

# Health workers brain drain: migration of health care personnel from low income to high income developed countries

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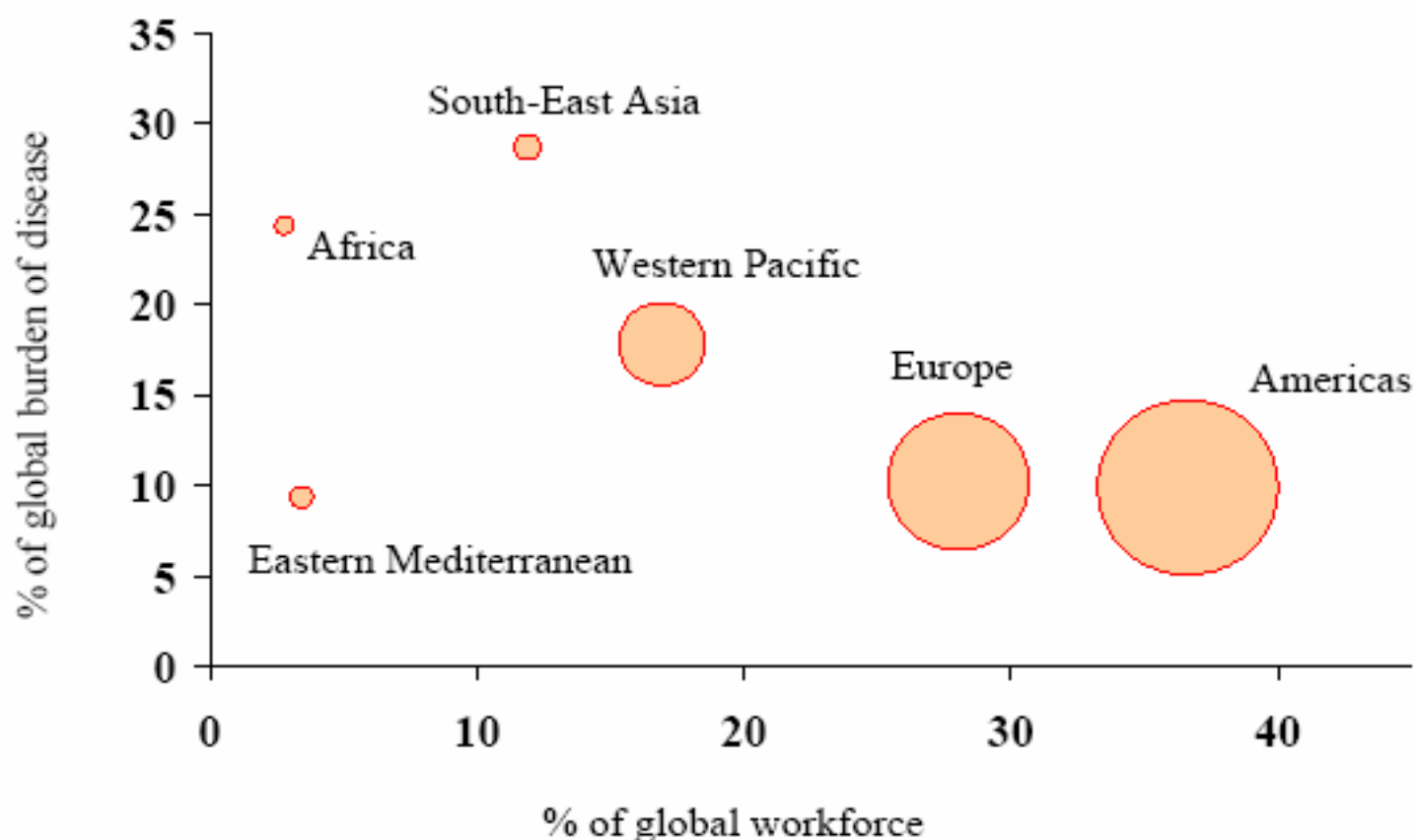
# Human resources and health care

