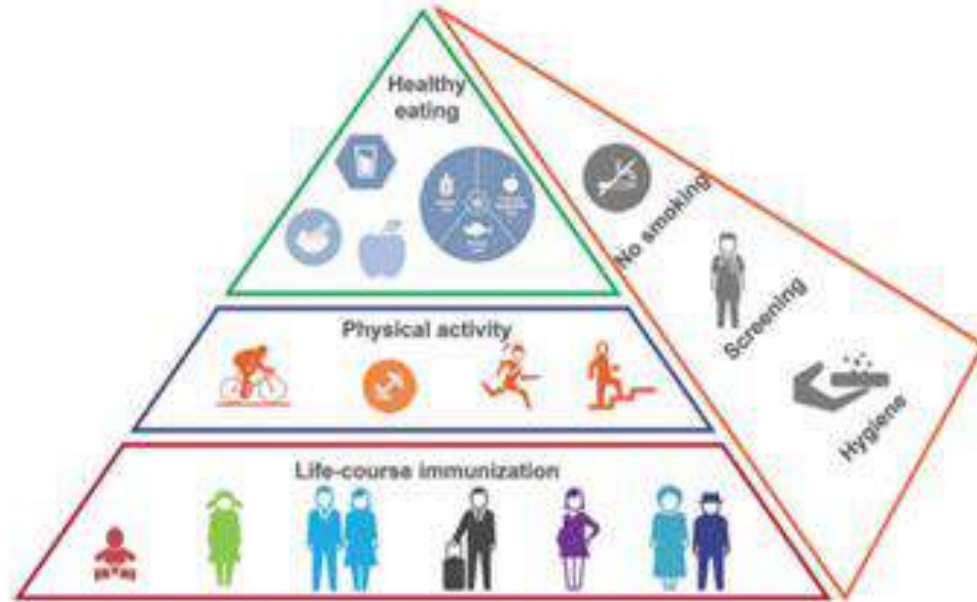


Figure 4. Life-course immunization as an integral part of a healthy lifestyle pyramid. © 2018 the GSK group of companies.

- **Making vaccination a social norm for a healthy lifestyle**, in the same way as healthy eating and adequate physical exercise, could be one way to make it more acceptable across all age groups (Figure 4). To make life-course immunization part of the social norm for a healthy lifestyle, **vaccination topics have to be more embedded in our daily life**, on digital channels, at school, in the workplace, or in leisure time

Adult vaccination in the Asia-Pacific

A life course approach supports healthy ageing as older adults are at greater risk of acquiring VPDs

Adult Vaccination in the Asia Pacific

MOBILIZING POLICY AND PRACTICE KNOWLEDGE



Australia, Hong Kong China,
India, Japan, Chinese Taipei,
Singapore

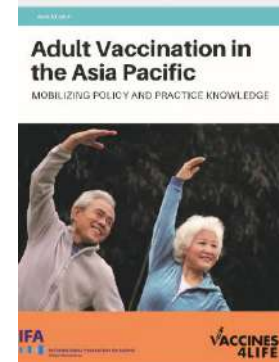
Barriers to adult vaccination in the Asia-Pacific

- **Cost at the individual and government level:** government focuses on childhood vaccination and costs associated with vaccine acquisition is a primary barrier in the development and implementation of a comprehensive life course vaccine schedule
- **Lack of knowledge, misconceptions and doubts in effectiveness:** In Australia, low rates are partly attributed to the belief that vaccinations are not necessary for adults
- **Fragmented and complex healthcare**
- **Data limitation :** monitoring is a challenge

Adult vaccination in the Asia-Pacific

- **Australia:** childhood **immunization register extended to a life course register** in 2016: used for assessing immunization status, planning catch up and measuring vaccination coverage
- **Hong Kong China:** government funds multiple vaccination programmes for older people including **pneumococcus, influenza** launched in 2009 (vaccination subsidy scheme) and funding for **residential care home vaccination programme** launched in 1998
- **India:** universal immunization programme covering 8 vaccines for children and pregnant women. Mass JE vaccination programme introduced for adults in regions with high disease rates in 2014
- **Japan:** government funding for influenza and pneumococcal polysaccharide vaccines for ≥ 65 years, rubella vaccination for 39-56 years old males until 2022
- **Korea:** government funding for influenza and pneumococcal polysaccharide vaccines for ≥ 65 years
- **Chinese Taipei:** government funding for influenza vaccines for ≥ 50 years and other vulnerable groups, pneumococcal vaccines for ≥ 75 years funded by NGO

Identified solutions to improving adult vaccination in the Asia-Pacific



- **Improve surveillance and data collection**
 - **Significant gaps in data systems, few countries have the capacity to collect essential data on citizens over the age of 65-70 years**
 - Can help to determine the harder to reach populations who are less likely to be vaccinated. Special vaccination programme needed for hard to reach populations
- **Education and raising awareness**
 - If the person does not believe that a product or recommendation address a significant need, or offers benefits that are ought, acceptance will be low.
 - **Awareness-raising strategies should also target those who are most at risk to VPDs such as older people and adults with chronic diseases (eg: COVID-19)**
- **Government -driven public health policy**
 - **Campaigns have little impact if governments fail to address systemic barriers:** mandatory vaccination for adults
 - Partnerships and intergovernmental dialogues within and between countries to identify and address systematic gaps in vaccination infrastructure and to share lessons for success
- **Attention to at-risk groups**
 - Awareness campaigns, policies and programmes for people with chronic diseases, older people and indigenous people etc.

Korea's efforts in COVID-19 vaccination

- National COVID-19 vaccination strategy announced on 28 Jan
 - Vaccination will begin in Feb 2021
 - Inter-ministerial efforts (eg. vaccine transportation supported by military and police)
 - Mobile vaccination teams operated by public health centers
 - ~250 vaccination centers (Moderna, Pfizer) and >13,000 health facilities (AstraZeneca, Janssen)
 - AEFI monitoring and compensation system
 - List of priority groups for vaccination during 2021
- Annual contribution of 3 million USD to CEPI from 2020
- Participation in COVAX Advanced Market Commitment in 2020 (10million USD)

AFRICA KICKS OUT WILD POLIO

1.8 million
wild polio cases averted*

9 billion
oral polio vaccine doses
provided*

220 million
children vaccinated multiple
times every year

2 million
volunteer vaccinators support
polio campaigns every year

In 1996, the great African leader Nelson Mandela launched the Kick Polio Out of Africa campaign with Rotary International's support, setting out a vision for a polio-free Africa. At the time, wild polio paralysed 75,000 children each year. To protect communities from this crippling disease, African leaders, health workers, volunteers, parents, global donors and organizations united to reach every child with polio vaccines.

On 25 August 2020, after four years without a single case of wild polio, the African region has been certified free of wild poliovirus. Decades of extraordinary investment has paid off.



TIMELINE: POLIO ERADICATION IN AFRICA



2015 Immunization week, Vaccination is everyone's job Protect your community



2020 Immunization week, Vaccines Work for All



Eduardo Banzon
Principal Health Specialist
Asian Development Bank



Universal Health Coverage, Life Course and Vaccination

COVID-19 Pandemic



COVID19 highlights the importance of:

- Health and the Health Sector
- Universal Health Coverage
- Being Healthy
- Investments in Prevention
- Systems approaches
- Information systems and digital connectivity
- Infection Control
- Vaccination

COVID19 is changing the narrative on vaccination

- More than just vaccinating children and infants
- Protects the health system and health workers
- Reduces and stops deaths and illnesses of the elderly and those with non-communicable diseases
- Needed to open up the economy

Reinforcing the arguments that vaccination is a life course intervention needed from birth until old age

