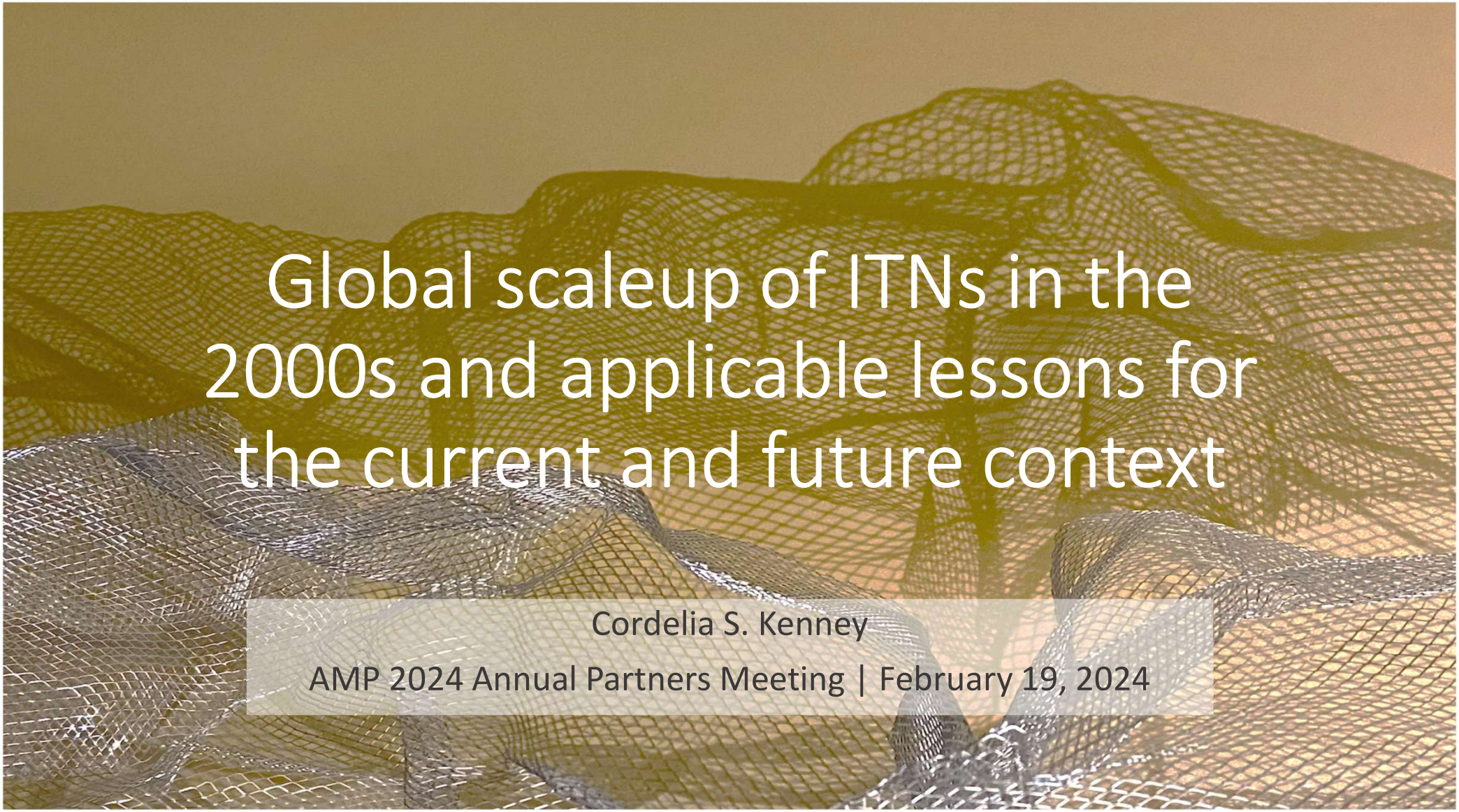
