



The Human Resource Crisis in the Health Sector: a View from Africa

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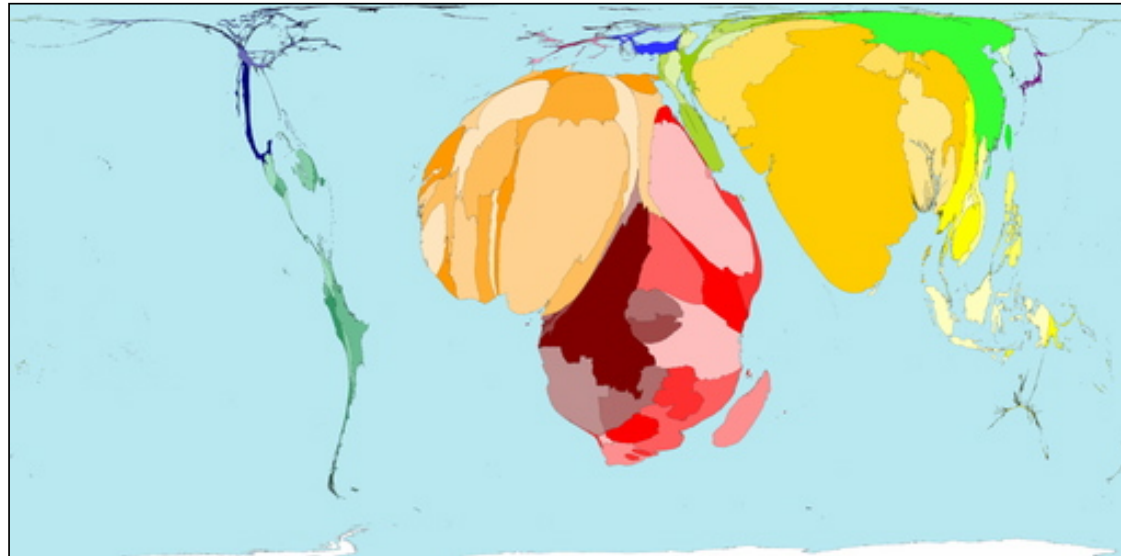
A WHO Collaborating Centre for Research and Training in Human
Resources for Health

Outline of Presentation

- Trends in burden of ill-health in the era of Primary Health Care - 1980 to 2004 – with special emphasis on **Africa's health situation**
- Impact of **globalisation, health sector reform** and **HIV/AIDS** on poverty, health systems and human resources for health
- The nature, extent and causes of the **human resource crisis**
- Some **policy options** to address the crisis

AFRICA and SOUTH ASIA'S CRISIS

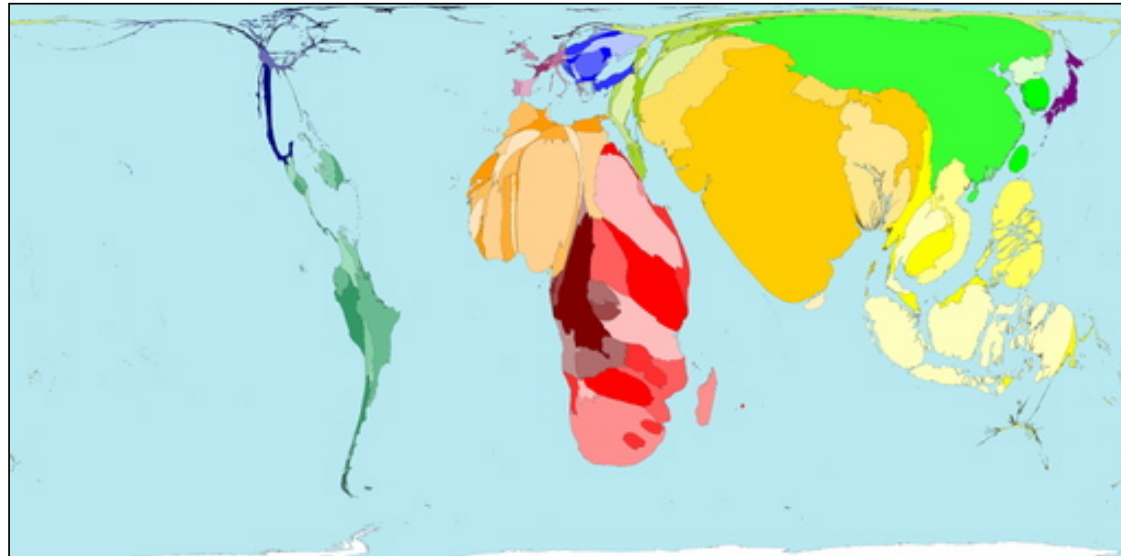
Mortality 1 - 4 year olds



Territory size shows the proportion of all deaths of children aged over 1 year and under 5 years old, that occurred there in 2002.

AFRICA and SOUTH ASIA'S CRISIS

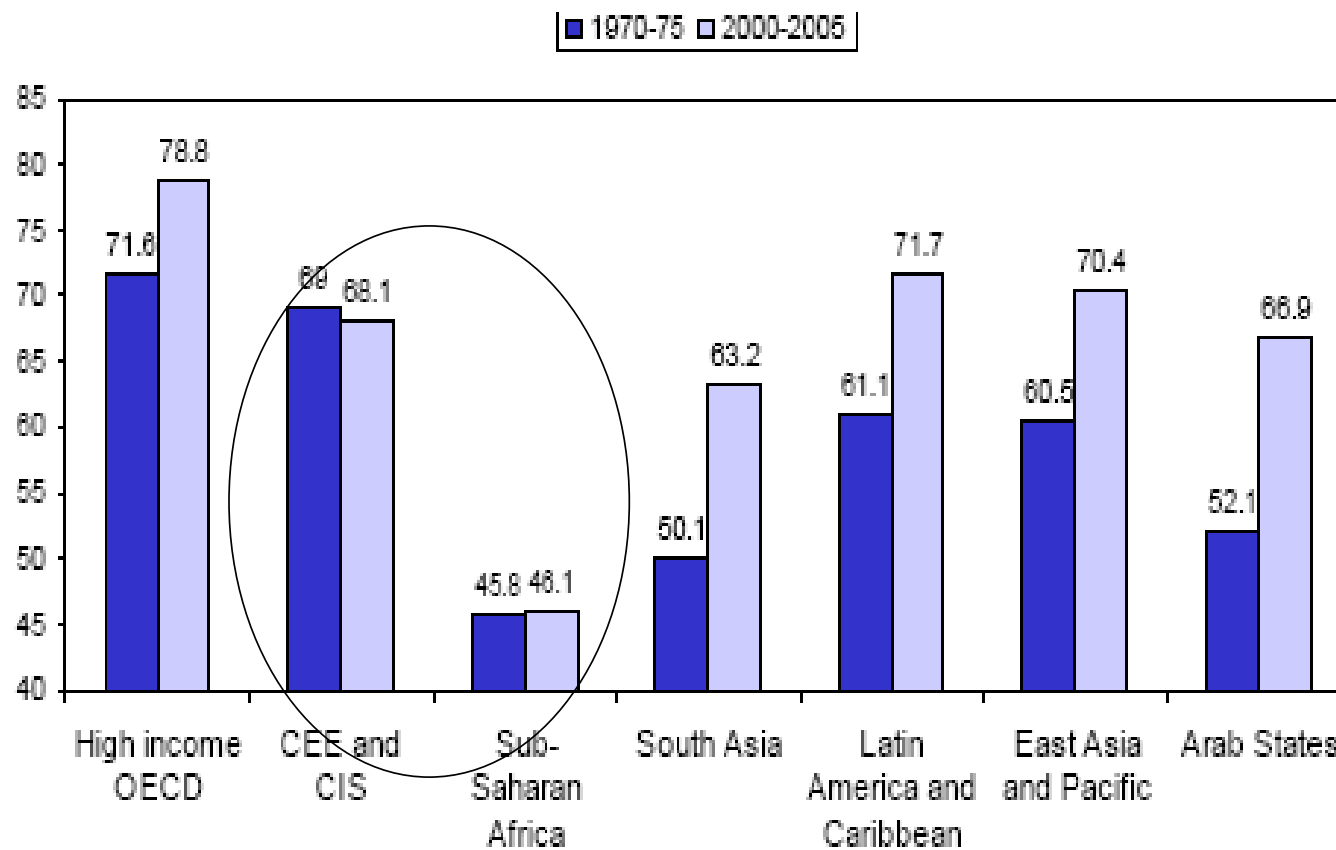
TB cases



Territory size shows the proportion of worldwide tuberculosis cases found there.

Despite successes, growing inequalities in global health

Figure 1: Life expectancy at birth by region, 1970–1975 and 2000–2005



Source: UNDP, 2005.

Life expectancy trends in Southern Africa

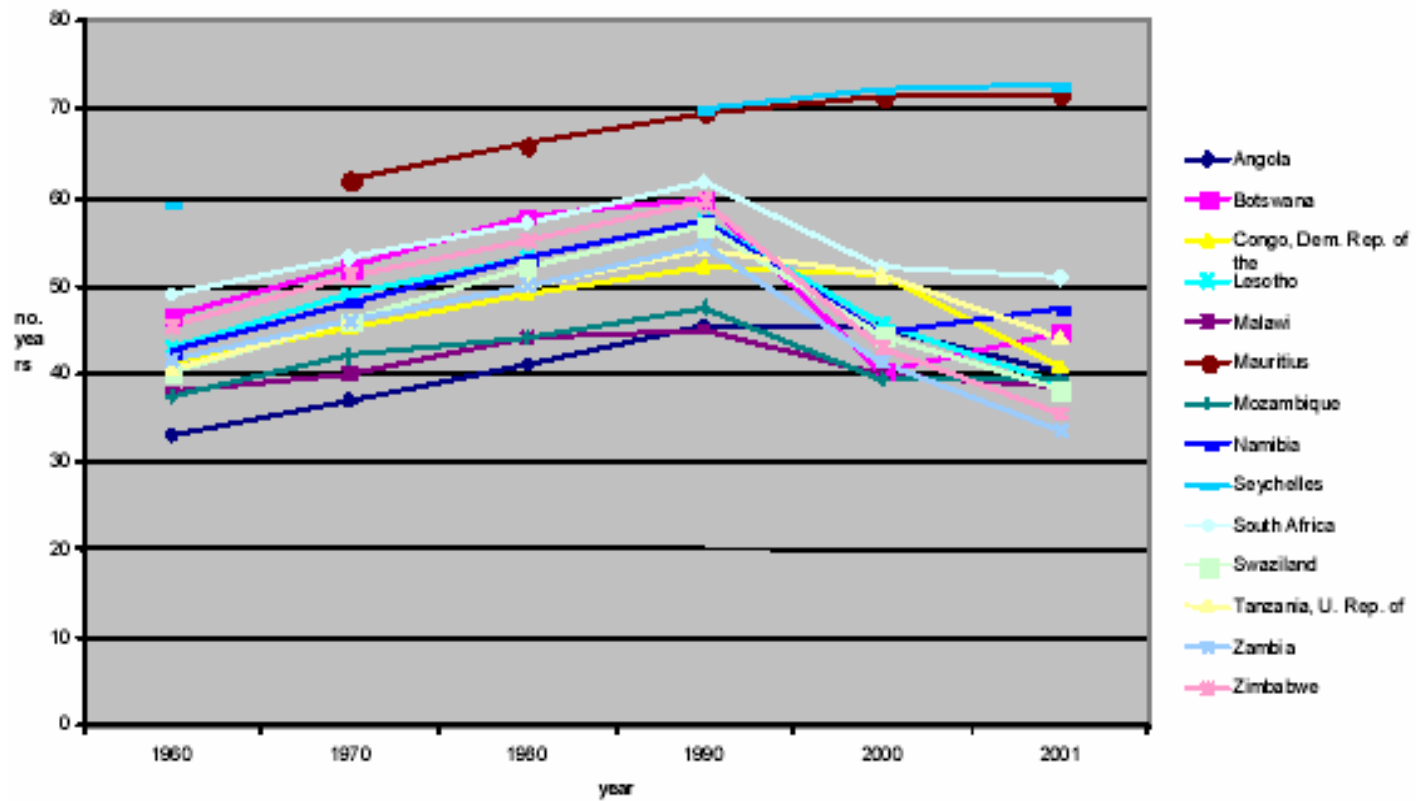
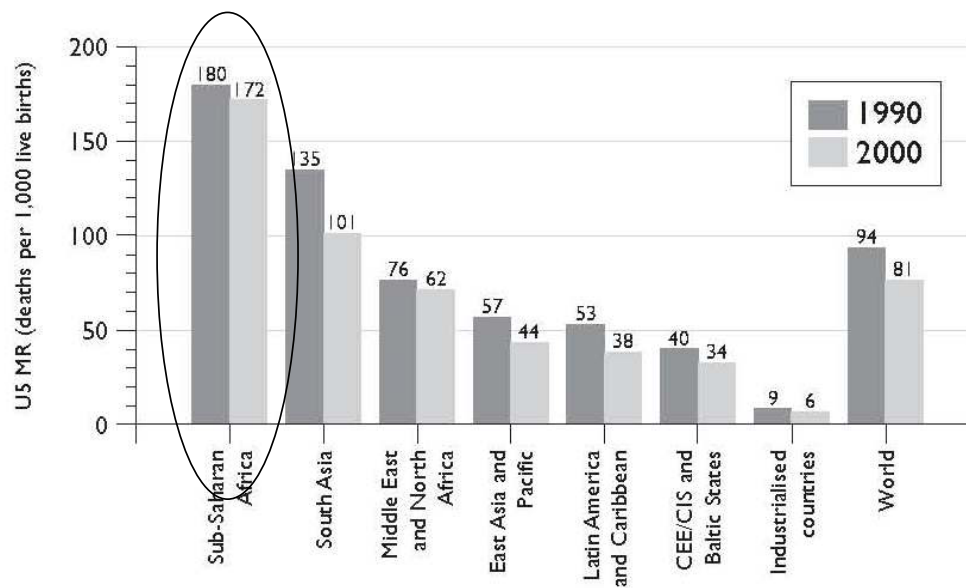


