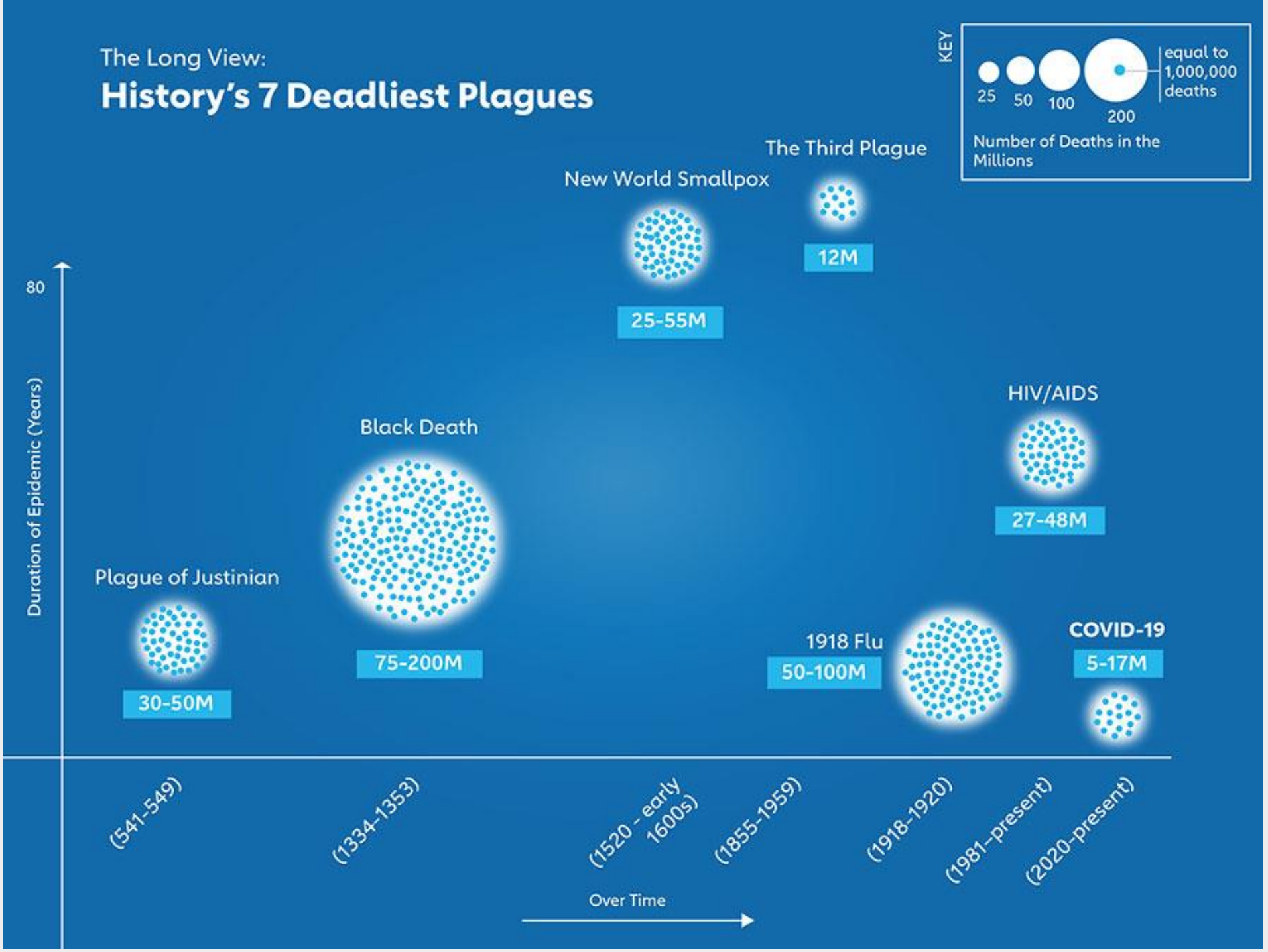
Pandemics and Health Inequities

Looking Back and Moving Forward

MONASH University

“equip yourself for life, not solely for your own benefit but for the benefit of the whole community.”


The Long View:
History's 7 Deadliest Plagues
KEY
25
50
100
200
equal to 1,000,000 deaths
Number of Deaths in the Millions
The Third Plague
12M
New World Smallpox
25-55M
HIV/AIDS
27-48M
Black Death
75-200M
Plague of Justinian
30-50M
1918 Flu
50-100M
COVID-19
5-17M
80
Duration of Epidemic (Years)
(541-549)
(1334-1353)
(1520 - early 1600s)
(1855-1959)
(1918-1920)
(1981-present)
(2020-present)
Over Time

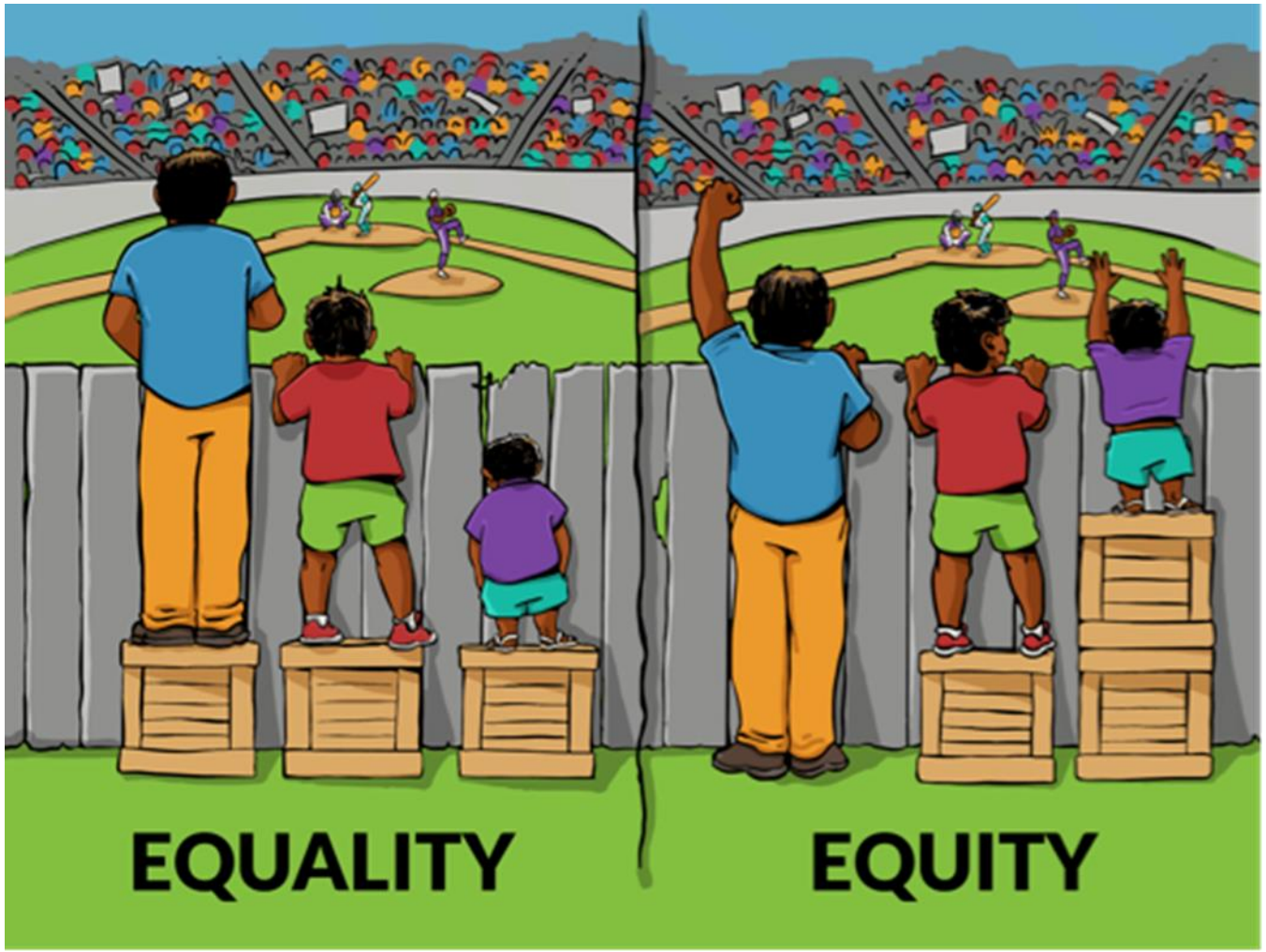
Looking back and moving forward: Addressing health inequities after COVID-19

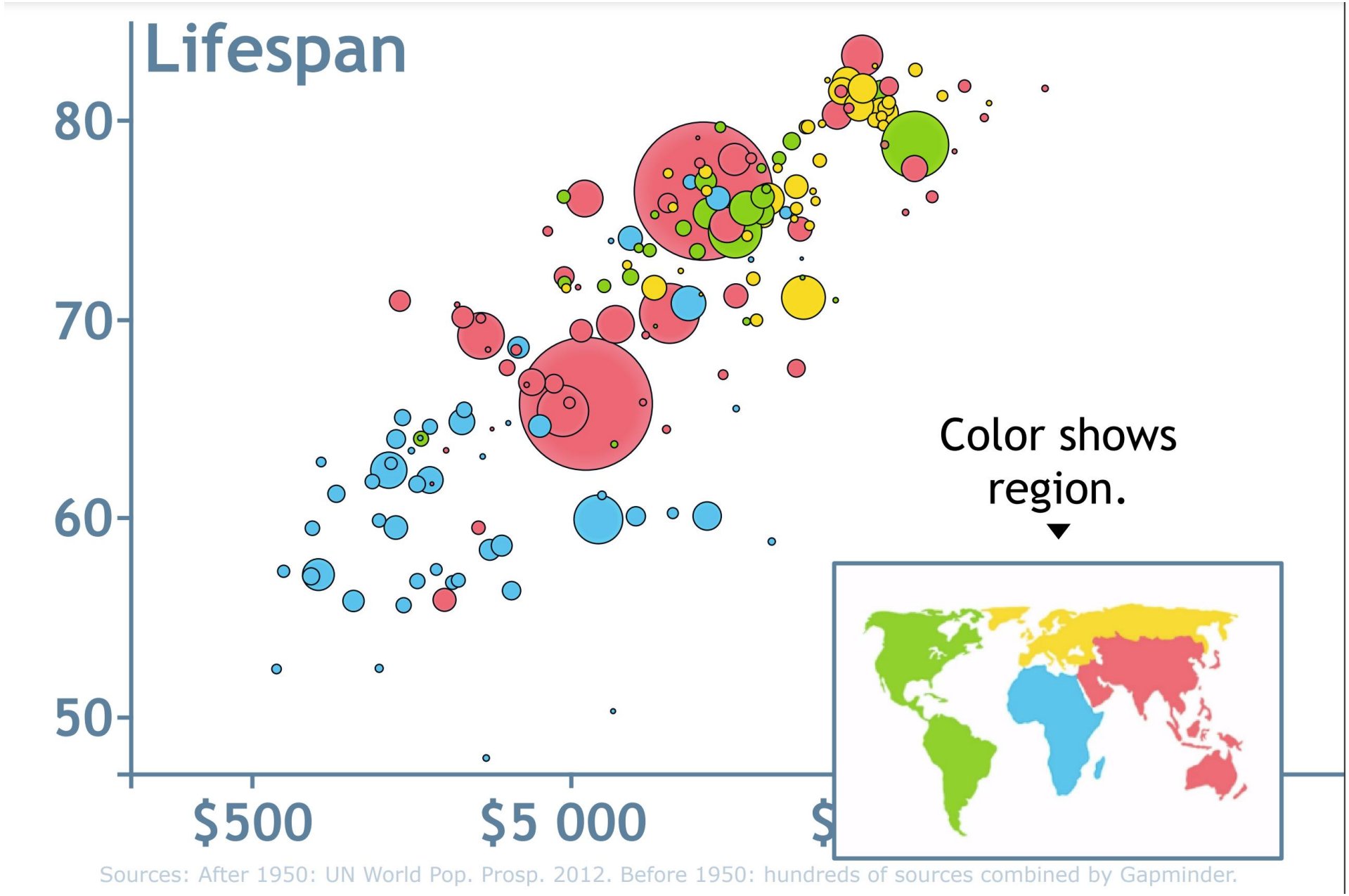
- What do we mean by “health”, “health inequality”, and “health inequity”?
- What are the structures and policies we put in place to support or promote health, and how effective are they?
- Who has the power to shape structures and policies, and whose interests do those structures and policies serve?

