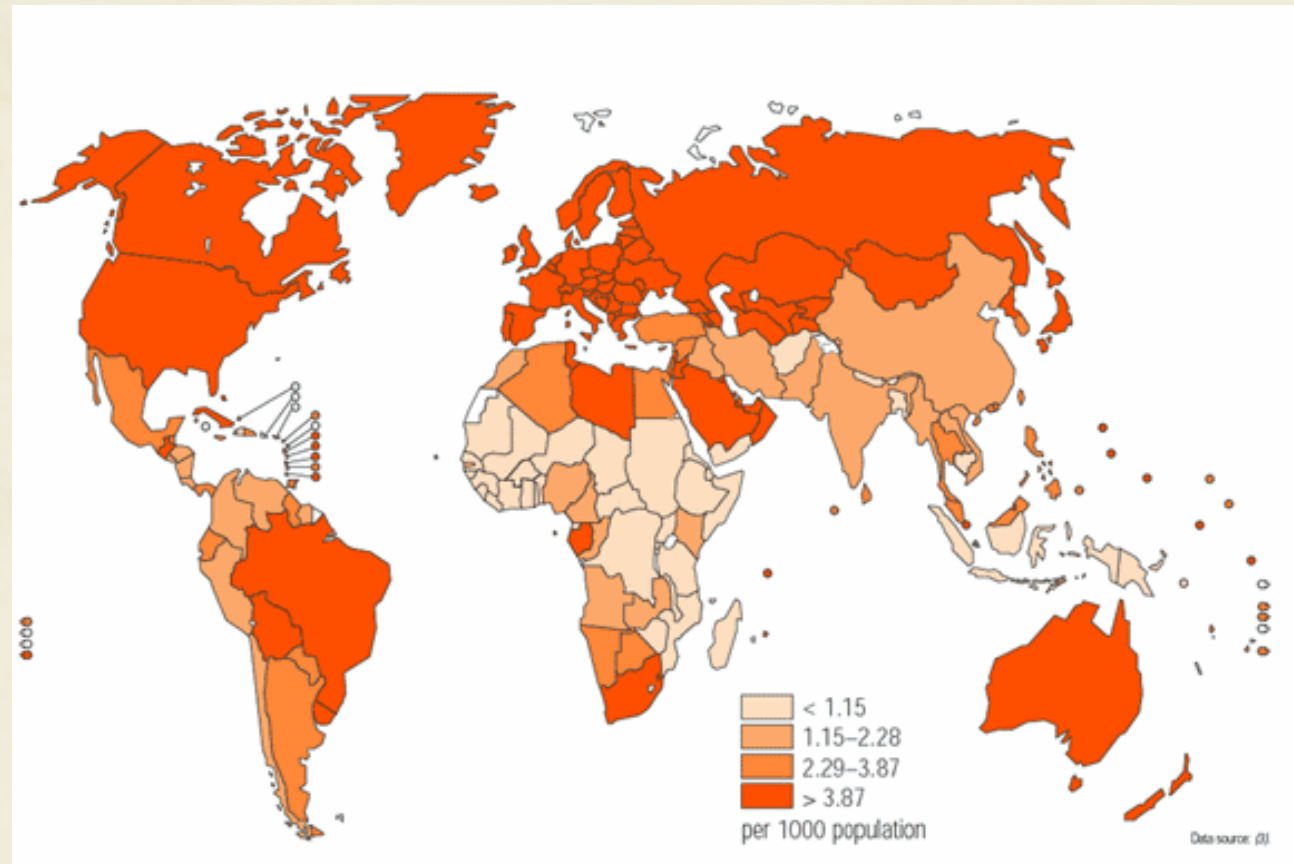


Health Professional Training in sub Saharan Africa: A Survey of Botswana Interns