- Human resources (HR) are key determinants of service delivery capacity
- Health care workers (HCWs) numbers and quality are positively associated with immunization coverage, reach of primary care, and infant, child and maternal survival
- Child malnutrition worsened with staff cutbacks
- HR constraints limiting factor in implementation of the Stop TB strategy in many high TB burden countries

## Status of global health care workforce

- Sub-saharan Africa has only 4% of HCWs, but 25% of the global disease burden (GDB)
- The Americas have 37% of the HCWs, but only 10% of the GDB
- Estimated shortage of almost 4.3 million doctors, nurses, midwives and support workers worldwide
- 57 countries, mainly in sub-saharan Africa, have critical shortages (of around 2.4 million HCWs)

## Distribution of health workers by level of health expenditure and burden of disease



## Global health workforce, by density

WHO region	Total health workforce		Health service providers		Health management and support workers	
	Number	Density (per 1000 population)	Number	Percentage of total health workforce	Number	Percentage of total health workforce
Africa	1 640 000	2.3	1 360 000	83	280 000	17
Eastern Mediterranean	2 100 000	4.0	1 580 000	75	520 000	25
South-East Asia	7 040 000	4.3	4 730 000	67	2 300 000	33
Western Pacific	10 070 000	5.8	7 810 000	78	2 260 000	23
Europe	16 630 000	18.9	11 540 000	69	5 090 000	31
Americas	21 740 000	24.8	12 460 000	57	9 280 000	43
World	59 220 000	9.3	39 470 000	67	19 750 000	33

Note: All data for latest available year. For countries where data on the number of health management and support workers were not available, estimates have been made based on regional averages for countries with complete data.

*World Health Organization*  
*April 06*



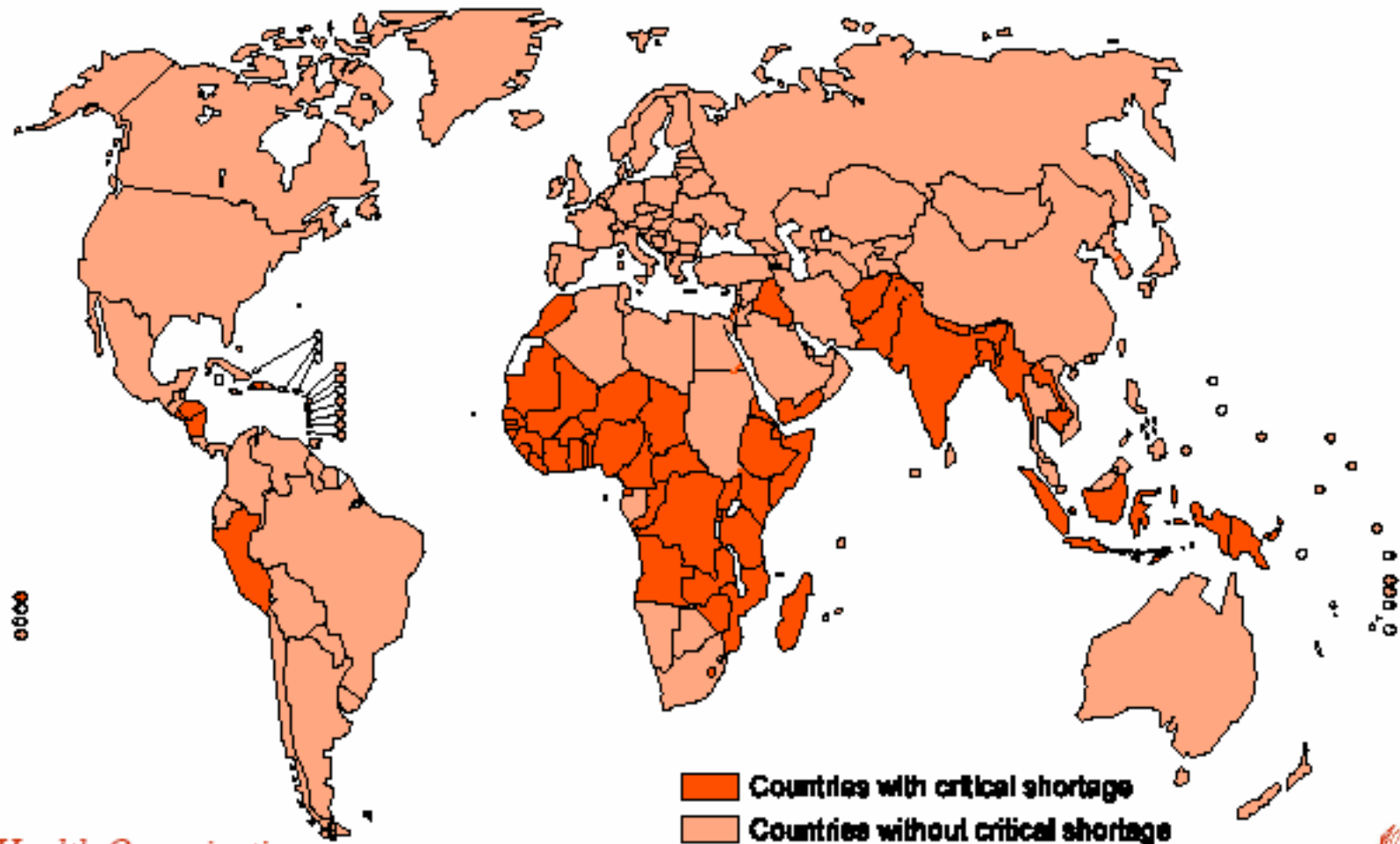
## Estimated critical shortages of doctors, nurses and midwives, by WHO region

