

*Operations Research Course -
Introduction and
some reflections on relevance*

by

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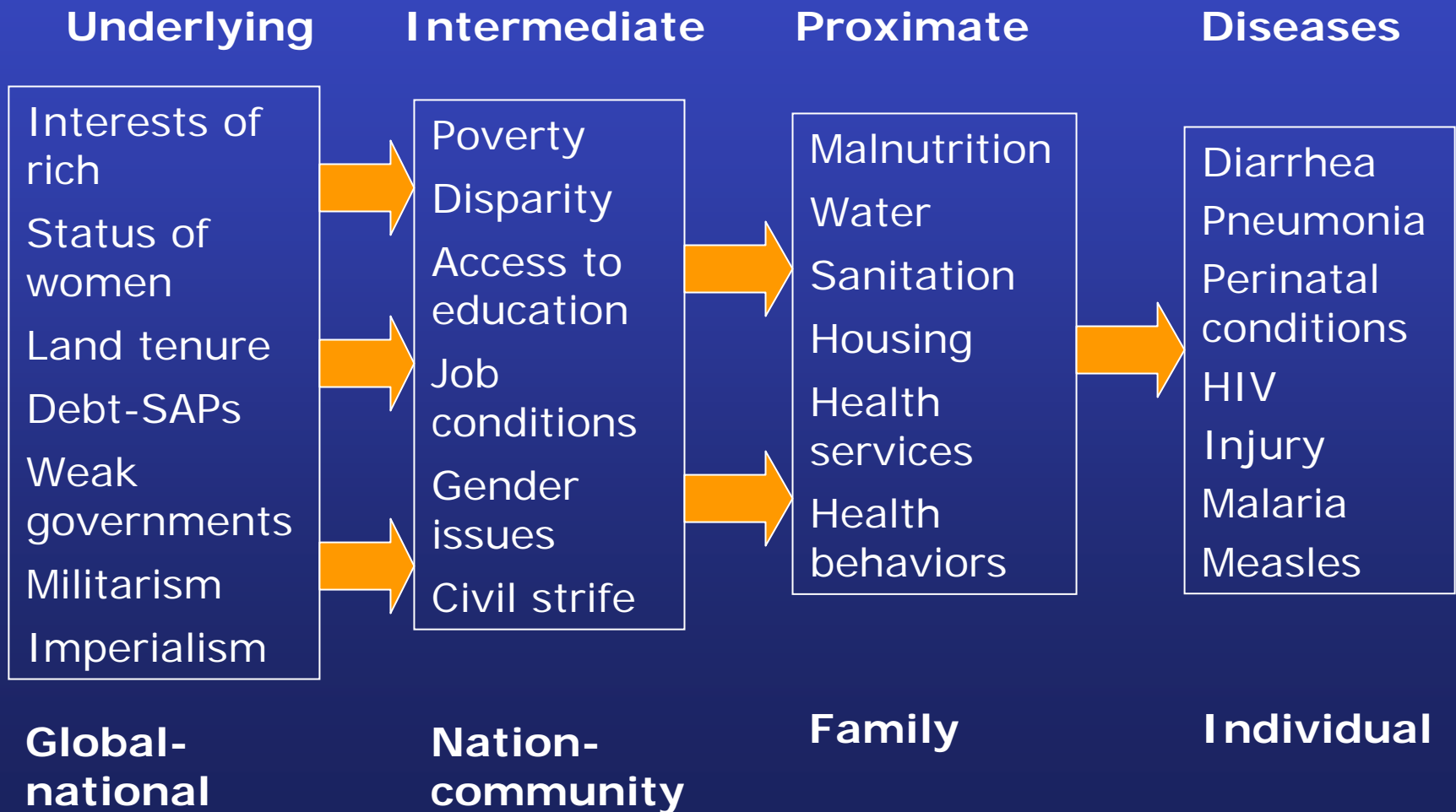
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How can we make global research more relevant?

