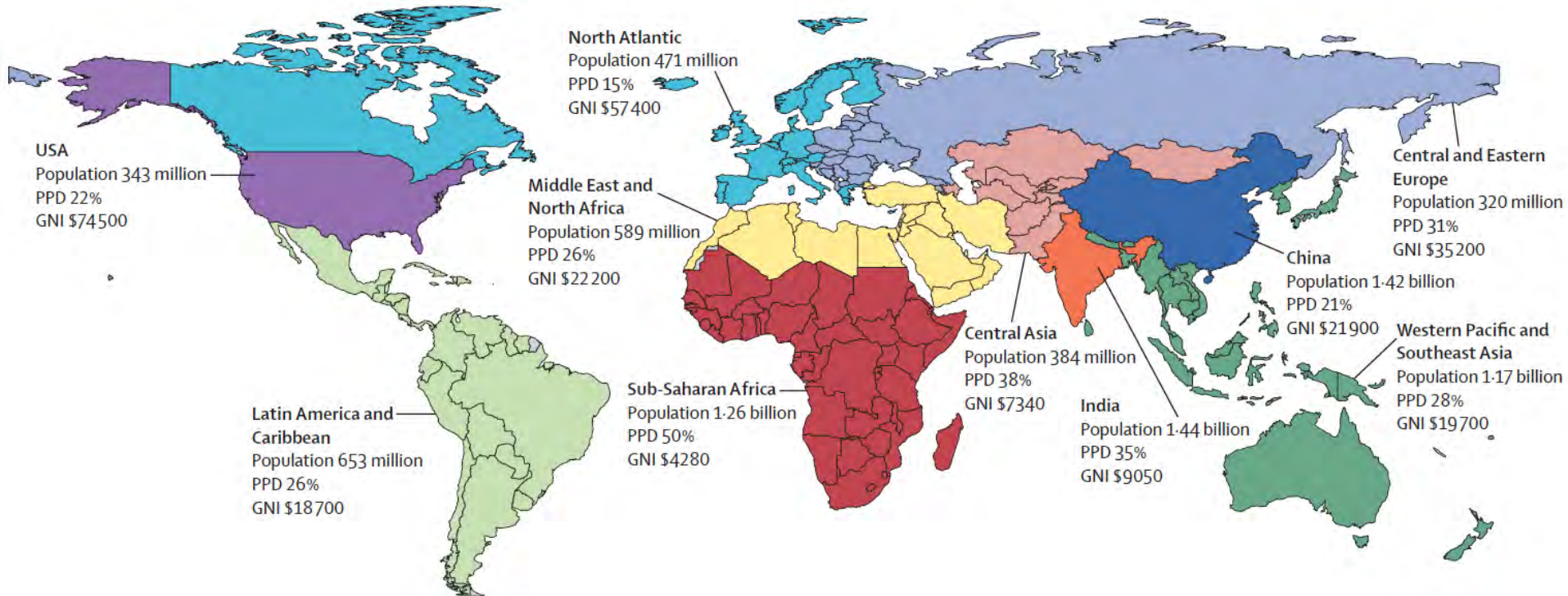


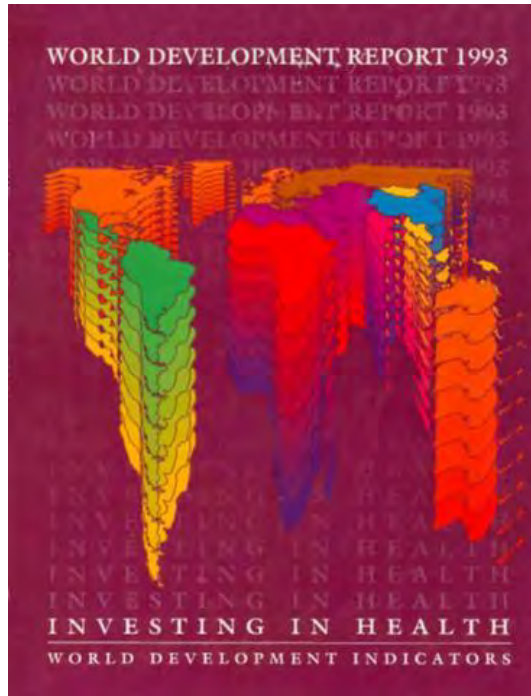
Global Health 2050

Presentation by Dean T Jamison
Co-chair, Lancet Commission on Investing in Health

Harvard Chan School of Public Health, Dec 9, 2024



History of the CIH enterprise: from WDR93 to CIH 3.0



In 1993, the World Bank published the influential World Development Report (WDR93), *Investing in Health*, under the leadership of the Bank's chief economist Lawrence Summers and health economist Dean Jamison. Aimed at finance ministers and aid donors, the report's central message was that targeted spending on cost-effective interventions for high-burden diseases could rapidly improve health outcomes, boost the economy, and improve human welfare.

