

# Aged Care Emergency model evaluation

Hospital and Local Health District:

## 1. Overview of the implementation of Aged Care Emergency (ACE) program

*Please provide a concise overview of why you applied for funding to implement the ACE model. How did you assess the need for implementation of the ACE model?*

By examining patient demographic data, specifically patient age and place of residence, it was established that a noticeable amount of patients (n=17,332; 38%) aged over 70 presented to the Prince of Wales Emergency Department. Of the patients that presented aged 70 years and over, over half (n=8690; 51%) resided in residential aged care facilities (RACF). The ACE model of care provided an excellent opportunity to facilitate care delivery within the actual RACF, thus the need for transport to an ED and avoid exposing residents to an environment that is often noisy, confusing and distressing for many.

## 2. Objectives of the implementation of ACE

*Please state the objectives you set out to achieve with implementation of the ACE model, was there any change to this during the project?*

The Prince of Wales Emergency Department aims to utilise the Aged Care Emergency Program (ACE Program) to achieve the core aims of:

- improved emergency health care experience for residents of RACF via:

- Improved professional relationships with catchment RACFs.
- Facilitation of treatment within the RACF for appropriate conditions
- Improved patient and family satisfaction with care
- Improved utilisation by RACFs of existing services such as Hospital in the Home (HITH)

- Reduced demand on emergency and hospital resources leading to improved NEAT performance via:

- Reduced ED presentations from RACFs.
- Reduced hospital admissions from RACFs.
- Decreased P3 ambulance presentations from RACFs
- Improve utilisation of available resources for residents in RACFs to meet health needs outside the acute hospital environment e.g. PACS / HITH.
- Decreased ED length of stay via streamlined care through ACE admission and management.
- Follow up of chronic disease frequent presenters from RACFs by ACE nurse to ensure links to appropriate chronic disease services and management plans are in place.

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## 3. Scope of the implementation and ACE model used

*What were the specifics of the ACE model you implemented in your Hospital? In what ways did you deviate from the documented NSW ACE model and why? How did you determine the elements of the model that would suit your Hospital's purposes?*

The ACE model of care implemented at Prince of Wales Hospital Emergency Department did not deviate away from the originally proposed model.

## 4. Methodology used in the implementation

*This section should evaluate the success or otherwise of the methodology used to implement the model of care. What were the barriers and enablers to project success or otherwise? What was your communication strategy and how effective was it? What recommendations would you offer other Hospitals about to commence implementation of ACE?*

Redesign methodology was used to implement the ACES model of care as outlined in the attached document (Appendix 1). The engagement with key community stakeholders at the diagnostic phase ensured the service was implemented smoothly, and with consideration.

## 3. Measures of success of the implementation of ACE

*Please include data as follows pre and post implementation of ACE (as indicated in the NSW ACE Model of Care document)*

*From February to August 2013, a total of 355 patients presented from RACFs to the ED, and had a longer average total ED length of stay of 5.8 hours compared to non-RAFC patients (mean 3.9h). Of the 355 RACF patients that presented to the ED, nearly a third (n=109; 31%) were managed by ACES model of care. From the 109 patients that presented from RACFs, the majority (n=81; 75%) were able to be cared for and remain in the RACF. All patients who were able to be managed within their respective RACF were followed up by ACES within 48 hours.*

*Of those patients (n=28; 25%) directed to attend the ED, the majority (n=26; 90%) were admitted. Patients presenting to the ED who were managed by ACES had average total lengths of stay of less than four hours (mean 3.8h). Patients requiring admission into Prince of Wales Hospital stayed on average 18 days, and were discharged back to their respective RACF. No patients managed by ACES represented within 48 hours of being managed by the service. Further, during the six-month period that the ACES model of care had been implemented, no incidences, adverse outcomes or complaints were reported.*

*Due to the small dataset collected over the six-month period, inferential statistical analysis would be inappropriate. However, the data has begun to suggest that an improvement in terms of reducing RACF patient ED length of stay when managed by ACES is achievable. Further, it was observed that the majority of patients referred to ACES, few required medical attention within the ED.*

*Embedding the ACES model of care at Prince of Wales Hospital ED has been curtailed owing to funds being absorbed into the hospital's general budget at the end of the financial period. As a consequence, the ACES model of care cannot be financially supported or accommodated within the current ED budget. Despite over a third (38%) of all patients presenting to the ED being aged 70 years or older, no additional funding could be found to continue the work of the ACES model of care.*

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## 6. Discussion

*Was the implementation of ACE successful, why or why not? What were the lessons learnt during this implementation? What impact has this model had on management patients from Residential Aged Care Facilities? What would you do differently next time and why? What strategies did you put in place to ensure sustainability of ACE?*

The success of ACES model of care is realised in its ability to reduce patient of stay and maintain patient safety. Further, the increasing numbers of referrals received from residents' general practitioners and nurse managers is growing indication of the services valued input. In applying for future funding to implement innovative models of care, it is imperative that funds supplied be gazetted away from being consumed by the general budget at the end of each financial year.