McGrail, Morgan, Siddiqi The Lancet Regional Health - Americas 2022;9: 100232

World Health Organization

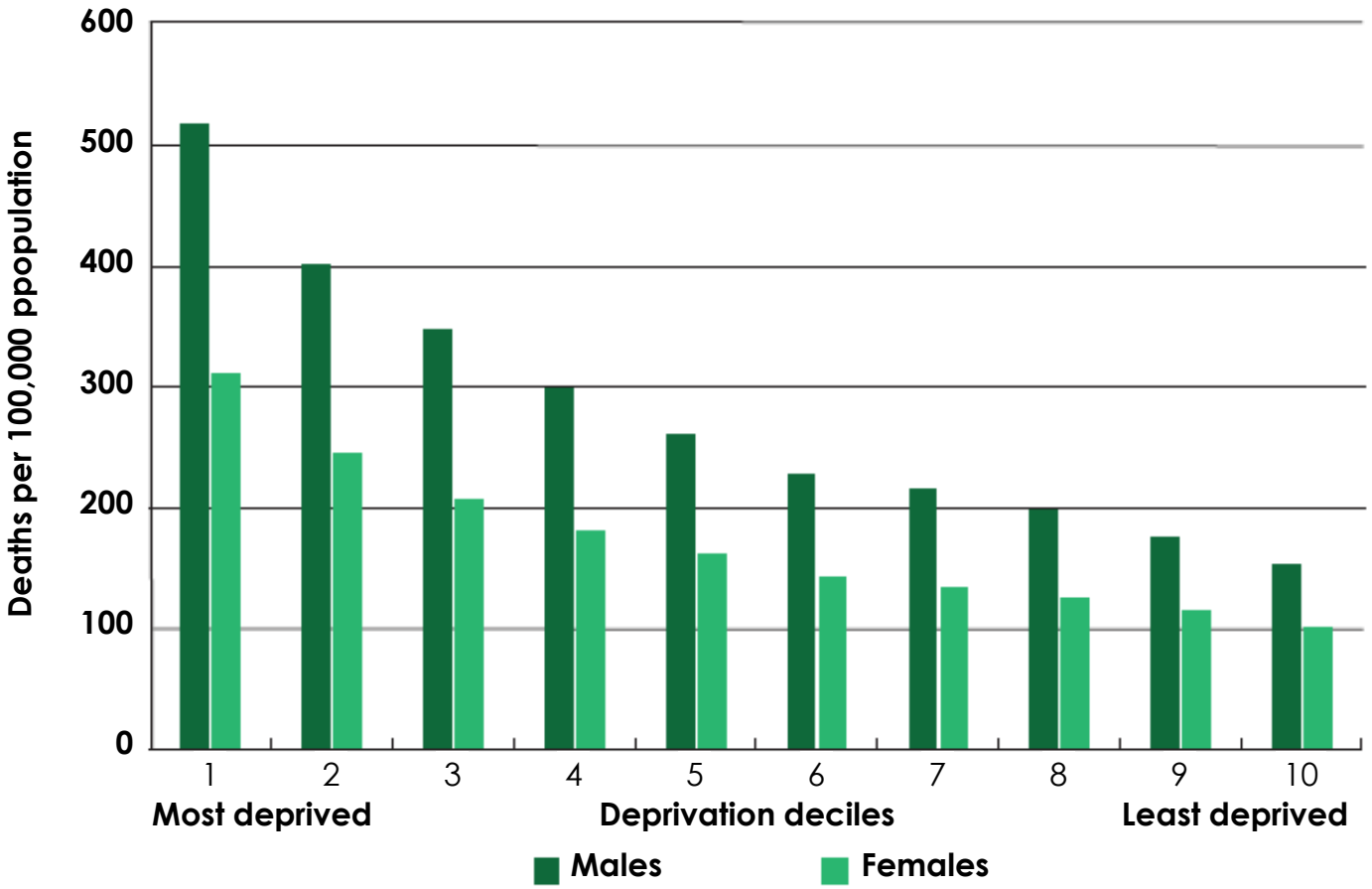
> *"The absence of unfair and avoidable or remediable differences in health among population groups defined socially, economically, demographically or geographically."*
>
> – *World Health Organization, 2008*





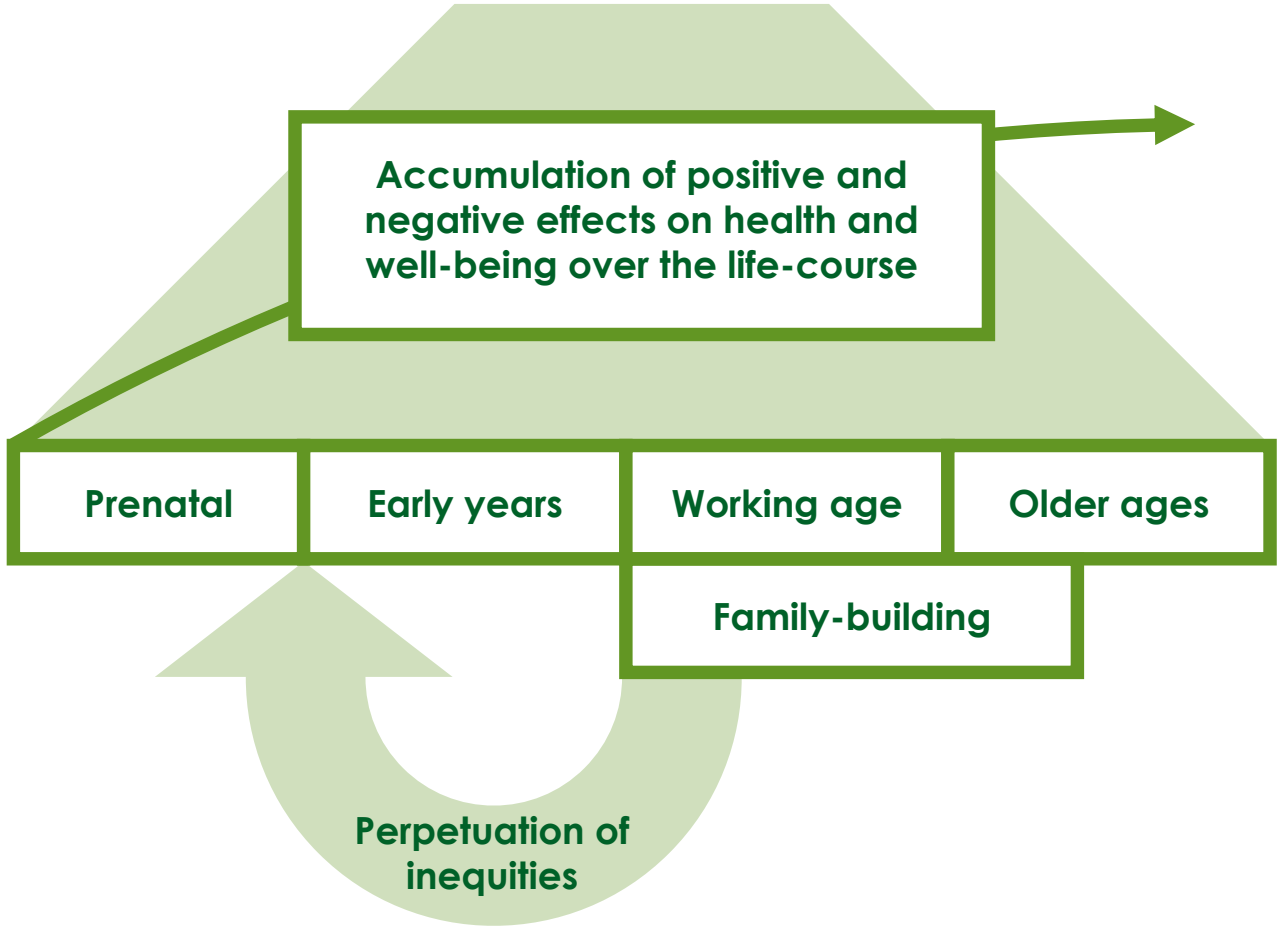
Source: www.gapminder.org

AGE STANDARDISED AVOIDABLE MORTALITY RATE (PER 100,000) BY DEPRIVATION DECILE, ENGLAND, 2017



Source: Marmot, M, Allen J. et al. (2020). Health equity in England: The Marmot review 10 years on. London: Institute of Health Equity.

INEQUITIES IN HEALTH ACCUMULATE THROUGHOUT LIFE



Source: World Health Organization. Review of social determinants and the health divide in the WHO European Region: final report. Copenhagen: World Health Organization, 2013.


INEQUALITY IN THE TIME OF COVID-19
FRANCISCO H. G. FERREIRA
Summer 2021
GETTY IMAGES / PEDRO PARDO

HKL doctors raise red flag over Covid-19 crisis

FMT Reporters - July 2, 2021 3:55 PM

5.2k Shares | 2.2k | 2k | 768 | 183

PETALING JAYA: Doctors in Hospital Kuala Lumpur (HKL) are performing procedures and cardiopulmonary resuscitation (CPR) on the floor, as the hospital capacity has been stretched beyond its limit.

Sounding the alarm over the Covid-19 situation, one doctor said in an Instagram post that HKL's emergency department had insufficient beds, even canvas ones, to accommodate the influx of patients.

THE STRAITS TIMES

Coronavirus Global situation

White flag campaign a sign of Malaysians' struggle

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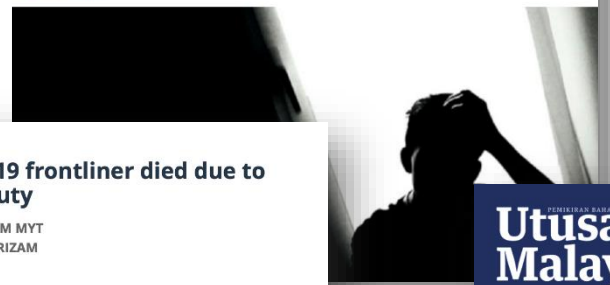
Kes bunuh diri meningkat

Oleh Noor Atiqah Sulaiman - Jun 29, 2021 @ 7:24pm
bhnews@bh.com.my



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The Malaysian Reserve

Home / Economy / News / 50,000 SMEs face closure under MCO 3.0

50,000 SMEs face closure under MCO 3.0

Tuesday, June 8th, 2021 at Economy | News

Govt urged to extend the TRA, WSP and moratorium until year-end to support micro entrepreneurs and SMEs

by NUR HANANI AZMAN / pic by MUHD AMIN NAHARUL

HOME / MALAYSIA

Group says Covid-19 frontliner died due to fatigue while on duty

Wednesday, 20 Jan 2021 09:52 AM MYT
BY SHAHRIN AIZAT NOORSHAHRIZAM

A medical worker wearing personal protective equipment takes a breather in front of a mural featuring frontliners outside a clinic in Shah Alam December 6, 2020. — Picture by Yusof Mat Isa

*Follow us on **Instagram** and subscribe to our **Telegram** channel for the latest updates.*

Utusan Malaysia

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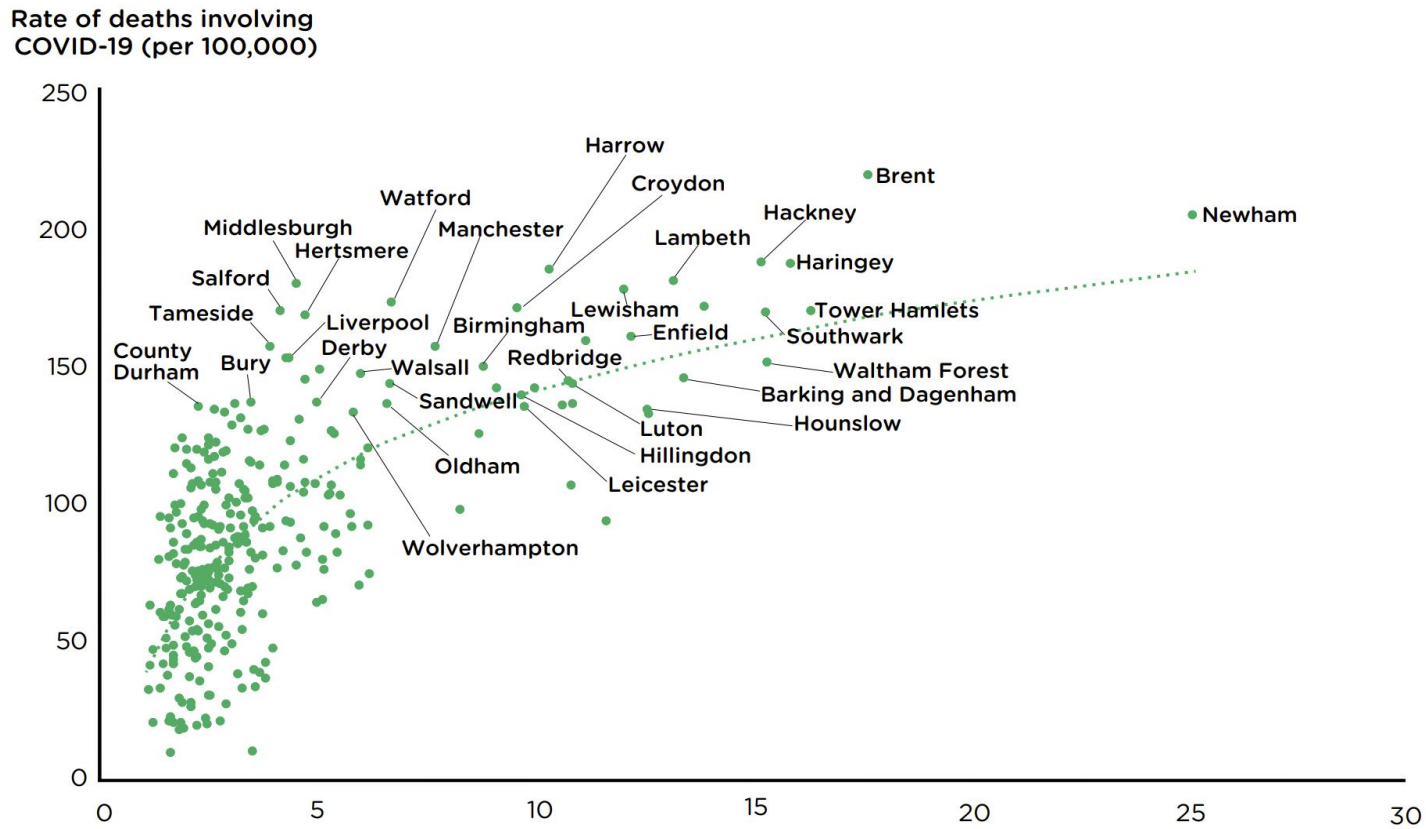
PdPR kurang efektif, pelajar tertekan

