



UNITED NATIONS UNIVERSITY
UNU-IIGH
(International Institute for Global Health)

5th IWEEE 2012, Granada, Spain

The Role of UNU-IIGH in Research & Capacity Building for Free Software in Developing Countries

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United Nations University

International Institute For Global Health



Outline

- Introduction to UNU-IIGH
- Research in Free/Open Source - Android
- Capacity Building
 - Master in Health Informatics
 - Short Courses
 - Online Training



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UNU-IIGH Kuala Lumpur
Est. 1 March 2007



- Established on 1st March 2007
- 14th RTCP of UNU
- Endowment Fund contribution from Malaysian Government
- Research, Capacity Building & Dissemination of Knowledge in Health related issues
- Network of partner institutions
- Focuses on developing countries



UNU-IIGH's Mission & Research Themes

- The mission of UNU-IIGH is to undertake research, capacity development and the dissemination of knowledge related to key issues of human health in the following areas:-
 - Efficiency of health care systems;
 - Newly emerging and re-emerging diseases;
 - Non-communicable diseases and mental health;
 - **Information technology in health;**
 - Climate change and health
 - Globalisation and health
 - Health leadership



UN Millennium Development Goals



- . Health Information System (HIS)
- . Electronic Medical Record (EMR)
- . Hospital Information Systems



UN call for Member States to adopt OSS for healthcare in 2005



Mr. Louis Dominique Ouedraogo, Retiring Inspector, UN Joint Inspection Unit (JIU), in his report recommended that all countries, would be better off adopting OSS for medical and administrative records in their publicly funded healthcare services.



UNCTD Report

- In 2003, the United Nations Conference on Trade and Development (UNCTD) prepared a special report on ***“Free and Open-Source Software: Implications for the Information and Communications Technology Policy and Development.”***
- The report addressed the advantages of using open source software in developing countries, namely :-
 1. ICT Sustainability
 2. Autonomy
 3. Intellectual Property Rights





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Research in Free / Open Source Software in Healthcare



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Mobile GNU Health on Android

