National Rollout and Evaluation of the Dementia Care in Hospitals Program

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Authors
Dr Sean MacDermott
Associate Professor Mark Yates
Ms Meredith Theobald
Ms Michelle Morvell
Dr Mohammadreza Mohebbi
Ms Emma West
Ms Jessica Jebramek
Associate Professor Jennifer Watts

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Any enquiries about this report should be directed to:
Dementia Care in Hospitals Program
C/ - Associate Professor Mark Yates FRACP
Phone: (03) 53206834
Email: marky@bhs.org.au

Foreword

Maree McCabe
Chief Executive Officer
Alzheimer's Australia

People living with dementia, their families and carers often approach Alzheimer's Australia with stories about the many challenges they face in their everyday lives. Hospitals are often highlighted as environments of concern for individuals and their families, and the evidence supports these anecdotal accounts.

People with cognitive impairment who are admitted to hospital have a higher risk of preventable injury. They experience more complications, including urinary tract infections, pneumonia, delirium and pressure ulcers. Further, the average length of stay in hospital for someone with dementia can be significantly greater than the general population.

This is why the Dementia Care in Hospitals Program (DCHP) has been such an important initiative. The data indicate that patients with cognitive impairment (who made up almost 40% of all patients over the age of 65 in hospital) had three times the risk of a complication while in hospital compared with those who did not have cognitive impairment. At the same time, the project also demonstrated that complications can be reduced by taking a holistic approach to staff awareness and education about dementia and linking these educatory strategies to an over-bedside alert, known as the Cognitive Impairment Identifier (CII). This program, developed at Ballarat Health Service in association with Alzheimer's Australia Victoria in 2004, and now rolled out to four leadership hospitals nationally, is a key step towards improving care for patients with dementia and cognitive impairment.

Alzheimer's Australia has advocated for this kind of attention for the hospital environment over many years. More than a decade ago, consumers highlighted the need for improved care in hospitals at a national consumer summit; in 2014 we released a paper on *Dementia Care in the Acute Hospital Setting*; and in 2016 we supported the use of the CII as a national symbol for cognitive impairment in hospitals.

The DCHP initiative represents the most recent – and influential – step in transforming care in hospitals for people living with a cognitive impairment. Alzheimer's Australia has been pleased to participate as part of the national advisory team and provide a link through which consumers have been able to influence the development of the project and assess its impact. The extent of this engagement is most notably demonstrated by the overwhelming acceptance by patients and families of the CII and the broader parameters of the project itself.

The evaluation of the DCHP reiterates the importance of such an initiative and the need to maintain an ongoing focus on improving hospital care for people with dementia.

I congratulate the Ballarat Health Services team and the participating health services on the successful implementation of the DCHP and look forward to further expansion of the DCHP to all Australian states and territories.

Maree McCabe
Chief Executive Officer
Alzheimer's Australia

Acknowledgements

The Ballarat Health Services team acknowledges the support of Commonwealth Government of Australia grant no. 4-3VTSOC to undertake the National Rollout of the Dementia Care in Hospitals Program (DCHP).

Thanks to the National Stakeholders Advisory Group (NSAG) for their guidance and input over the course of the project.

Thanks to members of the Deakin University evaluation team, the Evaluation Advisory Group.

Thanks to the team at Health Roundtable for the collation of the data sets from our four partner hospitals and their invaluable skills advice.

Ballarat Health Services would like to thank Alzheimer's Australia for the ongoing support and endorsement of the DCHP and the Cognitive Impairment Identifier.

Ballarat Health Services also acknowledges the work, energy, and sustained commitment of our project partners in driving culture change in the care of patients with cognitive impairment in the acute setting.