- Increase our knowledge about relevant diseases
- Study the big issues
- Improve our ability to apply knowledge

The big picture - determinants of global health



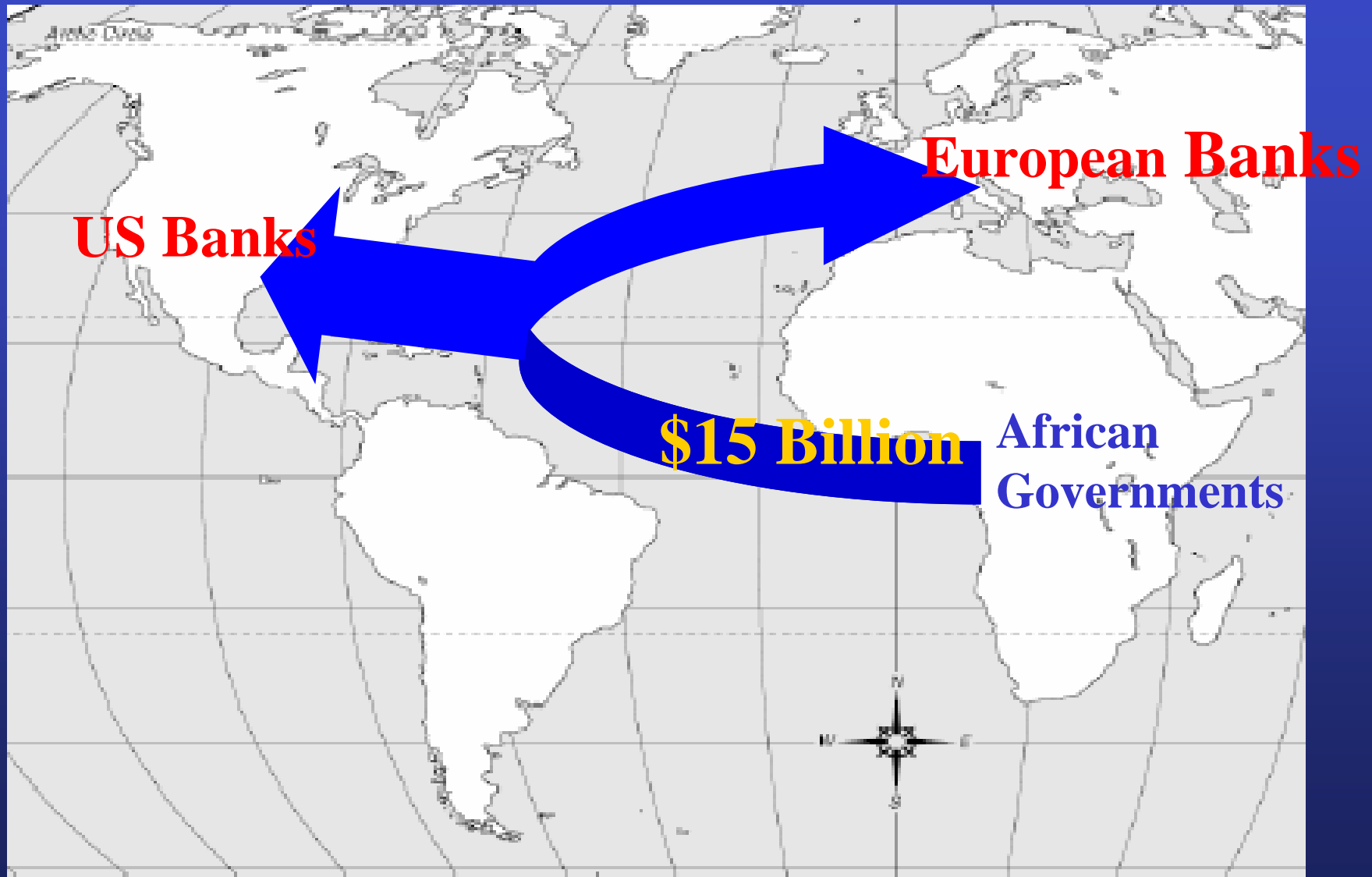
Study the big issues

- Disparities, poverty
- Access to health care
- Quality of health care
 - Workforce, systems
- Aid patterns
- Microcredit
- Arms trade, militarism, accidents

