



# **SOUTH & SOUTHEAST ASIA**

# **PATHOGEN GENOMICS PRIORITIZATION**

# **& IMPLEMENTATION WORKSHOP**

September 9-13, 2024  
Bangkok, Thailand

## WORKSHOP PARTNERS



Sydney Infectious Diseases Institute  
Centre for Infectious Diseases & Microbiology  
WHO Southeast Asia Regional Office (SEARO)  
WHO Western Pacific Regional Office (WPRO)  
WHO International Pathogen Surveillance Network (IPSN)



# Health financing for pathogen genomics

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SDGHI

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Asia Pathogen  
Genomics Initiative



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# Structure

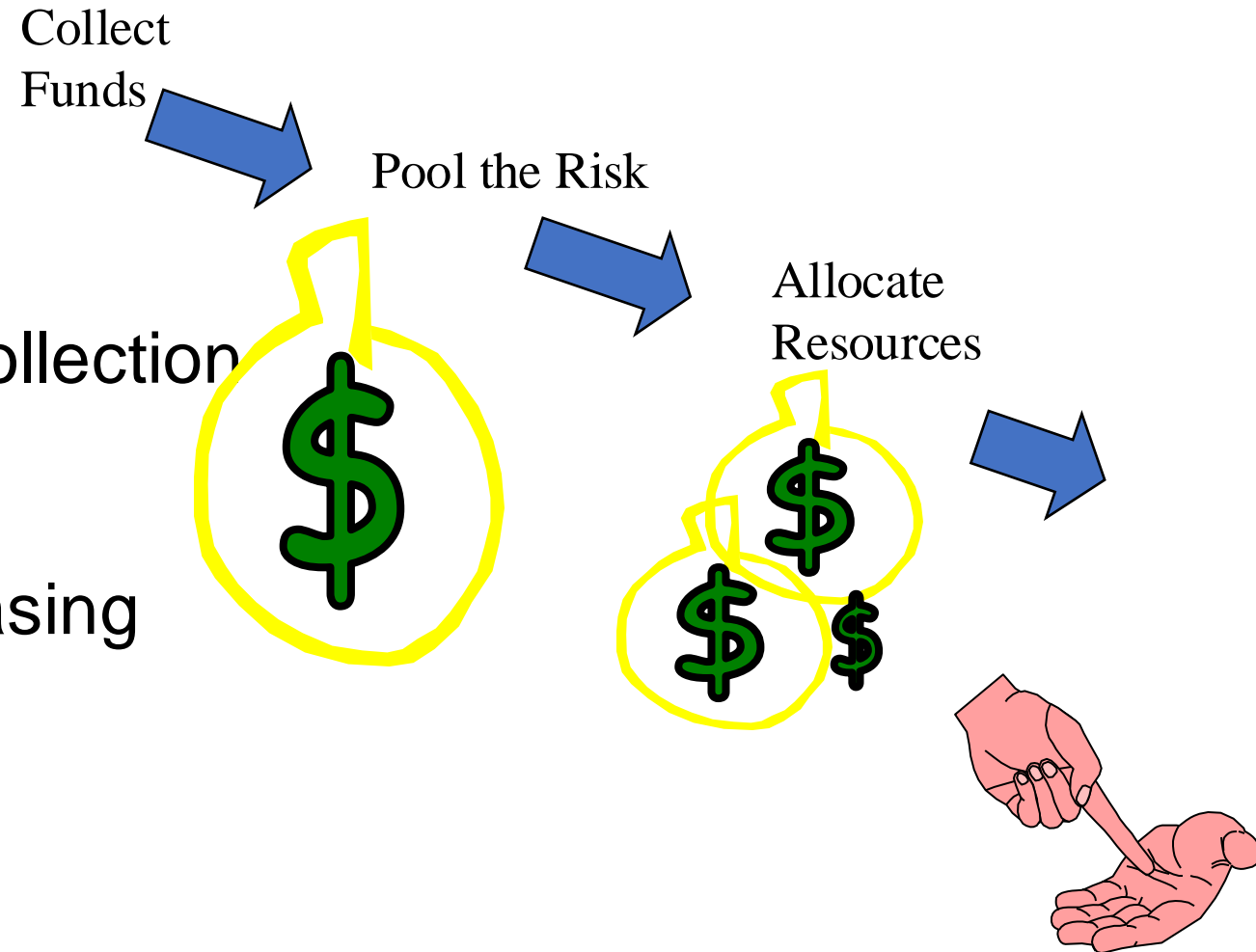
1. Health financing in general
2. Financing of essential public health functions
3. Pathogen genomics as an example of a technical priority EPHF
4. Global funding opportunities for PG in the context of pandemic prevention, prep. & response
5. Decentralization and implications for HF / FPG
6. Political economy approaches