Economic benefits of vaccination have become a given and unquestioned



ADB launches \$9 billion facility for vaccine access, distribution

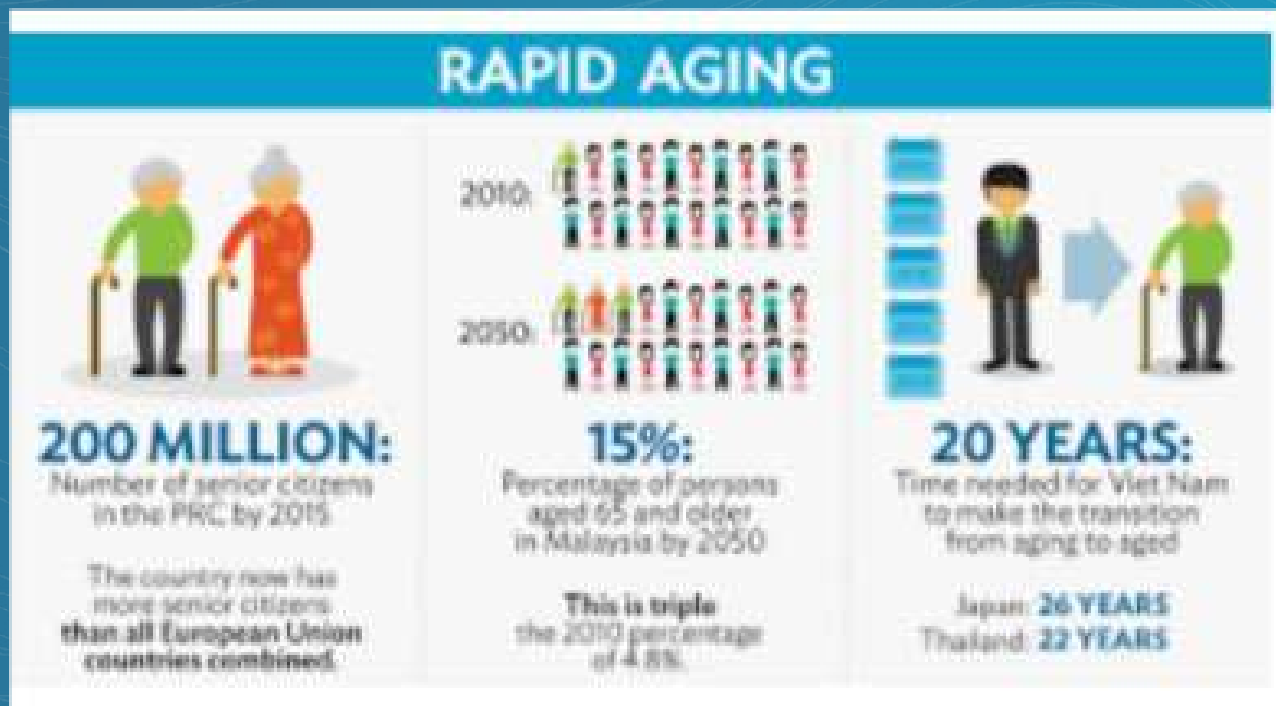
Called the Asia Pacific Vaccine Access Facility (APVAX), the ADB said the initiative will offer rapid and equitable support to member-countries for the access and distribution of vaccines. "As ADB's developing members prepare to vaccinate their people as soon as possible, they need financing to procure vaccines as well as appropriate plans and knowledge to be able to safely, equitably and efficiently manage the vaccination process," ADB president Masatsugu Asakawa said.



The COVAX facility



Vaccination and Healthy Aging



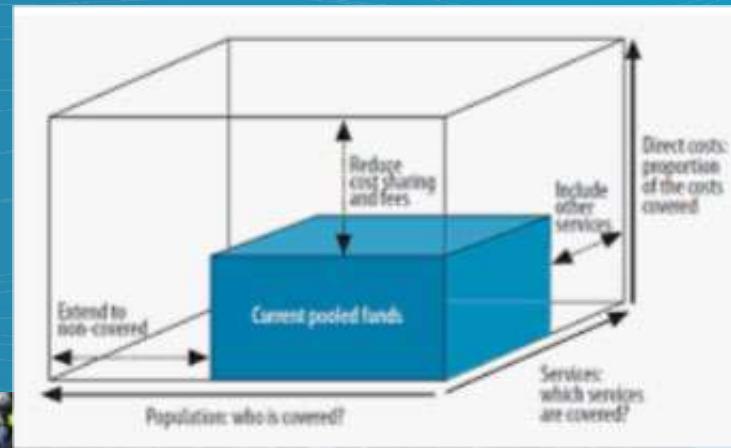
“Vaccination against NCD related deaths and illnesses”



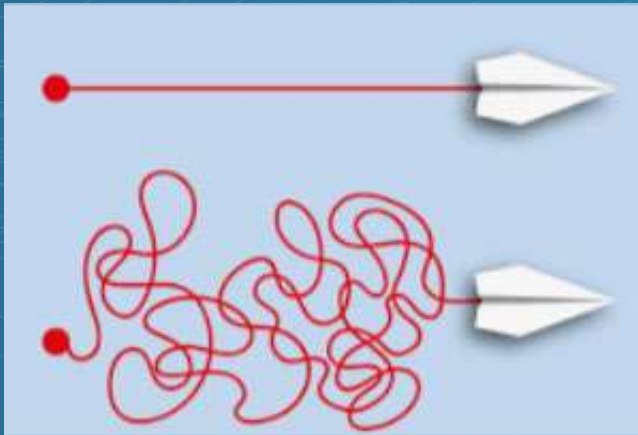
Build on the insights gained from this unfortunate pandemic



Ensure the Key Elements are present



inexpensive





**Life Sciences
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SESSION 4

**Mobilizing Diverse & Sustainable
Financing to Achieve Immunization
Across the Life-Course**

Philip Ho

General Manager, Chinese Taipei & Hong
Kong Sanofi Pasteur



Mobilizing Diverse & Sustainable Financing to Achieve Immunization Across the Life-Course



Philip Ho, General Manager
Sanofi Pasteur

The scale of the challenge



Societies are ageing

Globally more than two billion citizens will be over 60y by 2050, double the number in 2017.

1/4 of Asia's population — about 1.3 billion people — will be over 60 by 2050.



Healthcare spend is diverse (% of GDP)

Australia	9.28%
Japan	10.95%
Republic of Korea	7.56%
Philippines	4.40%
Singapore	4.46%
Thailand	3.79%



Non-Communicable Disease incidence is rising

NCD burden will increase as the population ages.