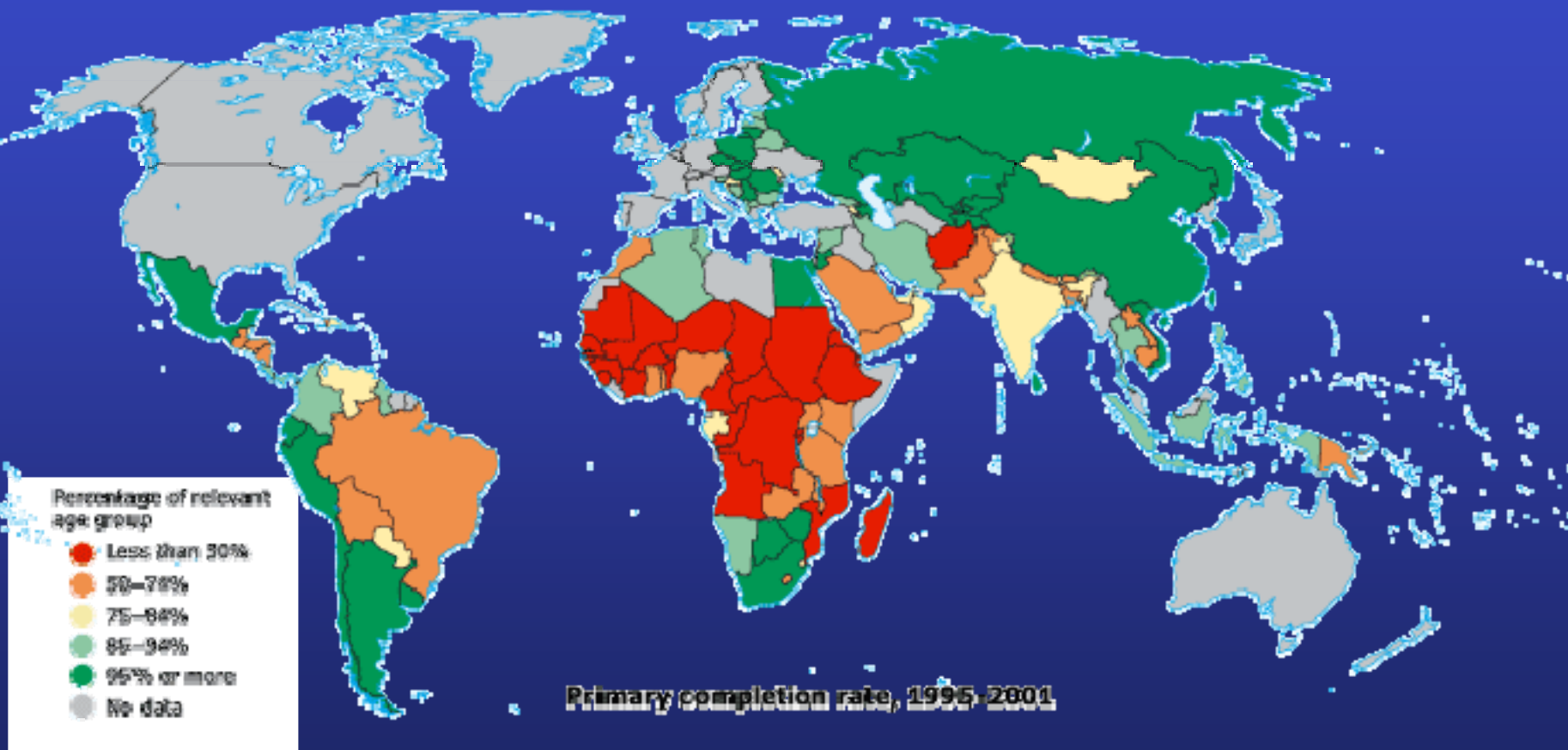
Globalization - some consequences

- Increased communication, integration, travel, links
- Increased economic growth, reduction of mortality in Asia, Latin America
- Poor growth, increasing poverty in Africa
- Increasing disparity globally
- Cuts in government budgets, with inadequate health care

