Palazzo Reale
Milano, 27 ottobre 2018

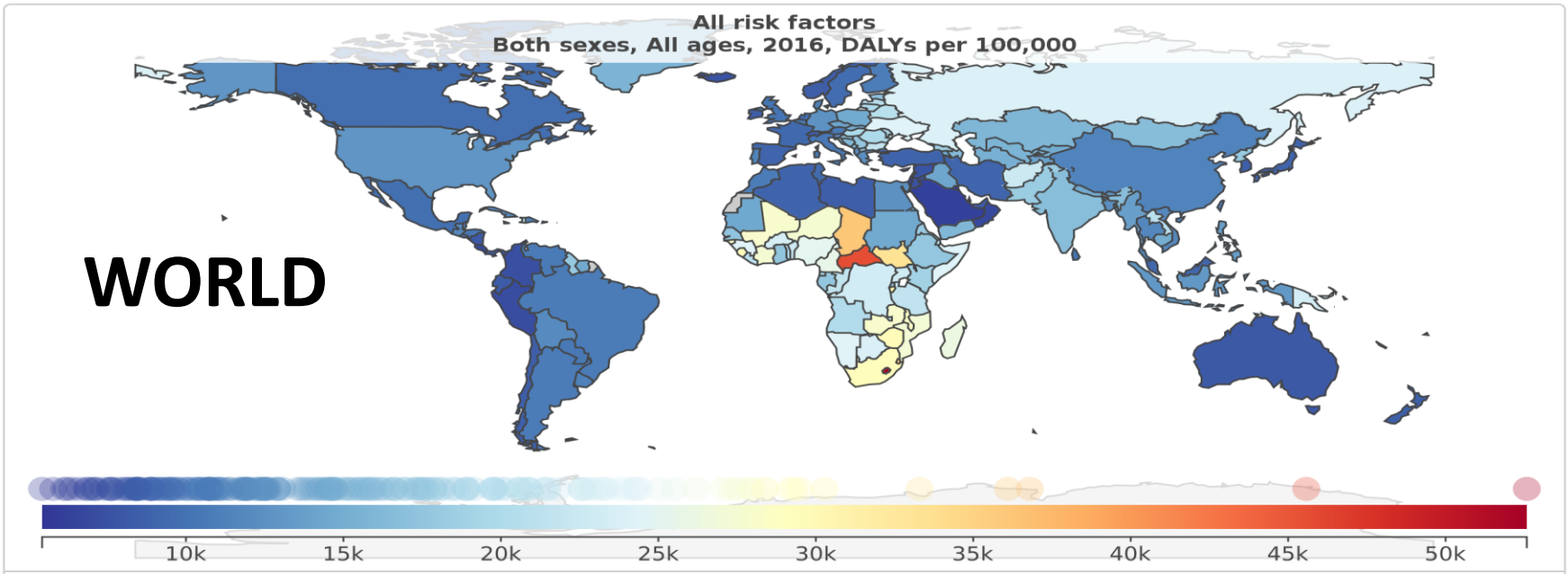
Il diritto alla Salute

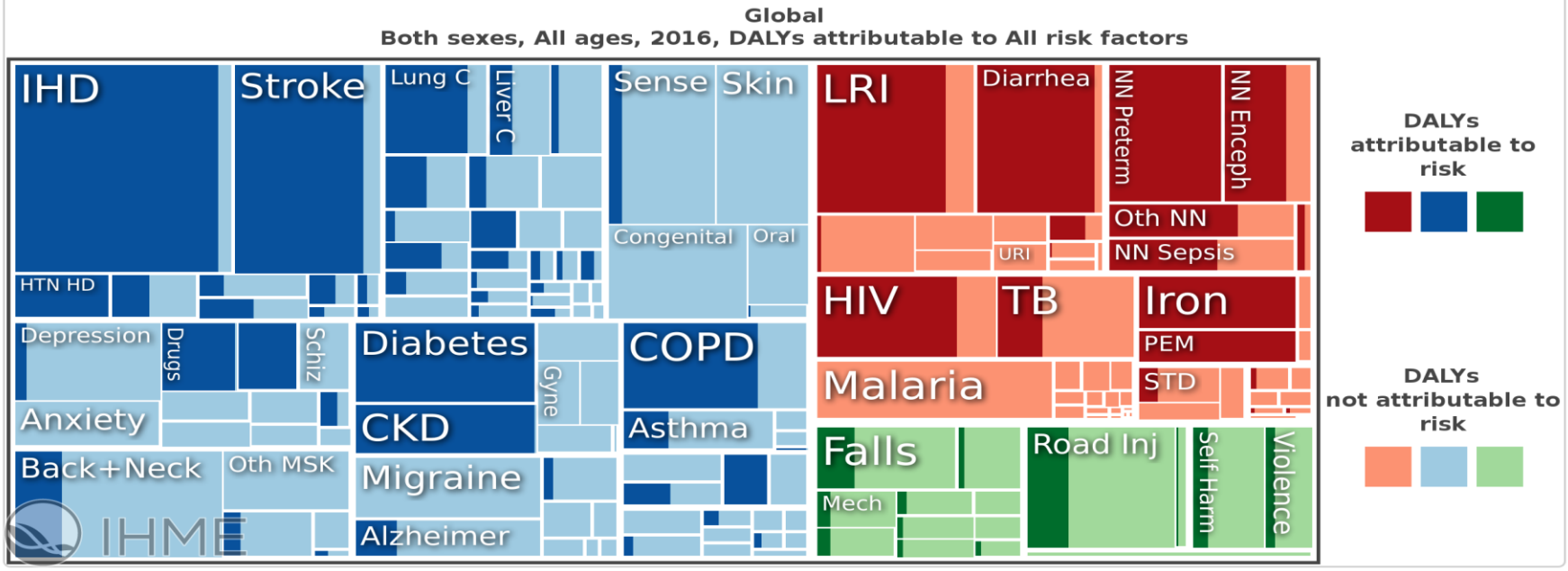
nell'era della globalizzazione

Stefano Vella
Centro Nazionale per la Salute Globale
Istituto Superiore di Sanità - Rome

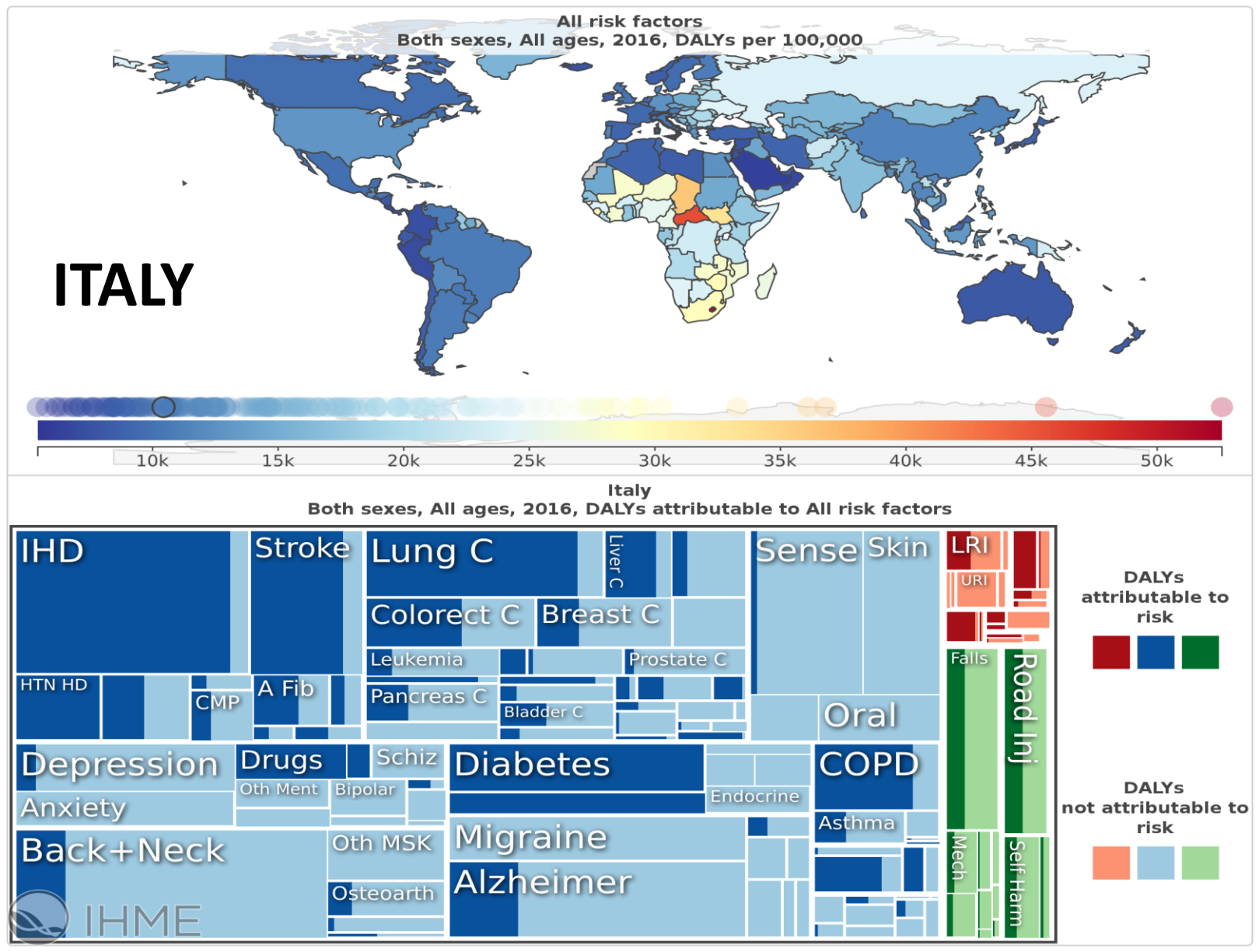
CENTRO NAZIONALE PER LA **SALUTE GLOBALE**
ITALIAN CENTER FOR GLOBAL HEALTH

Global Burden of Disease

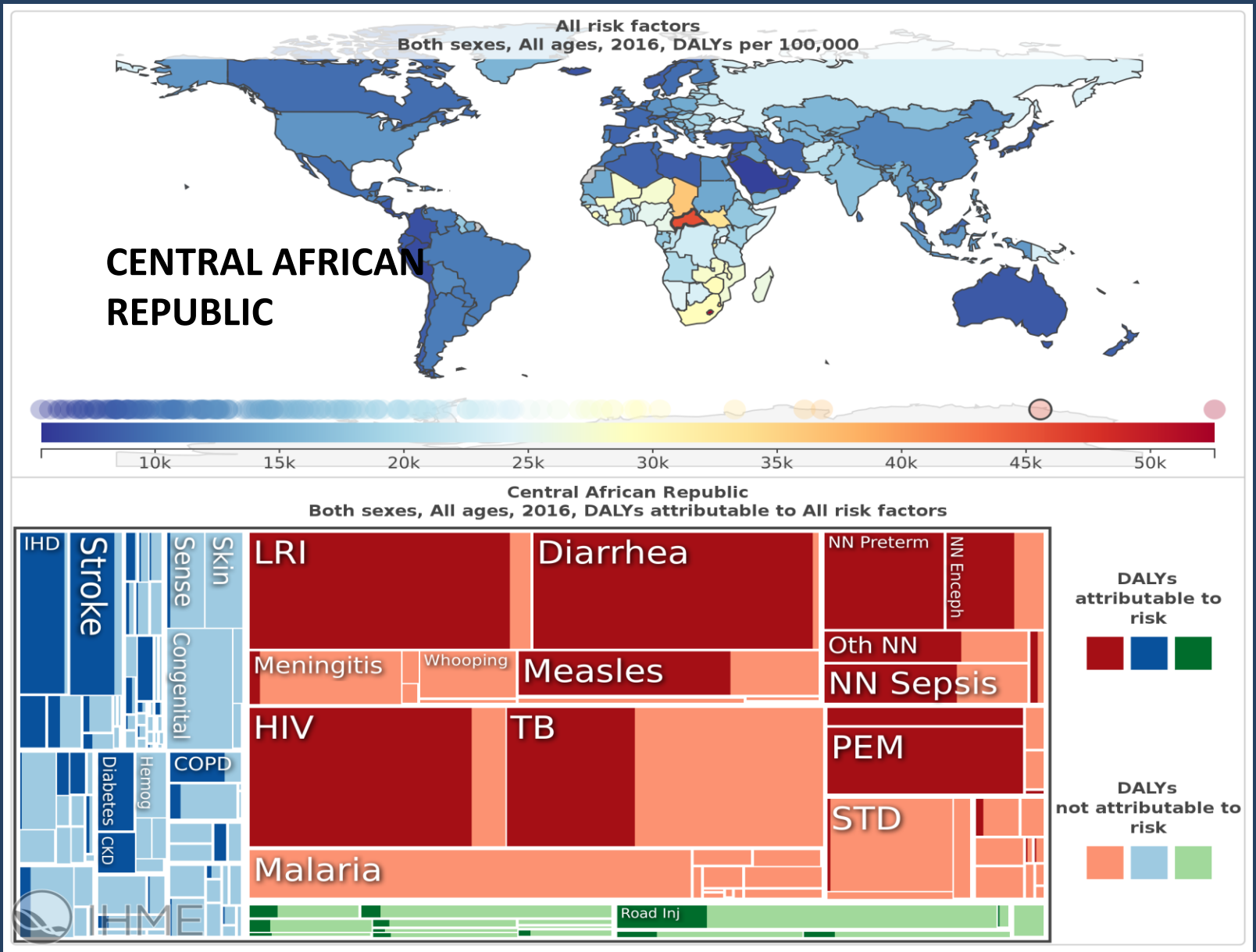




Global Burden of Disease



Global Burden of Disease



Le grandi epidemie della storia

OUTBREAK

Deadliest Pandemics in History

Because a virus doesn't care about state lines or national borders, it can wipe out millions and span multiple continents rapidly. Here is a look at the infectious diseases the world has battled throughout history.

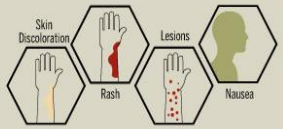
What is a Pandemic?

Derived from the Greek word *pandemos* meaning "pertaining to all people," a pandemic is a widespread disease that affects humans over a wide geographic area.

Key:

PANDEMIC YEAR | DEATH TOLL

A bubo is an abnormal swelling of the lymph nodes.



MEASLES
7th Century BC - 1963
200 million

HIV / AIDS
1981 - TODAY
25+ million

PLAGUE of JUSTINIAN
541 - 750
25 million

SMALLPOX
10,000 BC - 1979
300+ million

Bigpox?
In terms of an estimated death toll, smallpox is the deadliest pandemic in history. The highly contagious, rash-inducing infection has killed more than 500 million people. Some believe that 90 percent of the native population of the New World was wiped out by the disease.

SPANISH FLU
1918 - 1919
50-100 million

BLACK DEATH
1340 - 1771
B
75 million

Ring Around the Rosie, a Pocket Full of Plague
Legend says the Black Death plague inspired the children's rhyme "Ring Around The Rosy," which alluded to the rash-like rings and ashes of the deceased victims.

THIRD PANDEMIC
1855
12 million

TYPHUS
430 BC - TODAY
4 million

CHOLERA
1817 - TODAY
3 million

HONG KONG FLU
1968 - 1969
1 million

Honorable Mentions

Although the following viruses do not have a figure for total amount of lives claimed, they continue to terrorize various areas around the world.

MALARIA 1600 - Today

Common Symptoms

Chills, Headache, Fever, Jaundice, Muscle Pain, Nausea, Vomiting, Seizures

Death Toll

According to the World Health Organization's 2010 "World Malaria Report," an estimated 781,000 people are killed by the virus every year.

TUBERCULOSIS 700 BC - Today

Common Symptoms

Chest Pain, Cough, Fever, Chills, Fatigue

Death Toll

There are almost 2 million tuberculosis-related deaths worldwide every year.

YELLOW FEVER 16th Century - Today

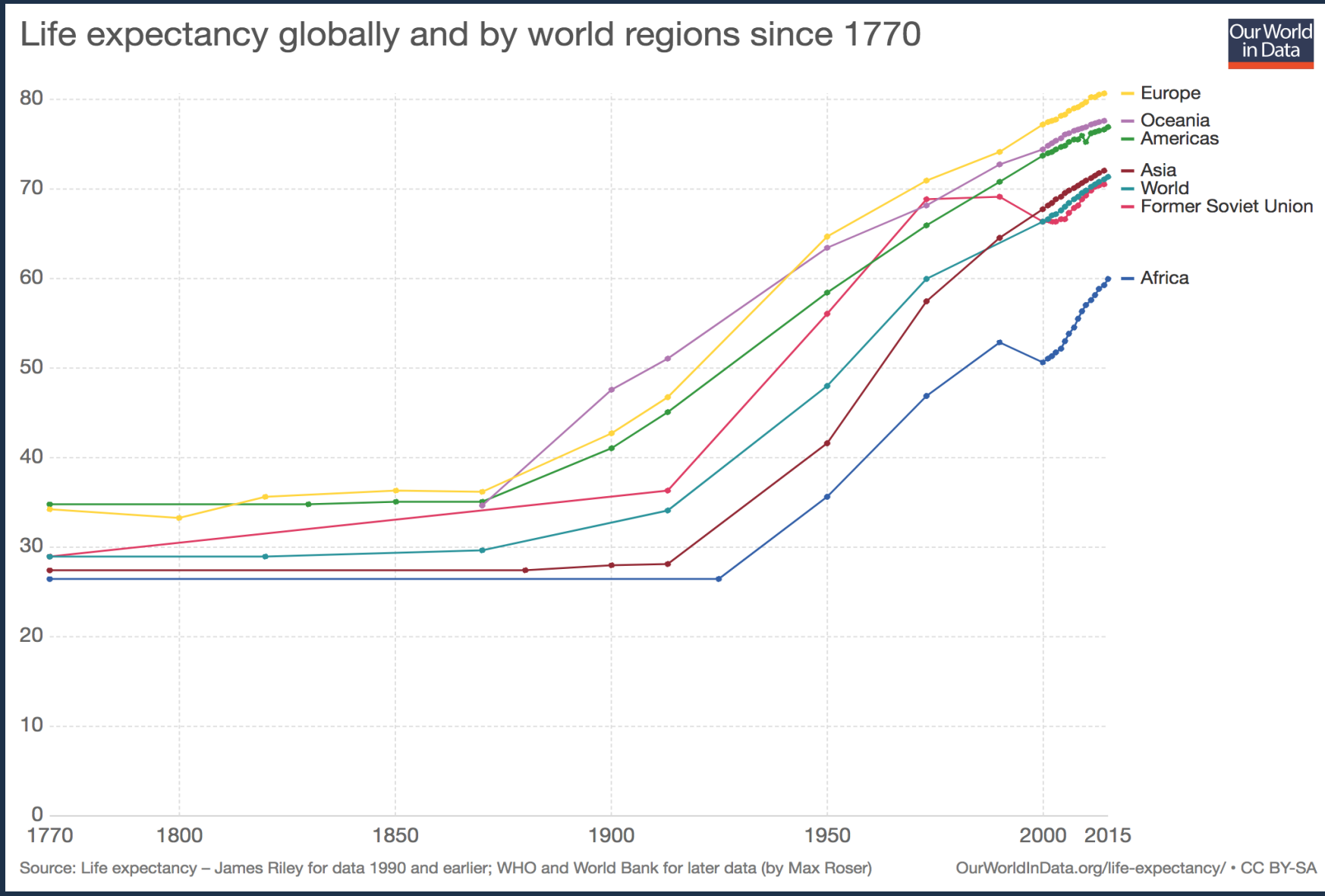
Common Symptoms

Bleeding, Fever, Nausea, Vomiting, Delirium, Seizures, Jaundice

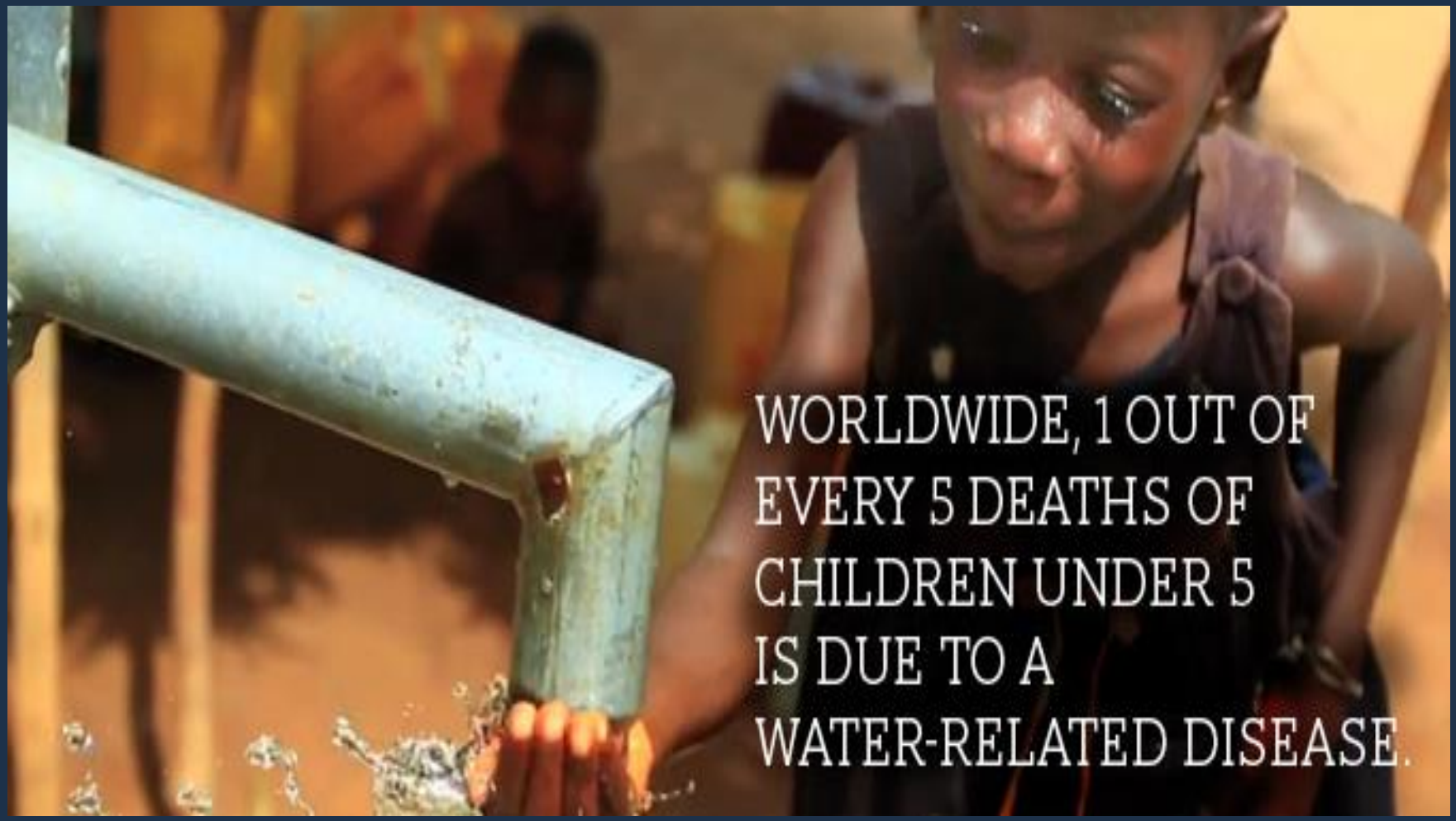
Death Toll

Worldwide, 30,000 deaths are caused by the infection every year.

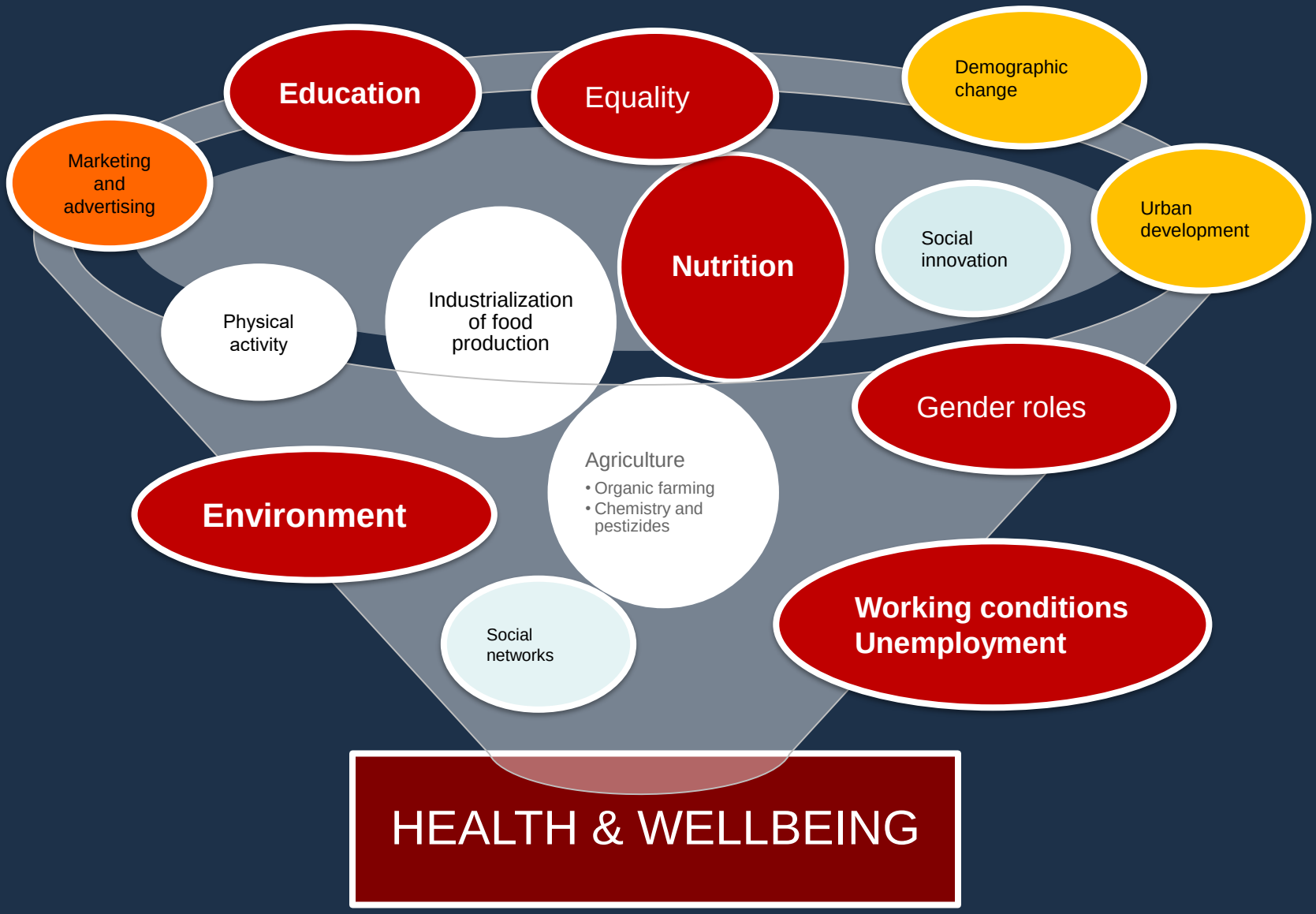
THE RISE OF LIFE EXPECTANCY



THE DRIVERS.....1. CLEAN WATER



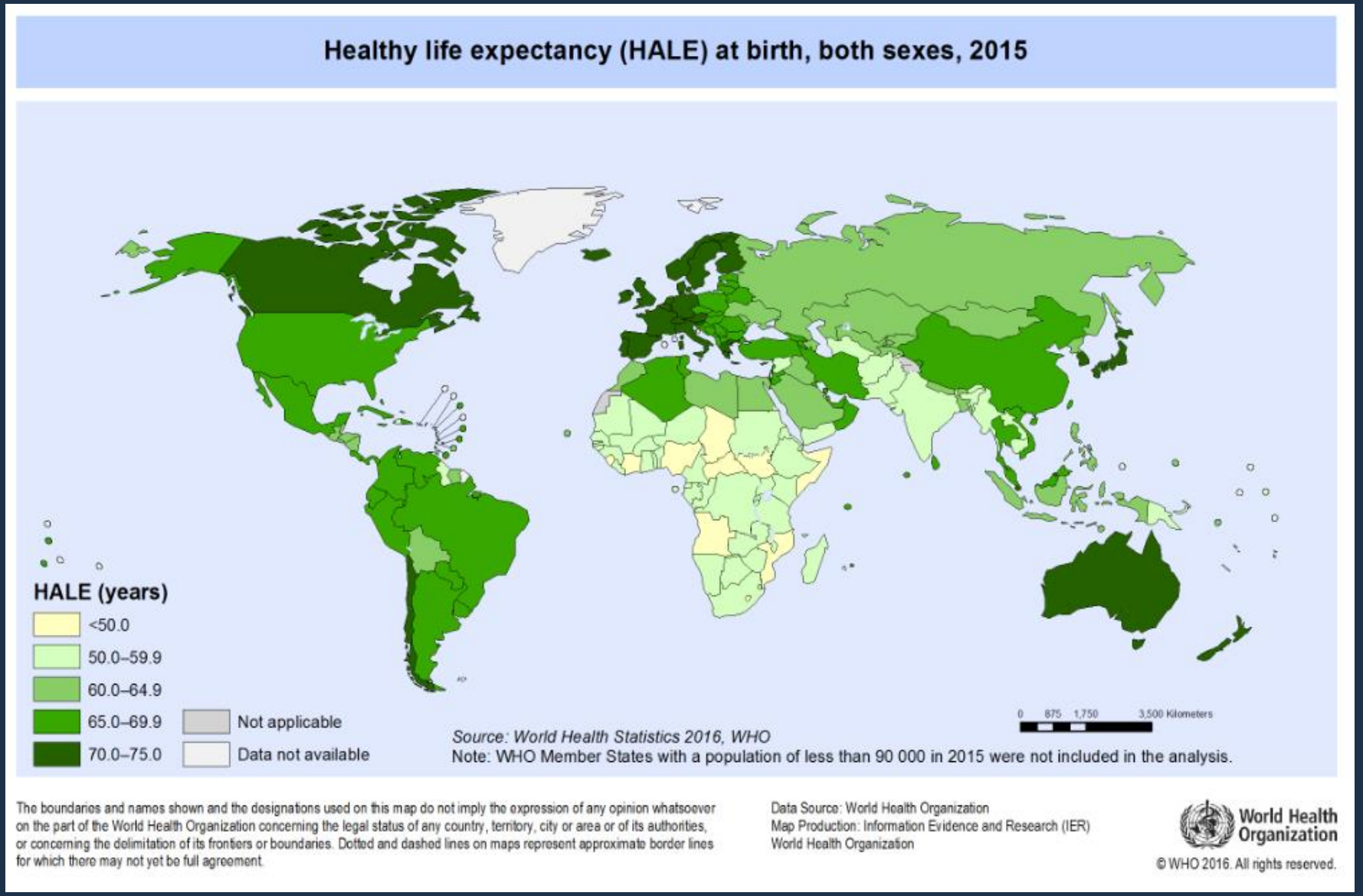
THE DRIVERS.....2. **SOCIAL DETERMINANTS**