## 6. Conclusion

*Where to from here? Please include plans for further evaluation of the impact of ACE on your Hospital and sustainability of this model in your Local Health District.*

Implementing the ACES model of care at the Prince of Wales hospital ED has demonstrated that a positive difference can be made by providing care to residents in the RACFs which avoids unnecessary presentations to ED. Further, reducing length of stay for aged care patients is achievable through services such as the ACES model of care, but only if funding is secure and ongoing.

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## Appendix 1: Brief description of the process for implementation and sustainability

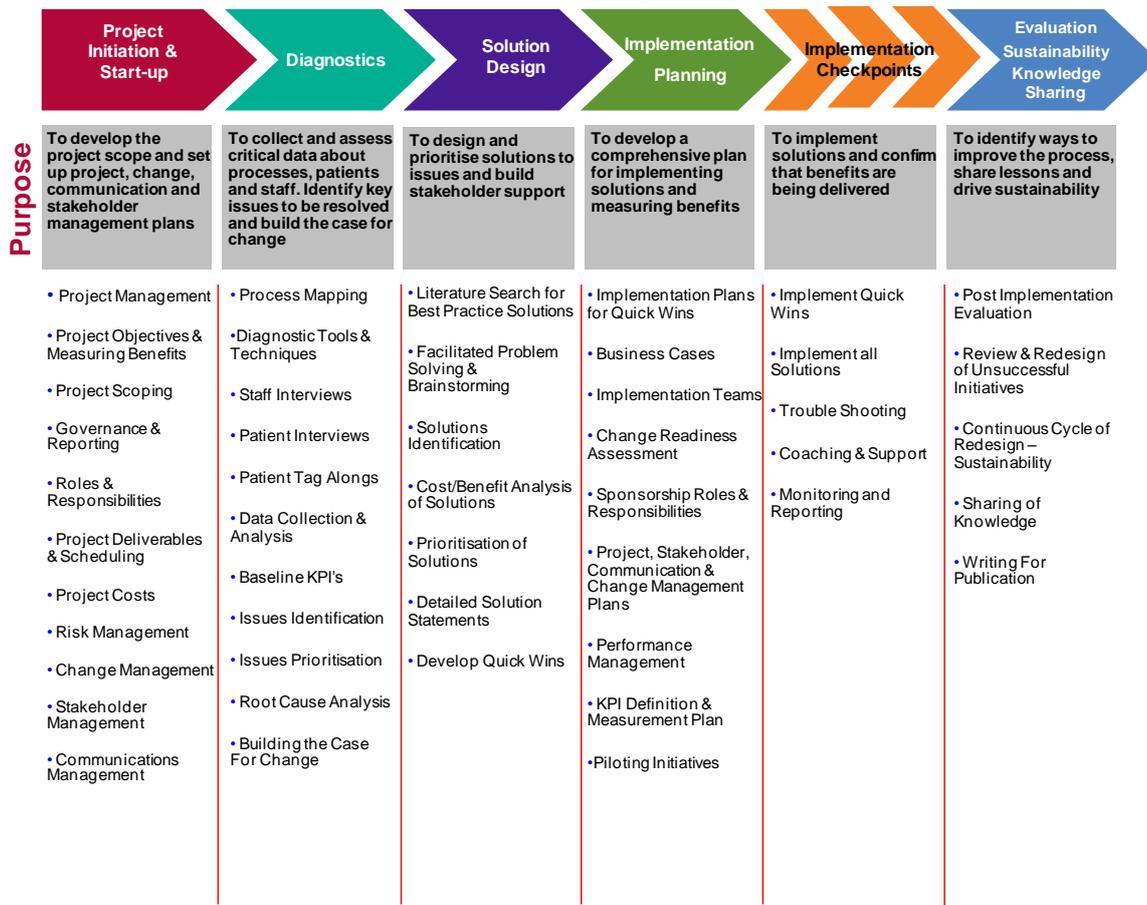
### Project Methodology

The project will use Healthcare Redesign Methodology. The Redesign process improvement methodology has been proven to work in NSW Health. Over 95 Redesign projects have been successfully implemented in 8 areas that were creating the most stress on the health system. These 8 areas include; Surgery, Cardiology, Acute Care, Emergency, Aged & Chronic Care, Patient Flow, Mental Health and Performance Management.

Redesign projects have resulted in new ways of delivering better care for patients and carers. Eighteen best practice models of care have been captured and promoted. New approaches to delivering care have also been designed including; fast track zones, Medical Assessment Units, patient flow units, hospital avoidance initiatives, Emergency Medical Units etc.

Redesign methodology use a systematic 6-stage process to guide project planning, implementation, evaluation and future sustainability. See below diagram.

### Centre for Healthcare Redesign - Methodology



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Please find below screen shots from a draft MS Project task outline utilising the redesign framework for implementation of the ACE Program at Prince of Wales Emergency Department.