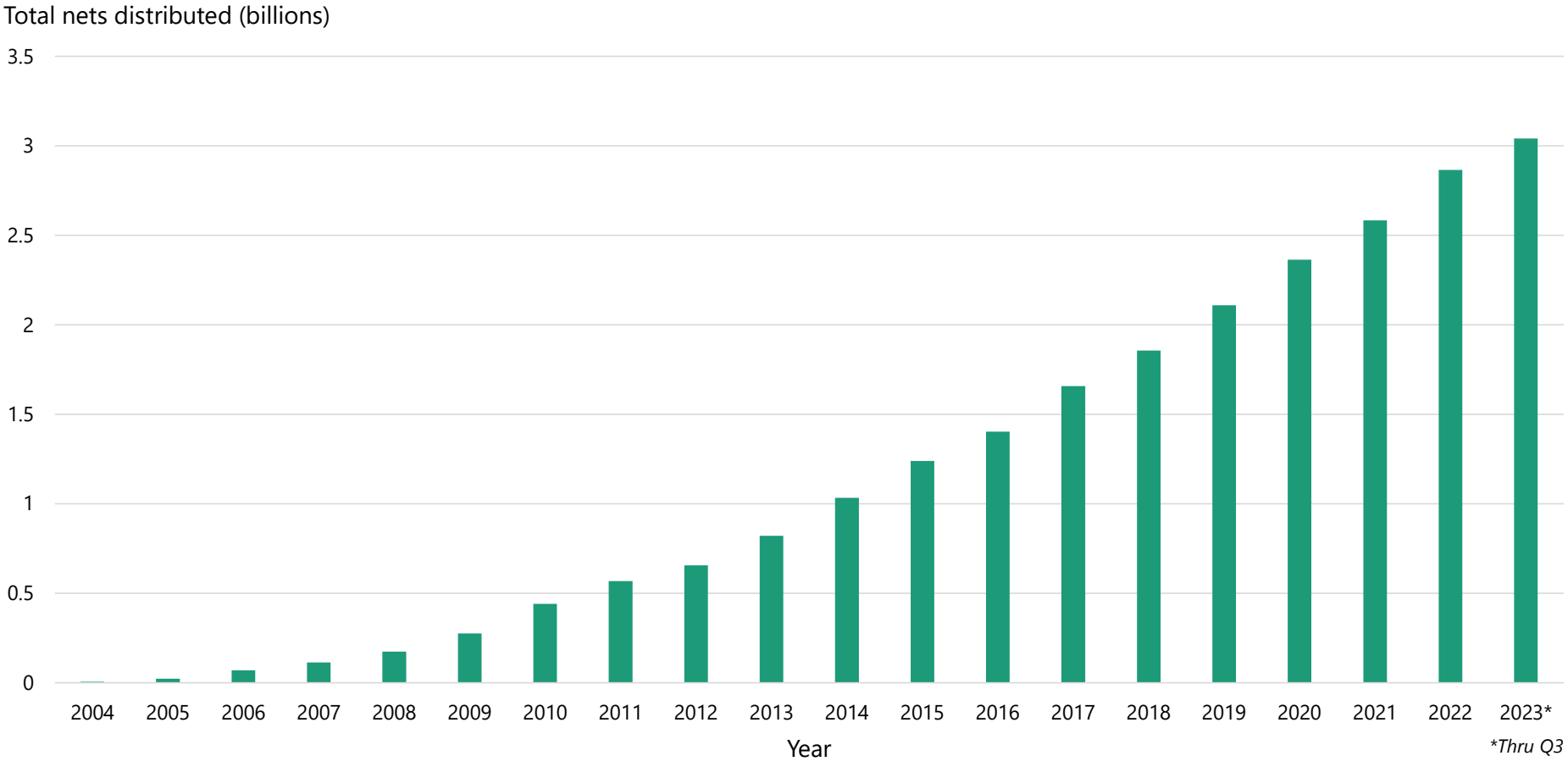


