



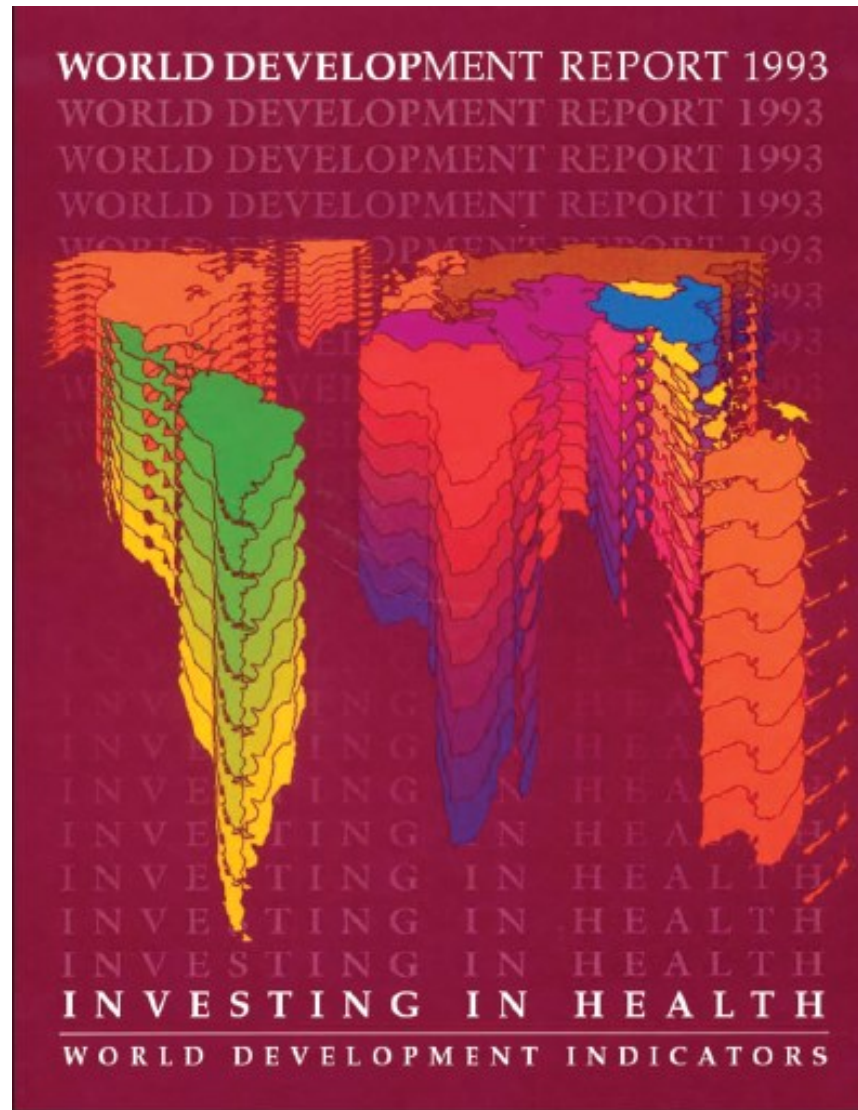
GLOBAL HEALTH 2035

A World Converging within a Generation

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Pan American health Organization

April 22, 2014



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World Development Report 1993: Three Pronged Approach to Government Policies

Foster an environment that enables households to improve health

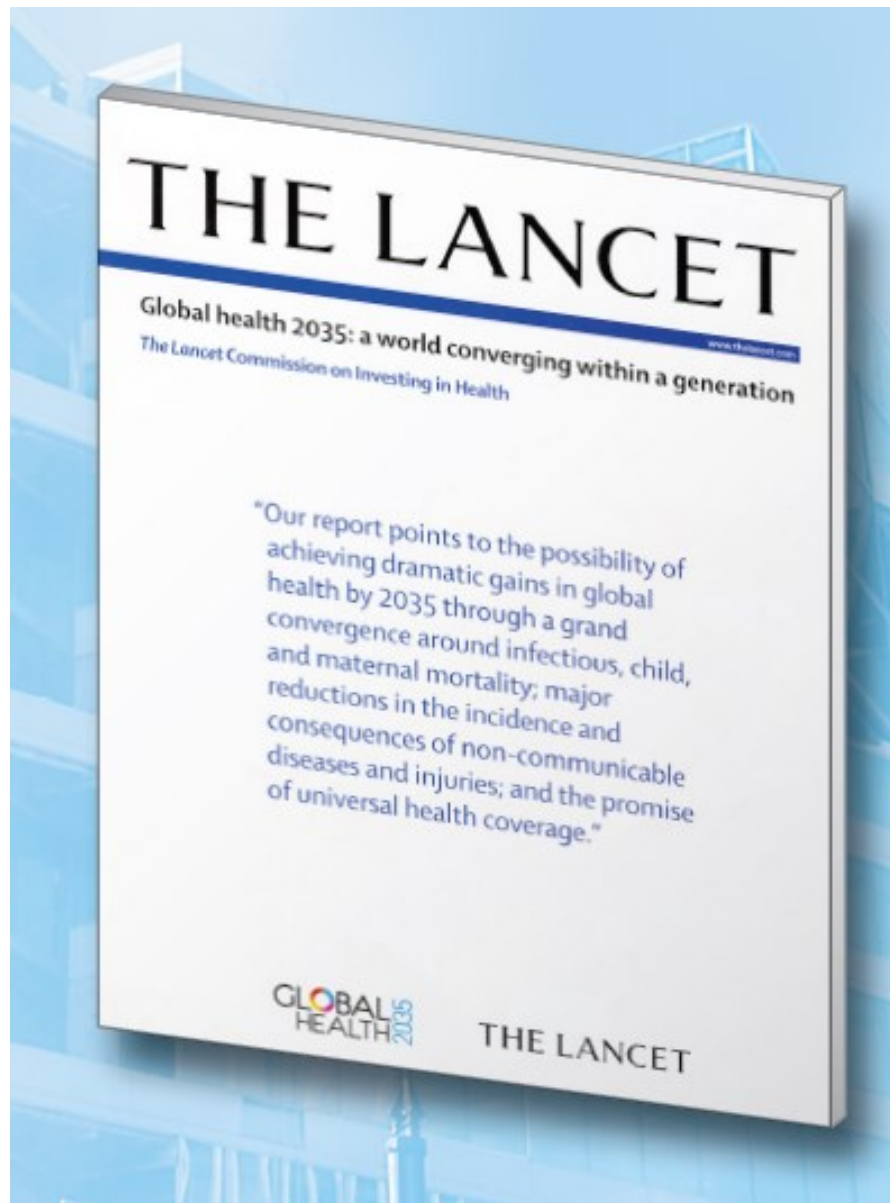
- Economic growth policies
- Schooling especially for girls
- Rights and status of women

Improve government spending in health

- Reduce tertiary spending
- Finance a package of public health interventions of high externality
- Essential clinical services
- Improve health services management

Promote diversity and competition

- Government to fund PH and essential clinical services
- Rest to be financed privately or by social insurance



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Global Health 2035: The World Development Report 1993 at 20 Years

The World Bank's World Development Report 1993

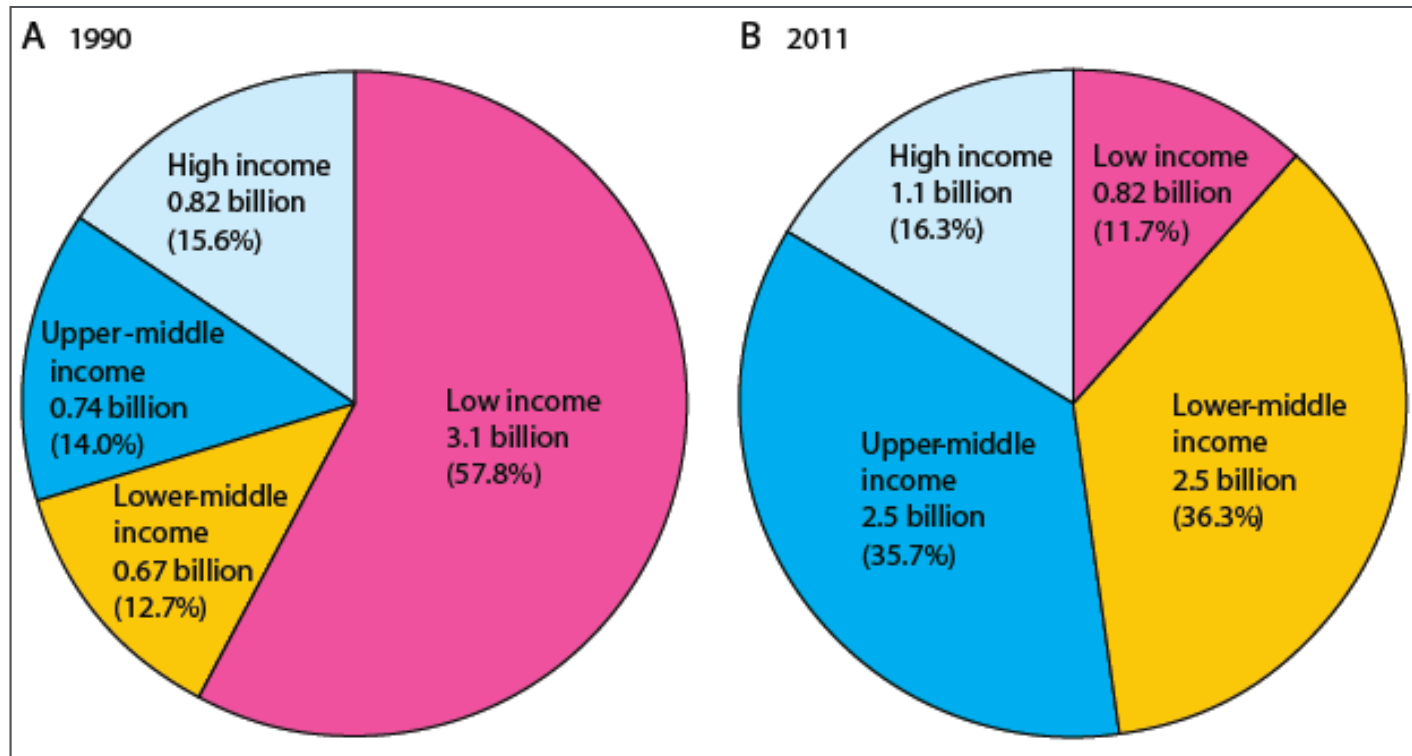
- Demonstrated that evidence-based health expenditures are an investment not only in health, but in economic prosperity
- Argued for additional resources for cost-effective interventions to address high-burden diseases



