GlobalHealth Lab

class 3 **Global Health Overview**

Spring 2013

Anjali Sastry
and colleagues

Readings assigned for today

Berwick, Donald M. 2002. "A User's Manual for the IOM's 'Quality Chasm' Report." *Health Affairs*, 21(3): 80-90.

The IWG Taskforce on Sustainable Business Models. Circa 2012. "Fostering Healthy Businesses: Delivering Innovations in Maternal and Child Health." *Innovation Working Group report*. (41 pages.)

Optional

Walraven, Gijs, Semira Manaseki-Holland, Abid Hussain, and John B. Tomaro. 2009. "Improving Maternal and Child Health In Difficult Environments: The Case for 'Cross-Border' Health Care." *PloS Medicine* 6 (1), January: 17-21. [web]

International Initiative for Impact Evaluation. 2010. "Access to health: How to reduce child and maternal mortality?" *Enduring Questions Brief* 14, June. (3 pages.)

Nieburg, Phillip. 2012. "Improving Maternal Mortality and Other Aspects of Women's Health." *Report of the Center for Strategic and International Studies Global Health Policy Center*. October. (21 pages.) [web]

Plan for today

- Quick notes
  - Meet Elli Suzuki
  - Deborah Hsieh
- Global health overview
  - Core facts
  - Maternal health challenges
- Coming up:
  - Draft workplan Friday
  - Mentor Meetings: intro/kickoff this week; workplans next
  - WedUp tomorrow
  - Tomorrow lunch session
  - Visa, shots, destination: all clear?
    Ticket purchase instructions to come
  - Our first case on Thursday
  - No class next Tuesday

what is global health?

Global health takes on health problems that cross national boundaries. Traditionally the focus has been on those health issues that impose the greatest burden in resource-limited settings. This has shifted. To address the challenges, the field now encompasses a broad range of disciplines. Proponents have argued that it should account for "cultural identities, political organizations, transnational corporations, civil society movements and academic institutions" (Frenk 2010), along with populations.

Recent reframings of global health place interdependence at the center. If the origins and effects of many of today's biggest health problems cross national borders, then global health should be less concerned with geographical location or stage of development, and more concerned with the ways in which health issues are interconnected. This new definition of global health thus aligns with calls for multilateral collaboration and learning that flow both ways across state, sector, and socioeconomic boundaries, and for recognizing "the many contributions of both resource-rich and resource-scarce nations" (Fried et al, 10). In fact, some argue that global health is (or should be) "collaborative trans-national research and action for promoting health for all" (Beaglehole & Bonita, 10). Others note that acknowledging interrelationships requires equity to factor into solutions (Frenk, 10; Piot & Garnett, 10).

Source: Sastry 2011

Themes that we may discuss; return/set aside for later, too—these are big things!

- Human rights: is health a right? How then to deliver?
- Democracy, governance, accountability—are these deeper-level challenges to address
- Self-interest angle: XDR TB can move anywhere, fast
- "smart diplomacy"
- Mention Alma-Aty declaration

Global health quick quiz

- What are the leading causes of death in the developed world? In the developing world?
- What is the life expectancy at birth for someone born in the US? Japan? Mali? South Africa? India?
- What diseases or health conditions impose the biggest burden in the developed world? In low-income countries?
- What are the biggest health risks for people in each setting?
- What is your chance of dying in childbirth in Boston? In Burundi? In Austria?
- How much money flows per year to developing countries as direct assistance for health?
- How many doctors per 1000 people are there in Massachusetts? In Malawi?
- How does Malawi's gross national income per capita compare with US health spending per capita?
- How much does McKinsey take in for its global health consulting?

Map removed due to copyright restrictions.
Source: World Health Statistics 2001
World Health Organization (WHO).

IMPLEMENTATION GAP

The persistence of huge health and other disparities gave rise to the millenium development goals

Goals from the UN Millennium Declaration

Goal 1: Eradicate extreme hunger and poverty

Goal 2: Achieve universal primary education

Goal 3: Promote gender equality and empower women

Goal 4: Reduce child mortality

Goal 5: Improve maternal health

Goal 6: Combat HIV/AIDS, malaria, and other diseases

Goal 7: Ensure environmental sustainability

Goal 8: Develop a global partnership for development

See http://www.un.org/millenniumgoals/pdf/(2011_E)%20MDG%20Report%202011_Book%20LR.pdf

WHY HAS MATERNAL HEALTH IMPROVEMENT PROVEN DIFFICULT?

Offslide discussion on maternal health

Actually many of those same issues plague other aspects of health delivery globally, not just MNCH

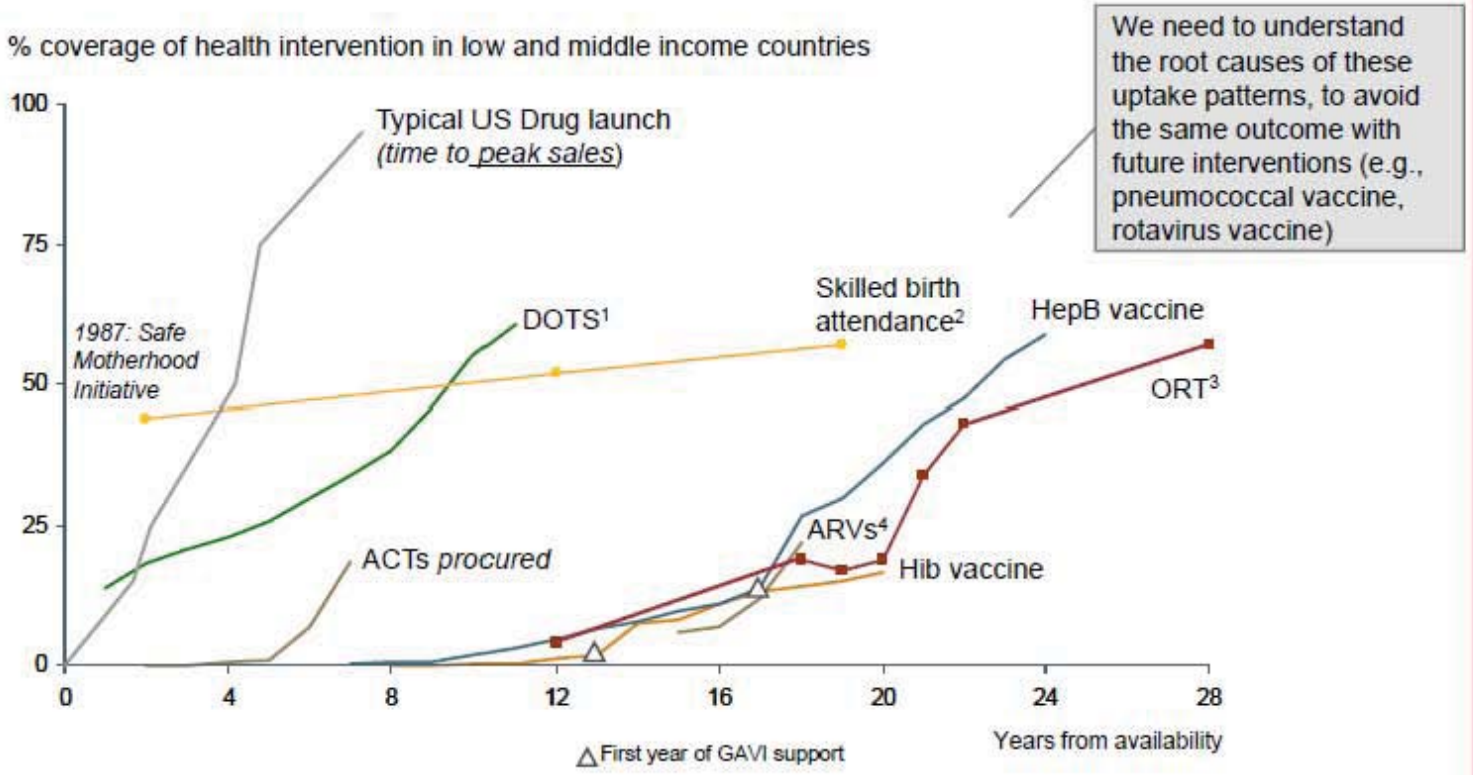
Global health delivery failures

Intervention	Implementation
ARVs for PMTCT ***Reduce HIV transmission by 40%***	9% coverage of women overall and 50% of women who test positive in a clinic are given ARVs for PMTCT
ITNs for Malaria Prevention ***Reduce infant mortality by 23%***	Only 24% of children in endemic areas sleep under nets

Source: GHD Project, Harvard University

Critical health interventions have historically faced slow uptake and low coverage

Gaps in coverage fall disproportionately on the poor, and amplify inequity

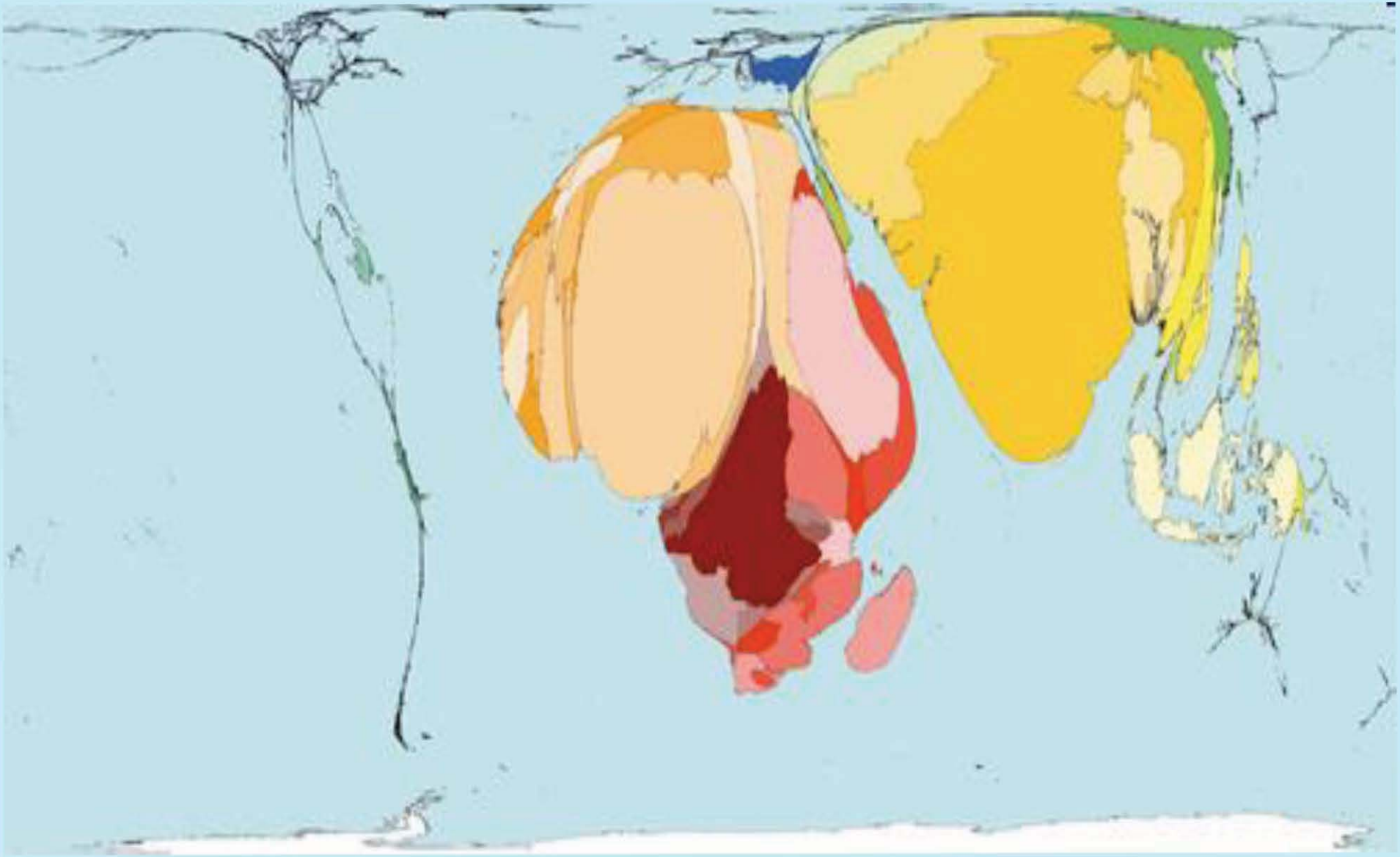


1. DOTS represents a new model to deliver older technologies (drugs), so uptake is faster than completely new interventions 2. Skilled birth attendance is an ancient intervention, but its introduction is measured from 1987, when the Safe Motherhood Initiative was launched. Skilled birth attendance is considerably lower in Sub-Saharan Africa, where it is only 44%.3. Average of 49 countries reporting ORS rates 1999-2005, weighted by population under 15 years old 4. NRTIs were first approved in 1987, which is used as the start date. NNRTIs were approved in 1997 while PIs were approved in 1995. 6 million people are estimated to need ARVs. 5. ACT coverage is overstated as numbers represent only those procured, not those properly administered.
Source: WHO/UNICEF; World Bank; BCG analysis

2008 data, courtesy of the Bill & Melinda Gates Foundation. Used with permission.