Pelajar SMART mengikuti sesi persekolahan bersemuka dengan pematuhan SOP yang ketat. – UTUSAN/AINAL MARHATON ABD GHANI

Oleh AINAL MARHATON ABD. GHANI 29 April 2021, 11:00 am

PdPR kurang efektif, pelajar tertekan

Figure 2.11. Age-standardised COVID-19 mortality rates and percent of overcrowded households, local authorities in England, deaths occurring between March and July 2020



Source: *ONS. COVID-19 age-standardised mortality rates by local authority and percent of overcrowding, 2020 (30) (38).*

KHAZANAH RESEARCH INSTITUTE

The Impact of Covid-19 on the Urban Poor:

Three Major Threats – Money, Food and Living Conditions

VIEWS 17 /20 | 27 March 2020 | Puteri Marjan Megat Muzafar and Theebalakshmi Kunasekaran

PKPD: PPR Kerinchi rekod 200 kes positif COVID-19

July 11, 2021 Written by Media Baharu Published in Covid19

1.Adverse impact on their income and financial security

2.Limited access to affordable food and goods, as well as a risky reliance on public transportation

3. Poor infrastructure exacerbating the problem –

“a typical PPR in Kuala Lumpur consists of at least 316 units per 17-floor block. If the average household size is 4.6, then assuming all units are occupied, approximately 1,455 people would be crammed all together in one building. If we are not careful, these PPRs might be the perfect breeding ground for the novel coronavirus…..”

Social Sciences & Humanities Open

journal homepage: www.elsevier.com/locate/ssaho

The outbreak of Covid-19 in Malaysia: Pushing migrant workers at the margin

Andika Wahab

Institute of Malaysian and International Studies (IKMAS), The National University of Malaysia (UKM), Malaysia

ARTICLE INFO

Keywords:
COVID-19
Migrant workers
Irregular workers
Labour right

ABSTRACT

Experiences in other countries such as Singapore and the Gulf countries hav
conditions and poor access to health care have contributed significantly to
National policy and measures to flatten the curve of the pandemic require s
facing migrant workers, including fulfilling their basic needs, guaranteeing th
standards. In Malaysia, prior to COVID-19 outbreak, migrant workers were al
accommodation and unsanitary conditions, with poor access to healthcare, fi
workers' protection. The implementation of various phases of Malaysia's Move
the way the government addresses the situation facing migrant workers have
on their already precarious living and working conditions. This includes a grow
cases found among migrant workers in May 2020 onwards. This study is a
existing secondary sources with a view to generate initial findings for further i
with several short-term policy recommendations such as making COVID-1
commitment, and implementing a nation-wide regularization programme to

Highlight

Covid-19: 25 workplace clusters identified, 15 from factories

Syafiqah Salim / theedgemarkets.com
July 27, 2021 21:16 pm +08

Reuters filepix for illustration purpose only

KUALA LUMPUR (July 27): A record high number of 42 new Covid-19 clusters were reported by the Health Ministry today, including 25 in the workplace.

Another 12 clusters are in the community, while two others were linked to high-risk groups, two more to detention centres and one to an education institution.

The previous record high daily clusters of 37 was posted on July 16.

More than 51,000 COVID-19 cases in Malaysia's prisons; overcrowding is an issue: Deputy minister

28 Sep 2021 07:07PM
(Updated: 28 Sep 2021 07:07PM)

TURKEY WORLD ECONOMY POLITICS ENERGY SPORTS INFOGRAPHICS ANALYSIS

ASIA - PACIFIC, LATEST ON CORONAVIRUS OUTBREAK

Malaysian prisons report 1,126 COVID-19 cases

To contain virus transmission, drug-related inmates moved to temporary prisons

Pizaro Gozali Idrus | 07.10.2020

The 1,126 prison-related positive cases, 39 are prison officers or staff.

International Detention Coalition

Who We Are | What We Do | Where We Work | Resources | Covid-19

Covid-19 Outbreaks in Malaysia's Detention Centres

JUNE

Another Penang prisons officer tests positive for Covid-19

By Audrey Dermawan - October 19, 2020 @ 6:10pm

ALJAZEERA News | US Elections | Features | Economy | Opinion | Video

News | Human Rights

Immigration detention centres become Malaysia coronavirus hotspot

Health ministry says detention centres 'high risk' areas after spike in cases following series of raids during lockdown.

Malaysia Reports 489 Covid-19 Cases, Penang Prison Cluster

By CodeBlue | 07 October 2020

Over half of total reported cases today were sporadic community cases in Sabah, whereas more than a quarter of today's cases belong to the Tembok cluster in Kedah.

Overcrowding behind rapid spread of Covid-19 in Malaysian prisons

By Dhesegaan Bala Krishnan - October 19, 2020 @ 11:53am

More than 300 people from five countries were detained in an immigration raid on a construction site in Dengkil, Selangor in June [Hasnoor Hussain/Al Jazeera]

News | Refugees

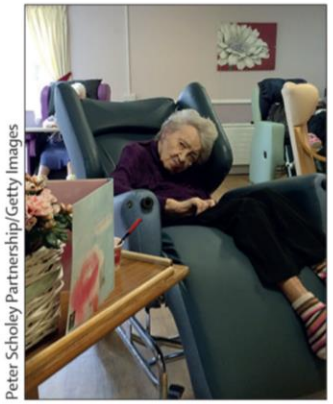
Fear of arrest among undocumented risks Malaysia vaccine push

Distrust among refugee and migrant communities after a year of mixed messages could hamper efforts to curb a spiralling COVID-19 pandemic.

THE LANCET

September 26, 2020

Offline: COVID-19 is not a pandemic



Peter Scholey Partnership/Getty Images

As the world approaches 1 million deaths from COVID-19, we must confront the fact that we are taking a far too narrow approach to managing this outbreak of a new coronavirus. We have viewed the cause of this crisis as an infectious disease. All of our interventions have focused on cutting lines of viral transmission, thereby controlling the spread of the pathogen. The "science" that has guided governments has been driven mostly by epidemic modellers and infectious disease specialists, who understandably frame the present health emergency in centuries-old terms of plague. But what we have learned so far tells us that the story of COVID-19 is not so simple. Two categories of disease are interacting within specific populations—infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and an array of non-communicable diseases (NCDs). These conditions are clustering within social groups according to patterns of inequality deeply embedded in our societies. The aggregation of these diseases on a background of social and economic disparity exacerbates the adverse effects of each separate disease. COVID-19 is not a pandemic. It is a syndemic. The syndemic nature of the threat we face means that a more nuanced approach is needed if we are to protect the health of our communities.

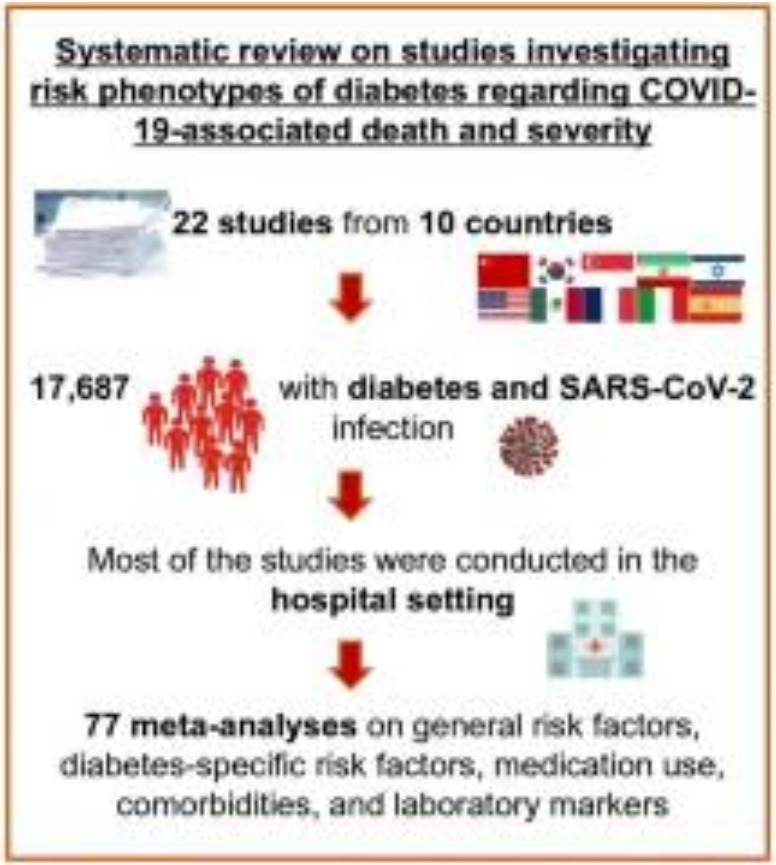
renstein/Getty Images

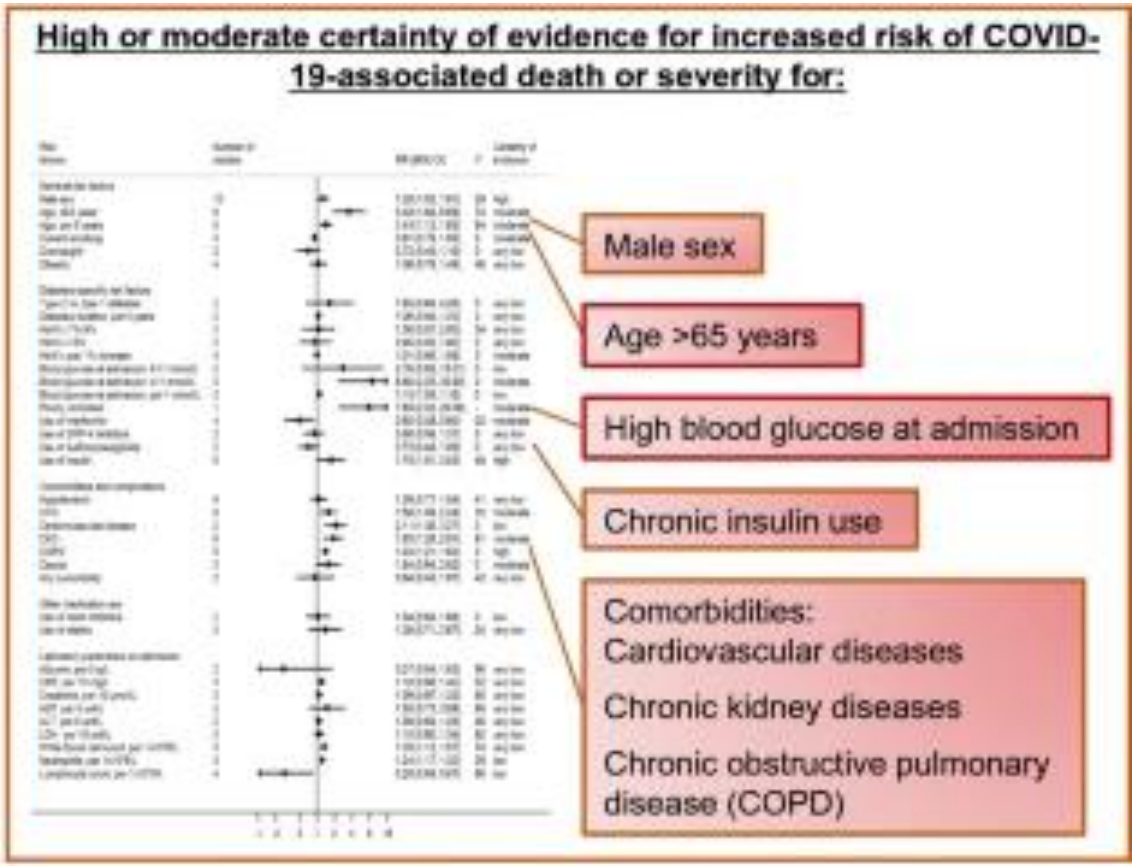
Addressing COVID-19 means addressing hypertension, obesity, diabetes, cardiovascular and chronic respiratory diseases, and cancer. Paying greater attention to NCDs is not an agenda only for richer nations. NCDs are a neglected cause of ill-health in poorer countries too. In their *Lancet* Commission, published last week, Gene Bukhman and Ana Mocumbi described an entity they called NCDI Poverty, adding injuries to a range of NCDs—conditions such as snake bites, epilepsy, renal disease, and sickle cell disease. For the poorest billion people in the world today, NCDIs make up over a third of their burden of disease. The Commission described how the availability of affordable, cost-effective interventions over the next decade could avert almost 5 million deaths among the world's poorest people. And that is without considering the reduced risks of dying from COVID-19.