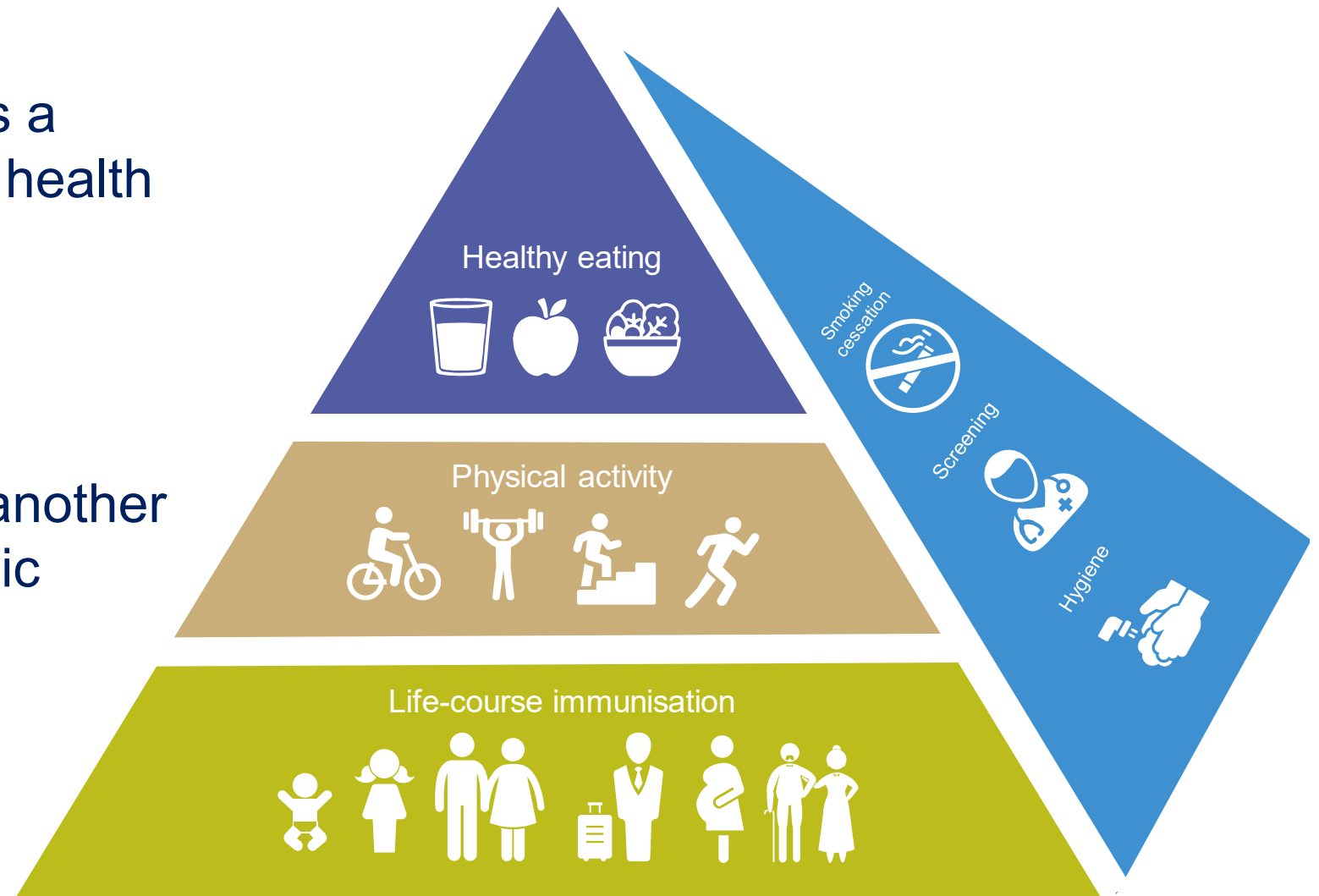
An example, NCDs already account for 62% of all deaths in South East Asia with half occurring prematurely.

Infectious diseases remain a formidable opponent

Life-course immunisation is a foundation and gateway to health

Uptake of elective adult vaccination varies widely:

- From country to country
- From one age group to another
- From one socio-economic group to another



The solutions that must be prioritised



Mindset shift

‘Health is wealth’.

Health needs to be understood as an investment and key driver of economies.



Universal healthcare

Prioritisation of infrastructure readiness and long-term government commitments are the pre-cursors to UHC we can better focus on now.



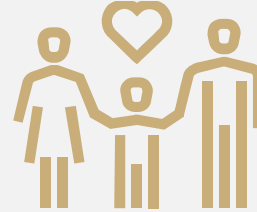
Preventative healthcare

The cost of contracting infectious disease dwarfs the costs of life-course immunisation. How budgets are allocated requires urgent attention for better long-term gain.

The need to resolve inefficiencies



The inefficient use of available budgets, coupled with the growing challenge of unsustainable funding bases has led to limited capital for healthcare systems.



A variable amount of GDP is spent on healthcare

An even smaller percentage on through life vaccination.

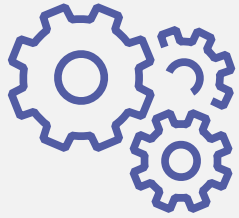
Out-of-pocket expenditure for individuals.



WHO recommends >5% of GDP as sustainability threshold of healthcare

Some APEC member countries are falling below.

Solutions for resolving inefficiencies

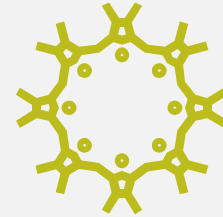


Increased prioritisation of cost-effective delivery models

Primary care; Self care;
Digital interventions

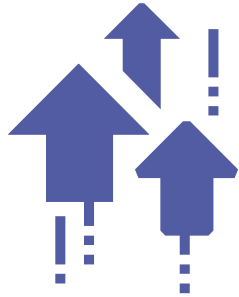


Increase preventative health spend as a mid- and long-term economic saving.



Prioritise preventative healthcare as a solution to the current and anticipated significant healthcare manpower shortages.

Where to focus: Revisiting of financing models



Investment in holistic understanding



Public-private sector partnership prioritisation



Replacement of disappearing funding sources



Exploration of funding mechanisms



Raising of the role of private insurance

Together we can create wealth via health – and the need has never been more urgent

COVID-19 has reemphasised the need to be more creative in the consideration of financing options and the requirement of multi-sectoral partnership to do so, amongst other key solutions.

Companies like Sanofi can make a substantial contribution to sustainable healthcare. Partnerships between the public and private sector, civil society and academia are instrumental tools for achieving scale and improving efficiency.

Thank you



Philip Ho, General Manager
Sanofi Pasteur

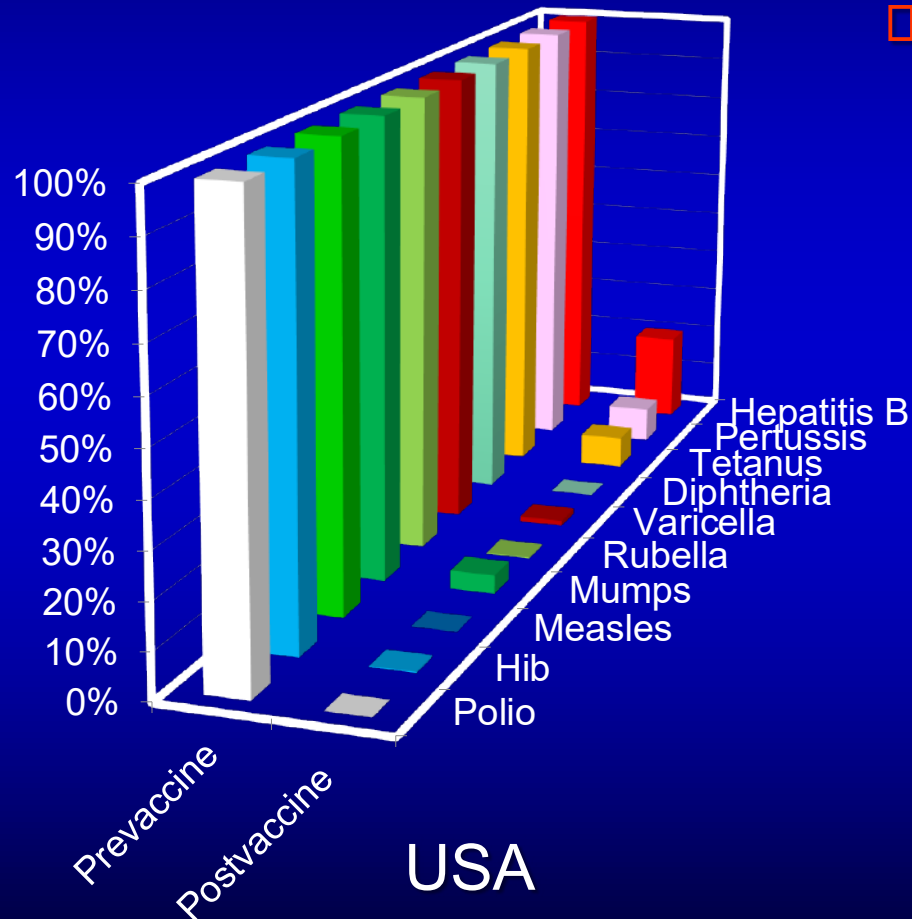
Dr. Ping-Ing Lee
Professor
National Taiwan University



Mobilizing Diverse & Sustainable Financing to Achieve Immunization Across the Life-Course