WHO region	Number of countries		In countries with shortages		
	Total	With shortages	Total workforce	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.

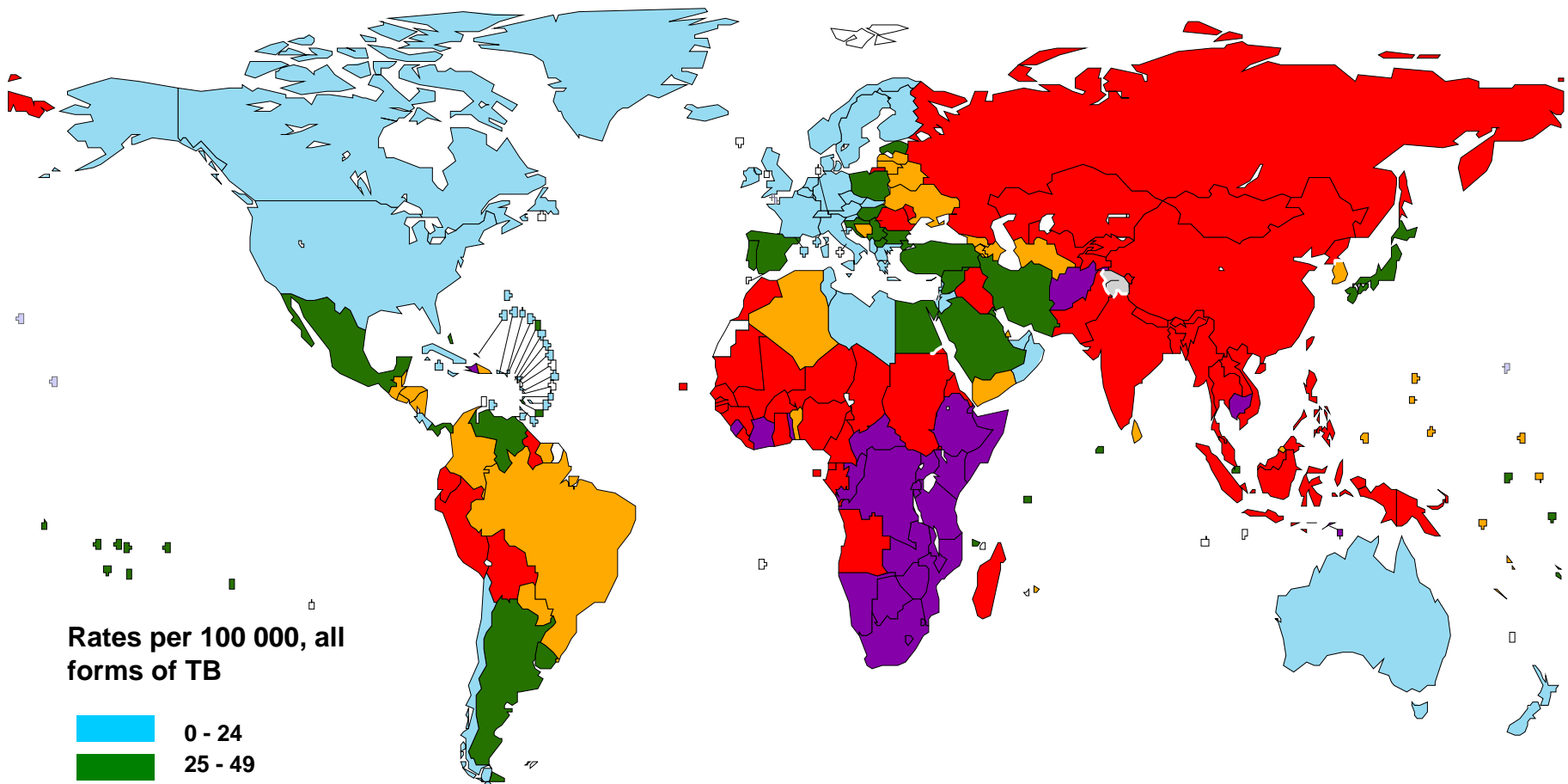
# Critical shortage of health service providers (doctors, nurses and midwives)