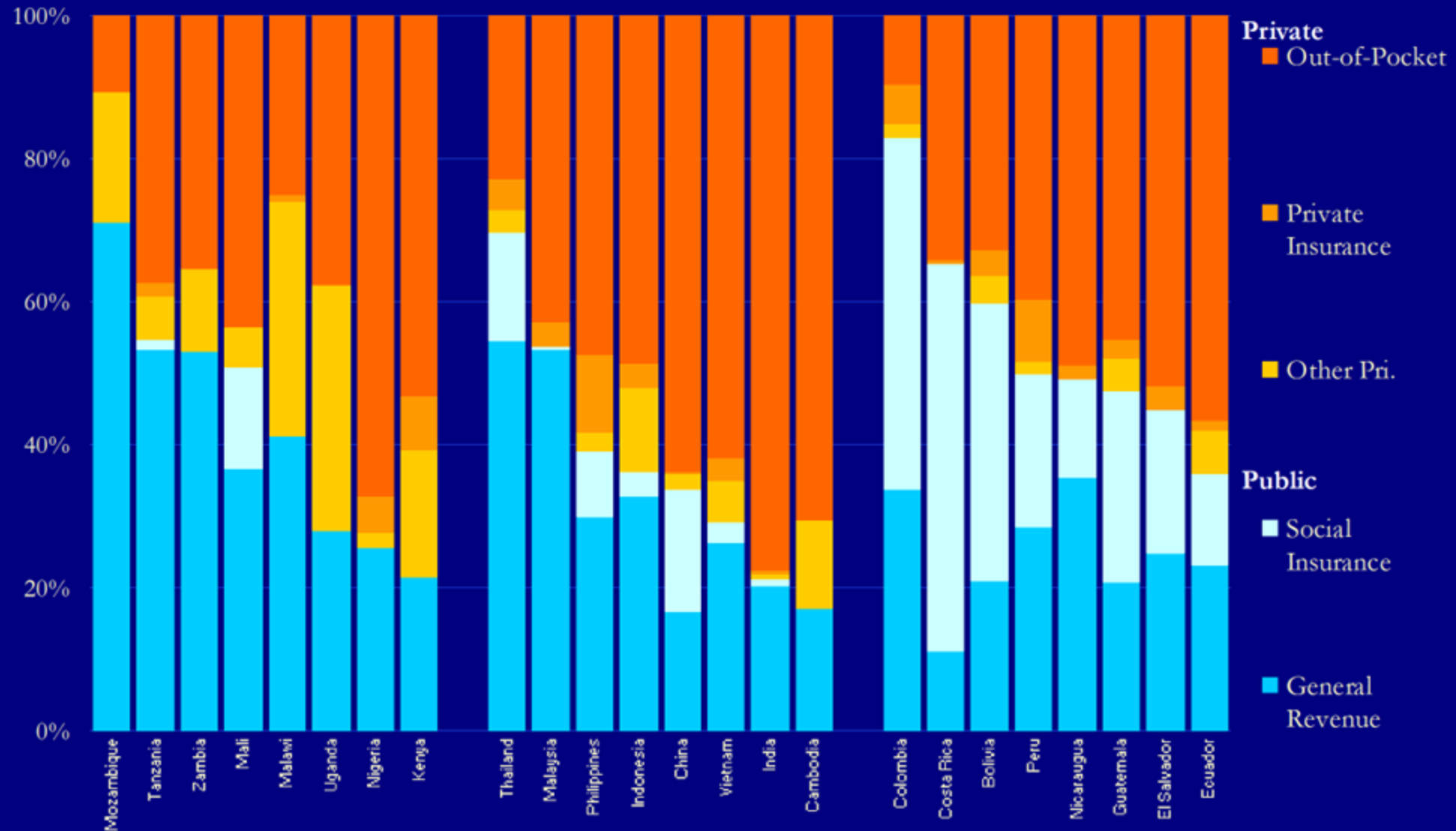
# Health financing

Three major components of HF

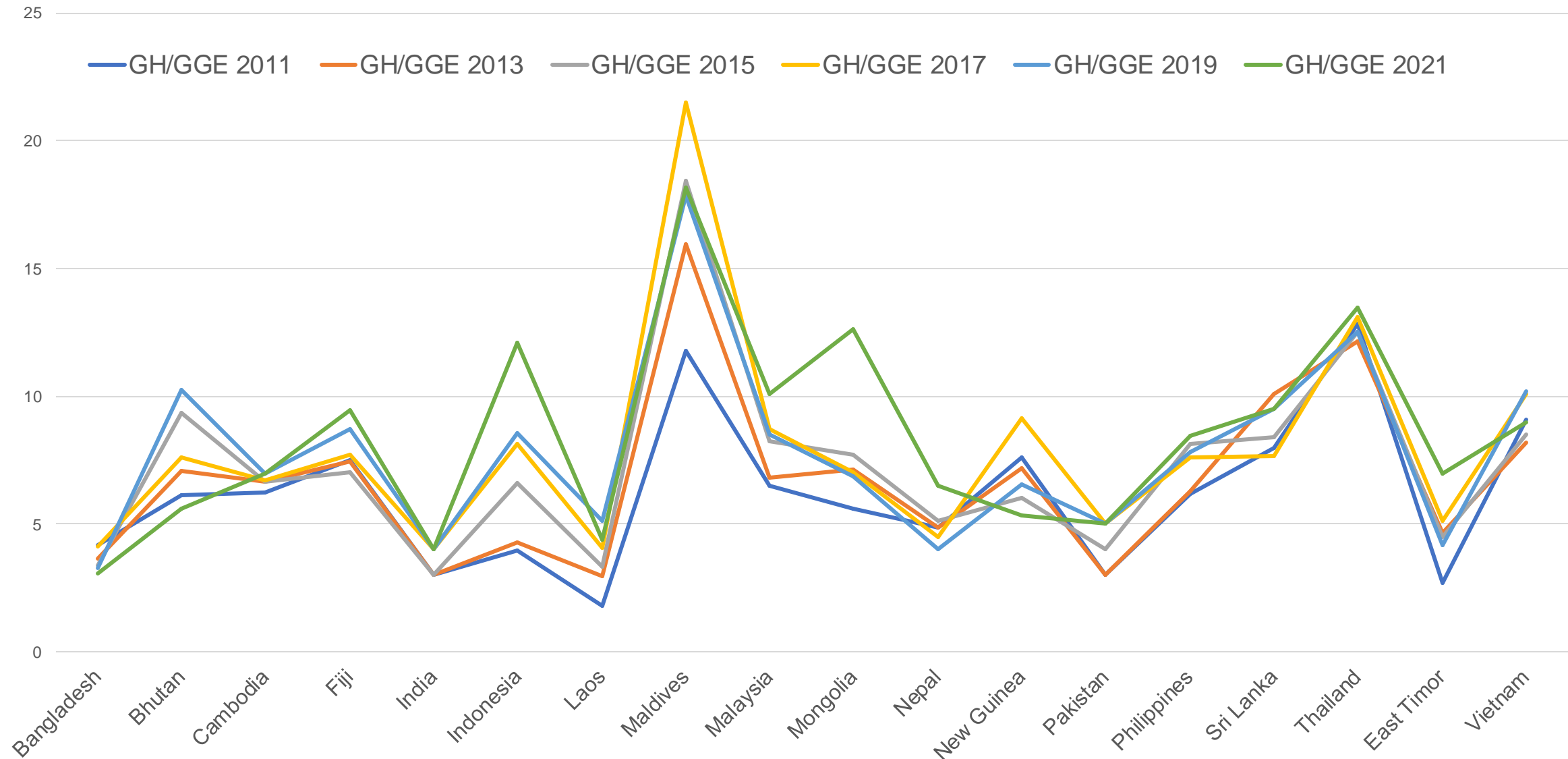
1. Revenue mobilization and collection
2. Pooling of resources
3. Resource allocation / purchasing