Source: Venkayya, Rajiv (Gates Foundation) 2009 *Ensuring health technologies reach those who need them most*, Presentation http://csis.org/files/attachments/090330_venkayya.pdf
For audio and video: http://csis.org/event/rajeev-venkayya-global-health-delivery-systems

Vaccine-Preventable Deaths



worldmapper.org

BURDEN OF DISEASE

Years of Life Lost Due to Premature Mortality by Broad Cause and Country-income Group (2004)

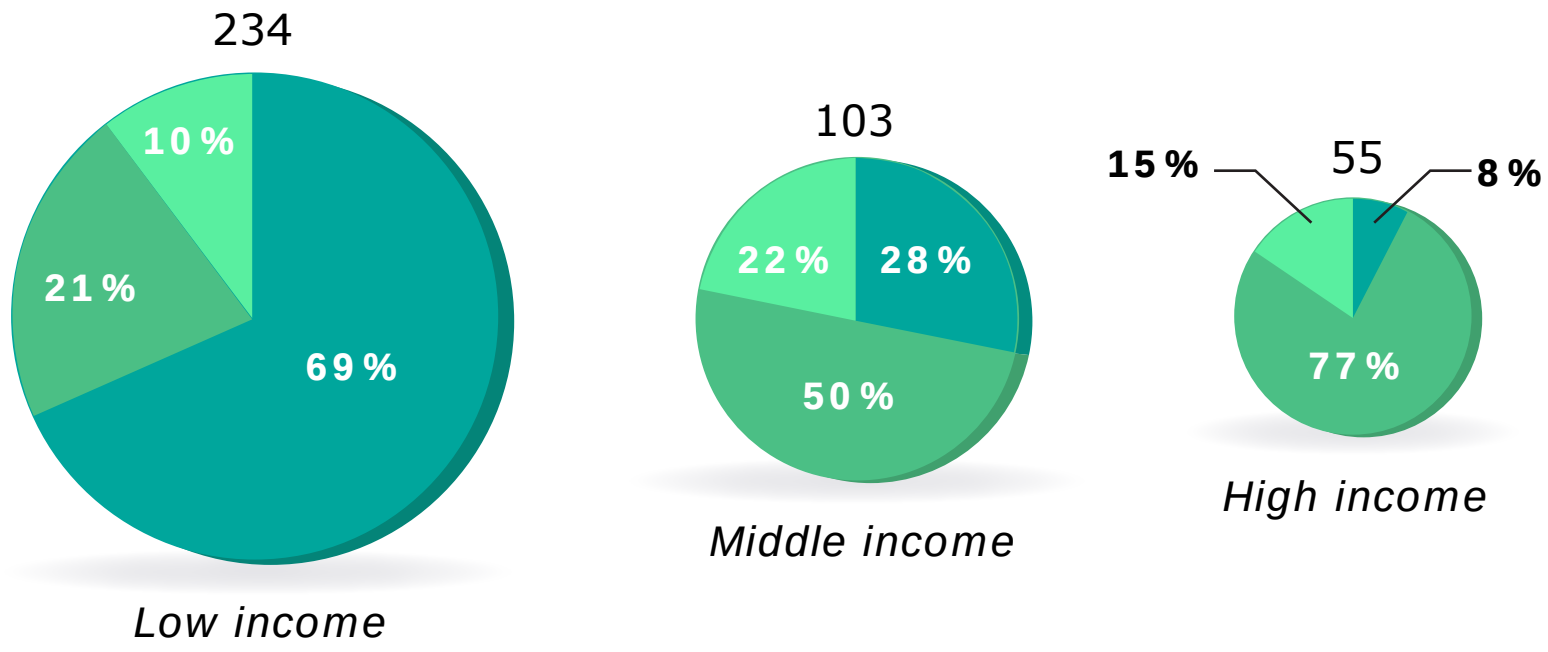


Image by MIT OpenCourseWare.
Source data: World Health Organization. "World Health Statistics 2010." WHO Press, 2011, pg. 60.

Age distribution of burden of disease by country income group, 2004

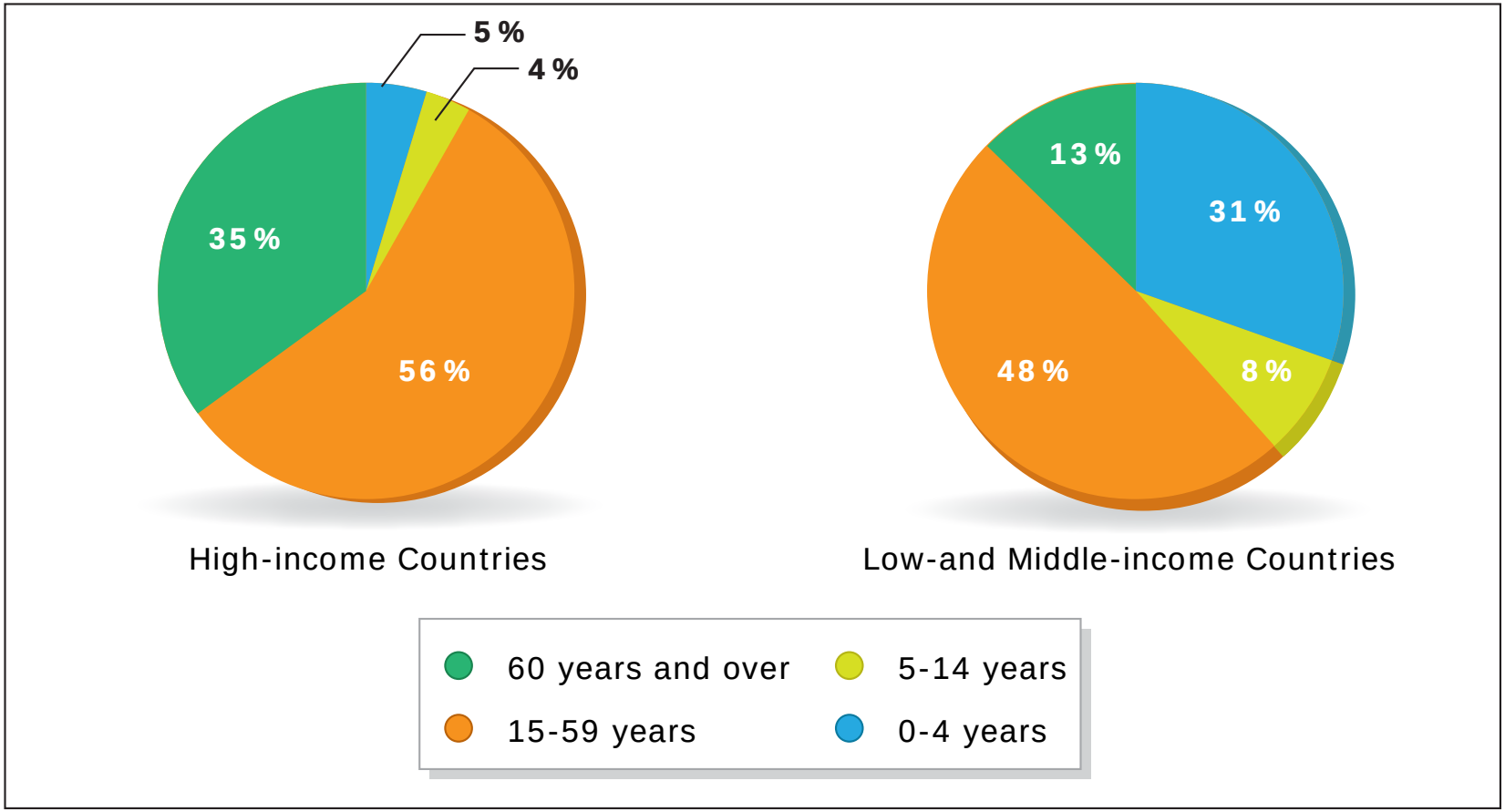
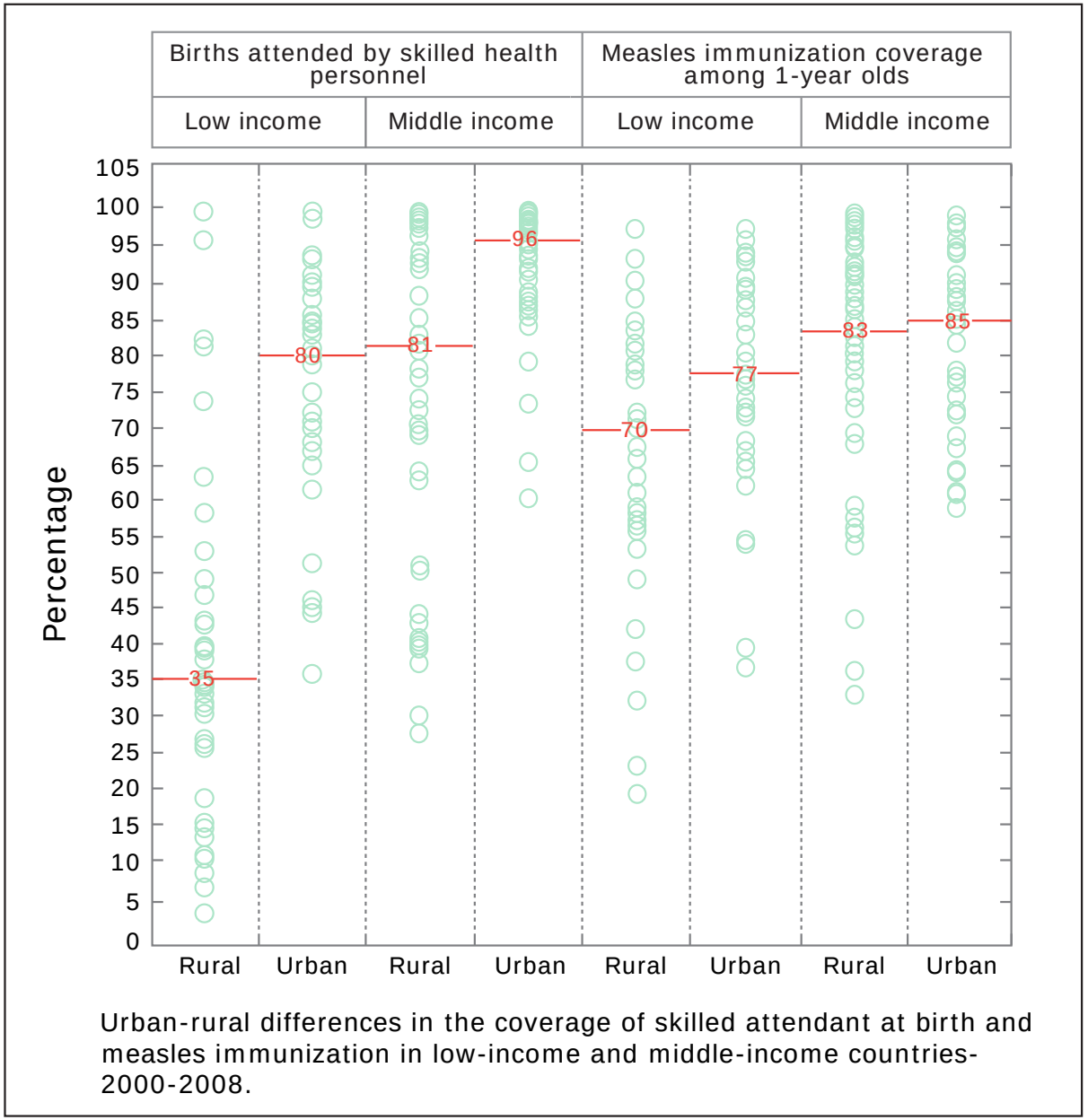


Image by MIT OpenCourseWare.