Contents

List of Tables

List of Figures

Acronyms and Abbreviations

AA – Alzheimer's Australia

ACSQHC – Australian Commission on Safety and Quality in Health Care

ALOS – Average length of stay

AMT4 – Abbreviated Mental Test 4

AMTS – Abbreviated Mental Test Score

ATSI – Aboriginal and Torres Strait Islander

BHS – Ballarat Health Services

BPSD – Behavioural and psychological symptoms of dementia

CDT – Clock Drawing Test

CI – Cognitive impairment

CII – Cognitive Impairment Identifier

DCHP – Dementia Care in Hospitals Program

DEMQOL – Dementia Quality of Life Measure

DRG – Diagnosis related group

EOI – Expression of interest

HAC – Hospital-acquired complication

HRT – Healthround Table

ICD – International Classification of Diseases

LOS – Length of stay

MoCA – Montreal Cognitive Assessment

NAT – National Advisory Team

NESB – Non-English speaking background

NSAG – National Stakeholders Advisory Group

NSQHS – National Safety and Quality Health Service

QOL – Quality of life

RHH – Royal Hobart Hospital

RUDAS – Rowland Universal Dementia Assessment Scale

SCGH – Sir Charles Gairdner Hospital

TCH – The Canberra Hospital

TQEH – The Queen Elizabeth Hospital

Appendices

1. Executive Summary

This report comprises two reports integrated into one. The main body of the report describes the Dementia Care in Hospitals Program (DCHP) and reports on its implementation in four lead hospitals in four separate jurisdictions as part of a national rollout funded by the Commonwealth Department of Health. As part of the national rollout, it was stipulated that an independent outcome evaluation be conducted. Section 9 of the report includes the method and outcome of the evaluation conducted by Deakin University.

The DCHP was developed at Ballarat Health Services (BHS) in 2004 in direct response to the expressed needs of patients and their families/carers. Working in partnership with Alzheimer's Australia and consumers, the team at BHS developed the program with the following key features:

1. Screening of all patients aged 65 and over using a validated screening tool.
2. A set of nine key communication strategies which are to be employed by all staff (clinical and non-clinical) who engage with the patient.
3. Use of a Cognitive Impairment Identifier (CII) which is placed above the bedside to alert staff as to their responsibilities to the patient with Cognitive Impairment.

The CII is integral to the DCHP and was designed and developed in close consultation with consumers who also stipulated how it should and should not be used. For example, it is never to be attached to a patient or used as a label. Because of this long provenance of consumer involvement and support, the CII has always been accepted by patients, families, and carers and is the only identifier endorsed by Alzheimer's Australia.

Since 2004, the DCHP has been rolled out to a further 25 Victorian hospitals in metropolitan, regional and rural areas. Evaluations undertaken during rollouts in 2006 and 2009 found that implementation of the program resulted in increased carer and staff satisfaction. While feedback was positive, a stumbling block to broader national implementation was the requirement for screening of all patients.

During the life of the program the national conversation and environment around dementia and CI have changed. Dementia has been recognised as a National Health Priority and the incoming standard will mandate screening of all patients aged 65 and over. These factors coupled with the ongoing success of the program in Victoria have led to increased interest from Health Services all across Australia who wish to implement the program.

In 2014 the Commonwealth Department of Health funded the current rollout and evaluation. The rollout encompassed health services in South Australia, Australian Capital Territory, Western Australia, and Tasmania who implemented the program on a rolling schedule in 2015 and 2016. In terms of program implementation, the main findings are that:

- The program was implemented successfully across all four health services.
- Partner sites demonstrated that it is possible to attain a screening rate of up to 80% in a very short timeframe.
- Screening can be embedded as part of normal practice and screening rates maintained if they are linked to an appropriate program of care whereby staff can see the value of screening.
- About 40% of all patients screened will be found to have CI.
- Previous findings around staff, patient and carer satisfaction were replicated.
- All partner sites are establishing themselves as lead sites in their respective jurisdictions.

- The CII was welcomed by the overwhelming majority of consumers with a rejection rate of less than 1%.