Africa: Debt flow



Primary Education Completion Rate 1995-2001

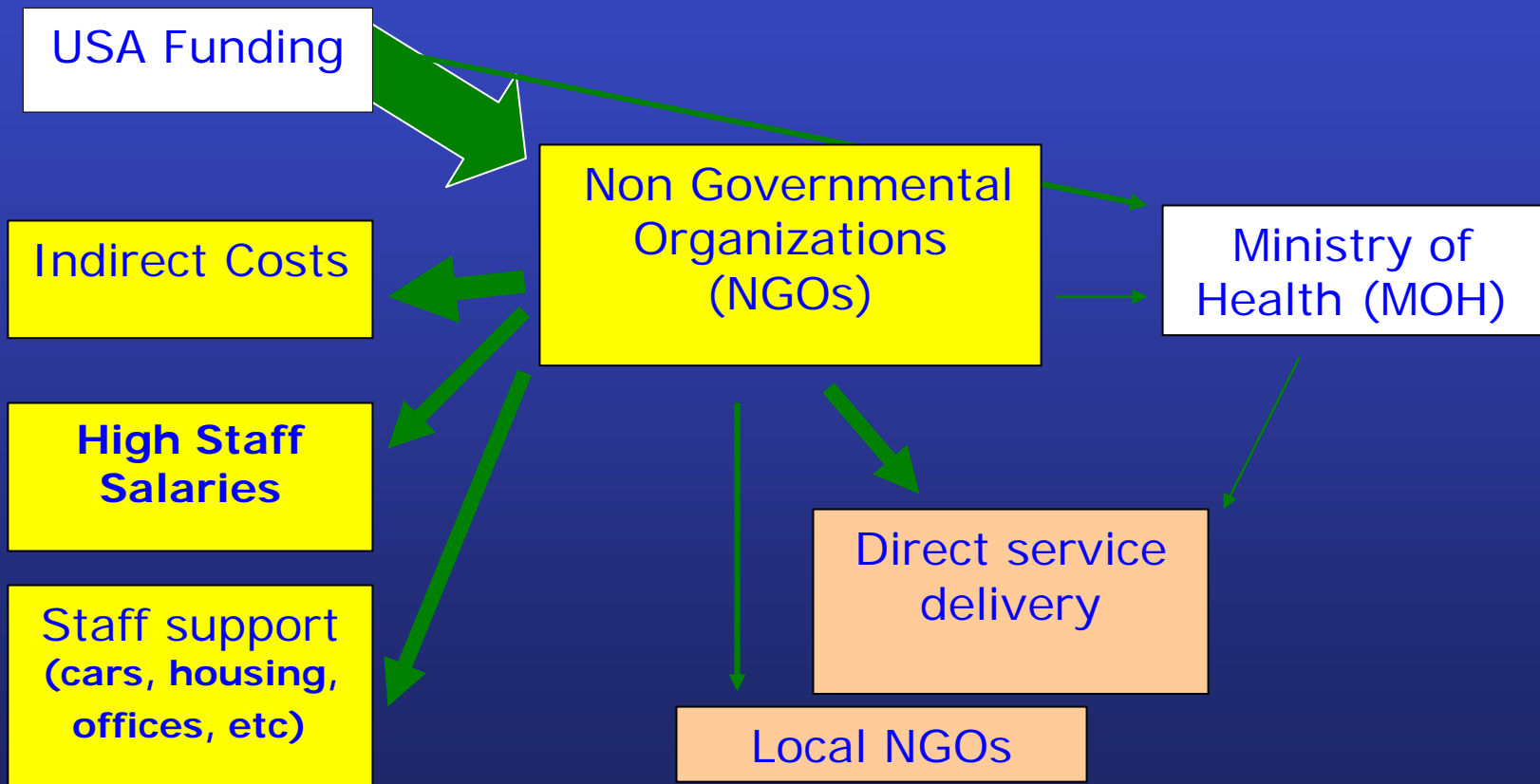


Global Distribution of Health Workers in Selected Countries

| Country | Doctors (per 100,000) | Nurses (per 100,000) |
|--------------|--------------------------|-------------------------|
| Malawi | 2 | 59 |
| Tanzania | 2 | 37 |
| Mozambique | 3 | 12 |
| Ethiopia | 3 | 21 |
| Rwanda | 5 | 42 |
| Uganda | 8 | 61 |
| Zambia | 12 | 174 |
| Kenya | 14 | 114 |
| Zimbabwe | 16 | 72 |
| South Africa | 77 | 408 |
| Brazil | 115 | 384 |
| Cuba | 591 | 744 |