Source data: World Health Organization. "The Global Burden of Disease, 2004 Update." WHO Press, 2004, pg. 42.
http://www.who.int/healthinfo/global_burden_disease/2004_report_update/en/index.html

Urban-rural differences, 2000-2008



Urban-rural differences in the coverage of skilled attendant at birth and measles immunization in low-income and middle-income countries-2000-2008.

Image by MIT OpenCourseWare.

Source data: World Health Organization. "World Health Statistics 2010." WHO Press, 2011, pg. 142.

WHO, 2010
WORLD HEALTH STATISTICS

Quantifying the Burden of Disease from mortality and morbidity

Text explaining calculation of Disability-Adjusted Life Year (DALY), Years of Life Lost (YLL), and Years Lost due to Disability (YLD) removed due to copyright restrictions. Source: World Health Organization."Metrics: Disability-Adjusted Life Year (DALY)."

Re DALYs:

Global Burden of Disease, Injuries and Risk Factors 2010 Survey

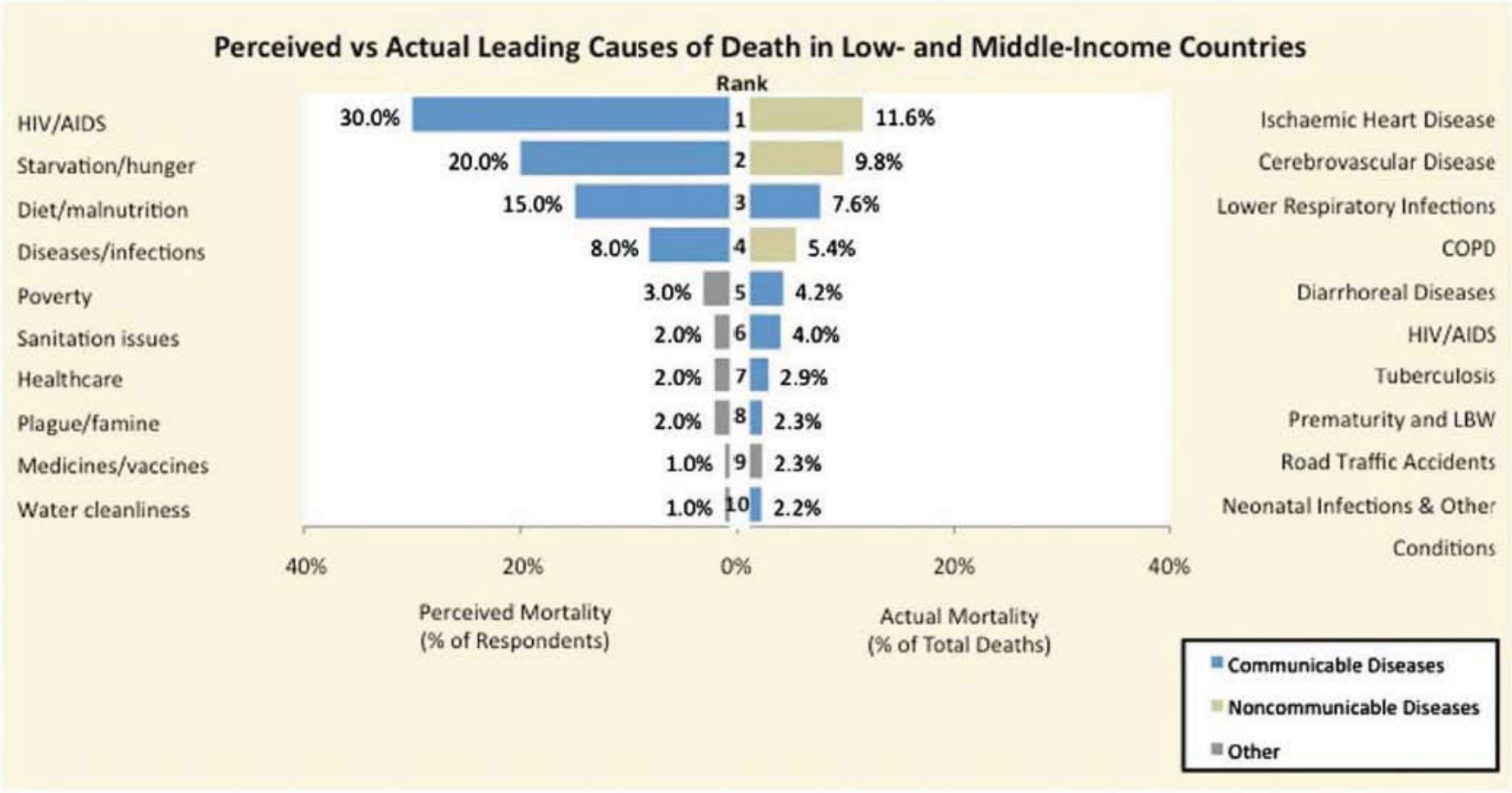
The Global burden of disease, injuries and risk factors study 2010 is revising the disability weights used for DALY calculations and is collecting information through community surveys and an internet survey. Click on the link above to participate in the internet survey.

Leading Causes of Mortality and Burden of Disease (world, 2004)

	Mortality		DALYs	
1	Ischaemic heart disease	12.2	Lower respiratory infections	6.2
2	Cerebrovascular disease	9.7	Diarrhoeal diseases	4.8
3	Lower respiratory infections	7.1	Depression	4.3
4	COPD	5.1	Ischaemic heart disease	4.1
5	Diarrhoeal diseases	3.7	HIV/AIDS	3.8
6	HIV/AIDS	3.5	Cerebrovascular disease	3.1
7	Tuberculosis	2.5	Prematurity, low birth weight	2.9
8	Trachea, bronchus, lung cancers	2.3	Birth asphyxia, birth trauma	2.7
9	Road traffic accidents	2.2	Road traffic accidents	2.7
10	Prematurity, low birth weight	2.0	Neonatal infections and other	2.7

http://www.who.int/entity/healthinfo/global_burden_disease/GBD2004ReportFigures.ppt

Perceptions versus data



Misalignment between perceptions and actual global burden of disease: evidence from the US population, Siegel et al, **Global Health Action** 2011, 4: 6339

HEALTHCARE IS MISSING NEEDED INPUTS

Doctors per person

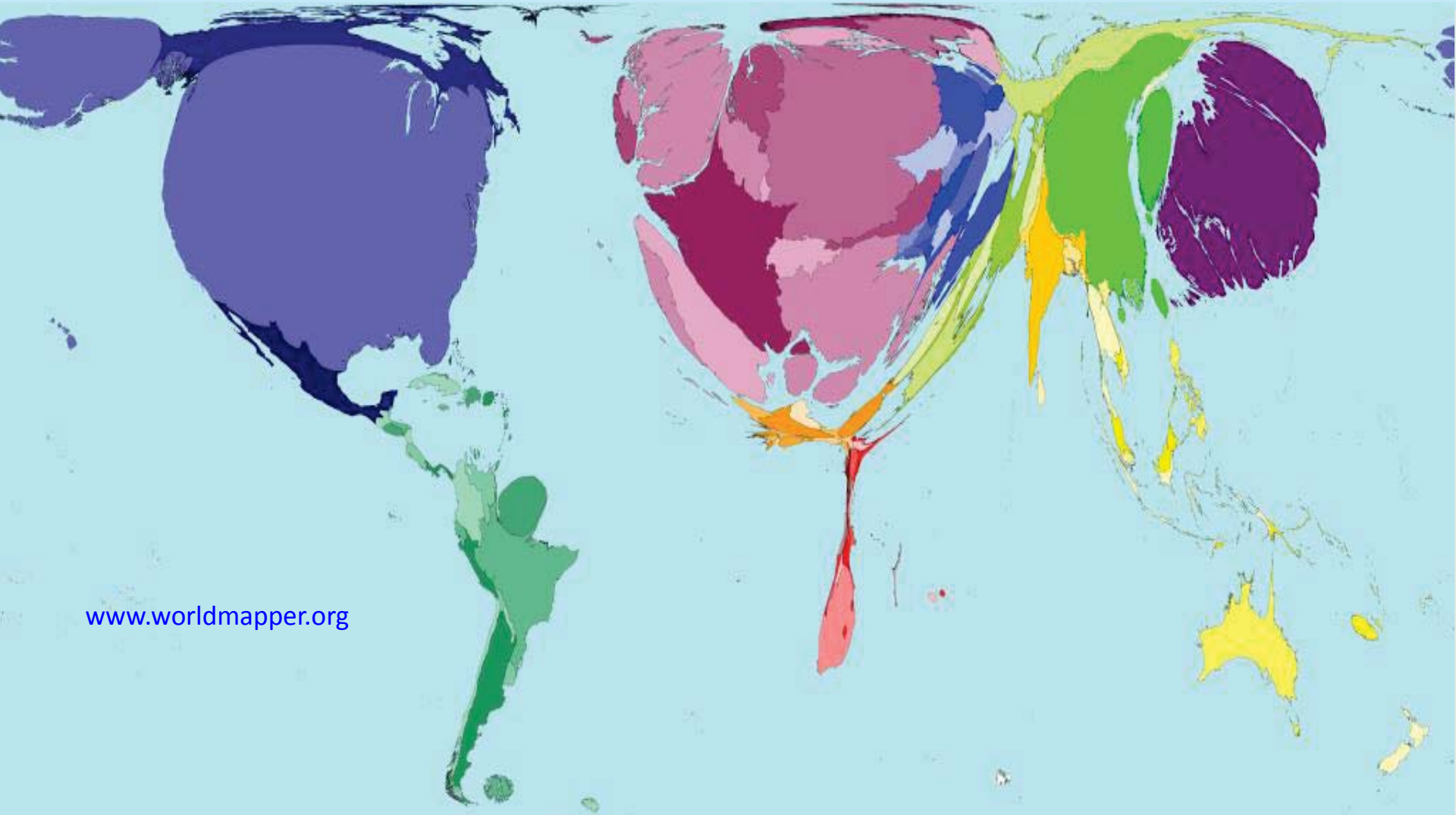
- In Massachusetts? 4.69 (nonfederal) per 1,000
- In Malawi? 0.02

http://www.census.gov/compendia/statab/2011/ranks/rank18.html
Part II. Global health indicator tables and footnotes

Infographic removed due to copyright restrictions.
Source: EuroRSCG Amsterdam, Netherlands.
"Doctors of the World, Netherlands: Perspective."

IS IT ABOUT ECONOMIC INPUTS?

Public Health Spending



www.worldmapper.org

Health Expenditure Per Capita (PPP; International $), 2008

World map depicting health expenditure per capita removed due to copyright restrictions.
Source: Kaiser Family Foundation. "Health Expenditure Per Capita (PPP; International $)."