Ping-Ing Lee
Taipei

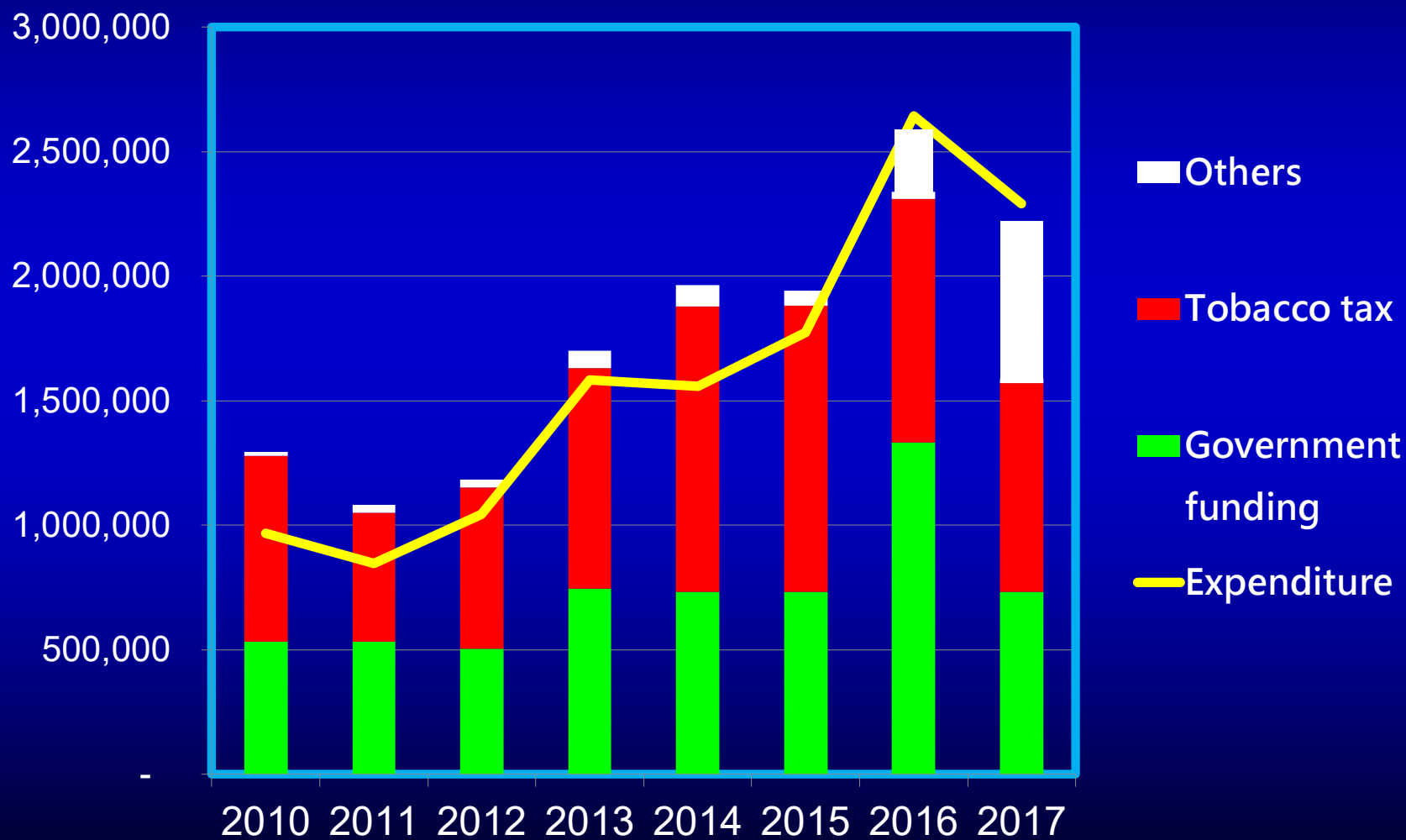
The government should be responsible for promoting immunization



- Constitutions
 - 156: ... should adopt and execute policies to **improve welfare of women and children**
 - 157: ...should promote **preventive medicine**

Source of funding for NIP program, Taipei

NT\$ X 10³



Health interventions in competition

Long-term care

Health insurance

Rare disease

Nutrition policy

Betel nut control

Hospital accreditation

Obesity prevention

Precision medicine

Drug control

Tabaco control

Cancer screening

HIV prevention

New technology

Health insurance

Border quarantine

Health screening

Age-friendly

TB control

Prenatal care

Infection control

Immunization

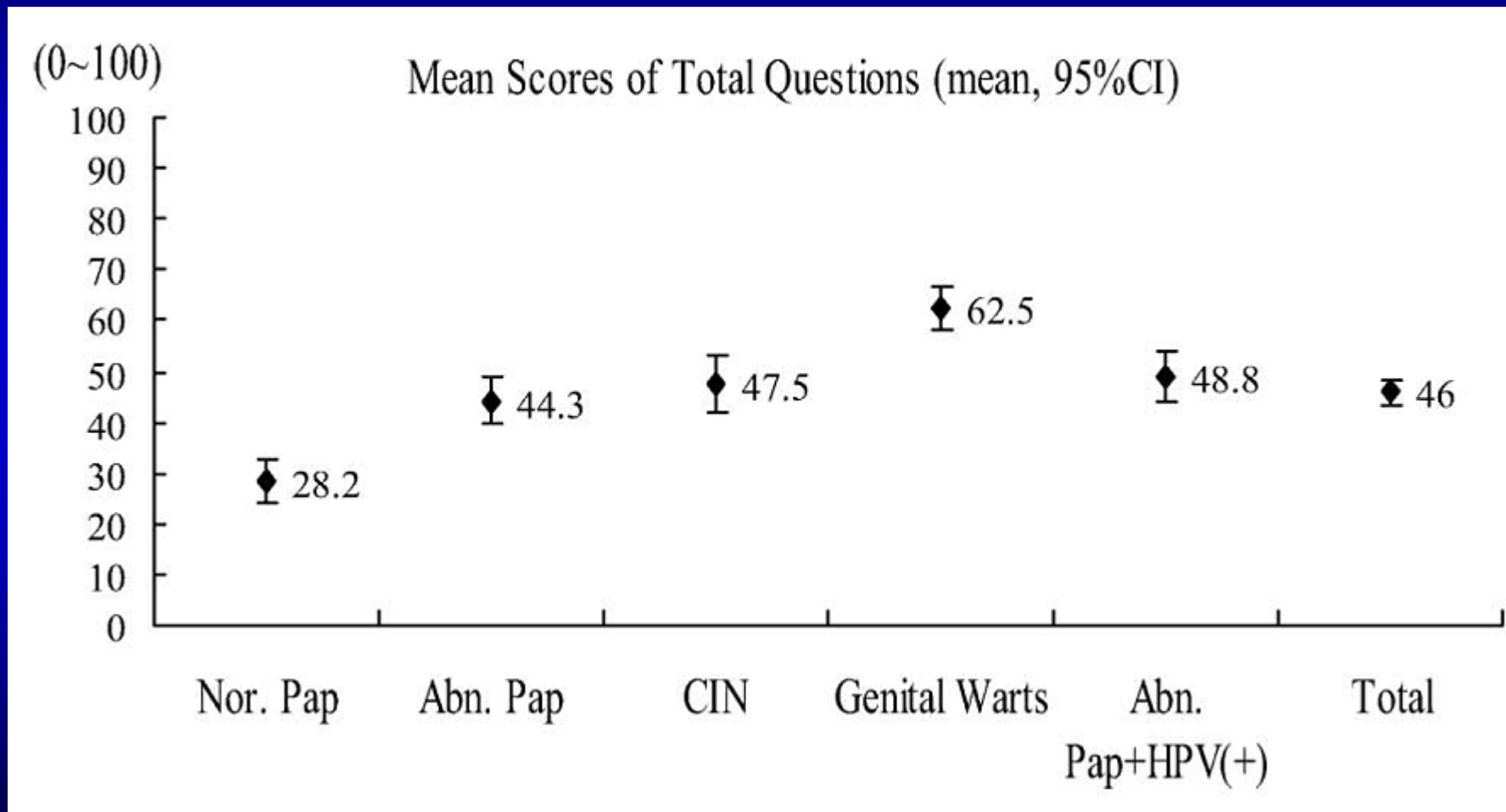
How to mobilize diverse & sustainable financing

- Awareness of **the public**: fundamental education, medical education, continued medical education, education for the media
- Vaccination promoting **NGO**
- Awareness and support from **public opinion representatives and stakeholders**
- A **financial responsible unit** for immunization in the central government.