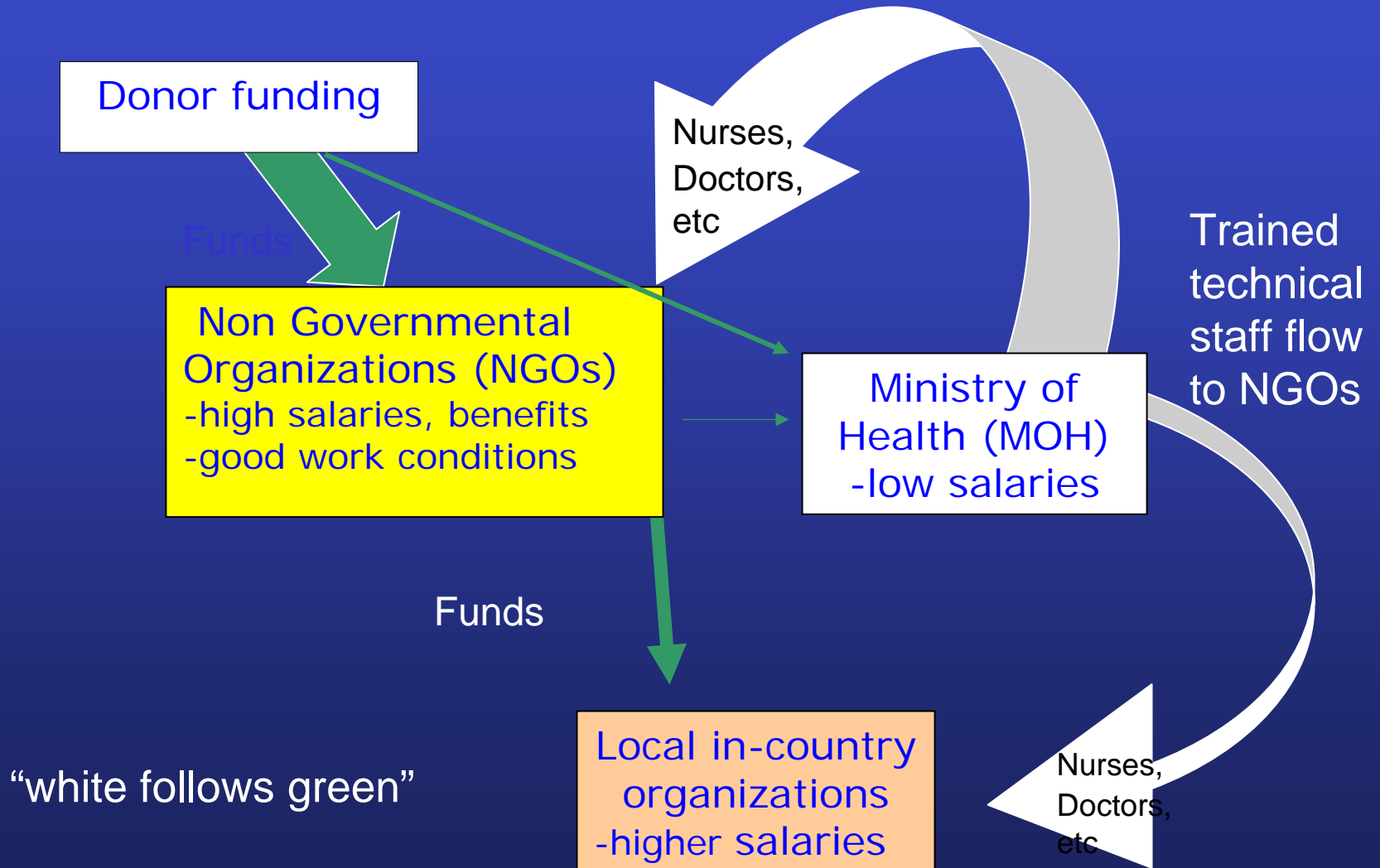
Source: World Health Report, 2006

Aid money eventually goes