# National health accounts



# Govt exp on Health / General Govt Exp. 2011-21 (%)





NATIONAL  
BOWELCANCER  
SCREENING PROGRAM

# Free Home Test Kit

PATHOLOGY SERVICES



4 easy steps  
that could help  
save your life.



scan for  
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[health.gov.au/nbcsp](https://health.gov.au/nbcsp)



ong bệnh giun:

tay sạch sau khi đi  
t và trước khi ăn.  
u hiện ăn sạch, ăn chín,  
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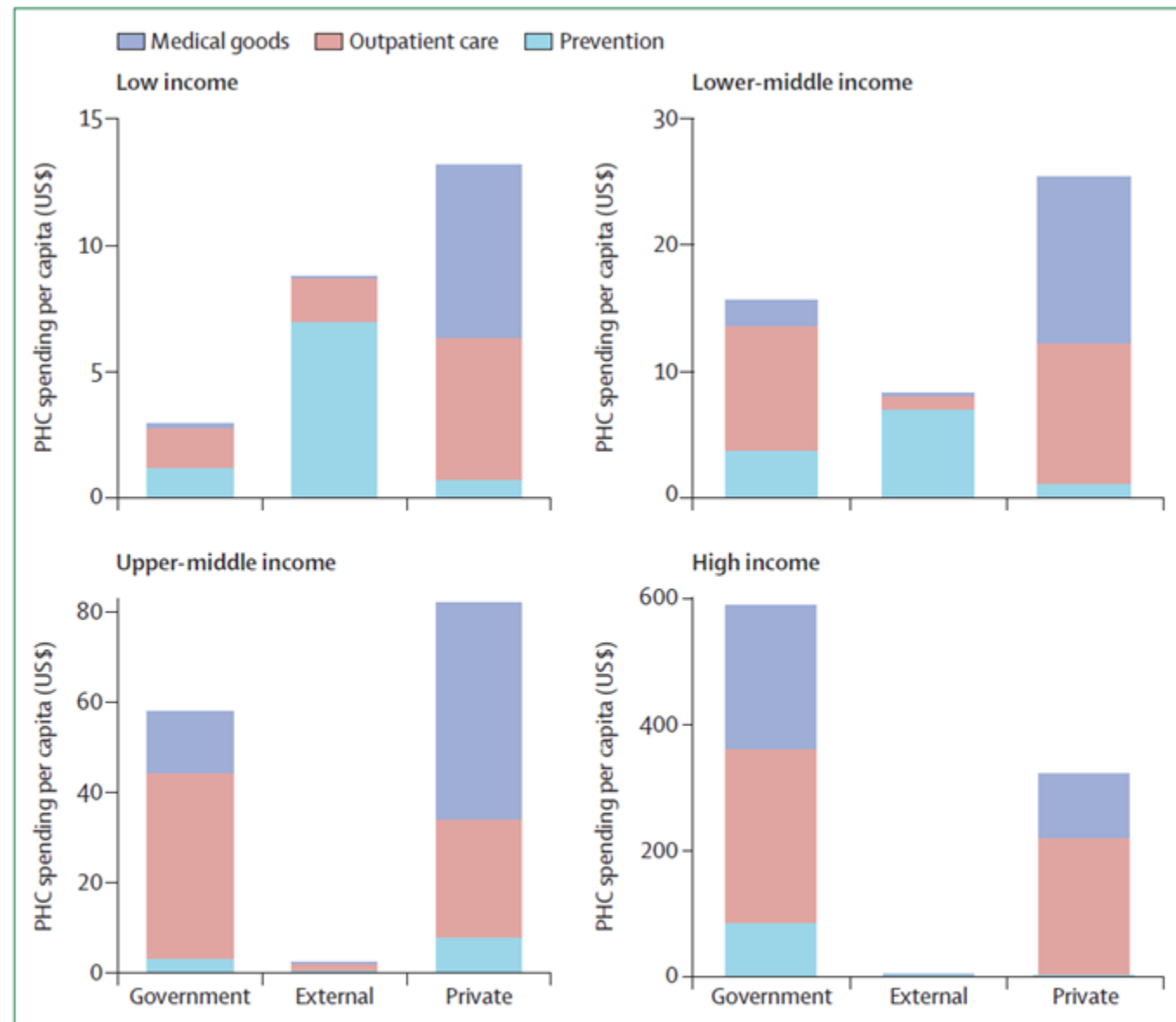
đây là một  
vấn đề nghiêm trọng. Trẻ em  
phải được rửa sạch  
móng tay và quần áo.