On the 20-year anniversary of WDR93: CIH 1.0



THE LANCET

Global health 2035: a world converging within a generation

Dean T Jamison, Lawrence H Summers*, George Alleyne, Kenneth J Arrow, Seth Berkley, Agnes Binagwaho, Flavia Bustreo, David Evans, Richard G A Feachem, Julio Frenk, Gargee Ghosh, Sue J Goldie, Yan Guo, Sanjeev Gupta, Richard Horton, Margaret E Kruk, Adel Mahmoud, Linah K Mohohlo, Mthuli Ncube, Ariel Pablos-Mendez, K Srinath Reddy, Helen Saxenian, Agnes Soucat, Karen H Ulltveit-Moe, Gavin Yamey*

On the 40-year anniversary of Alma-Aata: CIH 2.0

The Lancet Commissions



Alma-Ata at 40 years: reflections from the *Lancet* Commission on Investing in Health

David A Watkins, Gavin Yamey*, Marco Schäferhoff, Olusoji Adeyi, George Alleyne, Ala Alwan, Seth Berkley, Richard Feachem, Julio Frenk, Gargee Ghosh, Sue J Goldie, Yan Guo, Sanjeev Gupta, Felicia Knaul, Margaret Kruk, Rachel Nugent, Osundu Ogbuoji, Jinyuan Qi, Srinath Reddy, Helen Saxenian, Agnès Soucat, Dean T Jamison†, Lawrence H Summers†*

A decade on from CIH 1.0: CIH 3.0

The Lancet Commissions

GLOBAL
HEALTH 2050

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Global health 2050: the path to halving premature death by mid-century

Dean T Jamison, Lawrence H Summers*, Angela Y Chang†, Omar Karlsson†, Wenhui Mao†, Ole F Norheim†, Osondu Ogbuoniji†, Marco Schäferhoff†, David Watkins†, Olusoji Adeyi, George Alleyne, Ala Alwan, Shuchi Anand, Ruth Belachew, Seth F Berkley, Stefano M Bertozzi, Sarah Bolongaita, Donald Bundy, Flavia Bustreo, Marcia C Castro, Simiao Chen, Victoria Y Fan, Ayodamope Fawole, Richard Feachem, Lia Gebremedhin, Jayati Ghosh, Sue J Goldie, Eduardo Gonzalez-Pier, Yan Guo, Sanjeev Gupta, Prabhat Jha, Felicia Marie Knaul, Margaret E Kruk, Christoph Kurowski, Gordon G Liu, Saeda Makimoto, Awad Mataria, Rachel Nugent, Hitoshi Oshitani, Ariel Pablos-Mendez, Richard Peto, Neelam Sekhri Feachem, Srinath Reddy, Nisreen Salti, Helen Saxenian, Justina Seyi-Olajide, Agnes Soucat, Stéphane Verguet, Armand Zimmerman, Gavin Yamey*

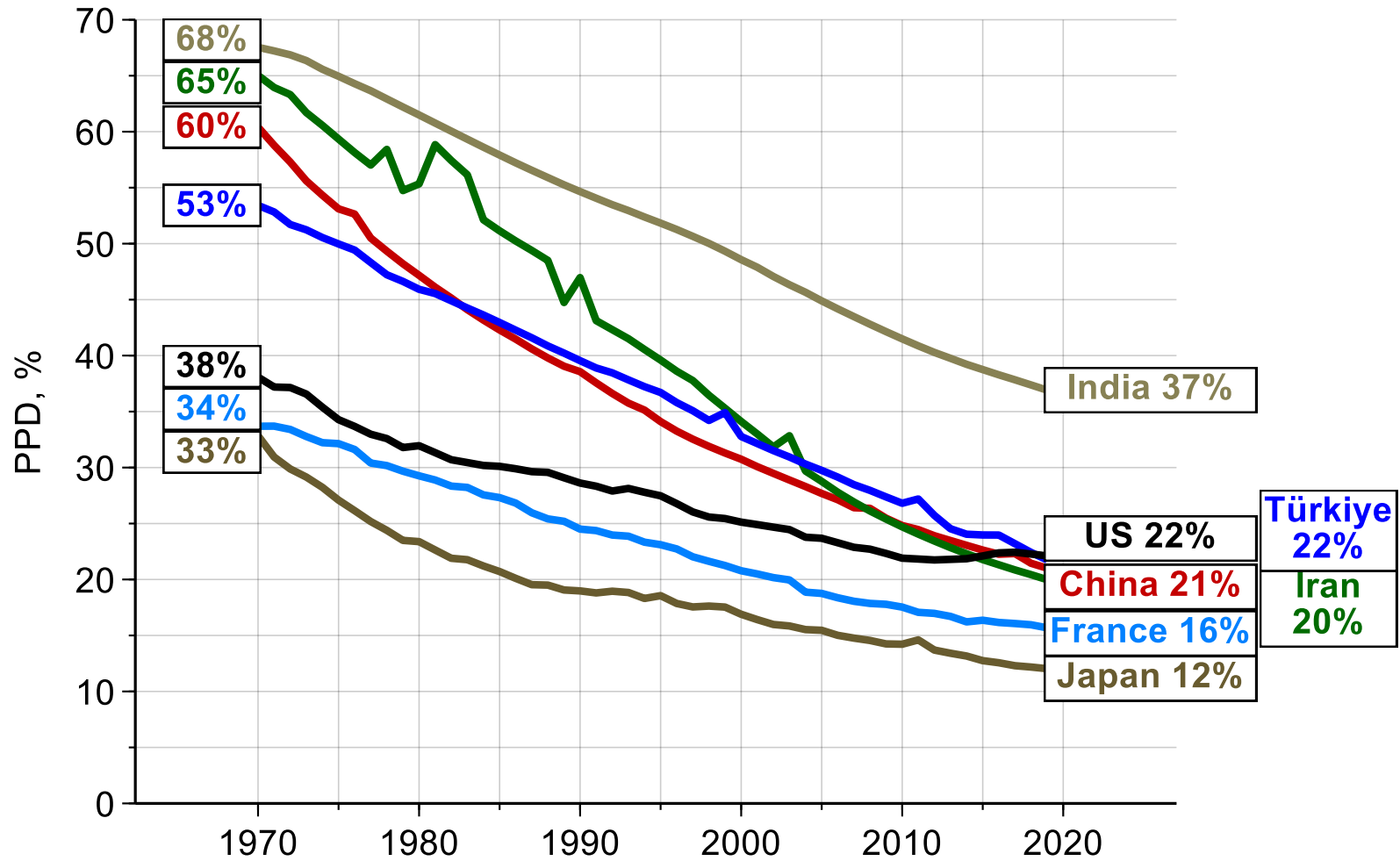
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Message 1:

Nations that choose to do so can achieve “50 by 50”

“Dramatic improvements in human welfare are achievable by mid-century with focused health investments. By 2050, countries that choose to do so could reduce by 50% the probability of premature death in their populations—the probability of dying before age 70 years—from the levels in 2019. We call this goal 50 by 50.”

Trends in the Probability of Premature Death, US and Comparators



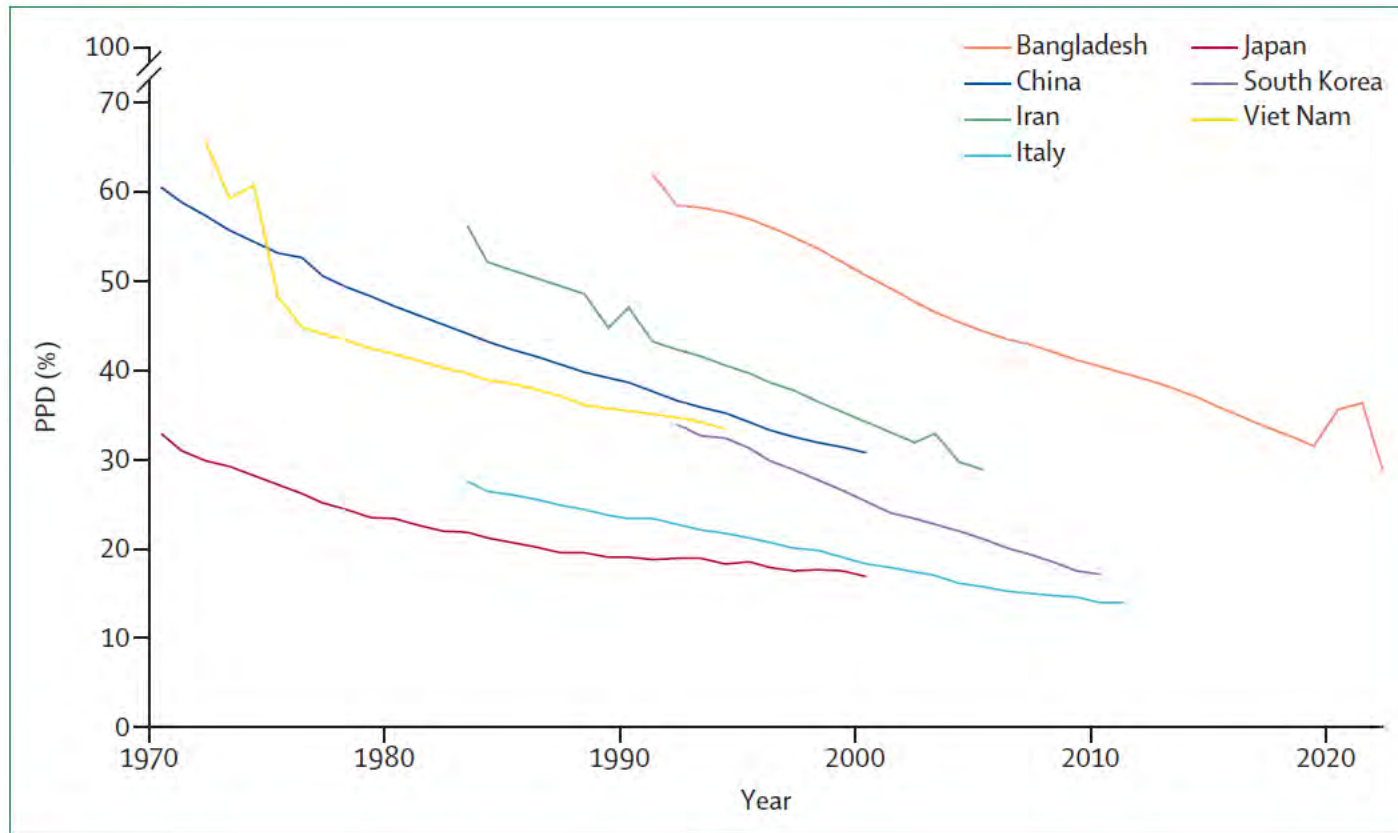
Comparison of life expectancy and PPD

Life expectancy: a non-sensitive indicator of progress in HICs

	Life expectancy			PPD		
	2000	2019	% improvement	2000	2019	% improvement
Sub-Saharan Africa	51 years	61 years	18%	66%	52%	20% better
North Atlantic	79 years	82 years	5%	21%	15%	27% better

Source: GH 2050 Appendix, Table A.3

Feasibility is based on historical experience.....