1		<input type="checkbox"/> <b>Key project activities</b>
2		<input type="checkbox"/> <b>Stage 1: Project Initiation and set up</b>
3	✓	project team creation: identify core members
4	✓	book project meeting timetable
5	✓	create project meeting agenda
6	✓	create project team meeting terms of reference
7	✓	create project meeting minutes template
8	✓	<input type="checkbox"/> <b>identify stakeholder group</b>
9	✓	send invite to stakeholders to be part of group
10	✓	Write and submit HREC application
11	✓	<input type="checkbox"/> <b>Write project plan</b>
12	✓	introduction
13	✓	project objectives
14	✓	scope management
15	✓	project approach
16	✓	evaluation approach
17	✓	assumptions, dependencies and constraints
18	✓	project structure
19	✓	quality management
20	✓	issues and risk management
21	✓	stakeholder analysis
22	✓	communications management
23	✓	procurement management
24	✓	grant funding management
25	✓	appendix a - project schedule
26	✓	appendix b - stakeholder analysis
27	✓	appendix c - communications activities
28	✓	project team to review and revise project plan

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29	✓	<input type="checkbox"/> <b>Scope of practice document</b>
30	✓	Write scope of practice (SOP) for ACE CNC
31	✓	Project team to review and sign off SOP doc
32		<input type="checkbox"/> <b>acquisition CNC</b>
33		confirm roster pattern and FTE required
34	✓	Write position description and expression of interest
35		send out internal expression of interest to ED nursing staff
36		assess candidates / book interviews
37		complete interviews
38		notify successful applicants
39		<input type="checkbox"/> <b>Deliverables: stage 1</b>
40	✓	written project plan
41	✓	project schedule
42	✓	scope of practice document
43	✓	position description and expression of interest
44		nurses seconded to position for model of care
45		<input type="checkbox"/> <b>Stage 2: Diagnostics</b>
46	✓	<input type="checkbox"/> <b>process map pt journey</b>

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52	✓	<b>Evaluation: KPIs</b>
53	✓	determine data fields that will be used to evaluate KPIs
54	✓	identify where data can be acquired from
55	✓	create reporting structure to run kpi report if necessary
56	✓	acquire baseline KPI data
57		<b>Questionnaires</b>
58		Write questionnaire for staff
59		Write questionnaire for patients
60	📅	determine required respondent numbers for staff and patients
61		acquire questionnaire responses from patients and staff
62		<b>Deliverables: stage 2</b>
63	✓	process maps of patient journeys
64	✓	base line KPI data
65		Base line data from staff and patient questionnaires
66		<b>Stage 3: Solution Design</b>
67	✓	<b>Literature search</b>
68	✓	create search strategy
69	✓	obtain articles
70	✓	identify data extraction tool for lit search
71	✓	create table with summary information upon models of care identified in the lit
72	✓	Project team meeting to discuss findings from lit search
73	✓	Project team to consider revision model/SOP/workflows in light of lit findings
74	📅	stakeholder meeting
75	📅	Confirmation of end model of care design
76	📅	design of clinical area needed for care delivery
77		<b>design workflows</b>

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81		<input type="checkbox"/> <b>Standing orders / guidelines</b>
82		<input type="checkbox"/> <b>write medication standing orders</b>
83		project team to revise med standing orders
84		submit med orders to DTC
85		<input type="checkbox"/> <b>write guidelines for management of patients within EPH scope of practice</b>
86		project team to review guidelines
87	✓	<input type="checkbox"/> <b>Research method</b>
88	✓	confirm methodology to be used : mixed methods
89	✓	identify what type of data is to be acquired and how.
90		<input type="checkbox"/> <b>deliverables: stage 3</b>
91	✓	Summary of lit review findings
92		workflows for referral of patients to program
93		summarise research method employed
94		summary of model of care
95		<input type="checkbox"/> <b>Stage 4: Implementation Planning</b>
96		evaluation of knowledge base CNC in relation to scope required.
97		Completion of in-house education regarding role
98		Contact and education of external stakeholders e.g. paramedics
99		Staffing details: write roster
100		Data acquisition program ready
101		<input type="checkbox"/> <b>Deliverables: stage 4</b>
102		Summary of areas covered within education program
103		Identification of process used to determine competence/safety
104		staff roster pattern
105		<input type="checkbox"/> <b>Stage 5: Implement checkpoints</b>
106		<input type="checkbox"/> <b>Deliverables</b>
107		5 day a week ACE program implemented
108		<input type="checkbox"/> <b>Stage 6: Evaluation, sustainability, knowledge sharing</b>
109		Data acquisition, evaluation and write up.
110		<input type="checkbox"/> <b>toolkit development for succession planning</b>
111		
112		summarise model of care, related work flows, resource requirements
113		Create education framework, topic areas and key components for education.
114		<input type="checkbox"/> <b>Deliverables: stage 6</b>
115		<input type="checkbox"/> <b>monthly data sets and quarterly summary o</b>
116		KPIs
117		Patient flow data
118		qualitative data
119		data evaluation
120		<input type="checkbox"/> <b>final reports</b>
121		Summary of model of care and evidence base
122		succession planning framework