Figure 1: Changes in childhood mortality 1990–2000

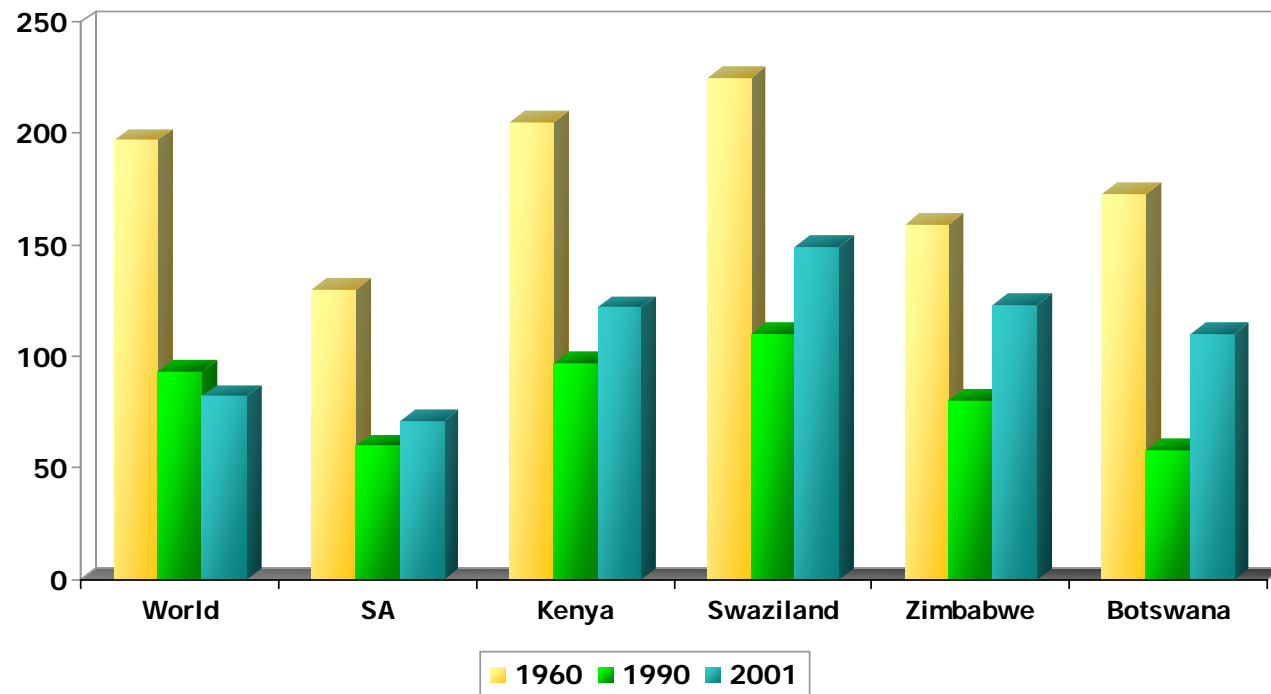
Trend	14% reduction with 3 million fewer child deaths
1990 U5MR	94 per 1,000 live births
2000 U5MR	81 per 1,000 live births
2010 goal	Further 33% reduction
Comments	63 countries achieved the goal of a 33% reduction and in over 100 countries deaths in children under 5 were cut by 20%.

U5MR change over period 1990-2000



Source: UNICEF (2002)

Under 5 Mortality Rates in Sub-Saharan Africa



The State of the World's Children 2003. UNICEF

Global health inequities

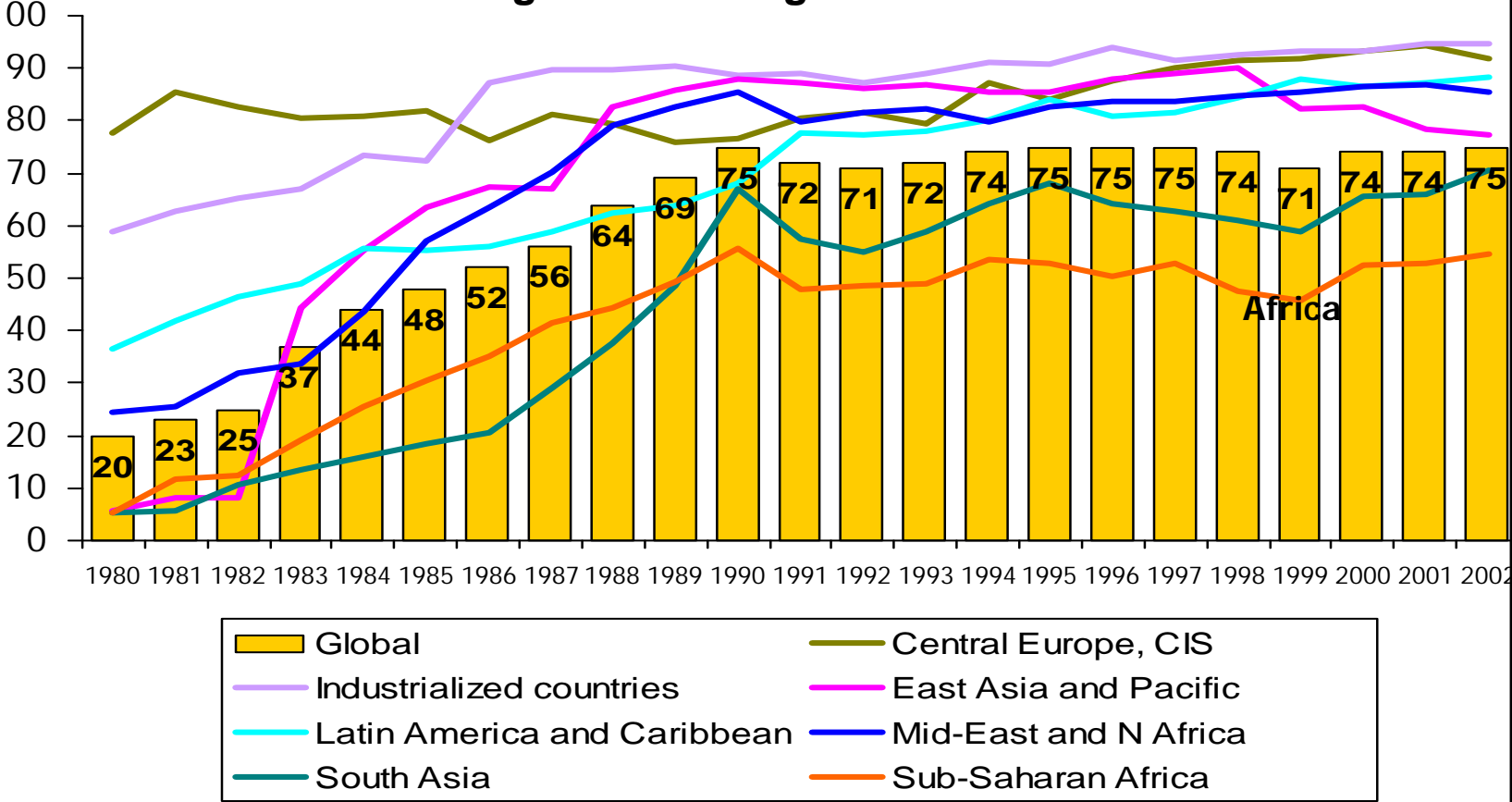
- A woman has a nine in ten chance of reaching the age of 65 years in a high-income OECD country,
- **but a four in ten chance in Malawi.**

- **In Tanzania, every sixth child born alive will die before the age of five years,**
- while in high income OECD countries, every 167th child dies before the age of five.

Declining Health Systems

Global Immunization 1980-2002, DTP3 coverage

global coverage at 75% in 2002



Source: WHO/UNICEF estimates, 2003

What are the key '**Basic Causes**' of Africa's Health Crisis?

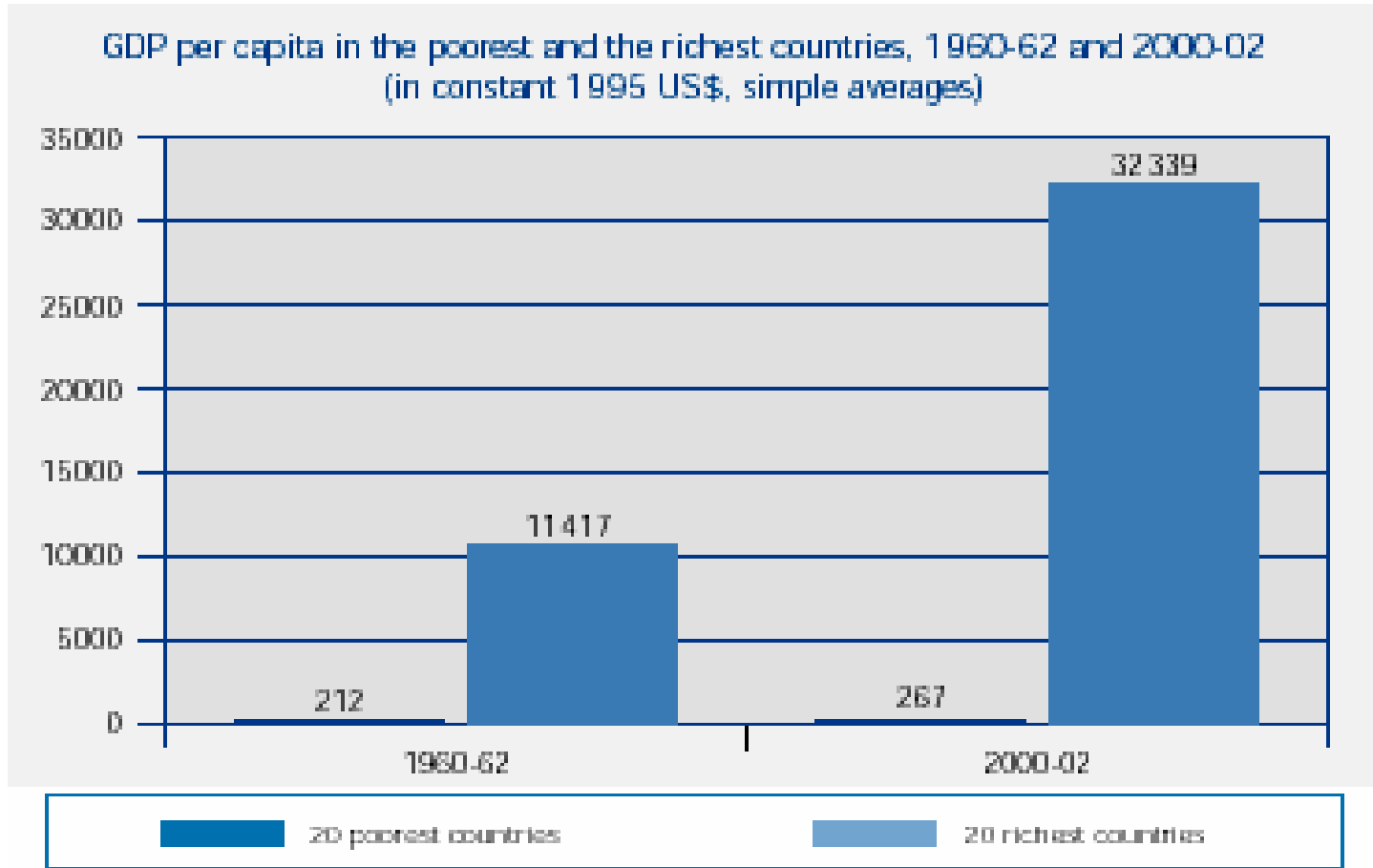
HIV/AIDS

Increasing poverty and inequality worsened by inequitable globalisation

and selective PHC and inappropriate health sector "reform"

..... result in slow progress and reversals.