THE DRIVERS.....**3. ADVANCES OF MEDICINE**

1796

The unequal rise of «healthy» life expectancy



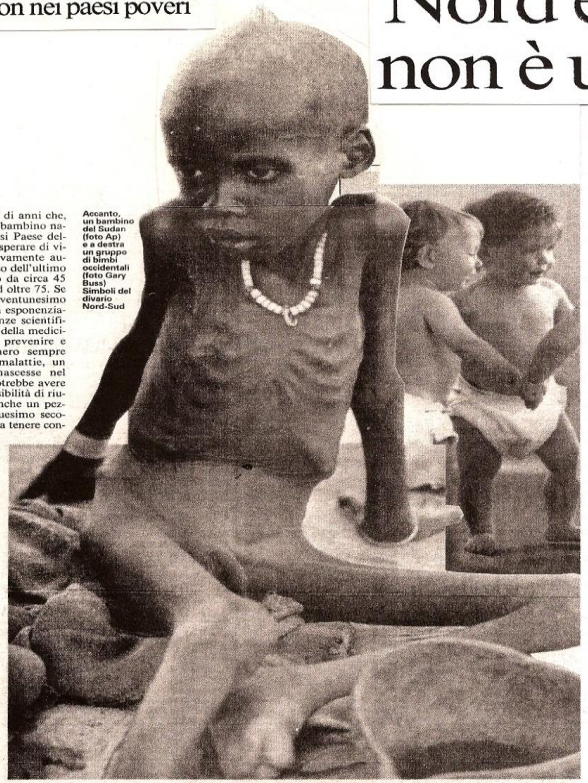
Il Messaggero

CULTURA & SPETTACOLI

Addio Millennio
La medicina/Vaccini, antibiotici e soprattutto l'uso di acqua pulita: così il '900 ha allungato la durata della vita umana Ma non nei paesi poveri

Nord e Sud, la salute non è uguale per tutti

di STEFANO VELLA



Accanto, un bambino del Sudan (foto Ap) e a destra un gruppo di bimbi occidentali (foto Gary Buss) Simboli del divario Nord-Sud

IL NUMERO di anni che, in media, un bambino nato in un qualsiasi Paese dell'Occidente può sperare di vivere è progressivamente aumentato nel corso dell'ultimo secolo, passando da circa 45 anni nel 1901 ad oltre 75. Se proiettiamo nel ventunesimo secolo la crescita esponenziale delle conoscenze scientifiche e la capacità della medicina moderna di prevenire e curare un numero sempre più grande di malattie, un bambino che nascesse nel 2000 in Italia potrebbe avere una discreta possibilità di riuscire a vedere anche un pezzetto del ventiduesimo secolo. E questo senza tenere conto della speranza di riuscire un giorno a manipolare i geni che fisiologicamente determinano l'invecchiamento delle nostre cellule.

Tuttavia, contrariamente a quanto saremmo portati a credere, l'aumento della vita media non è dovuto esclusivamente ai grandi progressi della medicina del ventesimo secolo, ma soprattutto all'abbattimento della mortalità perinatale e al miglioramento delle condizioni igieniche generali.

Il controllo delle malattie infettive

In un'ipotetica classifica delle più importanti conquiste della medicina, ai primi posti dovremmo inserire la scoperta del valore dell'acqua pulita per la prevenzione di tante malattie infettive. Lo avevano ben capito i Romani, che per primi hanno dotato le loro città di reti idriche e fognarie di grande efficienza, e anche gli operatori sanitari che lavorano in molti Paesi africani sanno bene che una falda di acqua pulita è in grado di arrestare il diffondersi di un'epidemia di colera molto più rapidamente che dieci "container" di farmaci.

Certo, senza la scoperta della vaccinazione e degli antibiotici,, l'acqua corrente non sarebbe bastata per salvare l'umanità da tante altre malattie infettive che per secoli hanno rappresentato la principale caua di morte dell'uomo.

E se molti considerano come paradigma dei grandi progressi della medicina la capacità di sostituire organi malati, le tecniche cardiochirurgiche, i successi nella prevenzione e nella cura dei tumori (seppure ancora parziali), il controllo di malattie croniche come l'ipertensione e il diabete, il più grande risultato collettivo della medicina moderna è senz'altro costituito dalla battaglia vinta contro le malattie infettive, sebbene sia azzardato ritenere la partita come definitivamente chiusa, vista l'improvvisa comparsa dell'Aids e il ritorno della tubercolosi.

Da quando Jenner - era il 1796 - osservò che i mungitori delle vacche non contraevano il vaiolo, e pensò di inoculare il virus del vaiolo della mucca (il cosiddetto "vaccino") per prevenire il vaiolo nell'uomo, il diffondersi della pratica della vaccinazione ha salvato miliardi di individui da malattie infettive come la poliomielite, la difterite, la pertosse, il tetano, la febbre gialla, il morbillo e, più recentemente, l'epatite B. Nel 1997, grazie ad una campagna di vaccinazione durata alcuni decenni, il vaiolo, un flagello responsabile nei secoli passati di centinaia di milioni di morti, è stato dichiarato definitivamente scomparso dall'Organizzazione Mondiale della Sanità, e in molti considerano questo evento come il più grande successo della medicina moderna.

La nascita della genetica molecolare

Certamente il grande protagonista della medicina del terzo millennio sarà la genetica molecolare. Per comprendere come questa branca della medicina abbia in sé la potenzialità di curare e guarire tante malattie dell'uomo, compreso il cancro, dobbiamo partire dal concetto nuovo e rivoluzionario dell'origine "genetica" della grande maggioranza delle malattie dell'uomo, almeno di quelle non dovute a microrganismi patogeni.

Grazie al *Progetto Genoma Umano*, un'impresa scientifica internazionale che sta disegnando la mappa completa del patrimonio genetico dell'uomo, è stato scoperto che non esistono soltanto le classiche malattie genetiche ereditarie, come l'emofilia o la distrofia muscolare: anche una parte rilevante delle comuni malattie croniche

What Global Health is not

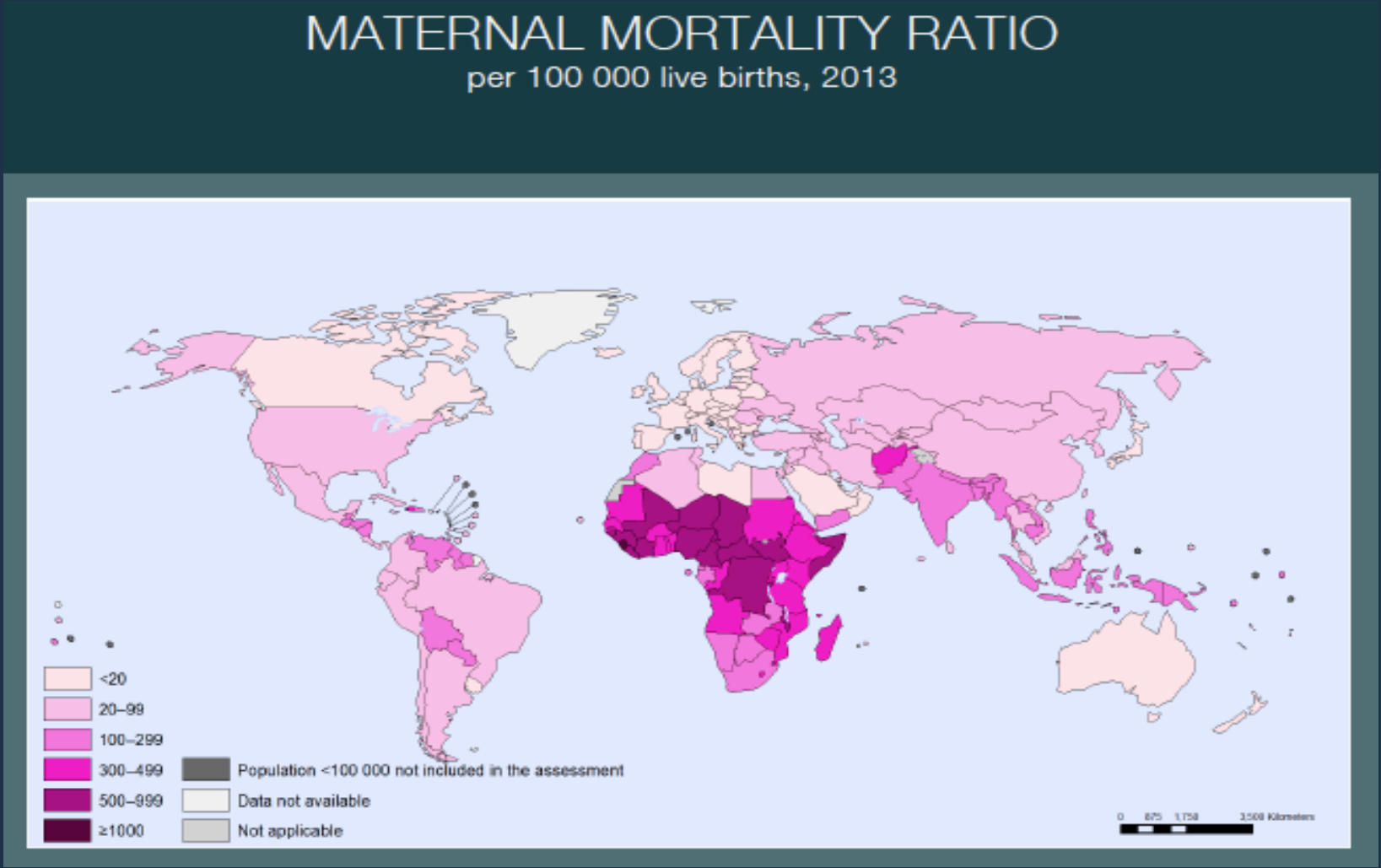
Global Health Inequalities

At least 30 million people die **prematurely** (half of then before the age of 5) in developing countries for lack of adequate access to basic health care. **They die for causes that are very often preventable or treatable.**

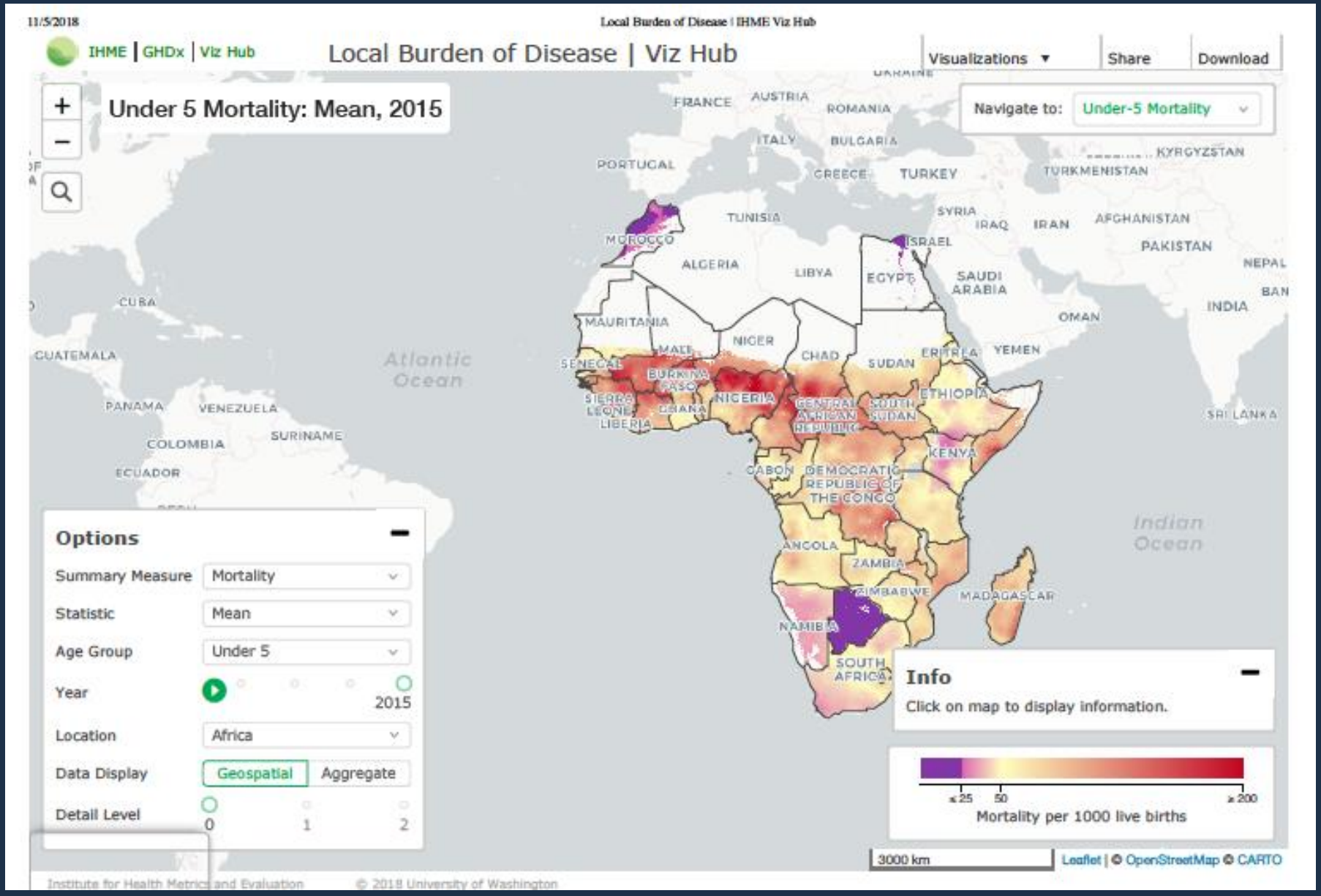
Despite the convergence on the concept of health as a human right, there still exist intolerable global inequalities in accessing health and health services and in terms of life expectancy and morbidity and mortality from **communicable and non-communicable diseases.**

The persistence of inequalities in terms of health - **not only between rich and poor countries, but also between different regions in the same country -** is also a contradiction to science, given the growing geographic interdependence of the **biomedical causes and of the social determinants of health and diseases**.

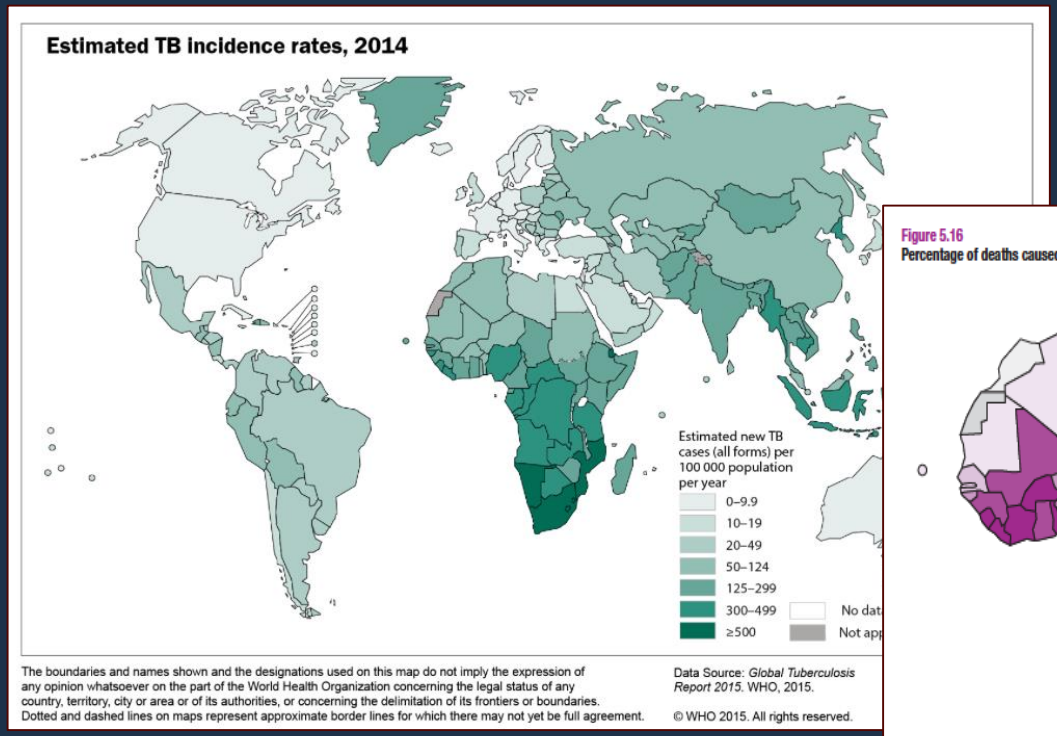
What Global Health is….not



What Global Health is….not



What Global Health is….not



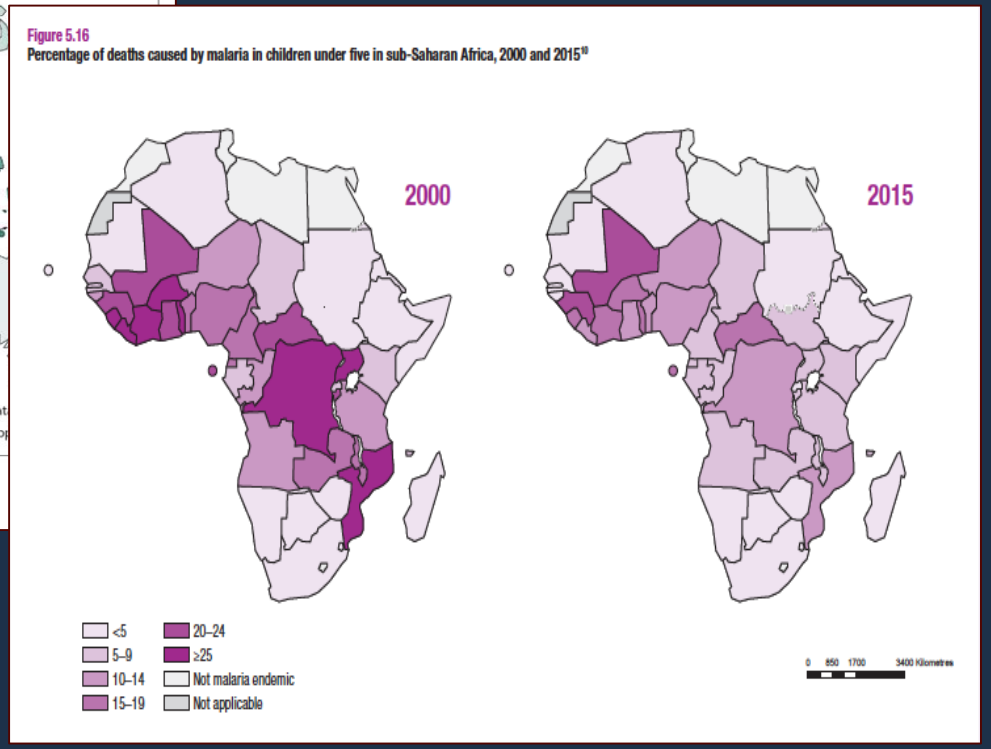
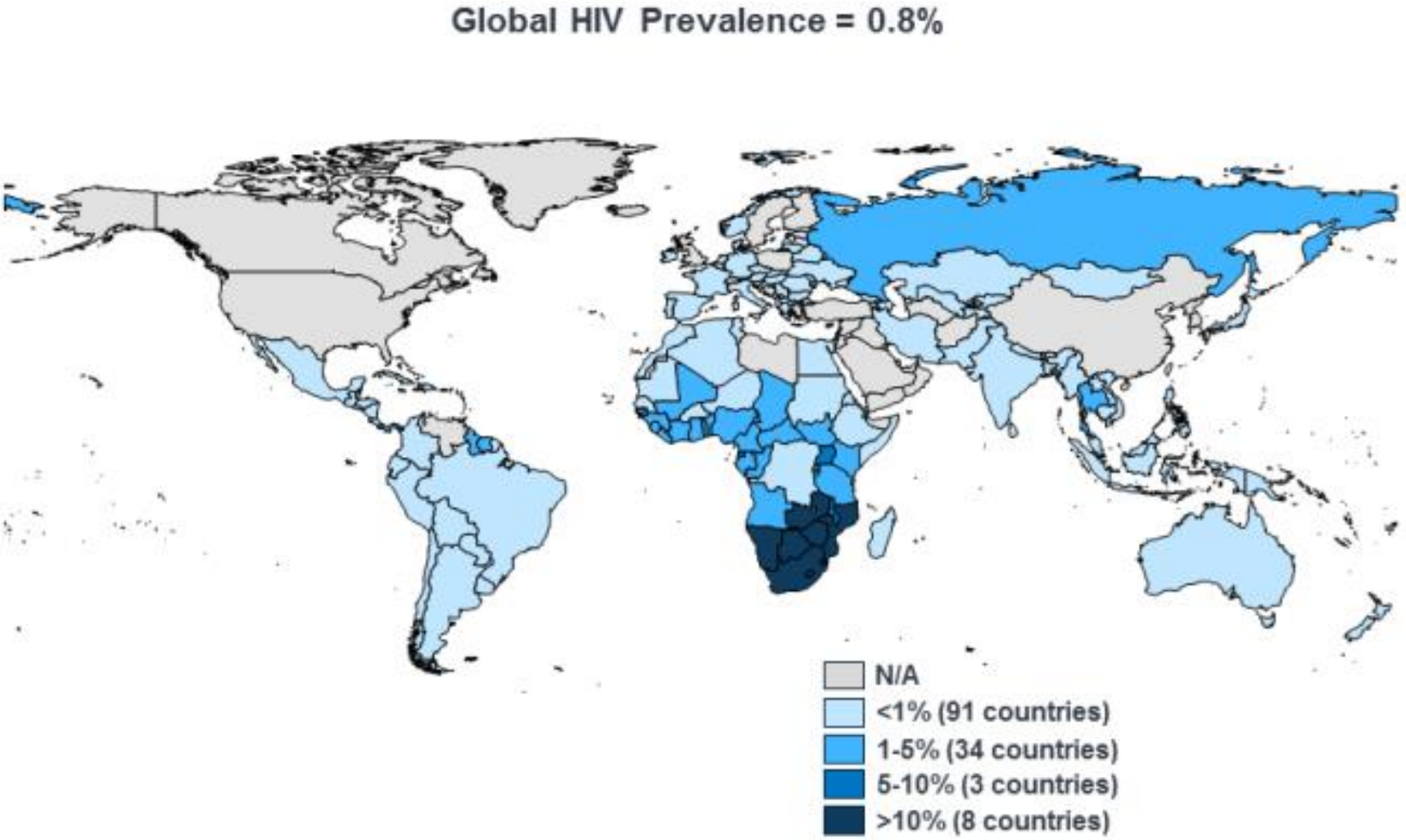


Figure 1

Adult HIV Prevalence, 2017

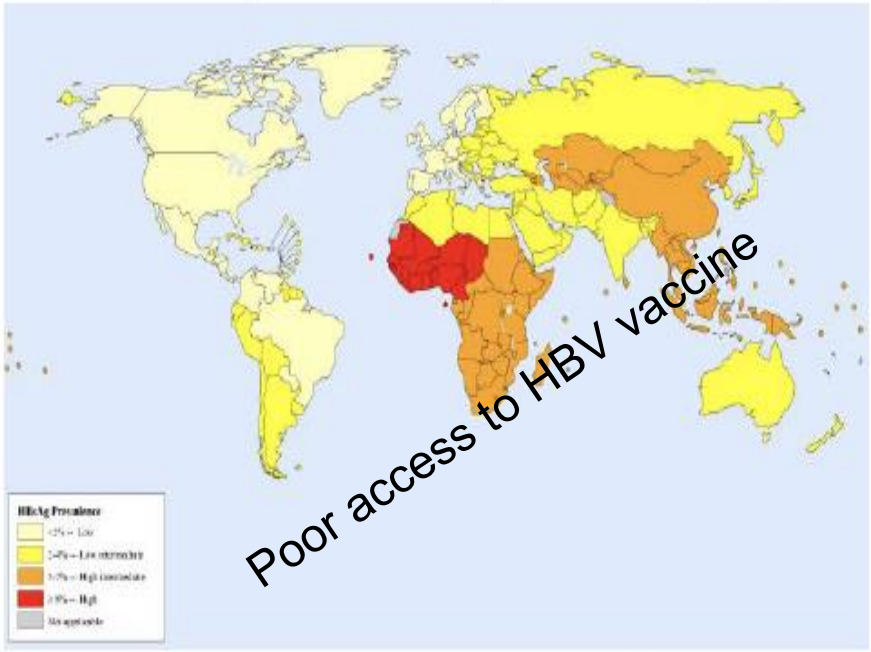


NOTES: Data are estimates. Prevalence includes adults ages 15-49.
SOURCES: Kaiser Family Foundation, based on UNAIDS, AIDSinfo, Accessed July 2018

KFF

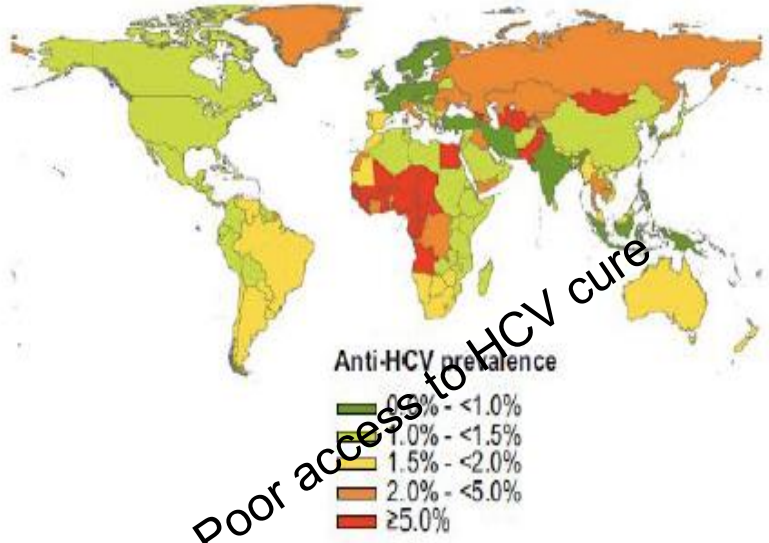
What Global Health is….not

Prevalence of hepatitis B infection, adults 19-89 years, 2005



Ott, J. J., G. A. Stevens, J. Groeger, and S. T. Wiersma. "Global epidemiology of hepatitis B virus infection: new estimates of age-specific HBsAg seroprevalence and endemicity." *Vaccine* 30, no. 12 (2012): 2212-2219.