Total Health Expenditure per Capita

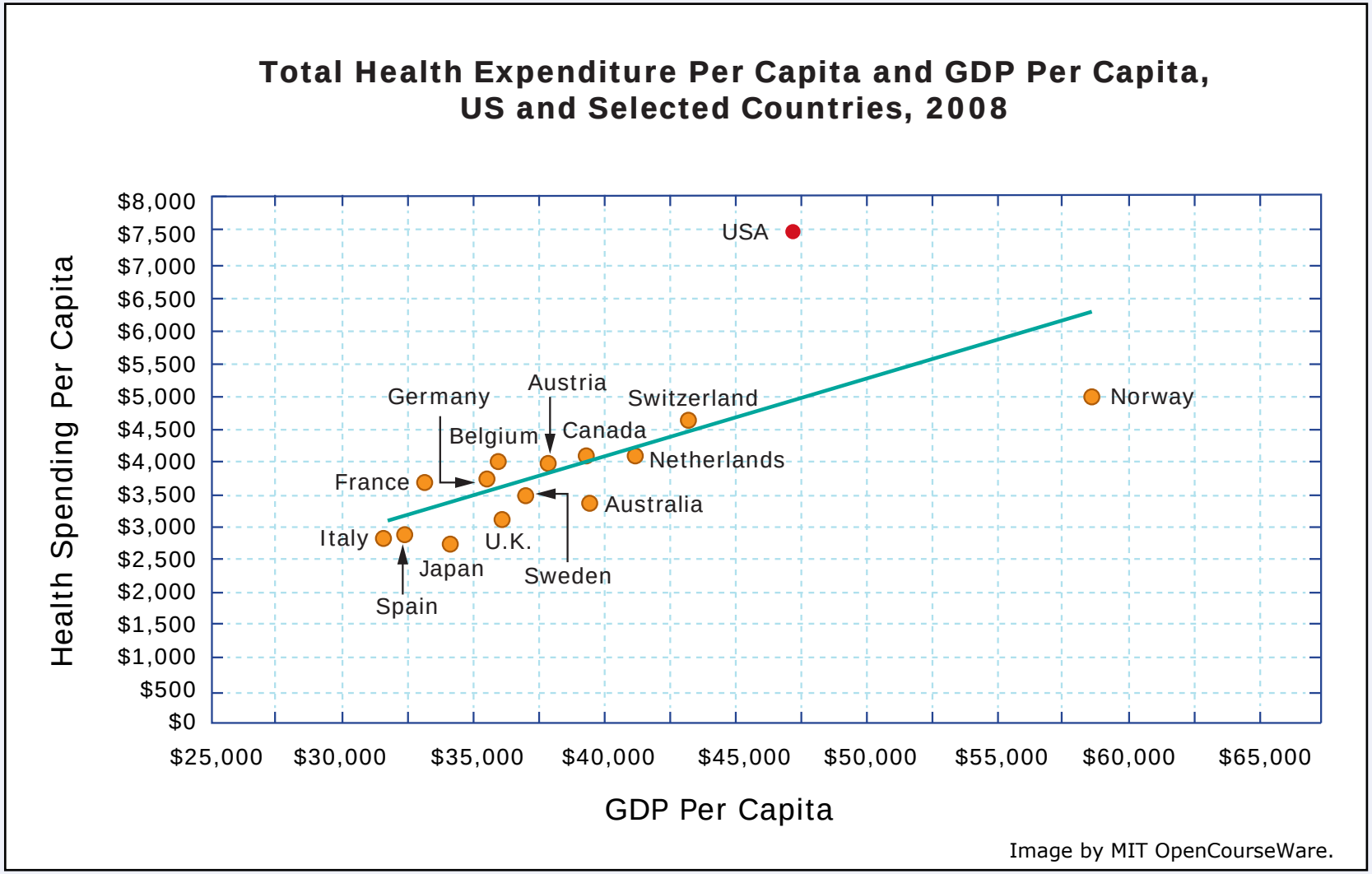


Image by MIT OpenCourseWare.

Source: Organisation for Economic Co-operation and Development (2010), "OECD Health Data", *OECD Health Statistics* (database). doi: 10.1787/data-00350-en (Accessed on 14 February 2011).
Notes: Data from Australia and Japan are 2007 data. Figures for Belgium, Canada, Netherlands, Norway and Switzerland, are OECD estimates.

Table 1: Health Status of the United States and Rank among the 29 Other OECD Member Countries removed due to copyright restrictions.
Source: Schroeder, Steven A. "We Can Do Better — Improving the Health of the American People." *New England Journal of Medicine* (Sept. 20, 2007).

http://www.nejm.org/doi/full/10.1056/NEJMsa073350

Offslide CAVEAT: Spending does not equal health outcomes
See gapminder (below)!
and check resources on next page

Comparative health spending

http://www.pbs.org/newshour/rundown/2012/10/health-costs-how-the-us-compares-with-other-countries.html
October 22, 2012 Jason Kane PBS Newshour
Health Costs: How the U.S. Compares With Other Countries

http://www.nytimes.com/interactive/2010/06/06/business/metrics-health-care-outlier.html
June 5, 2010 New York Times
Metrics: Health Spending vs. Results

http://www.cbsnews.com/8301-505103_162-57522437/issue-brief-health-care/
October 1, 2012 Jake Miller CBS News/
Issue brief: Health care

Now go watch this!

Reducing child mortality – a moral and environmental

[15 minutes run time] September 27, 2010

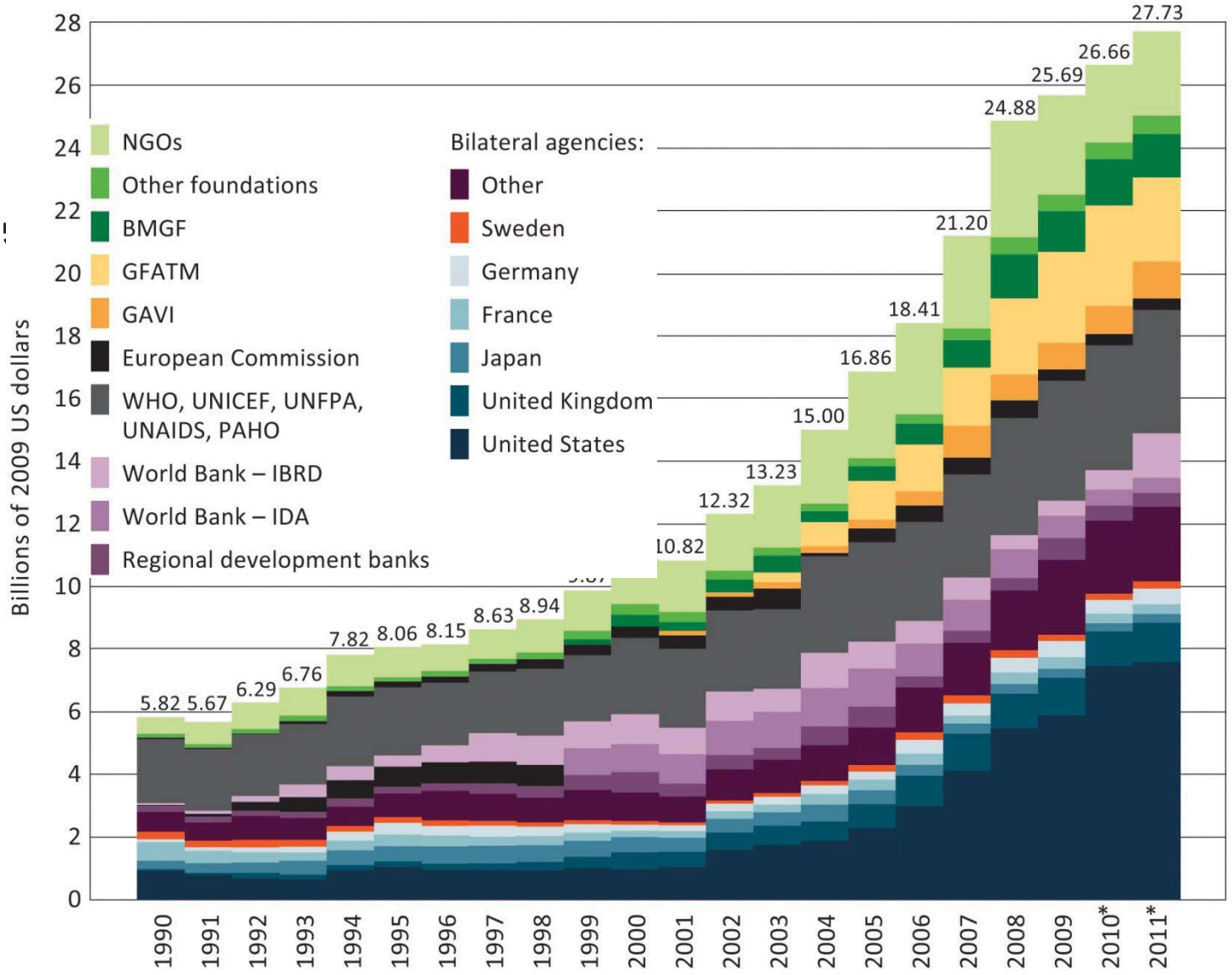
Many countries are making good progress towards MDG4 and it's time to stop talking about Sub-Saharan Africa as one place.
So, it's not all bad news—and Rosling makes stats and data compelling!

http://www.gapminder.org/videos/reducing-child-mortality-a-moral-and-environmental-imperative/

FUNDING FLOWS: A LOOK AT IHME DATA ON DEVELOPMENT ASSISTANCE FOR HEALTH (DAH)

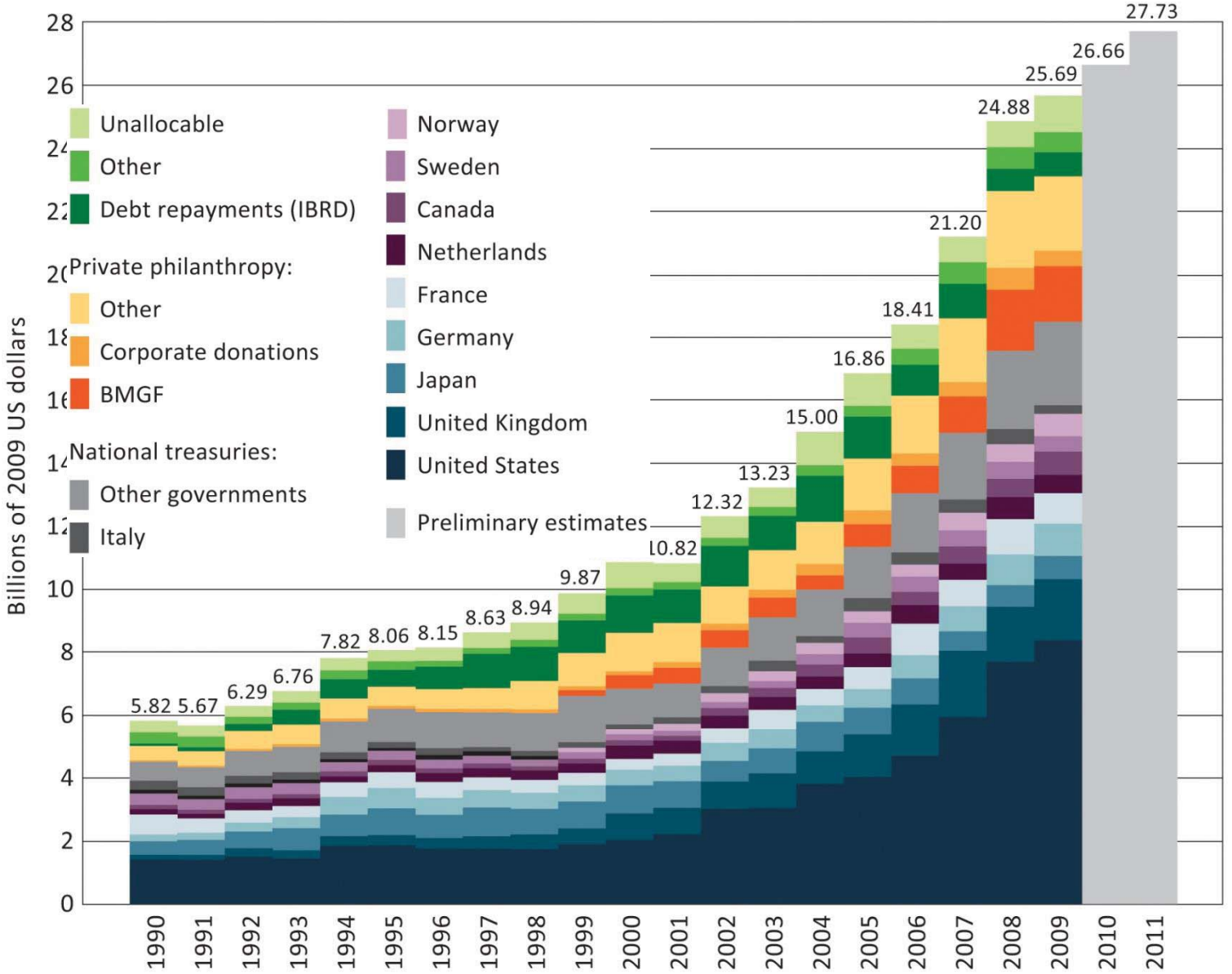
Institute for Health Metrics and Evaluation (IHME). Financing Global Health 2011: Continued growth as MDG deadline approaches. Seattle, WA: IHME, University of Washington, 2012. Available at http://www.healthmetricsandevaluation.org/news-events/multimedia/presentation/financing-global-health-2011-continued-growth-mdg-deadline-appro/. Used with permission.