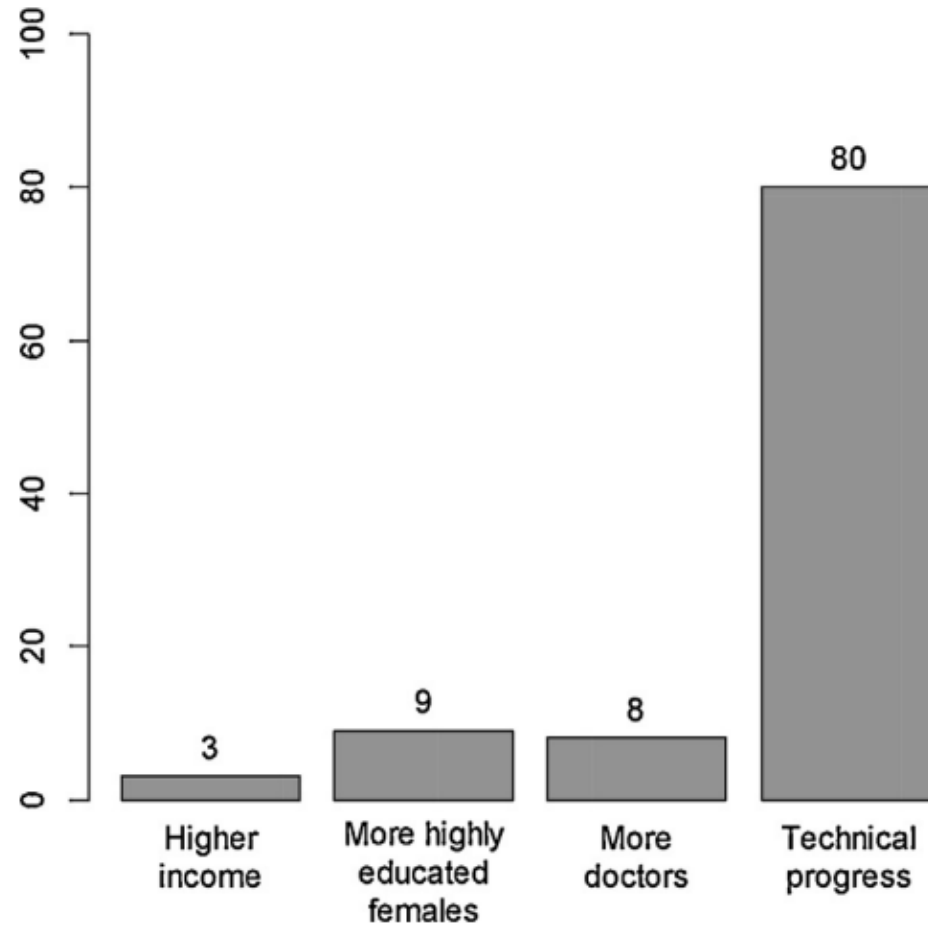


High-population countries that halved the PPD in 31 years or less, 1970–2019

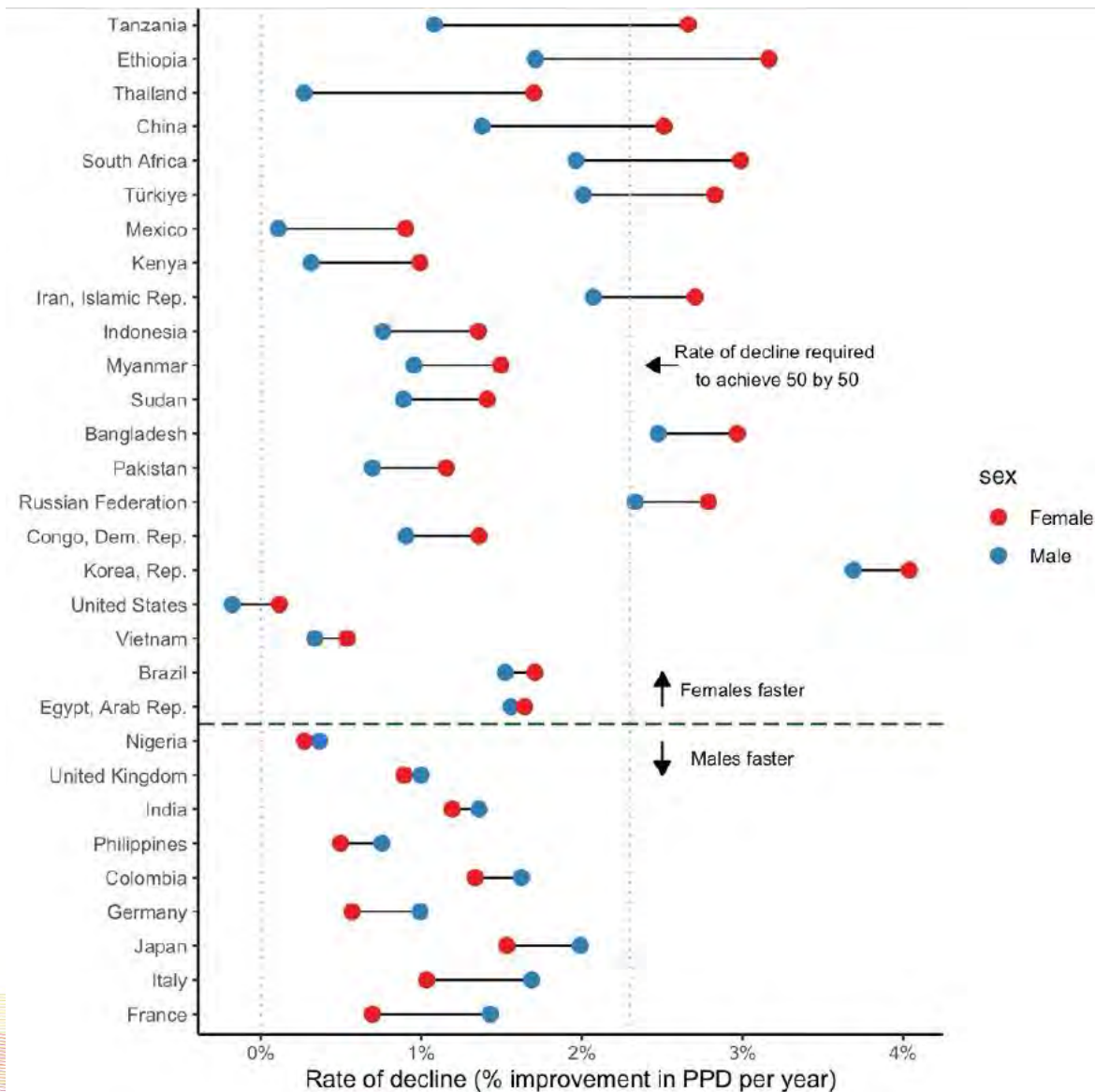
.....and continued scientific advance

Factors accounting for decline in
under-5 mortality in LMICs,
1970–2000

J Health Econ 2016; 48: 16–25



Sex Differences in Rate of Decline in PPD, 30 Most Populous Countries, 2010-19

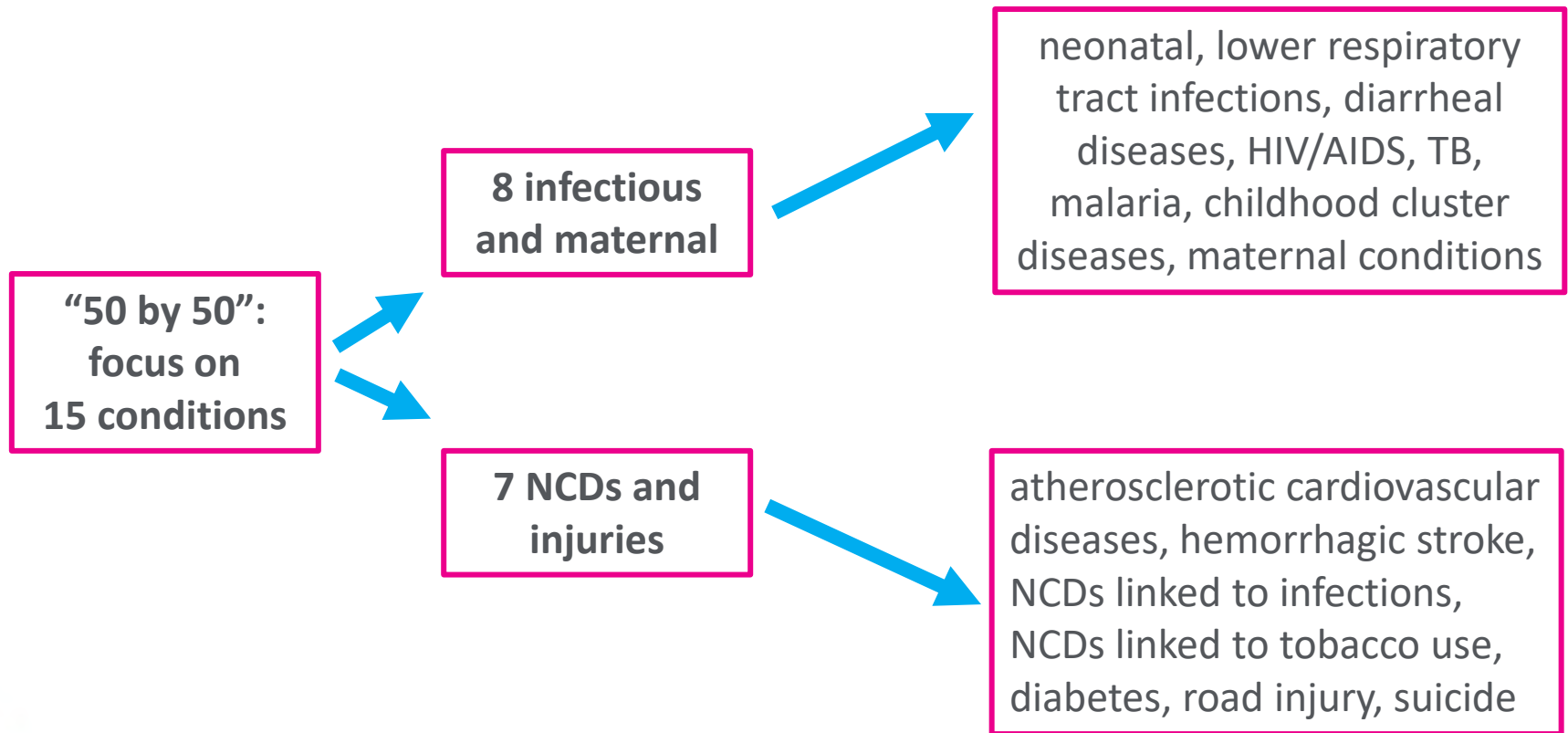


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Source: GH 2050 Appendix, Figure A.2

Message 2: Sharp reductions in mortality & morbidity can be achieved early on path to UHC



Global Progress Against Infectious and Maternal Health Priority Conditions

	Deaths (n)			Death rate*			Annual rate of change in death rate (%)		
	2000	2019	2021	2000	2019	2021	2000–10	2010–19	2019–21
Tuberculosis	2 500 000	1 300 000	1 400 000	41	17	18	–3.9%	–5.2%	1.6%
HIV/AIDS	1 600 000	720 000	650 000	27	9	8	–3.9%	–7.1%	–6.0%
Malaria	870 000	580 000	600 000	14	7	8	–3.2%	–3.5%	1.3%
Maternal deaths	410 000	240 000	260 000	300	170	190	–3.3%	–2.4%	5.8%
Under-15 deaths†	12 000 000	6 700 000	6 300 000	88	47	46	–3.5%	–3.0%	–1.8%

Source: GH 2050 Table 6

Note: TB deaths include where underlying infection was HIV

The importance of the NCDs

Gap in life expectancy is relative to countries in the North Atlantic region