Cost-effectiveness analysis

- Disability-adjusted life year (DALY):
 - Assessment of global burden of disease analysis
 - Combines years of life lost due to premature mortality and years of life lost due to time lived in states of less than full health.
- DALY averted (WHO)
 - $<$ per capita GNI X 1 : **very cost-effective**
 - Per capita GNI X 1-3: **cost-effective**
 - $>$ Per capita GNI X 3: **not cost-effective**
- GDP of Chinese Taipei (2007): \$29,800

Most cost-effective analyses ignored the impacts other than finance

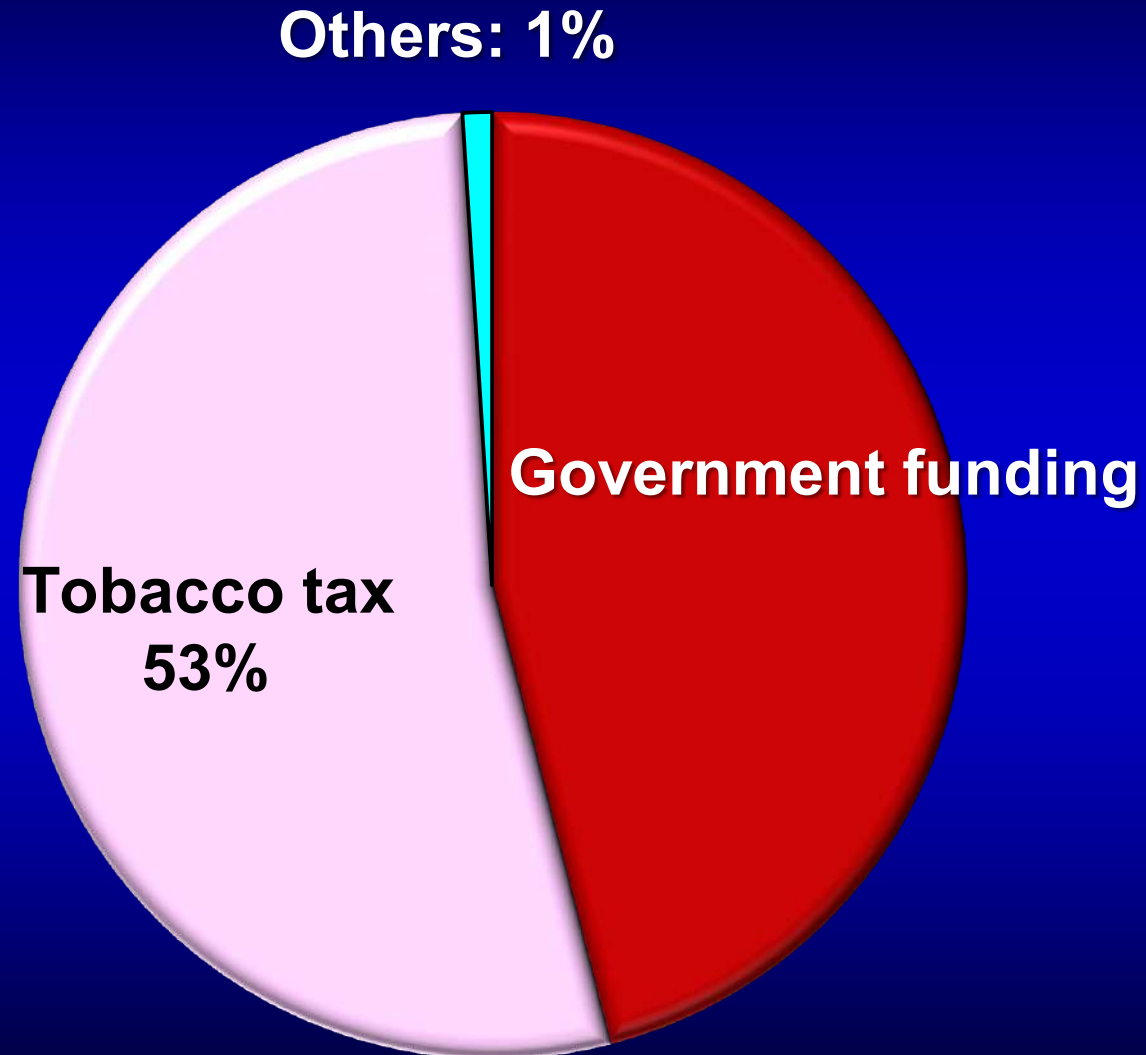


Independent budget for immunization

□ Immunization Funds since 2010

Vaccine	'18	'19	'20	'21	'22	'23
Hepatitis A vaccine for children	○	○	○	○	○	○
Pneumococcal vaccine for ≥ 75 yrs		○	○	○	○	○
Pneumococcal vaccine for high-risk population		○	○	○	○	○
HBIG for neonates born to HBeAg(-) carrier mothers		○	○	○	○	○
Pneumococcal vaccine for ≥ 65 yrs			○	○	○	○
Rotavirus vaccine for infants			Low income	○	○	○
Pneumococcal vaccine for at-risk population					○	○
Hepatitis A vaccine for adolescents						○

Immunization Funds since 2010, Taipei



Vaccine donations

GAVI, since 2000

The screenshot shows the Gavi website's 'About Gavi, the Vaccine Alliance' page. At the top, there is a navigation bar with links for CAREERS, CONTACT, ETHICS HOTLINE, RFP, MYGAVI, DONATE, and FRENCH. The Gavi logo, 'The Vaccine Alliance', is on the left, and a search bar is on the right. Below the navigation bar is a green menu with links for HOME, ABOUT GAVI, SUPPORT, COUNTRY HUB, FUNDING & FINANCE, RESULTS & EVIDENCE, and LIBRARY & NEWS. The main content area features a breadcrumb trail 'You are here: About Gavi', a title 'About Gavi, the Vaccine Alliance', and a language selector '[French]'. A text block on the left describes Gavi's mission: 'Created in 2000, Gavi is an international organisation - a global Vaccine Alliance, bringing together public and private sectors with the shared goal of creating equal access to new and underused vaccines for children living in the world's poorest countries. Why invest in vaccines?'. To the right is a large graphic with the text: 'OF ANNUAL BIRTHS ARE IN GAVI SUPPORTED COUNTRIES BY POOLING THIS DEMAND WE ARE HELPING SHAPE THE VACCINE MARKET'. A vertical menu on the right lists: ABOUT GAVI, Gavi's mission, Gavi's strategy, Value of vaccination, Gavi's partnership model, Gavi's business model, Global health and development, and Governing Gavi. At the bottom, it says 'Gavi members include' followed by the UNICEF logo and five dots.

CAREERS CONTACT ETHICS HOTLINE RFP MYGAVI DONATE FRENCH

Enter keyword here... Search

g+ f t in y d i r

HOME ABOUT GAVI SUPPORT COUNTRY HUB FUNDING & FINANCE RESULTS & EVIDENCE LIBRARY & NEWS

You are here: About Gavi ▾

About Gavi, the Vaccine Alliance

[French]

Created in 2000, Gavi is an international organisation - a global Vaccine Alliance, bringing together public and private sectors with the shared goal of creating equal access to new and underused vaccines for children living in the world's poorest countries.

Why invest in vaccines?