DAH by channel of assistance, 1990 to 2011



Institute for Health Metrics and Evaluation (IHME). Financing Global Health 2011: Continued growth as MDG deadline approaches. Seattle, WA: IHME, University of Washington, 2012. Available at http://www.healthmetricsandevaluation.org/news-events/multimedia/presentation/financing-global-health-2011-continued-growth-mdg-deadline-appro/. Used with permission.

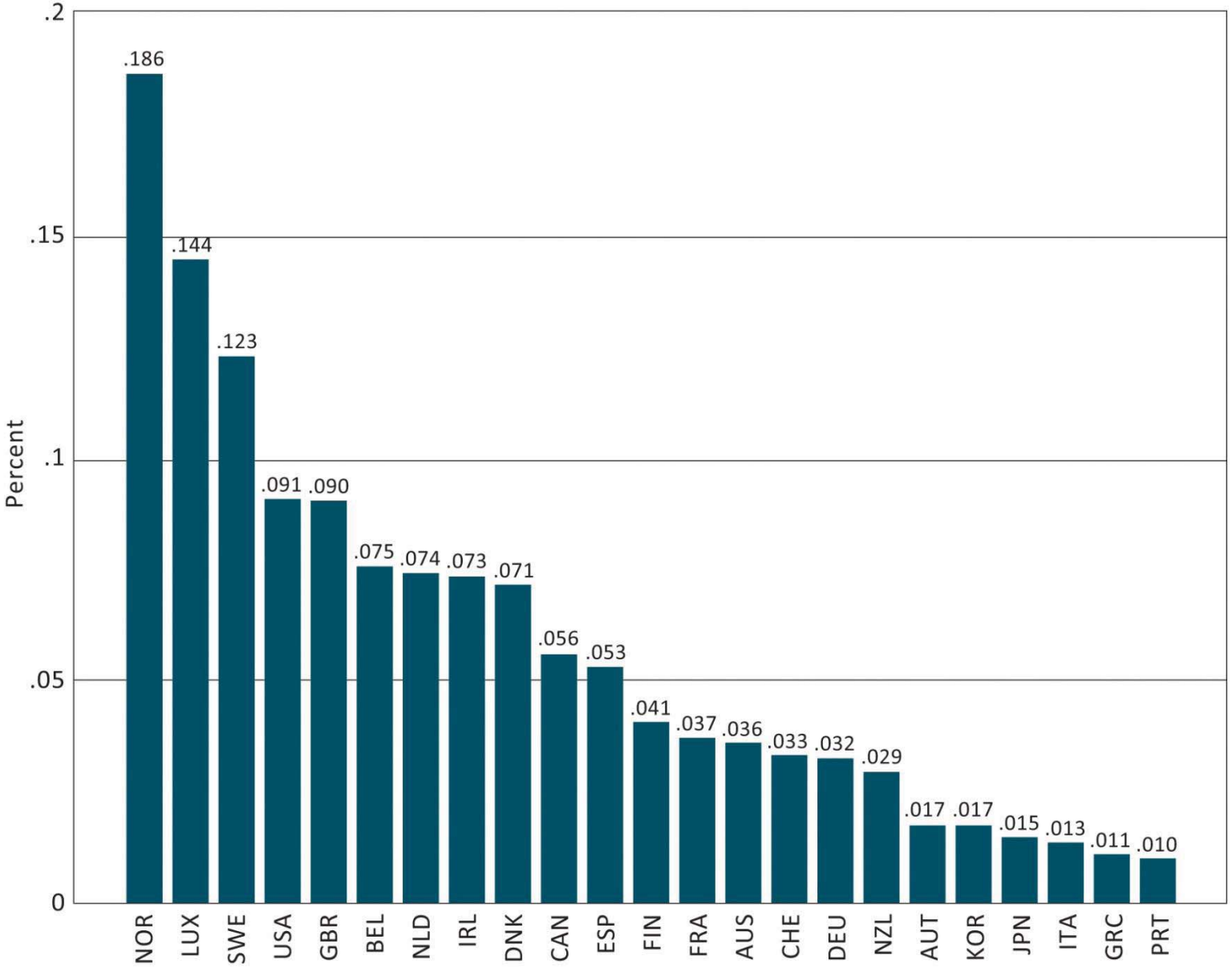
DAH by source



Institute for Health Metrics and Evaluation (IHME). Financing Global Health 2011: Continued growth as MDG deadline approaches. Seattle, WA: IHME, University of Washington, 2012. Available at http://www.healthmetricsandevaluation.org/news-events/multimedia/presentation/financing-global-health-2011-continued-growth-mdg-deadline-appro/. Used with permission.

DAH as share of GDP:

USA #4



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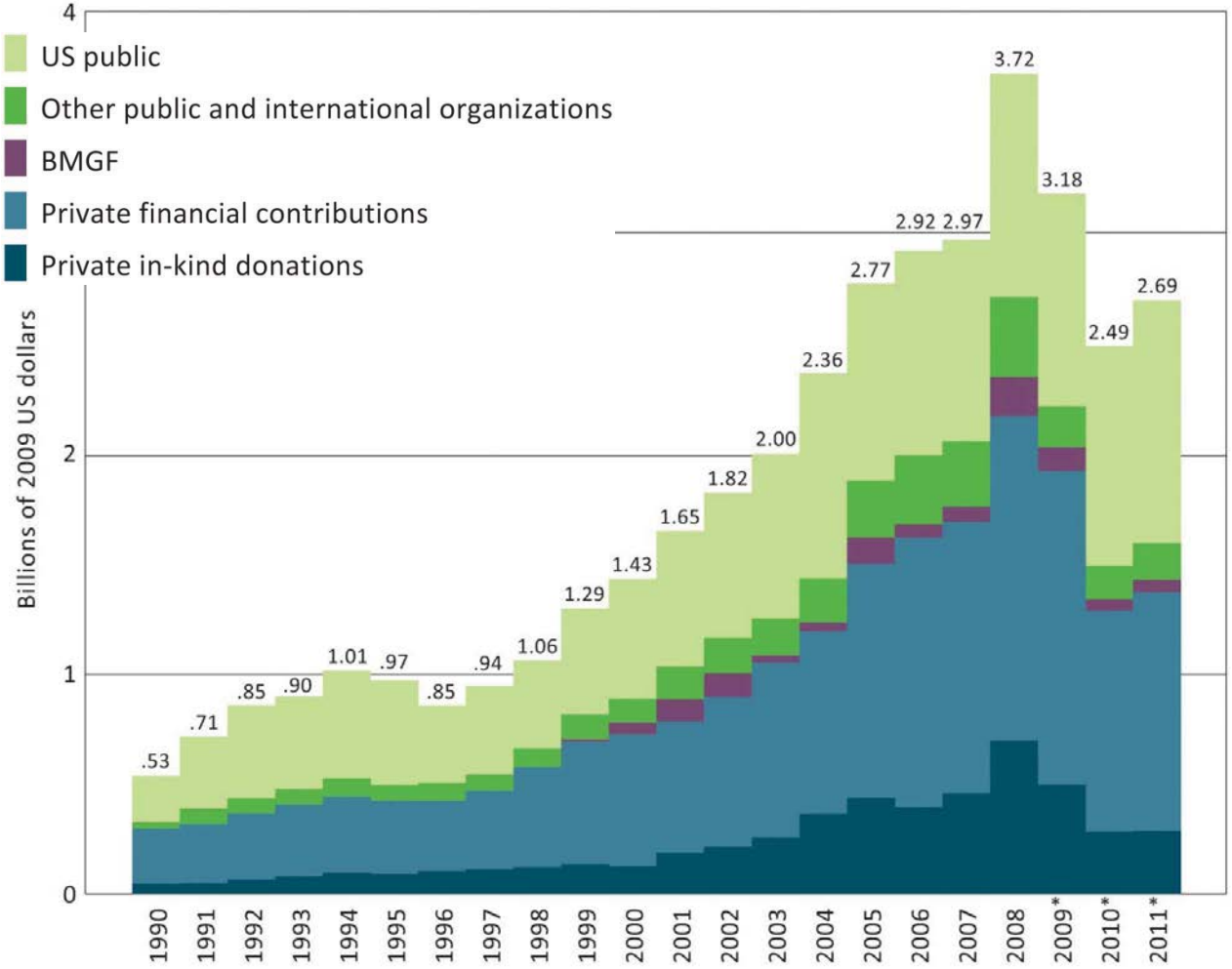
Total overseas health expenditures channeled through US NGOs by funding source, 1990-2011



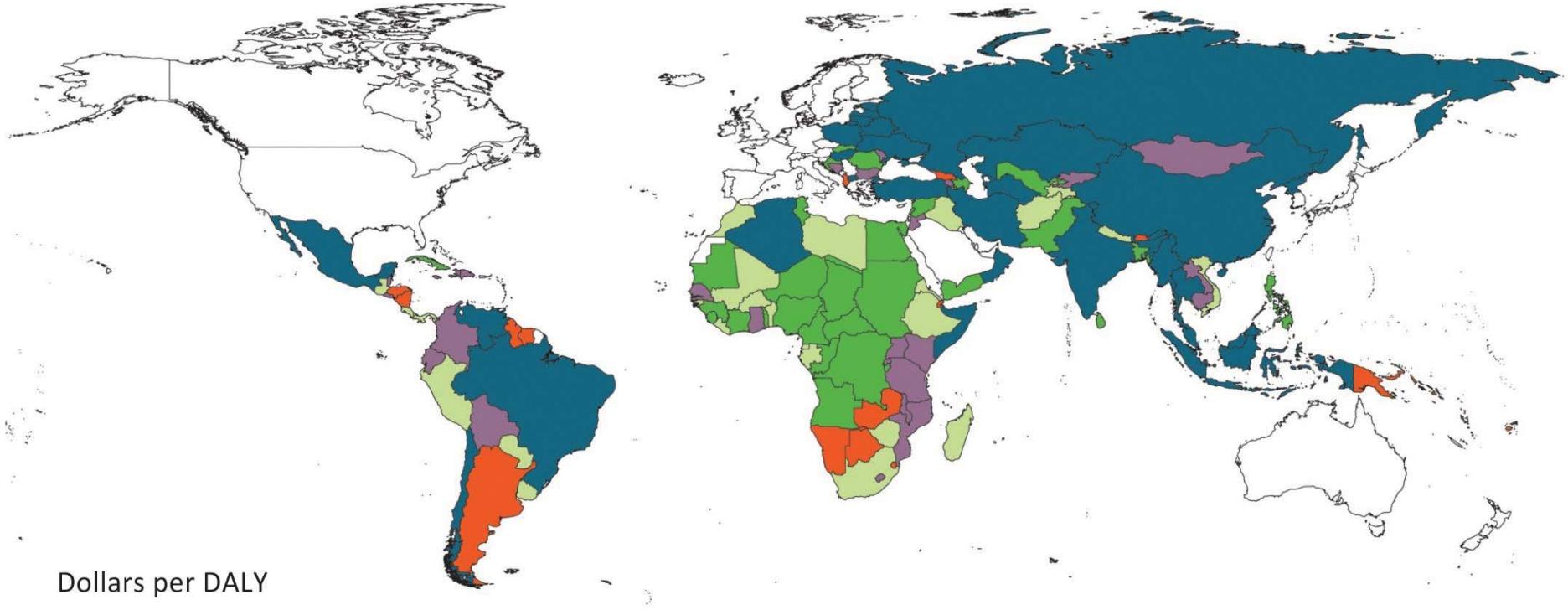
Institute for Health Metrics and Evaluation (IHME). Financing Global Health 2011: Continued growth as MDG deadline approaches. Seattle, WA: IHME, University of Washington, 2012. Available at http://www.healthmetricsandevaluation.org/news-events/multimedia/presentation/financing-global-health-2011-continued-growth-mdg-deadline-appro/. Used with permission.