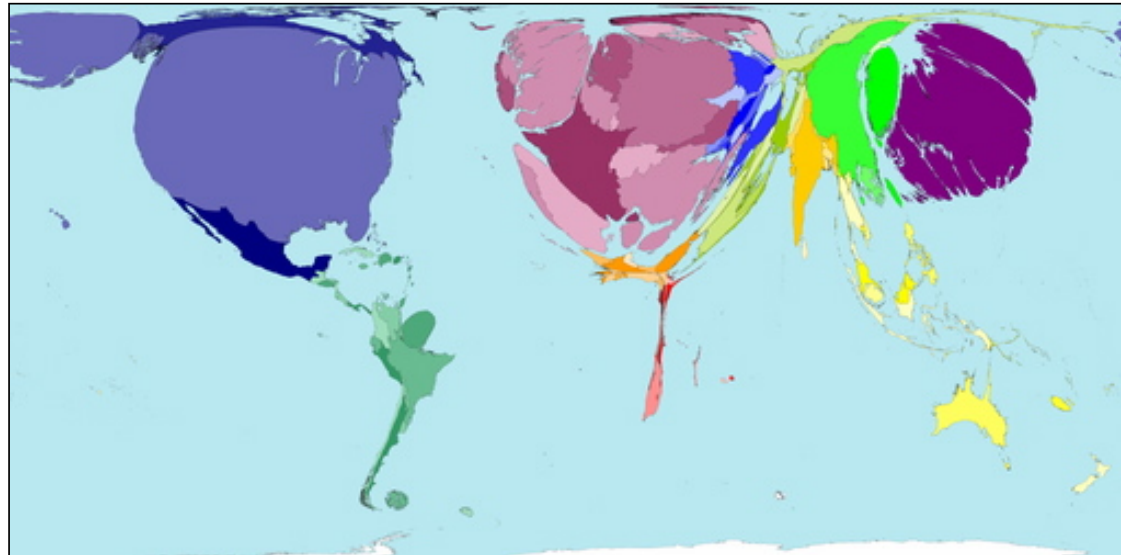
The result... unequal growth of wealth between countries



Source: Based on a sample of 94 countries and territories with continuous time-series data from 1960 to 2002, as available from World Bank *World Development Indicators 2003* (online version).

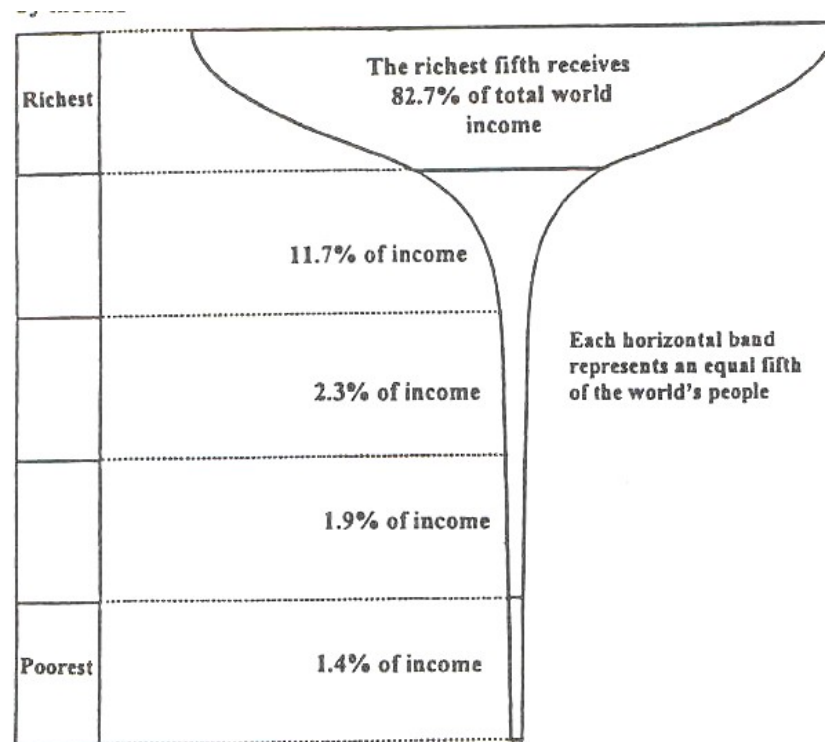
AFRICA'S CRISIS

GDP wealth



Territory size shows the proportion of worldwide wealth, that is Gross Domestic Product based on exchange rates with the US\$, that is found there.

..and unequal distribution of global income



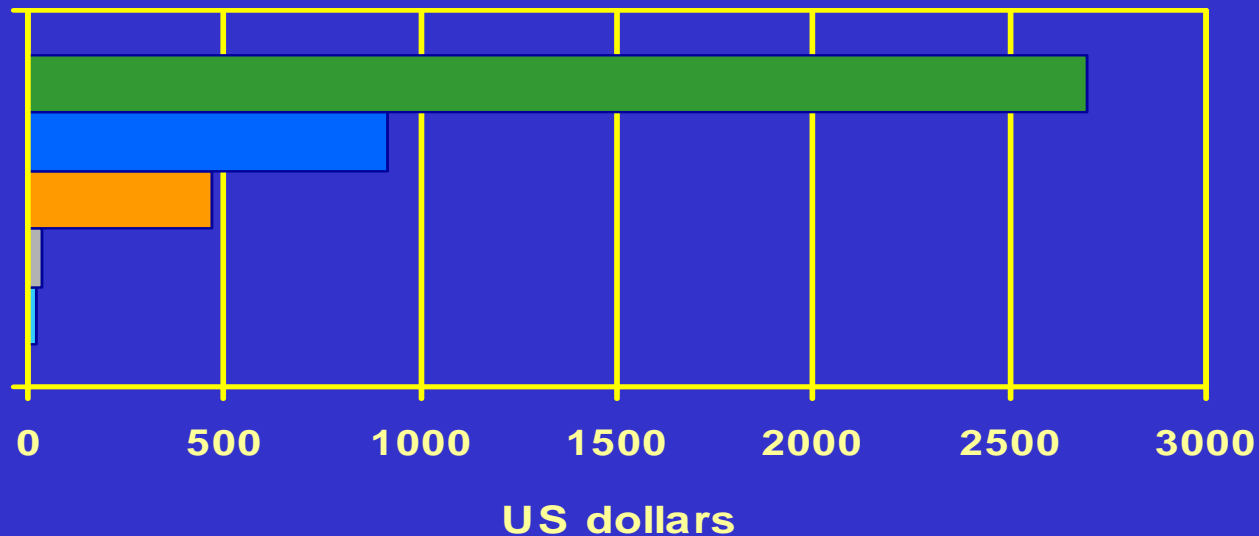
UNDP 1997

..and growth of poverty

- According to the World Bank's most recent figures, in sub-Saharan Africa 313 million people, or almost half the population, live below a standardized poverty line of \$1/day or less (Chen and Ravallion 2004).

- Sub-Saharan Africa is the only region of the world in which the number of people living in extreme poverty has *increased* – indeed, almost doubling between 1981 and 2001.**

Why should a Japanese cow enjoy a higher income than an African citizen?



- Japan annual dairy subsidy, per cow
- EU annual dairy subsidy, per cow
- Per capita annual income, sub-Saharan Africa
- Per capita cost of package of essential health interventions
- Per capita annual health expenditure, 63 low income countries

**The Health System, its financing and
human resources**

Sub-Saharan African Country *per capita* expenditures on health
(1997-2000)

Recommended expenditure: >\$60/capita (Brundtland); >\$34/capita (CMH)

Number of countries	Amount of spending
4	> \$60
2	\$34 - \$60
11	\$12 - \$34
18	< \$12
13	Data not available or population <1.5 million

World Bank, *World Development Report 2004*

The changing donor funding architecture and the emergence of Global Health 'Partnerships' have reinforced 'selective', technocratic and vertical approaches

What is new about GHPs/GHIs?

- New actors
 - in addition to country governments (donor +/- recipient), notably: **Philanthropy** (e.g. Gates), **Pharma** and **Civil Society** (e.g. NGOs)
- New global governance mechanisms
 - outside of, or transcending, traditional multilateral bodies (WHO, World Bank, UN agencies)

Categories and Purposes of GHIs

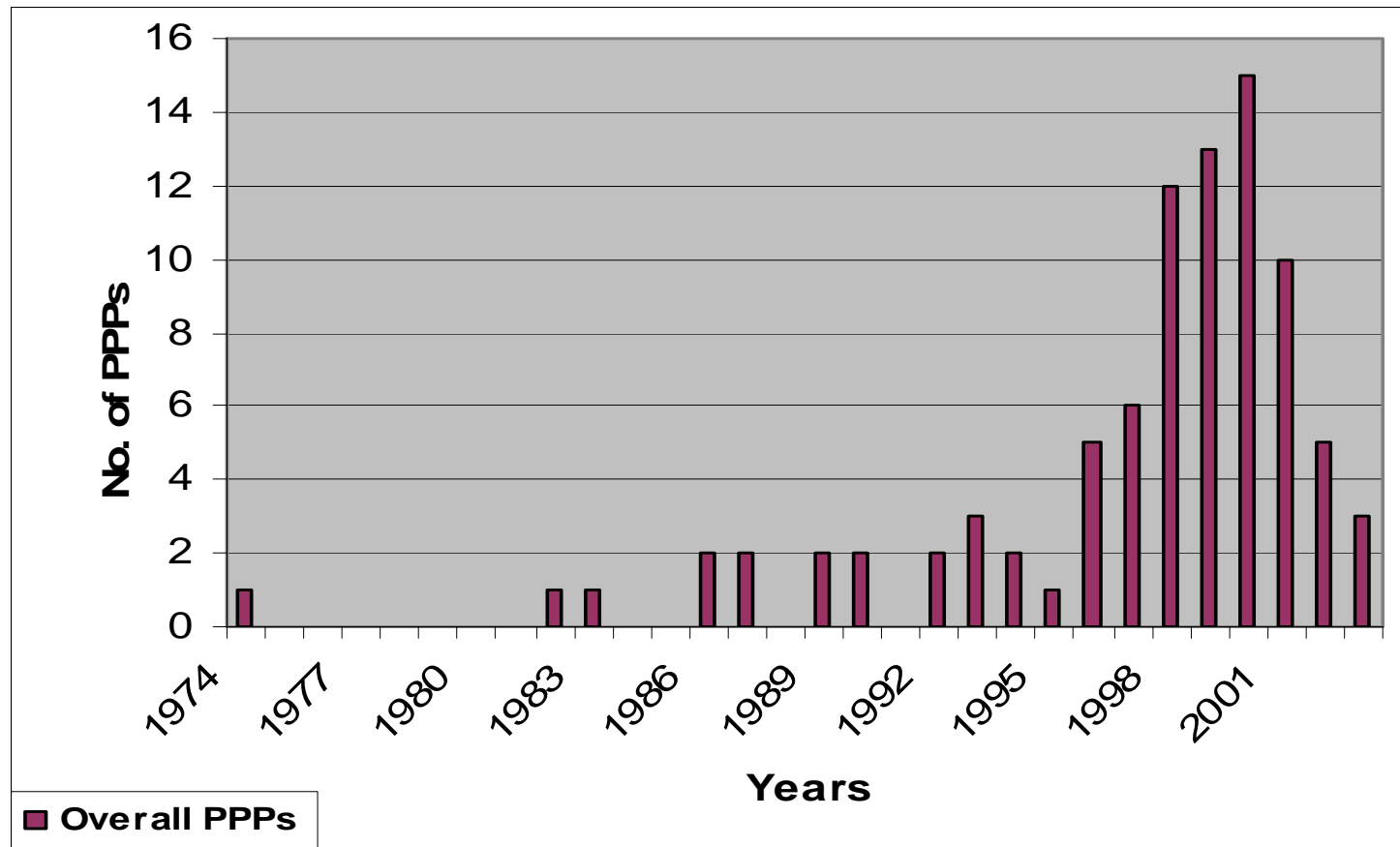
- 1. Product (drug or vaccine) development (33)**
- 2. Increase access to health products (26)**
- 3. Health service strengthening (9)**
- 4. Public education & advocacy (8)**