ƯƠNG



# Financing EPHF as a political economy issue



**Figure 2: Components of PHC spending by financial source in low-income to high-income countries in 2018**  
Figures exclude dental care and home care. Medical goods only include medicines and other medical goods purchased outside of outpatient facilities. Private spending includes individuals paying out of pocket and other domestic private sources, such as private insurance (voluntary and compulsory). External spending includes the use of grants, concessional loans, and aid in kind from outside the country. PHC=primary health care



WHO progress matrix desirable attribute	Commission recommendation
Health expenditure is based predominantly on public funding sources	Public resources should provide the core of PHC funding, with minimal reliance on direct payments when services are accessed
Benefit design includes explicit limits on user charges and protects access for vulnerable groups	Public resources should provide the core of PHC funding, with minimal reliance on direct payments when services are accessed
Pooling structure and mechanisms across the health system enhances the potential to redistribute available prepaid funds	Reduce fragmentation, thereby creating an enabling environment for more equitable cross-subsidies between healthy and ill as well as rich and poor, more efficient integration between levels of care, and better coordination with services in (often donor-funded) disease or intervention-specific programmes
Health system and financing functions are integrated or coordinated across schemes and programmes	Reduce fragmentation, thereby creating an enabling environment for more equitable cross-subsidies between healthy and ill as well as rich and poor, more efficient integration between levels of care, and better coordination with services in (often donor-funded) disease or intervention-specific programmes
Resource allocation to providers reflects a combination of population health needs and provider performance	Payment methods should assign resources based on people's health needs and align incentives with people-centred services
Purchasing arrangements are tailored in support of service delivery objectives	Payment methods should assign resources based on people's health needs and align incentives with people-centred services
A set of priority health service benefits within a unified framework is implemented for the entire population	Pooled funds should cover PHC and enable all people to receive it free at the point of use
Health budget formulation and structure support flexible spending and are aligned with sector priorities	Public financial management systems must be flexible and straightforward, enabling managers to respond to the changing needs of patients, families, and communities
Providers can directly receive revenues, flexibly manage them, and report on spending and outputs	Funds flow to and are managed by frontline providers (autonomy)

PHC=primary health care.

**Table: Alignment of the Lancet Global Health Commission recommendations with WHO guidance on health financing**

# Financing EPHF: Opportunities & challenges

- Not unique – same principles as for basic clinical care
- Throwing public money around is not enough
  - Needs
  - Performance and accountability (data/information)
  - Value for money (how to measure? Cost-benefit analysis not easy)
- Priorities and trade-offs
  - Which EPHF to implement first? What coverage to aim at?
  - Costs and sources of funding?
- Deconcentration vs devolution
  - Who controls the resources?
  - Where do they come from? (central/local; earmarked?; efficiency)
- Compulsion vs capacity vs capability



# Public Financing of Pathogen Genomics

- May benefit from global or regional standards, market shaping ...
- Will not benefit from pooling or insurance mechanisms
- Must be entirely public sector; the public won't pay out of pocket and private sector unlikely to fund unless for profit/philanthropy/guilt!
- Must demonstrate benefit at an acceptable cost
- Capitation that includes EPHF, if feasible, may be the best option

## Challenges

- Limited, and need to increase, tax revenues (has its own pol. economy)
- Even with a bigger pie, priority not guaranteed and ...
- PFM issues (e.g. separate budget mechs for EPHF and clinical care)
- Pooling of fragmented financial resources – difficult, messy

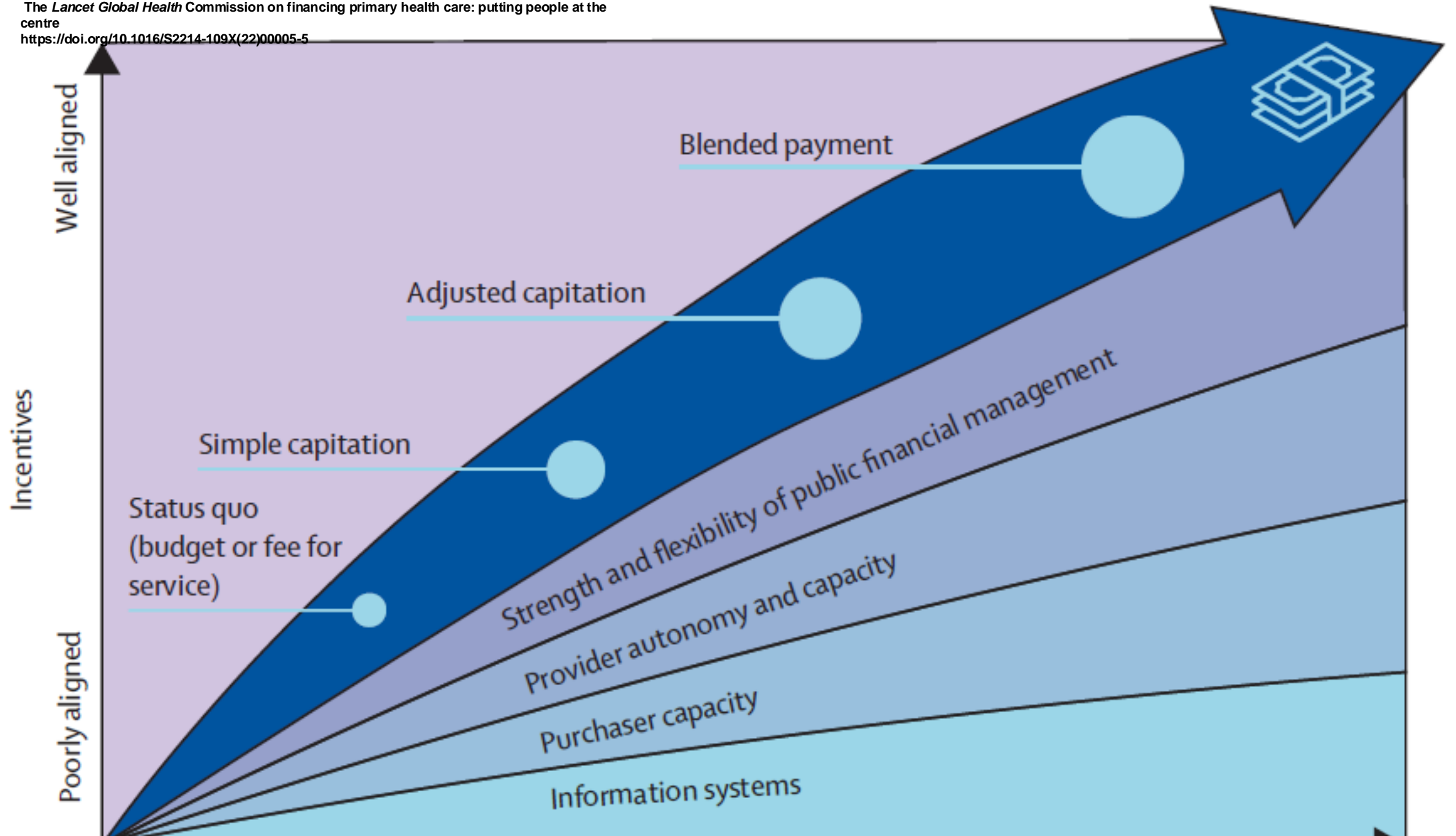
# It's not only about governments spending more, it's also about them spending better