The Lancet Commission on Investing in Health

- 25 economists and global health experts re-examined the case for investing in health, chaired by Lawrence H. Summers, former Chief Economist at the World Bank and Undersecretary for International Affairs of the U.S. Department of Treasury
- Proposes a health investment framework for low- and middle-income countries
- Provides a roadmap to achieving gains in global health through a 'grand convergence'

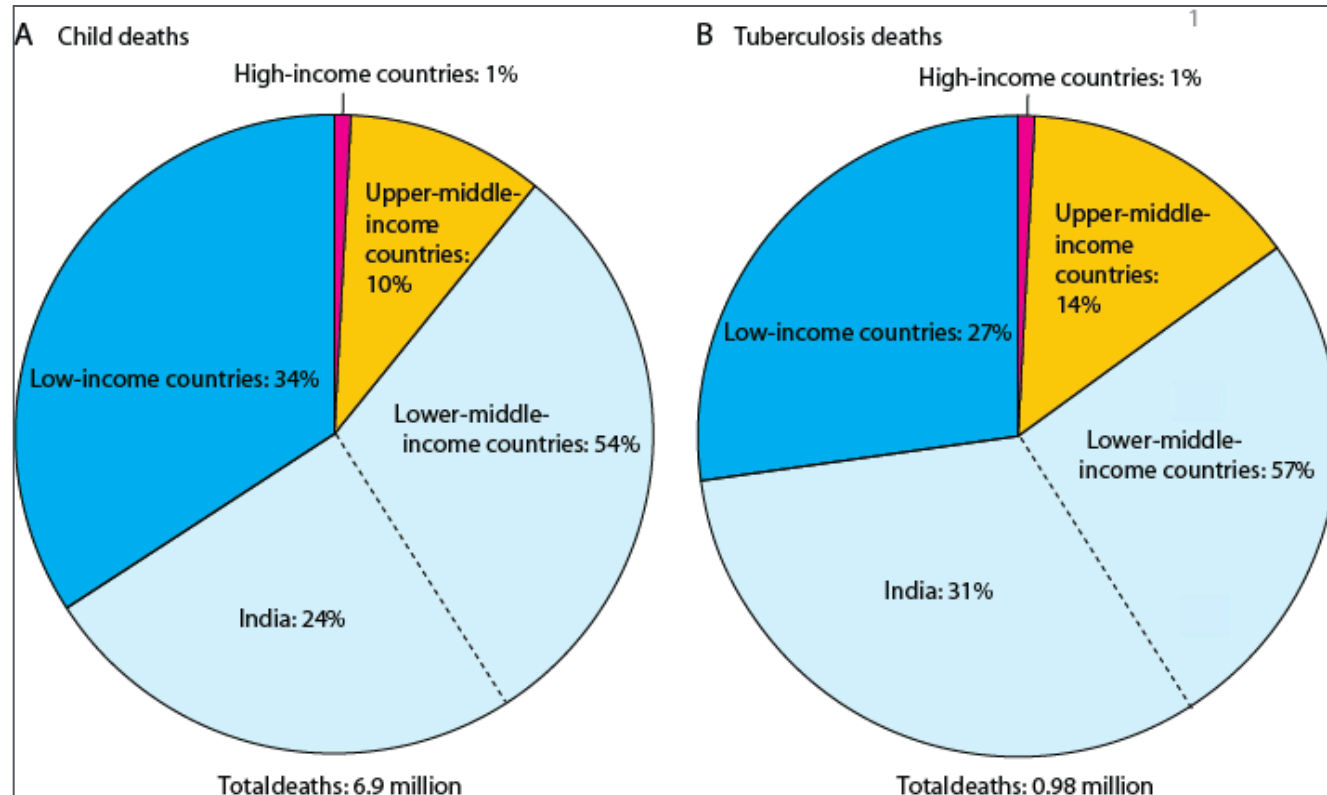
1993-2013: Extraordinary Economic Progress



Movement of populations from low income to higher income between 1990 and 2011

2013-2035: Global Health Challenges

Child deaths, TB deaths by country income level, 2011



Worldwide distribution of child deaths and TB deaths by country income level

Global Health 2035: Key Messages

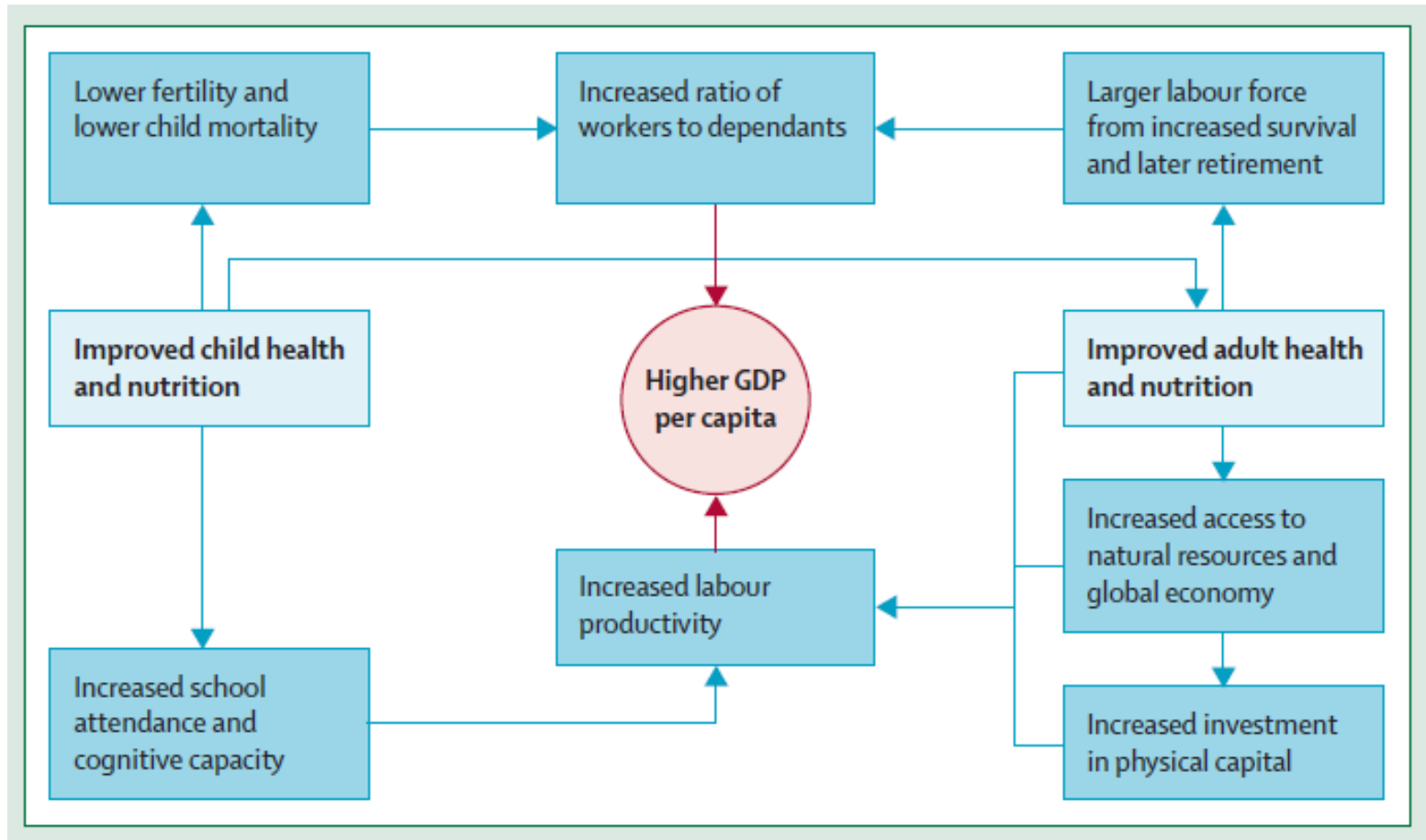
There is an enormous payoff from **improvements in health**.