OF ANNUAL BIRTHS ARE IN GAVI SUPPORTED COUNTRIES

BY POOLING THIS DEMAND WE ARE HELPING SHAPE THE VACCINE MARKET

ABOUT GAVI

- Gavi's mission
- Gavi's strategy
- Value of vaccination
- Gavi's partnership model
- Gavi's business model
- Global health and development
- Governing Gavi

Gavi members include

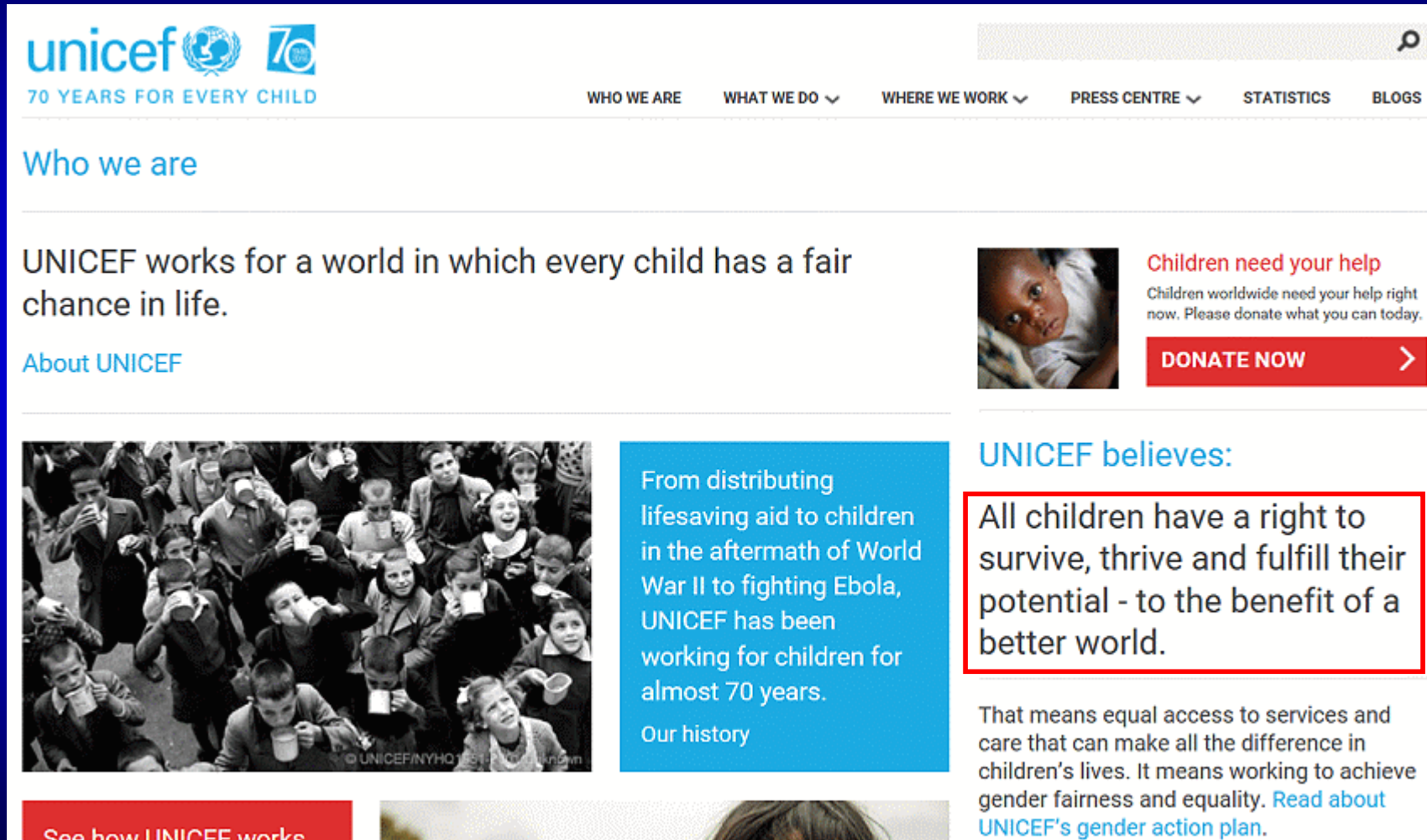
unicef

How Gavi works

<http://www.gavi.org/about/governance/programme-policies/vaccine-donation/>

Vaccine donations

UNICEF



The screenshot shows the UNICEF website homepage. At the top left is the UNICEF logo with the text "70 YEARS FOR EVERY CHILD". To the right is a search bar and a navigation menu with links: "WHO WE ARE", "WHAT WE DO", "WHERE WE WORK", "PRESS CENTRE", "STATISTICS", and "BLOGS". Below the navigation is a section titled "Who we are" with the text "UNICEF works for a world in which every child has a fair chance in life." and a link "About UNICEF". To the right is a call to action for donations, featuring a photo of a baby and a red "DONATE NOW" button. Below this is a section titled "UNICEF believes:" with a red-bordered box containing the text "All children have a right to survive, thrive and fulfill their potential - to the benefit of a better world." Below the box is a paragraph about equal access to services and care, with a link "Read about UNICEF's gender action plan." At the bottom left, there is a red button that says "See how UNICEF works" and a partial image of a child's face.

unicef 70 YEARS FOR EVERY CHILD

WHO WE ARE WHAT WE DO WHERE WE WORK PRESS CENTRE STATISTICS BLOGS

Who we are

UNICEF works for a world in which every child has a fair chance in life.

[About UNICEF](#)

Children need your help
Children worldwide need your help right now. Please donate what you can today.

DONATE NOW

UNICEF believes:

All children have a right to survive, thrive and fulfill their potential - to the benefit of a better world.

That means equal access to services and care that can make all the difference in children's lives. It means working to achieve gender fairness and equality. [Read about UNICEF's gender action plan.](#)

See how UNICEF works

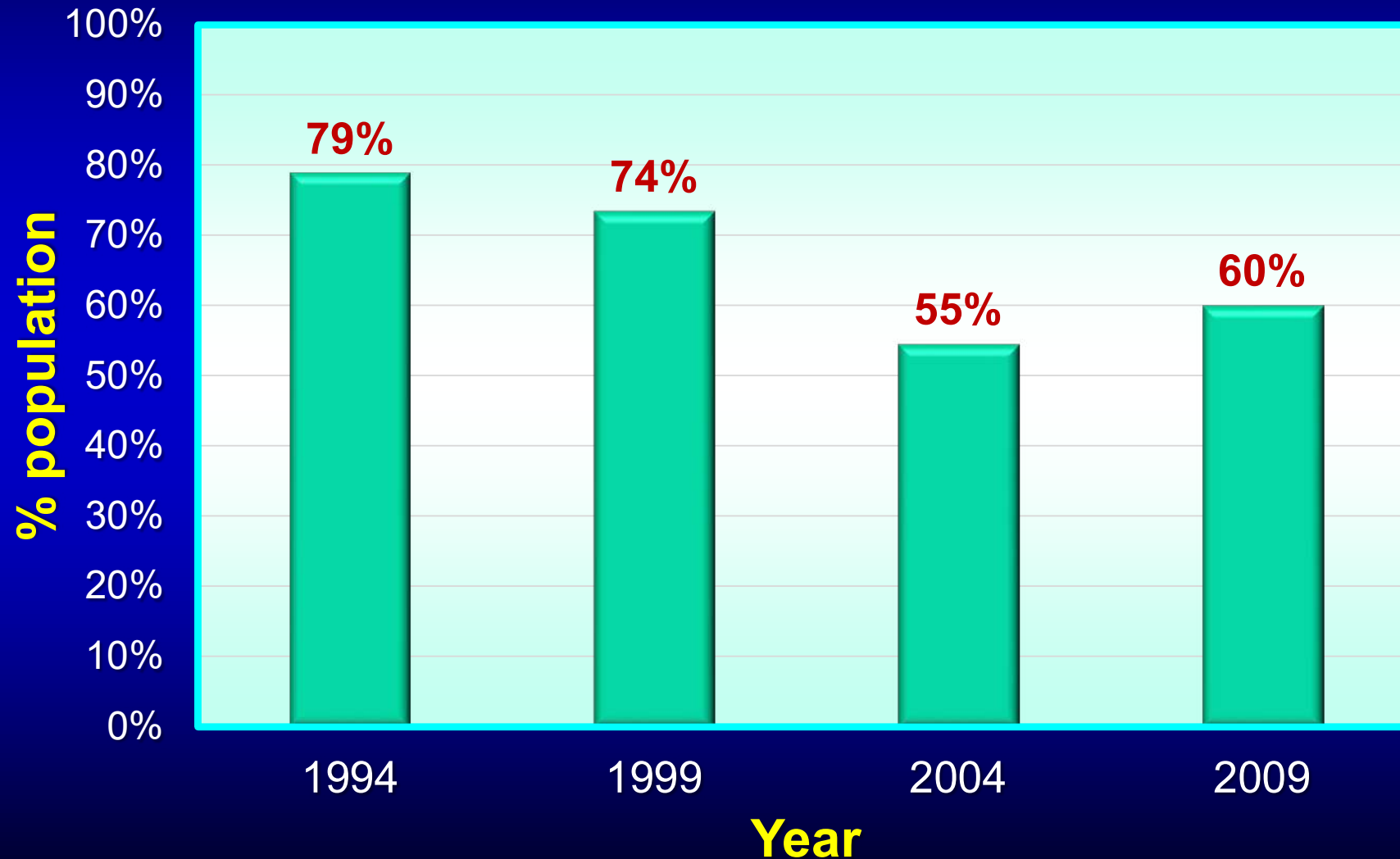
NT\$7.1 billion donated to a University Biomedicine to Fight Cancer