Prevalence of anti-hepatitis C virus

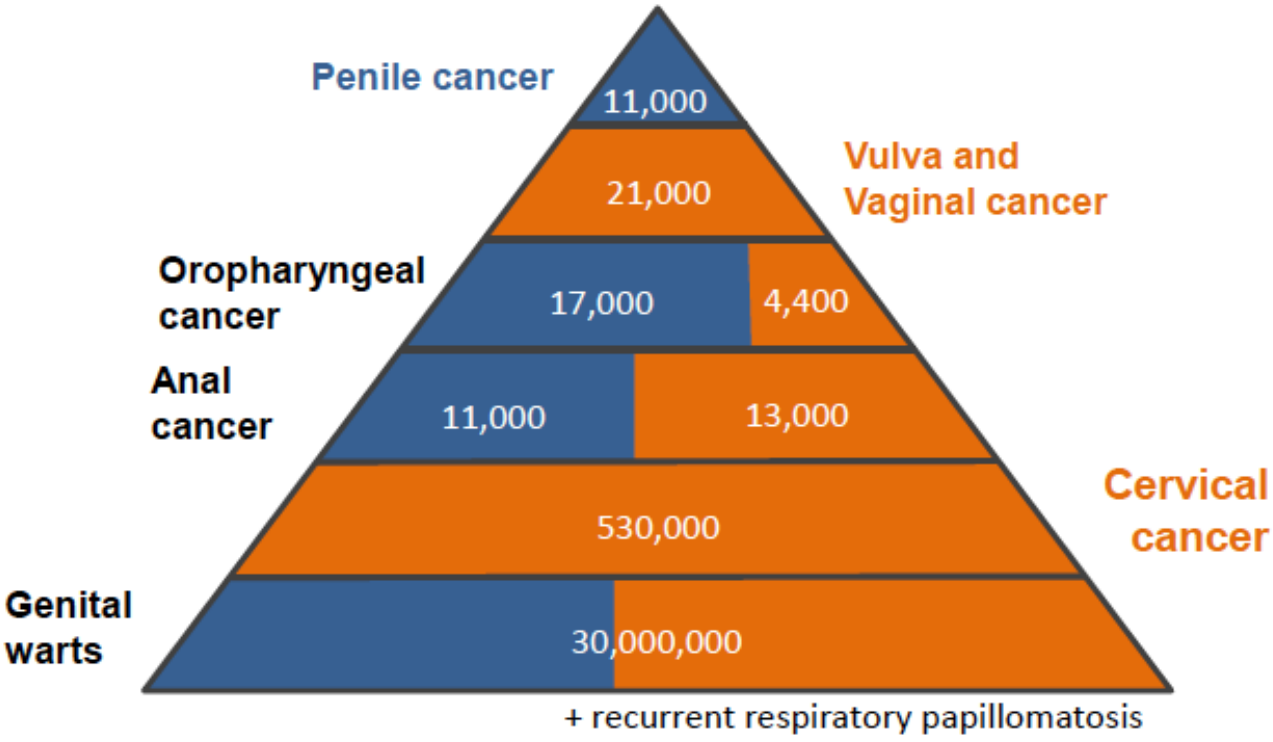


Gower, E., Estes, C., Blach, S., Razavi-Shearer, K., & Razavi, H. (2014). Global epidemiology and genotype distribution of the hepatitis C virus infection. Journal of hepatology, 61(1), S45-S57.

What Global Health is….not

2008 Global HPV-related burden:

607,000 annual cancer cases



*Circles proportional to annual burden

International Agency for Research on Cancer

World Health Organization

De Martel et al. 2012 Lancet Oncol (cancers) and Dillner et al. 2010 BMJ (genital warts)

What Global Health is….not

Efficacy and effectiveness of an rVSV-vectored vaccine in preventing Ebola virus disease: final results from the Guinea ring vaccination, open-label, cluster-randomised trial (Ebola Ça Suffit!)

Ana Maria Henao-Restrepo, Anton Camacho, Ira M Longini, Conall H Watson, W John Edmunds, Matthias Egger, Miles W Carroll, Natalie E Dean, Ibrahima Diatta, Moussa Doumbia, Bertrand Draguez, Sophie Duraffour, Godwin Enwere, Rebecca Grais, Stephan Gunther, Pierre-Stéphane Gsell, Stefanie Hossmann, Sara Viksmoen Watle, Mandy Kader Kondé, Sakoba Keïta, Souleymane Kone, Eewa Kuisma, Myron M Levine, Sema Mandal, Thomas Mauget, Gunnstein Norheim, Ximena Riveros, Aboubacar Soumah, Sven Trelle, Andrea S Vicari, John-Arne Røttingen*, Marie-Paule Kieny*

Summary

Background rVSV-ZEBOV is a recombinant, replication competent vesicular stomatitis virus-based candidate vaccine expressing a surface glycoprotein of Zaire Ebolavirus. We tested the effect of rVSV-ZEBOV in preventing Ebola virus disease in contacts and contacts of contacts of recently confirmed cases in Guinea, west Africa.

Methods We did an open-label, cluster-randomised ring vaccination trial (Ebola ça Suffit!) in the communities of Conakry and eight surrounding prefectures in the Basse-Guinée region of Guinea, and in Tomkolili and Bombali in Sierra Leone. We assessed the efficacy of a single intramuscular dose of rVSV-ZEBOV (2×10^7 plaque-forming units administered in the deltoid muscle) in the prevention of laboratory confirmed Ebola virus disease. After confirmation of a case of Ebola virus disease, we definitively enumerated on a list a ring (cluster) of all their contacts and contacts of contacts including named contacts and contacts of contacts who were absent at the time of the trial team visit. The list was archived, then we randomly assigned clusters (1:1) to either immediate vaccination or delayed vaccination (21 days later) of all eligible individuals (eg, those aged ≥18 years and not pregnant, breastfeeding, or severely ill). An independent statistician generated the assignment sequence using block randomisation with randomly varying blocks, stratified by location (urban *vs* rural) and size of rings (≤20 individuals *vs* >20 individuals). Ebola response teams and laboratory workers were unaware of assignments. After a recommendation by an independent data and safety monitoring board, randomisation was stopped and immediate vaccination was also offered to children aged 6–17 years and all identified rings. The prespecified primary outcome was a laboratory confirmed case of Ebola virus disease with onset 10 days or more from randomisation. The primary analysis compared the incidence of Ebola virus disease in eligible and vaccinated individuals assigned to immediate vaccination versus eligible contacts and contacts of contacts assigned to delayed vaccination. This trial is registered with the Pan African Clinical Trials Registry, number PACTR201503001057193.

Findings In the randomised part of the trial we identified 4539 contacts and contacts of contacts in 51 clusters randomly assigned to immediate vaccination (of whom 3232 were eligible, 2151 consented, and 2119 were immediately vaccinated) and 4557 contacts and contacts of contacts in 47 clusters randomly assigned to delayed vaccination (of whom 3096 were eligible, 2539 consented, and 2041 were vaccinated 21 days after randomisation). No cases of Ebola virus disease occurred 10 days or more after randomisation among randomly assigned contacts and contacts of contacts vaccinated in immediate clusters versus 16 cases (7 clusters affected) among all eligible individuals in delayed clusters. Vaccine efficacy was 100% (95% CI 68·9–100·0, p=0·0045), and the calculated intraclass correlation coefficient was 0·035. Additionally, we defined 19 non-randomised clusters in which we enumerated 2745 contacts and contacts of contacts, 2006 of whom were eligible and 1677 were immediately vaccinated, including 194 children. The evidence from all 117 clusters showed that no cases of Ebola virus disease occurred 10 days or more after randomisation among all immediately vaccinated contacts and contacts of contacts versus 23 cases (11 clusters affected) among all eligible contacts and contacts of contacts in delayed plus all eligible contacts and contacts of contacts never vaccinated in immediate clusters. The estimated vaccine efficacy here was 100% (95% CI 79·3–100·0, p=0·0033). 52% of contacts and contacts of contacts assigned to immediate vaccination and in non-randomised clusters received the vaccine immediately; vaccination protected both vaccinated and unvaccinated people in those clusters. 5837 individuals in total received the vaccine (5643 adults and 194 children), and all vaccinees were followed up for 84 days. 3149 (53·9%) of 5837 individuals reported at least one adverse event in the 14 days after vaccination; these were typically mild (87·5% of all 7211 adverse events). Headache (1832 [25·4%]), fatigue (1361 [18·9%]), and muscle pain (942 [13·1%]) were the most commonly reported adverse events in this period across all age groups. 80 serious adverse events were identified, of which two were judged to be

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This online publication has been corrected. The first corrected version appeared at thelancet.com on December 23, 2016. The second corrected version appeared on February 2, 2017

See Comment page 479

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In Congo outbreak, Ebola vaccine faces reality tests

Friday, May 18, 2018 6:16 a.m. EDT

FILE PHOTO: Congolese Health Ministry officials carry the first batch of experimental Ebola vaccines in Kinshasa, Democratic Republic of Con

By Kate Kelland

LONDON (Reuters) - An experimental Ebola vaccine to be deployed in an outbreak in Democratic Republic of Congo has conquered some major scientific hurdles in giving high protection, but it now faces extreme real-world tests including heat, humidity, language barriers and lack of roads.

Because it is not yet licensed, the Merck & Co vaccine has been offered to Congo under a "compassionate use" protocol agreed by national and international health and ethics authorities.

This means fully informed, signed consent is needed from every person who wants the shot. And in the current Ebola outbreak, that makes logistical, cultural and language barriers the ultimate challenges, global health specialists say.

The hurdles illustrate how hard it can be to move from laboratory to real life, especially in remote communities with no functioning health systems. The Congo outbreak is a chance to reality-test a vaccine against a disease epidemic that can't be replicated in controlled environments.

Occhio alle epidemie prossime venture…

Epidemie

Qualcosa accadrà e saranno guai

di STEFANO VELLA

Dalla peste a Hiv: le infezioni colpiscono per colpa di globalizzazione, povertà e carestie. Ma oggi possiamo intercettarle prima che accada il peggio

50 MILIONI
Peste nera 1346-1350

39 MILIONI
HIV/Aids 1960-oggi

20 MILIONI
Influenza spagnola 1918-1920

I nativi americani
La stima della loro popolazione prima del 1540 era di 2-18milioni e nel 1900 di solo 500mila. Si crede che a sterminarli siano state le malattie di origine europea

10 MILIONI
Epidemia di peste in Asia 1894-1903

Non sarà per il 2018. Ma prima o poi accadrà: qualche virus nuovo passerà dagli animali all'uomo e verrà trasportato in giro per il mondo grazie alla globalizzazione. Vediamo come e perché accadrà.

Partendo dalla peste di Giustiniano che causò oltre 100 milioni di morti nel 542 dC arriviamo al 1346. Quando un marinaio da un porto della Crimea si imbarcò con un topo grigio su un mercantile pieno di tessuti diretto prima a Costantinopoli e poi a Messina. Il marinaio non sapeva che quella nave avrebbe dato origine a una delle più spaventose epidemie della storia: la peste nera che tra il 1346 e il 1353 decimò la popolazione europea con 50 milioni di morti. Ma le epidemie di peste si susseguirono numerose anche nei secoli a venire. E la ragione vera, a parte i topi infestati dalle pulci portatrici del bacillo della peste, è stata la globalizzazione: i grandi movimenti di uomini e merci. Ma le grandi epidemie sono e sono state amplificate anche dalle condizioni di guerra e di povertà. È il caso dei molti focolai di malattie infettive, come il colera, che ancora riemergono nelle zone dove infuriano guerre e carestie e dove manca l'acqua pulita.

Per capire le epidemie che verranno, e i meccanismi che potrebbero causarle, bisogna parlare dell'Aids. Il virus passò dalla scimmia all'uomo verso il 1920. Viveva nelle scimmie senza creare troppi danni. Purtroppo però è un virus capace di mutare con grande velocità, e uno dei "mutanti" fece il "salto di specie", cioè riuscì a infettare un essere umano, molto probabilmente a causa dell'abitudine di macellare le scimmie. Il virus era così diventato l'Hiv. Se ne stette silente per decenni, infettando però per via sessuale milioni di persone. Ma è soltanto agli inizi degli anni 60, con la crescita della mobilità e degli scambi commerciali con l'Africa, che cominciò a girare il mondo. Abbiamo dovuto aspettare fino al 1981 prima che la medicina si accorgesse che una nuova malattia stava uccidendo giovani vite. E in circa 30 anni ne ha uccise 40 milioni e infettate altrettante.

Ma l'Hiv non è l'unico virus che ha fatto "un salto di specie" e solo recentemente ci siamo accorti di patogeni che giravano da un bel po': Ebola era stato descritto negli anni 60 e il virus Zika è stato isolato nel 1947. Colpivano popolazioni "lontane e povere" e così nessuno credeva al rischio diffusione, e quindi nessuno ha pensato per tempo a produrre un vaccino.

E altre malattie son balzate agli onori della cronaca da poco: Mers, Sars, quelle dovute al virus Chikungunya, al virus della febbre emorragica della Crimea e al Niphavirus. Molte di queste malattie "emergenti" sono trasmesse all'uomo a partire da serbatoi animali, dei quali il più preoccupante è il pipistrello (#bolsdai pipistrelli viene).

Insomma, se ripercorriamo la storia delle grandi epidemie, ci accorgiamo di quanti errori son stati fatti all'inizio e soprattutto della sottovalutazione dei rischi rappresentati dai milioni di agenti infettivi che vivono intorno a noi e negli animali selvatici che ci circondano). Soprattutto se non ci preoccupiamo della capacità di virus e batteri di adattarsi ed evolvere, dei fattori legati alla crescente mobilità umana, dell'impatto dei conflitti e delle crescenti disuguaglianze di accesso alla salute.

Per affrontare le emergenze ci vuole un lavoro di "intelligence", bisogna mettere insieme virologi, infettivologi, epidemiologi ed esperti di sanità pubblica. Come bisogna usare bene i vaccini e crearne di nuovi. Per il vaiolo il giovane Jenner inventò il vaccino nel 1798: la malattia è stata eradicata nel 1977. Ci sono voluti 200 anni. Speriamo oggi di fare più in fretta.

Direttore Centro per la salute globale - Int, presidente Aifa

PRINCIPALI EPIDEMIE NELLA STORIA

Stima del numero di morti

- 774 Sars 2002-2003
- 1290 Meningite in Africa occidentale 2009-2010
- 4566 Morbillo in Congo 2011-oggi
- 4877 Ebola in Africa occidentale 2014
- 6631 Colera ad Haiti 2011
- 20mila Epidemia di tifo del 1847
- 100mila Grande peste di Londra 1665-1666
- 110mila 1° pandemia di colera 1817-1823

Repubblica, 2 gennaio 2018

Potential Viral Pathogens

Family	Prototype (s)	Licensed Vaccines
Paramyxo	Measles, Mumps, *Nipah, RSV*	Live-attenuated
Toga	Rubella, *Chikungunya, WEVEE*	Live-attenuated
Reo	Rotavirus	Live-attenuated
Orthomyxo	Influenza A, B	Live-attenuated, whole-inactivated
Adeno	Adenovirus 4, 7, *14*	Live-attenuated
Rhabdo	Rabies	Live-attenuated
Picorna	Polio 1,2,3, Hepatitis A, *EV68, 71*	Live-attenuated, whole-inactivated
Papilloma	HPV 6, 11, 16, 18	VLP
Pox	Variola	Live-attenuated
Hepadna	Hepatitis B	VLP
Herpes	Varicella	Live-attenuated
Flavi	Yellow Fever, TBE, JEV, Dengue, *Zika*	Live-attenuated, whole-inactivated, Live-chimeric
Hepe	Hepatitis E	VLP (China)
Filo	Ebola, Marburg	
Retro	HIV-1	
Corona	SARS, MERS	
Parvo	B19, Boca	
Calici	Noro	
Polyoma	JC, BK	
Arena	Lassa, Machupo	
Bunya	Hanta, Rift Valley	
Astro	Astrovirus	

- Virus families with at least one representative licensed vaccine
- Viruses with active vaccine research
- Viruses with minimal vaccine research activity

Choose prototypic viruses within each family or each distinct genus

- Define structures of surface proteins and particles
- Determine extent of genetic variability
- Define tropism, entry mechanisms, receptors
- Study pathogenesis and establish animal models
- Isolate human mAbs and determine mechanisms of NT
- Develop assays for diagnosis and immunogenicity testing
- Define immune correlates of protection

NIPHA VIRUS

The New York Times

Nipah Virus, Rare and Dangerous, Spreads in India

The infection, an emerging threat, has killed virtually all of its victims so far in India.

By Emily Baumgaertner

June 4, 2018

Burying a victim of the Nipah virus in Kozhikode, southern India. There is no vaccine and no cure for the disease. K.Shijith/Associated Press

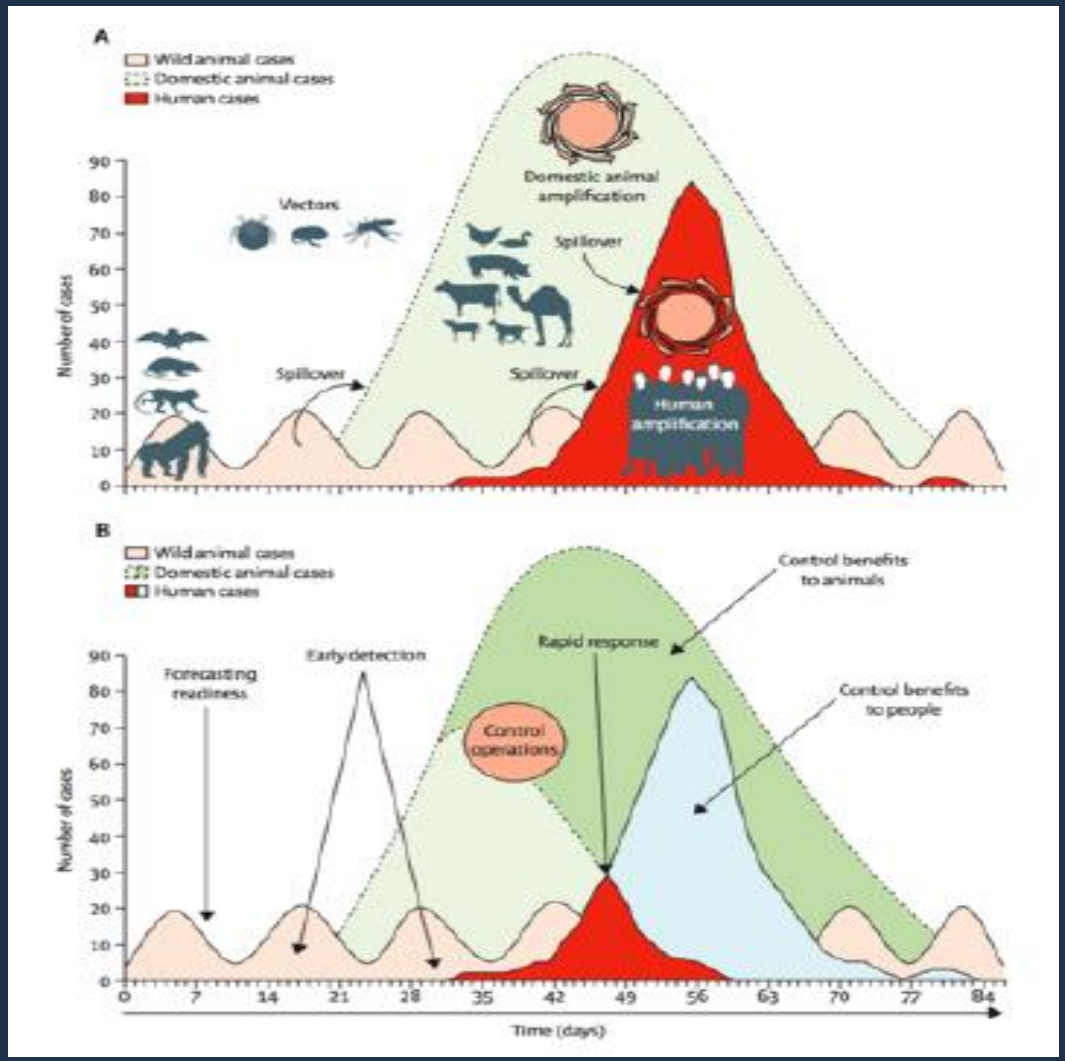
A rare, brain-damaging virus that experts consider a possible epidemic threat has broken out in the state of Kerala, India, for the first time, infecting at least 18 people and killing 17 of them, according to the World Health Organization.

The Nipah virus naturally resides in fruit bats across South and Southeast Asia, and can spread to humans through contact with the animals' bodily fluids. There is no vaccine and no cure.

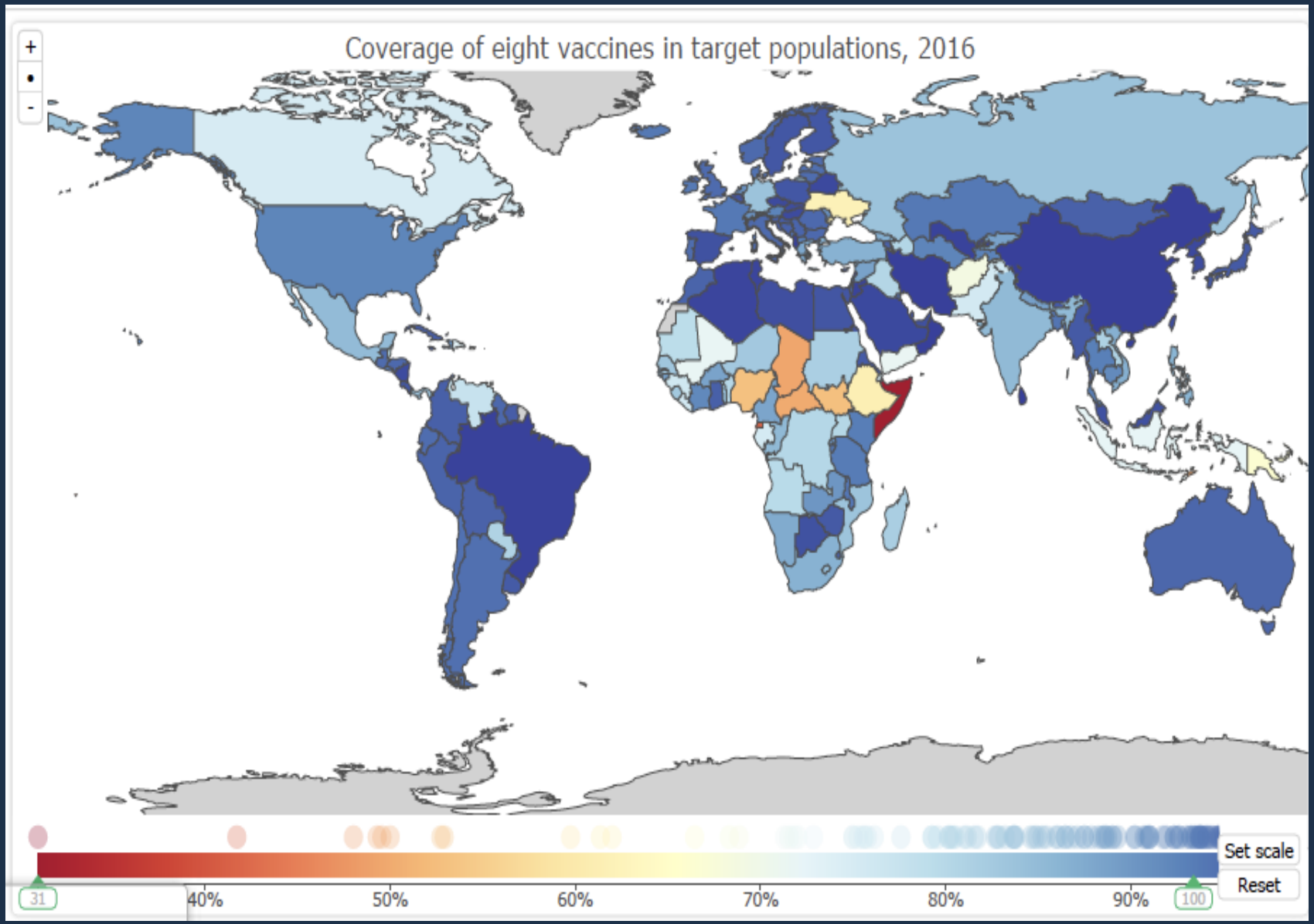
The virus is listed by the W.H.O. as a high priority for research. Current treatment measures are insufficient, according to Dr. Stuart Nichol, the head of the viral special pathogens branch at the Centers for Disease Control and Prevention.

