

Preparing hospitals for climate-related extreme weather events (presentation)

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Event details:

ACHSM 2010 National Congress, Sailing the Tides of Turbulence
Fremantle, Western Australia

Publication Date:

2010

DOI:

<https://doi.org/10.26190/unsworks/1134>

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Presentation Structure

Introduction to the research project

Case study – Coffs Harbour Base Hospital
Cairns Base Hospital
Ceduna Community Health Services
Whangarei Hospital

Methodology – ROMS workshop

Research focus – Facilities Capabilities

Next steps



Project Title:

Assessing the adaptive capacity of hospital facilities to cope with climate-related extreme weather events: a risk management approach

Research Question:

How can buildings become more resilient against extreme weather events?

Partners: NSW Health, QLD Health, SA Health and NZ MOH

Staging:

- | | |
|---------------|------------------------------------------------------------------|
| Phase 1: 2009 | vulnerability assessment |
| Phase 2: 2010 | assess adaptive capacity / develop adaptation strategies |
| Phase 3: 2011 | action Plan + evidence base for design and adaptation strategies |

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Case Studies – extreme weather event: NSW – Coffs Harbour Hospital – flooding



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Case Studies – extreme weather events:



Jurisdiction	Case study	Study issue
NSW	Coffs Harbour Base Hospital	flash flooding (creek)
QLD	Cairns Base Hospital	cyclone
SA	Ceduna Community Health Services	heatwave
New Zealand	Whangerei Hospital, Northland	flooding (from river & heavy rain)

Case Studies Selection Criteria:

- Past records of extreme weather
- Size and age of hospital
- Total population dependencies
- Future climate projections



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Focus group of key stakeholders

		Ability to implement project objectives	
		Low	High
Objectives affected by project outcomes	Low	Minor Stakeholders All Support Services (e.g. Cleaners, Kitchen, etc) Trade Services Other Government Department Laboratories / pathology	Important Stakeholders Utility (essential) services – power, water, gas Civil Defence and emergency service - (SES) Public Works Dept (State level government dept) Security Patients and community (indigenous, socially disadvantaged, aged, disabled, young, LSE) Staff / Services
	High	Major Stakeholders Local Government Designers Union	Key Stakeholders Director Corporate Services Director of Nursing Facilities Manager including IT Emergency Management Personnel Director of Medical Services Ambulance / emergency services Corporate Asset Manager Quality and Safety Management Public Relations Personnel

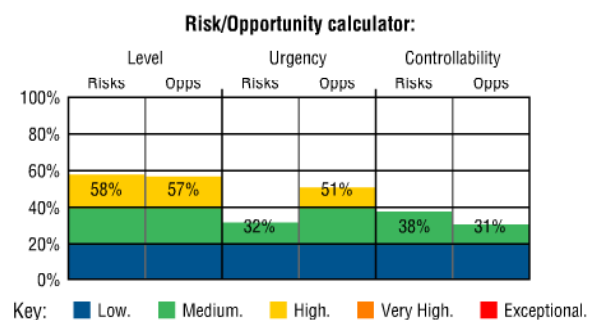
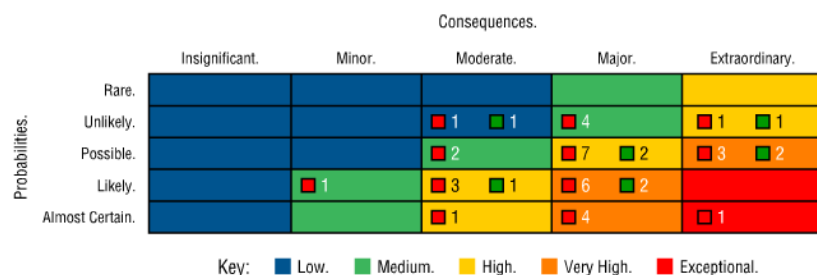
“Risk and Opportunity Management System” (ROMS)

Workshop conducted using ROMS
(www.risk-opportunity.com).