A '**grand convergence**' in health is achievable within our lifetime.

Fiscal policies are a powerful and underused lever for curbing non-communicable diseases and injuries.

Progressive pathways to **universal health coverage** are an efficient way to achieve health and financial protection.

Links Between Health and Per Capita GDP





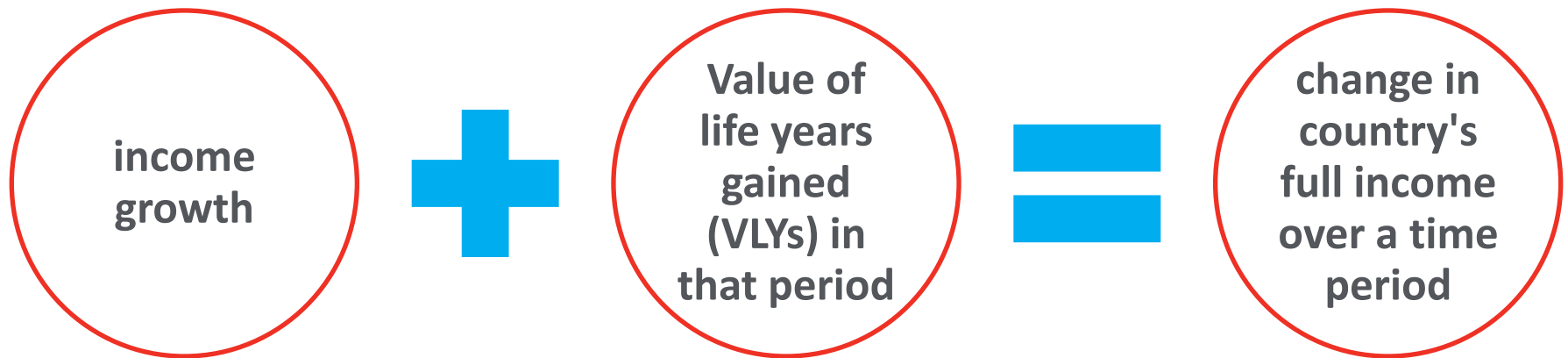
Irving Fisher 1867-1947

A large part of our subjective income is due to our conditions of health or disease...Economists, by fixing attention exclusively on physical phenomena, leave out the most essential element of all, the vigor of human life.

I feel a little ashamed to admit that as an economist and as a student of society, I had been blind as the average man or woman of today is blind to what health conservation means

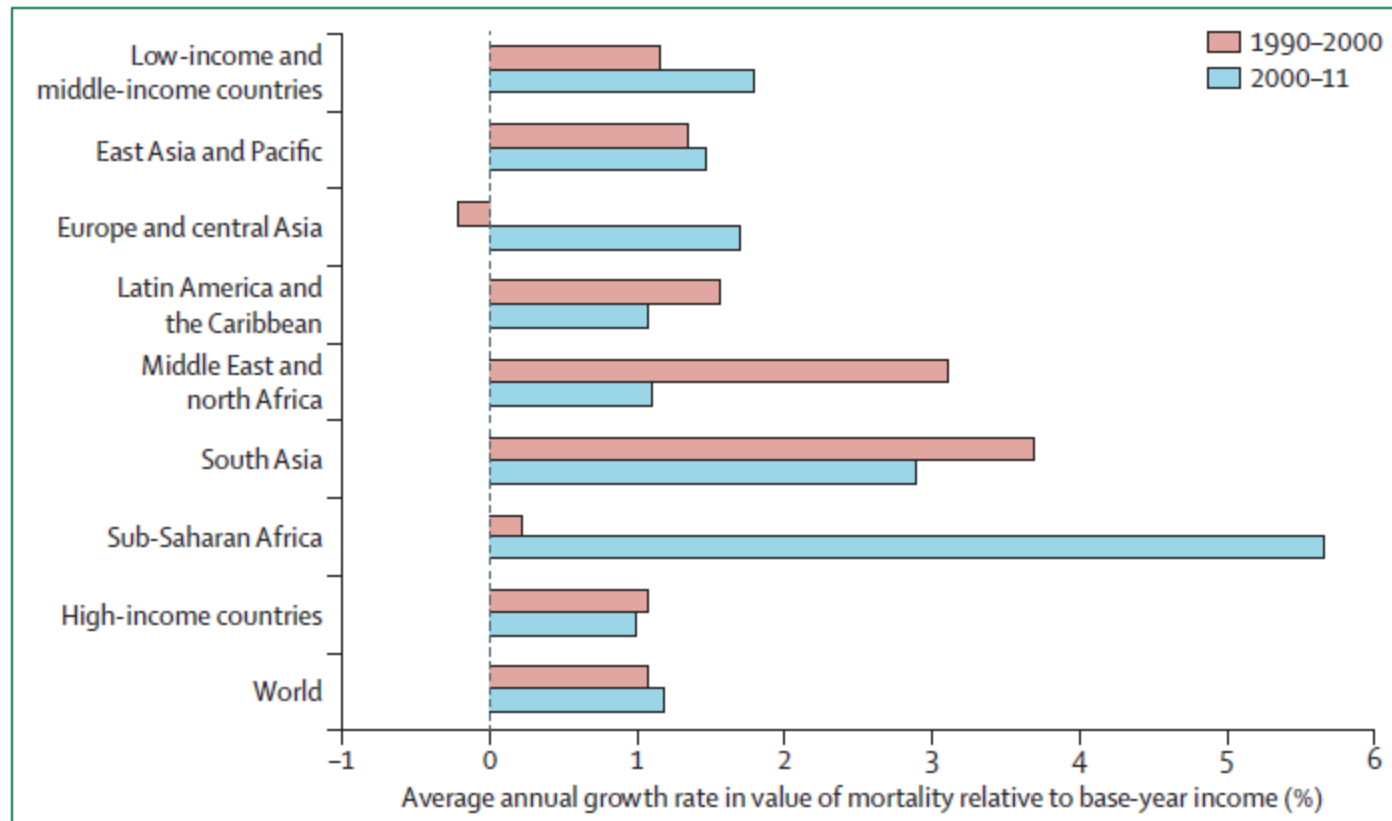
From WD Nordhaus, 2005

Full Income: A Better Way to Measure the Returns from Investing in Health



Between 2000 and 2011, about a quarter of the growth in full income in low-income and middle-income countries resulted from VLYs gained