ONE HEALTH

ONE PLANET ONE FUTURE

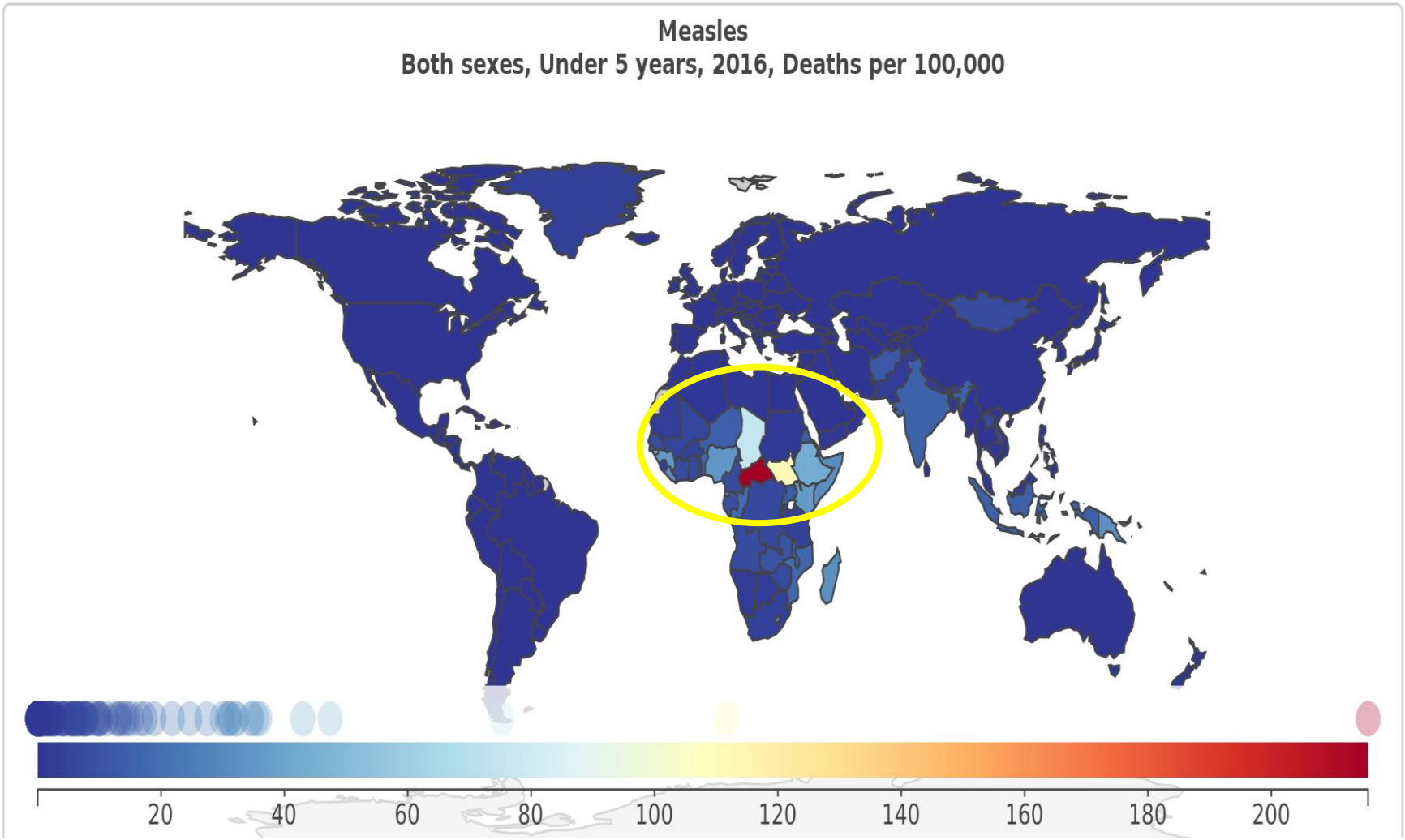


What Global Health is….not

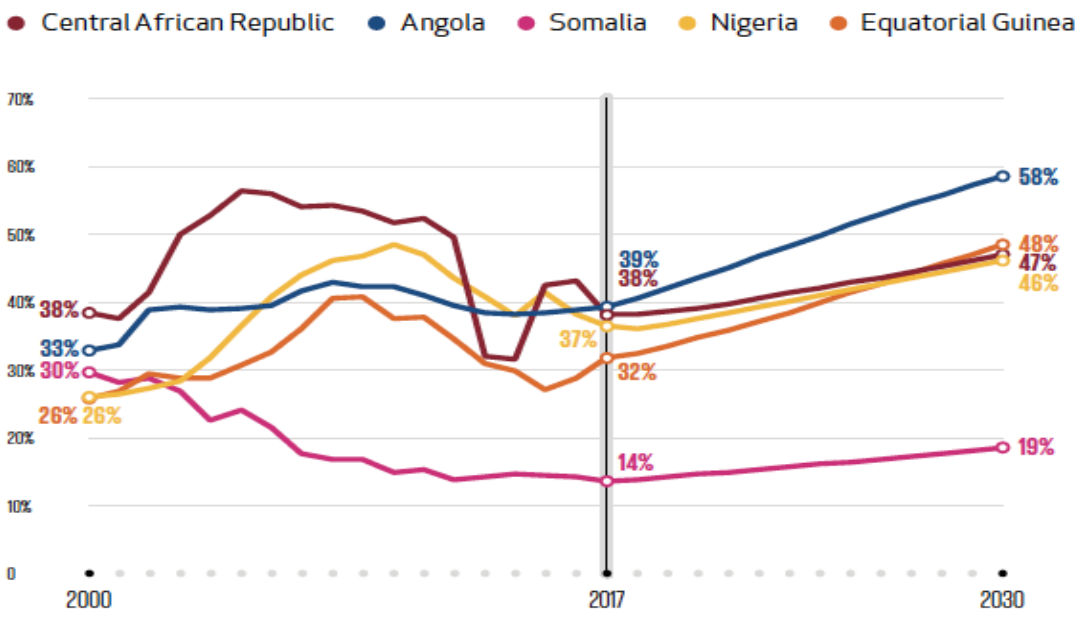


Measles immunization coverage
(% of children ages 12-23 months) (2016)

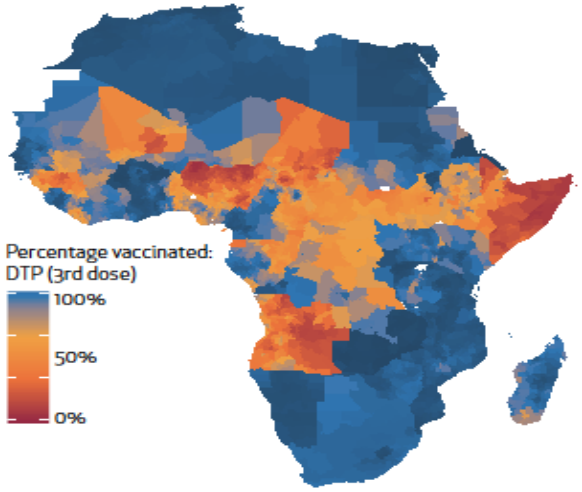
Measles mortality



NATIONAL DTP3 COVERAGE



SUB-NATIONAL DTP3 COVERAGE 2016

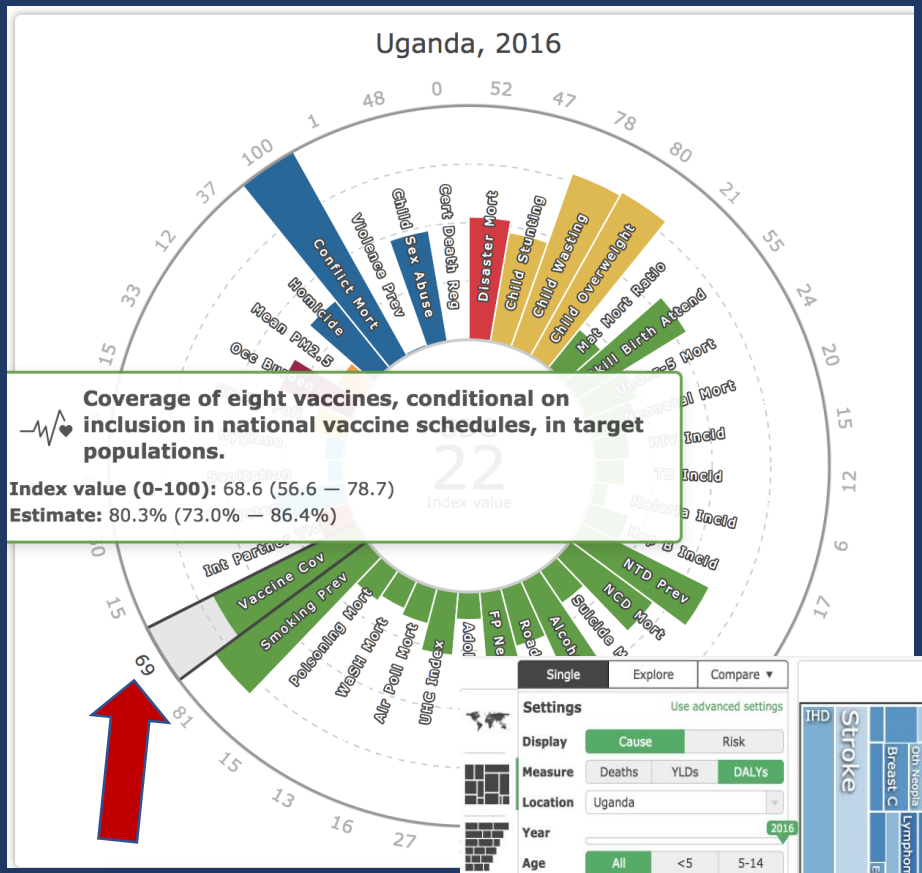


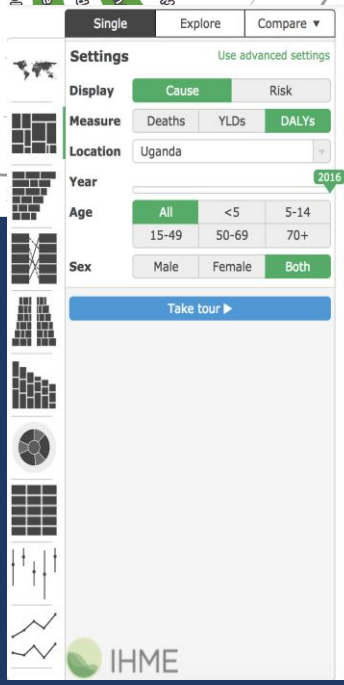
60 percent through 2030. Dramatic improvements are needed to increase coverage and avoid leaving children behind in these settings.

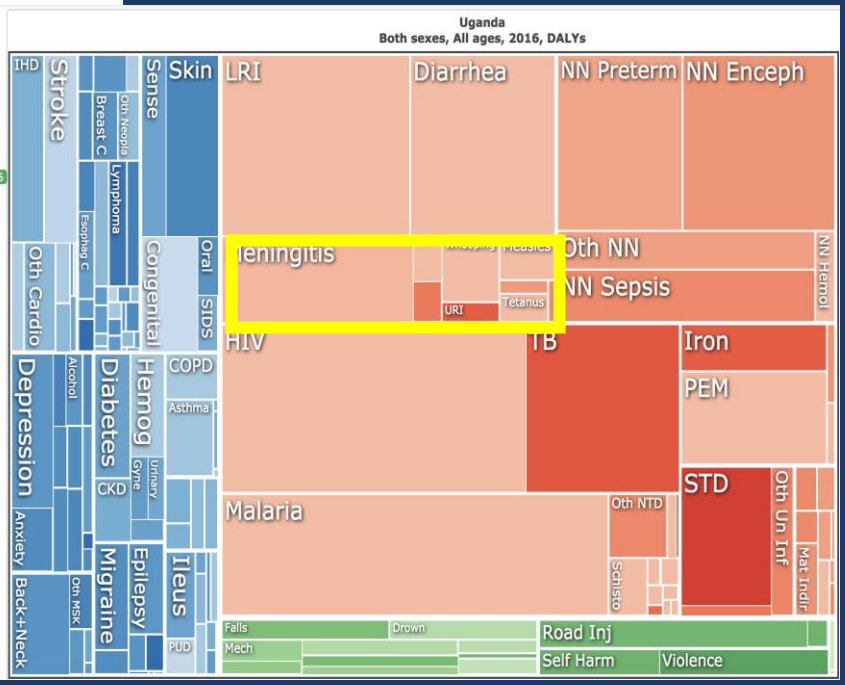
The heatmap shows that even within countries that may be doing well, certain areas can be neglected. More than half of children haven't received the necessary three doses of DTP in 26 percent of districts in sub-Saharan Africa.

The priority now is replicating successful strategies in the most challenging places so that all people everywhere receive lifesaving vaccines.

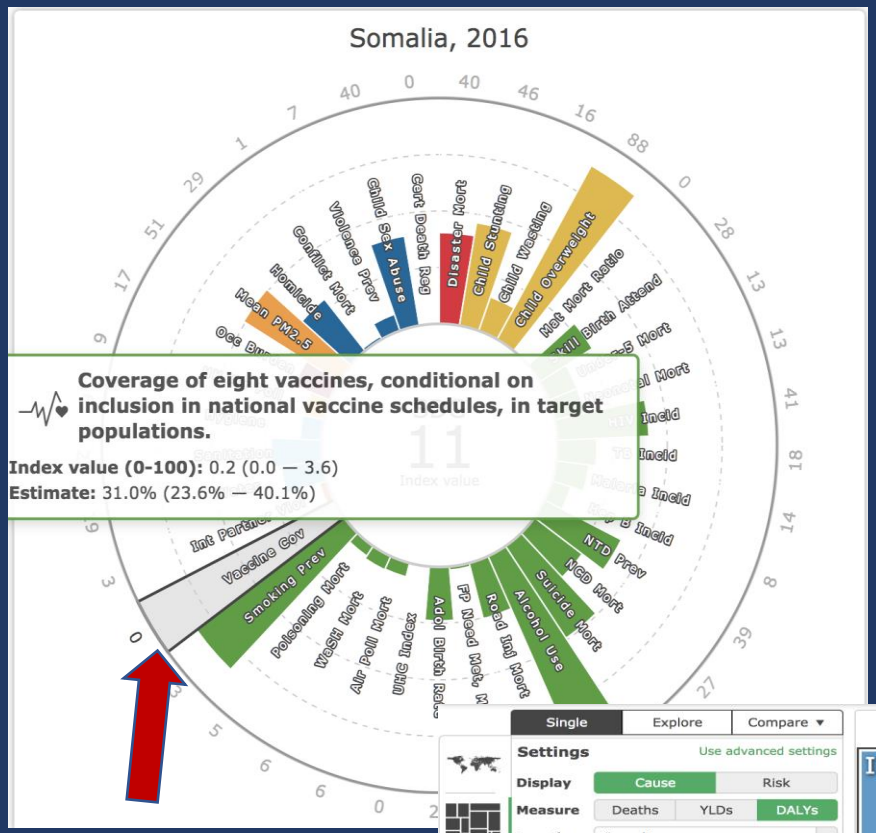
Vaccine coverage and Daly's

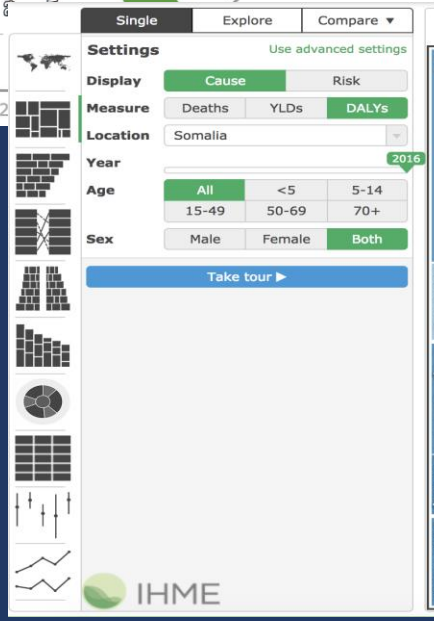


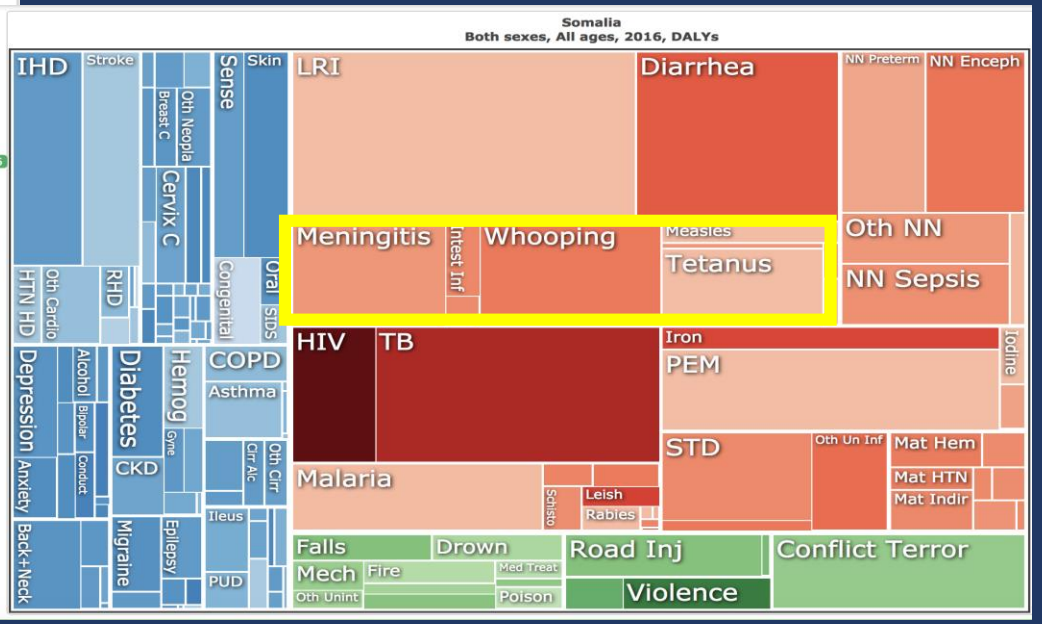




Vaccine coverage and Daly's







What Global Health is….not

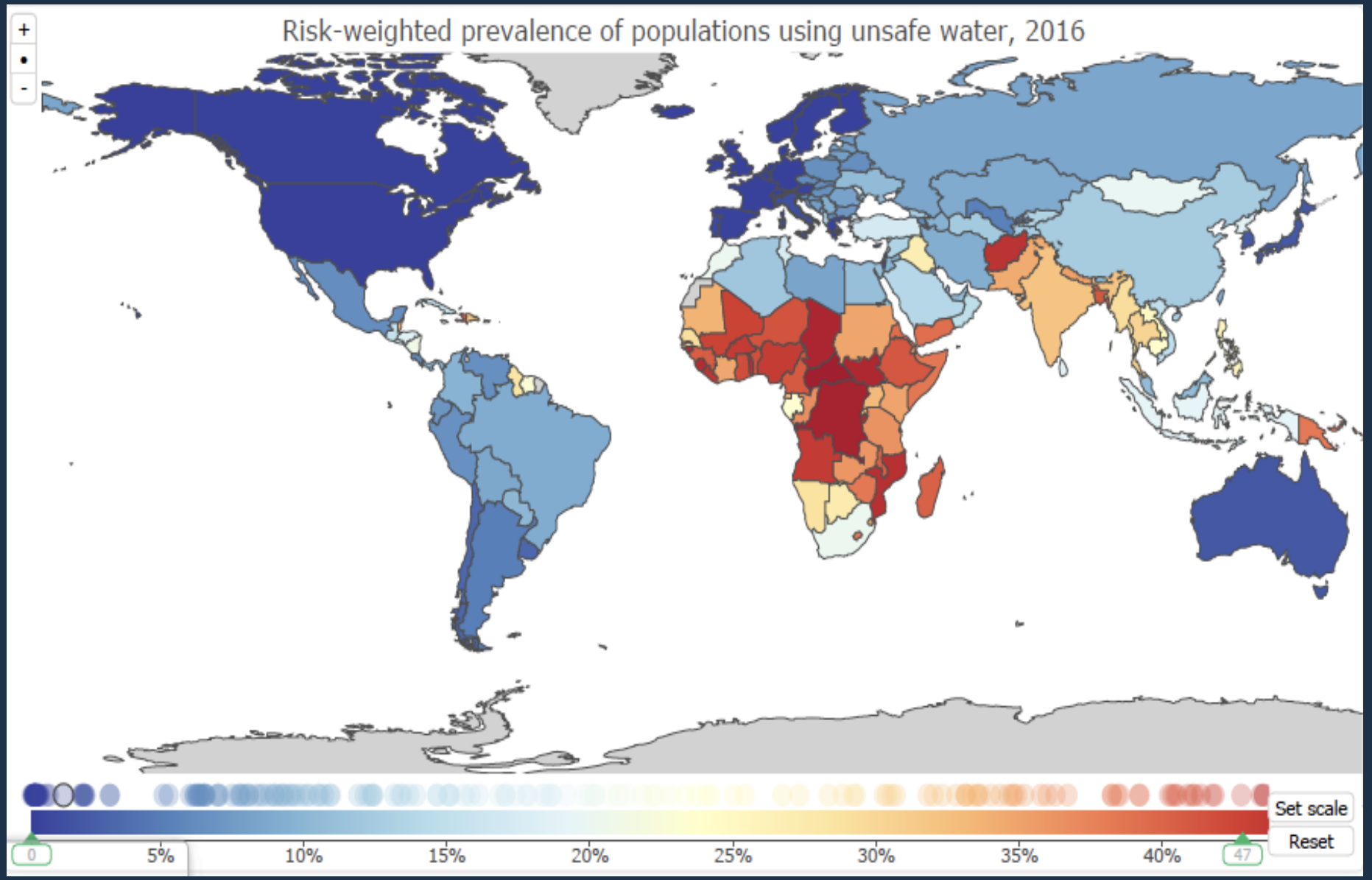
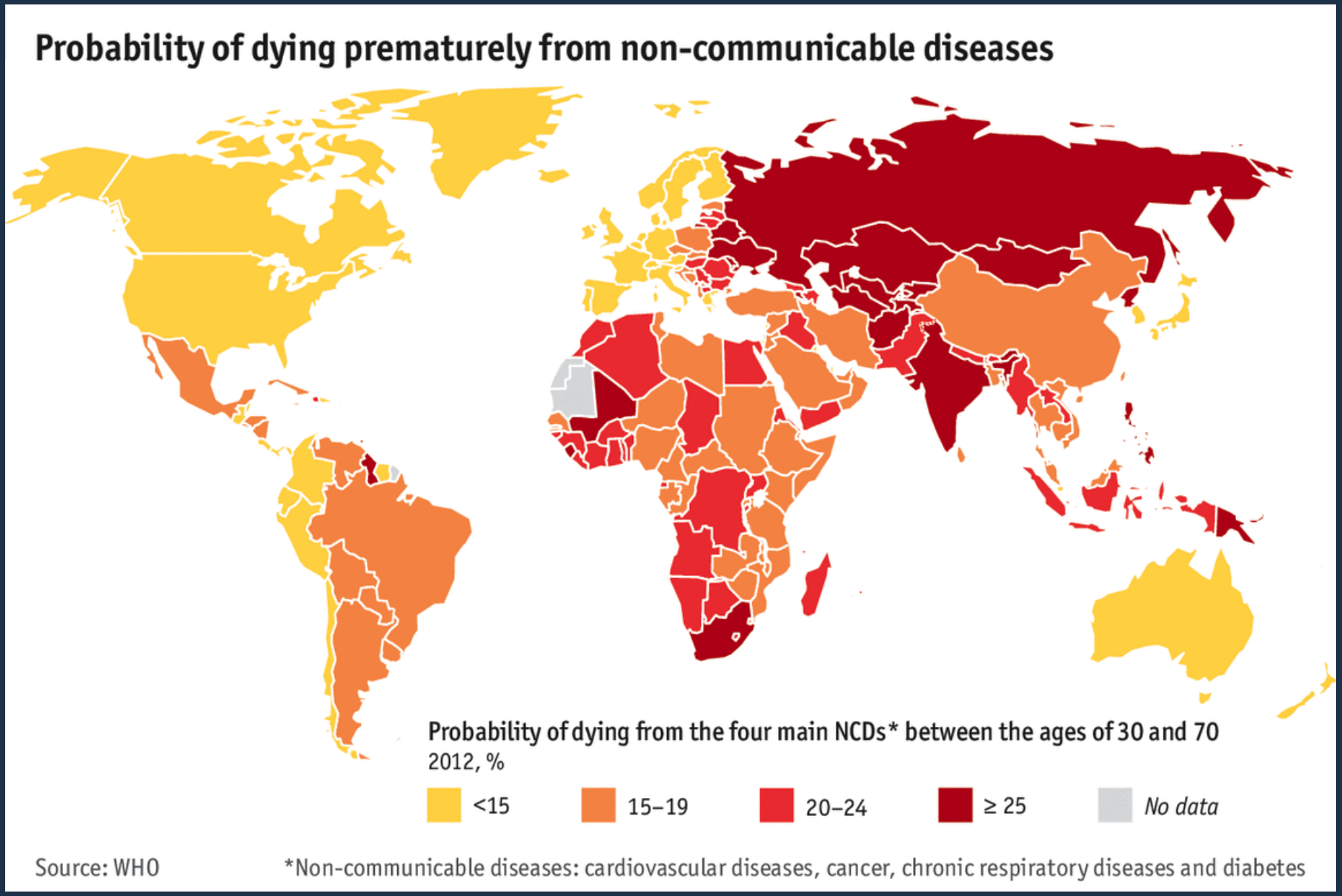
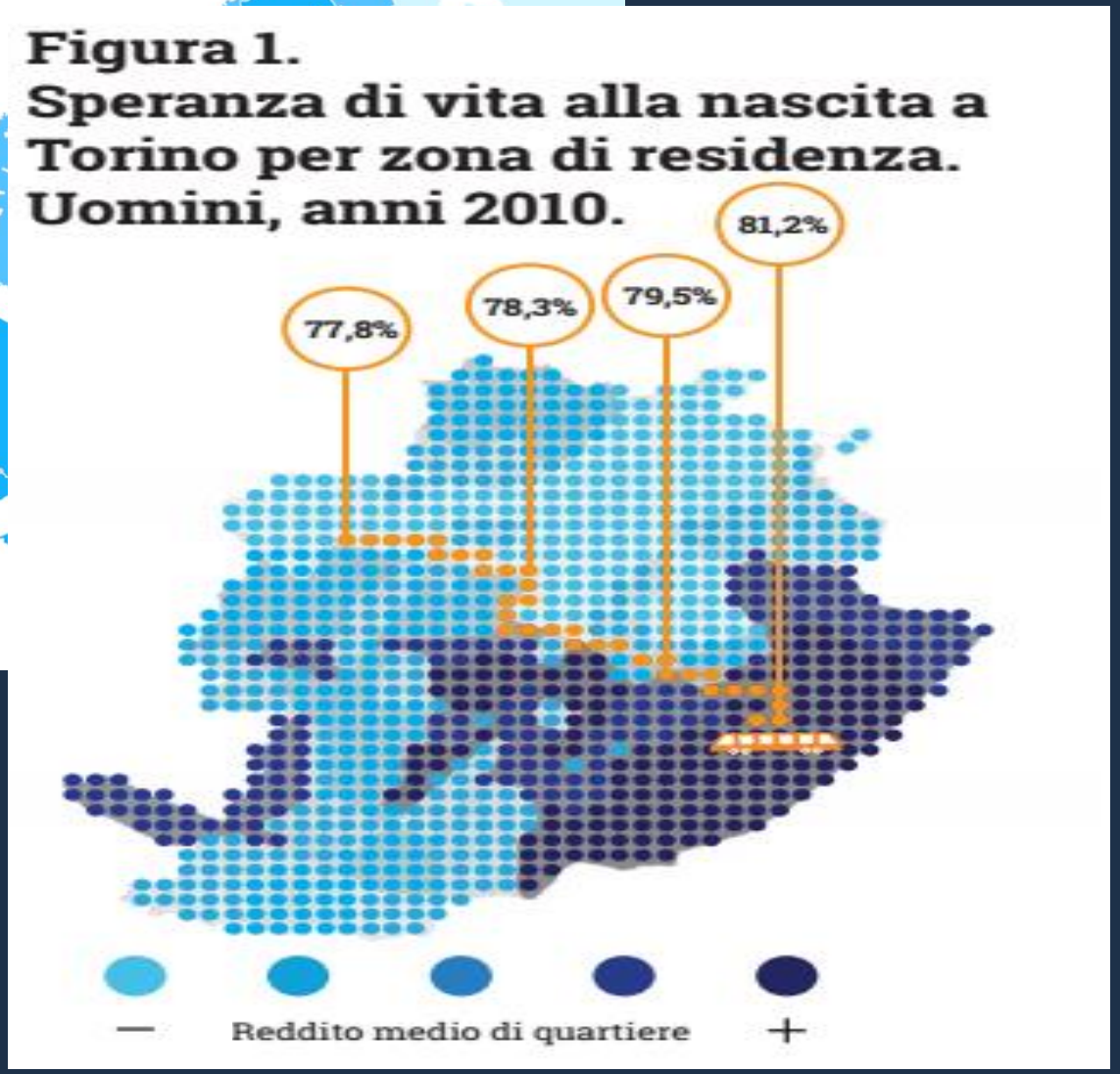


Fig. 3.4
Countries reporting cholera deaths and imported cases, 2016

What Global Health is….not

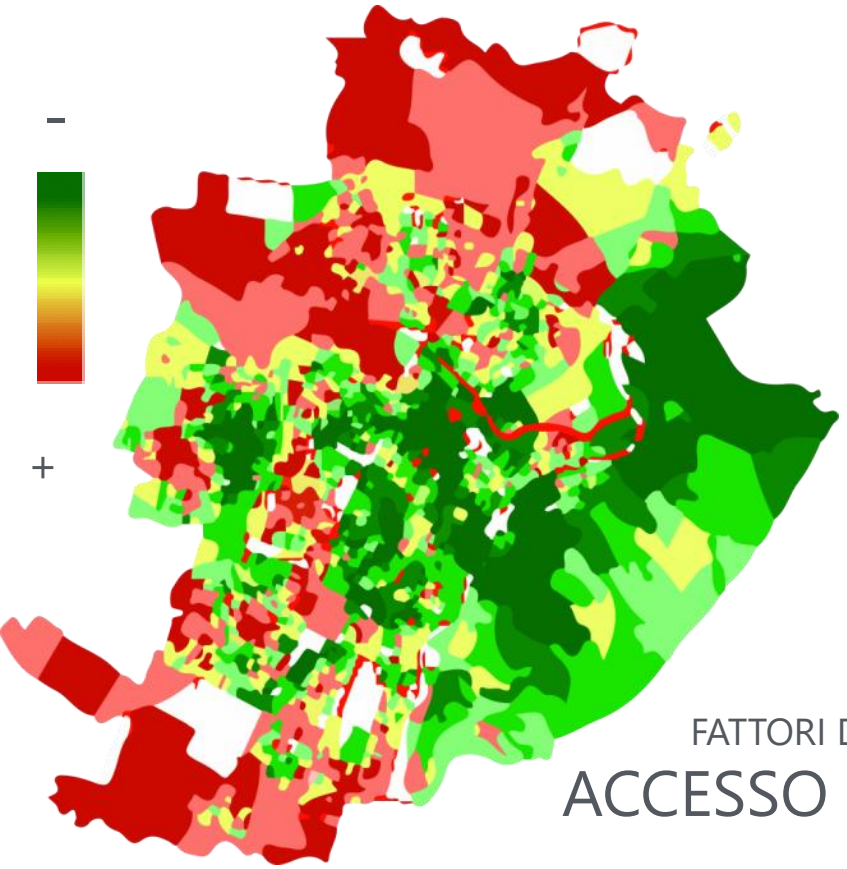


DISUGUAGLIANZE DI SALUTE: NON SOLO NEL SUD DEL MONDO……



Giuseppe Costa

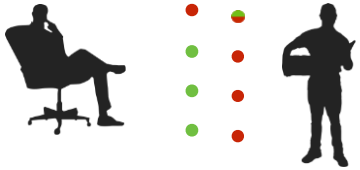
Infarto miocardico acuto a Torino, 2009



Rivascolarizzazione coronarica a Torino, 2009

FATTORI DI RISCHIO

ACCESSO ALLE CURE

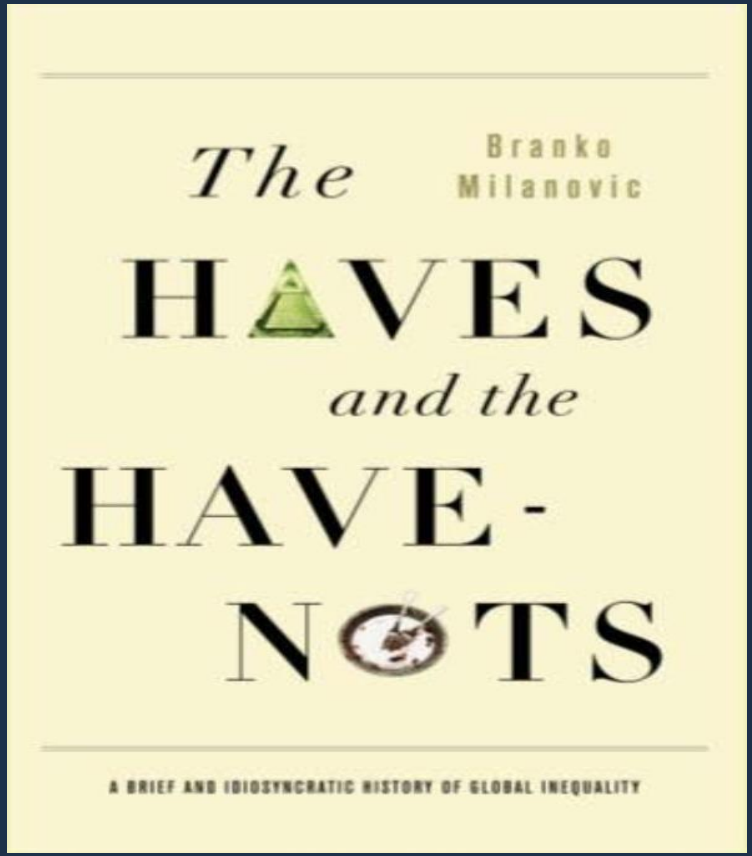


POSIZIONE SOCIALE
= CONTROLLO

Giuseppe Costa

Fonte: FORASTIERE ET AL. 2011

The causes of poor health for millions globally are rooted in political, social and economic injustices



Only 1% of people owns 50.4% of the global wealth;
2.4 billion adults own only 1%
2015 Global Wealth Report - Credit Suisse.

