

Evidence based healthcare planning in developing countries: An Informatics perspective



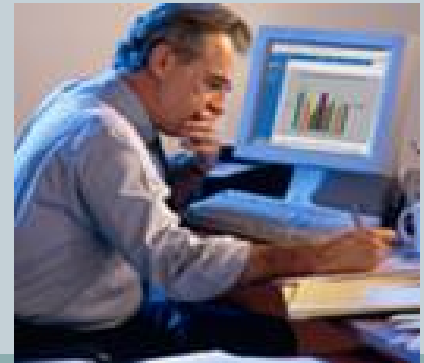
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Health Systems of developing countries : a unique situation

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- Epidemiological transition and double burden of diseases :
 - (From communicable diseases to Non-communicable diseases)
- Demographic transition :
 - aging population
- Decreasing or Stagnant resources



Six Common characteristics of Health Information Systems (HIS) in developing countries

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- No integration of various sub components of information
- Redundancy in the data collected
- Data being irrelevant and of poor quality
- Information is not linked to a reference population
- Information management is often heavily centralised in the system
- Inadequate infrastructure

Healthcare decision making in developing countries

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- Personal preferences
- Political influence
- Community pressure

Health Information System Failure :

Some publications

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- *“We apply everywhere for information and scarcely an instance have we been able to obtain hospital records fit for any purpose of comparison”*
- F. Nightingale (1859)
- *“Seventy per cent of the systems either fail or do not provide end user satisfaction”* (Anderson, 2000)
- *“There are many more failure stories to tell than success stories”* (Berg, 2001)
- *“Truly successful Health Information System stories are not common. On the other hand failures are highly visible, widespread and costly”* (Giuse & Kuhn, 2003)

Health Information System Failure :

Some publications

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- *“Most healthcare professionals have experienced one or more system failures. Many healthcare institutions have consumed huge amount of money and frustrated countless people in unsuccessful Information System efforts”* - (Lorenzi & Riley, 2003).
- *“Increasingly large sums of money are being invested in new health information systems. Substantial proportion of this will go to waste on unimplemented or ineffective systems”*.
 - (Heeks,2005)

Health Information Systems reform attempts in developing countries :Key features

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- Holistic in nature with complete reform of the system
- “Bottom-up” approach
- Problem specific approaches are rare or not reported
- Most ended as total or partial failures

Few HIS reform attempts

Authors	Country/ Organisation	Year implemented ⁸	Nature of the reform	Outcome	Reasons cited
Gladwin, Dixon and Wilson (2003)	Uganda	2000	New HIS	Failure	Dominance of technical issues
Cibuliskis and Hiawalyer (2002)	PNG	1998	New HMIS	Partial failure	Donor pressure and sustainability issues
Fenenga and de Jager (2007)	Uganda	2005	New HMIS	Success (?)	IT as a tool and “information culture”
HMN	Selected developing countries	2005	Global framework	(in progress)	

An alternative approach for better outcome

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- “Top down” approach
- Improvised local solutions
- Application of principles and practices of Health Informatics
- Exploitation of recent advances in Information Technology e.g. Decision Support Technology

Important Terminology

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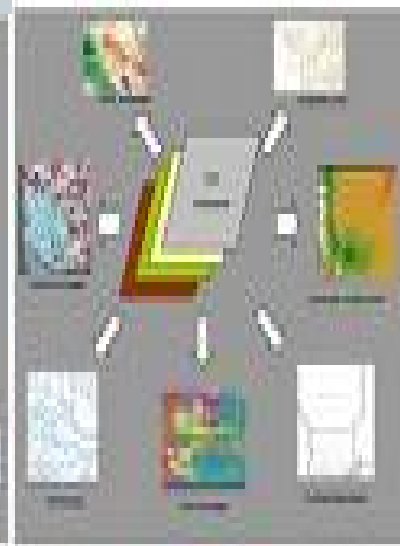
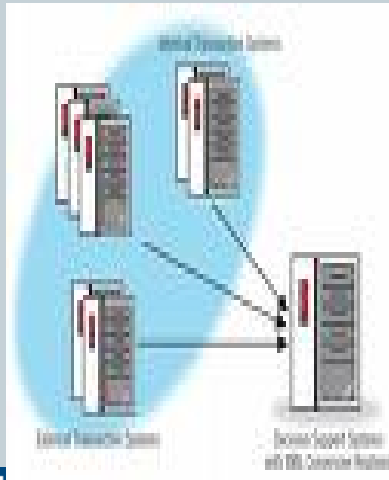
- **Health Informatics or Medical Informatics** — The intersection of Information Science, Computer Science and Healthcare. It deals with the resources, devices, and methods required to optimize the acquisition, storage, retrieval, and use of information in health and biomedicine.



Decision Support Systems (DSS)

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- The area of the information systems (IS) discipline that is focused on supporting and improving managerial decision making in organisations
- A philosophy of information systems development and use and is not a distinct technology (Arnott & Pervan, 2005)



*“Better Information, Better Decisions,
Better Health”*

-Health Metrics Network