Categories and Purposes of GHIs

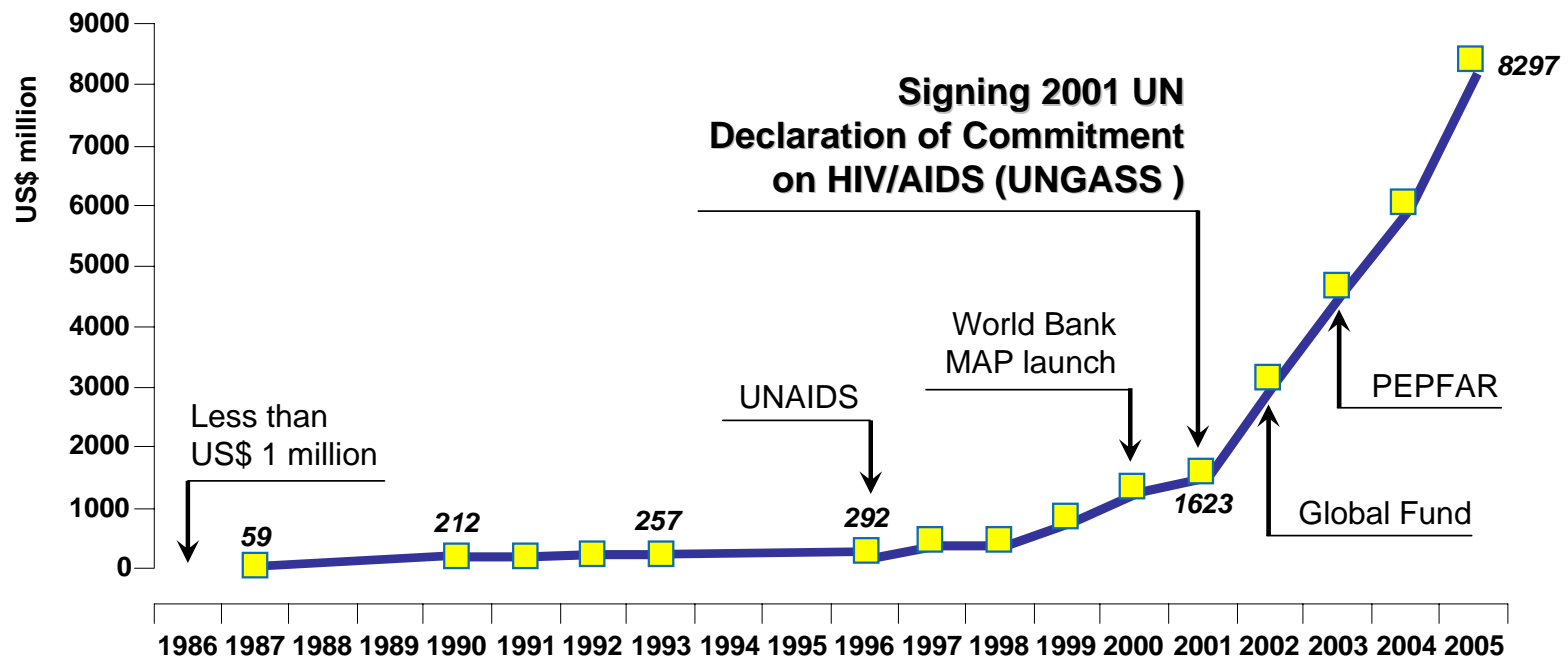
5. Global Coordinating mechanisms including funding vehicles (11)

Eg The Global Fund to Fight AIDS, Tuberculosis and Malaria (**GFATM**), Global Alliance for Vaccines and Immunization (**GAVI Alliance**), Roll Back Malaria Global Partnership (**RBM**), Stop TB Partnership (**Stop TB**)

GHPs, established 1974-2003, (overall) <www.ippph.org>



Total annual resources available for AIDS 1986-2005



Notes: [1] 1986-2000 figures are for international funds only
[2] Domestic funds are included from 2001 onwards

[i] 1996-2005 data: Extracted from 2006 Report on the global AIDS epidemic (UNAIDS, 2006)

[ii] 1986-1993 data: AIDS in the World II. Edited by Jonathan Mann and Daniel J. M. Tarantola (1996)

Impact of GHIs on country health systems

Maximizing Positive Synergies Collaborative Group. An assessment of interactions between global health initiatives and country health systems. *Lancet* 2009; **373**: 2137–69.

Donor practices

5 highest burdens for LMICs *

1. donor driven priorities and systems
2. difficulties with donor procedures
3. uncoordinated donor practices
4. excessive demands on government time
5. delays in disbursements

* survey of 11 recipient countries cited in:

Guidelines for harmonising donor practices for effective aid delivery
OECD Development Assistance Committee, 2003

Brugha 2007

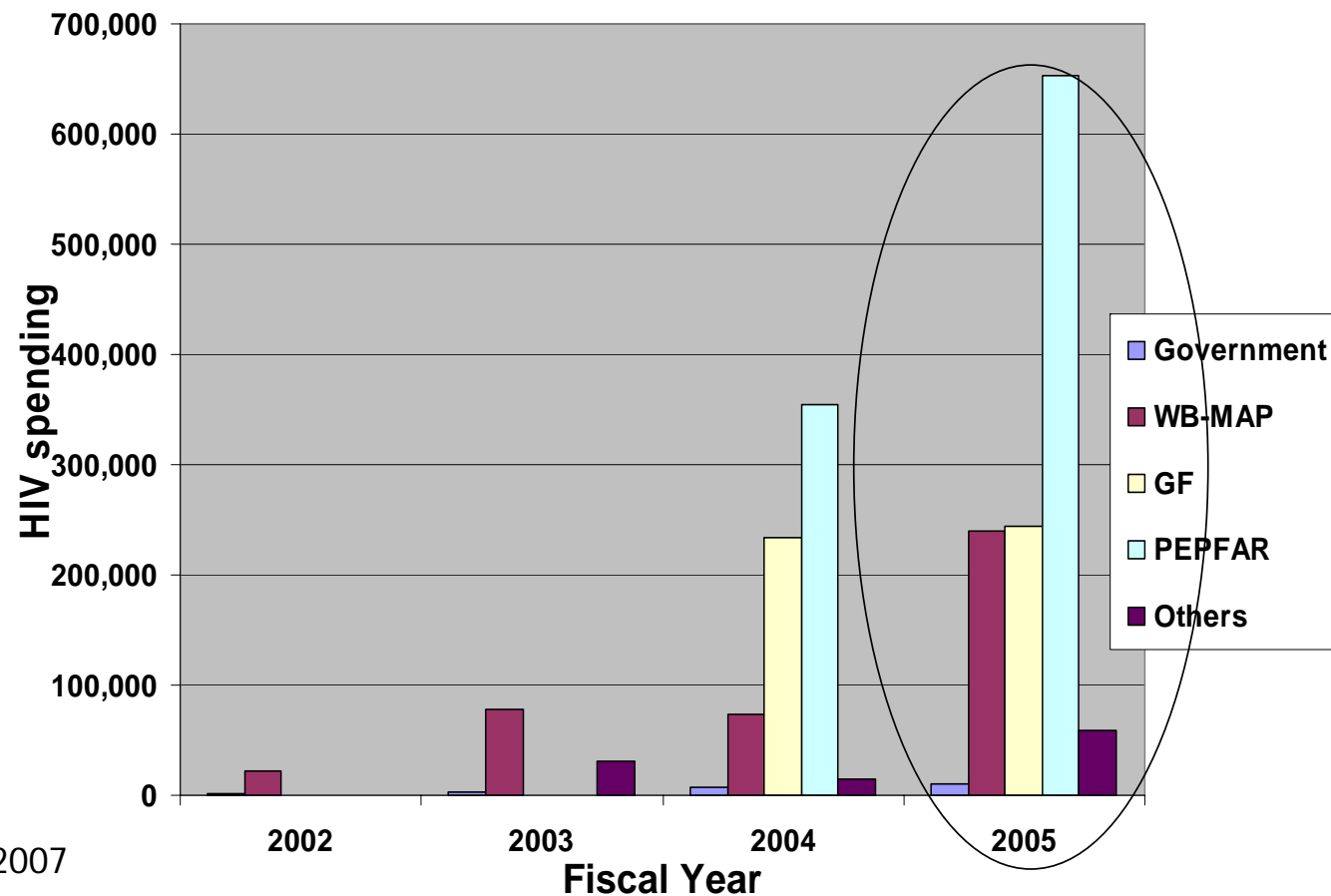
AIDS and Aid may both disrupt health systems...

In 2000, Tanzania was preparing 2,400 quarterly reports on separate aid-funded projects and hosted 1,000 donor visit meetings a year.

Labonte, 2005, presentation to Nuffield Trust

Challenges: Sustainability eg Ethiopia

HIV/AIDS especially ART is donor dependent—HIV Spending (in Birr) by Source of Funds: Donor Vs Government (source HAPCO documents till 2005)



Banteyerga, 2007

Challenges: Effects on Non-Focal Health Care Services eg Ethiopia

“Health providers are shifted from the medical and surgical departments to the ART clinic. This is creating work burden on health providers, for they have to cover services that used to be offered by the shifted staff”.

the ART clinic. Regional hospital, head of

Banteyerga, 2007

Conclusions (1)

- Africa's health crisis results from inequitable globalisation, ill-considered health sector "reforms", the HRH crisis and HIV/AIDS
- GHIs have emerged as a response to this emergency and to fiscal crisis
- GHIs have resulted in large funding increases for particular diseases but privilege individually-focussed interventions
- GHIs, especially PEPFAR, reinforce domination of policy and programmes by outside 'experts', likely delaying local capacity development, including of institutions

Conclusions (2)

- **Anecdotal and early research evidence suggest GHIs disrupt health system development and distort allocation of HRH**
- Take-over of funding of these programmes by governments unlikely without changes in global macroeconomic policies
- GHIs may be strengthening 'selective' PHC and undermining comprehensive PHC
- Greater coordination of GHI efforts is urgently necessary

A Definition of Health Systems

The WHO definition of health systems includes **“all the activities whose primary purpose is to promote, restore, or maintain health”**:

- Interventions in the household and community and the outreach (health information and education, etc.) that supports them;
- Facility-based system and broader public health interventions, such as food fortification or anti-smoking campaigns.
- All categories of providers: public and private, formal and informal, for-profit and not-for-profit, allopathic and indigenous
- Mechanisms, such as insurance, by which the system is financed
- Regulatory authorities and professional bodies who are meant to be the “stewards” of the system.
health systems