Il lato oscuro della globalizzazione

- ✓ urbanizzazione forsennata,
- ✓ nascita di nuove diseguaglianze sociali,
- ✓ nuovi poteri economici, fondamentalmente “finanziari”,
- ✓ geo-politica multi-polare,
- ✓ mercato globale senza più regole,
- ✓ uso smodato delle risorse naturali
- ✓ e crescita del divario economico tra ricchi e poveri.

Secondo il corrente ma fuorviante paradigma dello sviluppo

è la «crescita», non, ad esempio, la salute della popolazione o l’educazione,

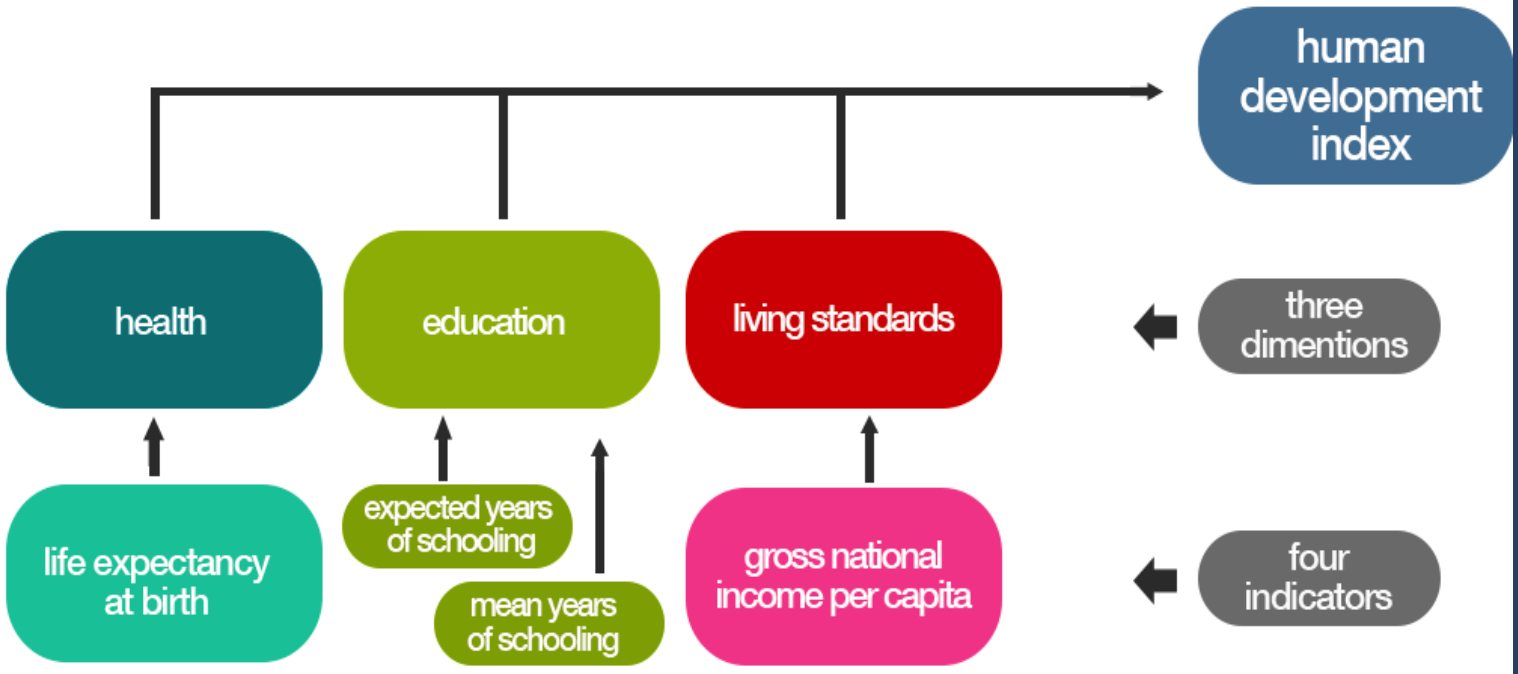
che viene considerata l’indice prevalente di successo di un Paese.

Human Development Report **2016**

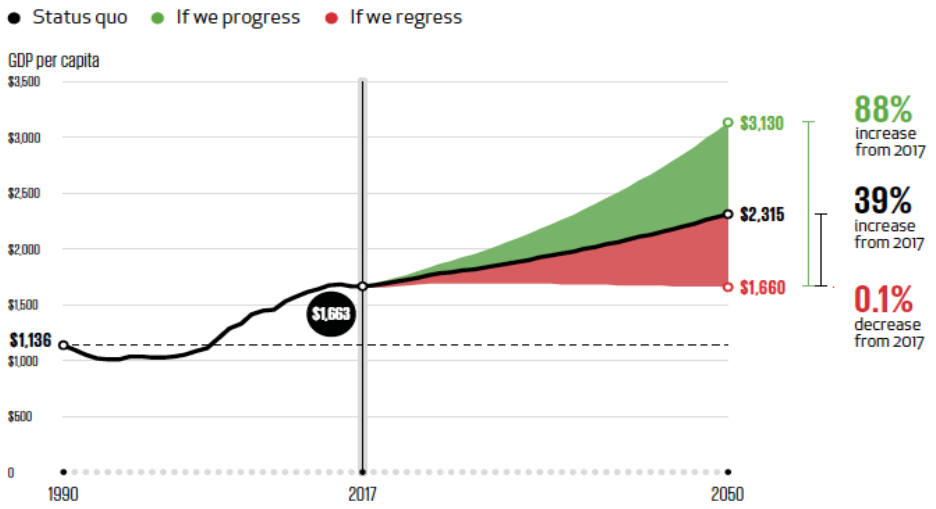
Human Development for Everyone

components of the human development index

the HDI - three dimentions and four indicators



THE MAGNITUDE OF SUB-SAHARAN AFRICA'S ECONOMIC GROWTH DEPENDS ON HUMAN-CAPITAL INVESTMENT



HUMAN CAPITAL: A BRIEF EXPLANATION

Economists generally think of three factors that contribute to economic growth:

- Physical capital: Roads, bridges, factories, etc.
- Human capital: The sum total of the health, knowledge, and skills of the population.
- Total factor productivity: A broad category that captures an economy's efficiency, innovation, and level of technology.

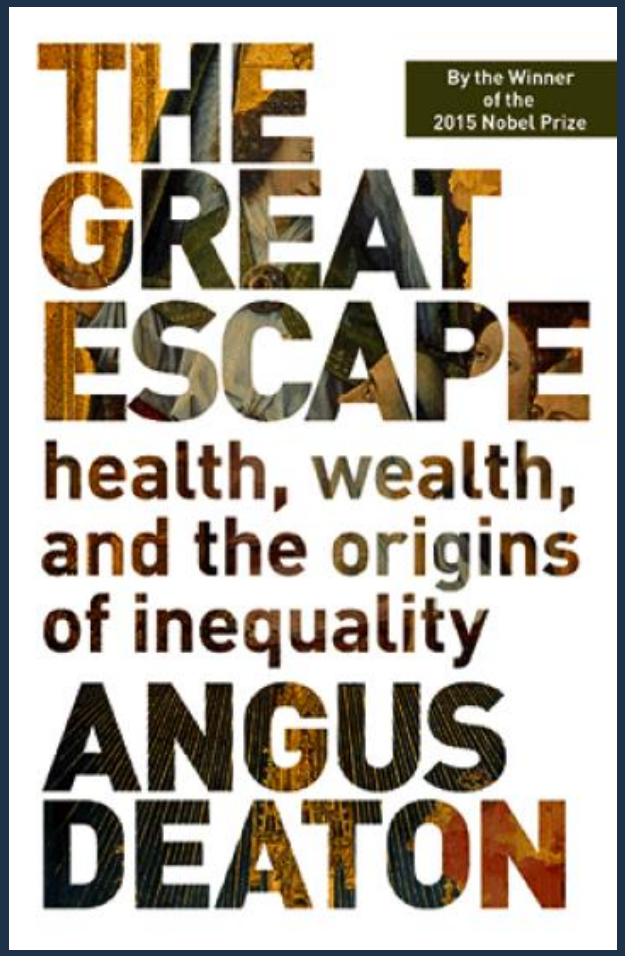
In general, political leaders have preferred to invest in physical capital. When they build a piece of infrastructure, the impact is immediate and tangible. On the other hand, when they vaccinate and educate children effectively, the impact from an economic point of view comes decades later, and it's harder to see.

But the evidence is crystal clear: Human capital is a prerequisite for economic development. The data shows that differences in health and education levels explain as much as 30 percent of the variance in per capita GDP between countries.

It may be easier to capture the importance of investments in human capital by analyzing the impact they have on individuals. Consider height, which is a proxy for better health. Studies suggest that every additional centimeter boosts a person's income by 3.4 percent. Similarly, every additional year of schooling boosts it by 8 percent. When these individual effects are added up across a population, they can propel rapid economic growth.

The poor, the marginalised groups and the vulnerable populations are the most affected by health inequalities

1.5 billion people live in slums



THE GREAT ESCAPE is a movie about men escaping from a prisoner-of-war camp in World War II. The Great Escape of this book is the story of mankind's escaping from deprivation and early death, of how people have managed to make their lives better, and led the way for others to follow.

Quindi…..

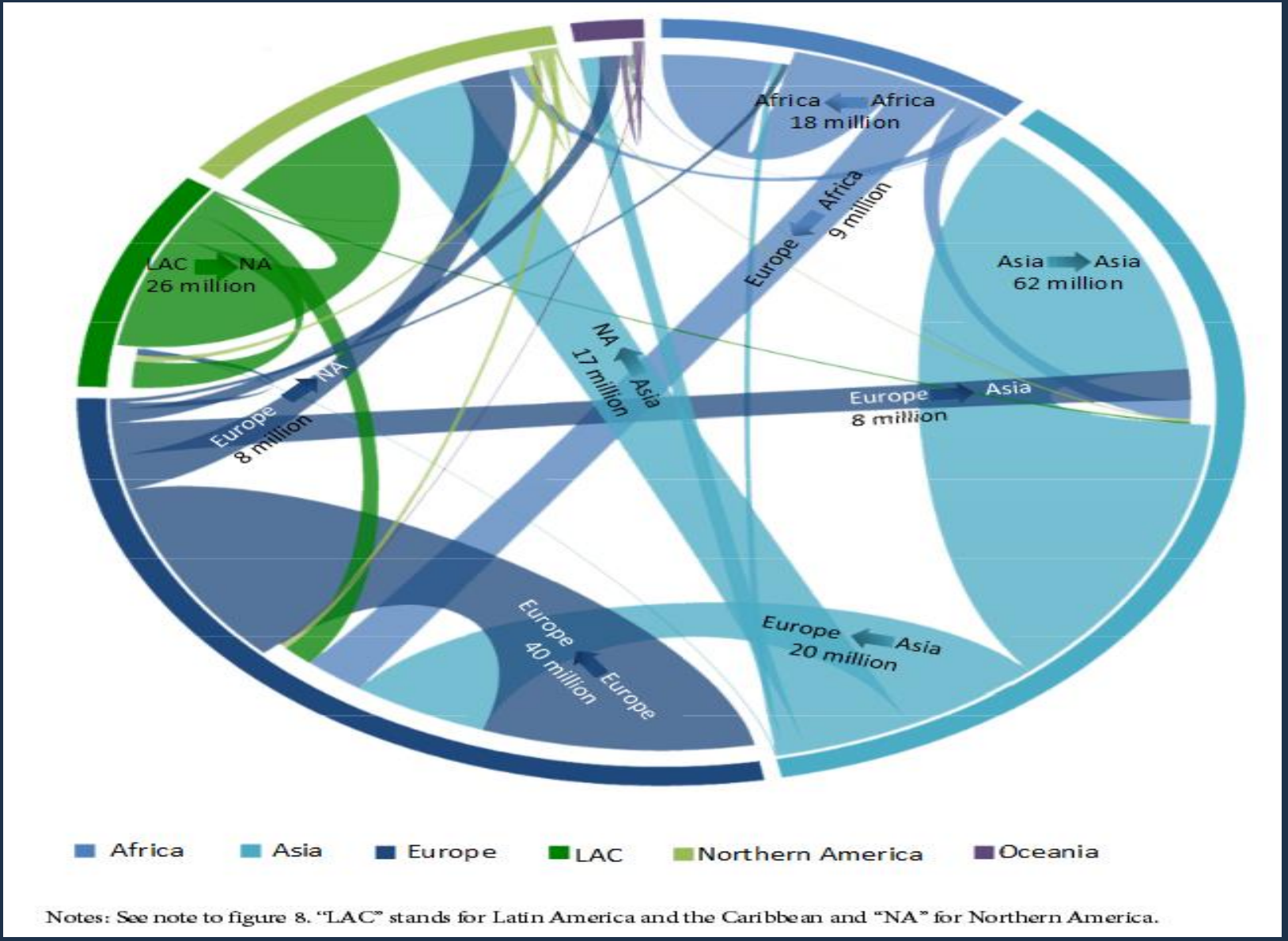
…spesso si parte, volontariamente, in cerca di una vita migliore….

…oppure,
forzatamente, lontano da guerre, violenze, disastri naturali…

Migrants

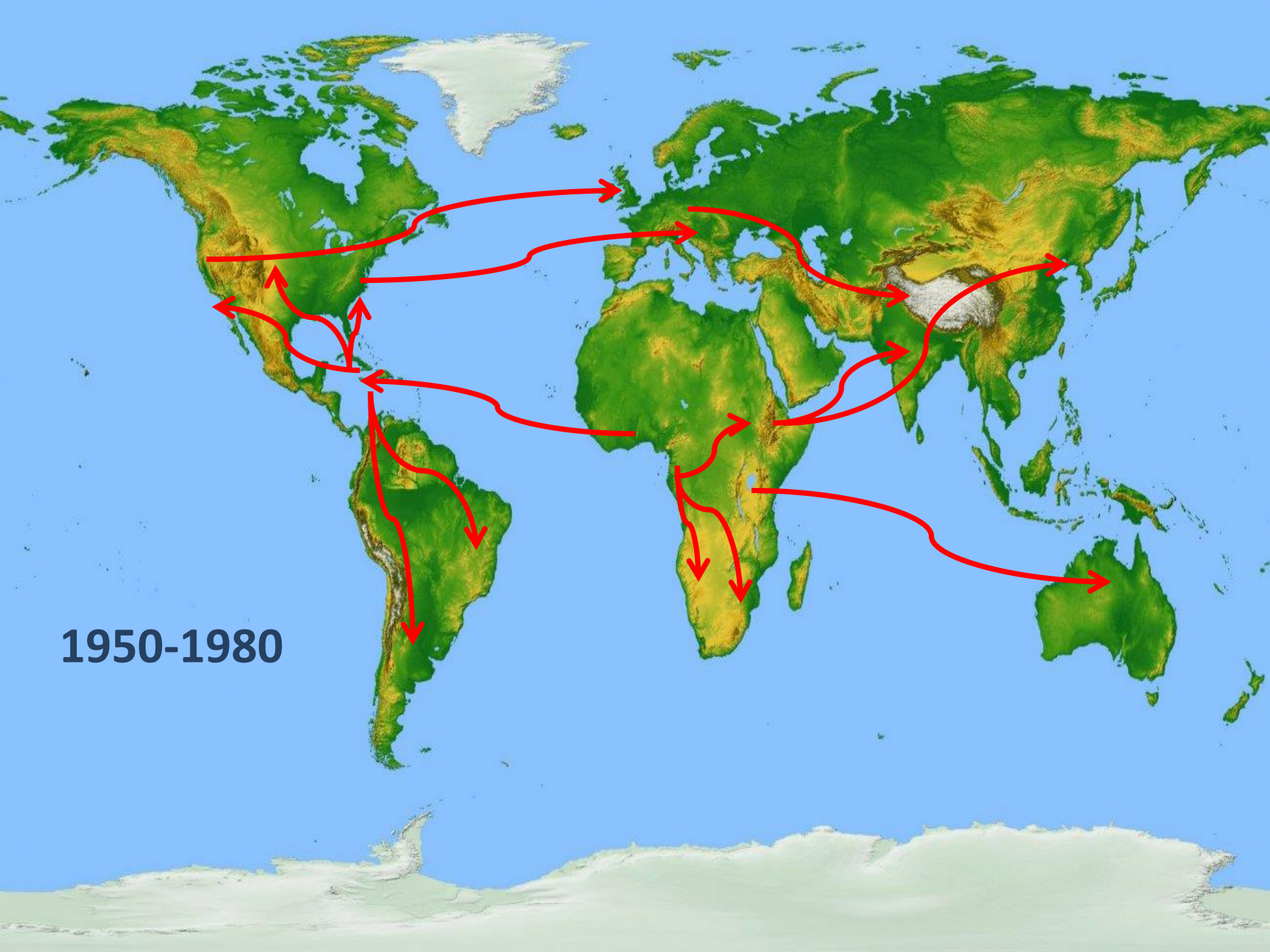
Displaced

….un inarrestabile fenomeno globale

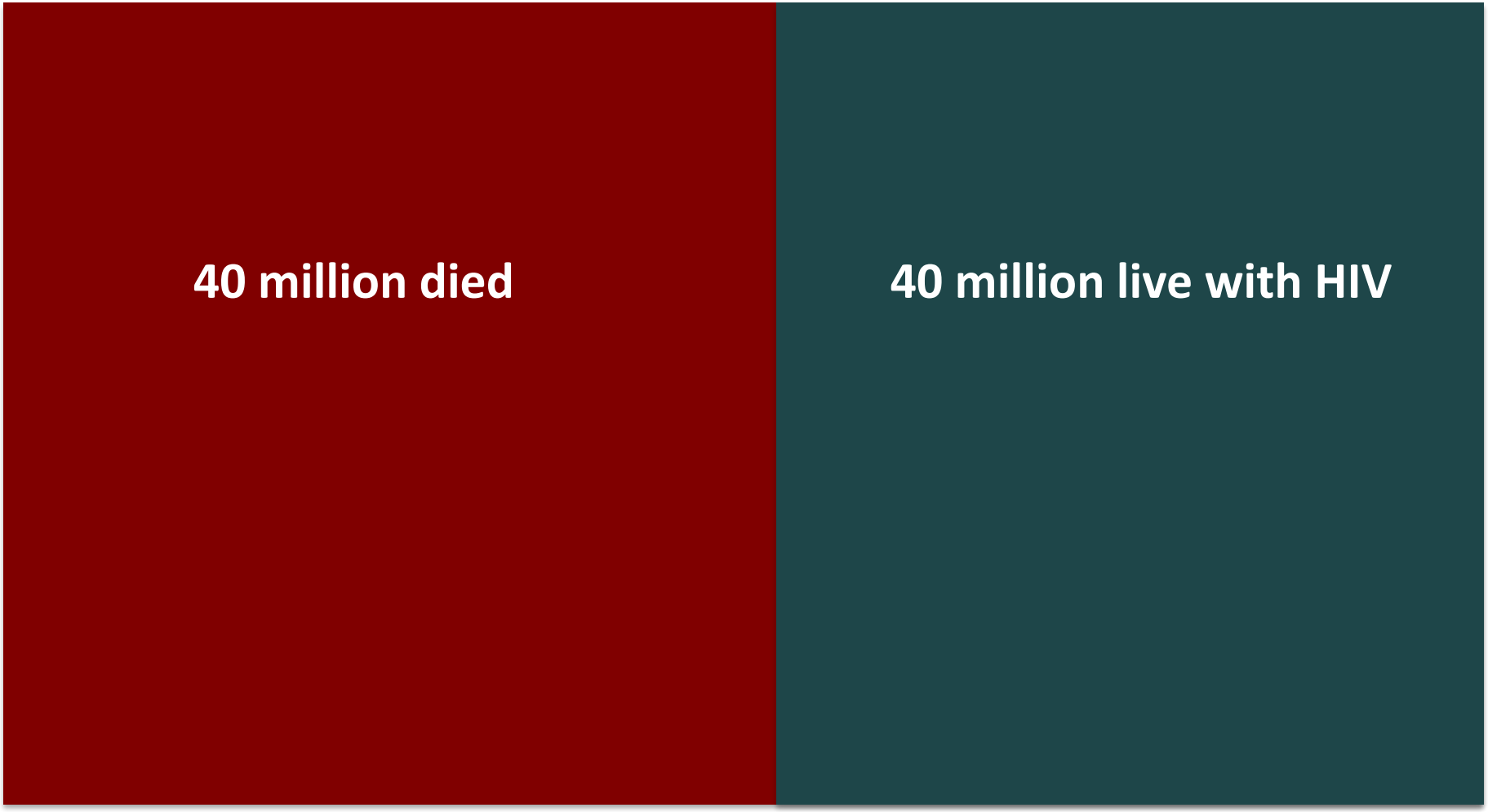


Notes: See note to figure 8. "LAC" stands for Latin America and the Caribbean and "NA" for Northern America.

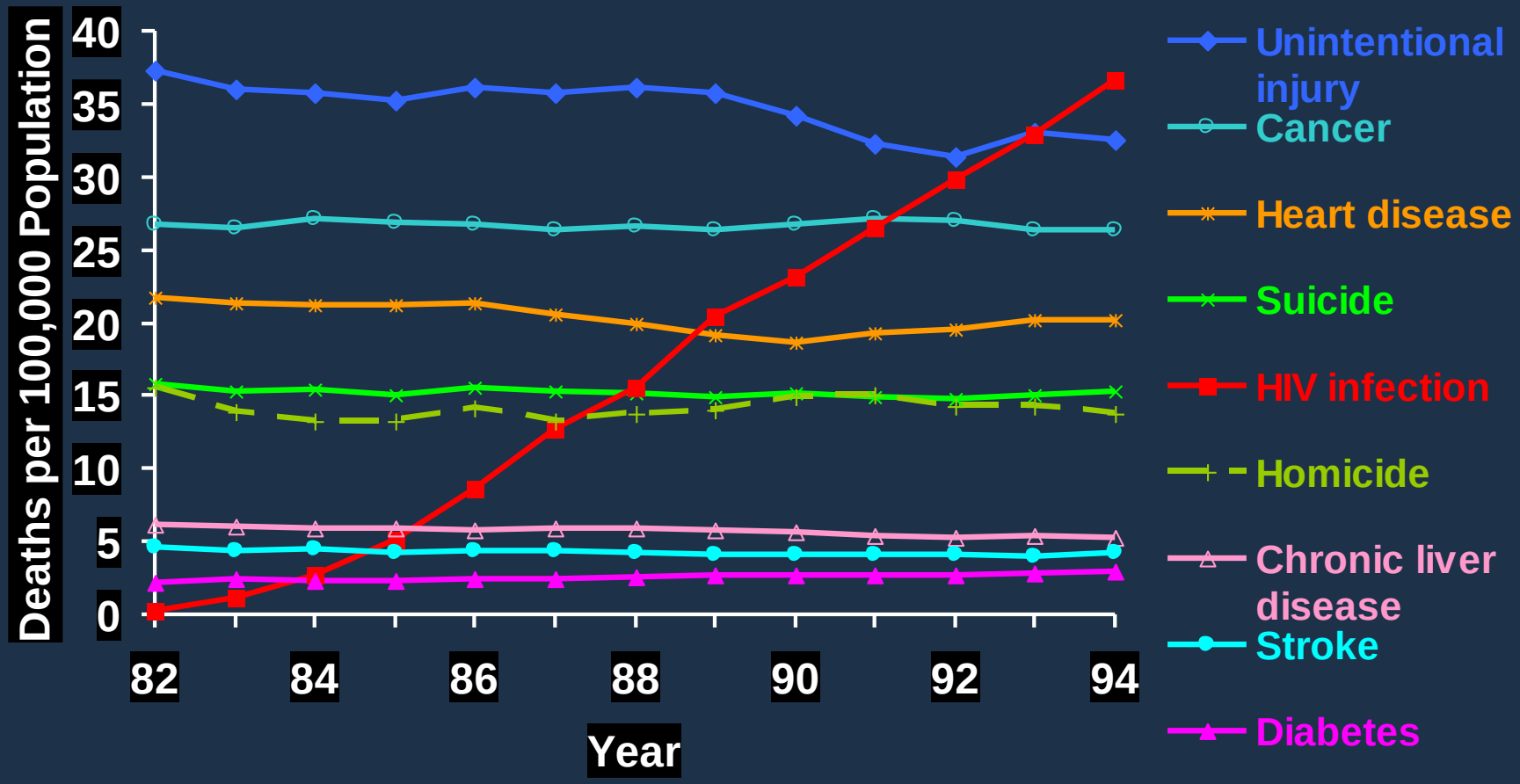
Global Health:
lessons from the response to HIV AIDS


1950-1980

AIDS: a devastating impact in just a few years



Trends in Annual Rates of Death from Leading Causes of Death Among Persons 25-44 Years Old, USA



Antiretroviral Therapy for HIV Infection in 1996

Recommendations of an International Panel

Charles C. J. Carpenter, MD; Margaret A. Fischl, MD; Scott M. Hammer, MD; Martin S. Hirsch, MD; Donna M. Jacobsen; David A. Katzenstein, MD; Julio S. G. Montaner, MD; Douglas D. Richman, MD; Michael S. Saag, MD; Robert T. Schooley, MD; Melanie A. Thompson, MD; Stefano Vella, MD; Patrick G. Yeni, MD; Paul A. Volberding, MD; for the International AIDS Society–USA

Objective.—To provide clinical recommendations for antiretroviral therapy for human immunodeficiency virus (HIV) disease with currently (mid 1996) available drugs. When to start therapy, what to start with, when to change, and what to change to were addressed.

