



*Global e-Health Research and Training Program
Health **Innovation** and Information Technology Centre*

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What Makes eHealth Solutions Sustainable?

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For Today

- Topics -



- Background
- Study
- Lessons Learnt
- Towards a Sustainability Model
- Final Thoughts



e-Health Sustainability

- Background - What is it ? -

A sustainable ehealth solution is:

“One that uses ICT resources to meet the health needs of the present without compromising the ability of future generations to meet their own health needs”.

Scott RE, 2009.

After: Bruntland Commission



e-Health Sustainability

- Background – Learning Objective -



What: Learn from past experience.

Why: Worsening economic setting
Investment in ehealth solutions must
be effective.

Goal: Provide knowledge to ensure ehealth
'projects' can be planned as or
transition to 'programs'



e-Health Sustainability

- Methods -



'Structured' literature review

eHealth - Telehealth + Health Informatics

MedLine:

Key word search – zero hits

Sentinel papers – 'Related Papers'



e-Health Sustainability

- Methods ~ Sentinel Papers -



Telehealth:

“Sustainability – the Holy Grail of
Telehealth ”

HI:

“Towards sustainability of health
information systems: how can we define,
measure and achieve it?”



e-Health Sustainability

- Results ~ 'Hits' -



Telehealth:

129 articles identified

Health Informatics:

144 articles identified



e-Health Sustainability

- Results ~ Telehealth Component -



129 Articles identified:

Abstracts reviewed

63 selected:

Full papers reviewed for specific 'issues' related to sustainability

Manual thematic analysis:

23 Telehealth sustainability 'issues'

e-Health Sustainability

- Results -

1. Stakeholder participation and management (cradle to grave)
2. Patient and societal needs-based solutions
3. Appropriate technology (right solution in the right place for the right reasons; simple, inexpensive)
4. Evidence-based decision making
5. Balance 'health opportunity costs' of resources (redirect any cost savings)
6. Resource dedication (clinical, management, ehealth experts)
7. Priority setting
8. Evaluation – outcomes and CBA (evidence of 'value')
9. Implementation and integration plans
10. Training (technical and professional)
11. Policy and procedure (development and inter-jurisdictional collaboration)
12. 'Strategic intent' and government support
13. Context – part of an overall health system (convergence)
14. Funding transition
15. Strategic solutions (not technological imperative or clinical champion focus)
16. Change management
17. Readiness (community, organisational, and individual)
18. Business case and business plan development
19. Staged implementation
20. Cultural sensitivity (local context; local solutions; local awareness; not N/S transfer)
21. Equipment resilience (differing N/S needs; e.g. lack of environmental control)
22. Knowledge transfer for others gain
23. Data preservation

e-Health Sustainability

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e-Health Sustainability

- *Results* -



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- Implementation and integration plans
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- Policy and procedure (development and inter-jurisdictional collaboration)
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e-Health Sustainability

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- Funding transition
- Strategic solutions (not technological imperative or clinical champion focus)
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- Readiness (community, organisational, and individual)
- Business case and business plan development



e-Health Sustainability

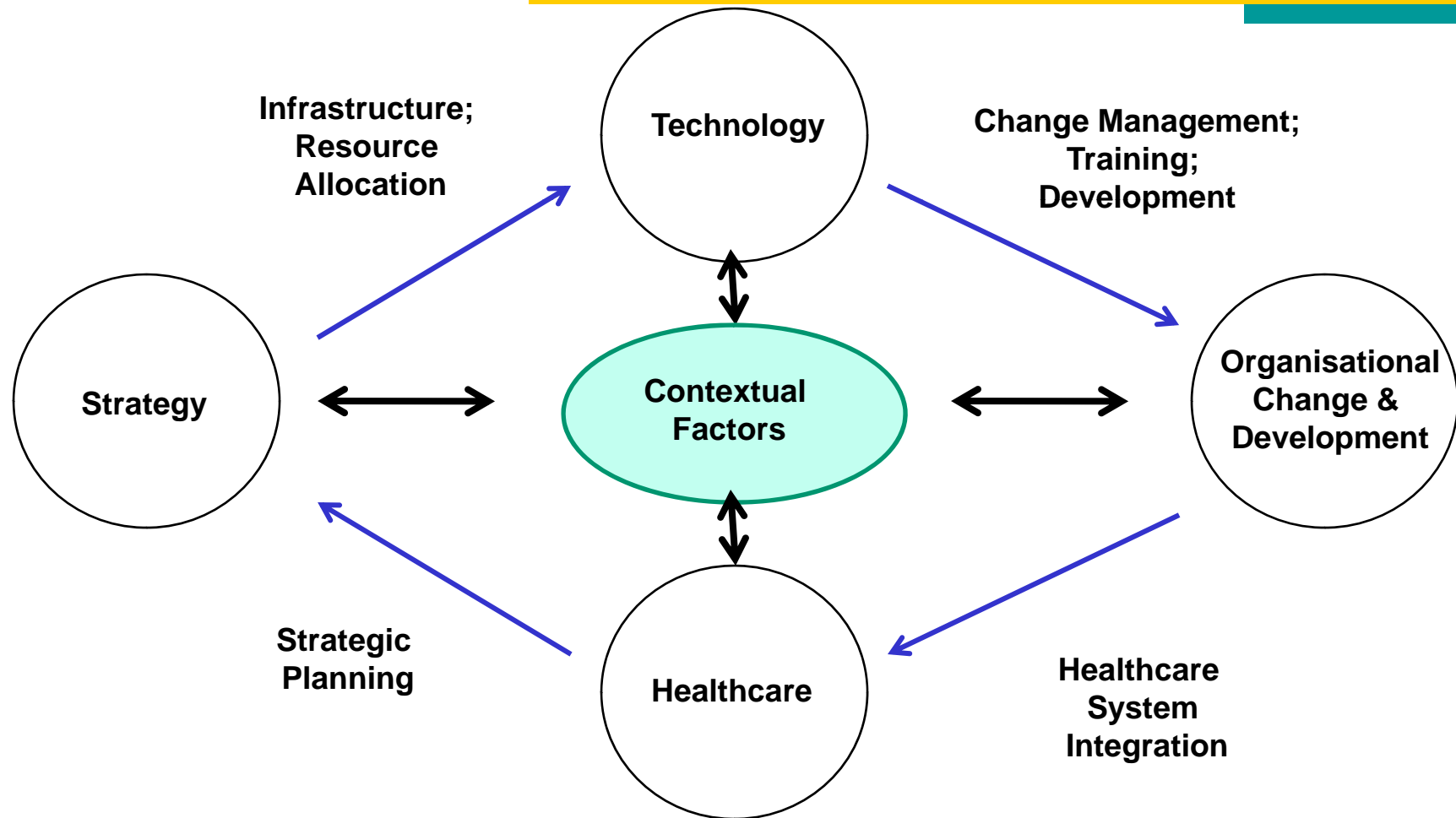
- *Results* -



- Staged implementation
- Cultural sensitivity (local context; local solutions; local awareness; not N/S transfer)
- Equipment resilience (differing N/S needs; e.g. lack of environmental control)
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e-Health (Telehealth) Sustainability

- Towards a 'Sustainability Model' -





eHealth Sustainability

- Applying the Knowledge -



- Apply to existing e-Health Applications, or plans for future Applications:
 - Review and assess
 - Identify areas of weakness
 - Examine for sustainability factors
 - Take remedial action
 - Proceed with revised implementation approach



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Make your solution sustainable !