Top 15 NGOs in overseas health expenditure, 2005 to 2008

Rank	NGO	Overseas health expenditure, adjusted	Overseas health expenditure, unadjusted	Overseas expenditure, unadjusted	Percent of revenue from private sources	Percent of revenue from in-kind contributions
1	Population Services International	1,265.14	1,265.21	1,347.93	14	0
2	Food For The Poor	706.83	2,557.64	4,196.77	97	89
3	Catholic Relief Services	665.51	670.36	2,306.70	40	1
4	Management Sciences for Health	581.94	581.94	585.98	0	0
5	PATH	501.23	505.97	518.54	90	1
6	United Nations Foundation	466.08	497.42	637.84	91	8
7	World Vision	355.80	472.89	3,178.42	76	30
8	Pathfinder International	324.45	325.97	325.99	23	1
9	Elizabeth Glaser Pediatric AIDS Foundation	318.02	319.47	322.54	18	1
10	MAP International	293.96	1,398.24	1,398.67	100	97
11	Brother's Brother Foundation	274.88	1,460.07	2,011.33	100	99
12	Academy for Educational Development	265.03	267.44	1,060.58	12	1
13	Save the Children	246.24	254.86	1,428.72	53	4
14	CARE	241.20	241.92	2,370.40	27	0
15	Project HOPE	229.16	547.28	595.38	91	71

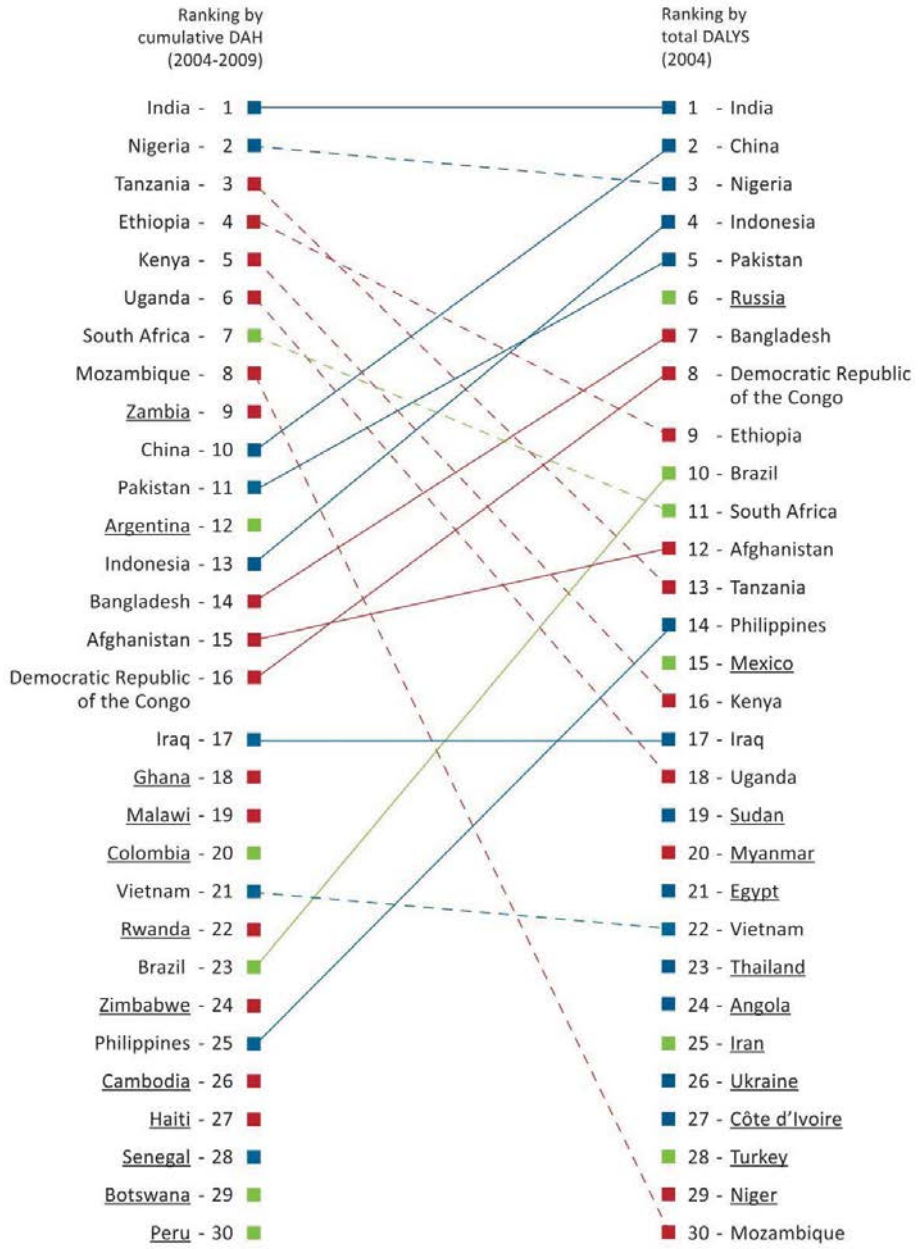
Institute for Health Metrics and Evaluation (IHME). Financing Global Health 2011: Continued growth as MDG deadline approaches. Seattle, WA: IHME, University of Washington, 2012. Available at http://www.healthmetricsandevaluation.org/news-events/multimedia/presentation/financing-global-health-2011-continued-growth-mdg-deadline-appro/. Used with permission.

Total DAH per all-cause DALY, 2004 to 2009



Institute for Health Metrics and Evaluation (IHME). Financing Global Health 2011: Continued growth as MDG deadline approaches. Seattle, WA: IHME, University of Washington, 2012. Available at http://www.healthmetricsandevaluation.org/news-events/multimedia/presentation/financing-global-health-2011-continued-growth-mdg-deadline-appro/. Used with permission.

Top 30 country recipients of DAH, 2004 to 2009, compared with top 30 countries by all-cause burden of disease, 2004



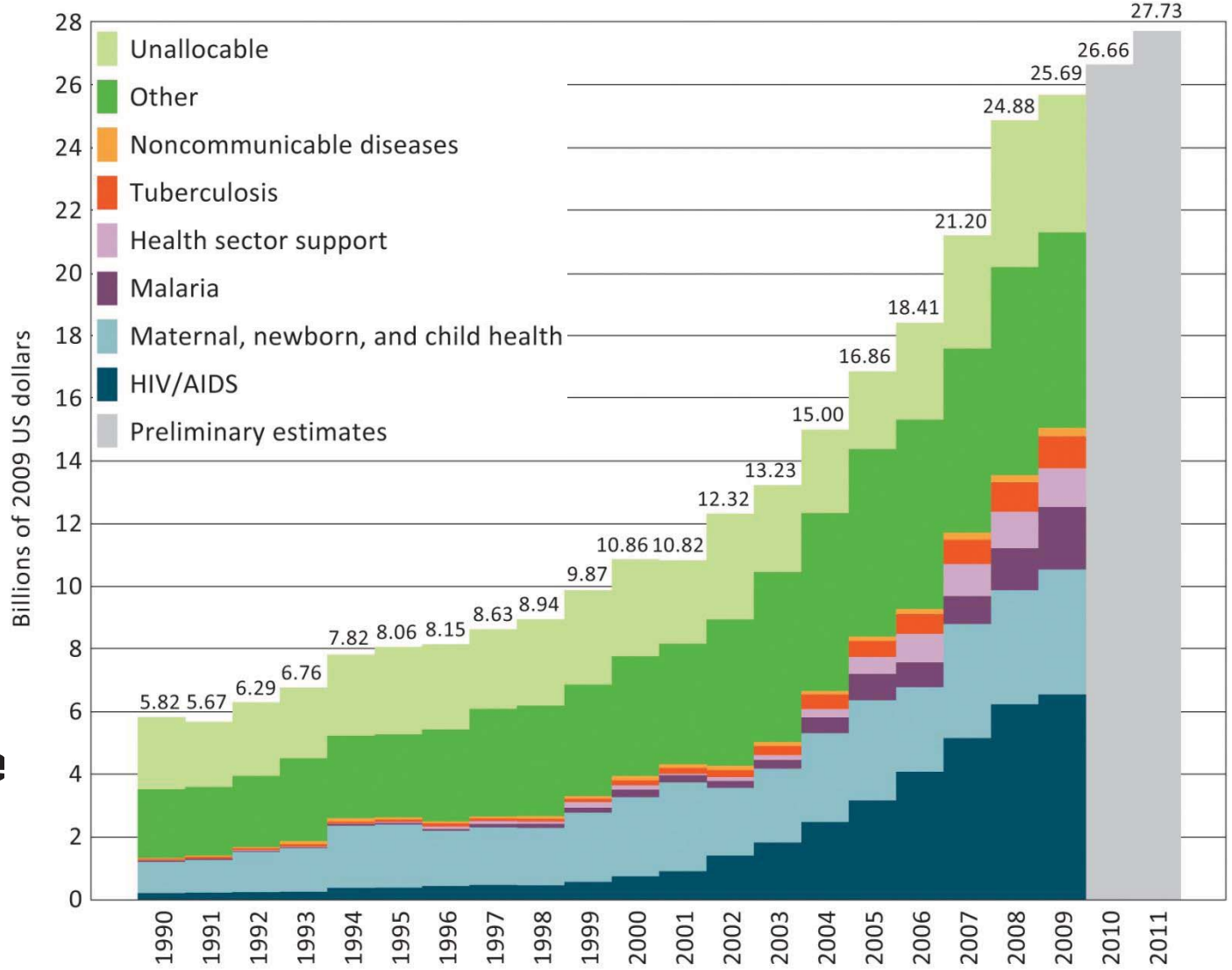
Upper-middle-income countries

Lower-middle-income countries

Low-income countries

Institute for Health Metrics and Evaluation (IHME). Financing Global Health 2011: Continued growth as MDG deadline approaches. Seattle, WA: IHME, University of Washington, 2012. Available at http://www.healthmetricsandevaluation.org/news-events/multimedia/presentation/financing-global-health-2011-continued-growth-mdg-deadline-appro/. Used with permission.