Central Agency,
Oct 8, 2015



Religious giving, Taipei

Questionnaire survey, 1994-2009

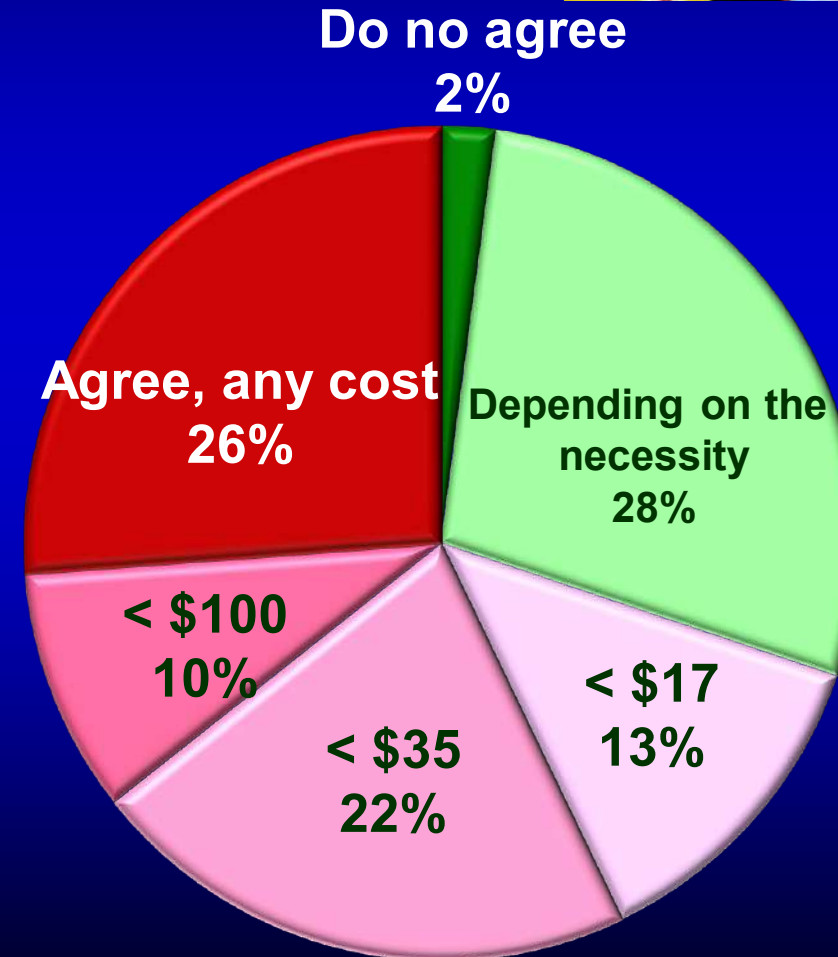


Parents' attitude toward copayment for immunization

N=1,560, TIVS, Taipei, 2014

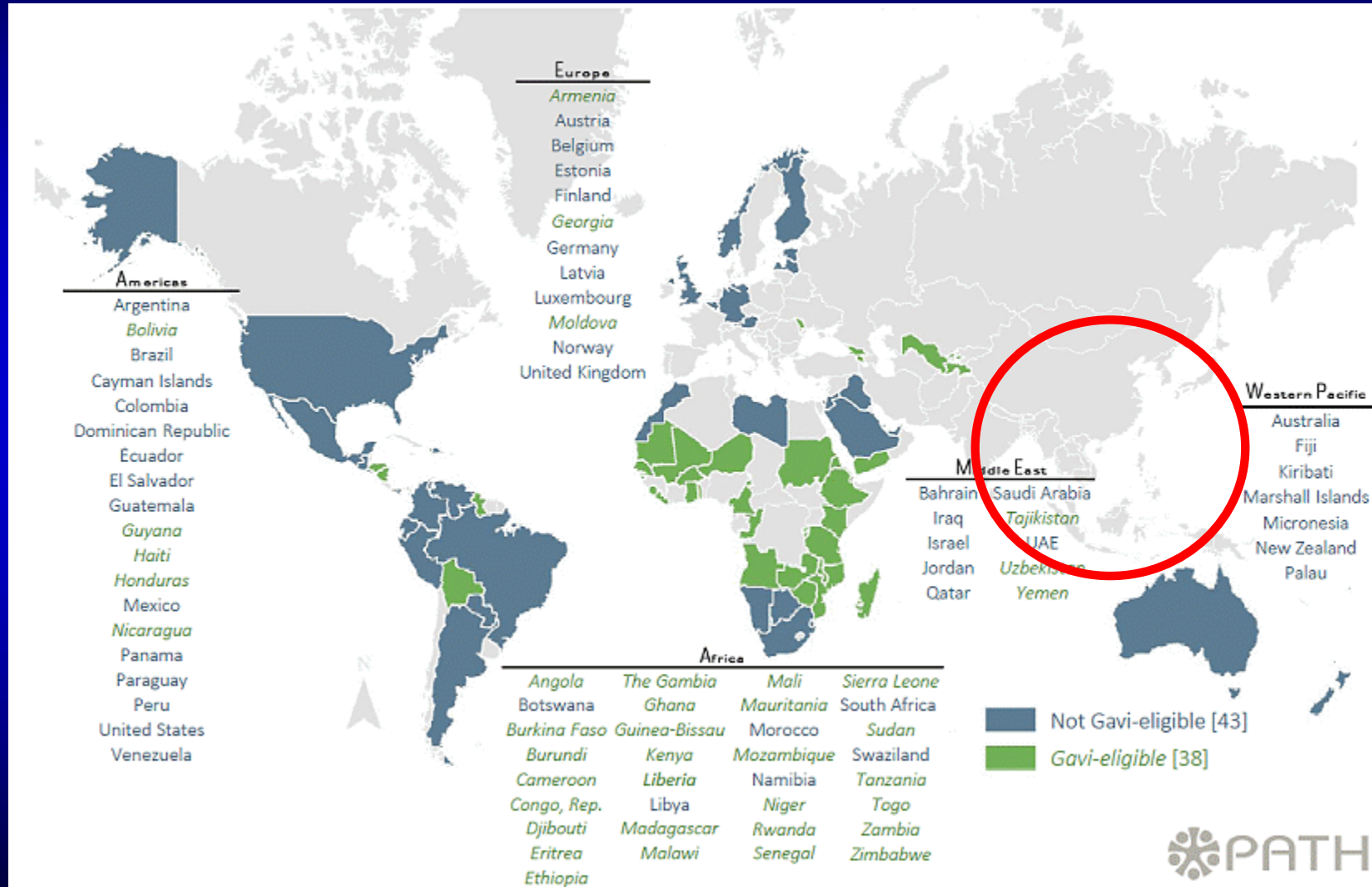


Question:
How much will you be willing to pay for a vaccine with a copayment strategy?