In terms of the independent costing of the program the key findings are that:

- Patients who screen positive for CI are a high-risk population who are three times more likely to have one of four hospital-acquired complication (HACs); urinary tract infection, pneumonia, pressure Injury, or delirium.
- In the population screened for CI, the risk of HAC was reduced by 14%.
- Patients who screened positive for CI had a one-day increase in LOS but this increase was primarily driven by the presence of one of the four HACs.
- The cost of hospitalisation in the Intervention period was slightly lower than for the control period.
- The slightly lower total cost during the Intervention period is likely to offset the cost of delivering the intervention.
- Two hospitals demonstrated a large saving in the costs of hospitalisation between Intervention and control for the population who screened positive.

Overall, the current evaluation provides evidence to support the value and validity of the DCHP. The successful rollout showed that the program fits with and supports a range of standards including identification and reduction of risk, consumer involvement, screening, and care. It is fully-developed and easy to implement in a wide range of organisations. The evaluation suggests that there are some savings to be made to the hospital in terms of reduced LOS and cost, through reducing the risk of hospital-acquired complications in a vulnerable population.

2. Governance

Ballarat Health Services (BHS) provided governance of the DCHP national rollout. The National Advisory Team (NAT) met weekly throughout the course of the project.

Membership of The National Advisory Team:
A/Prof Mark Yates: Physician in Geriatric Medicine, BHS (Chair)
Dr Sean MacDermott: National Project Manager
Ms Meredith Theobald: Director of Sub-Acute Nursing, BHS
Ms Michelle Morvell: Clinical Nurse Consultant, Cognition, BHS
Representative from Alzheimer's Australia.

The NAT in turn was advised by the National Stakeholder Advisory Group (NSAG) which included representation from Ballarat Health Services, the Deakin University Evaluation Team, all four Partner Health Services, the Australian Commission on Safety and Quality in Health Care (ACSQHC), Alzheimer's Australia and two consumers. NSAG meetings were held quarterly and chaired by the National Project Manager.

Membership of the National Stakeholder Advisory Group:
Dr Sean MacDermott: National Project Manager, BHS (Chair)
A/Prof Mark Yates: Physician in Geriatric Medicine, BHS
Ms Meredith Theobald: Director of Sub-Acute Nursing, BHS
Ms Michelle Morvell: Clinical Nurse Consultant, Cognition, BHS
Ms Kate Swaffer: Consumer – AA Dementia Advisory Committee
Ms Lucille Bloch: Consumer – AA National Consumer Advisory Committee
Ms Karen Hales: DCHP Executive Lead, TQEH
Dr Faizal Ibrahim: Gerontologist, TQEH
Ms Linda Kohlhagen: ED RACC and Executive Sponsor, TCH
Dr Anil Paramadhathil: Director Geriatric Medicine and Clinical Sponsor, TCH
Ms Mary Bronson: Deputy Nurse Co Director Executive sponsor, SCGH
Dr Sean Maher: Geriatrician Medical Support, SCGH
Dr Frank Nicklason: A/Director Aged care and Geriatric Medicine, RHH
Mr Bruce Edwards: Group Manager and Executive Sponsor, RHH
Ms Anne Cumming: Australian Commission on Safety and Quality in Health Care
Prof Rob Carter: Deakin University Evaluation Team
A/Prof Jenny Watts: Deakin University Evaluation Team
Representative from Alzheimer's Australia.

Secretarial support for all meetings was provided by BHS.

3. Background

3.1 Dementia in Australia

Dementia is an umbrella term for a range of diseases affecting memory, thinking, behaviour and the ability to perform everyday activities. Dementia is not a normal part of ageing, although it occurs more frequently in the elderly population. Common characteristics of dementia are impairment of brain functions such as speech, memory, perception, personality, and cognition.