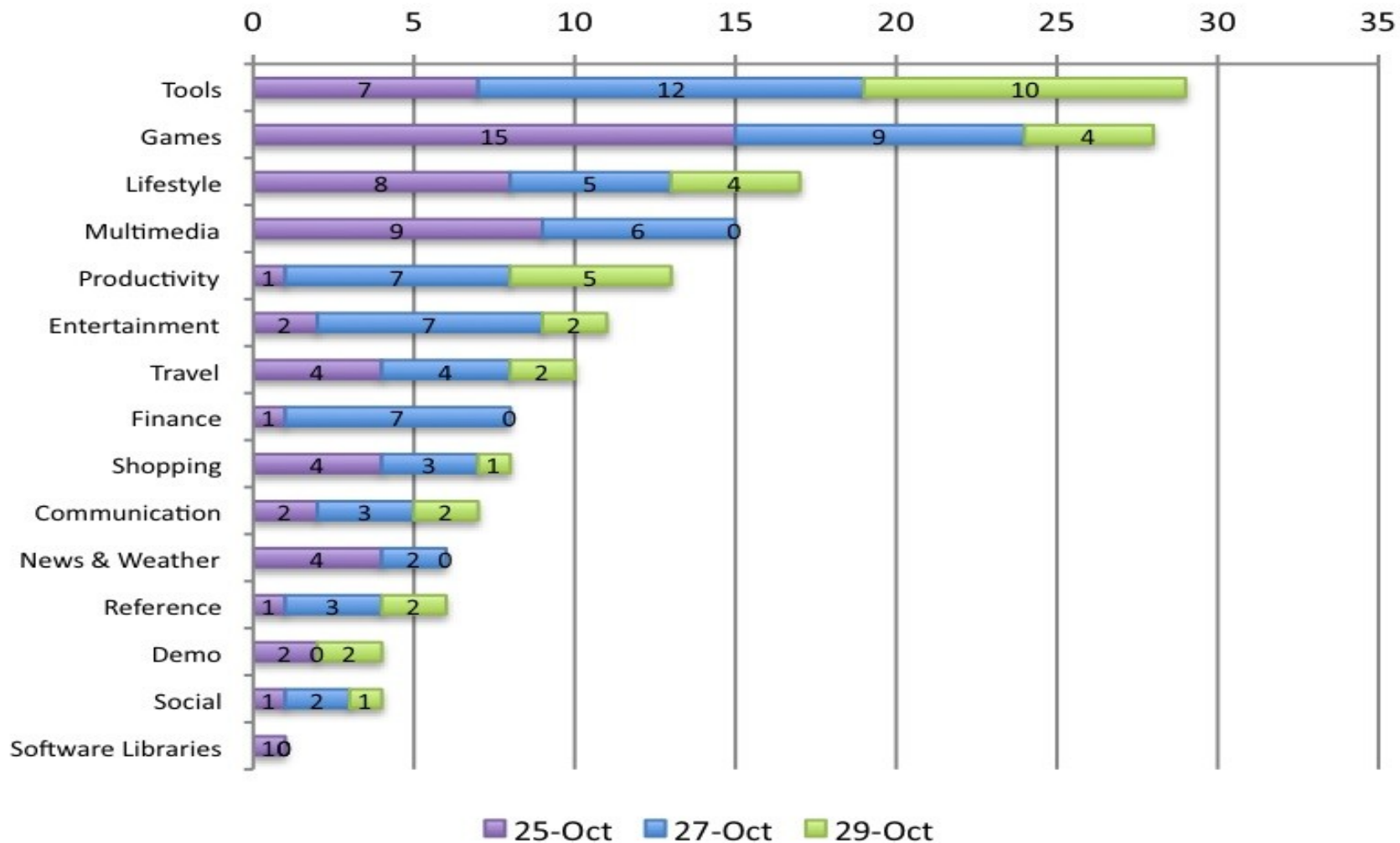




- *A 12 month project (Jan – Dec)*
- *RM100,00.00 (USD 35,000) -*



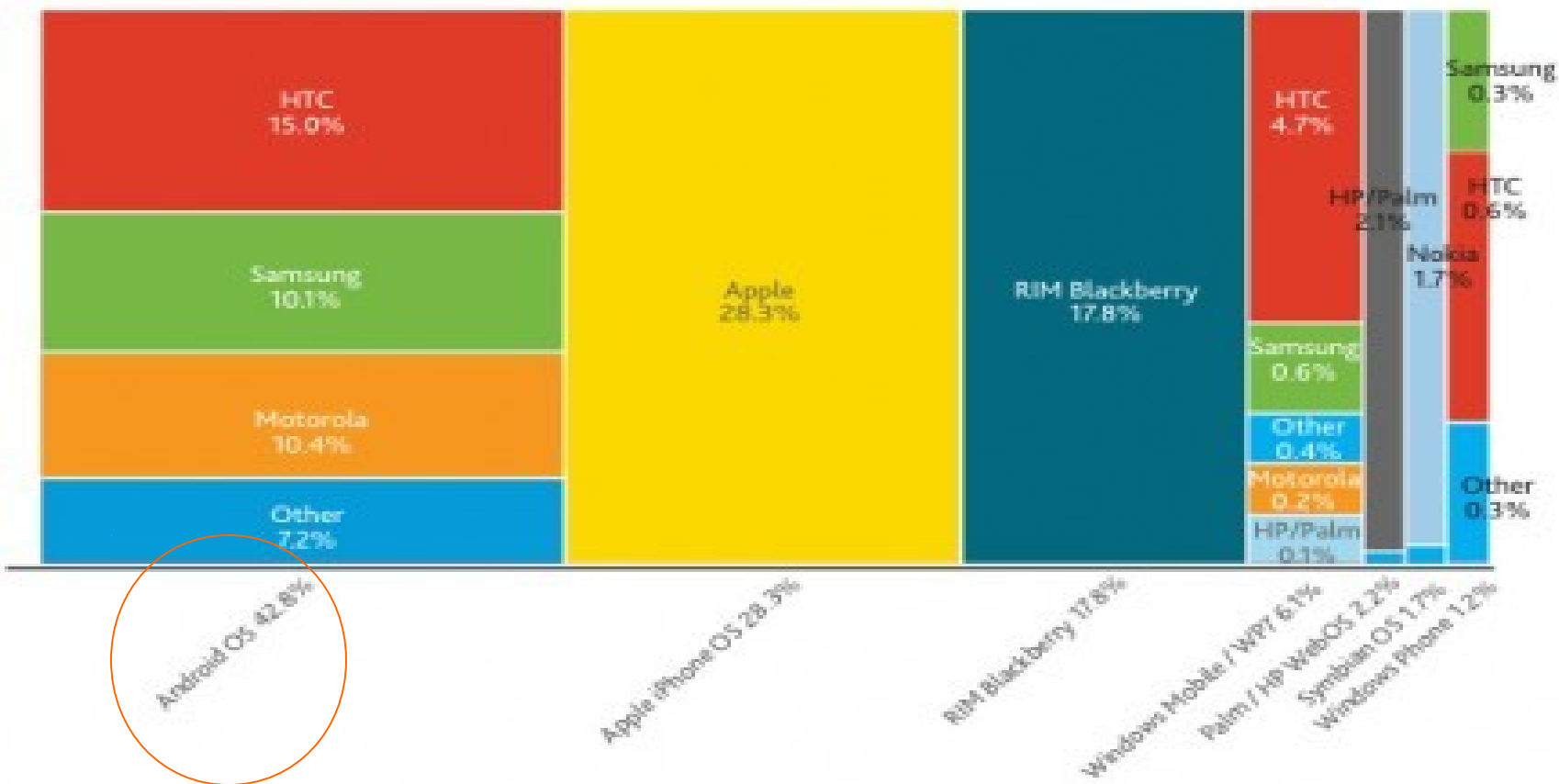
Android market 10/29/08 - Distribution of Apps By Category