DAH for HIV-AIDS; maternal, newborn, and child health; malaria; health sector support; TB; and non-communicable disease



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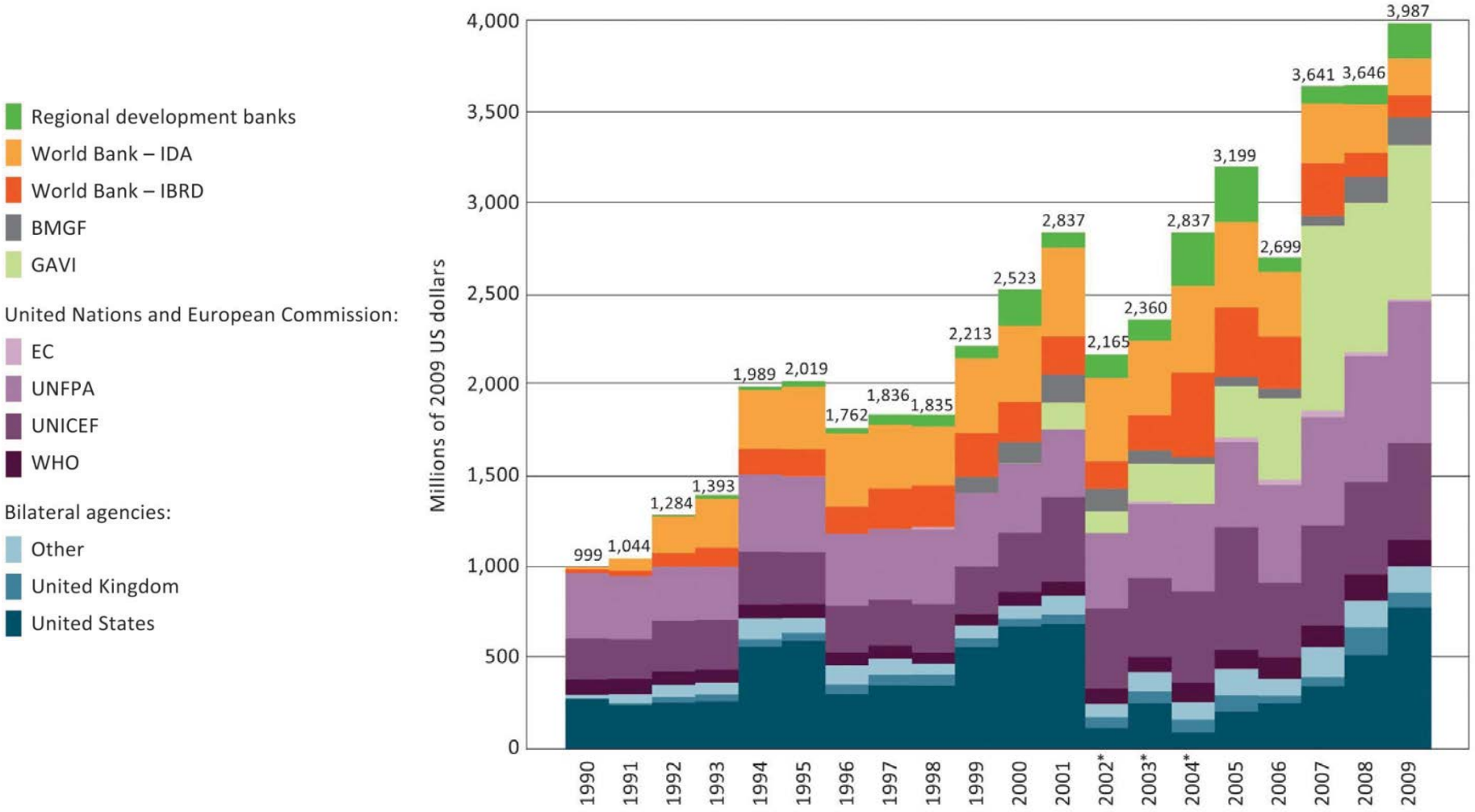
DAH for maternal and child health by channel of assistance, 1990 to 2009



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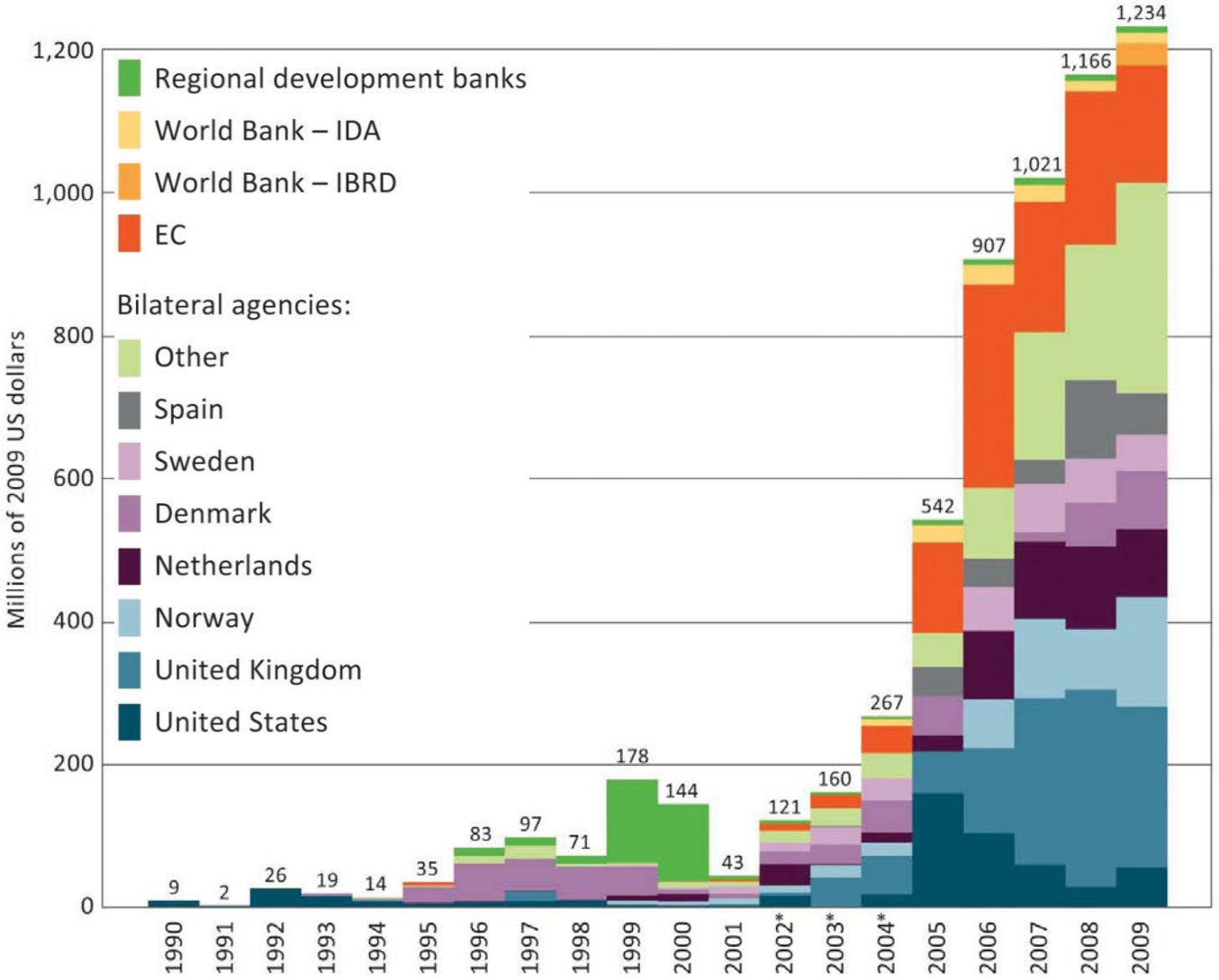
DAH for health sector support by channel of assistance, 1990 to 2009



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What are the effects of DAH on government spending?

- Jury is still out! http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.1001365
- But some indication of a partial crowding out/substitution: http://www.who.int/pmnch/topics/economics/201004_publicfinancingofhealth/en/index.html
- 2012 debate, summarized, on HIV/AIDS spending: http://blogs.cgdev.org/globalhealth/2012/07/aids-spending-a-good-investment-maybe-not.php

How much does McKinsey take in for its global health work? NO IDEA, but

- McK was one of 3 firms Gates paid $24.6 million to in 2007
- As the largest private foundation in the world, the Gates Foundation itself defies precedent in its ability to influence global health. The foundation's spending on global health was nearly equal to the World Health Organization's annual budget in 2007.
- And while we're talking about BMGF, more than half of the philanthropy's $9 billion in spending went to 20 organizations.

http://seattletimes.com/html/thebusinessofgiving/2009193675__heres_how_the_article.html
Gates Keepers (site no longer available)

Top 20 recipients by cumulative total of grants awarded by the Bill & Melinda Gates Foundation's global healh programme 1998–2007

	Type of organisation	Number of grants	Cumulative amount awarded (US$)
GAVI Alliance	Global health partnership	5	1 512 838 000
PATH	Non-governmental/ non-profit organisation	47	949 603 525
Global Fund to Fight AIDS, Tuberculosis and Malaria	Global health partnership	5	651 047 850
WHO	UN agency	69	335 888 331
University of Washington (Seattle, WA, USA)	University	12	279 162 976
Medicines for Malaria Venture	Global health partnership	3	202 000 000
Johns Hopkins University (Baltimore, MD, USA)	University	21	228 273 765
International AIDS Vaccine Institute	Global health partnership	6	155 280 244
Institute for OneWorld Health	Non-governmental/ non-profit organisation	9	146 324 286
International Bank for Reconstruction and Development	World Bank	12	134 486 883
Global Alliance for TB Drug Development	Global health partnership	3	129 423 823
Save the Children Federation	Non-governmental/ non-profit organisation	26	126 317 495
International Vaccine Institute	Intergovernmental organisation	3	113 990 173
Liverpool School of Tropical Medicine (Liverpool, UK)	University	4	109 147 462
Aeras Global TB Vaccine Foundation	Non-governmental/ non-profit organisation	4	308 571 409
Harvard University (Cambridge, MA, USA)	University	18	90 587 678
Columbia University (New York, NY, USA)	University	15	93 425 838
London School of Hygiene and Tropical Medicine (London, UK)	University	10	89 924 649
Imperial College London (London, UK)	University	9	83 605 989
CONRAD/Eastern Virginia Medical School (Norfolk, VA, USA)	University	5	79 792 344
Total	..	..	5 819 692 720

PATH=Programme for Appropriate Technology in Health.

Table 3: **Top 20 recipients by cumulative total of grants awarded by the Bill & Melinda Gates Foundation's global health programme during 1998–2007**

http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2809%2960571-7/abstract

The Bill & Melinda Gates Foundation 's grant-making programme for global hea th
Dr David McCoy DrPH,Gay tri Kembhavi MScPT,Jinesh Patel BSc,Akish Luintel BSc
The Lancet - May 2009 (Vol. 373, Issue 9675, Pages 1645-1653)

HOW IS THIS PLAYING OUT FOR ORDINARY PEOPLE?

Return to some of the data we started with

life expectancy

Life expectancy at birth for someone born in

- the US: 78.4 years
- Japan: 82.6
- Ma i: 48.4 years
- South Africa: 51.5
- India: 63.7
- China: 73.1

http://www.google.com/publicdata, 2010

maternal death

Chance of dying in childbirth

- in Boston
  - 1 in 4,800
- In Burundi
  - 1 in 16
- in Austria
  - 1 in 21,500
- world
  - 1 in 92

A women's lifetime risk of dying from pregnancy-related complications:
Niger: 1 in 7
Ireland: 1 in 48,000

[53] http://data.un.org/Data.aspx?d=SOWC&f=inID%3A132
http://www.who.int/making_pregnancy_safer/topics/maternal_mortality/en/

The maternal mortality ratio in developing countries is 450 maternal deaths per 100 000 live births versus 9 in developed countries. Fourteen countries have maternal mortality ratios of at least 1000 per 100 000 live births, of which all but Afghanistan are in sub-Saharan Africa: Afghanistan, Angola, Burundi, Cameroon, Chad, the Democratic Republic of the Congo, Guinea-Bissau, Liberia, Malawi, Niger, Nigeria, Rwanda, Sierra Leone and Somalia.

Because women in developing countries have many pregnancies on average, their lifetime risk more accurately reflects the overall burden of these women. A woman's lifetime risk of maternal death is 1 in 7300 in developed countries versus 1 in 75 in developing countries.

Comparing the US and Malawi

	Malawi	US
% GDP on health	9.1	15.2
Percapita hlth spend (PPP $)	49	**7,164**
Pvt spend as % of total	39.4	52.2
Children/woman	5.5	2.1
Gross nat'l income per capita (PPP $)	**760**	45,640
% population living on under PPP$1/day	73.9	-

Note 2008 & 2009 data. Source: http://www.who.int/whosis/whostat/2011/en/index.html

Discuss implications of the previous data. Some themes to explore:

We can’t get there with more of the same: we need to try very different things

What exactly does this comparative data lead you to suggest we should do to tackle global health needs

isn’t the crowding out question moot when there is no way a government can spend enough on health? Consider Malawi

TO ADDRESS THE GAPS IN GLOBAL HEALTH, WHAT IS MOST URGENTLY NEEDED?

WHAT IS NEEDED?

At one level, you could answer with the following:

Fewer stockouts

Lower cost of care

Less loss to follow up

More prevention

Better patient experience

Link primary to other care

Scale up what works

BUT HOW TO GET TO THOSE OBJECTIVES?