*

The most important consequence of seeing COVID-19 as a syndemic is to underline its social origins. The vulnerability of older citizens; Black, Asian, and minority ethnic communities; and key workers who are commonly poorly paid with fewer welfare protections points to a truth so far barely acknowledged—namely, that no matter

Risk phenotypes of diabetes and association with COVID-19 severity and death: a living systematic review and meta-analysis





SARS-CoV-2 virus image source: https://phil.cdc.gov

Diabetologia **volume 64**, pages1480–1491 (2021)

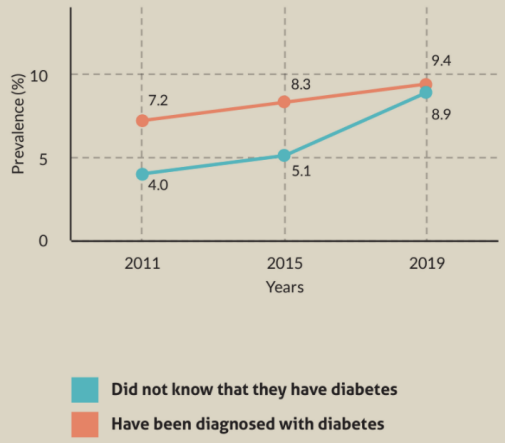
04

Diabetes in Malaysia

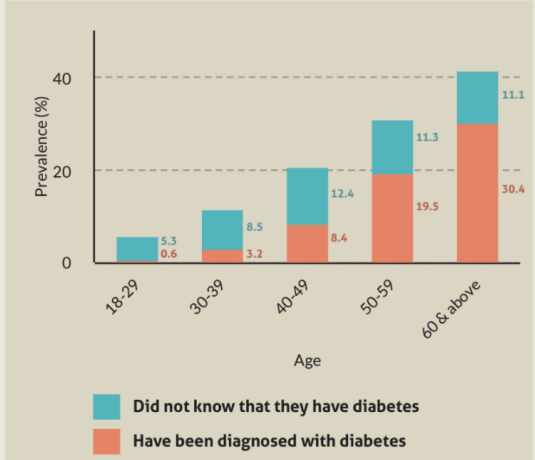
1 in 5 adults in Malaysia have **diabetes**

That's about 3.9 million people aged 18 years and above

Diabetes trend 2011 - 2019



Prevalence of diabetes by age groups



19

Overweight/obesity & abdominal obesity: A tag team of health risk

1 in 2 adults in Malaysia were **overweight or obese**

OVERWEIGHT = Body mass index (BMI) more than 25 kg/m²

OBESE = Body mass index (BMI) more than 30 kg/m²

This was found to be highest among:

Females 54.7%

Indian ethnicity 63.9%

55-59 years old age group 60.9%

1 in 2 adults in Malaysia had **abdominal obesity**

ABDOMINAL OBESITY = Waist circumference (WC) ≥90cm for men ≥80cm for women

This was found to be highest among:

Females 64.8%

Indian ethnicity 68.3%

60-64 years old age group 71.5%

Major diseases associated with overweight/obesity and abdominal obesity

Diabetes

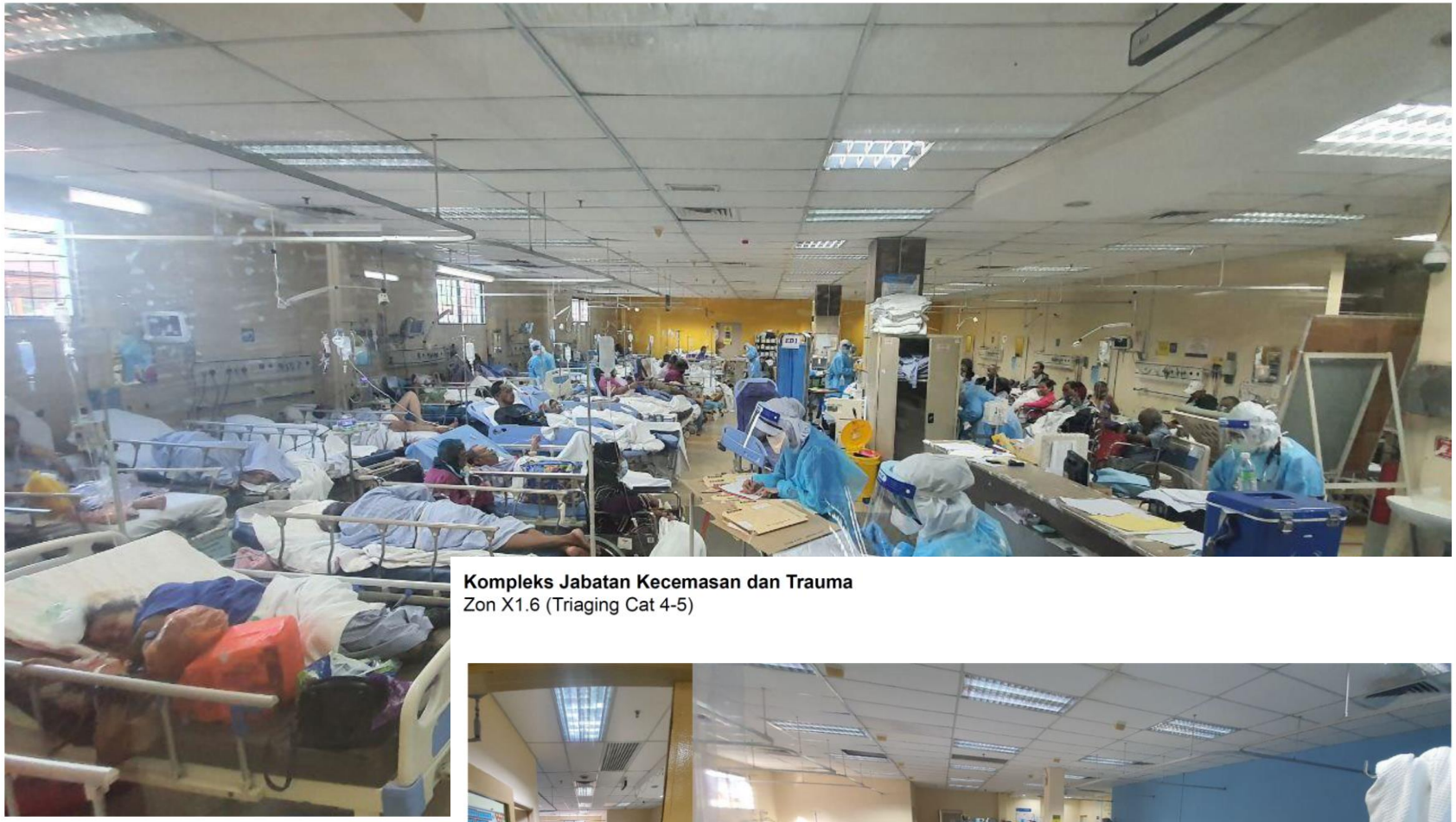
High Blood Pressure

Heart Disease

Table III: Prevalence of NCD – Diabetes and related risks

	Diabetes Mellitus 2015	High Blood Pressure 2015	High Blood Cholesterol 2015
STRATA			
Urban	8.00%	13.00%	20.20%
Rural	6.30%	11.50%	15.50%
INCOME CATEGORIES			
B40	9.90%	17.10%	22.90%
M40	3.30%	5.40%	9.40%
T20	1.10%	2.00%	3.40%
AGE_CATEGORIES			
18-59	9.40%	15.60%	27.30%
60 and above	5.00%	8.90%	8.40%

Source: Analysis based on NHMS2015



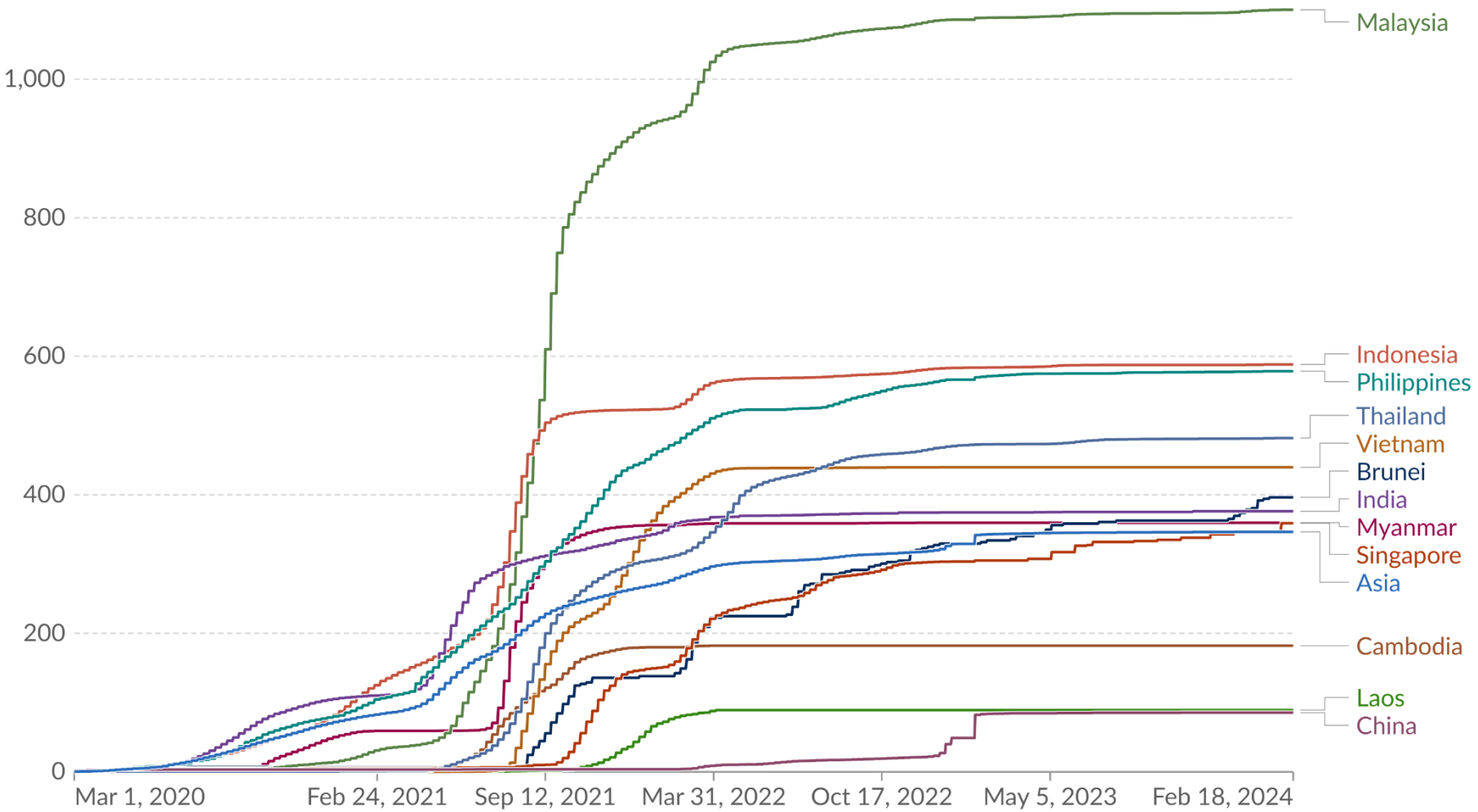
Kompleks Jabatan Kecemasan dan Trauma
Zon X1.6 (Triaging Cat 4-5)

Covid-19 death rate shows up years of ICU neglect

Loh Foon Fong - August 16, 2021 7:45 AM

Cumulative confirmed COVID-19 deaths per million people

Due to varying protocols and challenges in the attribution of the cause of death, the number of confirmed deaths may not accurately represent the true number of deaths caused by COVID-19.