	Gap in life expectancy, years	Proportion of gap in life expectancy		
		Infectious and maternal health priority conditions*	NCD and injury-related priority conditions*	Priority conditions combined
China	4.3	4%	82%	86%
India	11.5	29%	49%	78%
Sub-Saharan Africa	21.6	50%	23%	74%

Source: GH 2050 Table 4

Deaths for the NCD-7, globally

	Deaths, 2021 (millions)	Rate of improvement in death rate, age 50-69, 2000-2019
1. Atherosclerotic cardiovascular disease	12	1.2% per year
2. Hemorrhagic stroke	3.6	2.1% per year
3. Tobacco-related NCDs	5.9	1.0% per year
4. Infection-related NCDs	2.6	2.1% per year
5. Diabetes	2.2	-0.4% per year
6. Road injury	1.2	1.6% per year
7. Suicide	0.73	2.3% per year

Deaths under age 15	6.3	3.3% per year

Sources: GHE 2024 for deaths, GH 2050 Table 7 for rate of improvement

Message 3: The UHC and HSS agendas need a reset—we propose a modular approach

UHC agenda has largely stalled*

Little global progress in health-service coverage since start of the SDG era in 2015 (except for ARVs)

Catastrophic health expenditure is becoming more common

*WHO 2023 UHC Monitoring Report

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We package core interventions into 19 modules

3 examples of modules (infectious & maternal health conditions)