to Americans

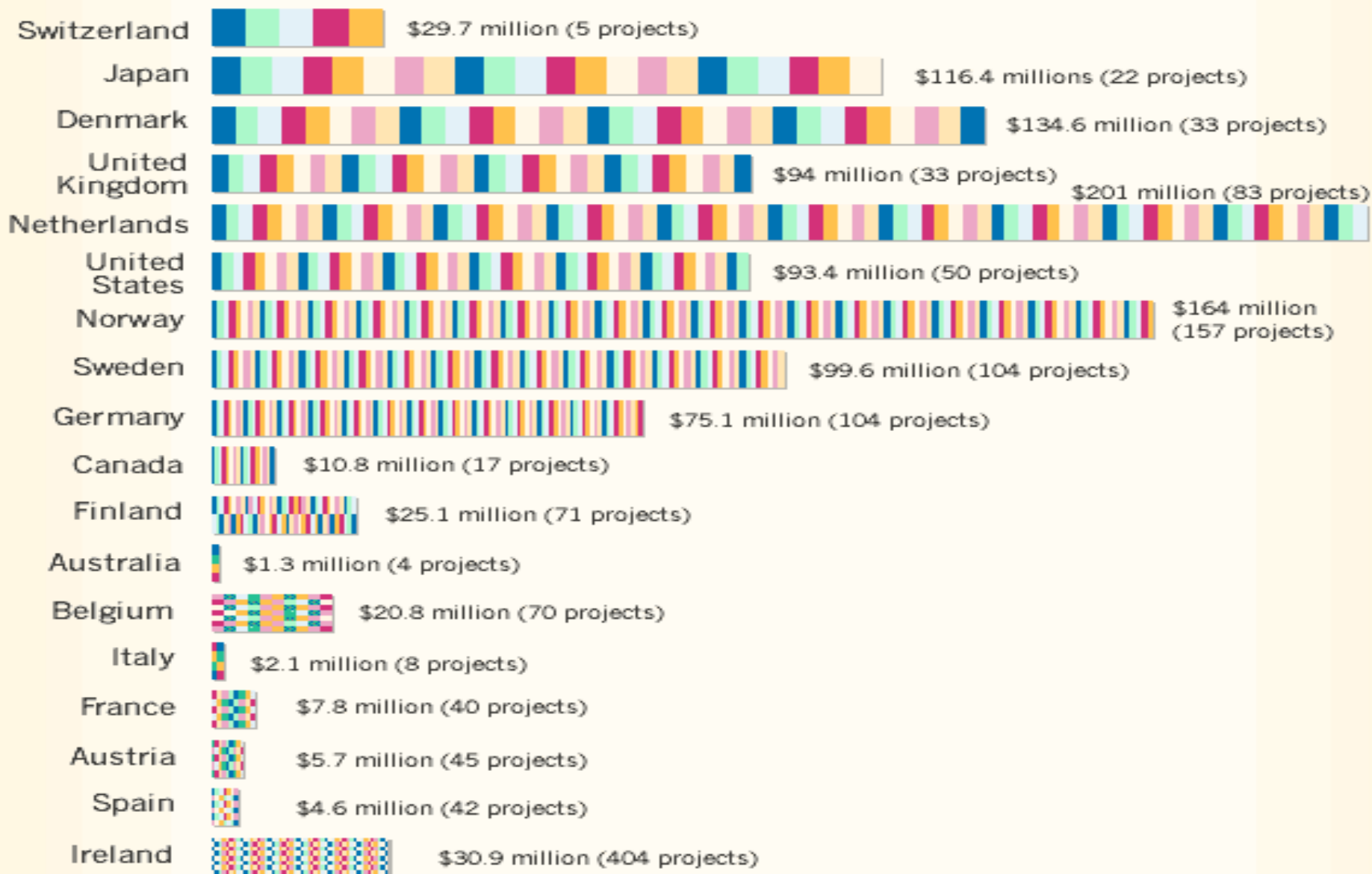


60-80% of aid dollars are "Phantom aid"