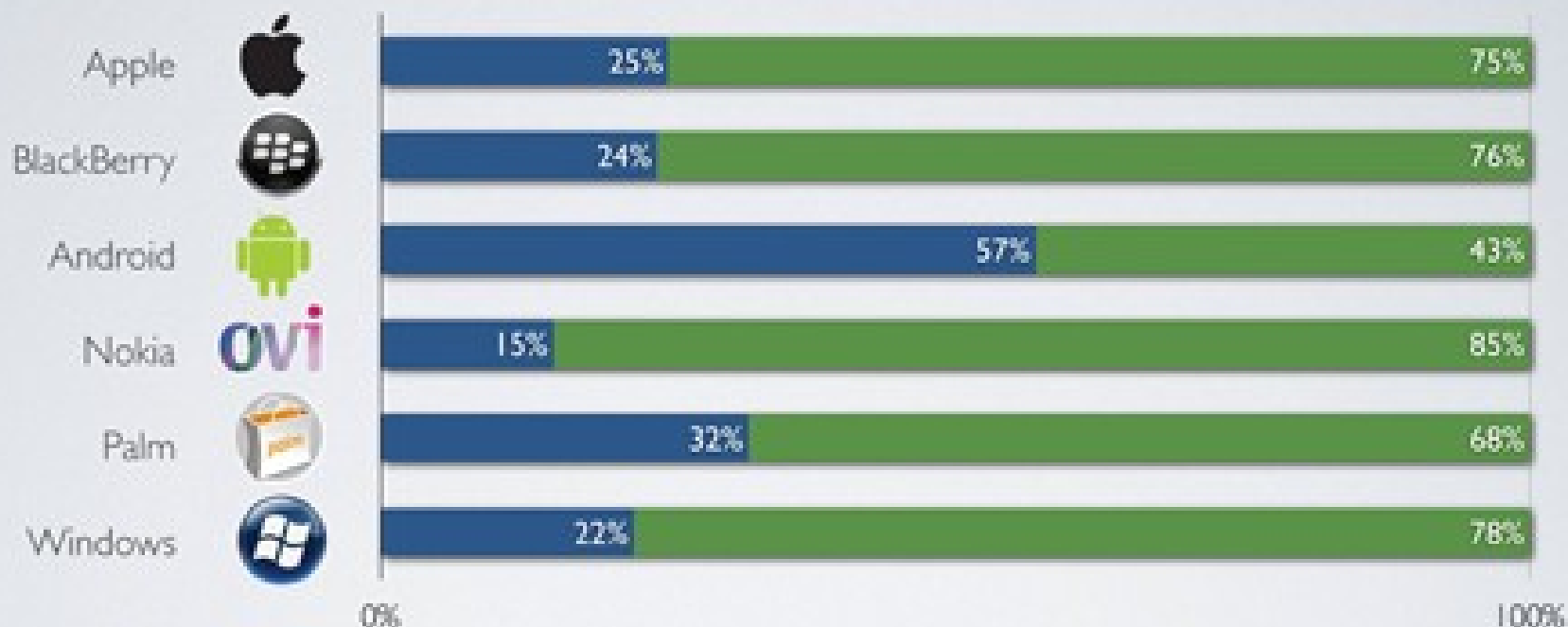
Manufacturer operating system share-smartphones