Participants.—A 13-member panel representing international expertise in antiretroviral research and HIV patient care was selected by the International AIDS Society–USA.

Evidence.—Available clinical and basic science data, including phase 3 controlled trials, clinical endpoint data, virologic and immunologic endpoint data, interim analyses, studies of HIV pathophysiology, and expert opinions of panel members were considered. Recommendations were limited to drugs available in mid 1996.

Process.—For each question posed, 1 or more member(s) reviewed and presented available data. Recommendations were determined by group consensus (January 1996); revisions as warranted by new data were incorporated by group consensus (February-May 1996).

Conclusions.—Recent data on HIV pathogenesis, methods to determine plasma HIV RNA, clinical trial data, and availability of new drugs point to the need for new approaches to treatment. Therapy is recommended based on $CD4^+$ cell count, plasma HIV RNA level, or clinical status. Preferred initial drug regimens include nucleoside combinations; at present protease inhibitors are probably best reserved for patients at higher progression risk. For treatment failure or drug intolerance, subsequent regimen considerations include reasons for changing therapy, available drug options, disease stage, underlying conditions, and concomitant medication(s). Therapy for primary (acute) infection, high-risk exposures to HIV, and maternal-to-fetal transmission are also addressed. Therapeutic approaches need to be updated as new data continue to emerge.

JAMA. 1996;276:146-154

From Brown University School of Medicine, Providence, RI (Dr Carpenter); the University of Miami (Fla) School of Medicine (Dr Fischl); Harvard Medical School, Boston, Mass (Drs Hammer and Hirsch); The International AIDS Society–USA, San Francisco, Calif (Ms Jacobsen); Stanford (Calif) University Medical Center (Dr Katzenstein); St Paul's Hospital, Vancouver, British Columbia (Dr Montaner); University of California San Diego, and San Diego Veterans Affairs Medical Center (Dr Richman); the University of Alabama at Birmingham (Dr Saag); the University of Colorado School of Medicine, Denver (Dr Schooley); AIDS Research Consortium of Atlanta (Ga) (Dr Thompson); Istituto Superiore di Sanità, Rome, Italy (Dr Vella); Hôpital Bichat-Claude Bernard, X. Bichat Medical School, Paris, France (Dr Yeni); and the University of California San Francisco (Dr Volberding).

Financial disclosures appear at the end of this article.

Reprints: International AIDS Society–USA, 353 Kearny St, San Francisco, CA 94108

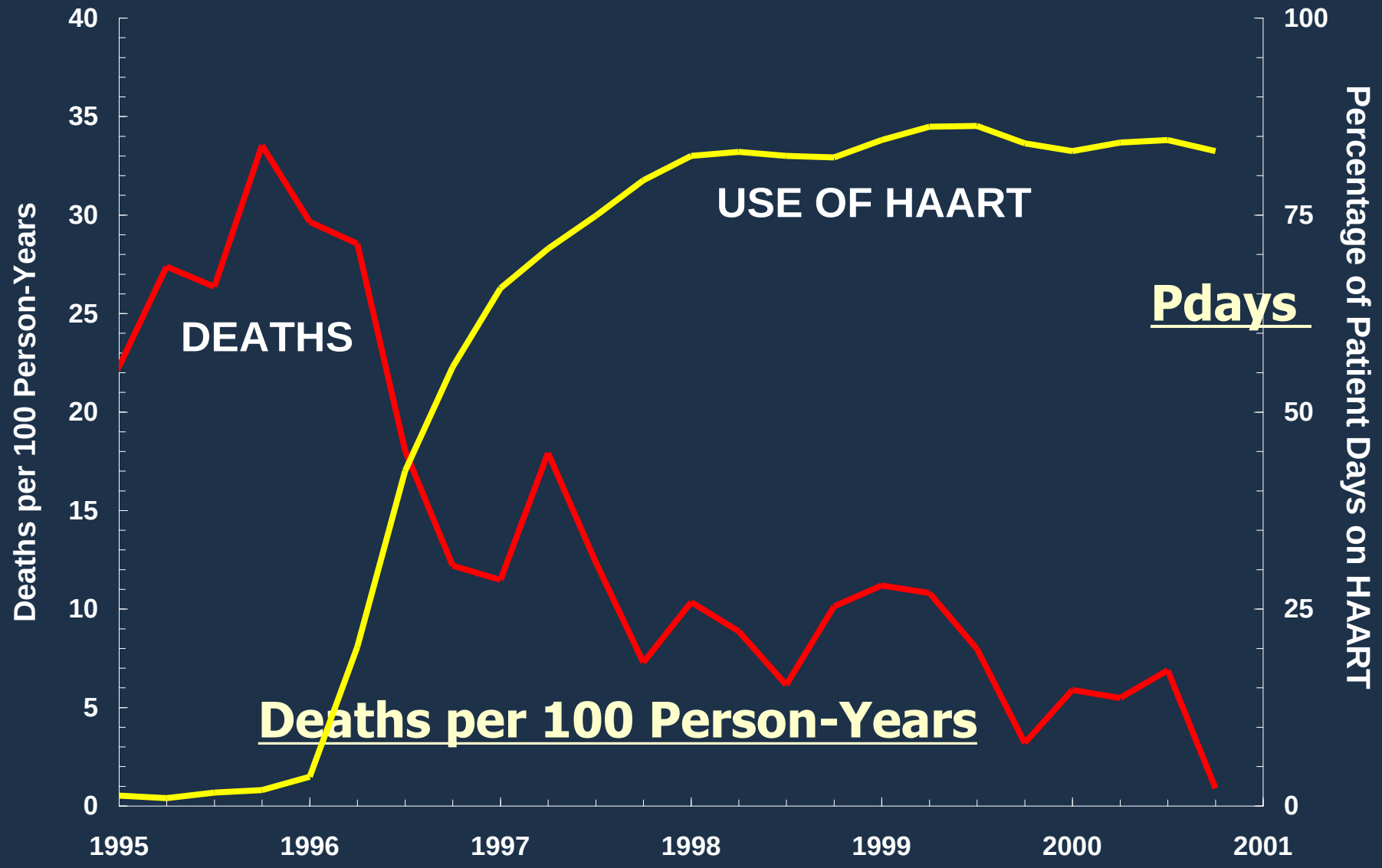
IMPORTANT ADVANCES in understanding the biology and treatment of human immunodeficiency virus (HIV) infection have occurred during the past 18 months. As a result, new scientifically sound approaches to therapy have been developed that offer new options for persons with HIV infection. The relevant recent advances fall into 4 major categories: (1) a better understanding of the replication kinetics of HIV throughout all stages of disease; (2) the development of assays to determine the viral load in individual patients; (3) the availability of several new effective drugs; and (4) the demonstration that combination therapy is more effective than zidovudine monotherapy.

In light of these advances, the recommendations of earlier state-of-the-art guidelines[1,2] are no longer applicable to clinical decision making in 1996. Therefore, an international panel of clinical investigators experienced in HIV patient care was selected and convened by the International AIDS Society–USA to develop current recommendations for the clinical management of HIV-infected individuals.

The panel addressed 4 central questions about antiretroviral therapy: when to initiate therapy, which types of drugs to use, when to change therapy, and which types of drugs to use when a change in therapy is indicated. In addition, the treatment of primary HIV infection, prevention of vertical transmission, and postexposure prophylaxis were addressed. The recommendations are not solely based on the results of controlled clinical trials with well-defined clinical endpoints. Developing clinical guidelines in the HIV field at this time requires an approach firmly anchored in data from controlled, double-blind clinical trials when available, but must also include information from trials in progress and available virologic and immunologic endpoint data, as well as extrapolations from studies of the pathophysiology of HIV infection. Clinical decisions must be made for best use of up to 8 available antiretroviral drugs, at a time when long-term studies with clinical endpoints have been completed for only a few possible combinations.

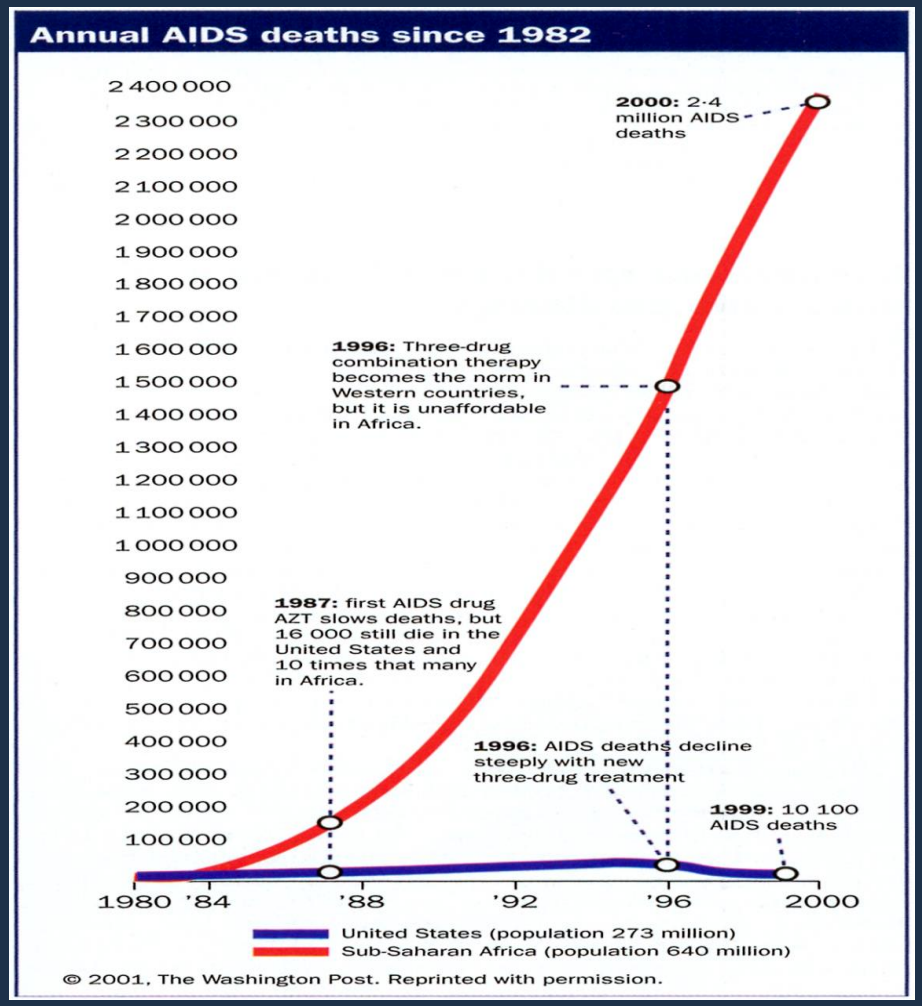
The recommendations herein reflect the panel's agreement on the importance of plasma HIV RNA measurements for predicting risk of clinical progression as well as of the recent demonstration from clinical trials of combination therapies that reductions in plasma HIV RNA

Mortality vs. HAART Utilization



Palella F et al, HOPS Study

YEAR 2000: difference in mortality between the rich north and the poor south



Per Stefano Vella la prospettiva di cura è in un cocktail di farmaci dai costi elevatissimi

Ma la terapia sarà solo per pochi

GIANCARLO ANGELONI

È una bella o brutta notizia quella di Robert Gallo, secondo cui «entro dieci anni si curerà l'Aids»? È un'uscita elusiva e generica, che presta il fianco ad una certa informazione disinvolta, interessata solo a conoscere «date» e «linee di traguardo», oppure contiene intuizioni autentiche dello scienziato? Certo, è strano che ad ogni anno che passa, ci si debba muovere a fare il gioco delle scommesse: e tanto più in questo 1995 che, anche a seguito della sospensione di tutte le sperimentazioni umane dei vaccini, ha fatto agli inizi pensare al peggio. Facciamo un sano passo indietro, hanno detto alcuni. Sì, per ricominciare e capire, hanno risposto altri: così, faremo due passi in avanti. E, in effetti, se le cose nuove nascono davvero dalle crisi, il ripensamento ha funzionato. Quasi inaspettatamente, due fatti, negli studi sulla patogenesi della malattia e sul fronte della terapia, hanno riportato un po' di sereno. «Ma non è ancora il cielo terso e azzurro – avverte Stefano Vella, direttore del reparto retrovirus nel laboratorio di virologia dell'Istituto superiore di sanità – perché non si devono scambiare i risultati ottenuti, pur importanti, con la cura dell'Aids: a dieci anni e più dall'inizio della pandemia, il ruolo dell'infiammazione equilibrata in questo campo è ancora un problema non risolto».

Nelle ultime settimane, Stefano Vella è stato invitato ad entrare, come uno dei tre membri per l'Europa, nell'organo di governo dello Ias, l'International Aids Society, che sovrintende alle conferenze internazionali, attualmente a cadenze biennale. Lo scorso anno ha tenuto, alla conferenza internazionale sull'Aids a Yokohama, la lettura inaugurale sulle terapie. E, di recente, al Congresso europeo di Copenaghen sull'Aids, ha discusso dei risultati dello studio europeo-australiano Delta, che ha impegnato, lin dal '92, lo stesso Istituto superiore di sanità, e che si è affiancato a un altro «trial» molto importante, l'Actg 175, condotto negli Stati Uniti dal National Institutes of Health. Ora, a distanza di un paio di mesi da quell'incontro di Copenaghen, Stefano Vella ricorda: «C'è stato un momento in sala, in cui tra i ricercatori è prevalsa l'emozione. Sì, proprio l'emozione che prova un medico quando si accorge di poter cambiare finalmente la vita del proprio paziente, di essere sulla strada giusta».

E qual è questa strada, dottor Vella?

Noi abbiamo diviso lo studio Delta in due parti: nella prima abbiamo sperimentato una terapia combinata, Azt e ddI o Azt e ddC, su pazienti mai trattati in precedenza con antiretrovirali; nella seconda abbiamo invece arruolato, sempre per la stessa terapia combinata, pazienti che avevano avuto un trattamento con Azt di almeno tre mesi precedente all'arruolamento. Bene, sia per la progressione verso l'Aids, sia per la sopravvivenza, i risultati nel primo gruppo sono stati molto più lusinghieri che nel secondo, tanto che nei pazienti mai trattati prima attraverso la monoterapia con Azt, la riduzione di mortalità, mediante l'uso della terapia di combinazione, è stata stimata intorno al 40 per cento. Il confronto, dunque, è stato tra monoterapia e terapia di combinazione, ma il risultato vero dello studio Delta è stato quello di aver ottenuto una risposta sul «come cominciare»: occorre iniziare subito, e a dose piena, con la terapia di combinazione, perché questa, al contrario della monoterapia, ha mostrato di poter modificare la storia naturale della malattia e ha stabilito, in un rapporto di causa ed effetto, che la replicazione del virus e la progressione della malattia sono legate tra di loro.

Ma, nella prospettiva, ci sono altre opzioni terapeutiche?

Certo. Lo studio Delta e quello americano hanno tenuto conto solo degli antiretrovirali già disponibili e non di quelli, sempre appartenenti alla famiglia dell'Azt, in via di approvazione da parte dell'Fda e delle stesse autorità europee, come il 3Tc e il D4t. Senza pensare, poi, che in «trial» molto avanzati ci sono gli inibitori delle proteasi, di diversa concezione e di potenza di gran lunga superiore agli analoghi dell'Azt, e che in futuro, forse, si potrà contare su altri inibitori, come quelli dell'integrasi. La prospettiva, dunque, è quella di usare tre o quattro farmaci contemporaneamente, e poi di cambiare le combinazioni, regolamentandole, però, secondo un uso mirato e non selvaggio. Purtroppo, c'è da dire che questa prospettiva riguarderà solo il 5 per cento di coloro che nel mondo sono infetti, perché per le molteplici difficoltà dei sistemi sanitari che vivono in Africa e in Asia nelle condizioni di miseria che sappiamo, i costi molto alti delle terapie di combinazione saranno semplicemente una cosa lunare.

E non c'è nessun altro intervento possibile?

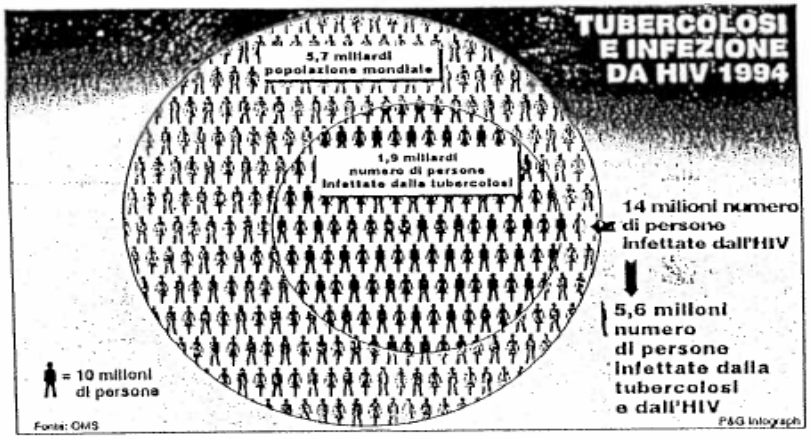
Allo stato dei fatti, l'unico intervento di tipo farmacologico è la prevenzione della trasmissione materno-fetale del virus, come sta cercando di verificare uno studio molto ampio, coordinato dall'Oms, in pratica, si vuol vedere se somministrando farmaci antiretrovirali nelle fasi più vicine al parto, si riesce ad evitare la trasmissione dell'Hiv nel neonato. Il «trial» prevede una somministrazione che non superi i dieci giorni, perché questo è il limite che le disponibilità economiche pongono.

Diversa sarebbe la situazione se ci fosse un vaccino?

Sì, per i suoi bassi costi. Ma, allo stato attuale, non c'è davvero molto da sperare che il problema venga risolto, perché, nel caso dell'Hiv, il sistema immunitario, pur funzionando, non è in grado di contrastare il virus con una risposta efficace. E poi, un'ulteriore complicazione è costituita dalla via di trasmissione, che è generalmente sessuale. Si dovrebbe costituire, insomma, una protezione alla porta di ingresso del virus, cioè al livello delle mucose genitali. Ciò che oggi si pensa, in realtà, è che se un vaccino ci sarà, si tratterà di un «vaccino minore», che impedirà solo la progressione dell'infezione. In questo modo si rallenterebbe il corso della malattia, ma il paziente continuerebbe ad essere infettante.

Un ultimo punto: la patogenesi. Quali conoscenze nuove hanno portato i lavori pubblicati da «Nature» nel gennaio scorso, di cui si è tanto parlato?

Hanno riconvolto l'infezione Hiv in un quadro infettivo più classico, secondo un'immagine dinamica che è più vicina alla realtà patologica, e hanno dimostrato che non è vero che il sistema immunitario non funziona a dovere. Anzi, esso regge benissimo all'attacco del virus; e lo fa fino a quando, dopo anni, l'Hiv non riesce a sbaragliare le linee. Se non fosse così, la persona infetta morirebbe entro qualche mese! In questo senso, il sistema immunitario va visto come l'alleato essenziale della terapia.



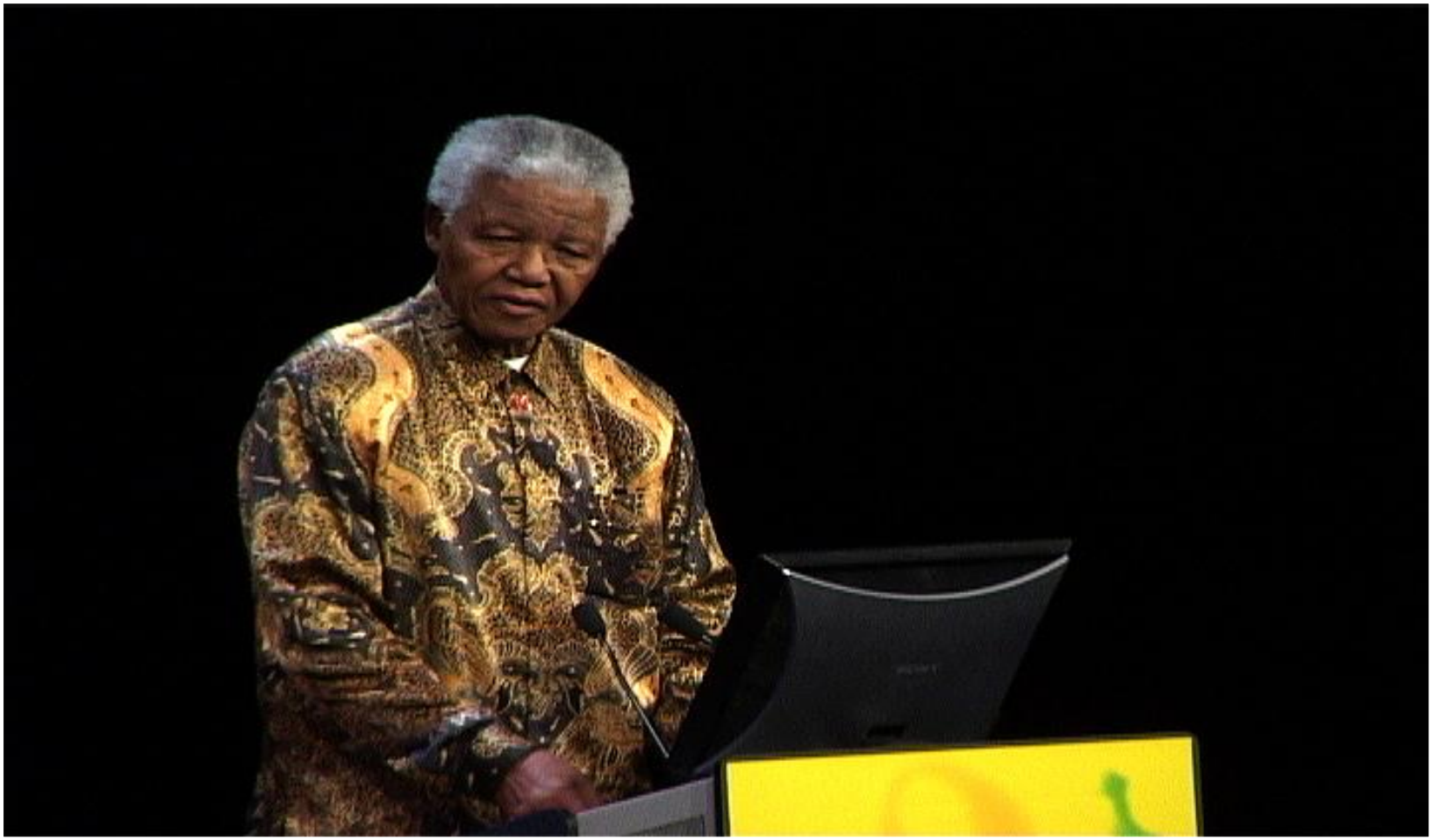
Tubercolosi più Hiv, il «doppio problema» di domani

È stata definita «the double trouble», il doppio problema. Sì, perché l'associazione «infezione da Hiv più infezione da tubercolosi» crea molti grattacapi alle autorità sanitarie. E ne creerà sempre di più. L'infezione da tubercolosi è molto diffusa: colpisce nel mondo una persona al secondo e si stima che nei prossimi dieci anni ucciderà 30 milioni di persone. Ma solo il 10 % degli infettati ha il 10 % di probabilità di sviluppare la malattia nel corso della vita. Il rischio però aumenta enormemente se la persona è infettata dal virus dell'Aids. In quel caso la probabilità di ammalarsi aumenta fino al 5 % all'anno. E qui si innesta un circolo vizioso. Il contagio della tbc avviene tramite una persona ammalata, questo vuol dire che un aumento del numero di malati (tra i sieropositivi) comporta un aumento della circolazione della tbc anche nella popolazione «sana». Negli Usa si è calcolato che l'aumento di tbc verificatosi dall'85 è dovuto per il 30 % alla diffusione dell'Hiv (le altre cause sono l'aumento di povertà, quello dei senza tetto e il difficile accesso alla cura dei soggetti marginali). In alcuni paesi dell'Africa i casi di tubercolosi sono addirittura raddoppiati. In Italia, secondo uno studio condotto sul nostro territorio, questo fenomeno potrebbe portare a un aumento di circa 1.000 casi l'anno.