Contribution of Change in Life Expectancy to Growth in Full Income

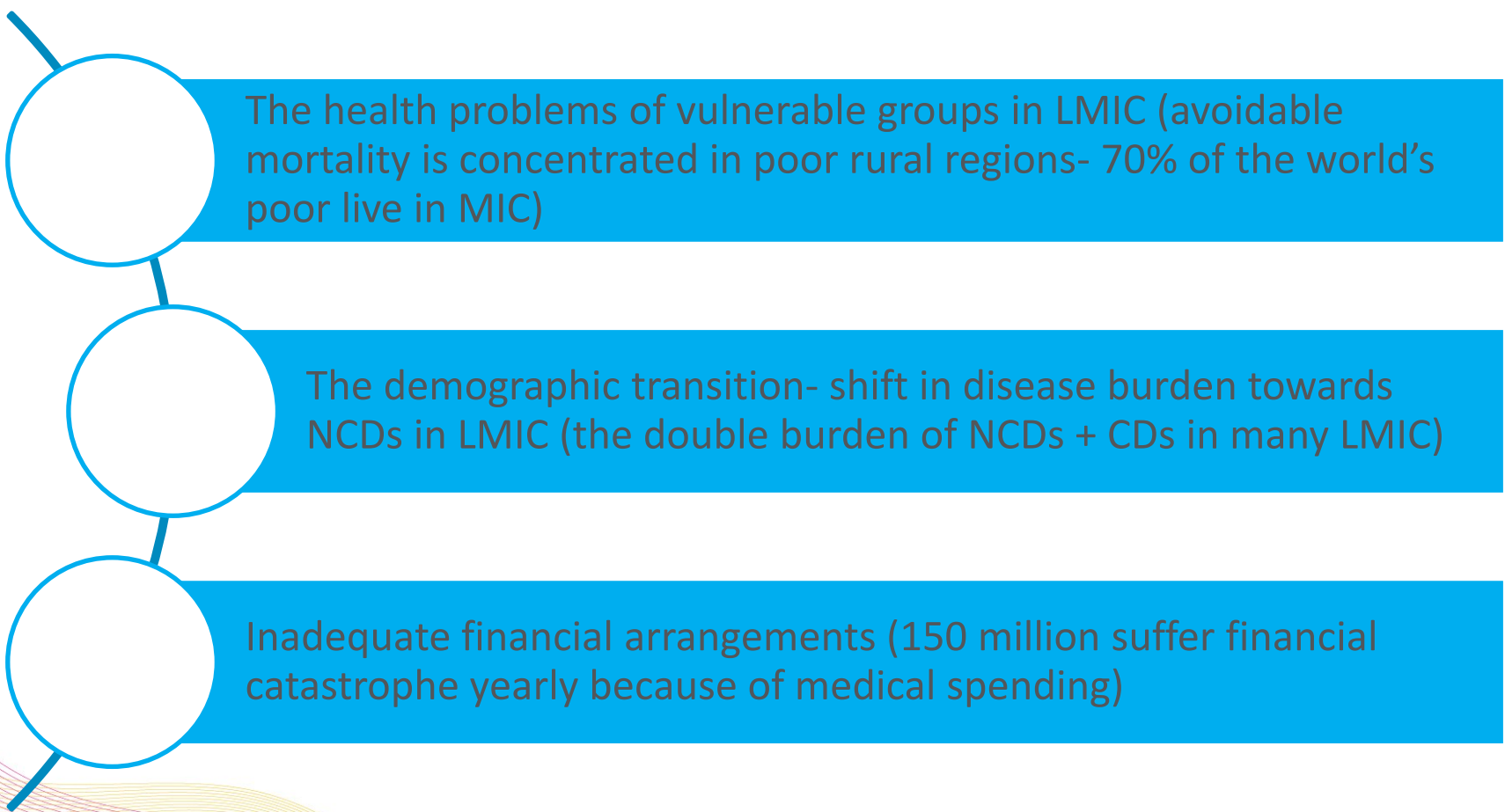


Value of Change in Mortality and Full Income

	Life expectancy		(c) GDP / capita income without health expenditures (=a-b)		(d) Change in GDP	(e) Value of change in mortality	(f) Change in full income (=e+d)	Value of change in mortality as a percent of change in full income (=e/f*100)
Year	2000	2011	2000	2011	2000-2011			
Jamaica	70.5	73.1	3290	5051	1761	410	2172	18.9%
Barbados	73.0	75.0	11074	14473	3399	1313	4712	27.9%

Courtesy Mr. Solomon Lee

Three Mega Challenges of the Next 20 Years

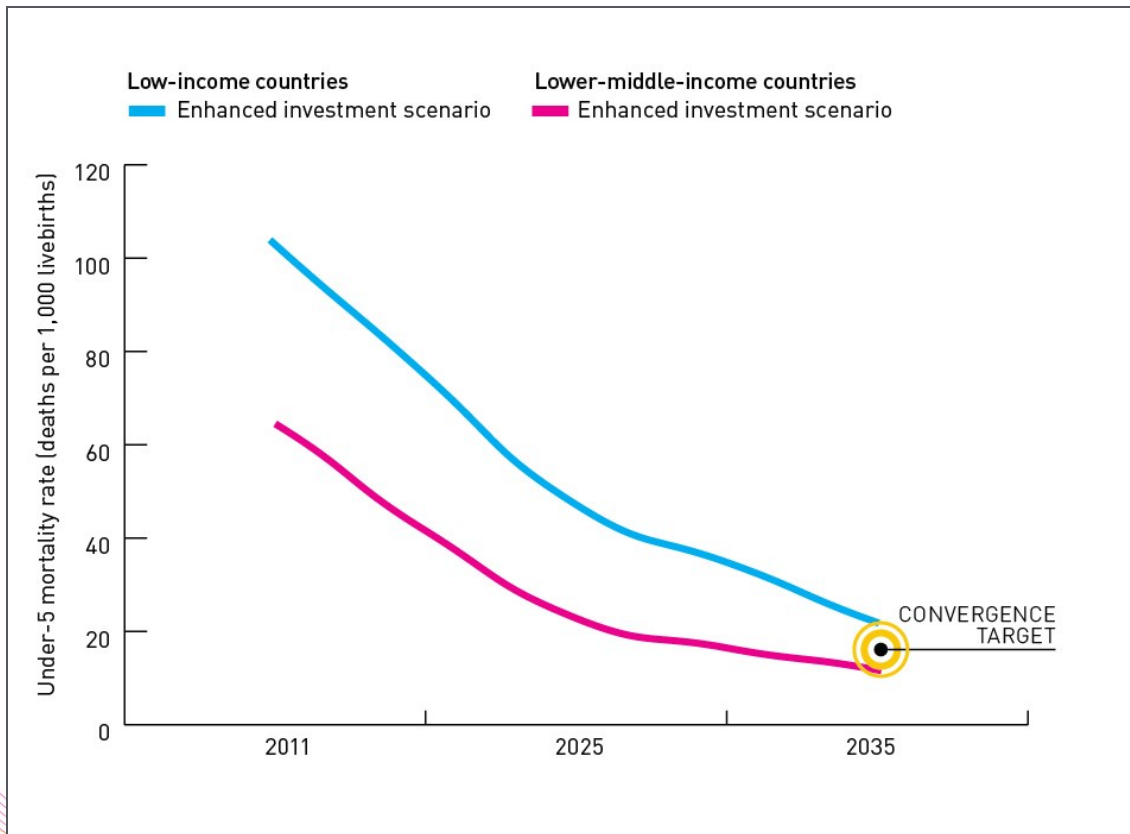


The health problems of vulnerable groups in LMIC (avoidable mortality is concentrated in poor rural regions- 70% of the world's poor live in MIC)

The demographic transition- shift in disease burden towards NCDs in LMIC (the double burden of NCDs + CDs in many LMIC)

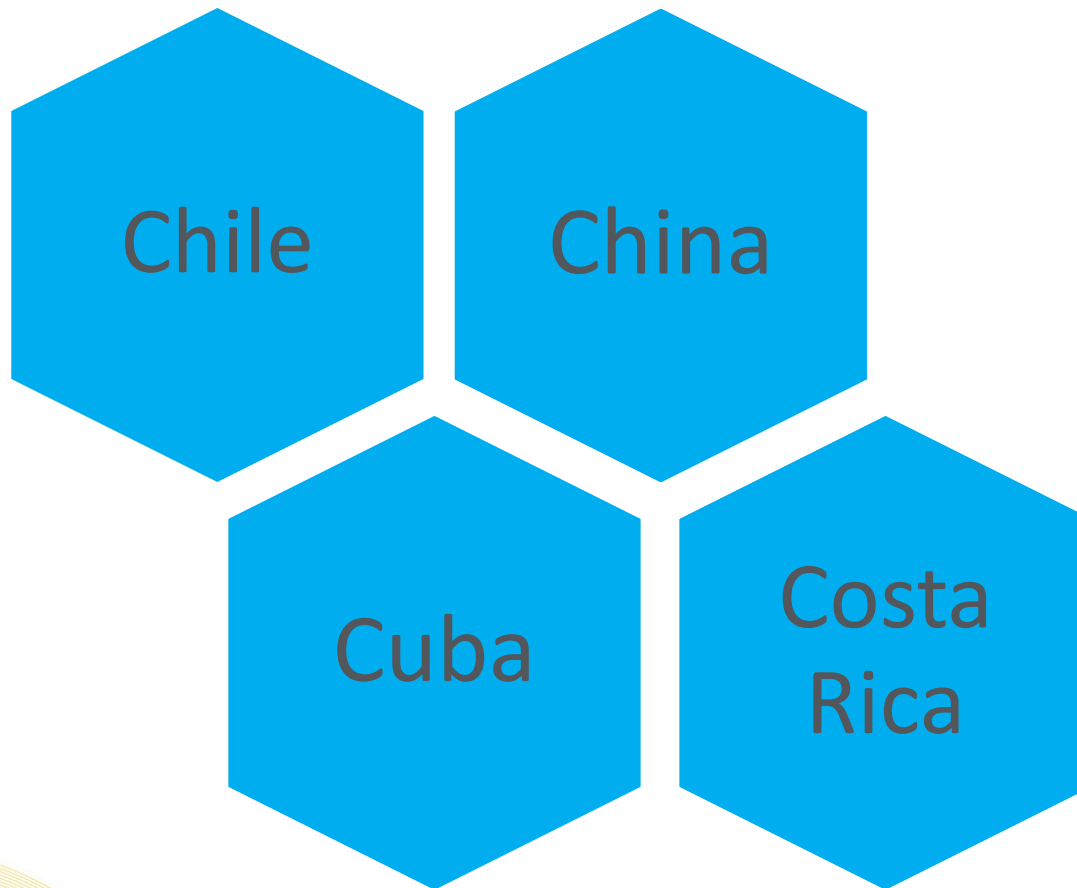
Inadequate financial arrangements (150 million suffer financial catastrophe yearly because of medical spending)

A Grand Convergence is Achievable by 2035



With enhanced investment, we could achieve a **grand convergence** in global health in the next generation – bringing deaths from infections and RMNCH conditions in LICs and MICs down to rates in the best-performing MICs.