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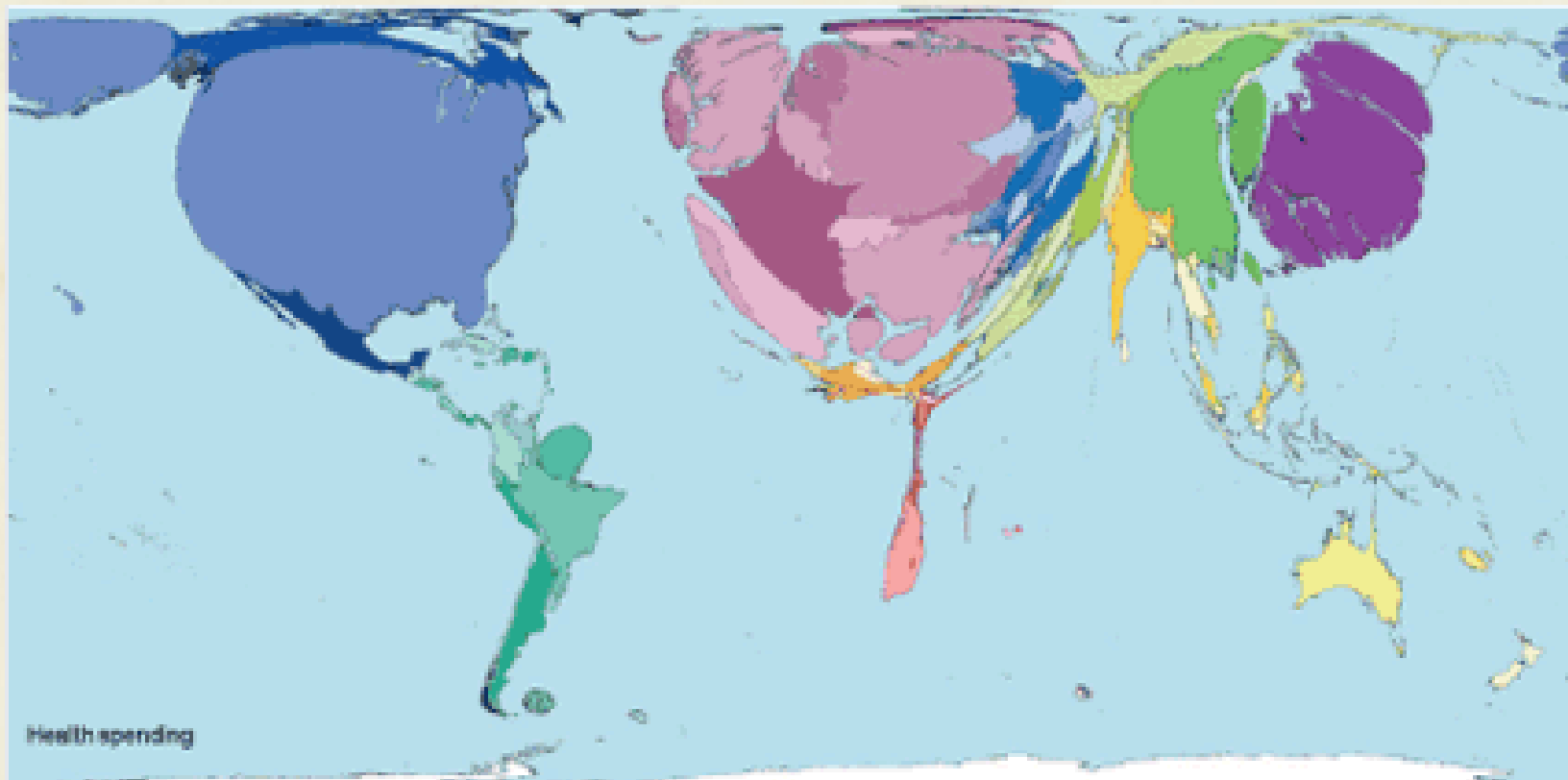
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Health Worker Distribution