Q3 '11; postpaid mobile subscribers, n=22,200



FREE VS PAID

■ Percentage Free ■ Percentage Paid



- Nokia has most paid apps
- Android largest share free apps



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Capacity Building

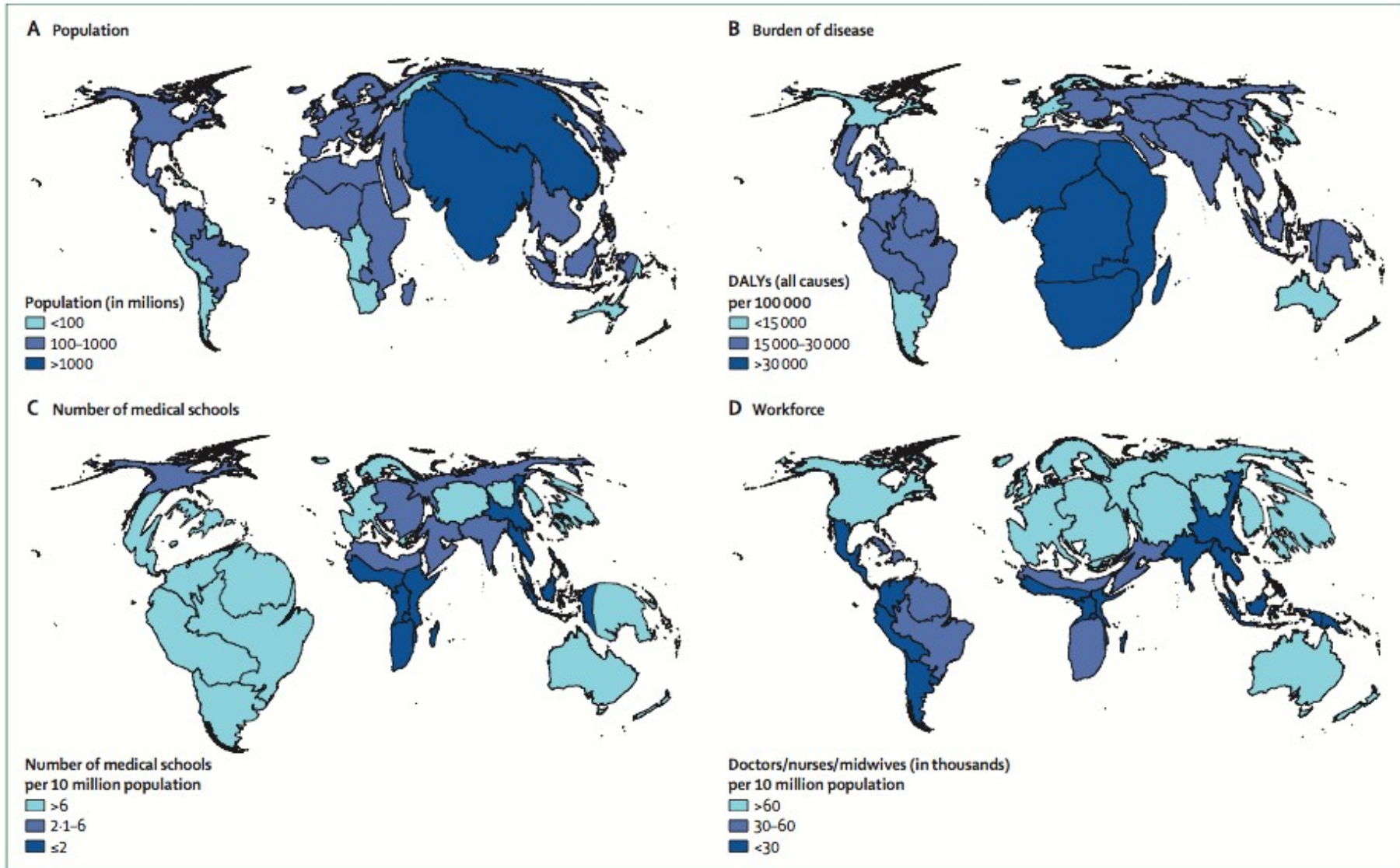
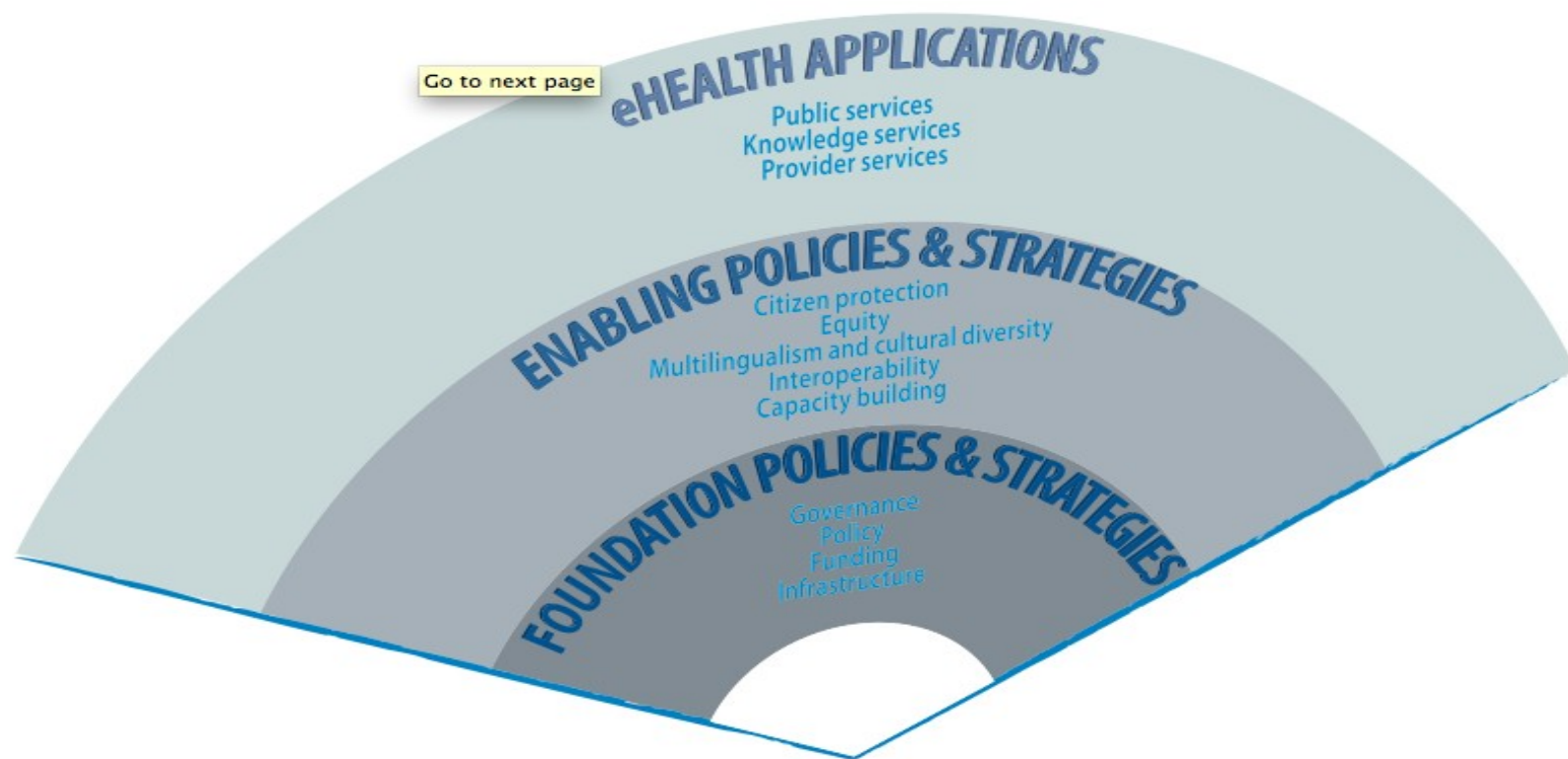