## The issue of public financial management:

- Budget formulation and execution
- Input v output v performance-based funding
- Service & budget organization: centralization or decentralization?
- Fund leakage or diversion

## Does improved efficiency improve healthcare financing?

- The benefits may be overestimated; it requires investment
- There may be vested interests in the status quo / corruption
- + ↓Cost & ↑benefit improvements in use of health resources are possible



# General info about donors funding EPHF

- Tendency to fund vertical programs
- Funding usually off budget; may replace govt funding
- May not fund systems components like information systems or governance, or social determinants of health
- May depend on hard outputs like disease incidence... harder to measure for EPHF and pathogen genomics for uncertain events
- May lead to inefficient, separate reporting, budget fragmentation...

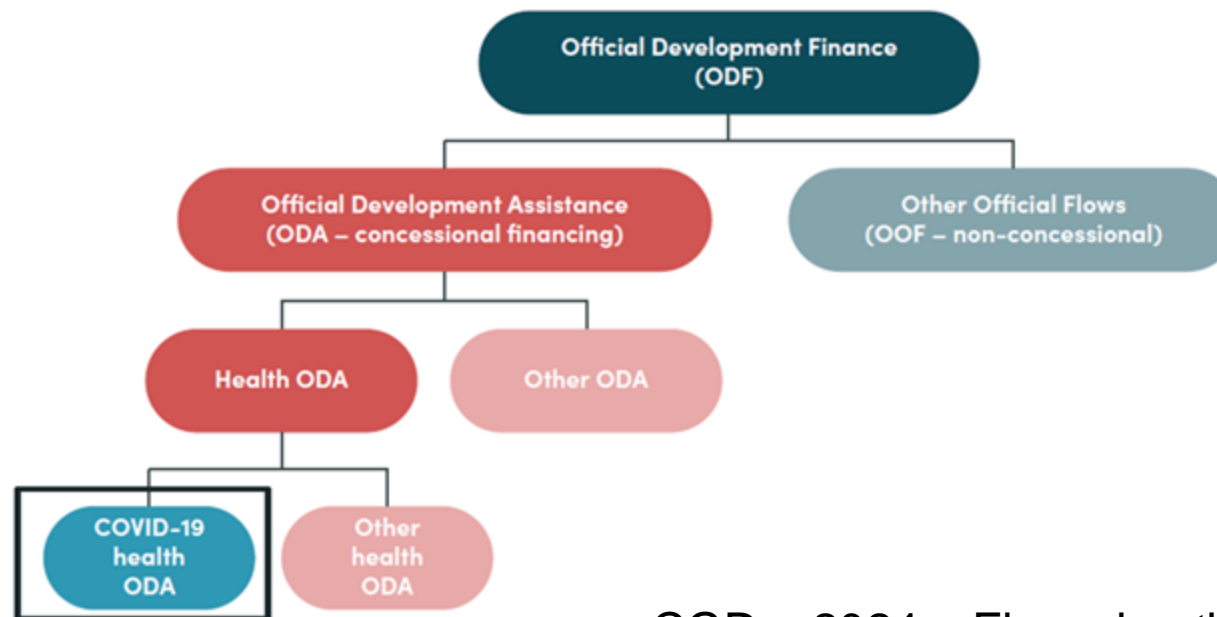
If donors funded pathogen genomics, how & what would they fund?

- Need for partnership with a technical support agency?
- Sustainability / exit strategy etc.