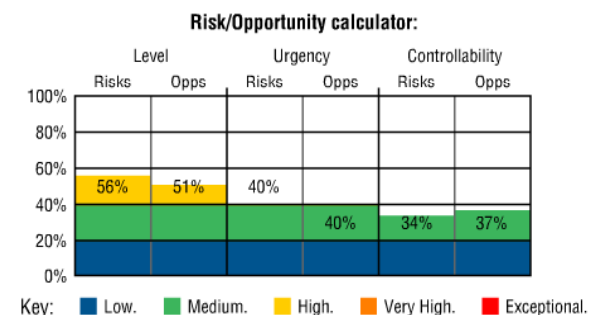
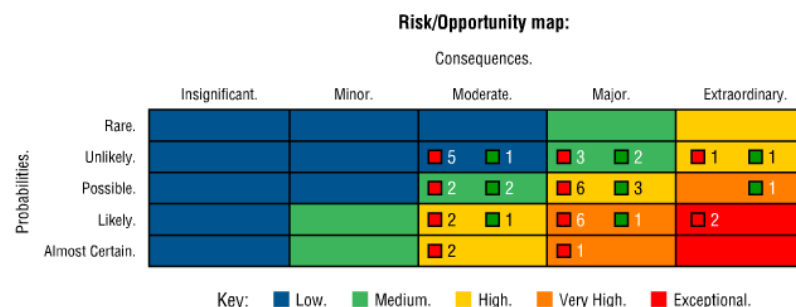
- Structured approach / international standards of risk management
- Identify and prioritise stakeholder objectives
- Identify risks and opportunities
- Assess and prioritise
- Develop Action Plan to address (next stages of project)