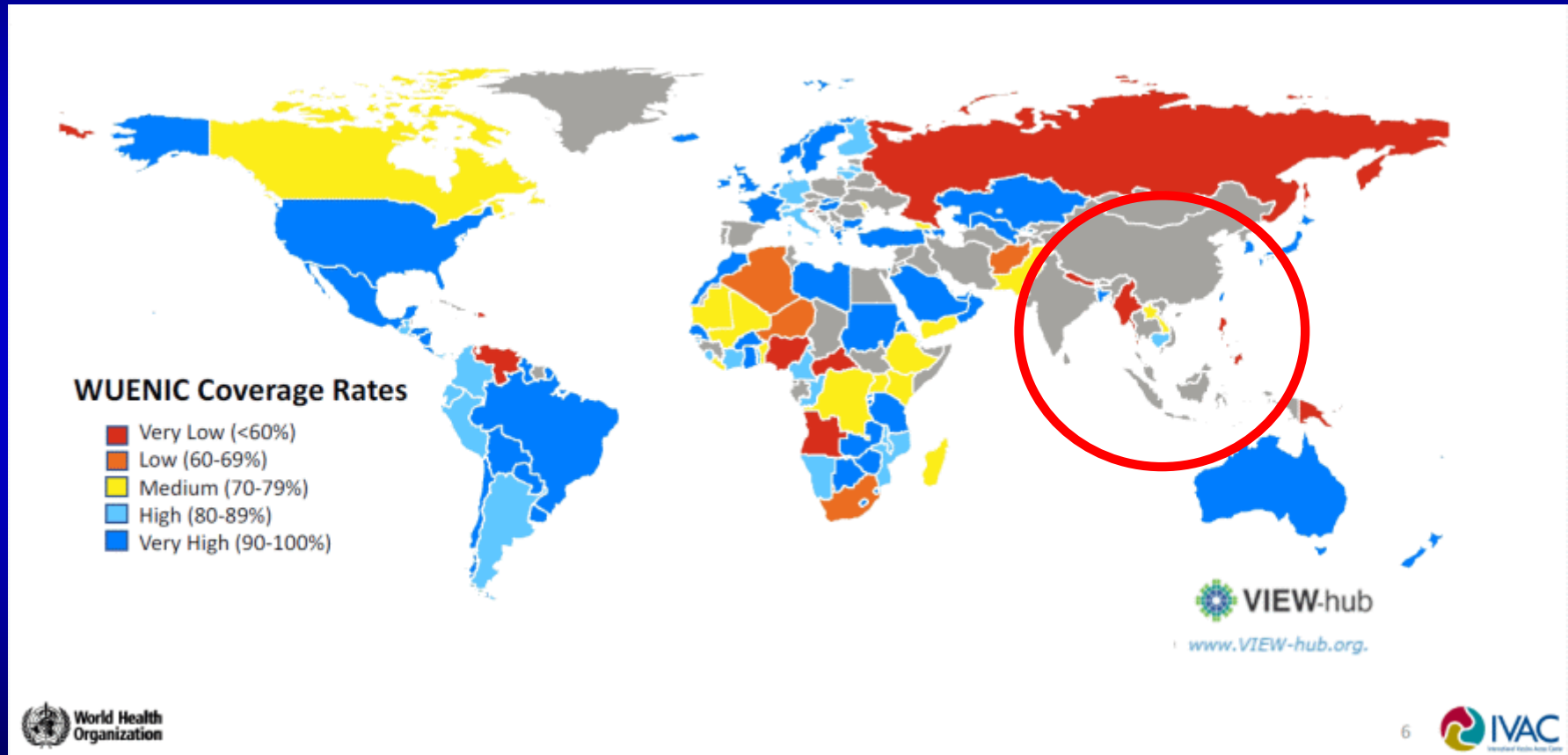


Areas with rotavirus vaccine in NIP

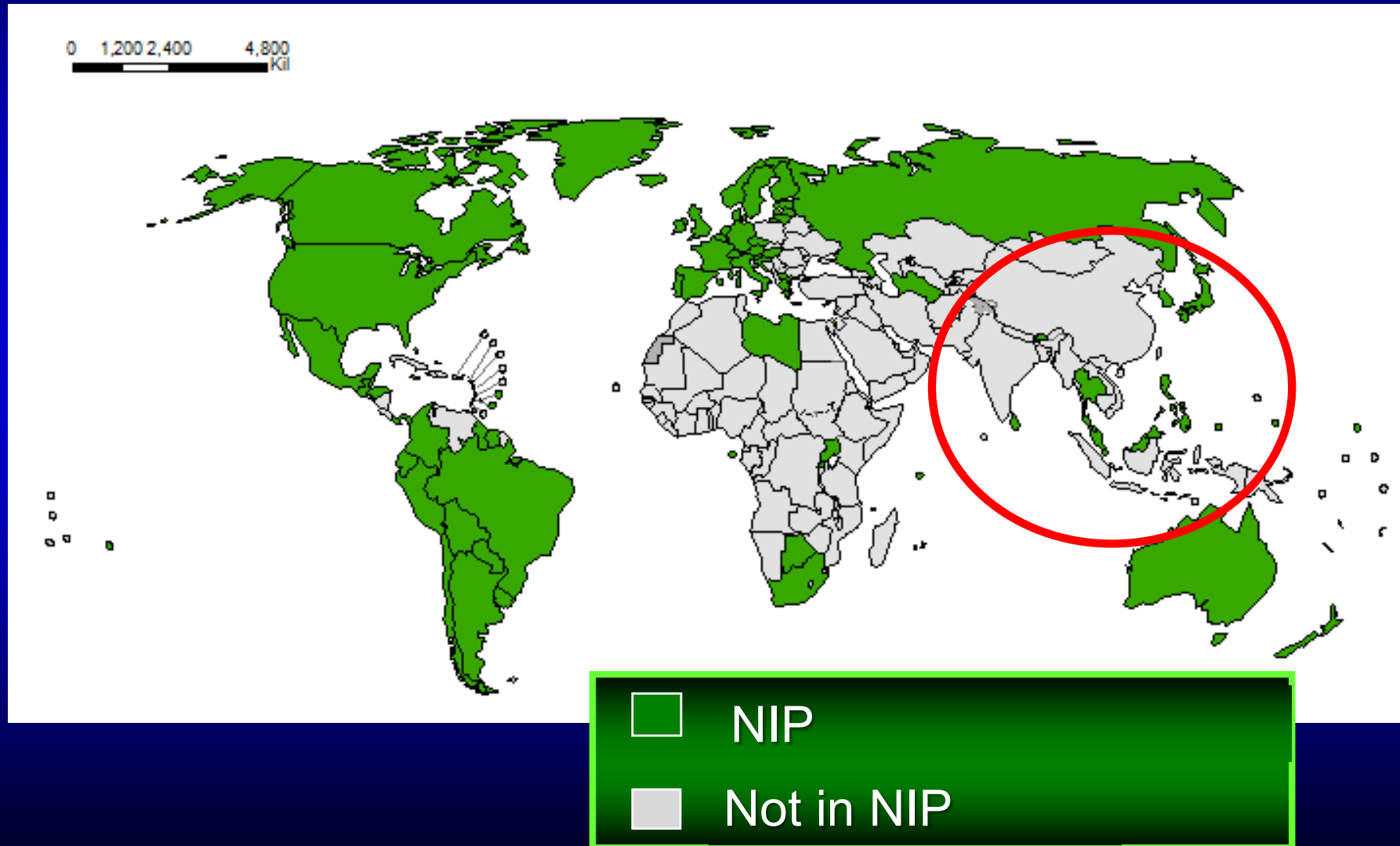
N-81, May 1, 2016



Areas with pneumococcal conjugate vaccine in NIP SAGE, WHO, Oct. 18, 2017



Areas with human papillomavirus vaccine in NIP N=80, May, 2018, WHO



Joint Expert Forum for Prevention of Pneumococcal Diseases in Children in Asia



Thanks....

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