The “Best “ Performing MICs: Countries that Cope



Interventions Included in Convergence Model

RMNCH

Pregnancy related interventions;
Abortion & complications;
Family planning; Diarrhoea
management; Pneumonia
treatment; Immunisation;
Nutrition

HIV

Prevention activities;
Management of opportunistic
infections; Care and treatment;
Collaborative tuberculosis-HIV
treatment

Malaria

Treatment with appropriate
drugs; Long-lasting insecticidal
bed nets; Intermittent
presumptive treatment in
pregnancy

Tuberculosis

Diagnosis, care and treatment of
drug-sensitive TB; Diagnosis,
care and treatment of
multidrug-resistant TB

Neglected Tropical Diseases

Interventions to control:
lymphatic filariasis,
onchocerciasis, schistosomiasis,
trachoma, soil-transmitted
helminths

Financing Convergence

	Scenario 1 (realistic scenario)	Scenario 2 (optimistic scenario)
Growth in domestic health spending from now to 2035, as a proportion of GDP	2% → 3%	2% → 4%
Allocation of this increase to the convergence agenda	2/3	2/3
Incremental cost of convergence in the year 2035	US \$30 billion	US \$30 billion
Contribution of domestic versus external financing in the year 2035	Domestic: US \$21 billion External: US \$9 billion	Domestic: US \$30 billion External: US \$0

Rising domestic financing convergence in low-income countries under two different scenarios of health spending

R&D: New Tools to Achieve Convergence

The international community should double its current R&D
\$3 billion → \$6 billion annually by 2020

Focus on potentially game-changing diagnostics, drugs, and vaccines: [A single-encounter treatment for malaria: a one-does cure for falciparum and vivax malaria](#)

Short Term

Diagnostics

- Possible point-of-care diagnostics for HIV, TB and malaria; point-of-care viral load for HIV

Drugs

- New artemisin coformulations for malaria; new TB drug co-formulations; curative drugs for influenza; long acting contraceptive implants; safe, effective and shorter duration therapy for active and latent TB; new drugs for neglected tropical diseases

Vaccines

- Moderately efficacious (50%) malaria vaccine; conjugated typhoid vaccine; staphylococcal vaccine; heat stable vaccines; new adjuvants to reduce multiple dosing of vaccines; more effective influenza vaccines for the elderly

Devices

- Self injected vaccines

Medium Term

Drugs

- Antimicrobials based on new mechanisms of action

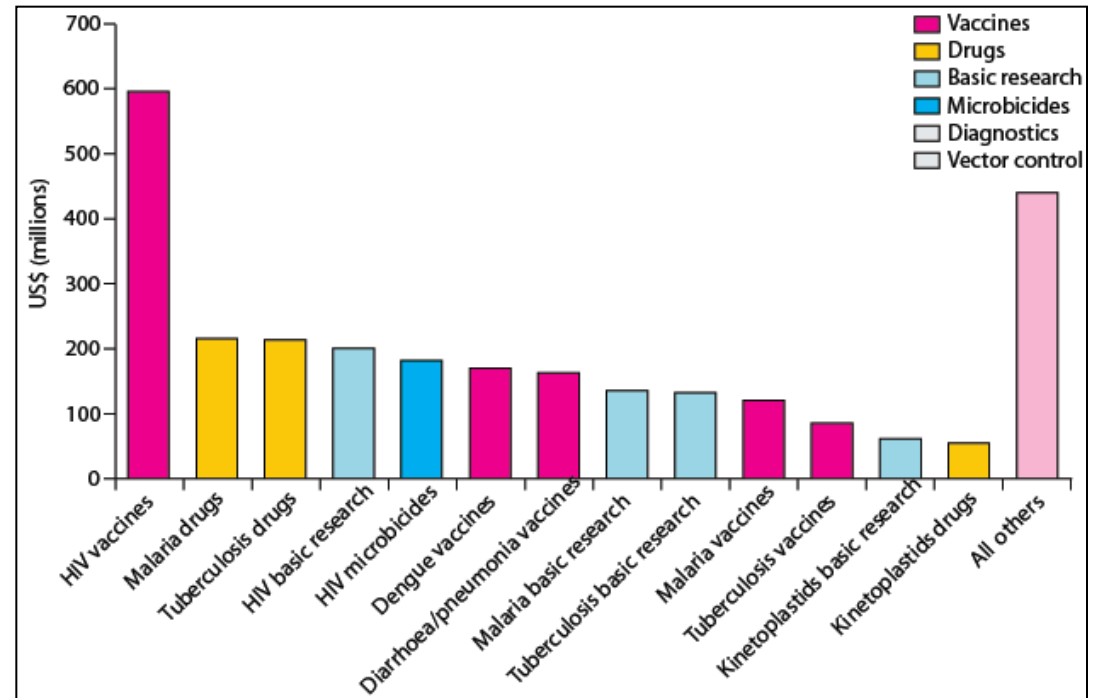
Vaccines

- Combined diarrhea vaccine (rotavirus, enterotoxigenic E.Coli; typhoid and shigella); protein based universal pneumococcal vaccine; RSV; hepatitis C; HIV/AIDs; TB; highly efficacious malaria vaccine; universal influenza vaccine

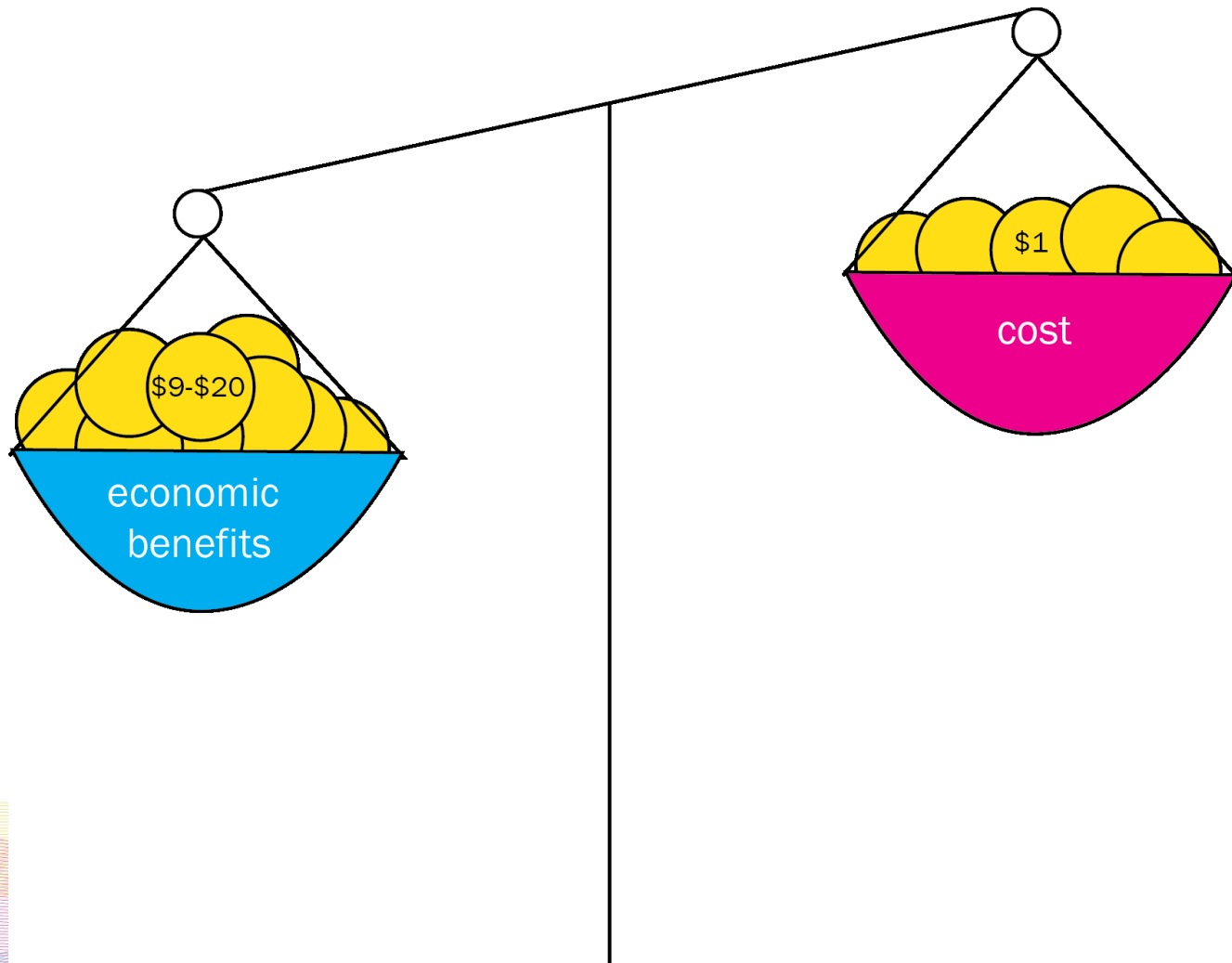
Opportunities for International Collective Action

Best way to support convergence is funding **development and delivery of new health technologies R&D targeted at diseases disproportionately affecting LICs and LMICs and managing externalities such as pandemics.**