Global scaleup of ITNs in the 2000s and applicable lessons for the current and future context

Cordelia S. Kenney

AMP 2024 Annual Partners Meeting | February 19, 2024

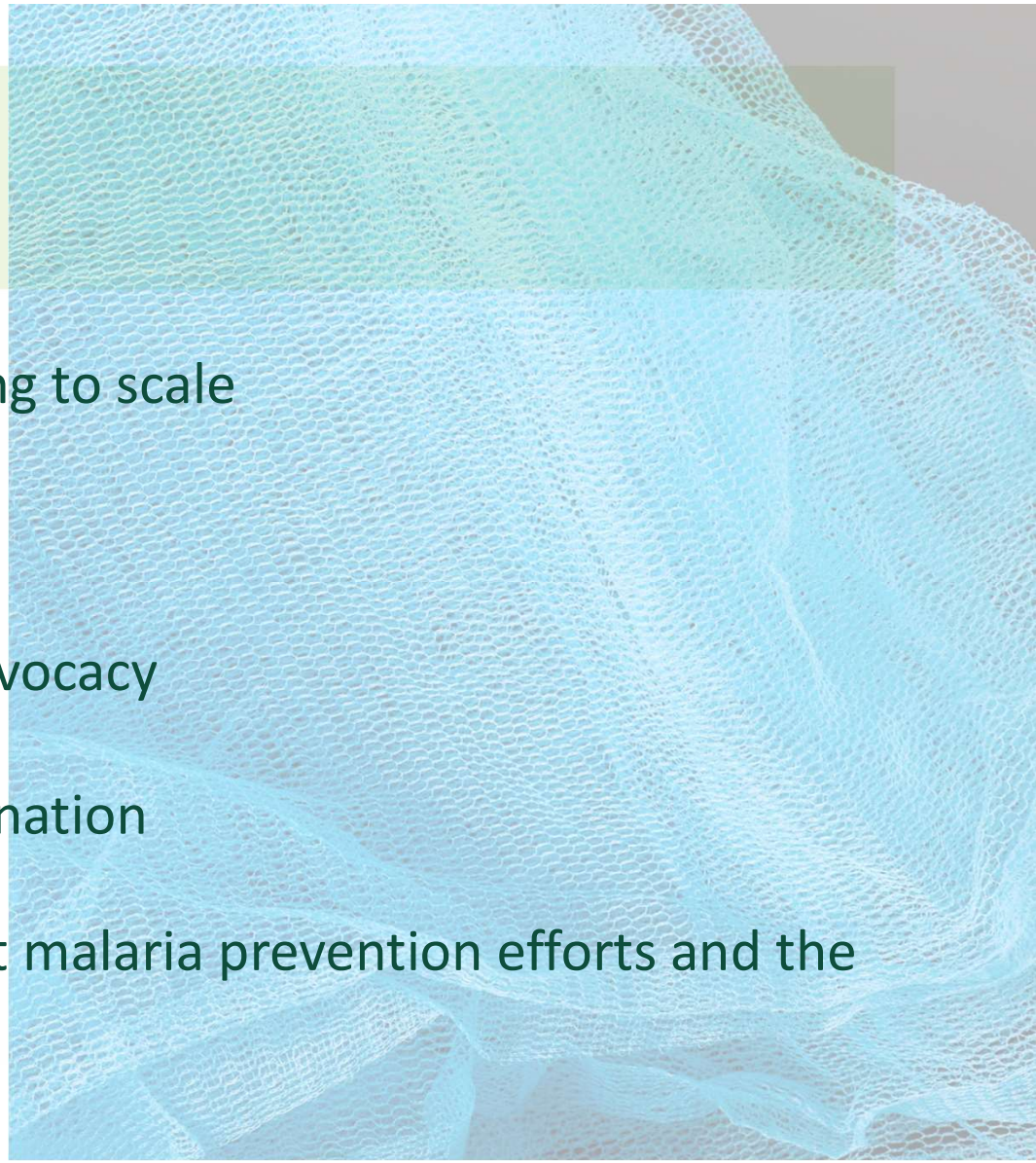
Cumulative Global Insecticide-Treated Net Distribution



Source: Alliance for Malaria Prevention, Net Mapping Project (Q3 2023).

Outline

1. Laying the foundation for going to scale
2. Early integration
3. Resource mobilization and advocacy
4. Partnership needs and coordination
5. What can we learn for current malaria prevention efforts and the future of vector control?



1.

Laying the foundation for going to scale

1980s-1990s: Randomized trials

- 1980s: Malaria exposure reduction
- 1991: Child mortality reduction
  - The Gambia (Alonso et al. 1991)
    - *Results*: **63% reduction** (!)
- 1990s: 4 RCTs (via WHO/TDR)
- 1998: Cochrane review (Lengeler 1998)
  - *Results*: **20% reduction** in *all-cause* child mortality (!!)
  - Updated in 2004 and 2018; results hold up

Key point: ITNs firmly established as a lifesaving tool in the fight against malaria by 2000.

…So scale up was a breeze from here, right?

2.