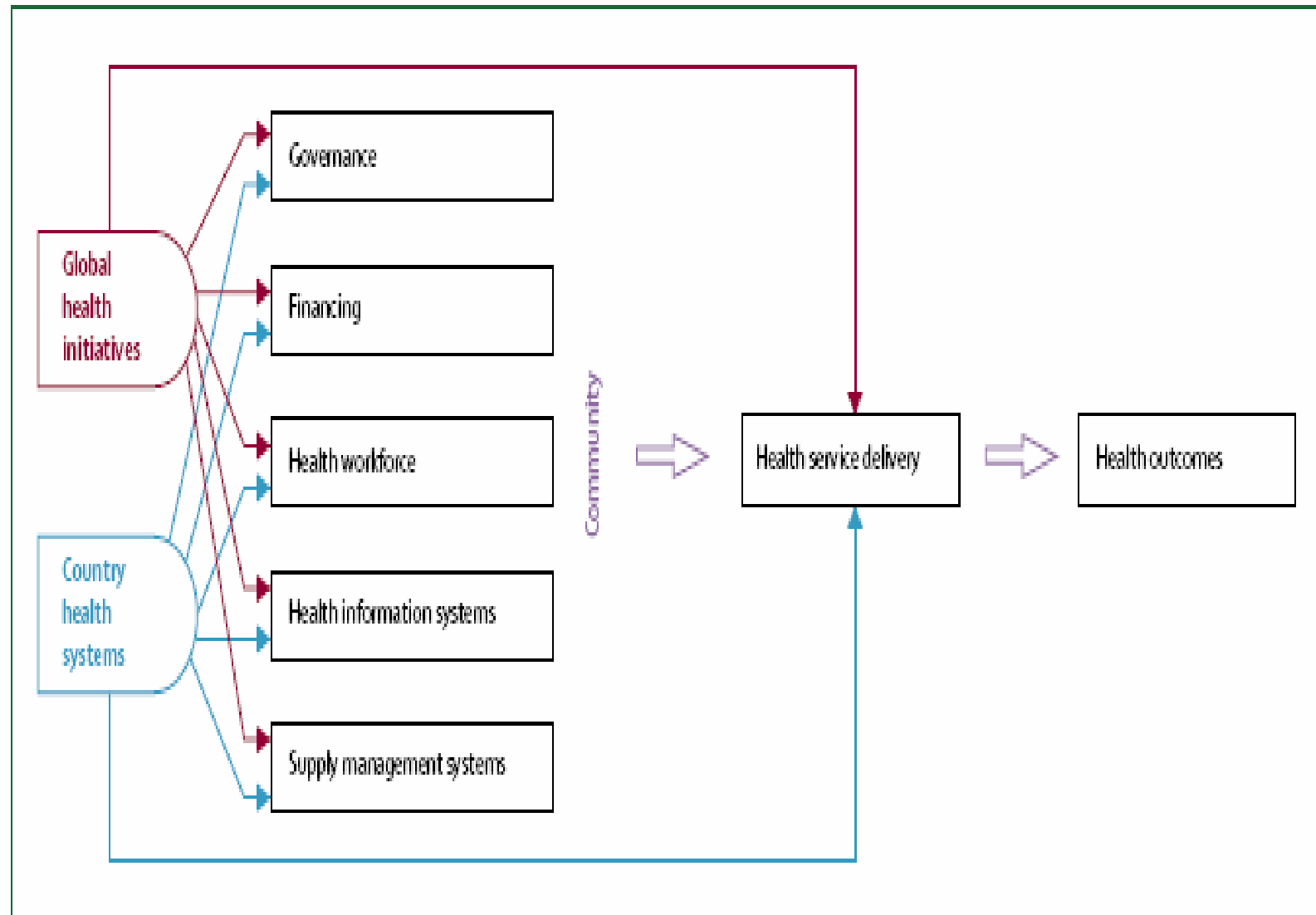
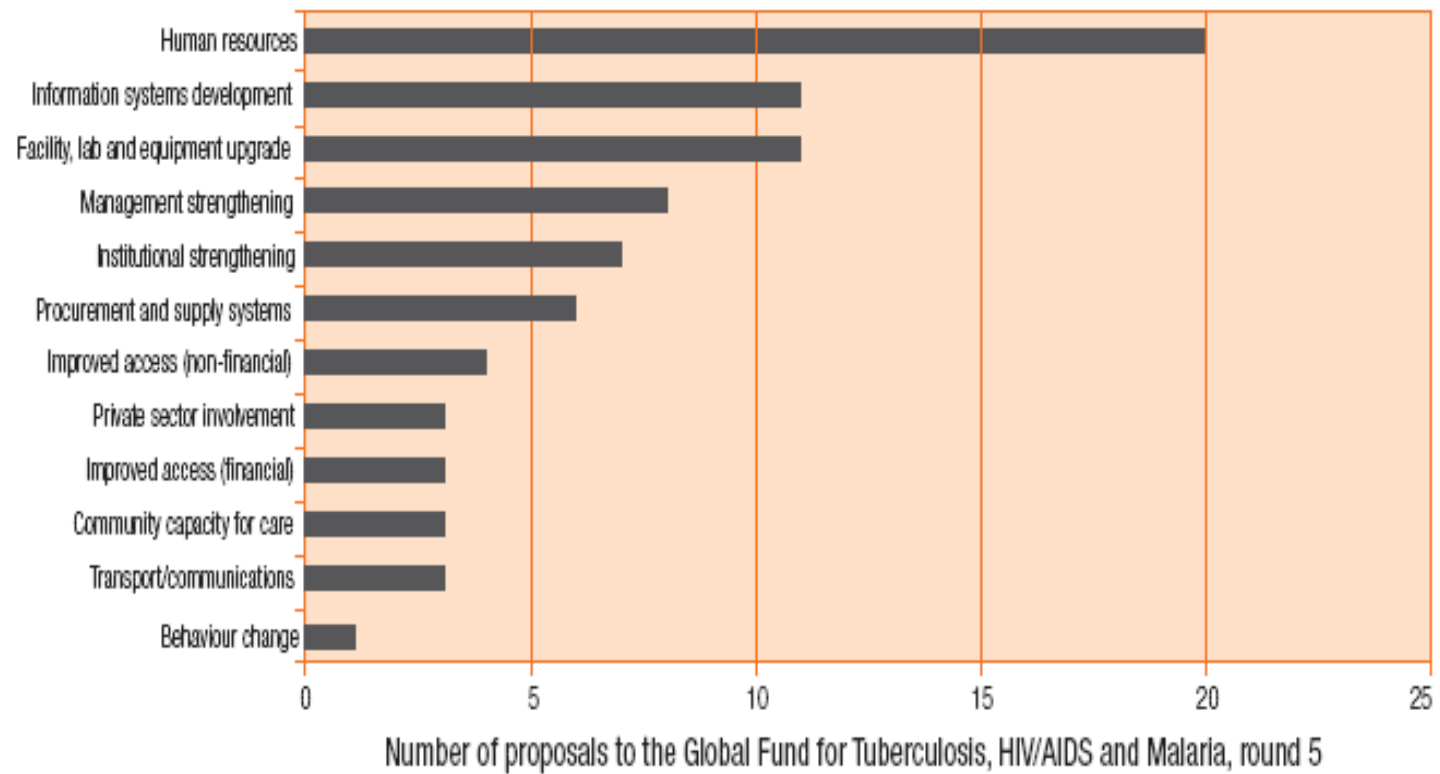


Figure 1: Conceptual framework of the interaction between global health initiatives and country health systems

Figure 7.3 Country priorities for health systems strengthening

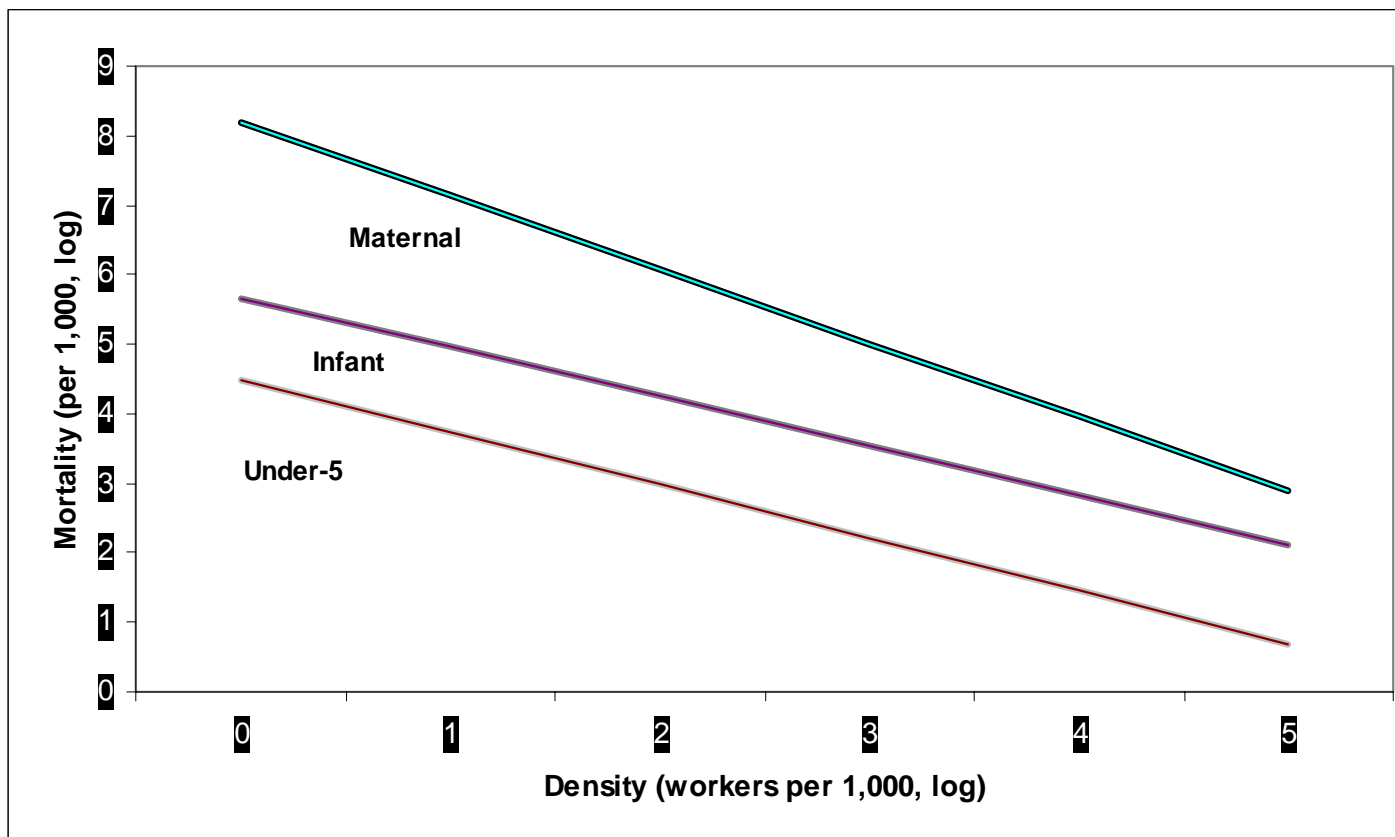


Source: (5).