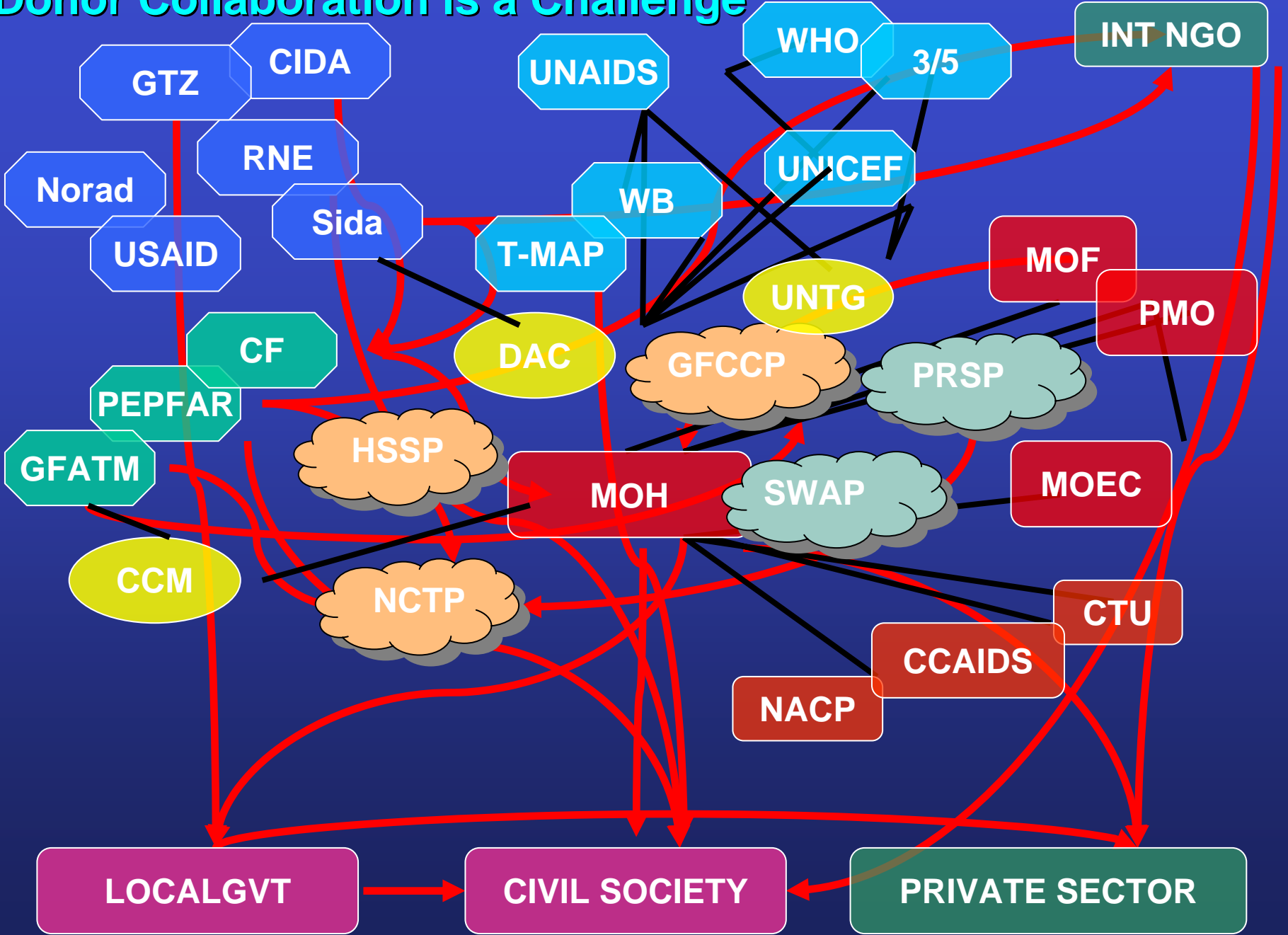
Donor assistance causes internal brain drain