Figure 7: World maps resized by population (A), burden of disease (B), density of medical schools (C), and density of workforce (D)



WHO e-Health Framework





(1) Master in Health Informatics

- A joint Master degree programme to be offered by UNU – International Institute for Global Health (IIGH) and UNU-International Institute for Software Technology (IIST)
- The programme will commence in Sept 2012
- One of the courses is *free and open source software in healthcare*



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International Institute for
Software Technology



(2) Malaysian Technical Cooperation Programme (MTCP) – Open HIS short course

- Malaysian Technical Cooperation Programme (MTCP) – a programme organised by Malaysia Ministry of Foreign Affairs (MOFA) to assist the developing countries in terms of technical cooperation.
- UNU-IIGH will received a funding amounting RM200,00.00 (USD 64,500.00) from MOFA to sponsor participants from developing countries to attend a short course in Open HIS Workshop at UNU-IIGH, Kuala Lumpur.



(3) Free/Open Source HIS online training

- UNU-IIGH has developed an e-learning portal to cater the needs and demands of OSS solutions in healthcare.
- <http://www.unu-iigh.org/>
- A comprehensive OSS curriculum has been designed by OSS Subject Matter Experts.





Online training portal objectives

1. To promote digital awareness on open source health information systems among medical doctors and health care practitioners
2. To provide initial and preparatory knowledge on open source health information systems
3. To disseminate the timely knowledge to learners anywhere, anytime and at their learning paces.
4. To be a cost-effective platform in reaching the learners financially and time



Courses

1. Fundamental of Free/Open Source Health Information Systems
2. Developing Free/Open Source Health Information Systems
3. Installation of Free/Open Source Health Information Systems
4. Patient and Doctor Management
5. Medicament Management
6. Laboratory Management
7. Pathologies Management
8. Financial Management
9. Report Generation
10. Project





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Dr Nurhizam Safie Mohd Satar

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Wednesday 05 January 2011

Site Administration

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Turn editing on

United Nations University

UNU-IIGH is focused on research and capacity building in global health, specifically: efficiency of health care systems; newly emerging and re-emerging diseases; non-communicable diseases and control policy; *information technology in health*; and climate change and health.

Course categories

[Open Source Training in Health Care](#) 4

Search courses:

My courses

[Foundation of Open Source Software in Healthcare](#)
 Professor: Prof Dato' Dr Syed Aljunid
 Professor: Dr Nurhizam Safie Mohd Satar

[Introduction to Health Information Systems](#)
 Professor: Prof Dato' Dr Syed Aljunid
 Professor: Dr Nurhizam Safie Mohd Satar

Calendar

January 2011

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Done



Conclusion

- **The role of UNU-IIGH in free/open source software research and capacity building are significant in this era of high demand for healthcare technology.**
- **Open source software is a solution to the overwhelming cost of healthcare particularly in developing countries.**
- **Therefore, UNU-IIGH is willing to collaborate with any institutions in this noble effort.**



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Thank You

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