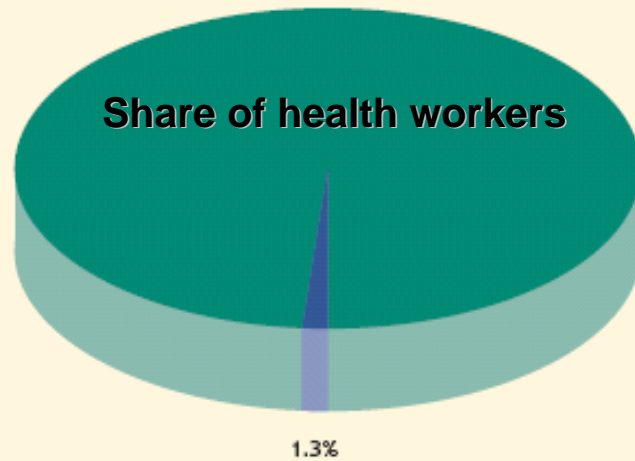
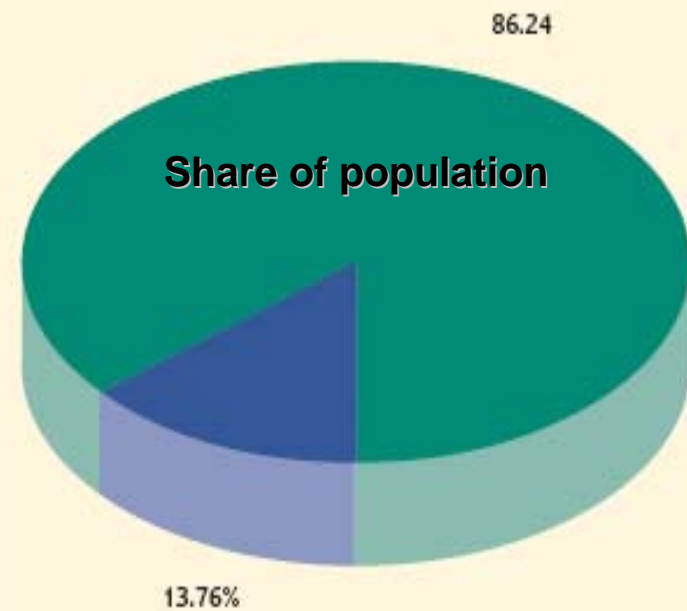
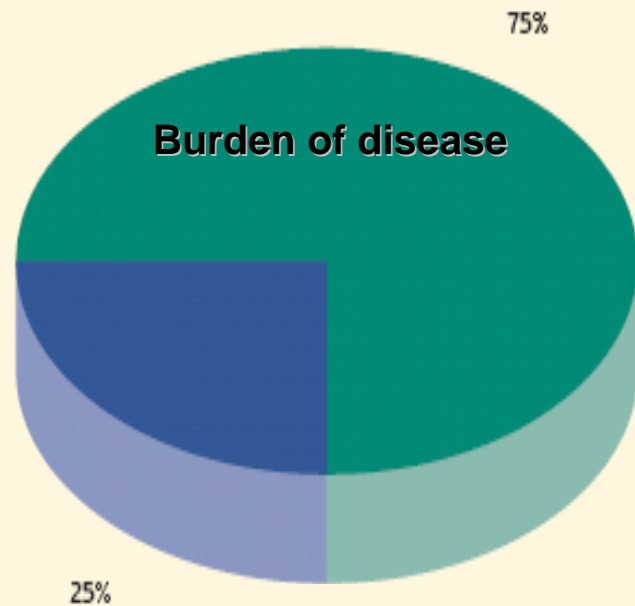
Health systems & human resources

- Health personnel vital, consume between 60 – 80% of recurrent public health expenditure (WB, 1994).
- Health personnel development is primary step in health systems development

Health Workers Save Lives!

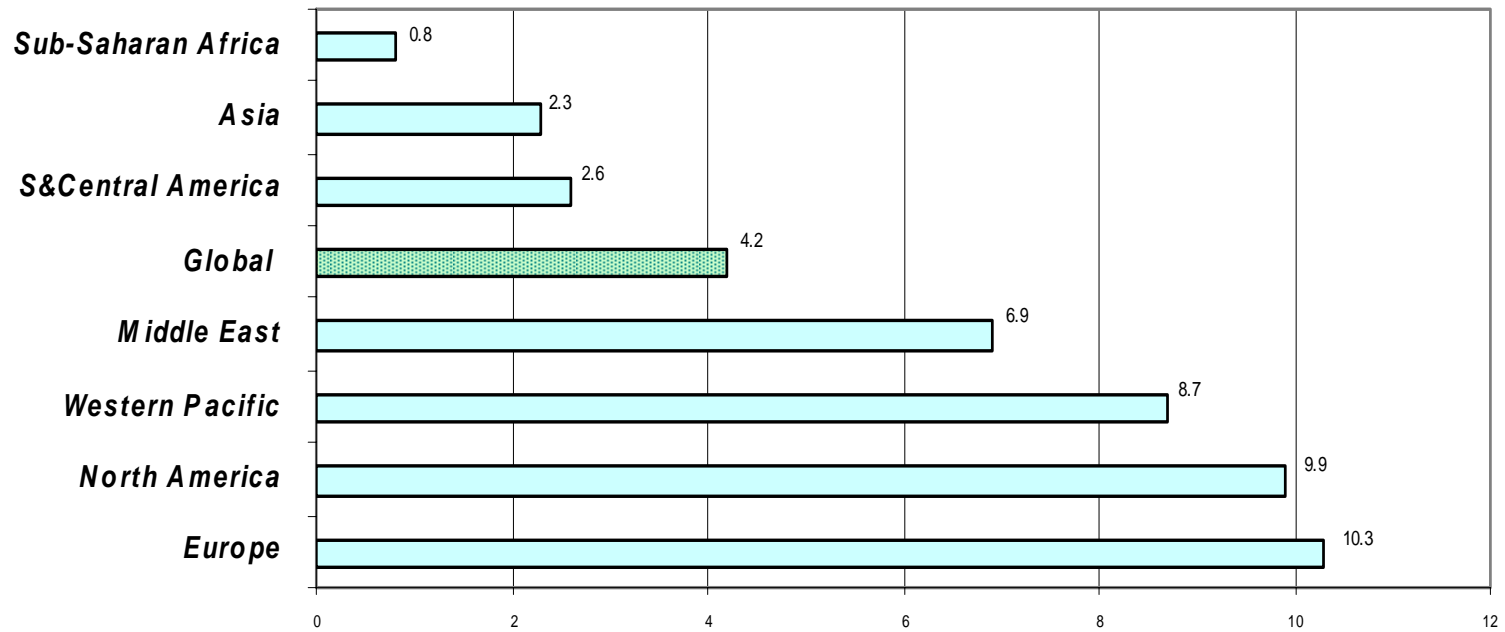


Anand & Barnighausen, 2004



Our Common Interest 2005:184

HRH DENSITY BY REGIONS



Workers (physicians, nurses and midwives) per 1,000 population

Workforce data are aggregates that mask unequal distribution between rich and poor African countries and between rural and urban areas

Source: JLI, 2004

Table 1.3 Estimated critical shortages of doctors, nurses and midwives, by WHO region

WHO region	Number of countries		In countries with shortages		
	Total	With shortages	Total stock	Estimated shortage	Percentage increase required
Africa	46	36	590 198	817 992	139%
Americas	35	5	93 603	37 886	40
South-East Asia	11	6	2 332 054	1 164 001	50
Europe	52	0	NA	NA	NA
Eastern Mediterranean	21	7	312 613	306 031	98
Western Pacific	27	3	27 260	32 560	119
World	192	57	3 355 728	2 358 470	70

NA, not applicable.

Data source: (3)

Table I: Cross-country comparison of physician and nurse density per 1 000 population, 2006

Country	Physician density per 1 000 population	Nurse density per 1 000 population
Mozambique	0.03	0.21
Lesotho	0.05	0.62
Zambia	0.12	1.74
Zimbabwe	0.16	0.72
Namibia	0.30	3.06
Botswana	0.40	2.65
South Africa	0.77	4.08
United States of America	2.56	9.37
France	3.37	7.24
United Kingdom	2.30	12.12

Source: WHO, 2006.¹

Table 5: Distribution of medical practitioners by public sector dependent and private sector (medical scheme coverage) dependent persons, 2007

	Ratio medical practitioner to population	Medical practitioner per 100 000
Public sector dependants	1 per 4,219	23.7
Medical scheme beneficiaries	1 per 601	166.3

Source: Derived using PERSAL, PCNS and StatsSA, 2006.¹⁰

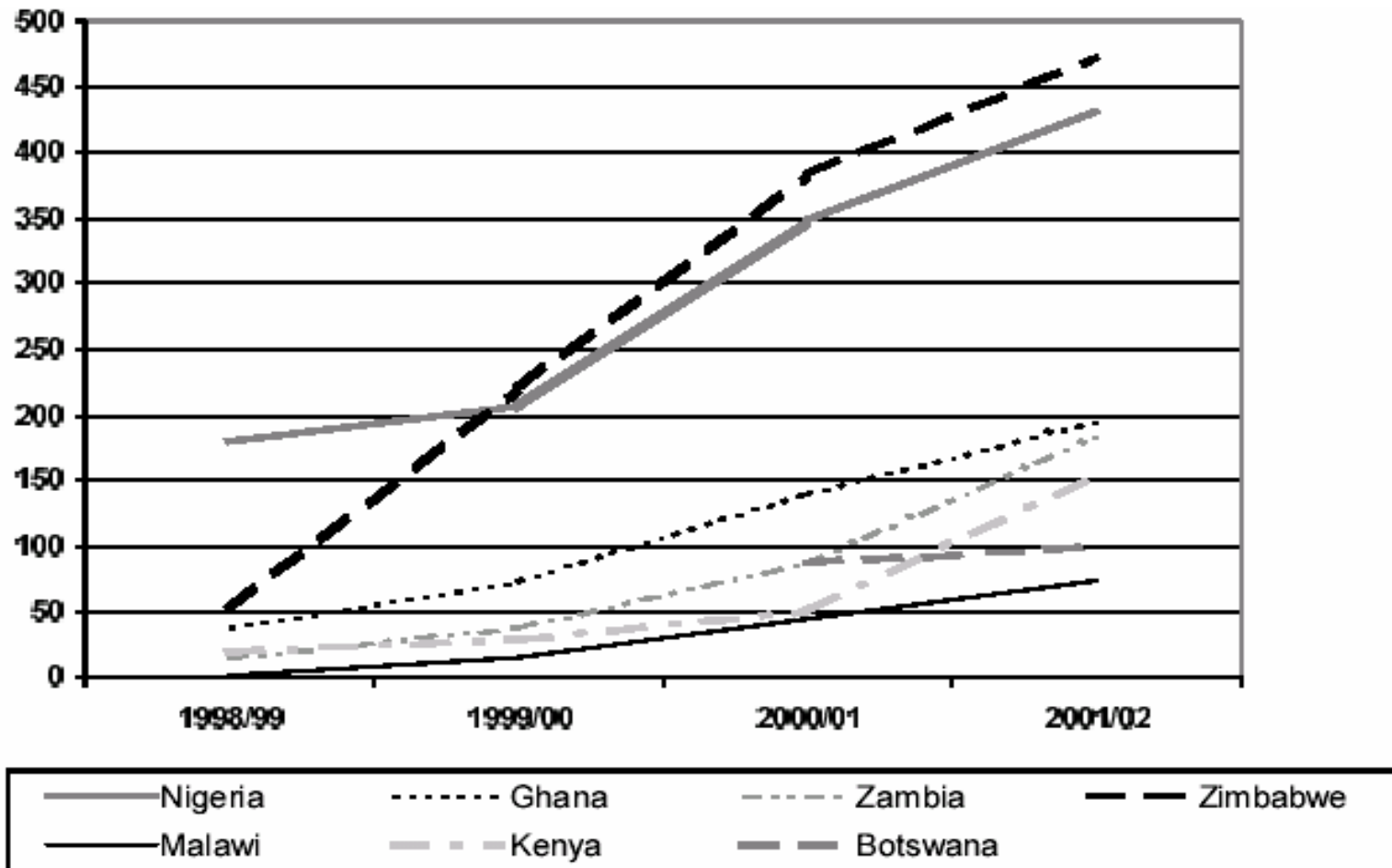
Extent of (health professional) migration from Africa

- Africa set to become major source of migrants during 21st century (Martin & Widgren, 2002).
- 33,800 people migrate annually from Africa since beginning of 1990s, of whom approx. 20,000 – 23,000 are highly skilled professionals = 64%.
- Data on health professional migration from immigration and professional registers. Both registers inaccurate.
- Available data incomplete, i.e. information re. the period over which migration occurred lacking, e.g. 21,000 Nigerian physicians left for the USA, the Sudan lost 17% of its doctors, and Ethiopia and Zambia both lost approx. 50% of their doctors.