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# Estimated TB incidence rate, 2003



Rates per 100 000, all forms of TB



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# Generic health workforce issues

- Inadequate numbers and skills of health workers
- Uneven distribution by level of service delivery: national / health facility, etc
- Unfavourable HRD policies and practices: poor career structure, working conditions, remuneration.....
  - ➡ low morale and motivation
- Unsafe conditions in the workplace
- Lack of supportive supervision
- High attrition of health care workers (HIV/AIDS, migration)

# Why are HCWs moving?

- Reasons are complex, as are the patterns of migration themselves (rural → urban, LIC → HIC, etc)
- Push factors
  - Seeking a better life and livelihood elsewhere
  - Provoked by discontent or dissatisfaction with existing working / living conditions
- Pull factors
  - Awareness of existence of (and desire to find) better jobs elsewhere
- Accelerated globalization of service sectors in last two decades has helped drive migration in the health field
- Growing unmet demand for HCWs in HICs

## International Medical Graduates (IMGs) in workforces in high income countries

<b>Country</b>	<b>Doctors per 100,000 population</b>	<b>% IMGs in workforce (total IMGs)</b>	<b>% IMGs from low income countries</b>	<b>% IMGs from other 3 countries</b>
US	293	25.0 (208,733)	60.2	6.5
UK	231	28.3 (39,266)	75.2	2.5
Canada	220	23.1 (15,701)	43.4	22.3
Australia	271	26.5 (14,346)	40.0	33.5

## IMGs in the US physician workforce

<b>Source</b>	<b>Number</b>	<b>% of US Workforce</b>
India	40,838	4.9
US IMGs	25,380	3.0
Philippines	17,873	2.1
Pakistan	9,667	1.2
Canada	8,990	1.1
China	6,687	0.8
USSR	5,060	0.6
Egypt	4,593	0.5
Mexico	4,578	0.5
S. Korea	4,401	0.5
Iran	4,002	0.5
UK	3,439	0.4