Module	High-priority interventions	Primary outcome (secondary outcome)
Routine childhood immunization	Immunization against most or all antigens (n=11) recommend by WHO for all countries	Child deaths averted (child height-for-age)
Treatment of acute childhood illness	Treatment of enteric and lower respiratory tract infections, malaria, and acute malnutrition	Child deaths averted (child height-for-age)
Pregnancy & childbirth	Antenatal care, safe delivery, management of complications of labor, routine postpartum care, neonatal care	Maternal deaths averted (stillbirths and neonatal deaths averted)

Deaths and crude death rate in 2035 and 2050 relative to 2019

	(2019)	2019 (%)		death rate* (2019)	relative to 2019 (%)	
		2035	2050		2035	2050
Global	58 million	126%	157%	7.5	111%	127%
Central and Eastern Europe	4 million	104%	104%	12.2	112%	120%
Central Asia	2.4 million	125%	164%	6.7	95%	101%
China	10 million	136%	173%	7.1	141%	195%
India	9.3 million	125%	160%	6.7	110%	132%
Latin America and Caribbean	4.1 million	132%	169%	6.4	121%	149%
Middle East and North Africa	2.7 million	140%	196%	4.8	113%	138%
North Atlantic	4.5 million	116%	131%	9.6	113%	129%
Sub-Saharan Africa	10 million	122%	157%	8.8	84%	82%
USA	2.8 million	127%	148%	8.4	118%	131%

Size of working-age population and old-age dependency ratios in 2035 and 2050 relative to 2019