ROMS outputs – from risks identified

Coffs Harbour Base Hospital

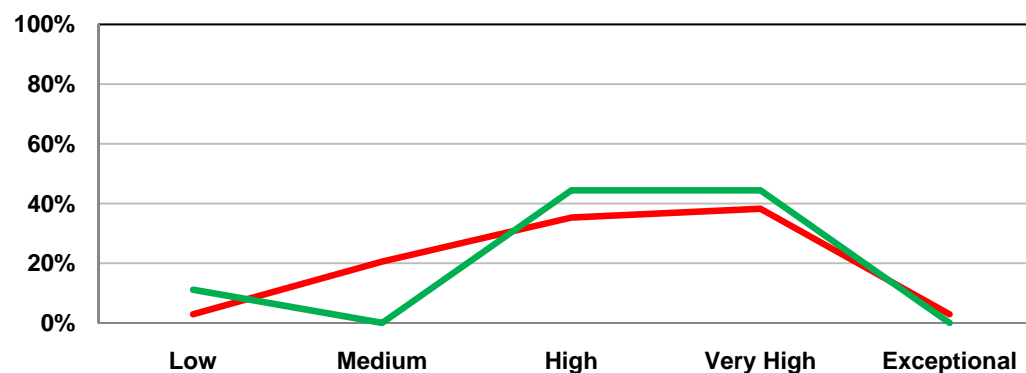


Cairns Base Hospital

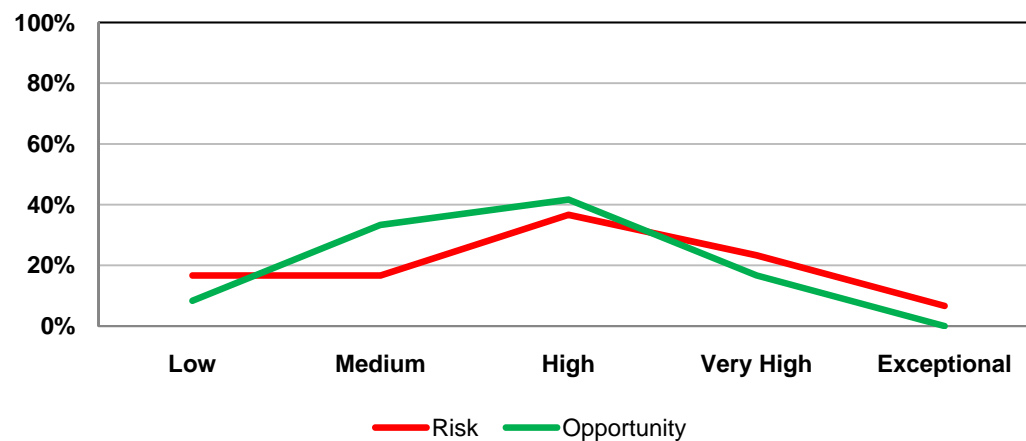


ROMS Step 5 Output – Risk/Opportunity profile

Coffs Harbour Base Hospital



Cairns Base Hospital



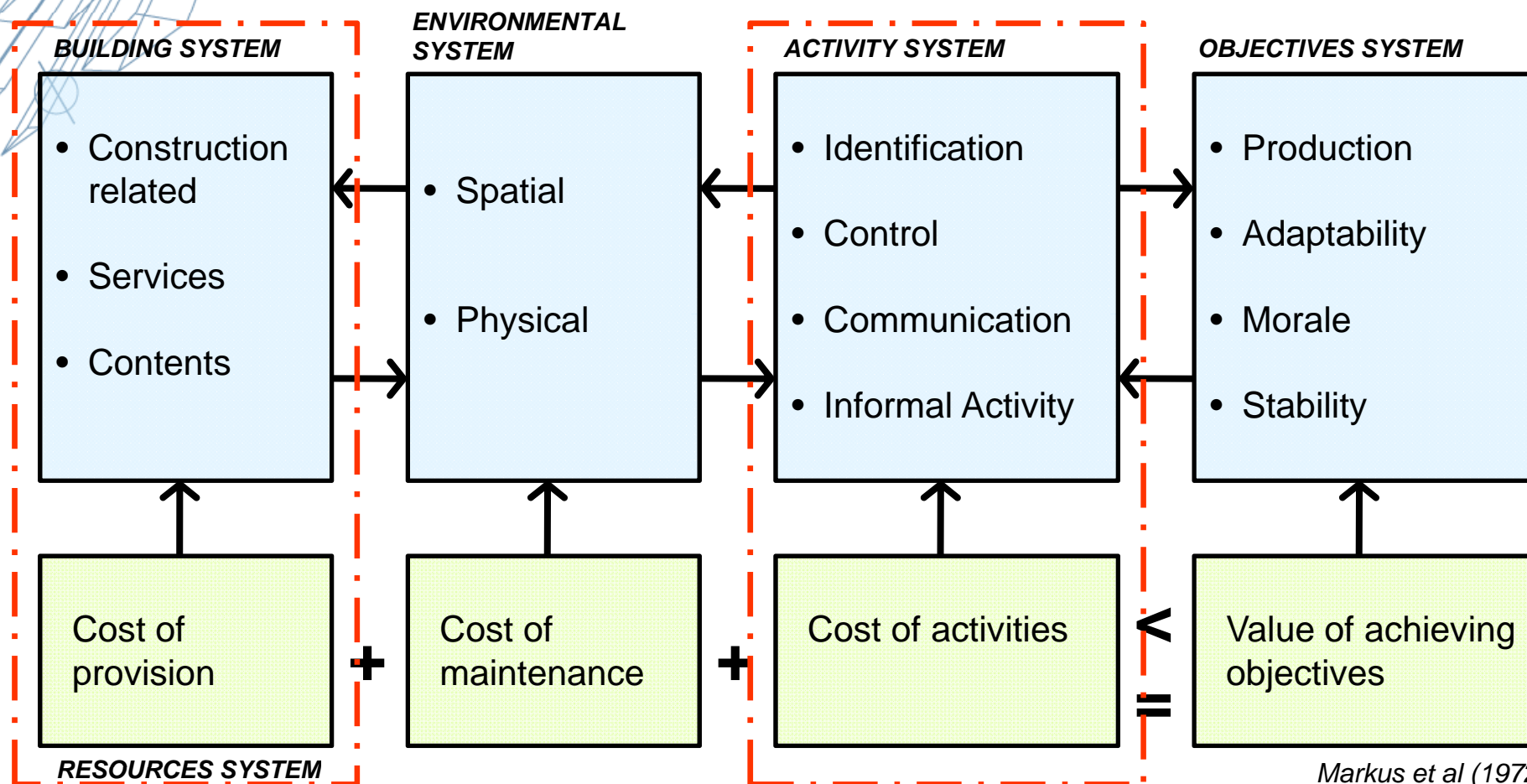
Main objectives identified in ROMS

Overall goal = maintaining continuity of service delivery during and extreme weather event

4 key areas associated with vulnerability:

1. Availability of essential building services - supported by
2. Ensuring the physical integrity of the hospital
3. Effective inter-agency communication
4. Maintaining access to the hospital for staff and patients

Relationship between facilities and activities



Next Steps

- Investigate adaptive capacity in a follow-up workshop
 - Explore relationship between building and organisational resilience
 - Examine the cost of extreme weather events
 - Develop an action plan to address issues identified
- Develop an evidence base regarding design and facilities management adaptation strategies for hospitals faced with increasing exposure to floods and other extreme weather events.



For more information about this project

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Thank you...

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