## IMGs in the UK physician workforce

<b>Source</b>	<b>Number</b>	<b>% of UK Workforce</b>
India	15,093	10.9
Ireland	2,845	2.1
Pakistan	2,693	1.9
South Africa	1,980	1.4
Egypt	1,592	1.1
Nigeria	1,529	1.1
Germany	1,523	1.1
Sri Lanka	1,422	1.0
Iraq	1,248	0.9
Australia	872	0.6
Spain	657	0.5
Jamaica	472	0.3

## Nations with highest “emigration factors”

<b>Sending country</b>	<b>Drs in recipient countries</b>	<b>Drs in sending country</b>	<b>Emigration Factor</b>
1. Jamaica	1,589	2,253	41.4
2. Ireland	6,423	9,166	41.2
3. Haiti	1,067	1,949	35.4
4. Ghana	791	1,842	30.0
5. Sri Lanka	3,027	7,963	27.5
6. New Zealand	2,483	8,491	22.6
7. Lebanon	2,749	11,505	19.3
8. South Africa	6,993	30,740	18.5
9. Dominican Republic	3,262	15,670	17.2
10. Philippines	18,303	91,408	16.7
11. Ethiopia	359	1,971	15.4
16. Pakistan	12,813	96,900	11.7
17. Nigeria	4,053	30,885	11.6
18. India	59,523	503,900	10.6

## Regional “emigration factors”

<b>Regions</b>	<b>Sending country Drs in recipient Countries by sending region</b>	<b>Sending country Drs in sending Region</b>	<b>Emigration Factor</b>
<b>Sub-Saharan Africa</b>	13,272	82,100	<b>13.9</b>
<b>Indian Sub-Continent</b>	78,680	656,876	<b>10.7</b>
<b>Caribbean</b>	8,010	87,443	<b>8.4</b>
<b>Middle East and North Africa</b>	27,010	489,464	<b>5.2</b>
<b>Central and S America</b>	12,103	707,416	<b>1.7</b>
<b>Europe and Central Asia</b>	44,988	2,741,717	<b>1.6</b>
<b>East Asia and Pacific</b>	39,910	2,808,400	<b>1.4</b>
<b>North America</b>	14,519	1,076,398	<b>1.3</b>

# Pros and Cons of IMG migration

## Benefits

- Increased health care services in recipient countries
- Remittances sent back to sending countries by IMGs
- Enhanced skills and expertise of (returning) IMGs

## Costs to sending countries

- Financial resources (investment in education) - “Perverse subsidy” of health care in HICs by LICs
- Loss of human capital (gifted, skilled, ambitious people)

# Global Solidarity

- The depth of the health workforce crisis in many countries requires international assistance
- National leadership must be complemented by solidarity on 3 fronts:
  - Knowledge and learning
  - Co-operative agreements
  - Responsiveness to workforce crises

# Managing migration 1

- Balancing the freedom of individuals to pursue work where they choose with health needs of countries
- For unplanned migration, retention strategies are needed:
  - Tailoring education and recruitment to local settings in terms of disease patterns and level of technology available
  - Improving working conditions generally (pay, financial incentives and safety, good management and career development, etc)
  - Improved living conditions (transport, housing and education of family members, etc)
  - Facilitate return of migrant HCWs

## Managing migration 2

- High income countries receiving HCWs from low income countries should adopt responsible recruitment policies
- Recipient countries should provide support to HR in source countries, via
  - Development assistance for health
  - Direct HR support provided in humanitarian disasters and disease eradication efforts, and the many INGOs

## Conclusion

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*"We have to work together to ensure access to a motivated, skilled, and supported health worker by every person in every village everywhere."*

Dr LEE Jong-wook  
Director-General, WHO

# THANKS

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## Source material

1. WHO. Working together for health The World Health Report 2006. Geneva: WHO, 2006.
2. F. Mullan. The metrics of the Physician Brain Drain. NEJM 2005: 353 (17): 1810-1818.