Bilateral Donor-NGO Support to Tanzania,



Donor Collaboration is a Challenge



Source: WHO: Mbewe

Faltering health systems and immunization efforts

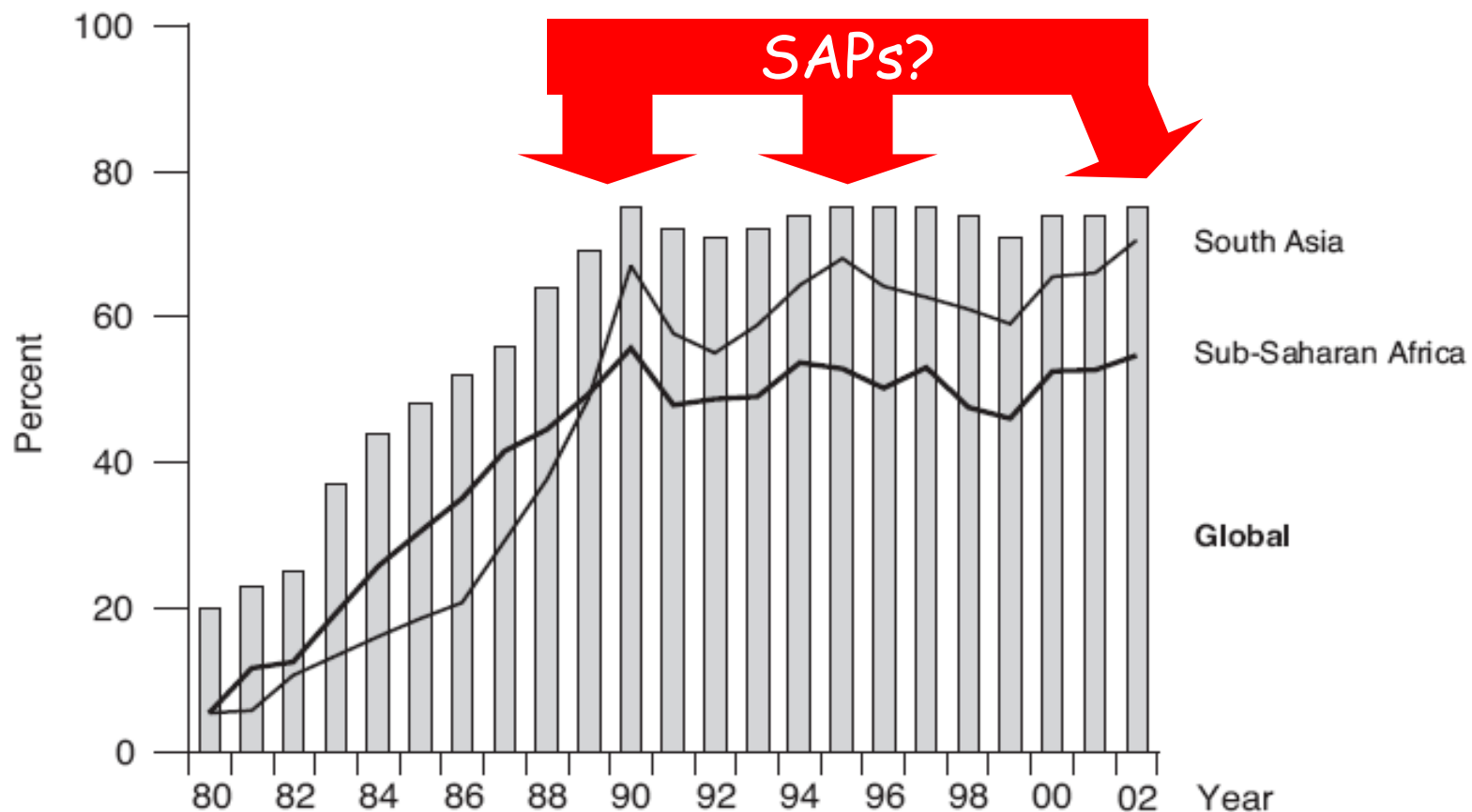


Figure B1.1 Immunization coverage 1980–2001, 3 doses DPT – global and by region (Source: WHO/UNICEF/World Bank 2002)

Arms Sales, militarism & accidents

Civil strife is a large contributor to mortality

Arms dealing is a lucrative industry - subsidized & little regulation

Substantial research on gun sales and health in USA

Recent Lancet study on excess mortality in Iraq



Know-Do Gap"

- Current debate framed around 10/90 gap
- We know many times more than we are able to apply
 - 30-50% lack essential drugs globally
 - Childhood vaccination ~ 50% in Africa
 - Antenatal care (pMTCT, malaria, syphilis) ~ 10-30%
 - ARVs are quite effective, but only 10% in treatment
- Critical gap today is "know-do" gap

Approaches to address the "know-do" gap

Problems are not usually inadequate performance - but systems

“Every process is perfectly designed to give you exactly the outcome that you get.”

Don Berwick, Institute for Healthcare Improvement

Find out why systems are not functioning optimally - assess access, quality, systems, workforce

Commission on Health Research for Development (COHRED-major donors) 1990

- All countries should undertake essential national health research (ENHR)
- Intl partnerships should address priority health problems
- Funding should be focused on health problems of the south
- Monitoring mechanism should be established

Subsequent meetings in Bangkok (2000), Mexico City (2004)

Health Systems Research & Operations research

How it works

- Identify bottlenecks in system (plan)
- Make changes (do)
- Measure impact of changes (study)
- If it works, expand changes (act)

Further characteristics of HSR/OR

- Action research
- Involves policy makers, users and providers in design
- Uses standard qualitative and quantitative methods
- Embedded in people's day-to-day practices

Increasing use of HSR/OR

- WHO - Real Time Interactive OR (RTIOR)
- Doris Duke Foundation - OR grants
- PEPFAR - Technical Evaluations

Helpful conditions for HSR/OR

- Engagement in service delivery
- Work closely with decision-makers
- New models of research funding (not necessarily protocol driven)
- Reward systems (publications, promotion)

Einstein and rigor

You can examine broad questions with good scientific rigor

“Better an approximate answer to the right question than a precise answer to the wrong one”

What can we do?

Address critical local-global issues

Address the "Know-Do" gap

Don't let funding drive our research agenda

Engage our academic institutions with service (MOH, NGOs, etc)

Thank you!