	Working-age population (2019)	Working-age population relative to 2019 (%)		Old age dependency ratio (%)		
		2035	2050	2019	2035	2050
Global	5.1 billion	114%	121%	14%	20%	26%
Central and Eastern Europe	220 million	90%	77%	25%	34%	45%
Central Asia	210 million	138%	176%	7%	9%	11%
China	990 million	94%	75%	17%	34%	52%
India	930 million	117%	122%	9%	14%	22%
Latin America and Caribbean	430 million	110%	109%	13%	20%	29%
Middle East and North Africa	360 million	128%	142%	9%	13%	20%
North Atlantic	300 million	96%	90%	31%	44%	52%
Sub-Saharan Africa	620 million	157%	220%	6%	6%	8%
USA	220 million	102%	105%	24%	34%	38%
Western Pacific and Southeast Asia	770 million	109%	108%	15%	22%	30%

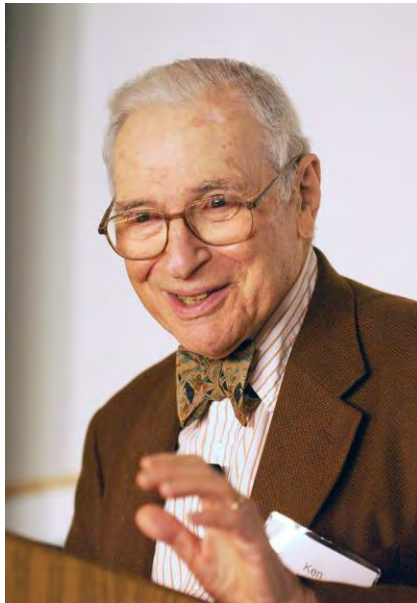
Working age is defined as ages 15–64 years. Old-age dependency ratio is defined as the proportion of the total population that is older than 64 years divided by the proportion of the total population that is working age. Data are from the UN's World Population Prospects (2024).¹⁰

Message 4: Financing UHC

In view of constraints on public sector finance and growing private incomes in many countries, rapid growth in private expenditure is likely—both out-of-pocket expenditure and private voluntary insurance. Such growth has been, historically, highly inefficient,¹³⁰ and in GH2035,² evidence suggested that increased private expenditure on health could raise rather than relieve pressure on public finance. An alternative to unrestrained growth in private expenditure would be the collection of additional taxes from groups such as civil servants, who tend to demand a more generous set of interventions than are included in the HBP. Although such an approach has its shortcomings, it might be a viable option when increased general taxation or mandatory contributions are not feasible.

Message 5: Countries should publicly finance a shortlist of key medicines for 15 priority conditions

Arrow mechanism



- ① Redirect general budget transfers to ministries of health to line-item budget transfers for specific priority drugs
- ② Centralized pooled procurement by government or internationally
- ③ Procurement of large volumes to ensure availability
- ④ Use and strengthen public & private supply chains

Message 6: “Tobacco is the new tobacco”

Tobacco taxation: the single most important inter-sectoral policy to help achieve 50 by 50

“Raising taxes on tobacco can do more to reduce premature mortality than any other single health policy”

Taskforce on Fiscal Health Policy



Message 7: There is a high risk of another pandemic of Covid-like magnitude

	1-year probability	5-year probability	10-year probability	25-year probability
≥1 million deaths	6%	28%	48%	80%
≥10 million deaths	4%	19%	35%	66%
≥25 million deaths	3%	12%	23%	48%
≥100 million deaths	1%	3%	6%	14%

During the emergency phase of the COVID-19 pandemic (ie, Jan 30, 2020, to May 4, 2023), an estimated 23 million excess deaths occurred globally that were almost entirely attributable (directly or indirectly) to COVID-19. Probabilities were estimated by Madhov et al (2023).³⁷

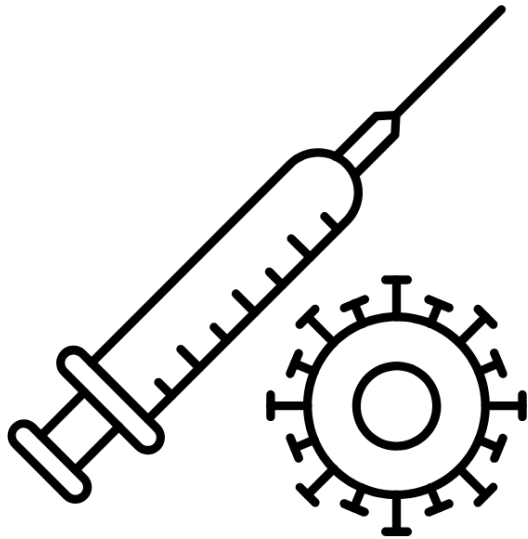
Country Performance on COVID-19

	Excess deaths (thousands)	Excess deaths (per million population)	P-score
Global	23,000	2900	12%
Japan	200	1600	4.2%
China	1700	1200	5.0%
Thailand	160	2300	9.0%
UK	230	3400	11.0%
USA	1300	3900	14.0%
India	5400	3800	18.0%
Mexico	670	5300	25.0%

Sources: GH 2050 Table 12 and Appendix Table 21, which has numbers for all countries

Note: Excess deaths and P-scores are calculated for the WHO-declared emergency period, Jan 31, 2020 - May 4, 2023