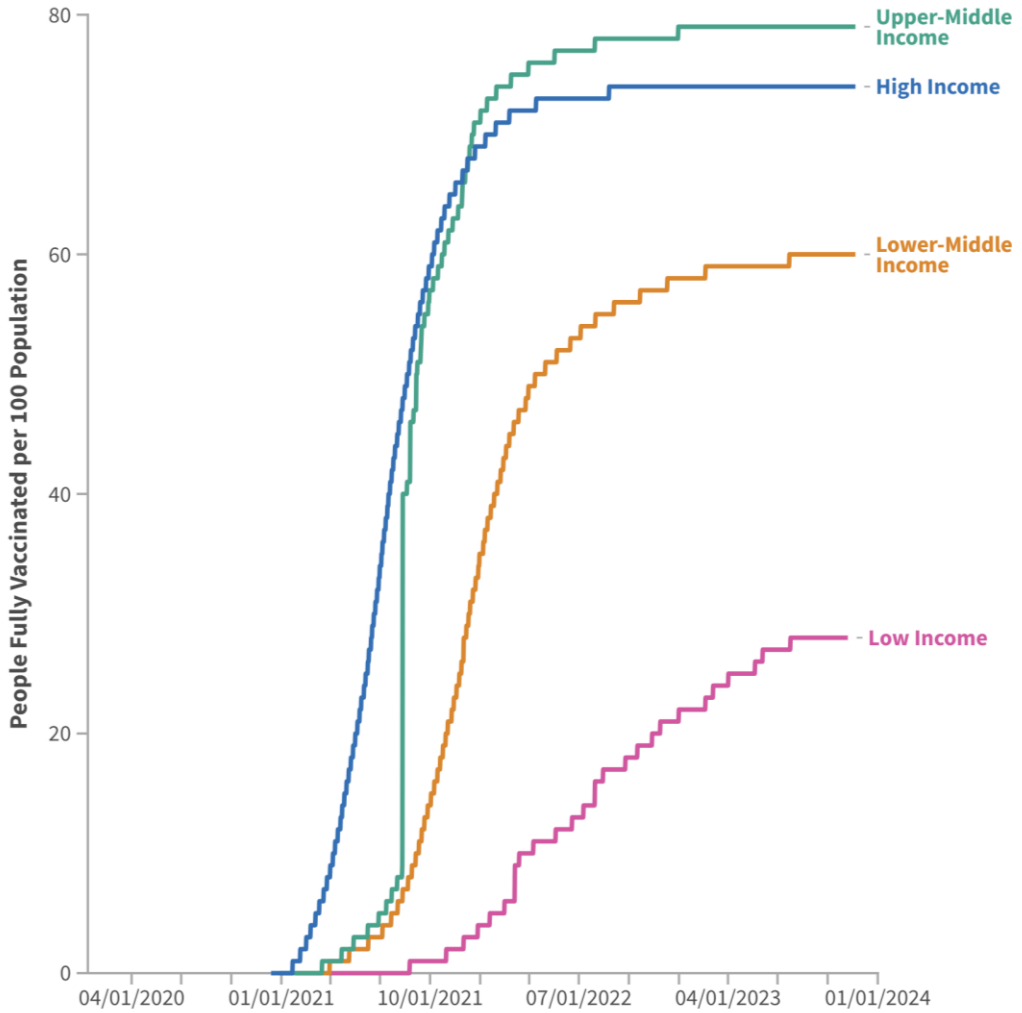


Data source: WHO COVID-19 Dashboard

What COVID-19 Did

- Exposed a Health System that was unprepared
- Chronic underinvestment in the Public Health System
- A collision of high burden of NCD with an infectious disease epidemic
- Exposed gross inequalities deeply embedded in our society
  - Urban poor
  - Migrants & refugees
  - Prisoners

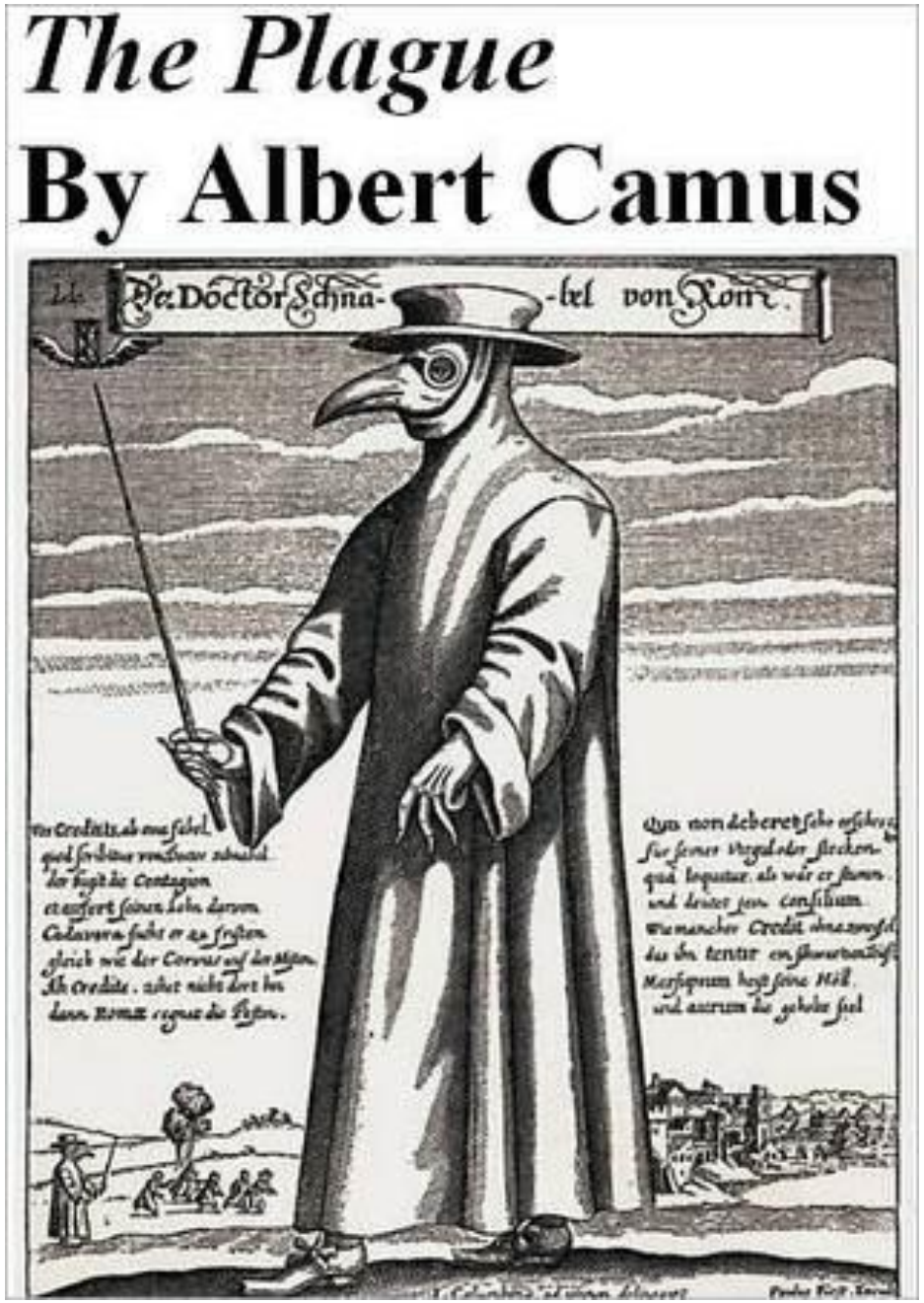
Global COVID 19 Vaccine Coverage



https://data.undp.org/insights/vaccine-equity

The Plague

By Albert Camus



‘the pestilence is at once blight and revelation. It brings the hidden truth of a corrupt world to the surface’.

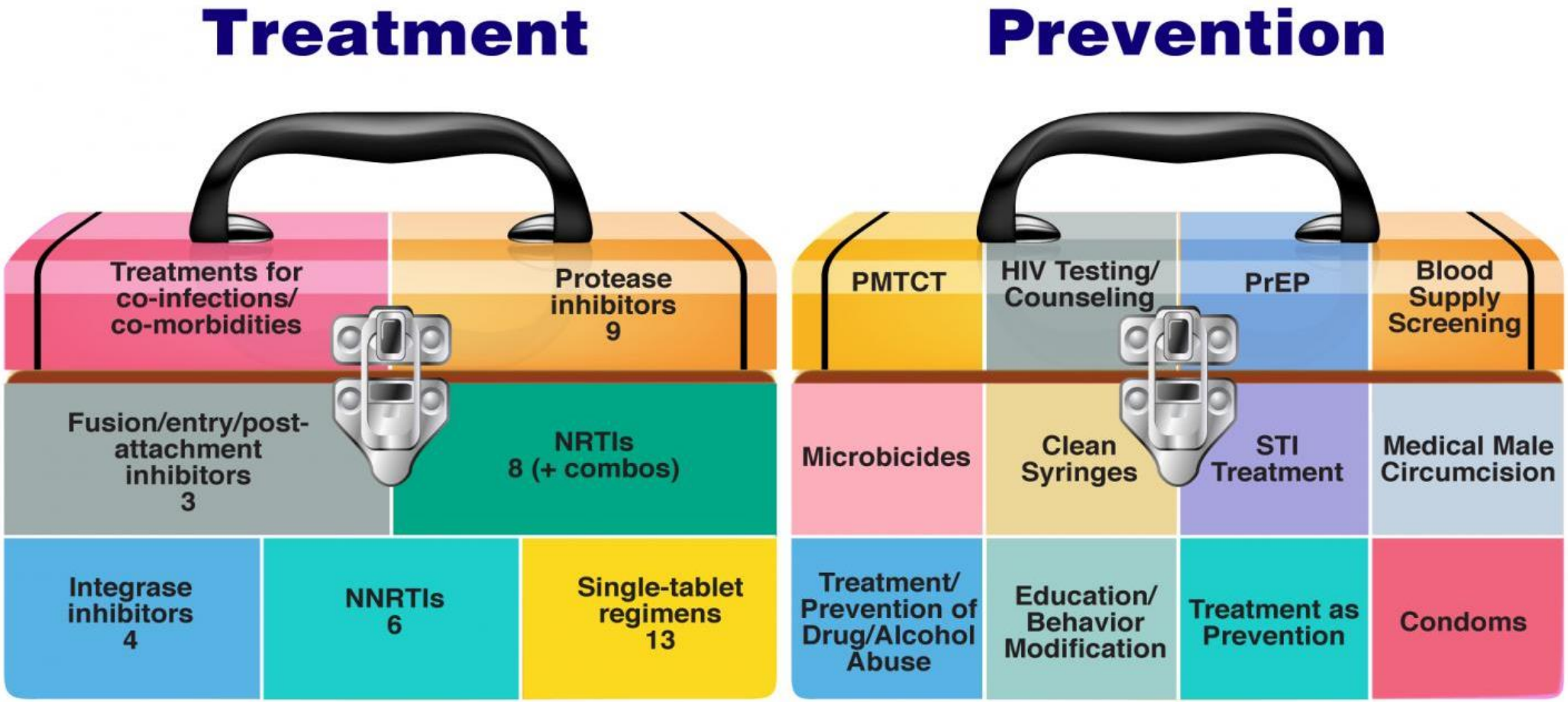
- We limped into the pandemic, then, in a parlous state – an unhealthy population marked by growing inequalities and a worsening of the conditions in which people are born, grow, live, work and age; in short, in the social determinants of health.