Dementia is the leading cause of disability burden and the second leading cause of burden of disease for people aged 65 years and over[1]. People with dementia have been shown to be more than twice as likely to be admitted to hospital compared to those without dementia[2]. 83,000 patients with dementia are admitted to hospital each year in Australia[1]. Further, average length of stay (ALOS) across 8 of the 10 most common reasons for admission and cost of admission is higher in patients with dementia[2-4].

People with dementia experience poorer outcomes of hospitalisation, including higher rates of hospital-acquired complications[5]; higher rates of discharge to residential care[6]; higher morbidity[7] and more bed days in hospital[4]. Outcome measurement is hampered by difficulty in relying on documentation of dementia diagnosis, as it often goes undetected and, if detected, often goes undocumented[8].

3.2 Cognitive Impairment in the Acute Care Environment

In the acute care environment, the term 'dementia' is associated with formal diagnosis of a range of neurocognitive diseases, however, 'cognitive impairment' (CI) encompasses changes in cognition ranging from mild to severe, and including, but not limited to, diagnoses such as dementia and delirium. In complex hospital environments the diagnosis and documentation of dementia is made difficult by the presence of other causes of memory and thinking disorders, such as delirium, head injury, or narcosis. These disorders can be symptomatically similar to dementia regarding presentation of confusion and disorientation. The higher risks of hospital-acquired complications documented in people with dementia could also be associated with these "failures in cognition". Consequently, the term 'cognitive impairment' can be used to describe the memory and thinking difficulties seen in hospital without ascribing a diagnosis. CI is increasingly used as a term to encompass the breadth of disorders causing brain dysfunction, and in hospitals is most likely caused by dementia, delirium or stroke[9].

Research suggests that CI is relatively common in acute care. It is estimated that, overall, 30% of patients aged 65 years and over have CI during their hospital stay[9]. Despite its high prevalence, CI is frequently under-recognised and, if detected, often goes undocumented[8]. While dementia is the focus of much of the current research related to risks of hospitalisation, the Dementia Care in Hospitals Program (DCHP) supports patients with CI, who are likely to share similar high levels of risk.

Risks associated with hospitalisation for patients with CI are compounded by the complexity of the hospital environment. Lack of identification of CI in hospitals can lead to inappropriate or insufficient care, especially when patients are expected to be active participants in their hospital care. Individuals with CI may have difficulty communicating their needs and staff

may not have the training required to communicate effectively with the patient. Patients admitted to Australian hospitals are assumed to have the cognitive capability to respond to the demands of hospital care, which require information retention, dexterity, insight and empathy. Some hospital safety systems, such as medication safety, rely on this cognitive ability in order to be effective[10].

Hospital staff are known to be inadequately equipped to identify, or respond appropriately to, patients with dementia or other cognitive impairments[9]. Staff report difficulty engaging with patients with CI and their families[11], and that older people's needs may not align well with the acute hospital setting[12].

Patients with CI have higher support needs for communication, procedural interventions, ambulation, toileting and medication administration[13]. The rates of some hospital-acquired complications (HACs) can be reduced by developing positive nursing work environments with manageable workloads[14-16]. The DCHP impacts across clinical and non-clinical care with the potential to support a positive and safe work environment thereby reducing HACs.

Patients with CI experience poorer outcomes of hospitalisation, including higher rates of HACs[5] and increased length of stay (LOS)[4]. Patients with CI are at risk of harm if their CI is not detected. Accordingly, recognising CI in hospitals is a key strategy for improving the care of patients with CI[17].
The national clinical guidelines for dementia in Australia include a recommendation that hospital staff have the skills to support patients with dementia in hospitals[18]. Further, the National Safety and Quality Health Service Standards *Draft 2* requires screening for CI and the appropriate management of dementia and CI in hospitals[19]. Routine cognitive screening is essential in order to identify and meet the care needs of this at risk patient cohort.