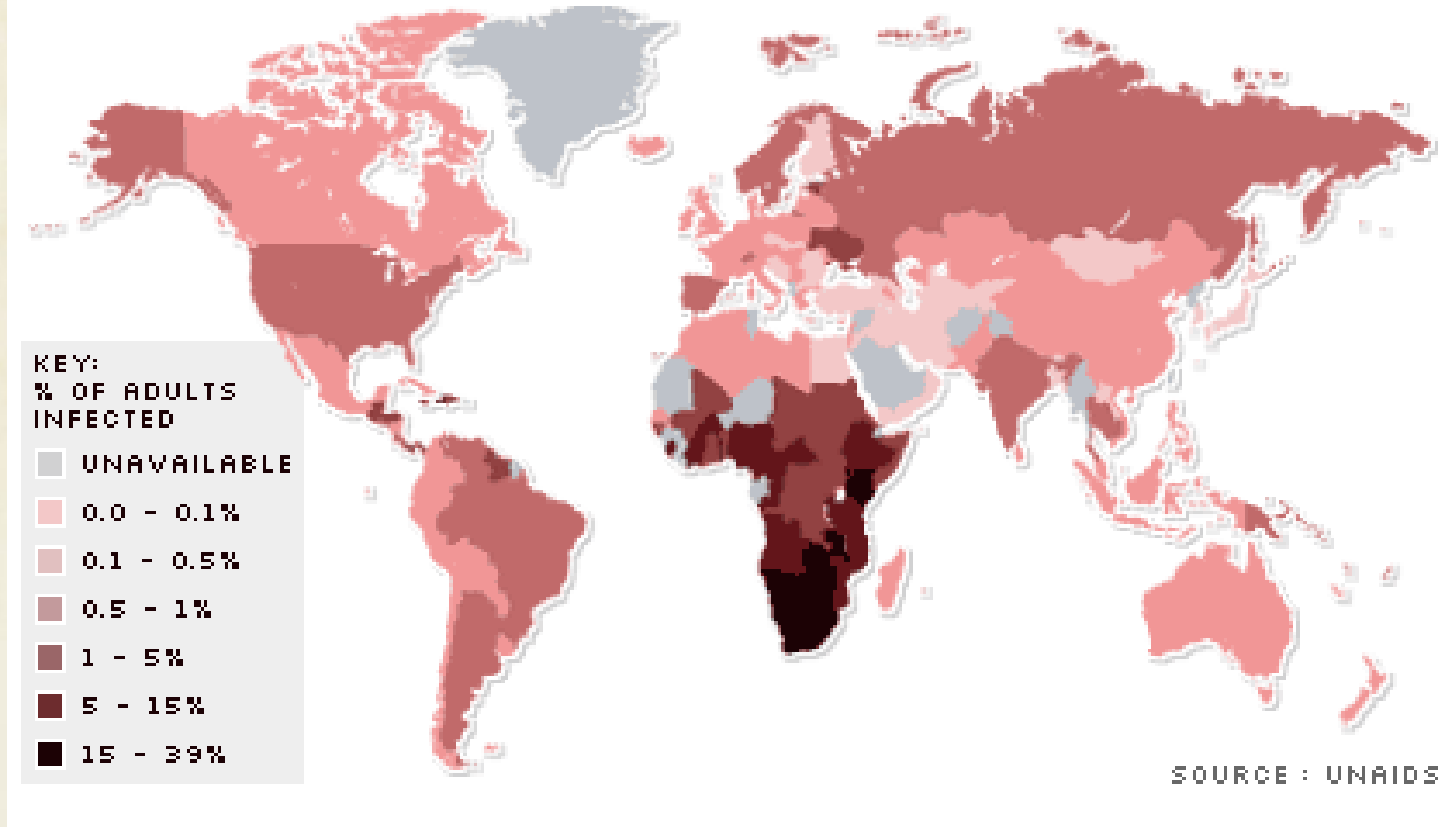
Source: WHO


Health Spending



Distribution of HIV/AIDS

WORLDWIDE HIV PREVALENCE RATES





Brain Drain and Health Professional Migration

○ Factors

- Push and pull factors
- Active recruitment
 - US: HC-1 visa (nurses)
 - Private companies
- Training for export
 - Philippines

Internal brain drain! Public -> private sector.



Botswana: A Unique Case

- Stable and Wealthy...
- ...with 24-32% HIV infection rates
- Physician density 0.4 per 1000 population
- High emigration potential
 - Over 40% of MD's have given "some" to "a great deal of thought to emigrating"
 - 30% for more than 2 years
- Small pipeline:
 - Until 2007, no medical school or residency program



Penn-Botswana Program

○ 5 Major Goals

- PEPFAR: Provide care for patients and education for local providers
- Training:
 - Involvement in new University of Botswana medical school (enrollment 2008)
 - Involvement in new residency program (first intern class began 1/2007)
- Provide global health opportunities for Penn trainees
- CFAR program
- Involve other Penn schools (Wharton business school, school of nursing)



Survey of Botswana Interns and Medical Officers

○ Demographics

- 15 interns and MO's
 - 6 female, 9 male
 - 14 Botswana, 1 foreign
- Number planning to train abroad: 11
- Number planning to work abroad: 2



Survey of Botswana Interns and Medical Officers


○ Princess Marina Hospital

□ Positives

- Variety and intensity of clinical experience
- Public health system: universal coverage, ARV program
- Location in the capital

□ Negatives

- #1 Lack of resources and supplies
- High patient load
- Lack of support staff



Survey of Botswana Interns and Medical Officers

○ Current training program

□ Positives

- Independence
- Improved teaching and training (specifically citing Penn Botswana Program and the new residency)
- Availability of support by senior physicians

□ Negatives

- Inadequate academic training (including in non-clinical activities such as research methods)
- Inadequate senior physician support, especially overnight
- Lack of accredited and recognized training program



Survey of Botswana Interns and Medical Officers

○ Training-related factors

□ Push

- #1 Lack of resources: basic supplies, medication stock-outs
- #2 Poor pay
- Poor facilities for residents (no cafeteria, lounge)
- Inadequate structured teaching

□ Pull

- Internationally-recognized, accredited programs
- Specialty training available
- Stronger educational models



Stick Factors: Next Steps

○ #1 Reimbursement

- ***Better pay
- Housing allowance

○ # 2 Improved resources

- Clinical materials
- Library facilities
- Facilities for residents (ie resident lounge)

○ # 3 Direct training

- Structured and protected educational time
- Career development activities (research methods, encouraging educator tract)
- Credibility/international recognition of program



Conclusions: The Future

○ Botswana's potential

- Wealthy, stable
- Relatively well-educated, literate
- Potential for a regional center of excellence

○ Botswana's needs

- Increased direct funding for salary support (via programs including PEPFAR)
- Improved training programs (via twinning programs and mobilizing internal resources)
- Improved resources