- Michael Marmott - 2021

LIFE

Ending the HIV Pandemic: Optimizing the Prevention and Treatment Toolkits

Robert W Eisinger, Gregory K Folkers, Anthony S Fauci



Clinical Infectious Diseases, 69:12, Dec 2019

Table 1.1 HIV testing and treatment cascade by age and sex, selected countries, 2022

Country	Total population living with HIV	Men (aged 15+ years) living with HIV	Women (aged 15+ years) living with HIV	Children (aged 0–14 years) living with HIV
Eswatini	97–94–93	96–91–90	97–96–95	95–88–83
United Republic of Tanzania	95–94–92	93–91–89	98–97–95	72–72–66
Botswana	96–93–92	94–87–87	98–97–97	58–58–56
Zimbabwe	95–94–89	96–92–88	97–97–93	69–69–59
Rwanda	95–92–90	94–91–89	95–93–91	76–75–73
Denmark	95–88–87	95–88–87	96–89–88	
Kenya	94–94–89	93–89–84	95–95–92	84–84–74
Kuwait	94–93–92	94–94–93	92–86–86	
Malawi	94–92–86	90–86–80	98–98–93	70–70–55
Namibia	94–91–86	91–86–80	97–94–90	76–76–68
Lesotho	93–85–84	92–80–79	95–89–88	81–81–75
Zambia	92–89–86	92–90–86	94–91–88	67–67–62
Luxembourg	92–89–85	92–88–85	94–90–86	
Saudi Arabia	90–89–89	92–91–91	80–79–78	81–75–75
Slovenia	90–83–82	90–84–82	86–79–78	
Thailand	90–81–79	89–80–78	90–83–80	…–76–67
Uganda	89–84–79	88–80–75	92–87–83	71–71–60
Sao Tome and Principe	88–88–75	89–89–75	95–95–84	35–35–17
Iceland	87–84–82	85–82–80	92–89–86	
Burundi	86–84–79	87–86–80	94–92–86	36–36–31
Togo	84–81–73	74–67–61	92–91–83	60–60–43

- AIDS-related deaths are the leading cause of mortality in women aged 15–49 years.
- Women (15–24 years) 2x as likely as young men to become infected.
- 59% of new adult HIV infections in SSA were in women > 15 years (2017)
- Discordance between negative societal attitudes towards premarital sex and the actual behaviours of women, is linked to increased prevalence of HIV.
- 1 in 3 women report physical or sexual violence by a partner or sexual violence by a non-partner.
- Women who experience IPV
  - less likely to use condoms
  - access HIV testing and ART
  - poorer treatment adherence and less likely to be virally suppressed.
- In areas with a high HIV prevalence, IPV is linked to a 50% increase in the risk of acquiring HIV.

Over 1.2 million newborns are exposed to HIV each year

Since peaking in the early 2000s, annual numbers of new HIV infections in children (aged 0–14 years) have fallen markedly—but that decline has almost stalled in recent years.

HIV and the Black Population in USA

- 13% of population, 43% PLHIV
- 42% of new HIV diagnoses
- 2016 Treatment Cascade outcome –
  - White people 89%, 69%, and 60%, Black people - 85%, 61%, and 48%
  - Lower income, housing instability, and lack of ARV coverage via insurance or government programme coverage
- Over 2M incarcerated
  - 40% of them are Black.
  - HIV rate 5-7X general population
- 14% of TG women living with HIV
- For Black TG women - 44%.
- White people are 6x more likely to be prescribed PrEP than are Black people.
- Health-care providers are less likely to discuss PrEP with Black clients.

Lancet HIV. 2023 March ; 10(3): e186–e194. doi:10.1016/S2352-3018(22)00336-8.

Associations between punitive policies and legal barriers to consensual same-sex sexual acts and HIV among gay men and other men who have sex with men in sub-Saharan Africa: a multi-country respondent driven sampling survey

Methods

- Ten country-specific, cross-sectional studies done in 25 sites in Burkina Faso, Cameroon, Côte d'Ivoire, Gambia, Guinea-Bissau, Nigeria, Senegal, Eswatini, Rwanda, and Togo.
- Policy related to same-sex sexual behaviour for each country was categorised as not criminalised or criminalised.

Findings:

Between Aug 3, 2011, and May 27, 2020,

8047 MSM, median age of 23 years

- HIV prevalence among MSM was higher in criminalised settings than non-criminalised settings (aOR 5·15, 95% CI 1·12–23·57);
- Higher in settings with recent prosecutions than in settings without prosecutions (12·06, 7·19–20·25);
- Higher in settings with barriers to CSOs than without barriers to CSOs (9·83, 2·00–48·30).
- Disparities in HIV prevalence between MSM and other adult men were highest in punitive settings.

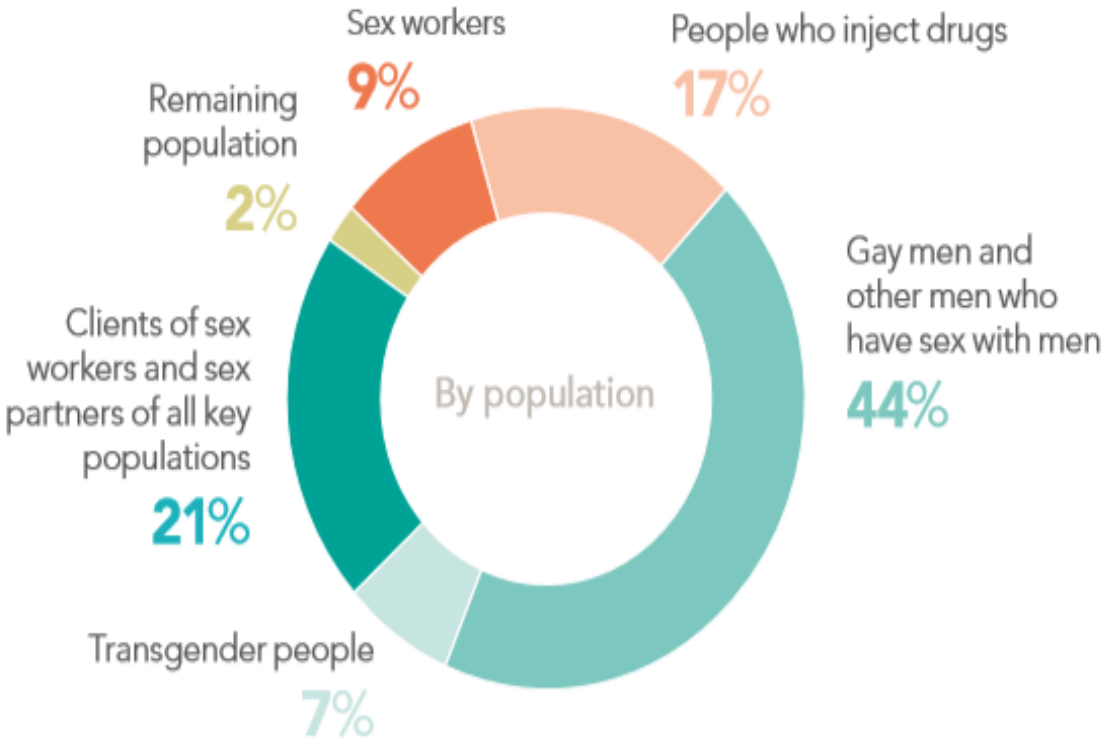
Interpretation:

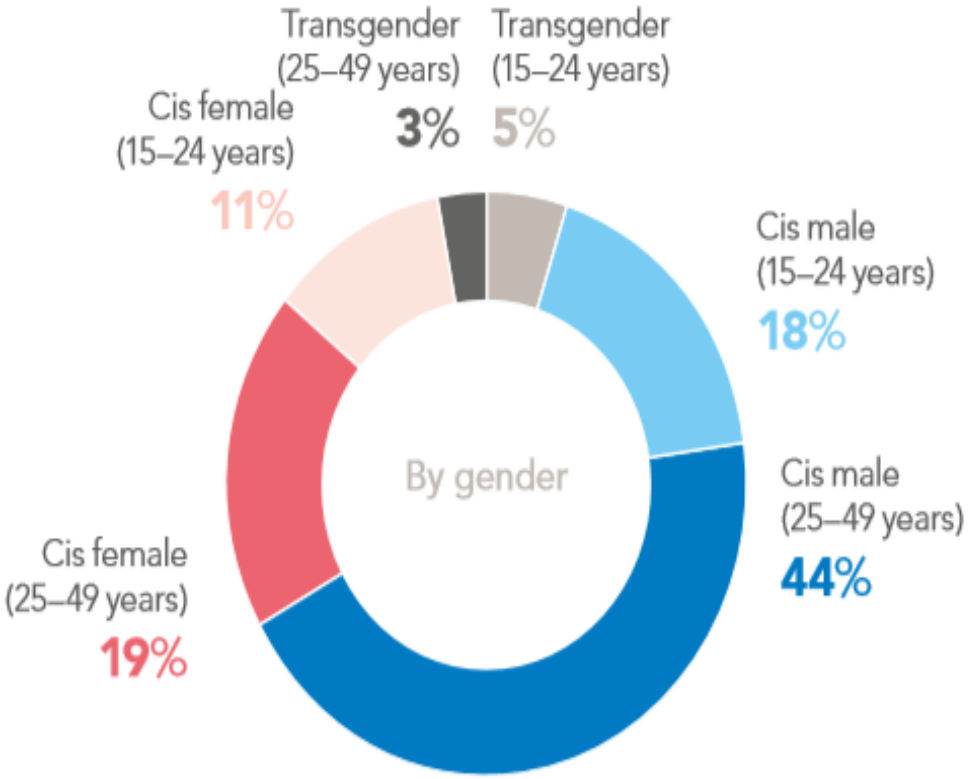
Structural risks including discriminatory country-level policies, prosecutions, and legal barriers may contribute to higher HIV prevalence among men who have sex with men.

These data highlight the importance of decriminalization and decreasing enforcement, alongside stigma reduction, as central to effective control for HIV

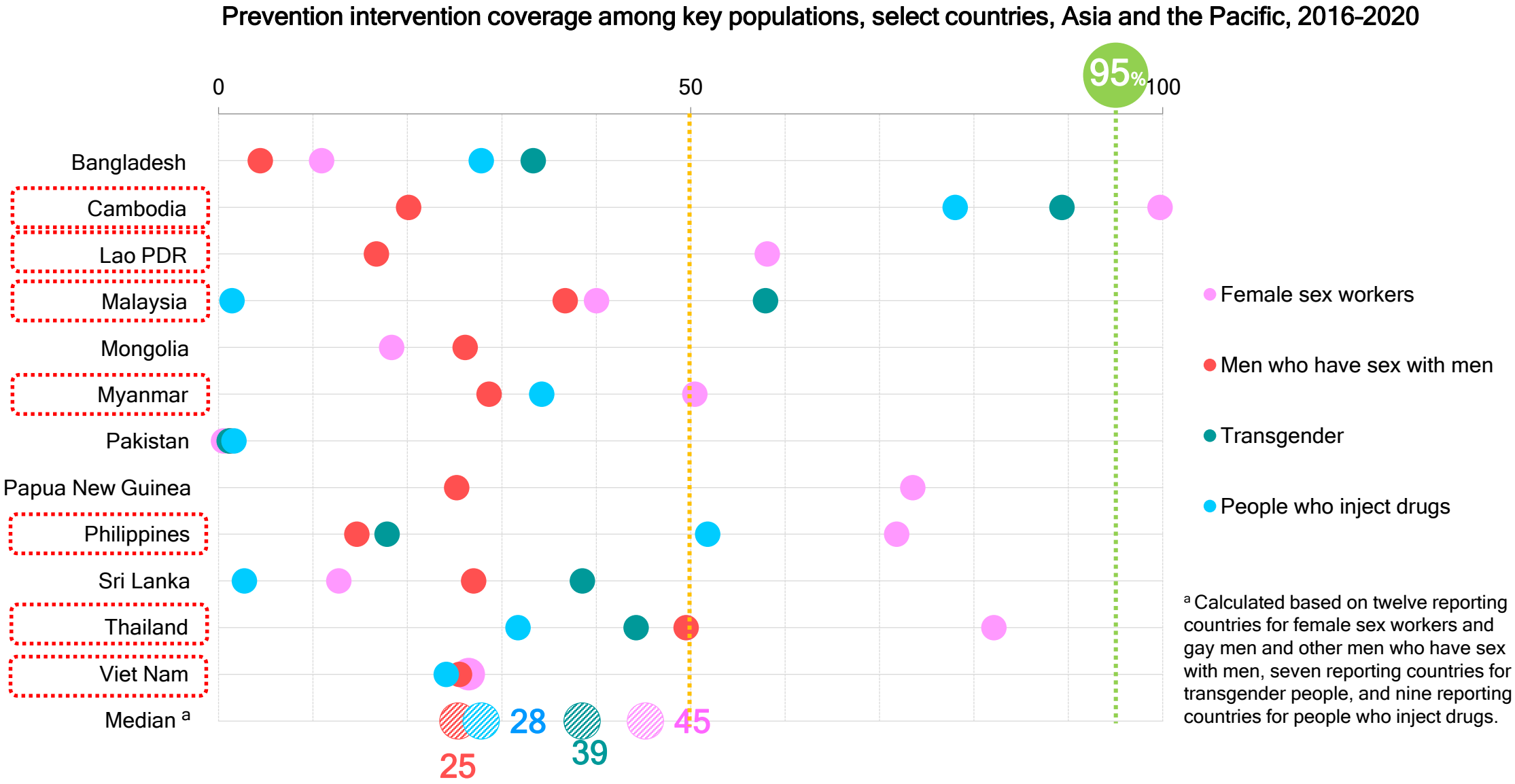
Key populations and their partners accounted for an estimated 98% of new HIV infections