Extent of health professional migration from Africa, cont.

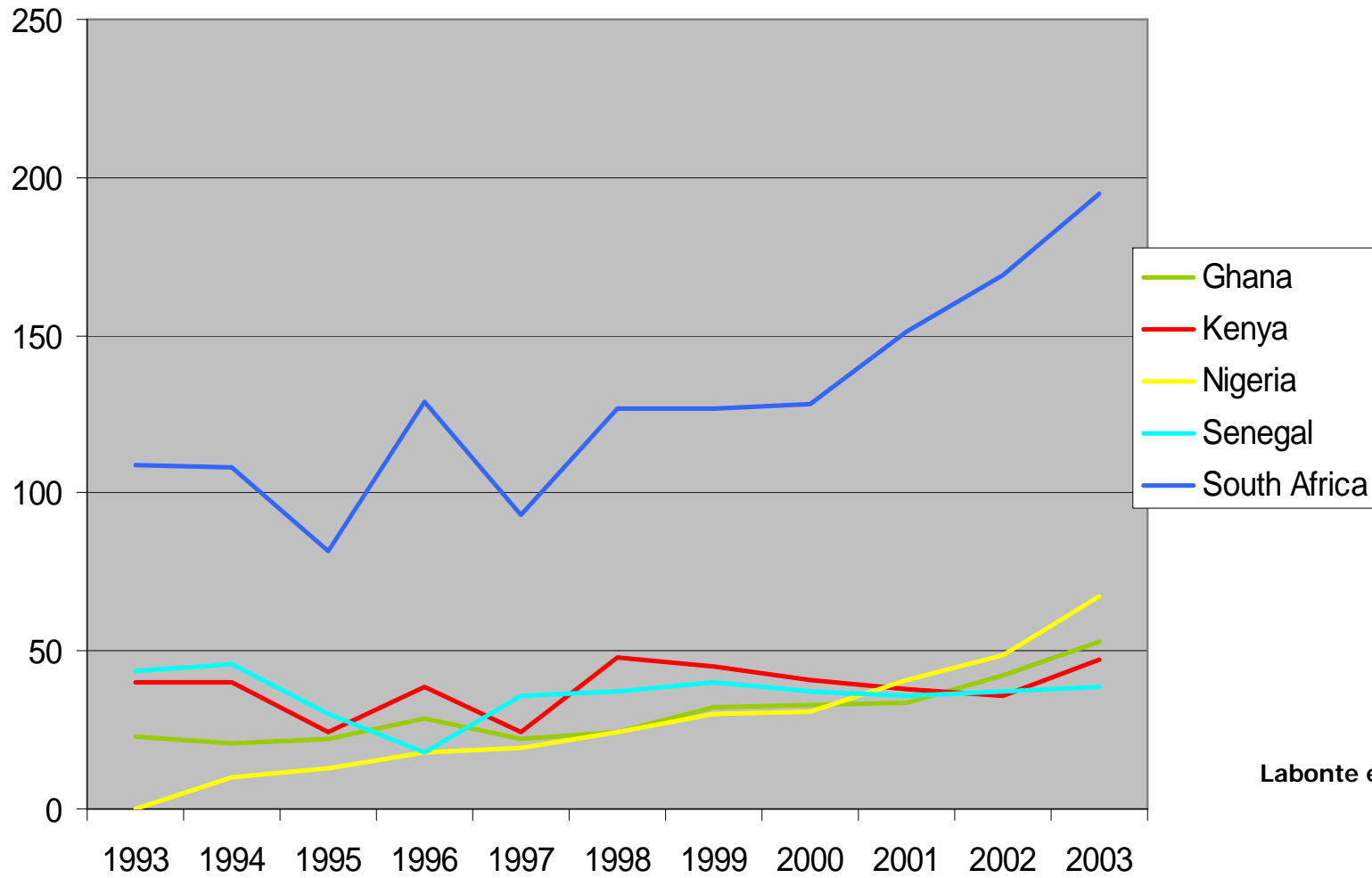
- Between 1985 and 1995, 60% of Ghana's medical graduates left.
- In 1999, 78% of physicians in South Africa's rural areas were non-South Africans.
- During the 1990s Zimbabwe lost 840 of 1,200 medical graduates;
- 2,114 South African nurses left for the UK during 2001.

NURSE REGISTRATION IN UK : Increase during a period when a “ban” on active international recruitment had just come into effect



Buchan et al 2003

RN Workforce by Country of Graduation in Canada, 1993-2003



Labonte et al

International migration—winners & losers

How much do importing countries gain from international migration?

UN Conference on Trade and Development (UNCTAD):
for each professional aged between 25 and 35 years, US\$ \$184,000 is saved in training costs by rich countries

(UNECA, 2000)

Discourse on international migration- Winners

The 27 OECD countries have a workforce of approx. 3 million professionals educated in developing countries. Using the conservative figure of US\$ 20,000/ person educated outside of OECD, the transfer of wealth from developing to developed countries is approx. US\$ 60 billion. The OECD savings are a staggering US\$552 billion if UNCTAD figure of US\$ 184,000 is used.

The “development paradox”

“It can be extrapolated that between 1985 and 1990, on the 60,000 professionals who emigrated, the continent lost [US]\$ 1.2 billions. This represents the reverse of what development aid tries to achieve through “transfer of technology and human resources”. This development paradox, combined with the inability of the African countries in building, retaining, and utilising indigenous capacities critical to Africa’s growth and development will deprive Africa of its vital development resources and make it more heavily dependent on foreign expertise.”
(UNECA, 2000)

Task-shifting as an alternative approach

- What is task-shifting? – WHO definition:
 - Task shifting is the name now given to a process of delegation whereby tasks are moved, where appropriate, to less specialized health workers.

The case for revitalising PHC and reintroducing CHWs

A Case Study of IMCI

Past debates and new evidence ... with current implications

“Liberator or lackey” (David Werner, 1981)

- The early literature emphasises the role of the CHWs as not only (and possibly not even primarily) a health care provider, but also as an advocate for the community and an agent of social change:
 - functioning as a community mouthpiece to fight against inequities and advocate community rights and needs to government structures.
- This view is also reflected in the Alma Ata Declaration which identified CHWs as one of the cornerstones of comprehensive primary health care.

Why should interventions be delivered in community settings?

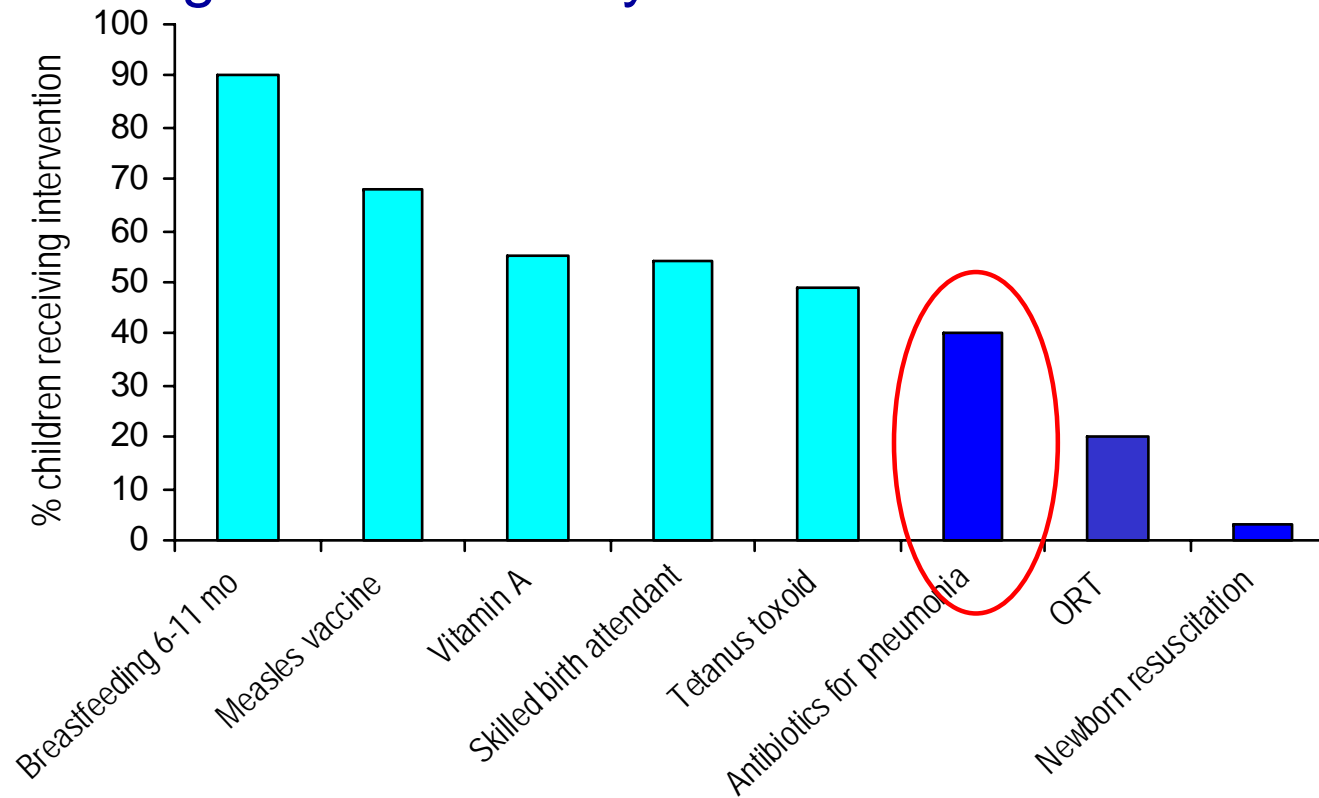
- Many deaths occur outside health facilities
- Currently the coverage of many effective interventions is low — well under 50% in many cases — and the quality of care is deficient in many communities
- Poor families are less likely to access government health facilities than wealthier families

How many child deaths could be prevented per year with proven interventions?

- **63% of child deaths**
- **More than 6 million deaths**

IMCI pneumonia case management (Tanzania)

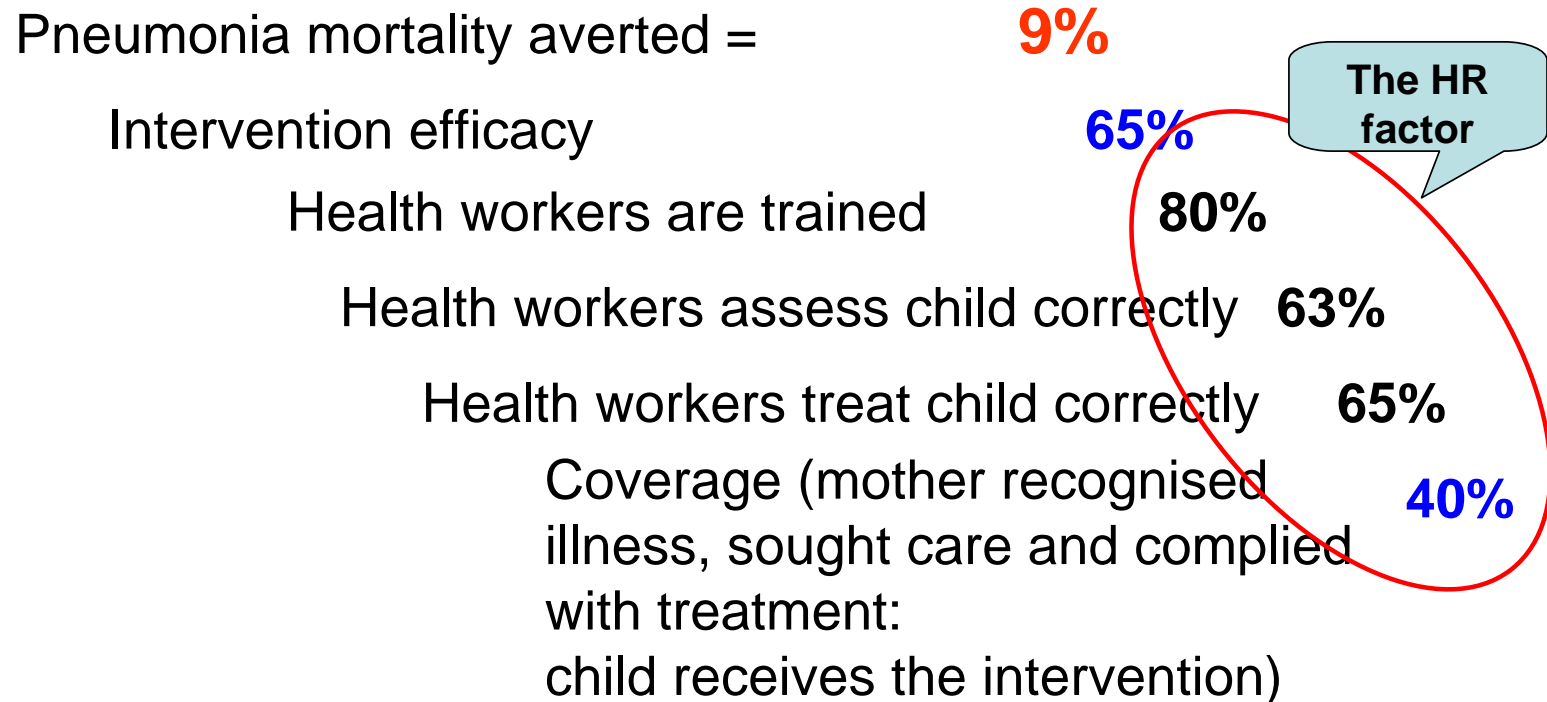
Coverage: child actually receives the intervention



