Telemedicine and Notable e-health developments in subsaharan Africa

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Outline

- E-health and telemedicine
- Specific developments of interest
- Notable projects (just a few)
- Appropriate technologies
- The way forward
- Conclusions
E-health and telemedicine

- Broad field: all ICT in support of medical practice
- Information: essential for good practice
  - (lifelong) education
  - Best practices
  - Outbreak reporting and response
  - Health record keeping/communicating
  - Peer to peer communication
  - Administration – reporting - statistics
E-health and telemedicine (2)

- Specific field characteristics:
  - Security and ethics
  - Nomenclatures / code systems (ICPC – ICD)
  - Structuring the health records
  - Identifying patients
  - Remote diagnosis / second opinion
  - Tele-surgery
Specific developments of interest

- Increased connectivity: satellite links/fibers/wireless
- International fiber links
- Lowering hardware costs
- Availability of essential software
  - Communication software
  - Encryption
  - Medical records
  - Data-mining
- Concentration of population (and medical personnel) in cities
Notable projects

(just a few!)

- RAFT
- E-health in Mali
- éb@lé Santé in RDC
Notable projects: RAFT

Initiative of University Hospital Geneva (2000-)

- Webcasting of interactive courses
- Visioconferences
- Teleconsulting
- 10+ african countries
Notable projects: E-health in Mali

- Health portal: Reimicom/Keneya Blown
- Government initiative: ANTIM
- Integration with others:
  - Pesinet
  - RAFT
E-health in Mali: ANTIM
Notable projects: éb@lé Santé

- EuropeAid project (2009-2011)
- 4 academic hospitals (Kinshasa, Lubumbashi, Kisangani, Bukavu)
  - Servers / workstations / connectivity
  - Link to the éb@lé university network
  - Distance management
  - Local data collection, medical record keeping
  - Connection to RAFT
éb@lé Santé: OpenClinic

- Patient-centric registration
- Patient identification: flexible!
- Follow-up without duplication of records
- ICPC-2 + ICD10 codification (seamlessly)
- Scientific data become available
- Administrative and management data
- Statistics to support policy decisions
OpenClinic (Rwanda, Burundi, RDC, Mali)
Appropriate technologies

e-health devices: hardware + network + software!

Context:
- Technical environment usually rather harsh
- Management support
- Users need training
- Sustainability considerations
- Authorities

Maximize the patient's benefits!
The way forward

- Reduce communication costs via fiber connections
- Open source culture
- Focus on appropriate patient-centric record keeping
- ICT applications in education
- More links between French and English speaking communities
- Good practices/appropriate technologies
- Cost/benefit studies
- Link between government and ngo projects
Conclusions

E-health and telemedicine can contribute to substantially improve health care in sub-saharan Africa

- Appropriate targets should be set
- Appropriate technologies applied
- Patient-centric approach!
- Framework for cost/benefit evaluations
References


- Verbeke F, OpenClinic


- Mars M, Seebregts C, Country Case Study for e-Health: South Afrika