

Factors associated with the successful implementation of Computerised Hospital Information Systems (CHISs) in two South African Provinces

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Outline: Factors associated with CHIS success in two SA provinces

- Background
- Study design and implementation
- Next steps
- **Application of GEP-HI**

Background (study exploration / study design)

- *Problems with implementations of CHISs (computerised hospital information systems) in public sector hospitals in South Africa*
 - *could identification of factors affecting CHIS success or lack of success contribute to improved CHIS selection?*
- **Aim of project:**

To identify factors which are associated with the successful implementation of CHISs in South African (SA) level 1 and level 2 hospitals
- ***Complex environment – multi-method approach***

Background: The context:

Environments of limited or vulnerable resources (LVR)

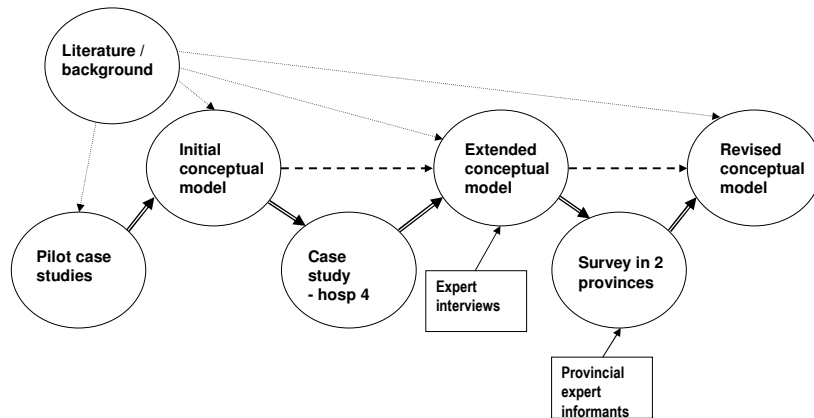
Limited resources:

Resources which are available, but in quantities which are not sufficient to meet defined system specifications
- *Distribution of resources could be variable.*

Vulnerable resources:

Resources which are available, but access to which cannot be guaranteed at the time when they are required
- *The non-availability of the resource is not predictable.*
- *Resources are unavailable sufficiently often or for long enough on each occasion that it is not possible for the system to perform according to specifications, even if all other required resources are available.*

Study design and implementation (study design / operationalisation of methods / the evaluation study)



Study design and implementation (the evaluation study): Case studies of CHIS use and conceptual model development

- Pilot case studies in three level 2 hospitals
 - **what is CHIS success?**
- Development of **initial conceptual model**
 - Use models of IS success as input
 - Compare experiences in the study hospitals with information from other studies of CHIS implementation.
- Case study in (level 2) hospital 4, using initial conceptual model as input:
 - Hospital remote from suppliers of application software and from comprehensive IT support services
 - Include input from clinical manager.
- Development of **extended conceptual model**.

Study design and implementation **(the evaluation study):** Survey of CHIS use

- Survey of CHIS use in level 1 and level 2 hospitals in two provinces
 - Linked to latest version of conceptual model
 - Issues to be resolved from conceptual model
 - Need to identify issues not covered in other studies
- Development of **revised conceptual model.**

Next steps **(completion of the evaluation study / NEW STUDIES)**

- Present results to provinces, to support future decisionmaking about CHIS use
- Potential future studies:
 - Use study results as a baseline for future studies
 - Extend survey to all provinces to provide a comprehensive baseline
 - Adjust survey to provide data on clinical information system use, and EHR implementation readiness
 - Examine the use of multiple HISs in hospitals
 - Refine conceptual model to support investigation of the potential for CHIS success prior to implementation.

Mapping to GEP-HI

GEP-HI	Case study
Study exploration	Background / ?pilot study
Study design	Background -Context -Stakeholder analysis
Operationalisation of methods	Study design
Project planning	(Project planning)
Conduct of the study	Implementation and results
Completion of the study	Reporting

GEP-HI in practice

- An important checklist
 - Context
 - Stakeholders
 - Study resources
 - Completion aspects.
- Evaluation studies are not linear
 - Not straightforward to map to a multi-part, multi-method design
 - Could be too detailed for a simple / low resource evaluation study
- Will try to apply in 'next steps' and new studies.