Source: Jones et al, *Lancet* 2003, 362: 65-71

IMCI pneumonia case management (Tanzania)

Coverage under actual programme conditions

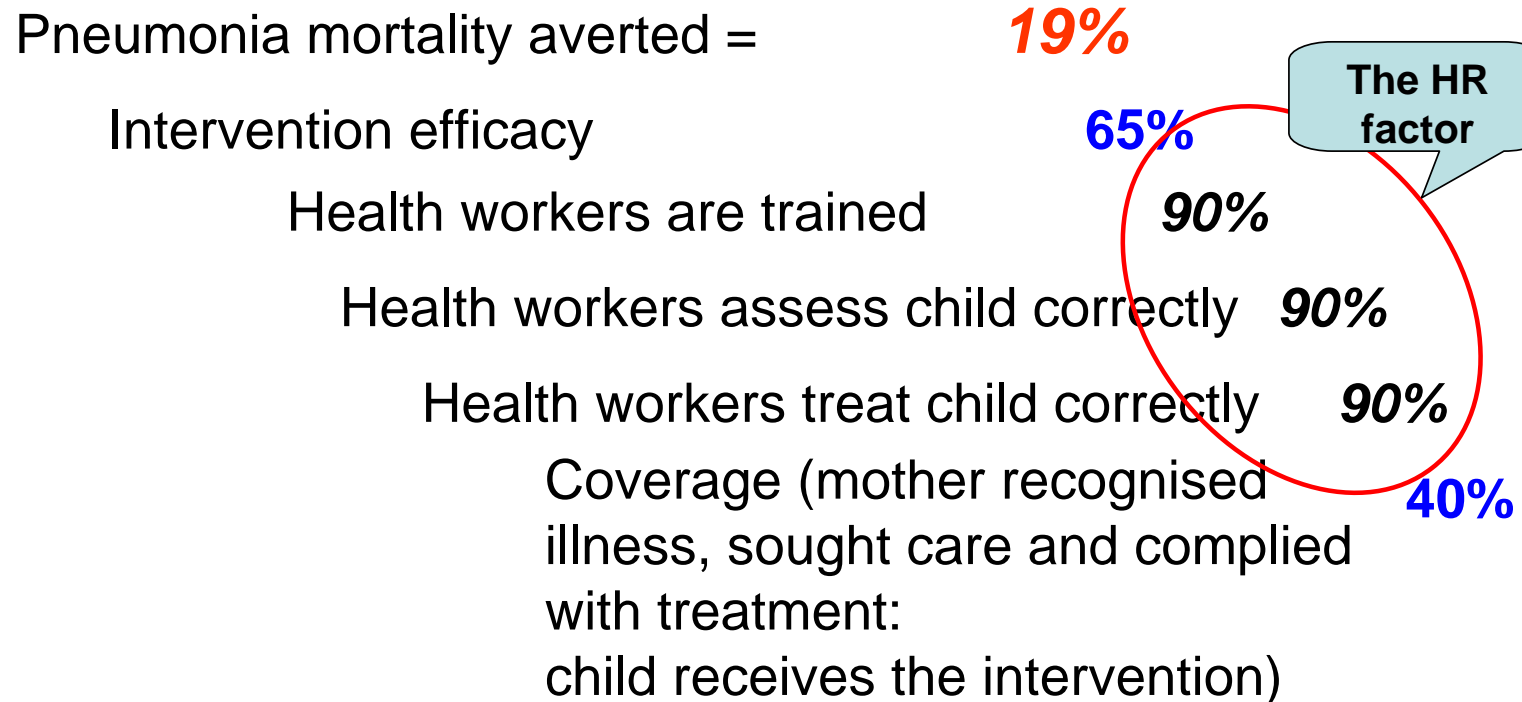


Tugwell framework applied to multi-country evaluation data

Source: Tugwell, *J Chron Dis*, 1985; 38(4):339-51

IMCI pneumonia case management (Tanzania)

Coverage under improved programme conditions



Source: Tugwell, *J Chron Dis*, 1985; 38(4):339-51

Why should interventions be delivered in community settings?

- An analysis of cost effective interventions for saving newborn lives examined three different delivery approaches — outreach, family-community and facility-based clinical care.
- Outreach and family-community care in combination at 90% coverage could result in an 18-37% reduction in mortality even before facility-based care is strengthened.

Evidence for impact and cost-effectiveness of community health workers

- A meta-analysis of community-based trials of pneumonia case management on mortality suggested an overall reduction of 24% in neonates, infants, and preschool children.
- A trial in Tigray, Ethiopia, of training local coordinators to teach mothers to give prompt home antimalarials showed a 40% reduction in under-5 mortality.

Evidence for impact and cost-effectiveness of community health workers

- CHW-led women's groups in Nepal provided education to reduce neonatal and maternal mortality. The programme achieved substantial reduction in both neonatal and maternal mortality rate and was very cost-effective.

Manandhar et al, Lancet 2004; 364: 970–979.

Borghi et al, Lancet 2005; 366: 1882-84.

Comparing the performance of doctors and nurses with other health workers in child care

- In Bangladesh lower level workers (family welfare visitors and nursing aides) performed much better than higher level workers (paramedics, physicians, and nurses) in rational prescription of antibiotics and provision of appropriate advice to caregivers.

Arifeen et al, Bull WHO 2005; 83: 260-267.

- In Benin much higher percentages of children with diarrhoea received ORS and were appropriately treated with an antimalarial by nursing aides compared with nurses (intermediate) and physicians (worst performance).

Rowe et al, Am J Public Health 2001; 91: 1625-1635.

Factors influencing success of CHW programmes

- Selection
- Training
- **Health system factors – esp support & supervision**
- Community factors
- Political, macroeconomic and international factors
- Financial and non-financial incentives

Haines, Sanders et al, Lancet, 2007, Vol. 369, pages 2121-2131

Lehmann and Sanders, WHO, 2007,

http://www.who.int/hrh/documents/community_health_workers.pdf

Experiences with task-shifting

Example Uganda

- In Uganda, task shifting is already the basis for providing antiretroviral therapy. With only one doctor for every 22 000 patients and an overall health worker deficit of up to 80%,
- Uganda's nurses are now undertaking a range of tasks that were formerly the responsibility of doctors. These include:
 - managing people living with HIV who have opportunistic infections; diagnosing tuberculosis sputum positive; prescribing medicine to prevent other infections;
 - determining the clinical stage of people living with HIV;
 - deciding whether people living with HIV have medical eligibility for antiretroviral therapy;
 - and managing people on antiretroviral therapy who have minor side effects such as nausea.

- In turn, tasks that were formerly the responsibility of nurses have been shifted to community health workers, who have training but not professional qualifications.
- These tasks include:
 - HIV testing; counselling and education on antiretroviral therapy; monitoring and supporting adherence to antiretroviral therapy; filling in registers; triage; clinical follow-up; taking weight and vital signs; and explaining how to store antiretroviral drugs.

Key issues

Reconsider health teams at primary level

- (What services are rendered? What skills are needed for these services? Who can provide these services? What gets shifted?)
- What is the role of professional nurses in this context (Clinicians and/or carers; what about medical assistants? What have nurses taken on already? What can they take on?)

Key issues II

- What is the role of assistant nurses (what are they doing and what can they do?)
- What is the role of CHWs/CCWs/volunteers?

Caveats

- The experiences of case studies show that task shifting can only succeed under conditions where
 - a review of the organisation of health services,
 - revitalisation of health services,
 - availability of infrastructure support,
 - Training,
 - supportive supervision, and
 - community empowerment have been taken very seriously and attended to.
- These experiences are overwhelmingly confirmed by the international literature.

Brazil – a model?

Brazil

- ▣ 190 million
- ▣ 1990's Unified Health System (SUS)
- ▣ Family health teams - a doctor, nurses and assistant nurses and 6 community health workers and sometimes a dentist / 4 000– 10 000 people;
- ▣ Community participation & organisation
- ▣ Intersectoral action
- ▣ Promotion & prevention;
- ▣ 250 000 CHW's employed in system – link to community

Importance of Health Personnel Capacity Development

- Personnel account for $\pm 70\%$ of recurrent expenditure
- Health personnel development is primary step in health systems development

Enhancing Capacity for Public Health Action

- Decentralised health services have dramatically increased need for public health skills – for policy, advocacy, planning, programme design, implementation, monitoring and evaluation

Capacity development

Capacity development is required at all levels of the health sector:

- **central management**, who need skills in change management and stewardship;
- **local managers and service providers** (doctors, nurses, mid-level workers) who need different combinations of clinical and public health skills;
- **Southern institutions**, including universities, training schools and units

Table 3.2 Health professional training institutions, by WHO region

WHO region	Medical	Nursing and midwifery	Dental	Public health	Pharmacy
Africa	66	288	34	50	57
Americas	441	947	252	112	272
South-East Asia	295	1145	133	12	118
Europe	412	1338	247	81	219
Eastern Mediterranean	137	225	35	8	46
Western Pacific	340	1549	72	112	202
Total	1691	5492	773	375	914

Source: Mercer H, Dal Poz MR. *Global health professional training capacity* (background paper for *The world health report 2006*; <http://www.who.int/hrh/documents/en/>).

Improving performance of existing health workers is a priority

Rowe A et al, Lancet 2005

- Audit and feedback – more focus on problem-solving through health systems research
- Supportive supervision
- Educational outreach
- Guideline implementation strategies
- Performance – related allowances ? Harries A, Salaniponi F, Lancet 2005

“ ..If training and guidelines are to have an impact they must be provided within a context that provides reminders, supportive supervision, feedback and, perhaps, more formal quality assurance...”

English M, Arch Dis Child 2005

Conclusions

- **Prioritise and plan Human Resources**
- **Reinstitute mid-level and community health workers**
- Education should be **problem-oriented** and **practice-based** - especially in **low-resource environments**.
- **Reorientate and upgrade skills (including of teaching staff) through continuing education.**
- **Improve problem-solving, audit, support and supervision**
- Invest in **public health** and **management training**
- Invest in **leadership development**
- Develop **regulations** and **incentives** to improve staff retention
- Develop mechanisms, including **compensation of poor countries**, to mitigate migration of health professionals to rich countries.
- **Advocate for increased investment in enhancing capacity of and reorientating Southern institutions** (incl. equitable collaboration/partnerships with Northern institutions)
- **ADDRESS UNFAIR GLOBAL MACROECONOMIC REGIME**



PEOPLE'S HEALTH MOVEMENT

The Peoples Health Movement (PHM) is a large global civil society network of health activists supportive of the WHO policy of Health for All and organised to combat the economic and political causes of deepening inequalities in health worldwide and revitalise the implementation of WHO's strategy of Primary Health Care.

www.phmovement.org