Early integration

Two main scaleup strategies

Photo by Etienne Bösiger on Unsplash

Socially market nets and sell subsidized nets to those most vulnerable to malaria (e.g., pregnant people and children under 5)

A

Mass distribute free nets through integrated national campaigns

B

…shaped by two different philosophies:

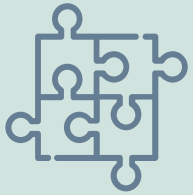
We have limited resources, many health needs; how do we get the most health impact with the existing pot of money?

A

We have a lifesaving tool and 1000s of people dying daily (mostly young children); treat (and fund) nets as a public good

B

Integrated campaigns approach



Rationale

- Poverty & net cost = biggest barrier
- Mortality trends
- Public good, like vaccines

Activities

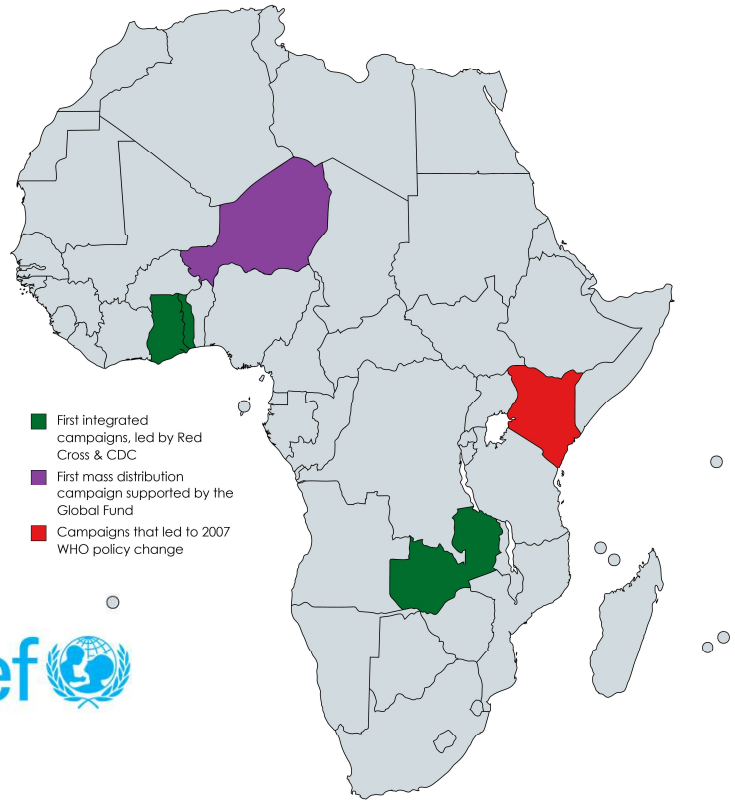
- Mass free distribution through integrated child survival campaigns
  - Measles vaccinations, deworming pills, vitamin A

Main Actors

- IFRC, Canadian Red Cross, etc.
- CIDA
- CDC

Evidence from integrated campaigns

Country	Year	Results	Number of districts
Ghana	2002	Household ITN ownership ↑ from 4.4 % to **94.4 %**	**1**
Zambia	2003	Household ITN ownership ↑ from 16.7 % to **81.1 %**	**5**
Togo	2004	Household ITN ownership ↑ from 8 % to **82.5 %**	**Nationwide**



CDC
Centers for Disease Control and Prevention

Canadian International Development Agency

unicef

Ministries of Health

Impact on policy and financing

2005: Niger

First country to receive a Global Fund grant for a mass distribution campaign

"Building on similar programs in Zambia and Togo, the Red Cross worked with other partners in Niger to secure Global Fund funding for a massive distribution of [LLNs] in tandem with regular vaccinations for polio."

- Global Fund 2005 annual report

THE GLOBAL FUND

2007: Kenya (Noor et al. 2007)

WHO cites evidence from integrated campaign in policy recommendation

Integrated campaign coverage: **67.3 %**

Compared to: 23.5% (through highly subsidized nets) and 7.1% (through commercial sector distribution)

"For the first time, WHO recommends that insecticidal nets be long-lasting, and distributed either free or highly subsidized and used by all community members."

- WHO press release

World Health Organization

3.