# External funding opportunities for PG: principles

- External financing may be sector specific or general ☐ competition

FIGURE 2. Classification of official development finance for health ODA

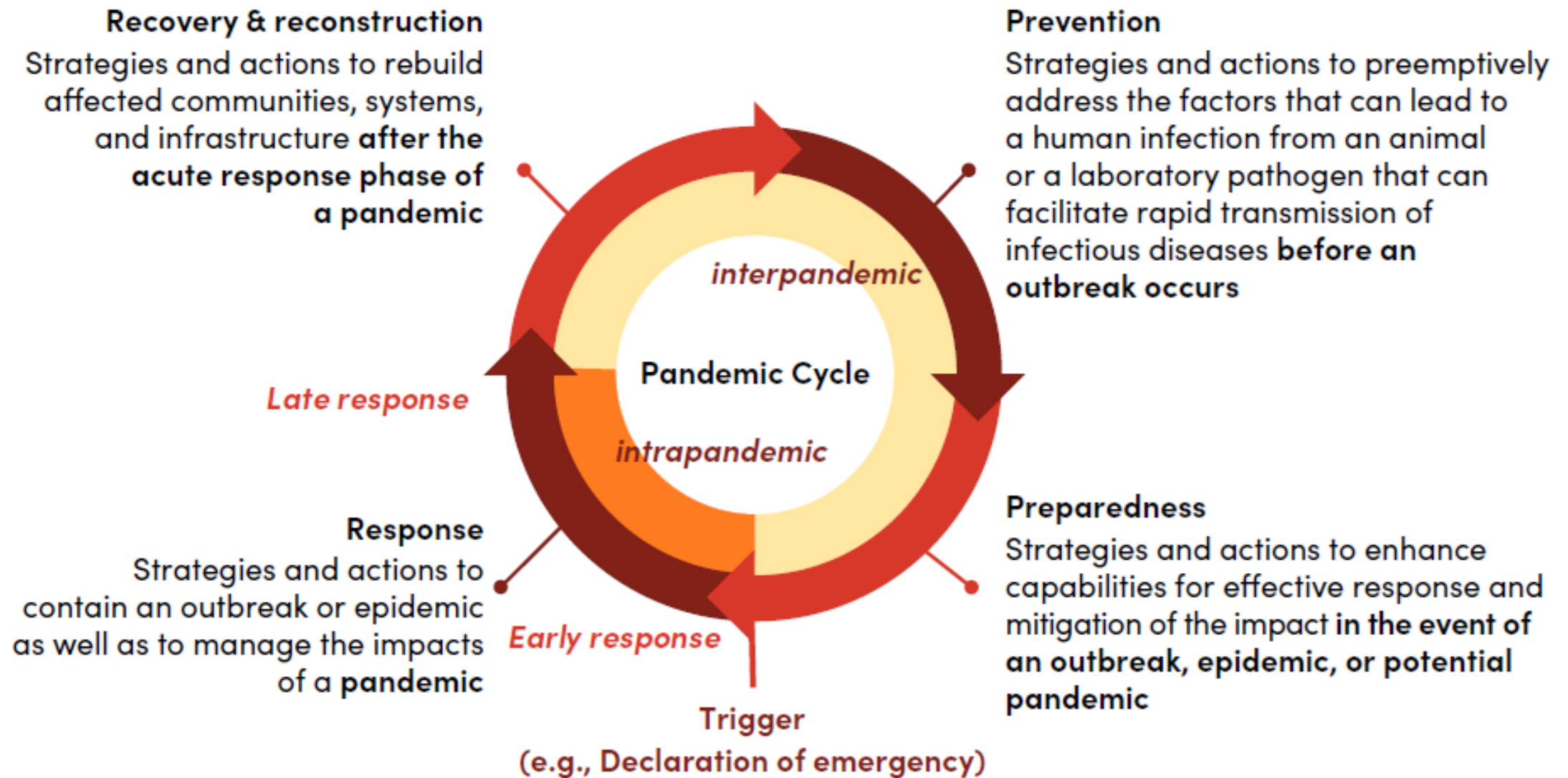


CGD – 2024 – Financing the pandemic cycle

- Embedded in the HF components: revenue raising, pooling, purchasing
- EPHFs may require financing across sectors
- Pathogen genomics most likely to be financed through the MoH, but...



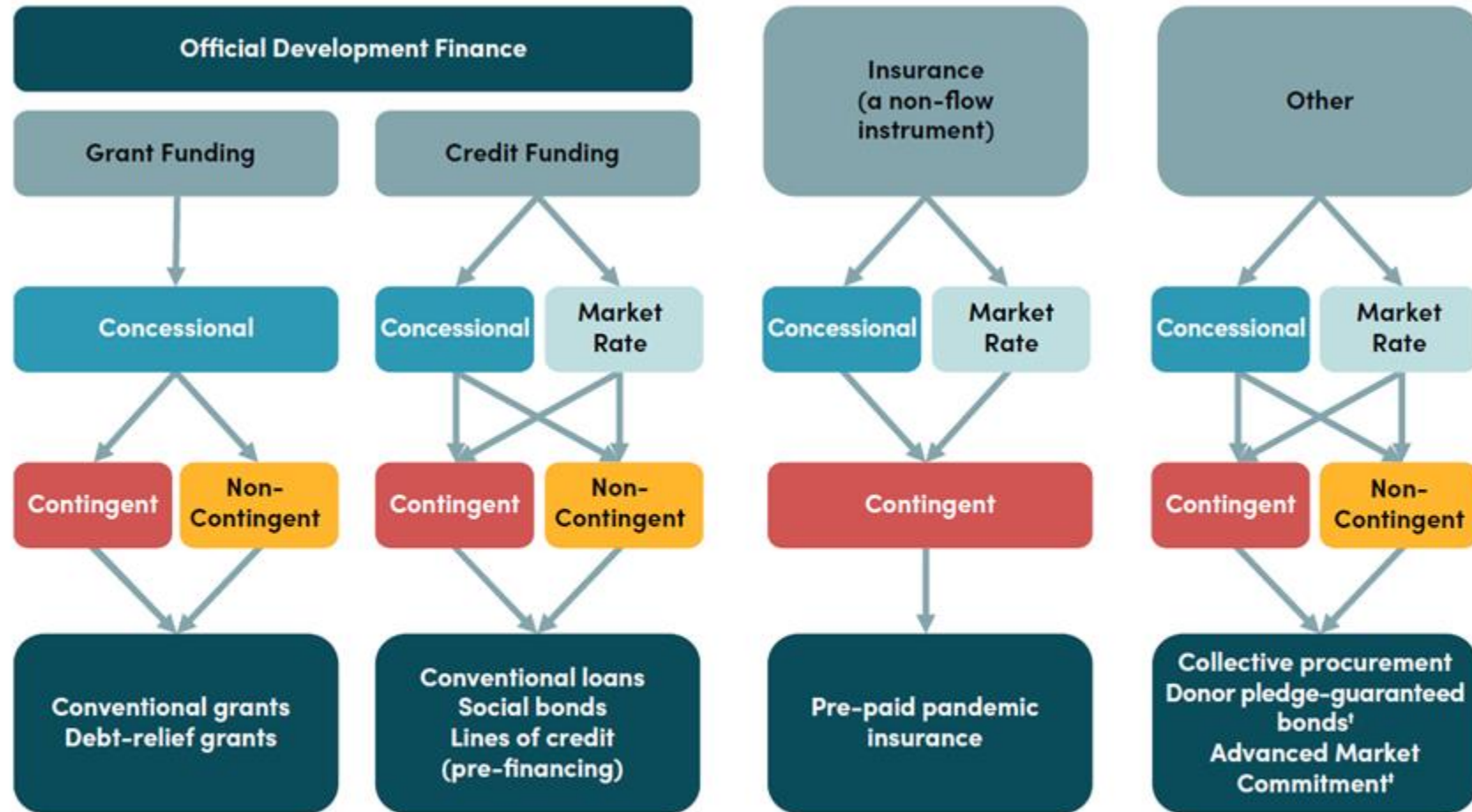
**FIGURE 1. Framework for the phases of the pandemic cycle**