Public health fundamentals are key to averting massive mortality



Created by Karamat Ali
from Noun Project

Huge variation across countries in excess deaths during COVID, especially pre- vaccines, suggests lessons can be learned from successful countries about public health basics:

- Rapid response
- Case detection & contact tracing
- Isolation of infected individuals
- Quarantine of those exposed
- Social and financial support for people isolating or quarantining

Message 8: There is a critical role for DAH in supporting 50 by 50

Two broad purposes of DAH

Direct country support

- Target countries with the least resources
- Financial support
- Technical support
- Disease control and modular HSS

Global public goods for health

- Reduce development & spread of AMR
- Pandemic prevention/response
- Identify & spread best practices
- Develop new health tools

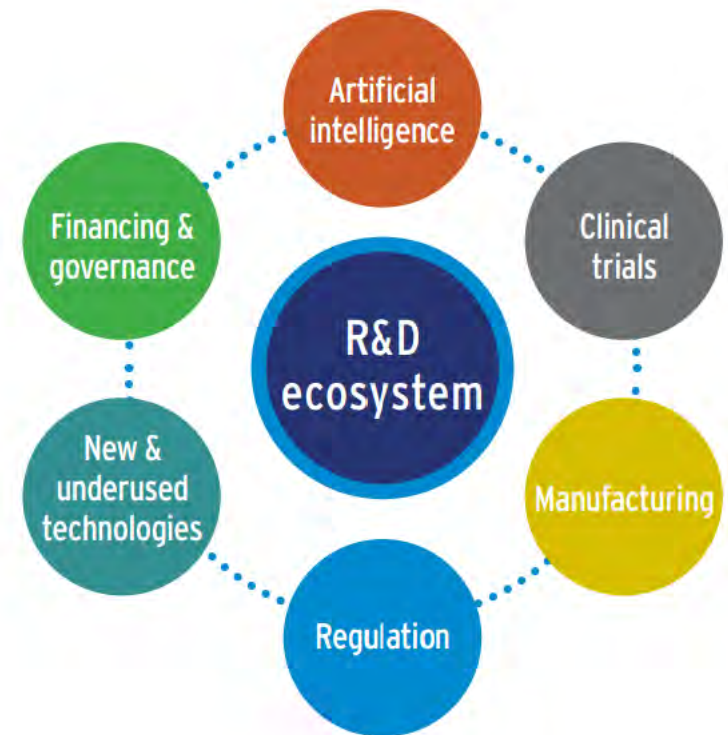
Focus both on the 15 priority conditions

International Collective Action for Health

Category	Amount in 2022 (\$ billions)	% change, 2022 relative to 2020
1. Global public goods	4	-15%
2. Control of externalities	12	+46%
(of which COVID-19)	5.8	+32%
3. Leadership & stewardship	0.36	-14%
4. Country-specific functions	31	+19%
(of which HSS)	7.2	+67%
TOTAL	48	+23%

Source: GH 2050 Table 15

R&D for priority conditions is becoming faster and more efficient



The value of mortality change, global

“Full income” increase, 2010-2019

- GNI gain: average per year = 2.6% of 2010 level
- Value of mortality reduction: average per year = 1.5% of 2010 level of GNI
- Full income change: average per year = 4.1% of 2010 level of GNI
- Value of mortality reduction = 58% of value of GNI change or 37% of value of full income change

Full income loss from pandemic mortality

- COVID-19, total over pandemic = 34% of 2019 GNI
- Ongoing pandemic risk: expected value of annual loss = 5.1% of GNI

Sources: GH 2050 Tables 2, 12, and 14

THE LANCET

October, 2024

www.thelancet.com

Global health 2050: the path to halving premature death by mid-century

"Today, the case is better than ever for the value of investing in health for reducing mortality and morbidity, alleviating poverty, and improving human welfare."

Acknowledgement: Commissioners

Global health 2050: the path to halving premature death by mid-century

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Acknowledgement: Advisers

- **John-Arne Røttingen**, Wellcome Trust (*chair*)
- **Samira Asma**, WHO
- **Cristoph Benn**, Joep Lange Institute
- **Mark Blecher**, National Treasury of South Africa
- **Helen Clark**, PMNCH
- **Satoshi Ezoe**, Ministry of Foreign Affairs, Japan
- **Senait Fisseha**, Susan Thompson Buffett Foundation
- **Helga Fogstad**, UNICEF
- **Julio Frenk**, University of Miami
- **Atul Gawande**, USAID
- **Gargee Ghosh**, Gates Foundation
- **Richard Horton**, The Lancet
- **Gabriel Leung**, University of Hong Kong
- **Mosa Moshabela**, University of Cape Town
- **Serina Ng**, G20 Joint Finance and Health Task Force,
- **Justice Nonvignon**, MSH
- **Muhammad Ali Pate**, Federal Ministry of Health and Social Welfare, Nigeria
- **Peter Sands**, Global Fund
- **Olive Shisana**, Policy Adviser to President of South Africa
- **Vera Songwe**, Africa Growth Initiative, Brookings Institution
- **Viroj Tangcharoensathien**, Ministry of Public Health, Thailand
- **Juan Pablo Uribe**, World Bank

Thank You



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