Resource mobilization and advocacy

Not so easy to agree, though…

- Global debt crisis and recession
- Cost-sharing requirements
- Institutional resistance to change

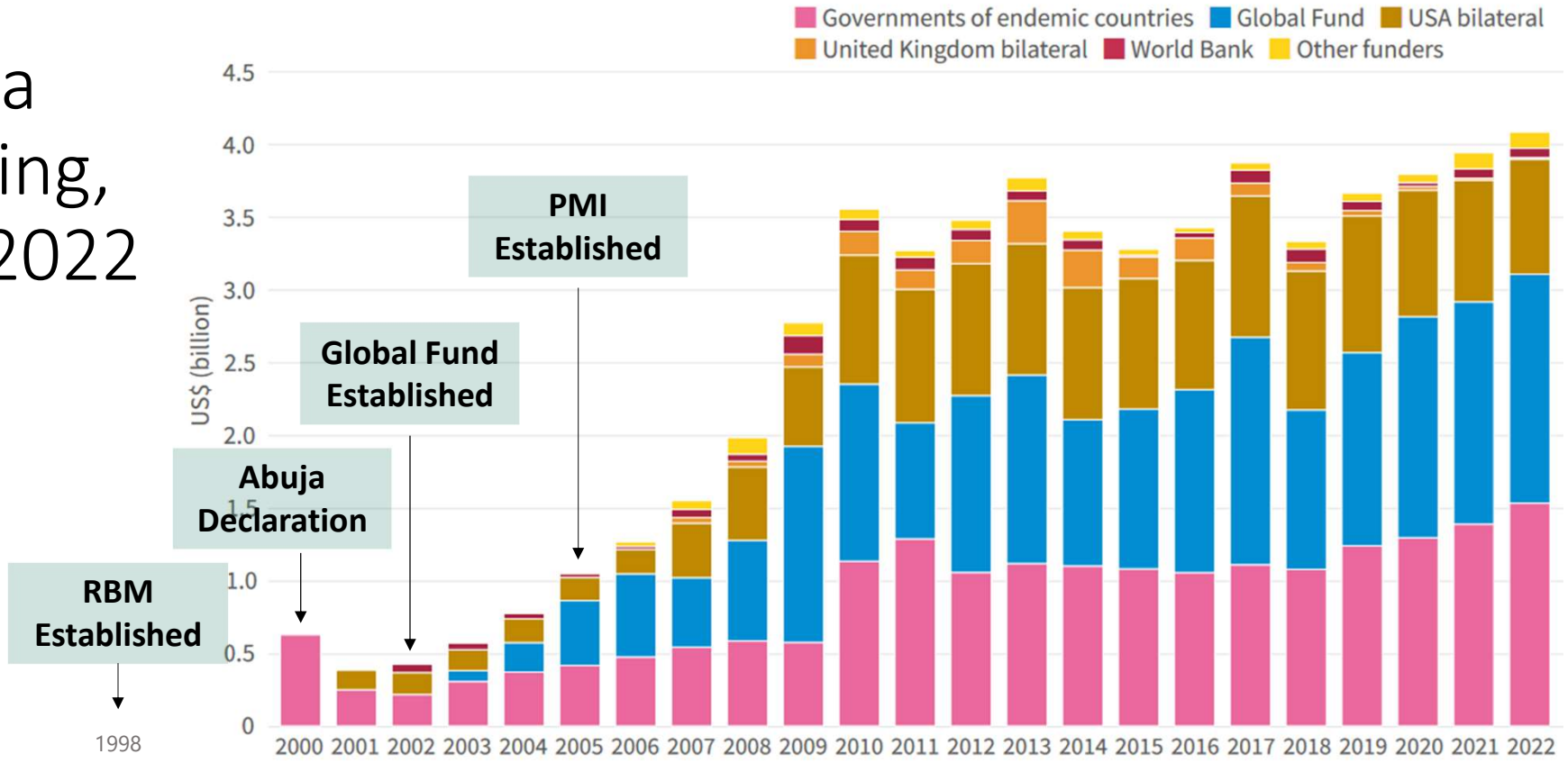
Photo by Ehud Neuhaus on Unsplash

…progress in scaling up [ITNs] has been slow in many countries, due in part to the **inability of the international community to reach a consensus** on how to deliver them to achieve and sustain high coverage.