# Pandemic financing instruments (could theoretically be used to finance pathogen genomics)

Classification of external pandemic financing tools by key characteristics

CGD – 2024 – Financing the pandemic cycle



Notes: Concessional refers to various forms of subsidies by donors. Grants are typically fully subsidized but they can require national co-financing. Concessional credit usually has interest rates that are below market rates. Concessional insurance reduces the premium paid by the insured. Concessional collective procurement uses subsidies to reduce the prices paid by some purchasers. <sup>1</sup>The International Finance Facility for Immunisation, or IFFIm, is one such example



# External resources for PPPR

Various organisations may be a source of external funding, credit, insurance or procurement support, including:

- International multilateral organizations (e.g., WHO, UNICEF, UNDP)
- Multilateral regional organizations (e.g. PAHO, Africa CDC),
- Development finance institutions (World Bank, IMF, ADB, AfDB, IsDB....)
- Bilateral (e.g. US CDC, JICA, USAID, EU, GIZ)
- Global health initiatives (e.g., Gavi, CEPI, GF, also IPSN)
- Philanthropic organizations (e.g., Gates Foundation, Wellcome Trust, Temasek Foundation), and
- Research institutes (e.g., Institut Pasteur)



# External funding for pathogen genomics

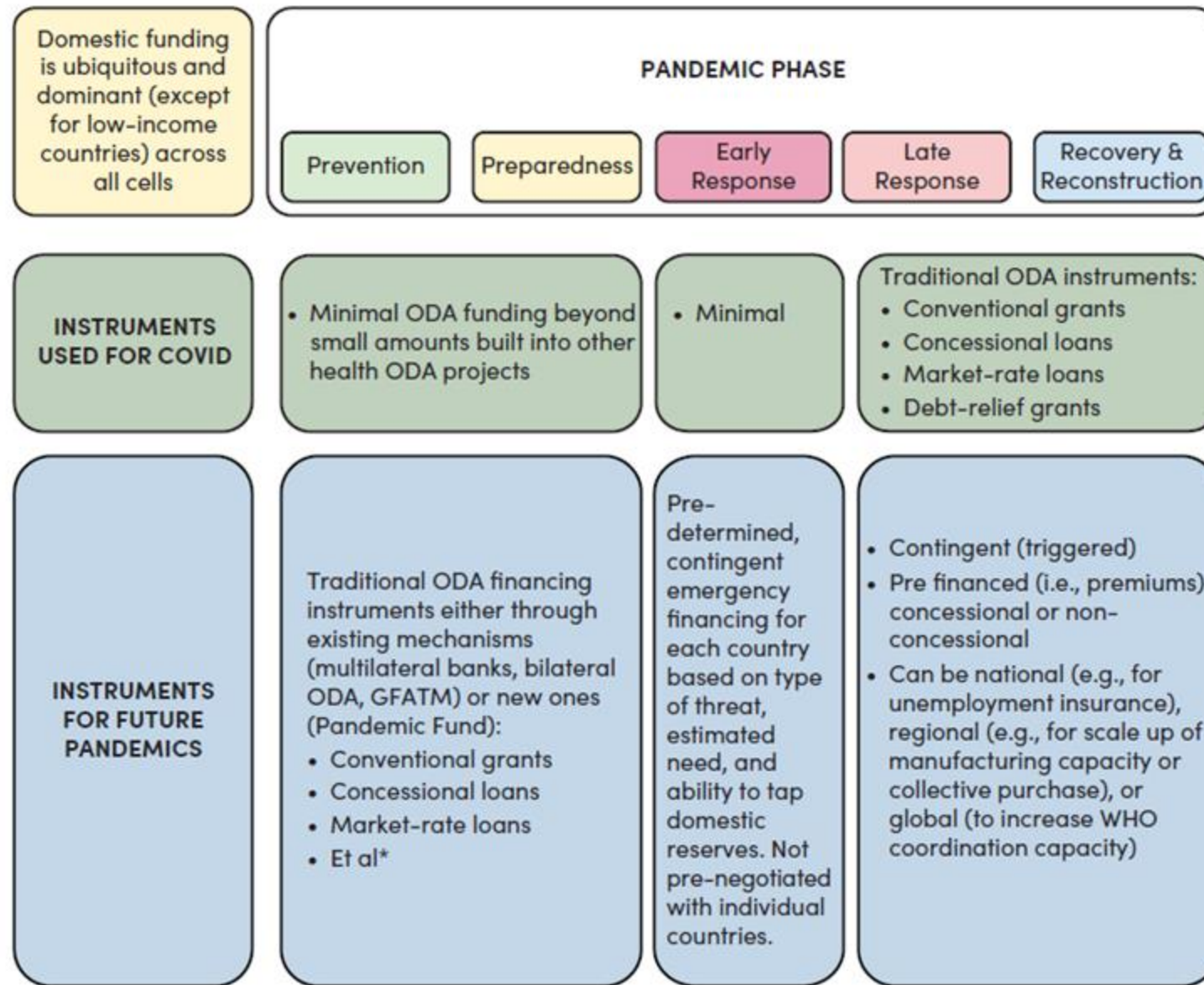
- The Pandemic Fund – hosted by the World Bank. Focuses on HSS; would be appropriate for pathogen genomics. Disbursed \$338mn to 37 countries in 2023 and will disburse \$500mn more, later this year.
- Three instruments for product devt / manufacture / purchase or distribution emerged from COVID-19
  - COVAX (could be a model for pathogen genomics)
  - Gavi's First Response Fund (only for existing vaccines)
  - African Vaccine Manufacture Accelerator (forward looking...)