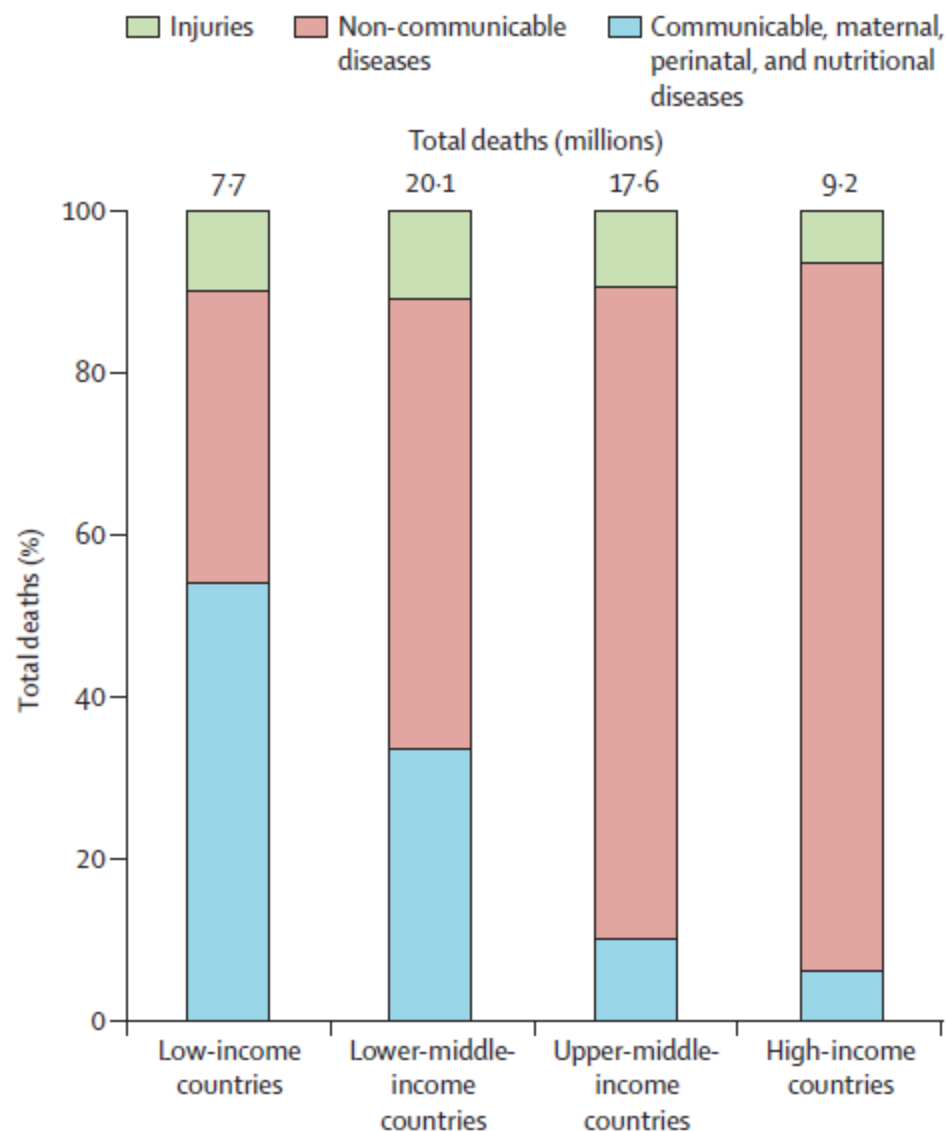
These core functions have been neglected in the last 20 years.



With Full Income Approach, Convergence Has Impressive Benefit: Cost Ratio



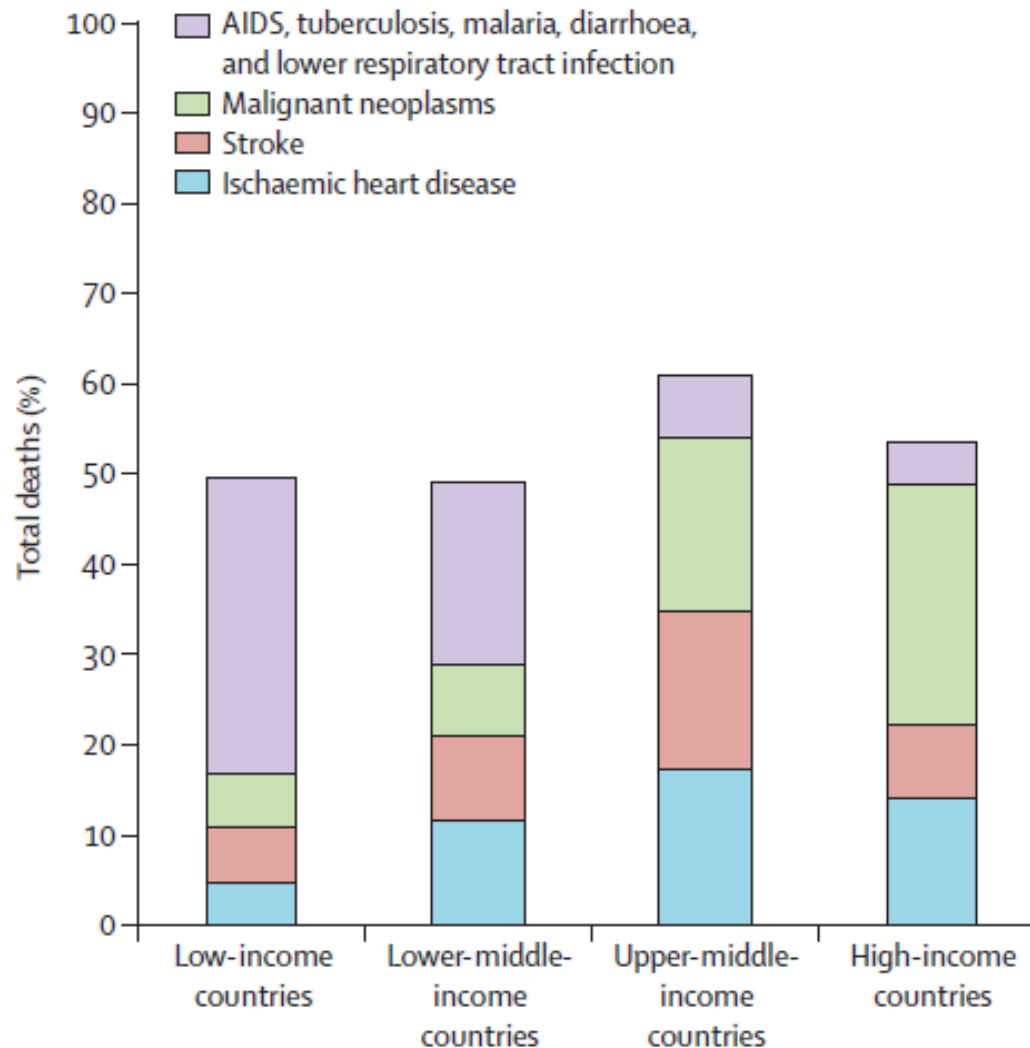
Deaths by Broad Cause Groups Across Different Income Levels, 2011