- WHO 2007 press release

Total Global Malaria Spending, 2000-2022

Funding for malaria control and elimination, 2000–2022, by channel (constant 2022 US$) *Sources: US Government's ForeignAssistance.gov, Global Fund, NMP reports, OECD CRS database, United Kingdom Department for International Development, WHO estimates and World Bank DataBank.*



Source: World malaria report 2023. Geneva: World Health Organization; 2023. License: CC BY-NC-SA 3.0 IGO.

Spotlight on the Global Fund

- Changed terms of ITN distribution strategy debate
  - Lack of funding = main barrier to scaleup
  - Purchasing power (volumes, unit cost)
- Est. in 2002 as emergency response
  - Malaria included thanks to malaria advocates, RBM, African Union
- RBM Harmonization Working Group
  - Malaria grant approval rate: 30% in 2006 to 76% in 2007
- But: Procurement challenges

70%

Share of global malaria funding GFATM provided in 2010

THE GLOBAL FUND

4.

Partnership needs and coordination

Sustained collective action & coordination

Net users

Implementers

Manufacturers

Researchers

Policymakers

Donors

Advocates & champions (“the ones you see and the ones you don’t see”)

Photo by Casey Horner on Unsplash

Manufacturing capacity and market signaling

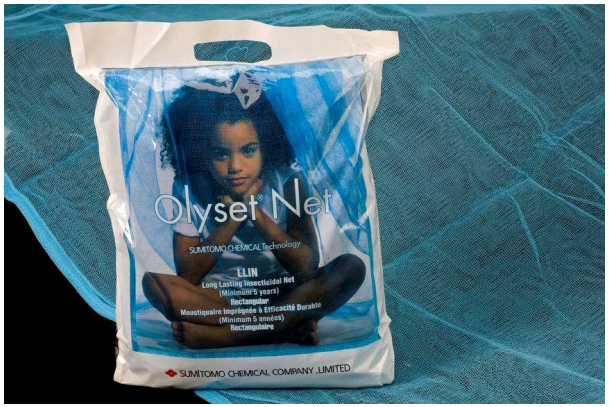


Photo credits: Sumitomo Chemical; Vestergaard

- Until 2007, 2 quality-assured manufacturers: Sumitomo Chemical (Olyset®) & Vestergaard (PermaNet®)
  - *Innovation*: LLINs
- Large volumes → assurance of a market → more manufacturers → lower unit cost
  - Global Fund and PMI
  - *But*: Donors need assurance, too (i.e., nets available to procure in the first place)
- Regulatory environment

5.

What can we learn for current malaria prevention efforts and the future of vector control?

What enabled ITN scaleup to occur?

Funding

Collective Action

Evidence

Scaled production capacity (from market assurance)

Broader activism

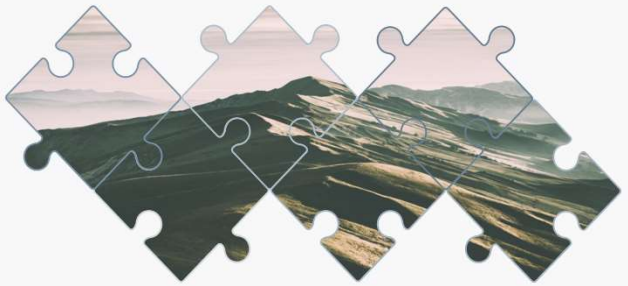
High-profile champions

Delivery strategy consensus

ITN marketability + LLINs

Technical guidance

Policy guidance



What constrained ITN scaleup?

Operational & logistical challenges

Lack of consensus on delivery strategy

Lack of policy & technical guidance

Lack of coordination

Acute funding gap

Insufficient production capacity

Lack of political will at international institutions to control malaria in Africa

History repeats itself – unless we learn

Early 2000s

- Increasing resistance / waning effectiveness of chloroquine
- Worsening HIV/AIDS pandemic
- Global recession and debt crisis
- Prioritization of individual responsibility over systemic causes, privatization, user fees

2024

- Emerging resistance to ACTs
- Ongoing COVID-19 pandemic
- Global recession and debt crisis
- Worsening effects of climate change
- Changing mosquito behavior

…But:

- Malaria vaccines

Three high-level lessons for malaria now

1.

High-level commitments are insufficient; robust evidence isn't enough (but is still important).

To ensure rhetoric is backed with action, malaria needs sustained, coordinated advocacy and political will.

2.