It is conceivable that a similar mechanism could be developed for pathogen genomics, with the right support





# Instruments and financing mechanisms for pandemic phases



Notes: \* Loans appropriate for start up costs or if the country is in short term crisis; maintenance costs should be a mix of grants and domestic financing



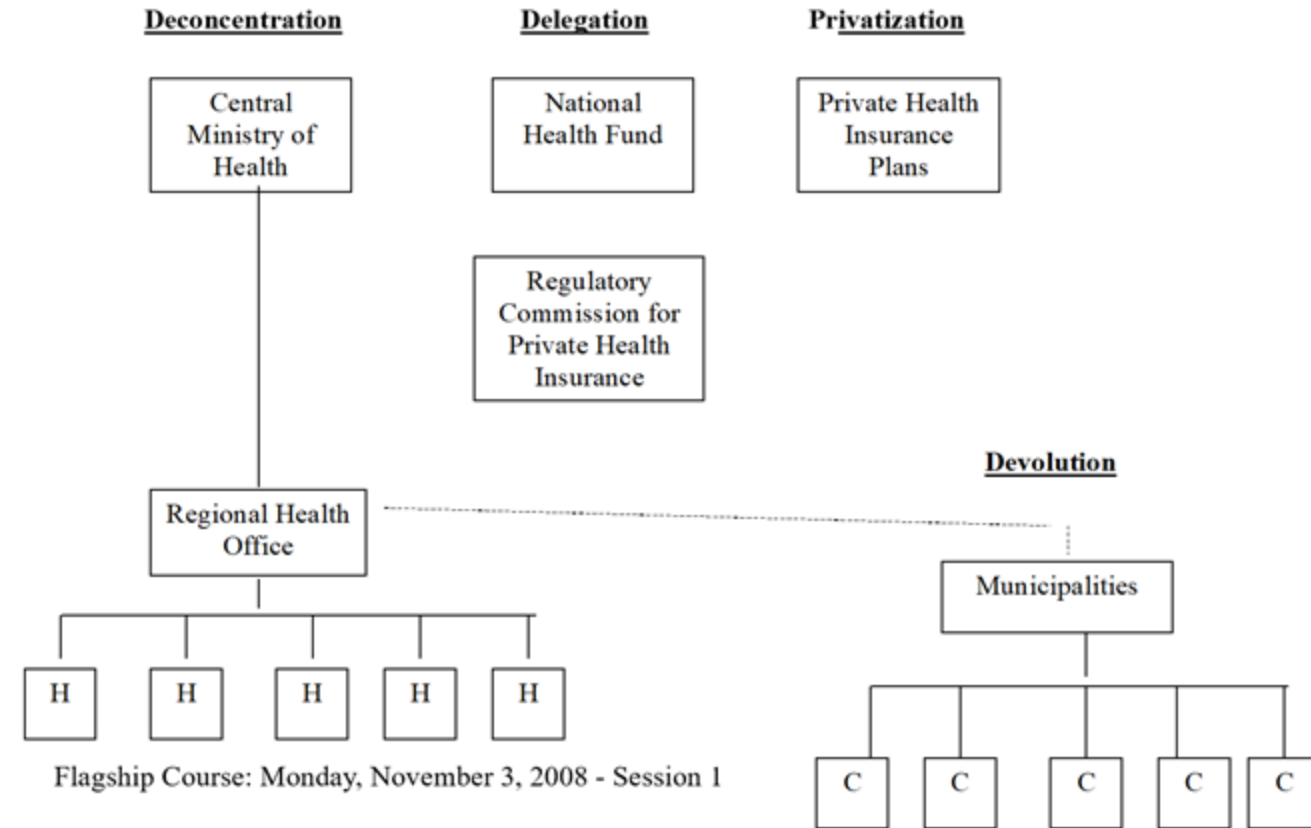
# Political economy aspects

- Redistribution of funds / DRM – winners and losers
- Pathogen genomics... is it sexy enough?
- How to prove its value for money / sustainability? To whom?
- Inputs v Outputs (need appropriate indicators)
- MoH vs MoF vs other priorities / sectors
- May require sub-national buy-in / coordination / subsidization
- Customs / import tax
- Power issues ... at all levels; gradual process of “persuasion”; timing
- Advocacy / salesmanship
- Partnerships: govt and non-govt
- Donor / Tech agency influence
- Having a long-term plan and consistent expectations of benefit helps



# Decentralisation

- Who gets more choice, how much choice? what mechanisms used?
- What functions are decentralised? Priority-setting? Resource alloc.? HR? Service delivery?
- How are finances allocated? Delivered? Conditions attached? Local top up possible? Matching?
- Resource alloc. formula? Disease burden? Population? Poor? Dense?
- Levels of responsibility may vary by program, function, capacity
- Requires adeq. HR, capacity and capability. Regulation issues...





# Conclusion

- Financing of pathogen genomics will eventually require sustained govt resource allocation
- Meanwhile, a small mix of funding opportunities & TA is available
- Introduction will require standardized costing, supplies and PFM
- Agreement on indicators of progress and success are needed
- ... also on good performance and cost-benefit, and their reporting
- PG is an example of an EPHF mostly implemented through PHC
- Capitation can provide a foundation for its inclusion in public sector financing of EPHFs



• Political economy issues will need to be overcome; regional and

# Further reading

- Lancet Global Health Commission on Financing PHC (open access)

<https://www.thelancet.com/commissions/financing-primary-health-care>

- Center for Global Devt (2024): Financing the Pandemic Cycle

<https://www.cgdev.org/publication/financing-pandemic-cycle-prevention-preparedness-response-and-recovery-and>

- WHO (2024): Political economy analysis for health financing

<https://www.who.int/publications/i/item/9789240092099>





# THANK YOU!

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