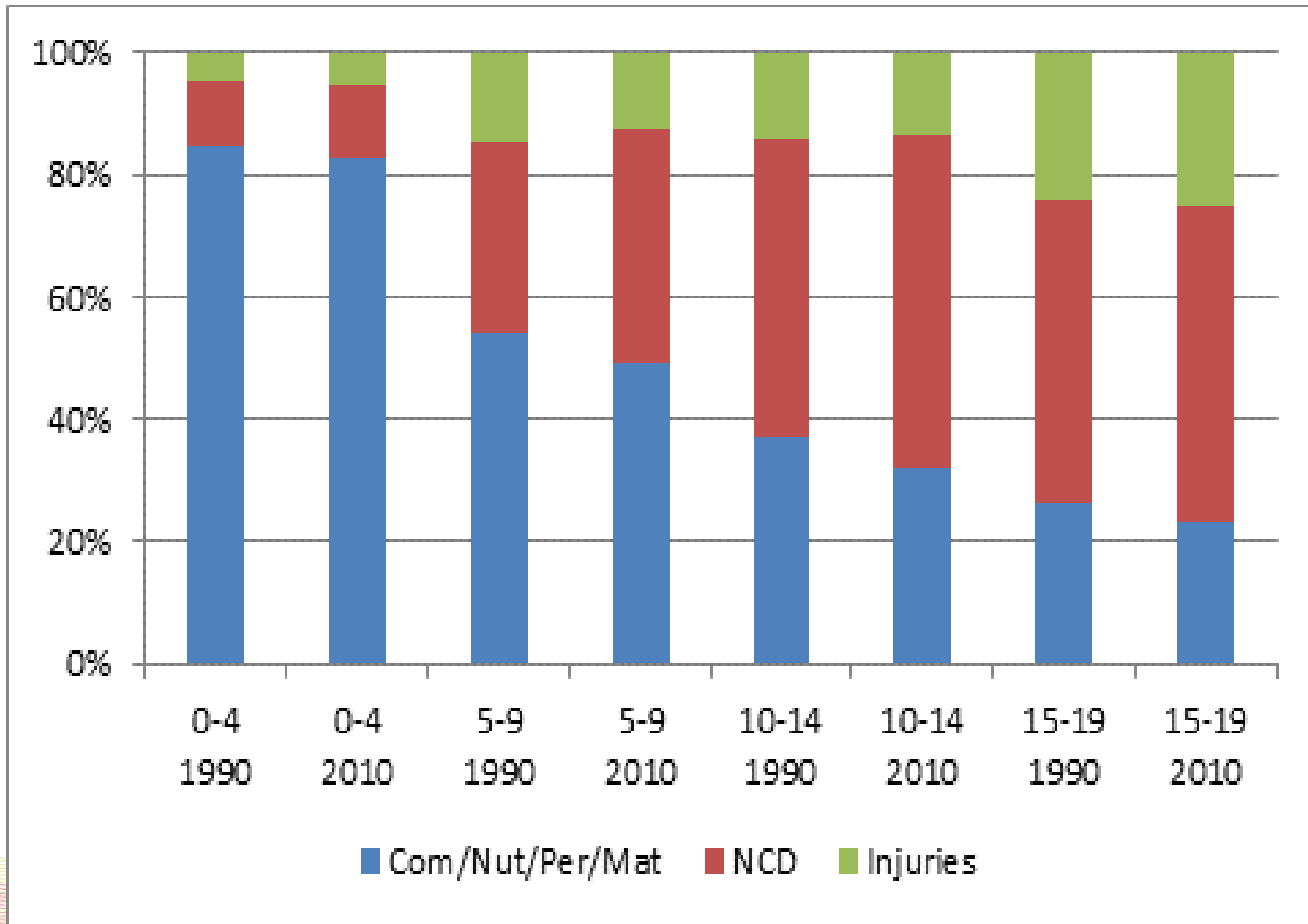
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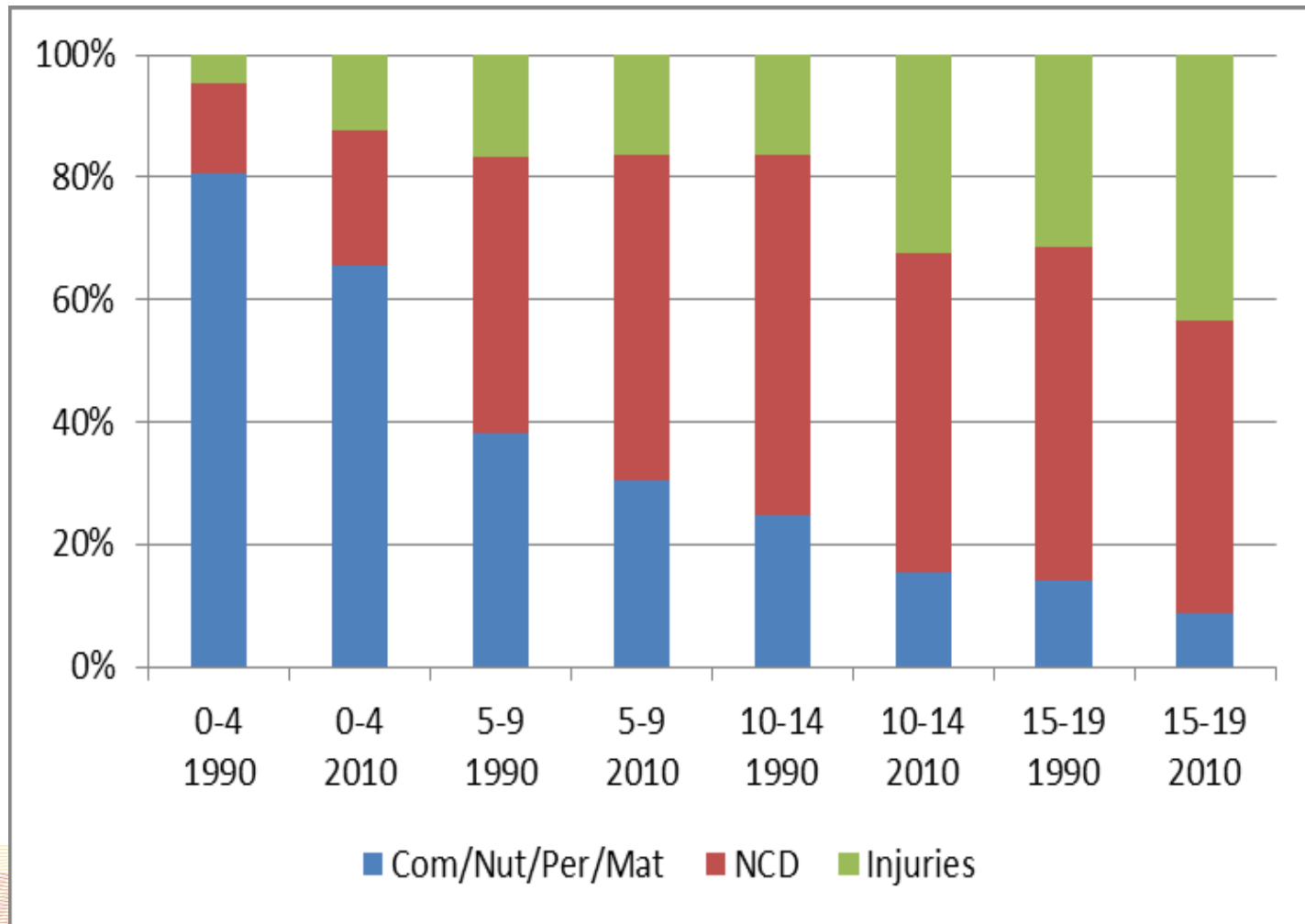
Deaths From Selected Diseases Across Different Income Levels, 2011



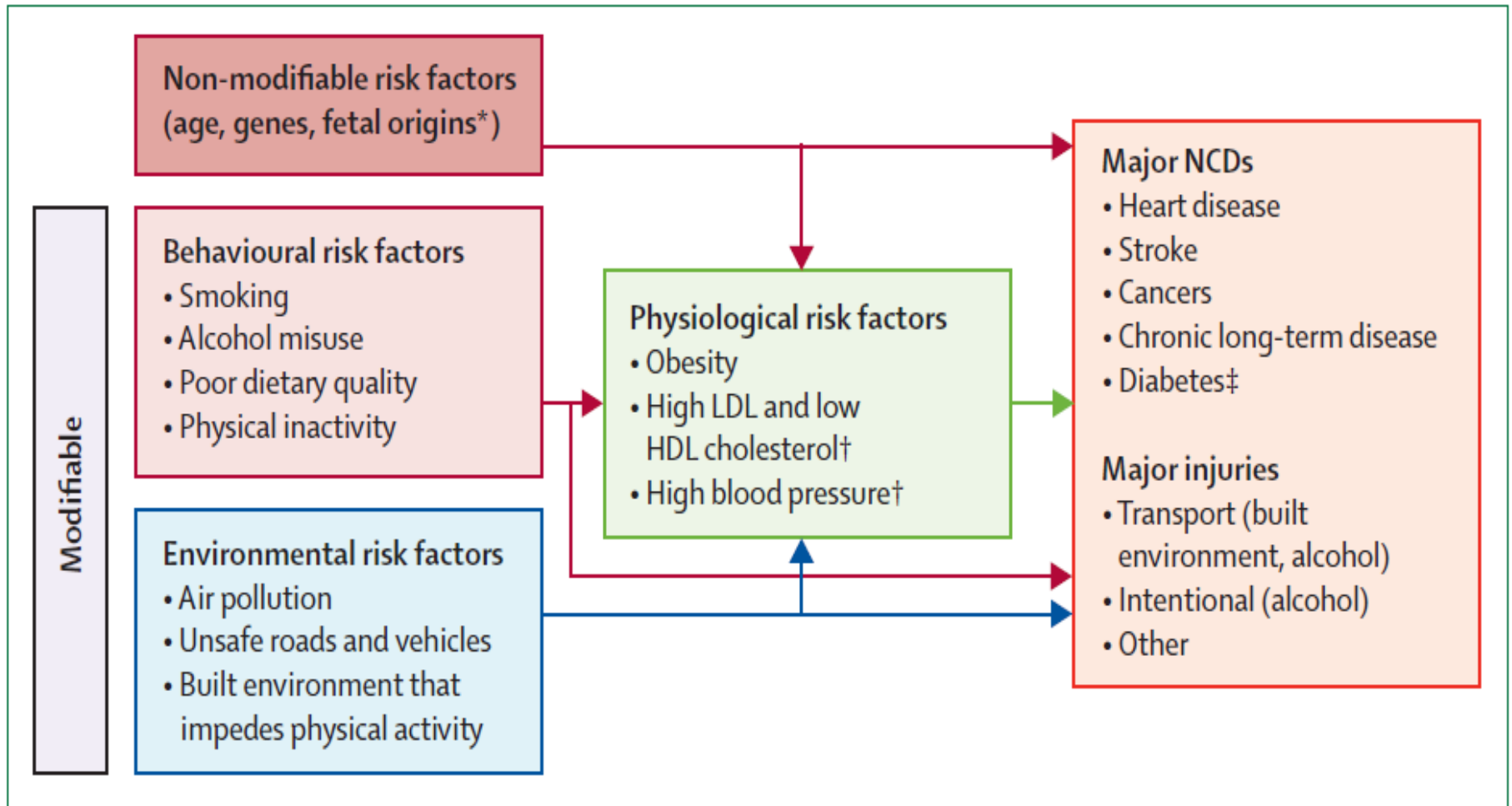
The burden of NCDs is increasingly important in children and adolescents



In LAC a double burden is taking the lead in children and adolescents: NCDs and injuries



Relations Between Key Risk Factors for NCDs & Injuries



Substantial Reduction in NCDs and Injuries by 2035

Inexpensive population-based and clinical interventions could reduce additional deaths from NCDs and injuries
Fiscal policies are a promising and underused lever, especially tobacco taxation and reducing fossil fuel subsidies

Policy Instruments				
	Price changes (taxes and subsidies)	Laws and regulations	Information and communication	Improved built environment
Tobacco use	Large (170%) excise taxes*	Bans on use in public places and on promotion*	Mass media messages*	--
Alcohol use	Large taxes in countries with high burden of alcohol consumption*	Bans on promotion and restrictions on sales*	Mass media messages*	--
Poor diet	Tax sugar and potentially other foods	Bans on salt and transfats in processed food*	Increase public awareness of healthy diet and physical activity*	--
Unsafe roads and vehicles	--	Enforce speeding and drink- driving laws	--	Safe roads and vehicles
Air pollution	Reduce coal and petroleum energy subsidies. Selectively subsidise LPG to replace kerosene. Tax sources of ambient pollution	Promote LPG use	--	--