WHAT IS NEEDED?

MORE MONEY, MORE MEDS, MORE HEALTH WORKERS, MORE DOCS

CLEVER NEW TECHNOLOGIES

NEW APPROACHES, SMARTER OPERATIONAL MODELS, BETTER DESIGN, BETTER SYSTEMS, LESS LOSS TO FOLLOW UP, MORE PREVENTION

Management is needed

Watch this MIT video from November 19, 2007:

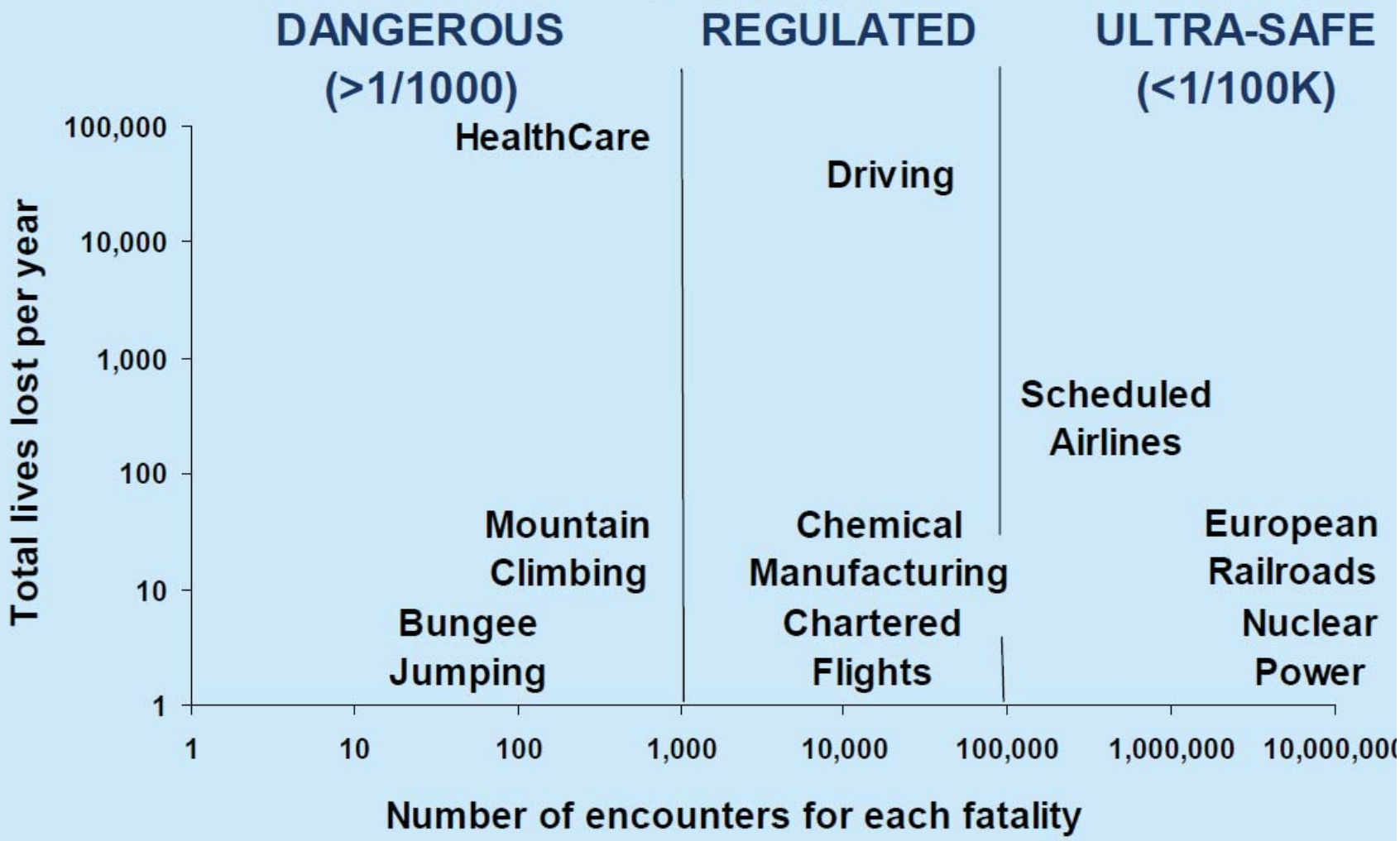
Bridging the Delivery Gap to Global Health
Speaker: Dr. Jim Yong Kim

FOCUS ON QUALITY: QUALITY CHASM FRAMEWORK

From the US Institutes of Medicine: the late 90s and early 2000s work addressed medical errors, then broadened. And this thinking set the stage, I would argue, for the healthcare reform changes that are continuing.

How Hazardous Is Health Care?

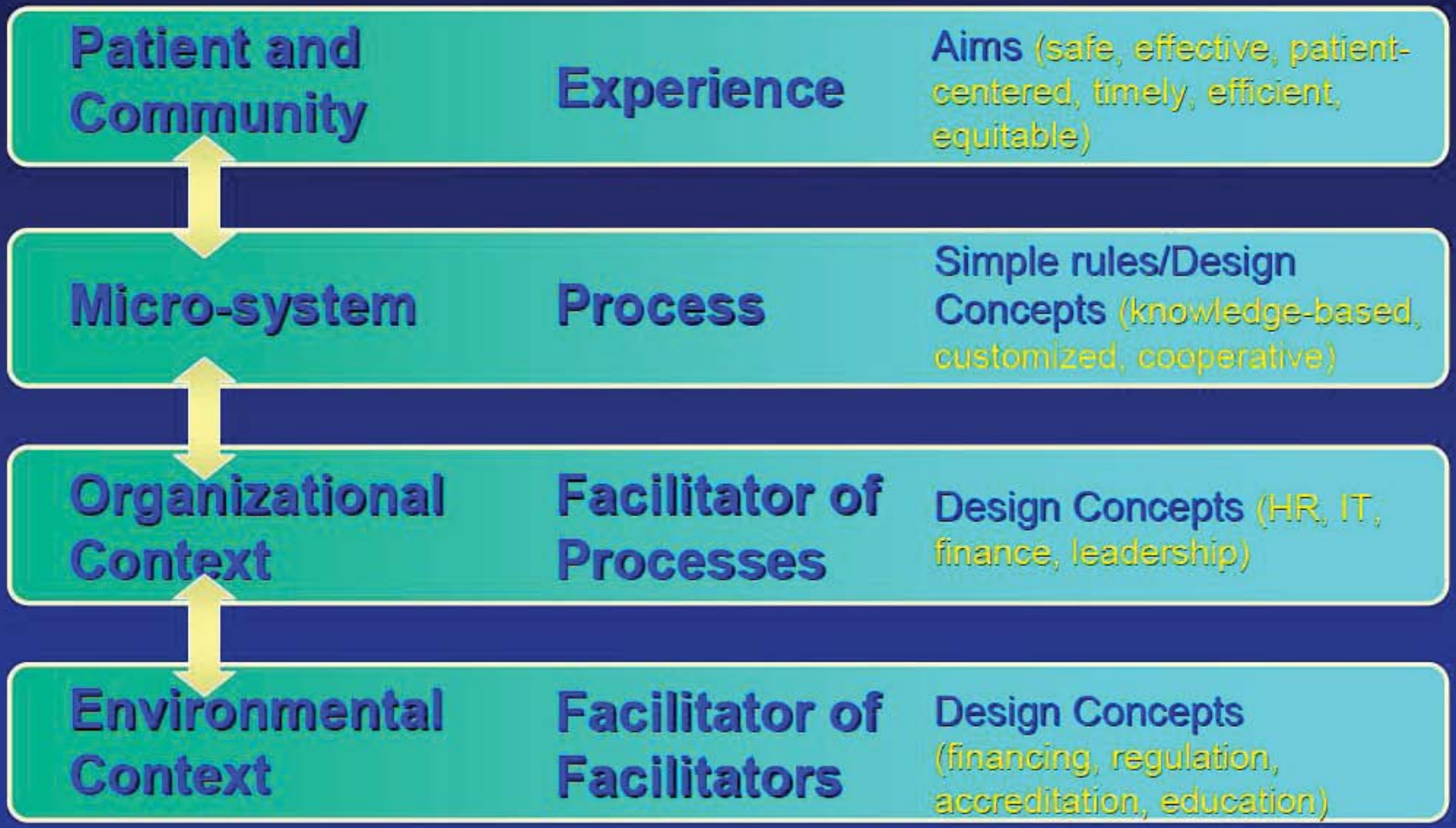
(Leape)



For US, circa 2003

https://www.peacehealth.org/apps/quality/References/ChasmSlides.pdf

The Chain of Effect in Improving Health Care Quality



Changing the Organizations that Deliver Care

- Redesign care based on **best practices**
- Use **information technology** to improve access to information and to support clinical decision-making
- Improve **workforce** knowledge and skills
- Develop effective **teams**
- **Coordinate** care among services and settings
- **Measure** performance and outcomes

Key aims, from Crossing the Quality Chasm/ Berwick 2003

Six Aims of High-Quality Health Care

1. **Safe**. Avoiding injuries to patients from the care that is intended to help them.
2. **Effective**. Providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit.
3. **Patient-centered**. Providing care that is respectful and response to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions
4. **Timely**. Reducing waits and sometimes harmful delays for both those who receive and those who give care.
5. **Efficient**. Avoiding waste, including waste of equipment, supplies, ideas, and energy.
6. **Equitable**. Providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status.

Source: National Academy of Sciences. *Crossing the Quality Chasm. National Academies Press*, 2001, pp. 5–6.

Key rules from Crossing the Quality Chasm/ Berwick 2003

Ten Rules to Guide the Redesign of Health Care

1. Care based upon continuous healing relationships.
2. Customization based on patient needs and values.
3. The patient as the source of control.
4. Shared knowledge and the free flow of information.
5. Evidence-based decision making. Patients should receive care based on the best available scientific knowledge.
6. Safety as a system property.
7. The need for transparency.
8. Anticipation of needs.
9. Continuous decrease in waste.
10. Cooperation among clinicians.

Source: National Academy of Sciences. *Crossing the Quality Chasm. National Academies Press*, 2001, pp. 8–9.

start here for WHO data

- http://www.who.int/features/factfiles/global_burden/facts/en/index.html Ten key global health facts from the World Health Organization--go here to check your basic knowledge
- http://www.who.int/gho/en/ Global Health Observatory is WHO's portal for data and analyses for monitoring the global health situation. Includes data repository, statistical reports, and more. Many of the items below are linked here too.
- http://gamapserver.who.int/mapLibrary/app/searchResults.aspx Map gallery
- http://www.who.int/healthinfo/morttables/en/index.html WHO Mortality Database: Tables, sources of data, definition of "underlying cause of death", cause-of-death classification.
- http://www.who.int/whosis/whostat/en/index.html WHO's annual World Health Statistics reports present the most recent health statistics for the 193 Member States.
- http://www.who.int/healthinfo/global_burden_disease/en/index.html Global Burden of Disease analysis provides a comprehensive and comparable assessment of mortality and loss of health due to diseases, injuries and risk factors for all regions of the world. The overall burden of disease is assessed using the disability-adjusted life year. The latest assessment of GBD is available, together with updated projections, and documentation of methods and data sources.
- http://www.who.int/publications/en/ for publications and reports. The World Health Report is their annual report and expert assessment of global health including statistics. Report focuses on a particular theme every year: Health Systems Financing in 2011.

Some more data sources

- http://data.worldbank.org/topic/health
- https://www.cia.gov/library/publications/the-world-factbook/

- http://www.healthmetricsandevaluation.org/tools/data-visualizations
- http://www.globalhealth.org/view_top.php3?id=621

- http://globalhealth.kff.org/

- http://www.gapminder.org/
- http://www.worldmapper.org/textindex/text_index.html
- http://www.measuredhs.com/

- http://www.who.int/mediacentre/factsheets/en/
- http://www.bvgh.org/Biopharmaceutical-Solutions/Global-Health-Primer.aspx

see you Thursday

for our first case!

15.S07 GlobalHealth Lab

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