Distribution of new HIV infections by population (aged 15–49 years), Asia and the Pacific, 2019





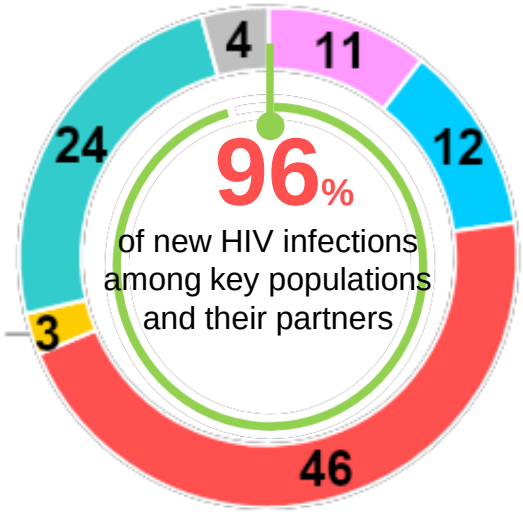
Lagging behind prevention targets



Source: Prepared by www.aidsdatahub.org based on Global AIDS Monitoring (GAM) Reporting

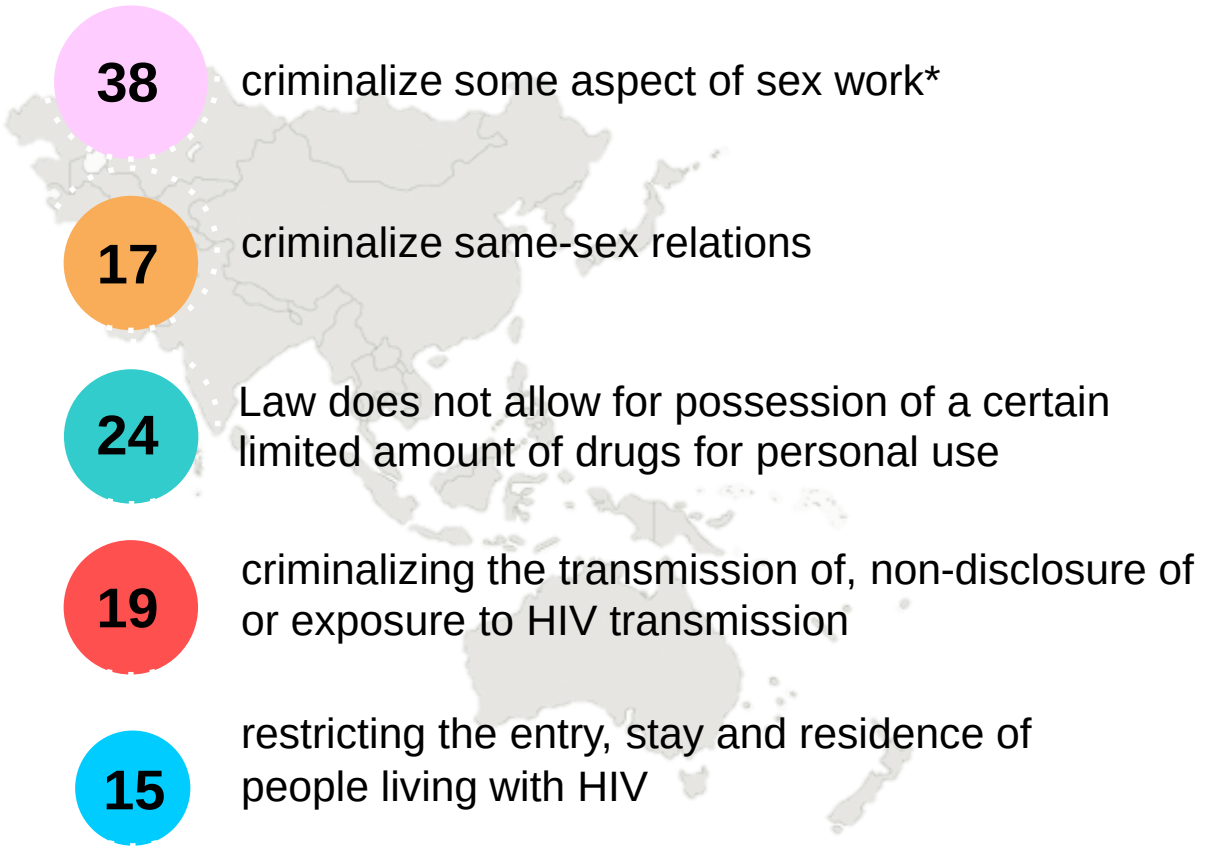
HIV is concentrated among key populations and their partners: Key populations remain criminalized in most countries

Distribution of new HIV infections by population, 2021



- Sex workers
- Transgender women
- People who inject drugs
- Clients of sex workers and partners of key populations
- Men who have sex with men
- Rest of population

Legal barriers to HIV response remain in 39 UN Member States in Asia Pacific



- **38** criminalize some aspect of sex work*
- **17** criminalize same-sex relations
- **24** Law does not allow for possession of a certain limited amount of drugs for personal use
- **19** criminalizing the transmission of, non-disclosure of or exposure to HIV transmission
- **15** restricting the entry, stay and residence of people living with HIV

Source: Prepared by www.aidsdatahub.org based on UNAIDS special analysis, 2022; IN DANGER: UNAIDS Global AIDS Update 2022. Geneva: Joint United Nations Programme on HIV/AIDS; 2022. Licence: CC BY-NC-SA 3.0 IGO; and https://www.unaids.org/en/resources/presscentre/pressreleaseandstatementarchive/2022/august/20220822_legislation-lgbt-people-singapore

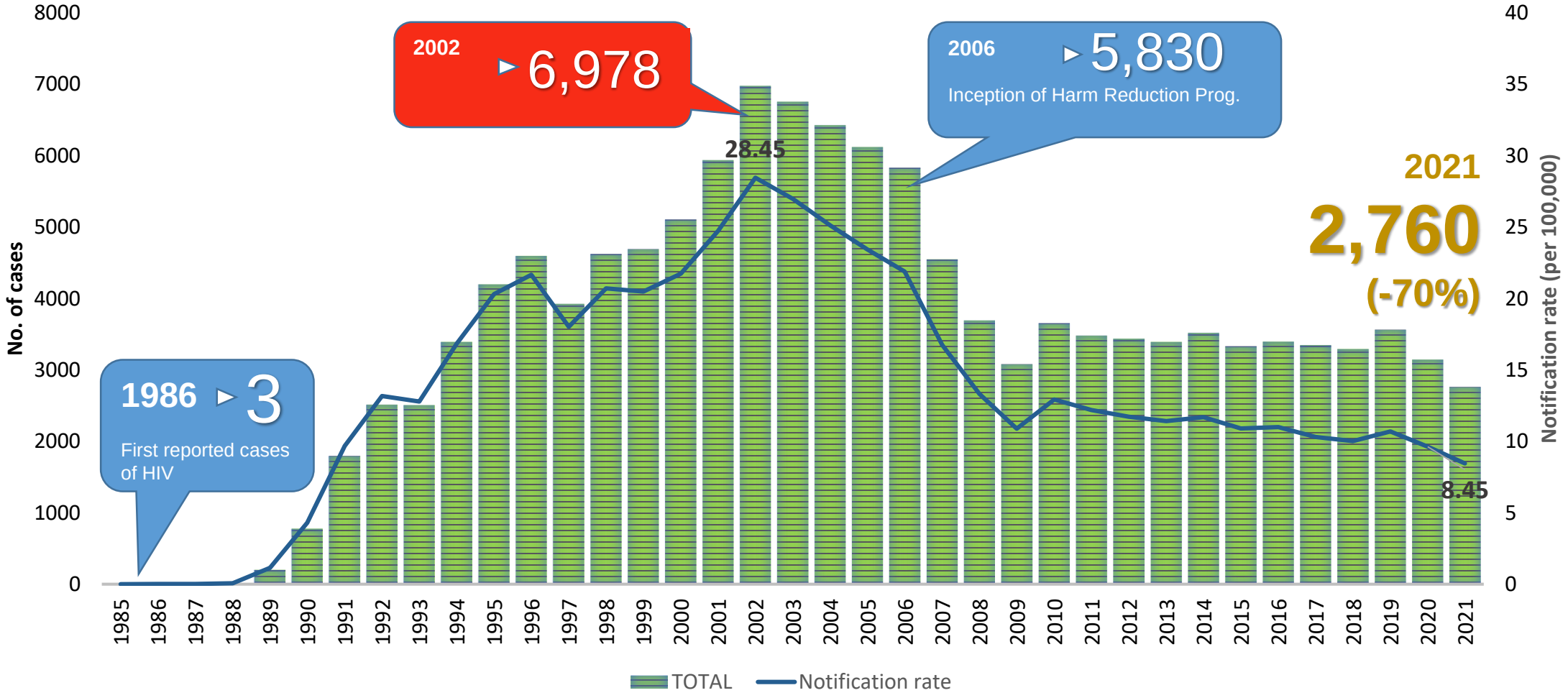
There is a proven path to end AIDS … are we on it?

14 July 2023

Photo: © UNAIDS

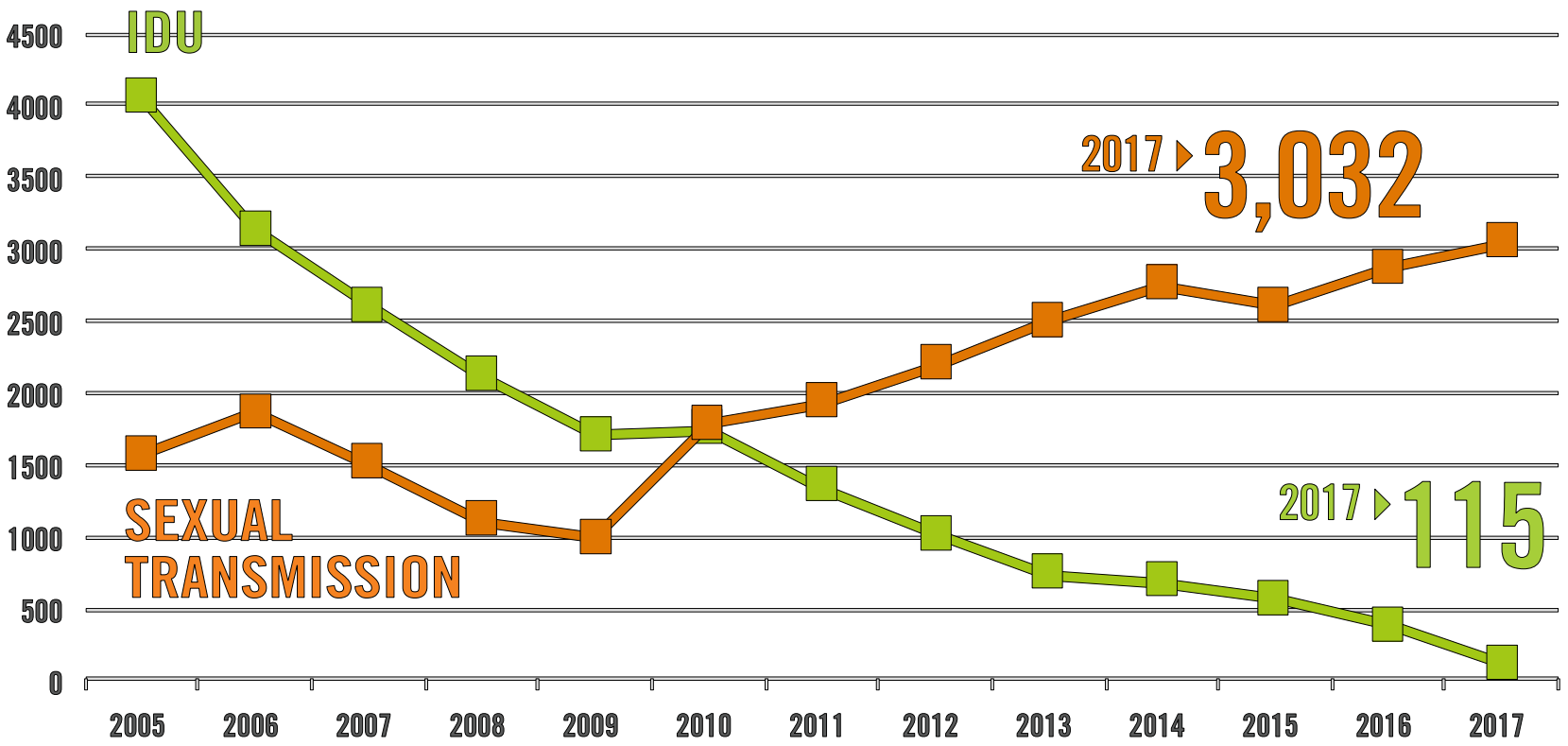
By Patricia Ongpin, UNAIDS Country Director for Cambodia, Lao PDR, and Malaysia