L'Unità – 1 dicembre 1995

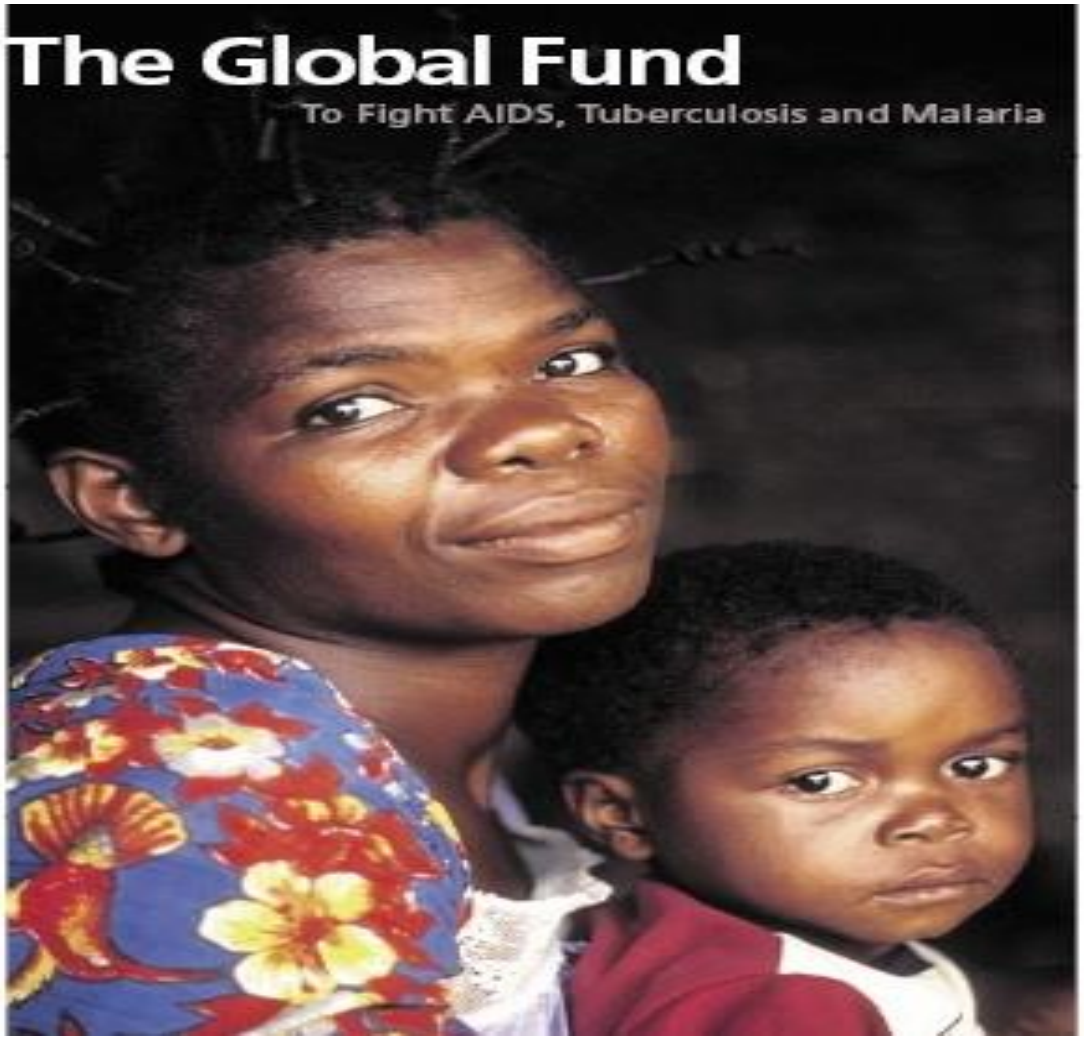
International AIDS Society
Stronger Together Against HIV

World AIDS Conference - DURBAN, *2000*

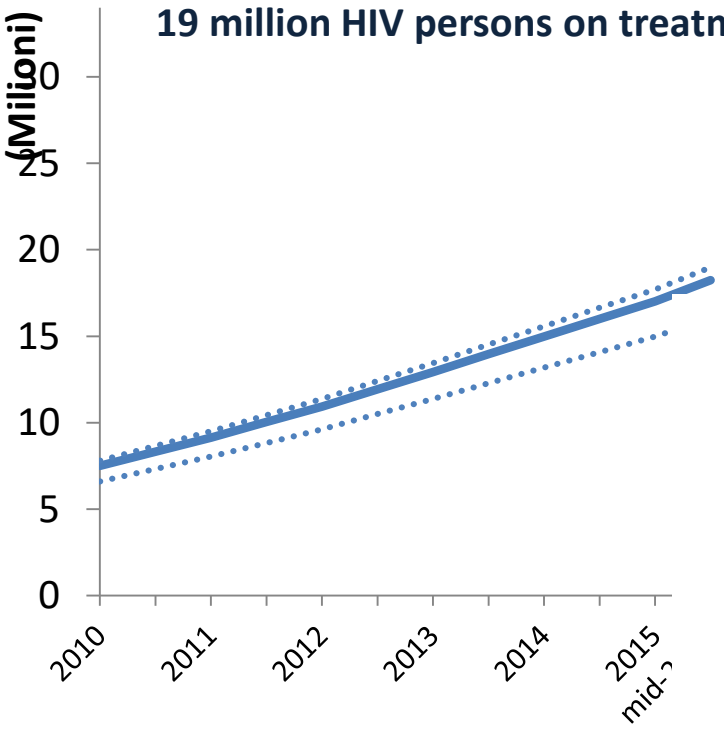


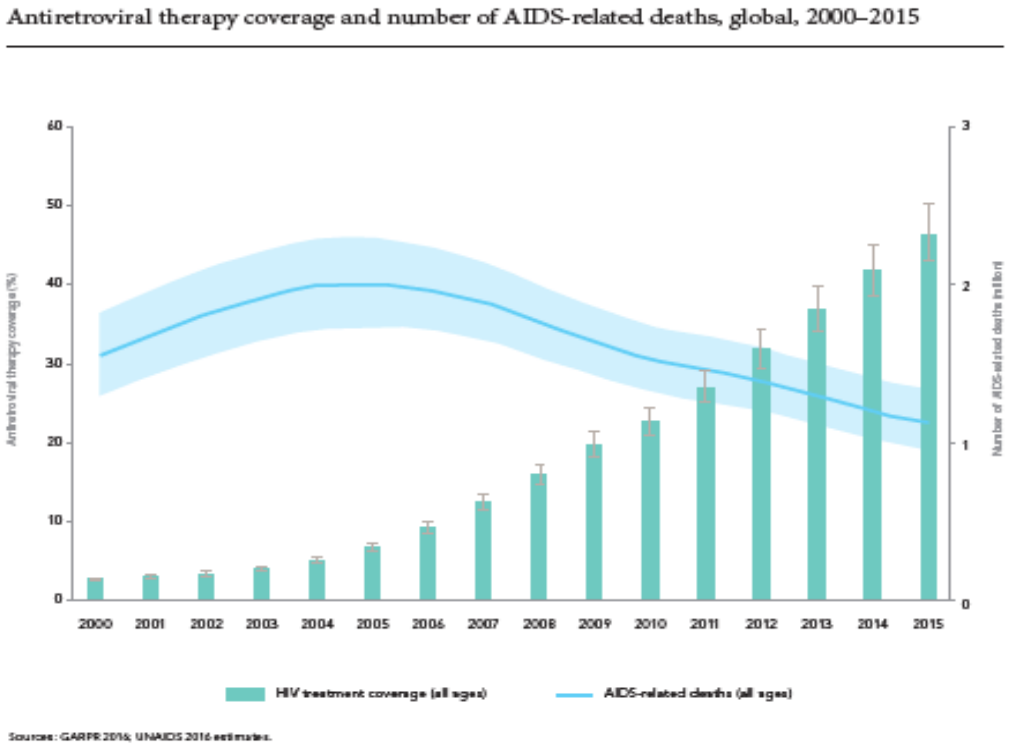
Community mobilization

UNGASS 2001:
THE GLOBAL FUND WAS BORN



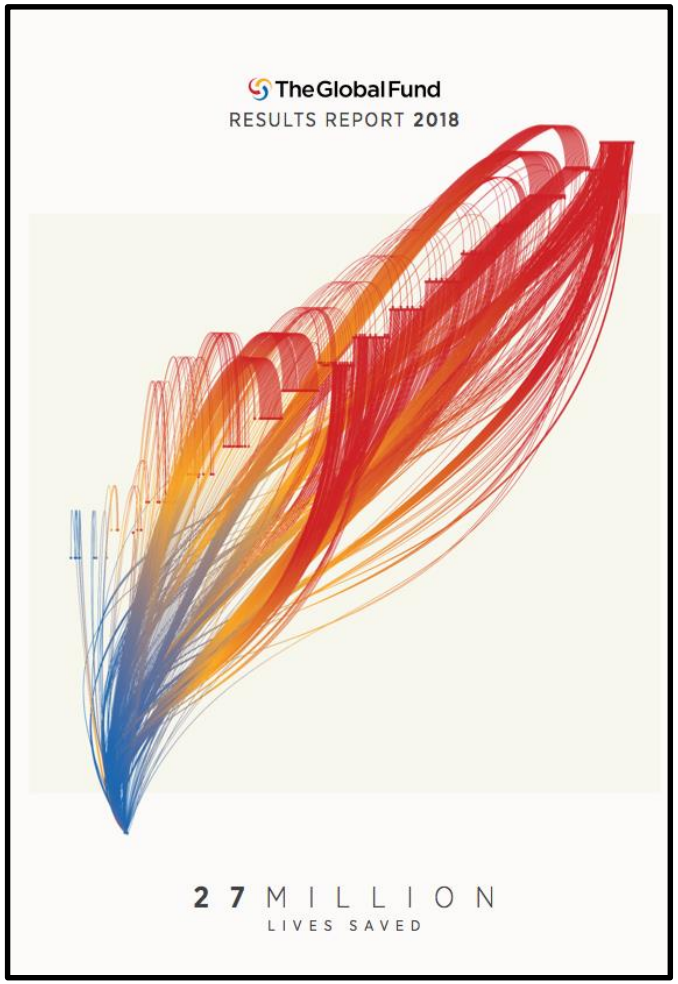
The impact





Source: UNAIDS/WHO estimates.

World Health Organization



The Global Fund
RESULTS 2018

17.5 MILLION PEOPLE ON ANTIRETROVIRAL THERAPY FOR HIV

79.1 MILLION HIV TESTS TAKEN

9.4 MILLION PEOPLE REACHED WITH HIV PREVENTION PROGRAMS & SERVICES

27 MILLION LIVES SAVED

5 MILLION PEOPLE WITH TB TREATED

102 THOUSAND PEOPLE WITH DRUG-RESISTANT TB ON TREATMENT

197 MILLION MOSQUITO NETS DISTRIBUTED

108 MILLION CASES OF MALARIA TREATED

US$ **4.2 BILLION** GLOBAL FUND GRANTS DISBURSED

US$ **205 MILLION** SAVINGS GENERATED BY POOLED PROCUREMENT

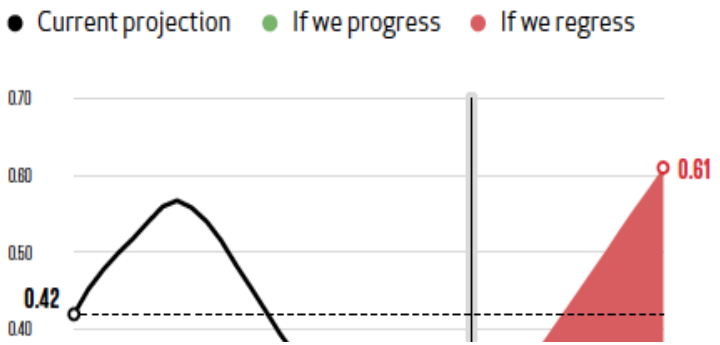
Lives saved are cumulative since 2002. All other results were achieved in 2017 in countries where the Global Fund invests.

World Health Organization

HIV

New cases of HIV per 1,000 people

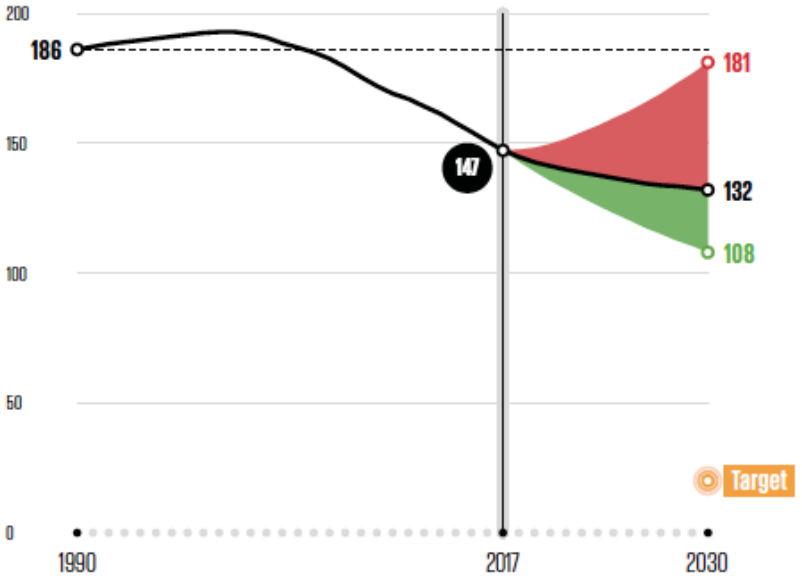
HIV treatment helps prevent new infections. An important step toward universal treatment is making sure that people liv[illegible] their status. Currently, only 7[illegible] Studies from around the worl[illegible] people, especially those who [illegible] and at risk, prefer self-testin[illegible] testing. So far, approximately [illegible] self-testing policies. If that n[illegible] the number of new infections



TUBERCULOSIS

New cases of tuberculosis per 100,000 people

India has more TB cases than any other country in the world. The Government of India has responded by tripling its domestic funding to fight the disease and launching a plan to eliminate it by 2025, five years ahead of the Global Goals schedule. India's national plan includes commitments to dramatically increase the number of people tested and successfully treated, especially by focusing on patients who seek care in the private sector.



SDG Target: End the epidemics of AIDS, tuberculosis, malaria, and neglected tropical diseases. Target shown on chart has been extrapolated from Stop TB Partnership target of <20 cases per 100,000 in 2030.

L’agenda 2030: gli obiettivi per un mondo migliore

3 GOOD HEALTH AND WELL-BEING

SDG 3 - TARGETS

TARGET 3·1

REDUCE MATERNAL MORTALITY

TARGET 3·2

END ALL PREVENTABLE DEATHS UNDER 5 YEARS OF AGE

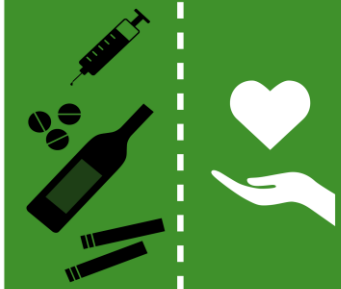
TARGET 3·3

FIGHT COMMUNICABLE DISEASES

TARGET 3·4

REDUCE MORTALITY FROM NON-COMMUNICABLE DISEASES AND PROMOTE MENTAL HEALTH

TARGET 3·5



PREVENT AND TREAT SUBSTANCE ABUSE

TARGET 3·6

REDUCE ROAD INJURIES AND DEATHS

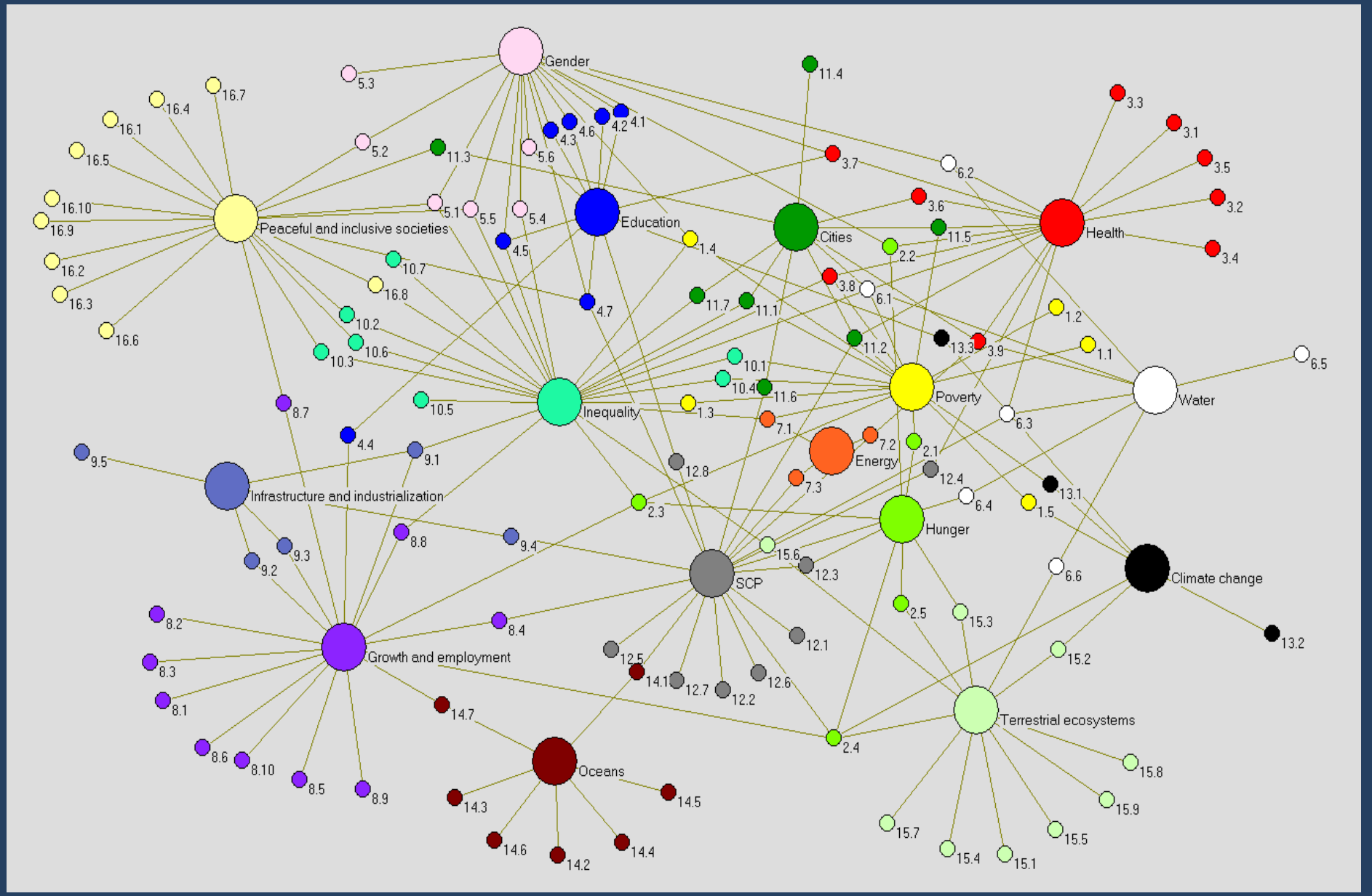
TARGET 3·7

UNIVERSAL ACCESS TO SEXUAL AND REPRODUCTIVE CARE, FAMILY PLANNING AND EDUCATION

TARGET 3·C

INCREASE HEALTH FINANCING AND SUPPORT HEALTH WORKFORCE IN DEVELOPING COUNTRIES

I Sustainable Development Goals sono interconnessi



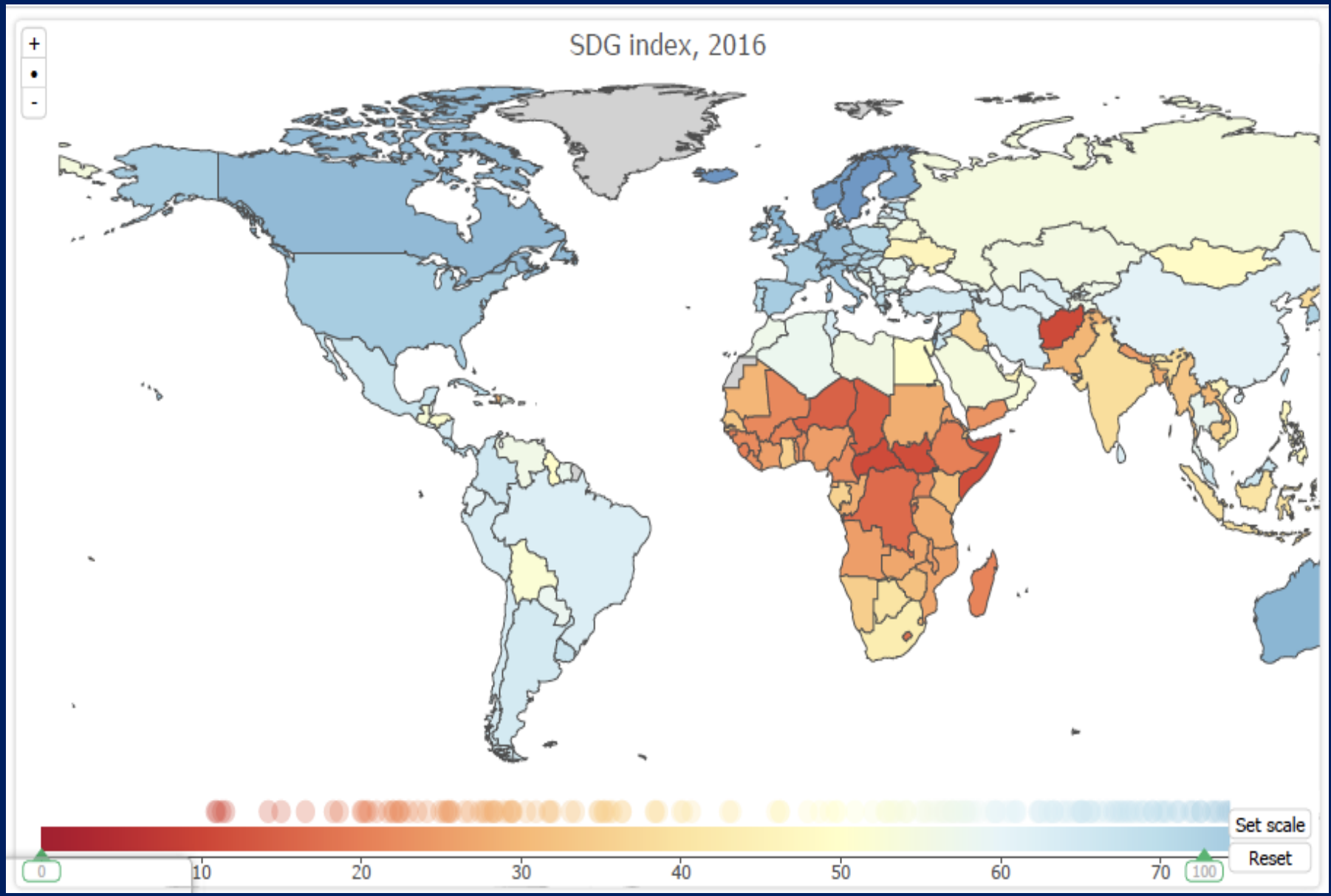
HEALTH IN THE SDG ERA

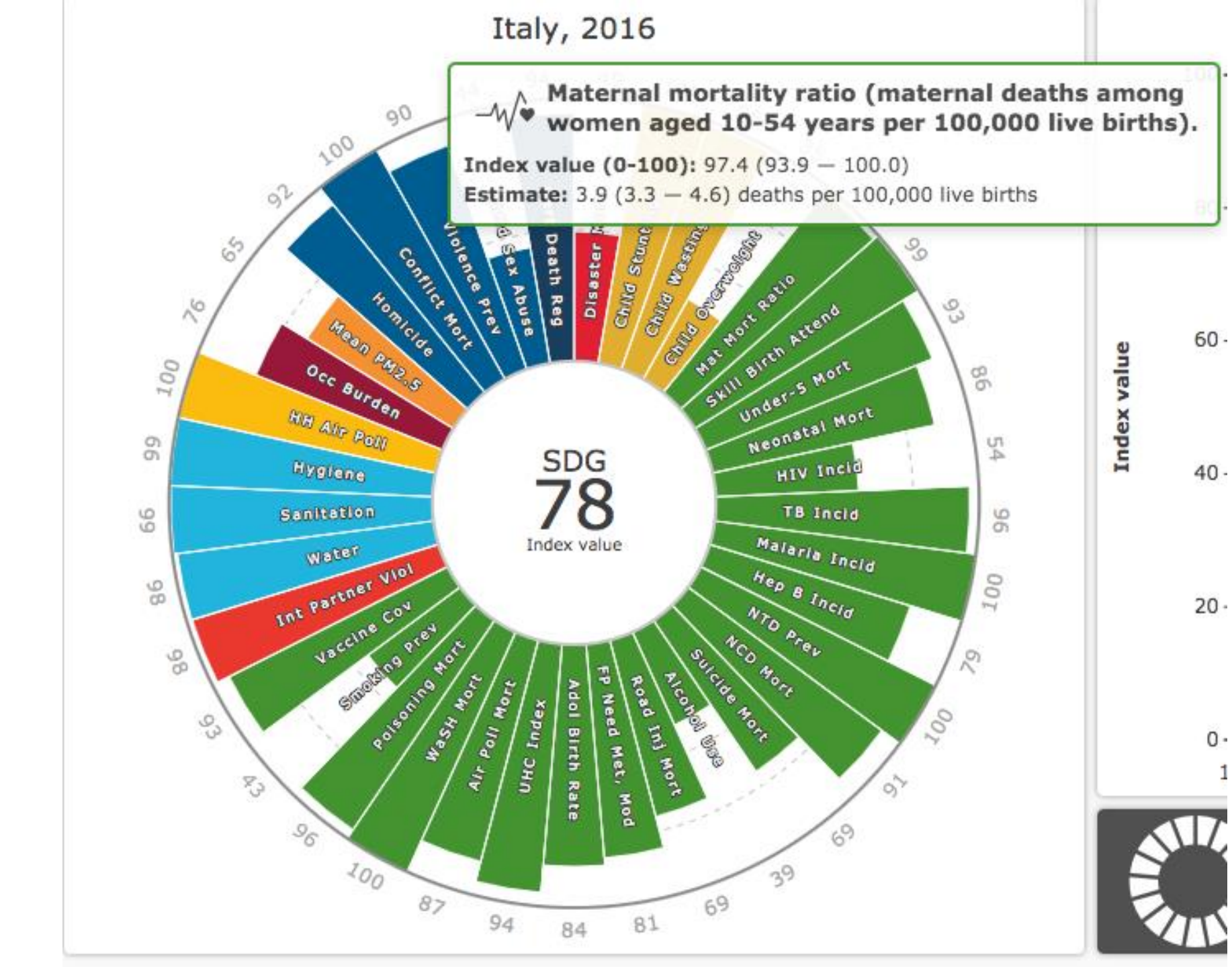
World Health Organization

WWW.WHO.INT/SDGS

SUSTAINABLE DEVELOPMENT GOALS

Monitoring SDGs targets




Italy, 2016
Maternal mortality ratio (maternal deaths among women aged 10-54 years per 100,000 live births).
Index value (0-100): 97.4 (93.9 — 100.0)
Estimate: 3.9 (3.3 — 4.6) deaths per 100,000 live births
SDG
78
Index value
Violence Prev
Sex Abuse
Death Reg
Disaster
Child Stunt
Child Wastin
Child Overweight
Mat Mort Ratio
Skill Birth Attend
Under-5 Mort
Neonatal Mort
HIV Incid
TB Incid
Malaria Incid
Hep B Incid
NTD Prev
NCD Mort
Suicide Mort
Alcohol Use
Road Inj Mort
FP Need Met, Mod
Adol Birth Rate
UHC Index
Air Poll Mort
WaSH Mort
Poisoning Mort
Smoking Prev
Vaccine Cov
Int Partner Viol
Water
Sanitation
Hygiene
HH Air Poll
Occ Burden
Mean PM2.5
Homicide
Conflict Mort
Index value
60
40
20
0

IHME | GHDx | Viz Hub

Health-related SDGs | Viz Hub

Visualizations ▾ | Help ▾ | Share | Download

View Country | Map | Scatter | Line

Health-related index SDG | MDG | Non-MDG

Uncertainty Off

Lock scale Off

Location Nigeria

Indicator 3.1.1: Maternal mortality ratio

Year 2016

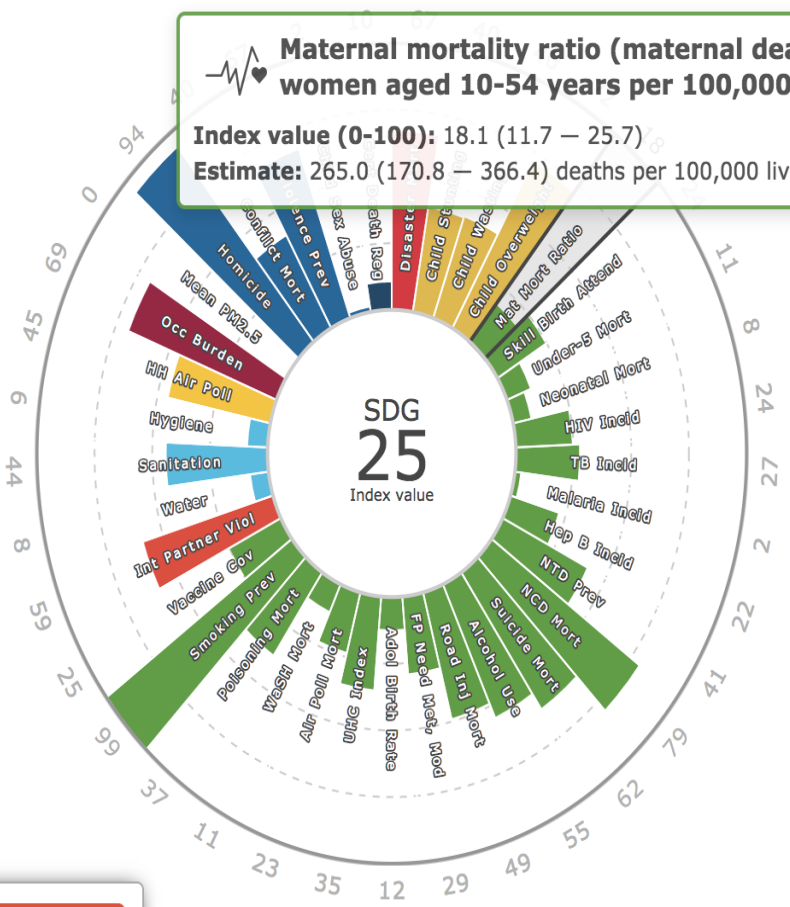
Labels On

Nigeria, 2016

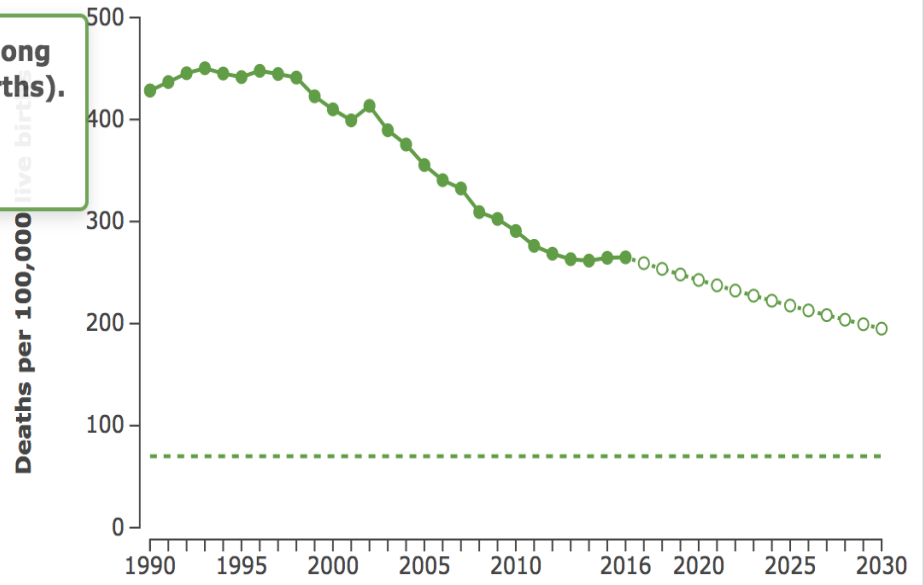
Maternal mortality ratio (maternal deaths among women aged 10-54 years per 100,000 live births).