Coordinated **partnership** across and engagement with all partners – from net users to net manufacturers to policy-makers to funders – is essential for delivering interventions at scale.

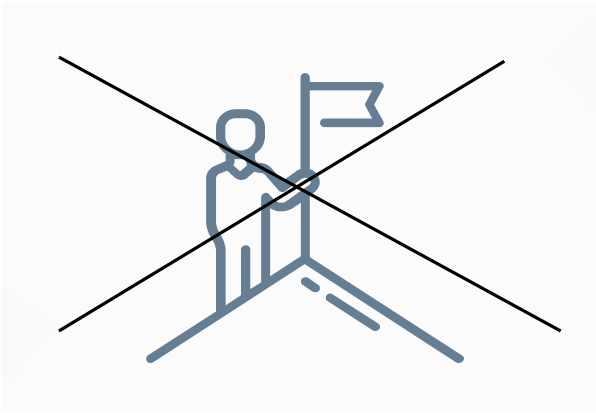
3.

It is necessary to be clear-eyed about what the barriers and challenges are **<u>while</u>** understanding and striving for the ultimate goal: eliminating malaria in our lifetimes.

Two priorities identified in this case study

Strategy

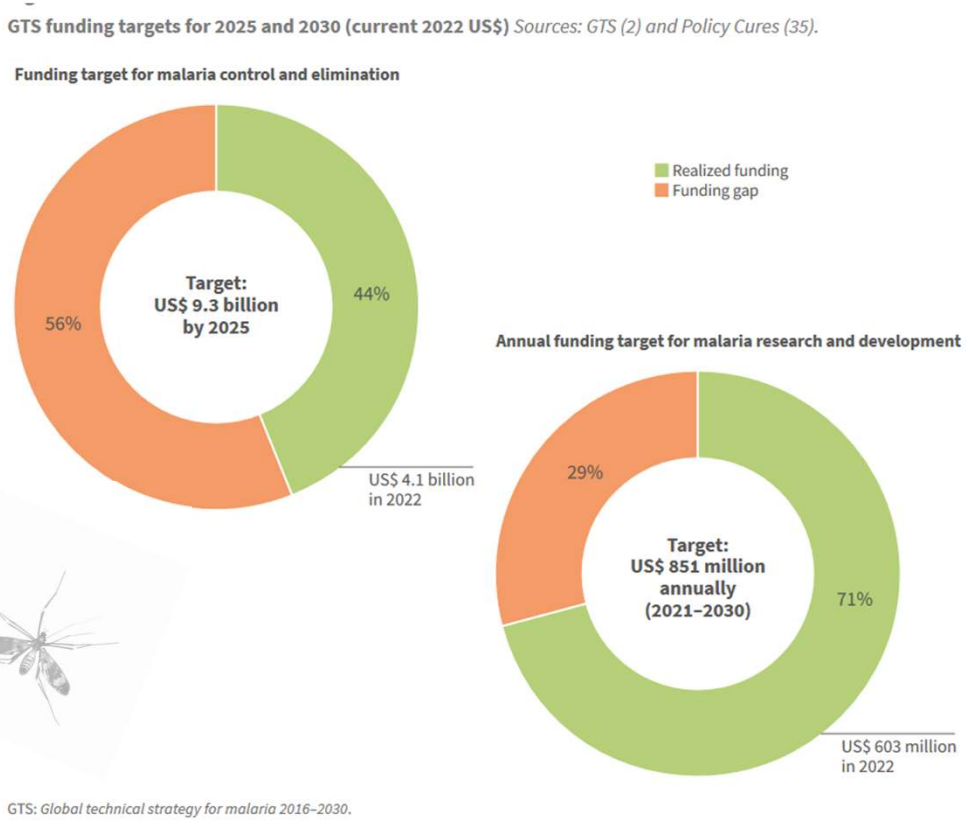
"…**unacceptable dithering** about another class of new LLINs" (Killeen and Sougoufara 2023, 410)



Research

Photo by National Cancer Institute on Unsplash

As ever, funding



Balancing “the need to have rapid gains in [ITN] coverage in all endemic countries, while at the same time, setting up systems that will ensure long-term availability (**quick wins versus long-term sustainability**)”

Lengeler et al. 2007

Source: World malaria report 2023. Geneva: World Health Organization; 2023. License: CC BY-NC-SA 3.0 IGO.

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Thank you!