Key population-based interventions for non-communicable disease risk factors

We Argue for Taxes on Sugar and Sugar-Sweetened Sodas

- Taxing empty calories, e.g. sugary sodas, can reduce prevalence of obesity and raise significant public revenue
- Taxes need to be large (20% or more) to change behavior
- These taxes do not hurt the poor: main dietary problem in low-income groups is *poor dietary quality* and not energy insufficiency



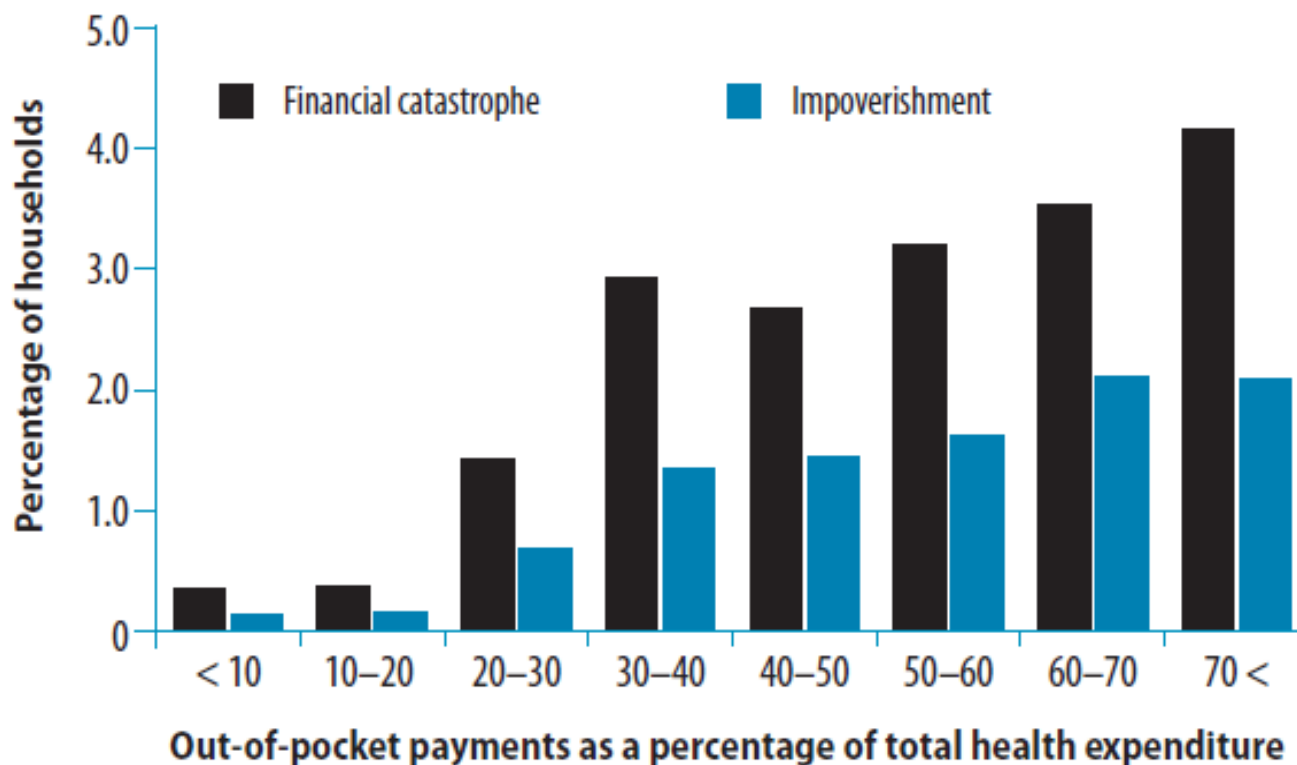
Universal Health Coverage

UHC is the end state of universal population coverage with a comprehensive set of interventions and zero or close to zero out-of-pocket expenses for all those interventions.

-WHO World Health Report 2010



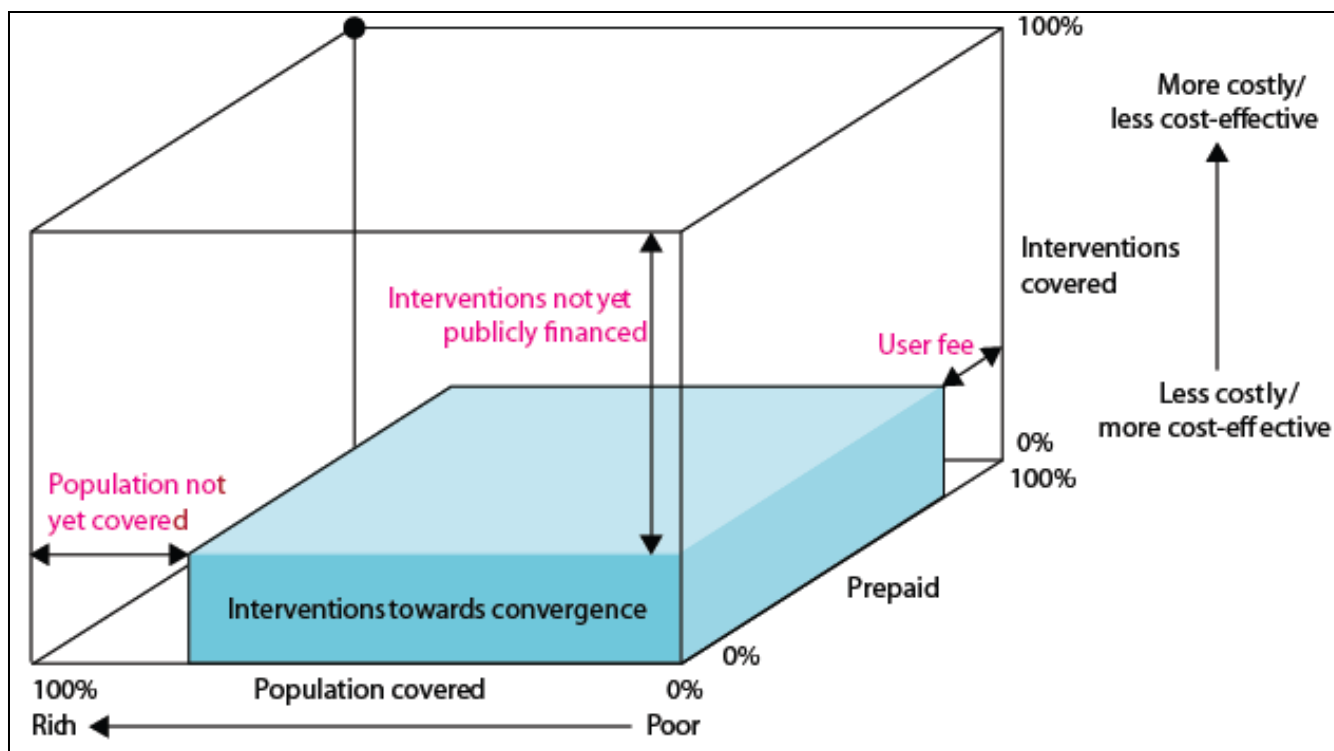
Fig. 3.2. The effect of out-of-pocket spending on financial catastrophe and impoverishment



World Health Report 2010

Progressive Universalist Pathways to UHC

Protect the Poor from the Outset




Pathways toward universal health coverage

3 Essential Elements to Improving Financial Protection:

- 1) Expansion of prepayment and risk pooling over time to **cover everyone**
- 2) **Elimination of user fees** for the poor for high value health interventions
- 3) Provision of a more comprehensive **benefit package** as resources grow.

Progressive Universalism- Two Routes



Insurance covers all- targets the poor by ensuring availability of health interventions for conditions that disproportionately affect them(essential highly CE interventions for inf. diseases, RMNCH and essential NCD interventions. (financed from taxes)

Larger package of interventions to all with some patient copayment from which the poor would be exempt (taxes plus mandatory insurance and copayments but poor exempt)
Note high administrative costs

The diagram is structured as follows:

- Top Level:** A red triangle pointing upwards, containing the text "Healthy life expectancy".
- Second Level:** Three yellow rounded rectangles arranged horizontally, labeled "NCDs", "CDs", and "Other".
- Third Level:** A dark blue rounded rectangle labeled "Universal health coverage". To its left is a dark grey oval labeled "Instrumental".
- Fourth Level:** Three light grey rounded rectangles arranged horizontally, labeled "Human Rights", "Equity", and "People 'power'". To their left is a dark grey oval labeled "Principles".
- Bottom Level:** A light grey rectangle containing the text "Adaptation: courtesy Katie Dain".

Healthy life expectancy

NCDs

CDs

Other

Instrumental

Universal health coverage

Principles

**Human
Rights**

Equity

**People
“power”**

Adaptation: courtesy Katie Dain

Conclusion

“ Our Report points to the possibility of achieving dramatic gains in global health by 2035 through a **grand convergence** around infections and RMNCH disorders, major reductions in the incidence and consequences of NCDs and injuries and the promise of UHC”.

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