Index value (0-100): 18.1 (11.7 — 25.7)

Estimate: 265.0 (170.8 — 366.4) deaths per 100,000 live births



Maternal mortality ratio, Nigeria



Indicator 3.1.1: Maternal mortality ratio (maternal deaths among women aged 10-54 years per 100,000 live births).

Target 3.1: By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births.

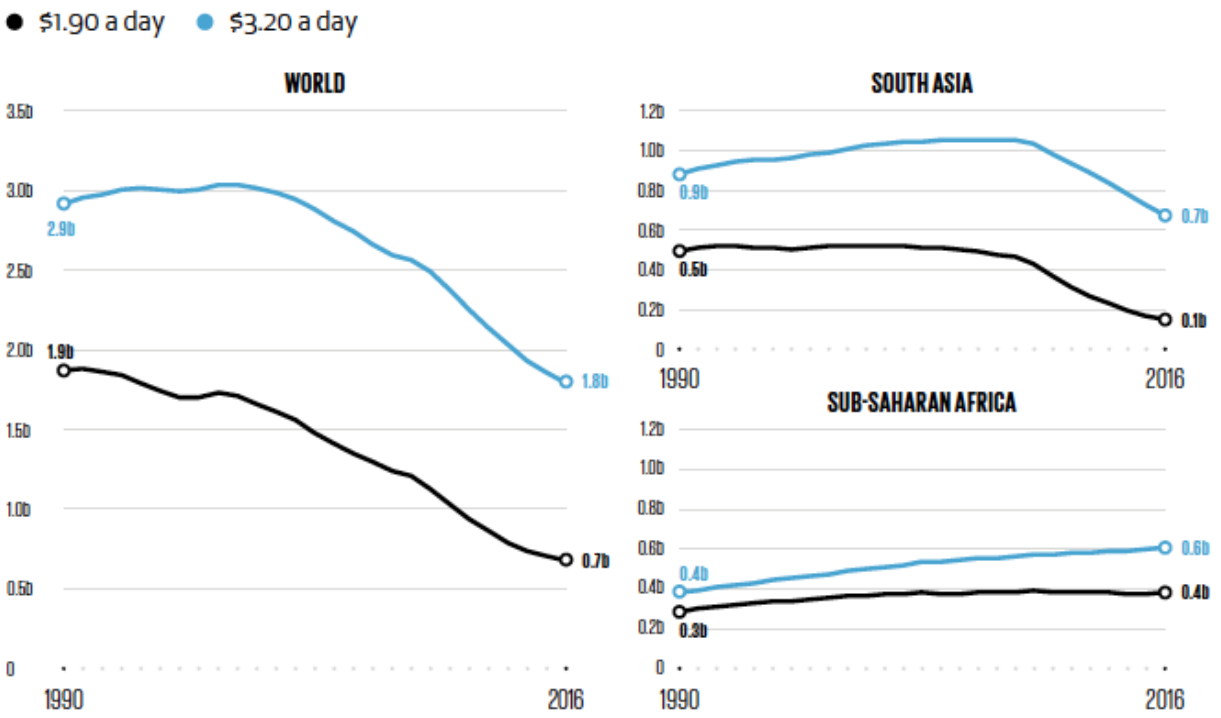
Goal 3: Ensure healthy lives and promote well-being for all at all ages.

BILL & MELINDA GATES foundation

GOALKEEPERS

POVERTY

NUMBER OF PEOPLE LIVING AT DIFFERENT POVERTY THRESHOLDS



SDG Target: Eradicate extreme poverty for all people everywhere.

500 million people worldwide lack health care including access to essential medicines, vaccines, diagnostics, medical devices, and health technologies that prevent and treat diseases

Access to medicines: lessons from the HIV response

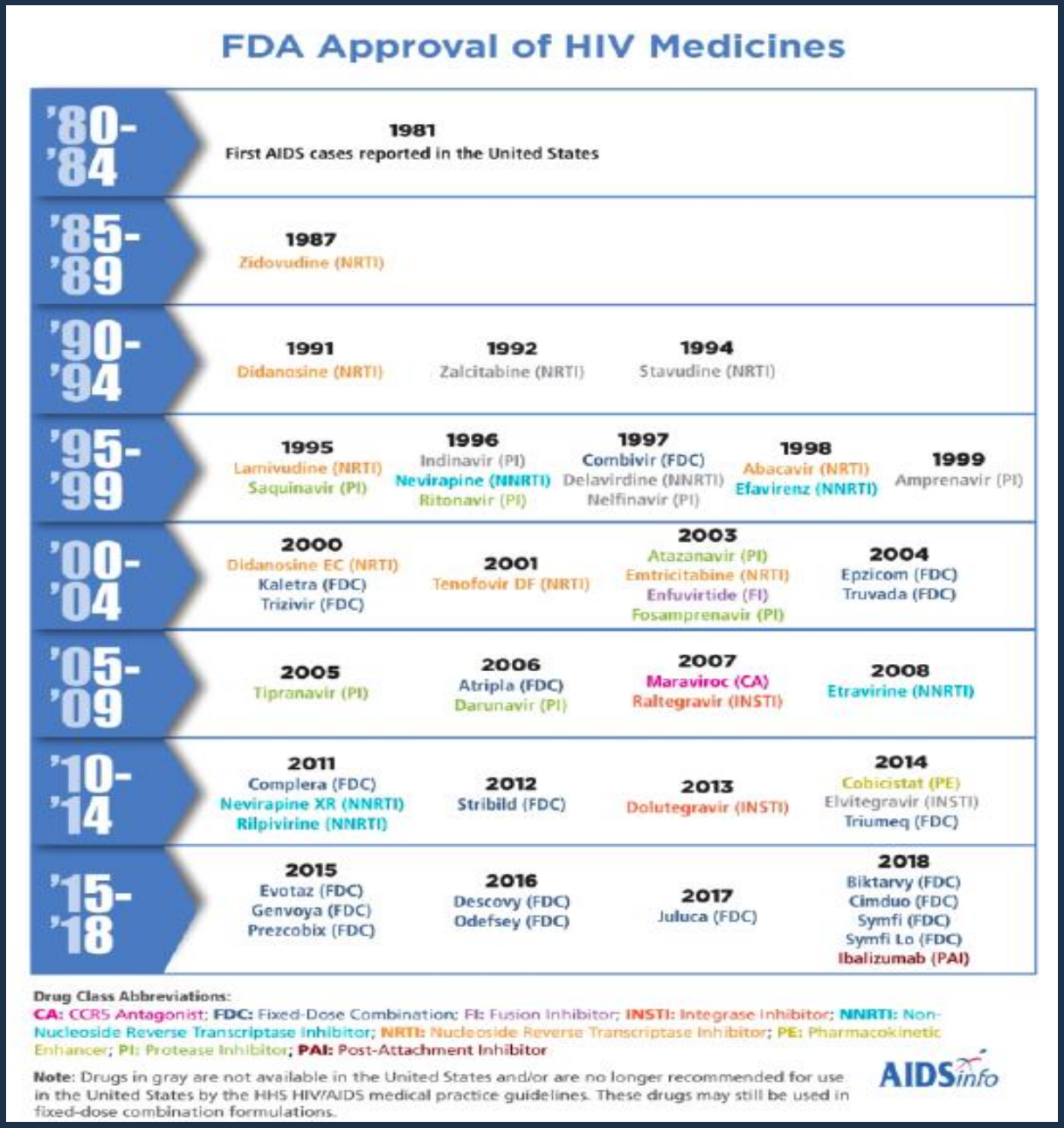
Just two decades ago, HIV/AIDS treatments were prohibitively expensive and accessible in only a few affluent countries. But remarkable reductions in costs have enabled treatment expansion that has reduced mortality and transmission. Today, first-line HIV drugs cost less than US$100 per person per year, a 99% reduction from more than $10 000 in 2000. The number of people receiving HIV treatment doubled in just 5 years, from 9 million in 2011 to more than 18 million today.[1]

In a world facing growing inequalities, the HIV response has lessons for low and middle-income countries (LMIC)—but also for high-income countries—on access to care and treatment for communicable diseases and for non-communicable chronic diseases, a global pandemic that dwarfs the HIV epidemic in scale.[2]

The transformative power of the HIV response was underpinned by moral rather than technical arguments. A unique coalition of activists, scientists, celebrities, and religious and community leaders from all over the world argued that no one should be denied life-saving treatment because of area of residence or income. The moral imperative was operationalised by activism for more urgent drug discovery, regulatory approval, and voluntary and compulsory licensing, followed by shifts towards large-scale generic production. Economies of scale underpinned a drive towards more efficient, cheaper production, and drove prices down. Major donors such as the Global Fund to Fight AIDS, Tuberculosis, and Malaria and the US President's Emergency Plan for AIDS Relief bought generic drugs. The Clinton Health Access Initiative negotiated price-volume discounts

Vella S, Wilson D. Access to medicines: lessons from the HIV response. Lancet HIV. 2017 Apr;4(4):e147-e149. doi: 10.1016/S2352-3018(17)30052-8.

HIV PHARMACEUTICAL INNOVATION



WORLD TRADE ORGANIZATION

WT/MIN(01)/DEC/1
20 November 2001

(01-5859)

MINISTERIAL CONFERENCE
Fourth Session
Doha, 9 - 14 November 2001

MINISTERIAL DECLARATION

Adopted on 14 November 2001

- **"Each member has the right to grant compulsory licences and the freedom to determine the grounds upon which such licences are granted" and**
- **"to determine what constitutes a national emergency or other circumstances of extreme urgency".**

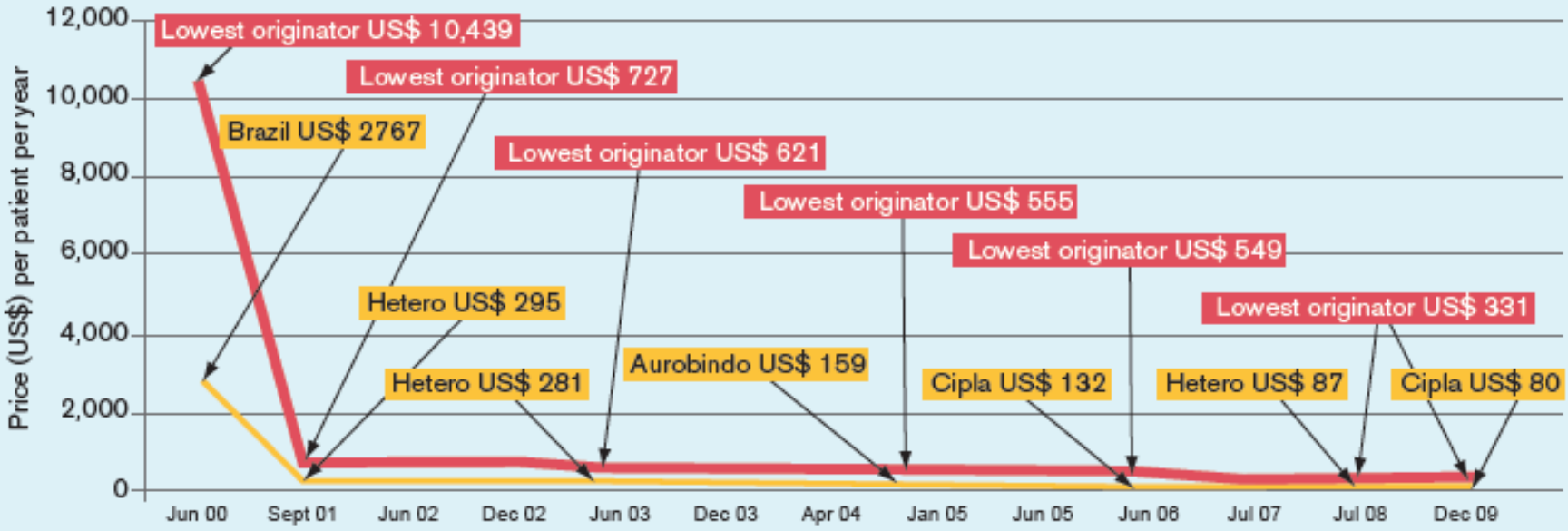
- **Public health crises include "those relating to HIV/AIDS, tuberculosis, malaria and other epidemics" and "other circumstances of extreme urgency".**

HIV DRUG PRICING INNOVATION

Box 4: Access to medicines and the Doha Declaration on TRIPS and Public Health

Measuring access to medicines is a complex task, but price is one key factor among others. The Doha Declaration on TRIPS and Public Health recognized concerns about effects on prices while noting the need for innovation. Since the Declaration was adopted in 2001, prices for many treatments have fallen significantly, in part due to generic competition and tiered pricing schemes (see graph below). Surveys also show a marked increase in the use of TRIPS flexibilities to promote access to medicines.

Falling prices of first-line combinations of some first-line anti-retroviral therapies for HIV-AIDS since 2000



Source: Extract from MSF, *Untangling the Web of Price Reductions*, January 2010 at http://www.msfaccess.org.

Cost Considerations and Antiretroviral Therapy

Last Updated: October 17, 2017; Last Reviewed: October 17, 2017

Coformulated Combination Products as Single Tablet Regimens				
Dolutegravir/Abacavir/Lamivudine	50/600/300 mg tablet	1 tablet daily	30 tablets	$3,118.62
Efavirenz/Tenofovir Disoproxil Fumarate/Emtricitabine	600/300/200 mg tablet	1 tablet daily	30 tablets	$3,057.89
Elvitegravir/Cobicistat/Tenofovir Alafenamide/Emtricitabine	150/150/10/200 mg tablet	1 tablet daily	30 tablets	$3,306.92

The regimen which contains DTG (dolutegravir)

is becoming extensively available in LMIC countries

for about 1/100 of the current price – around US $75 per person per year.

UNITED NATIONS SECRETARY-GENERAL'S HIGH-LEVEL PANEL ON ACCESS TO MEDICINES

Promoting Innovation and Access

medicines • vaccines • diagnostics • health technologies

A New Deal to Close the Gap in Health Innovation and Access

The rising costs of health technologies and the lack of new tools to tackle health problems like disease outbreaks and antimicrobial resistance is a growing problem. Catalyzing innovation, especially for rare diseases, diseases of the poor, and the development of new antibiotics has proven very difficult without market incentives.

The twin challenges of innovation and access constrain health outcomes and hinder social and economic development in rich and poor countries.

The Imbalance Between Human Rights, Intellectual Property Rights and Public Health Objectives is Leaving People Behind

Public-Private Partnerships and Product Development Partnerships (PDPs)

Sharing the resources and strengths of the private and public sectors can accelerate innovation and allow investments to be made in health technologies that may lack a clear market incentive.

Gavi
The Vaccine Alliance

THE STOP TB PARTNERSHIP
Leading the fight against TB

MMV
Medicines for Malaria Venture

DNDi
Drugs for Neglected Diseases *initiative*

TARGET 3.8

ACHIEVE UNIVERSAL HEALTH COVERAGE

WORLD HEALTH DAY ADVOCACY TOOLKIT

HEALTH FOR ALL

UNIVERSAL HEALTH COVERAGE: EVERYONE, EVERYWHERE

> “Health is a human right. No one should get sick and die just because they are poor, or because they cannot access the health services they need.”
>
> Dr Tedros Adhanom Ghebreyesus, WHO Director-General

World Health Organization

Universal Health Coverage (UHC)

means that **ALL PEOPLE** can obtain the quality health services they need without suffering financial hardship.

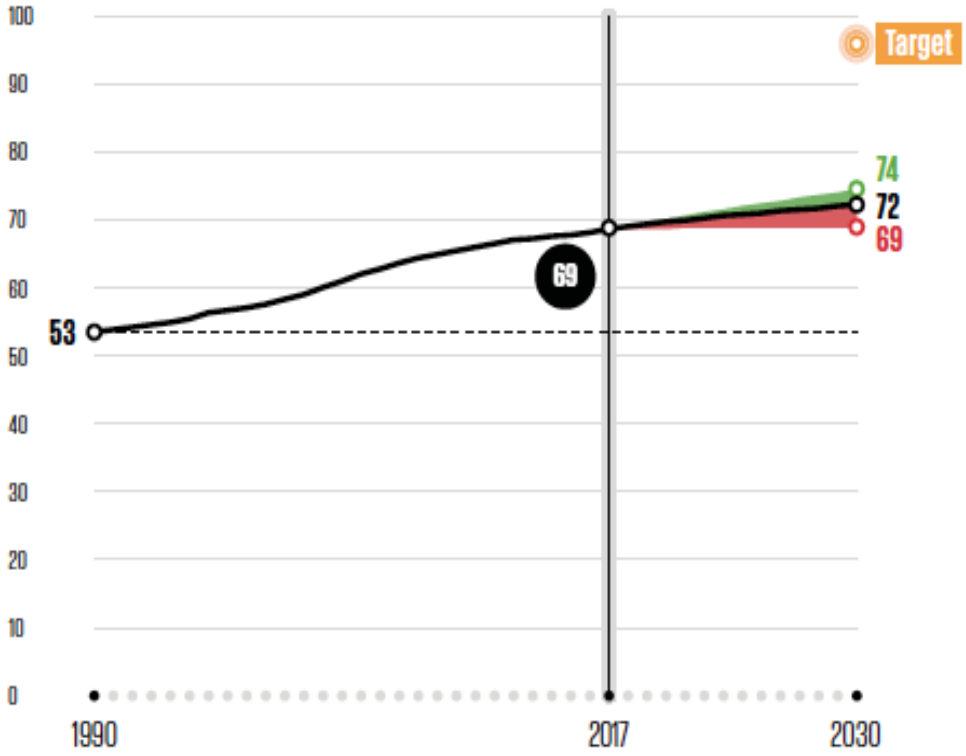
BILL & MELINDA GATES foundation

GOALKEEPERS

UNIVERSAL HEALTH COVERAGE

Performance score for coverage of essential health services

Last year, WHO made universal health coverage its top priority. Investing in primary health care, which can meet 90 percent of people's health needs, is the place to start. In fact, countries' performance on most indicators in this report depends on strong primary health care systems. The WHO director-general called it "the responsibility of every country … to pursue universal coverage." The shape of this curve over time will reveal how governments responded to this challenge.



SDG Target: Achieve universal health coverage for all.

The Challenge of Financing Universal Health Coverage: competing with emerging priorities

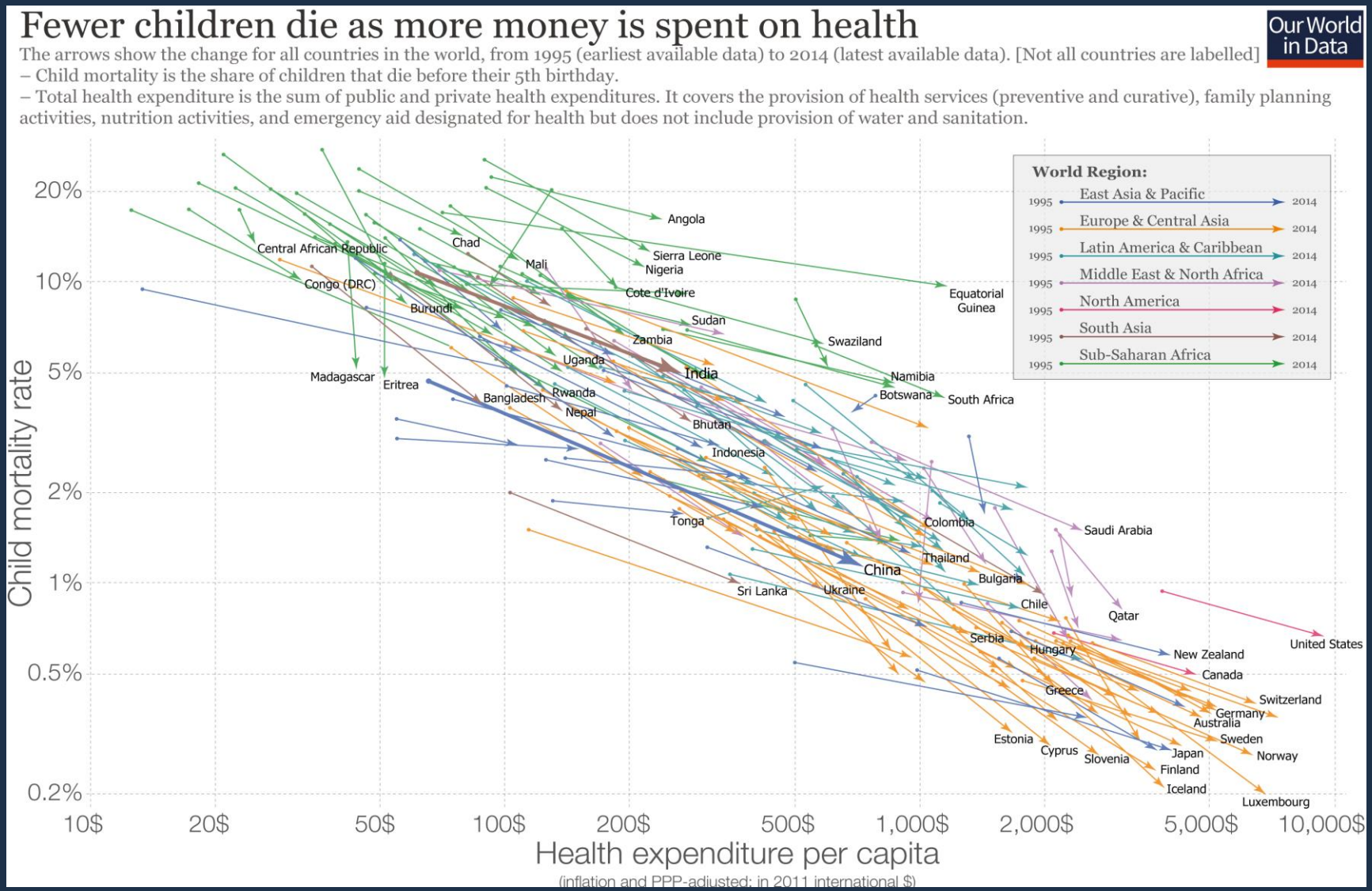
financial crisis,

conflict situations,

migration, security,

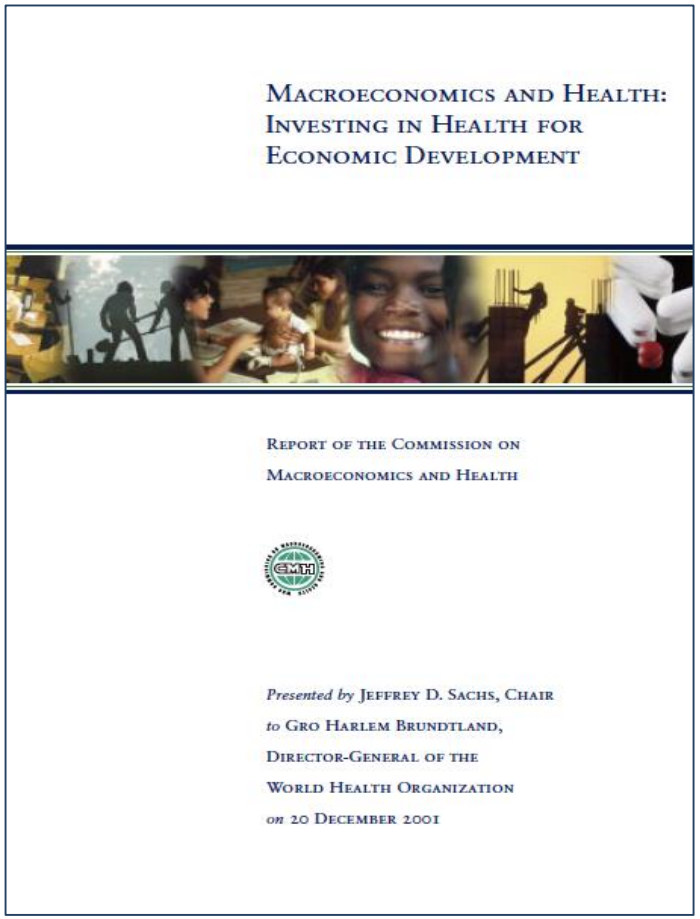
natural and human-made disasters

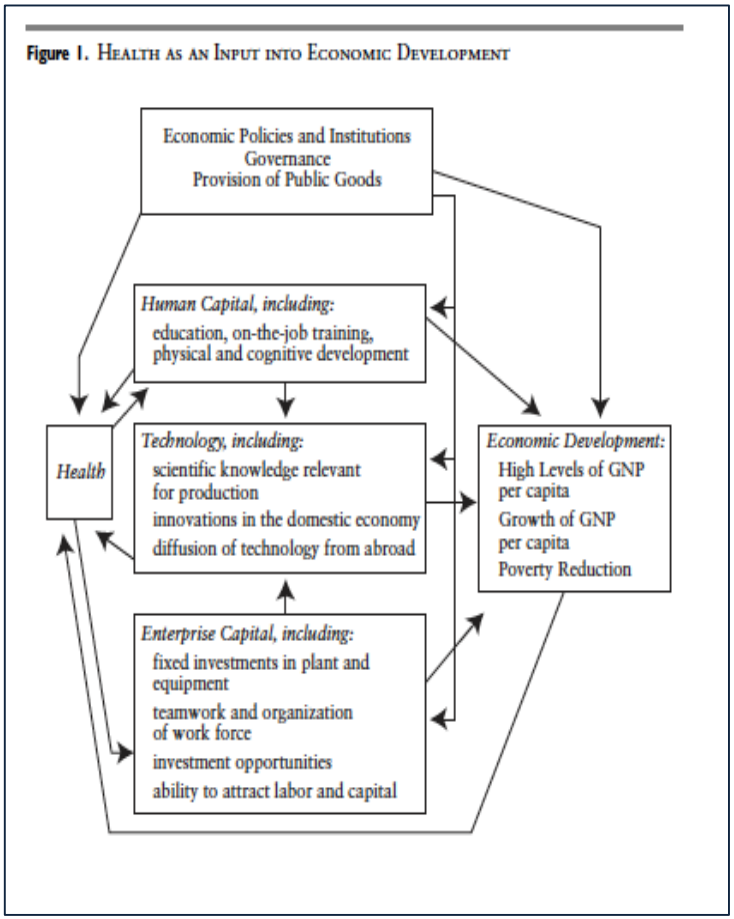
Investing in Health is very cost-effective



La salute non è soltanto un diritto fondamentale di ogni uomo che viva su questa terra,

ma è anche uno straordinario motore di sviluppo





Allora, cos’e’ la Salute Globale

- è un’area di ricerca e azione che si occupa di lottare contro le diseguaglianze di salute
- è intersettoriale: si occupa degli aspetti biomedici, ma anche di quelli economici, sociali e politici
- se ne occupa a livello globale, perché in un mondo così interconnesso, è ingenuo pensare alla salute come un problema di «casa nostra»
- perché la salute di tutti i popoli della terra è anche la «nostra» salute, ed è uno straordinario strumento di sviluppo, stabilità e di pace

The concept of “public good”

non exclusive: anyone can use them

non competitive: their use will not limit others to use them

The concept of “public good”

Progress of medicine and essential medicines shall be considered as global public goods and be accessible to all human beings living on our planet

Grazie

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ISTITUTO SUPERIORE DI SANITÀ

CENTRO NAZIONALE PER LA **SALUTE GLOBALE**
ITALIAN CENTER FOR GLOBAL HEALTH