ANNUAL REPORTED CASES (ALL), MALAYSIA (1986 - 2021)



Source: HIV/STI/Hepatitis C Sector, Division of Disease Control, Ministry of Health Malaysia, 2021

HIV amongst PWID in Malaysia



Source: HIV/STI Sector, Division of Disease Control, Ministry of Health Malaysia

Success of Harm Reduction: Averting New HIV Infections

With Harm Reduction	Without Harm Reduction	Reduction in no of new HIV Infections
• 2006-2013		
20,903	**34,220**	**39%**
• 2013-2023		
3,596	**27,118**	**87%**
• 2006-2050		
27,979	134,345	**79%**

Cost Savings in Direct Health Care

Cost-saving in direct health care (mil. RM)		
2006 - 2013	2013 - 2023	2006 - 2050
47.06 (30.53 – 58.50)	**209.53** (114.10 – 248.26)	**909.47** (441.71 – 1182.40)

THE SOCIAL DETERMINANTS OF HEALTH AND HEALTH INEQUITIES

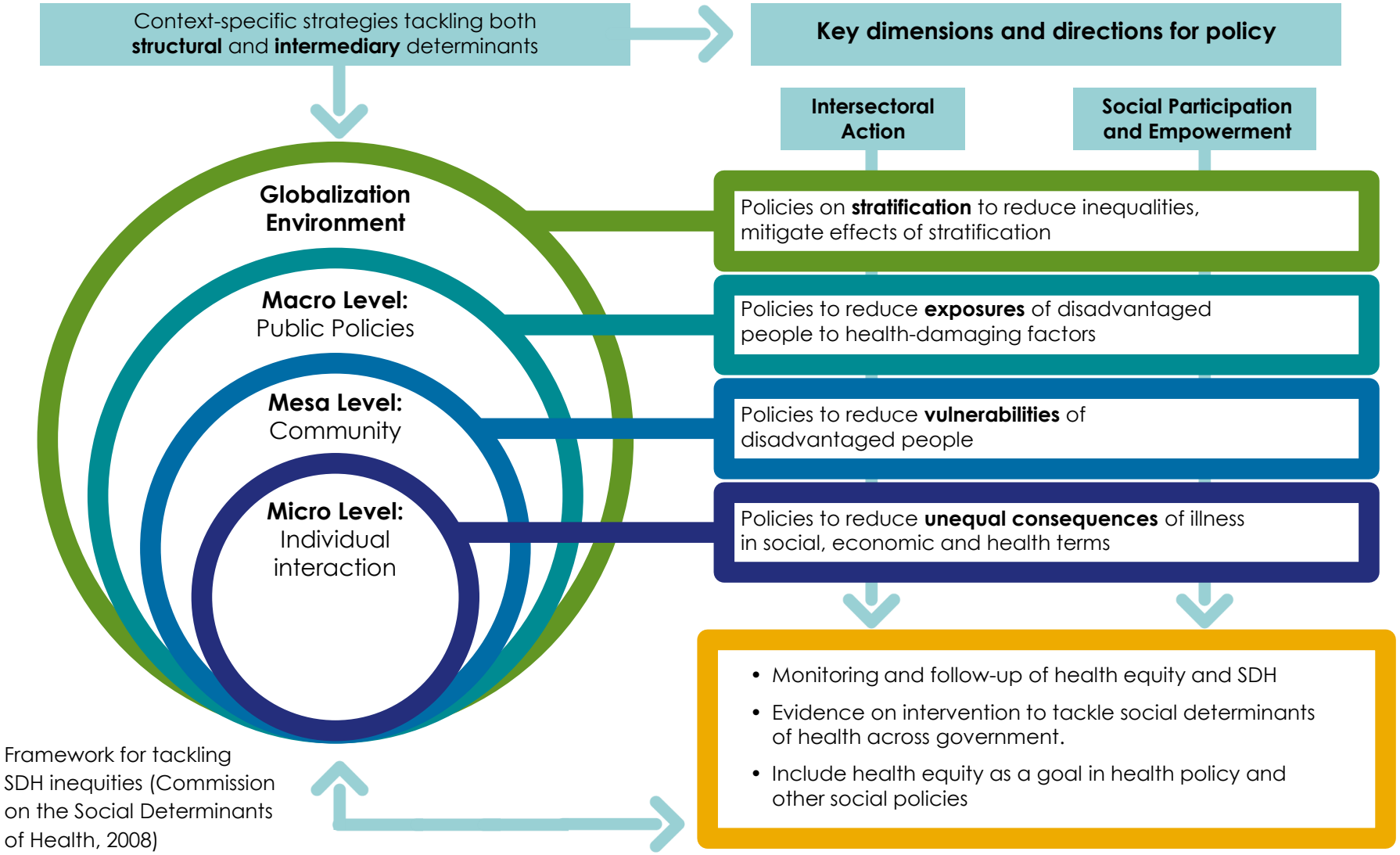
Health inequities are avoidable – they are created by structural and political processes and decisions that affect the everyday living conditions of individuals and populations.

The social inequities in health arise because of inequities in the conditions of daily life and the fundamental drivers that give rise to them: inequities in power, money and resources.

RISING INEQUALITY IS NOT INEVITABLE

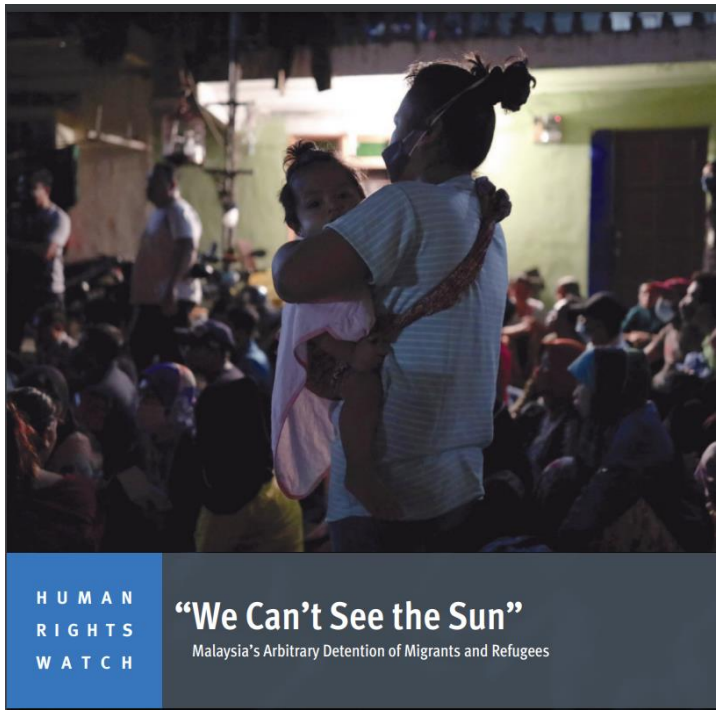
National policies and institutions
do matter.

… AMENABLE TO CHANGE: POLICY ACTION

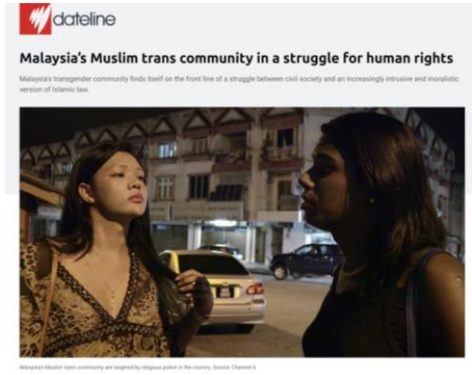


Framework for tackling SDH inequities (Commission on the Social Determinants of Health, 2008)

- There is possibility for positive action to come from our experiences.
- There is no point in studying these differences if we do not have an intent to change them.
- If we have a commitment to reducing inequities we have to focus on what really matters, and recognize these are societal choices, not individual ones.



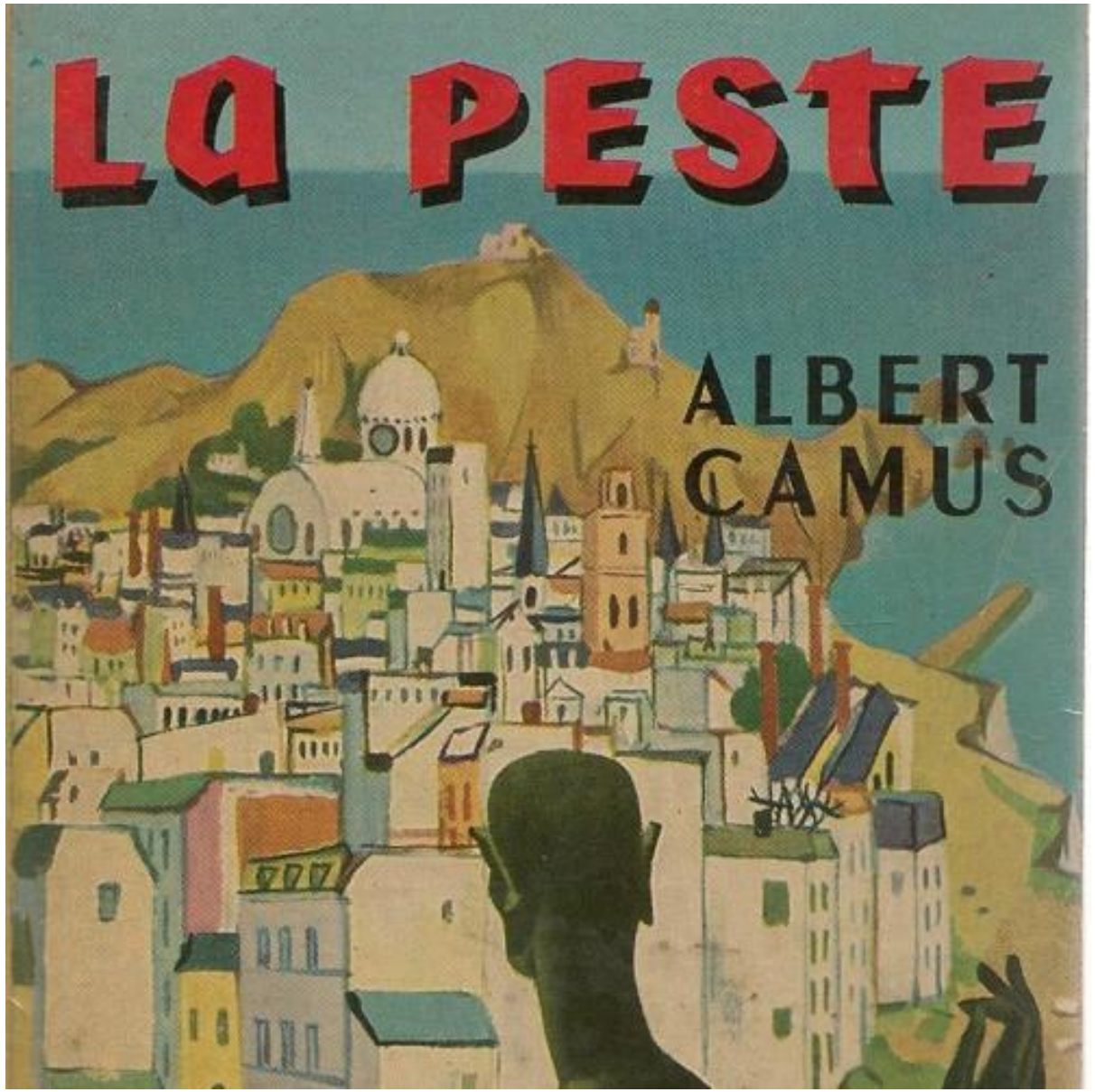
Kajang Prison offers methadone and specialized HIV care.
PHOTO: MALCOLM LINTON



McGrail, Morgan, Siddiqi The Lancet Regional Health - Americas 2022

- We are at a moment at which collective attention could lead to re-imagining of how we think about health and what resources are available to support health.
- More fundamentally, it is an opportunity to start acting to address long-standing structural inequities that make some people healthy and others not.
- We have an opportunity presented to us by the devastation of the COVID-19 pandemic, which is to learn and act together – across academic disciplines, across professional spheres, and most importantly with the public and all the multiple and rich communities that make up society.
- We should take this opportunity before it is too late.

McGrail, Morgan, Siddiqi The Lancet Regional Health - Americas 2022;9: 100232



“there’s no question of heroism in all this. It’s a matter of common decency. That’s an idea which may make some people smile, but the only means of fighting a plague is common decency.”

Dr Rieux