DCHP COMMUNICATION STRATEGIES

- Introduce yourself
- Make sure you have eye contact at all times
- Remain calm and talk in a matter of fact way
- Involve carers
- Keep sentences short and simple
- Focus on one instruction at a time
- Give time for responses
- Repeat yourself… don't assume you have been understood
- Do not give too many choices

4. The Dementia Care in Hospitals Program

4.1 Provenance

The Dementia Care in Hospitals Program (DCHP) is a hospital-wide education program to improve communication with, and awareness of, patients with cognitive impairment (CI). The DCHP was developed by Ballarat Health Services (BHS) in 2004, in partnership with people with dementia and their families. Focus groups comprised of people with dementia and carers/families were facilitated by Alzheimer's Australia Victoria.

Participants were surveyed on their experience with hospital care and services. Themes emerging from this consultation informed the development of the Cognitive Impairment Identifier (CII) and the nine key educational themes.
In 2006, this was followed by implementation and testing in seven further Victorian regional and metropolitan hospitals. The program consists of a focussed training program for clinical and non-clinical staff, embedded routine CI screening, and placement of an over-bedside alert for patients who screen positive for CI. It improves awareness of, and communication with, patients with cognitive impairment and their families and carers, during the hospital stay.

THE CONSUMER VOICE

"Carers are the experts [in] cognitive impairment"
Lucille Bloch

Acceptance, success and longevity of the DCHP is underpinned by its provenance of partnership with people with dementia and carers/families through the Alzheimer's Association.

4.2 Screening

In line with the National Safety and Quality Health Service (NSQHS) Standards' *National Standard Draft 2*, the DCHP embeds routine screening for CI of all patients aged 65 and over (Aboriginal and Torres Strait Islander (ATSI) patients 50 years and over). Screening is performed by staff trained in the use of the validated screening tool.

4.3 Cognitive Impairment Identifier

The DCHP is linked to a bedside alert – the Cognitive Impairment Identifier (CII). CII development entailed extensive consumer consultation. A trial of the CII, undertaken at BHS in 2004, demonstrated overwhelming consumer support for its use. Patients who screen positive for CI are offered placement of the CII above their bedside.

The CII is a key component of the DCHP and its visibility enables all hospital staff (clinical and non-clinical) to assist patients with CI. The CII alerts staff to use nine key communication skills, which are the foundation of the program. Awareness of CI allows staff to use the knowledge acquired through education to improve patient care and achieve enhanced engagement with carers.

Fig 1: Cognitive Impairment Identifier (CII)

The concept of a national symbol for dementia in Australia originated at the National Consumer Summit on Dementia held in 2005, and a more recent Australian parliamentary enquiry into dementia recommended the introduction of a Cognitive Impairment Identifier in hospitals[20]. The CII is the only symbol for cognitive impairment care in hospitals that has been endorsed by Alzheimer's Australia National.

4.4 Education

Training and education of staff is essential to ensure the correct use of the CII. The education and training program aims to improve: staff communication with patients; engagement with carers; and awareness of the CII including its meaning and appropriate staff response when it is displayed over the bedside. The education and training program is provided to staff, both clinical and non-clinical, who have direct patient contact. The education and training sessions are based on several themes that were identified through a series of focus groups with people with CI and their families, and seeks to enable staff to better understand and work with patients with CI and their carers/family.

5. Program Implementation

5.1 Site Governance

The Expression of Interest (EoI) document (see Appendix A) stipulated that partner sites would be expected to develop a governance structure including the appointment of a Steering Committee - comprising of key stakeholders both clinical and non-clinical, consumer representatives (e.g., a carer) and educational facilitators.

Partner organisations committed to provision of active executive support, identification of key clinical staff and the infrastructure to recruit a project officer. These personnel would form the nucleus of the local project team and would participate in monthly videoconferences and quarterly meetings of the NSAG. Partner organisations also committed to the timely collection of data and provision of monthly written progress reports signed off by the Project Officer and the Executive Sponsor.

5.2 Site Support

Implementation of DCHP for the National Rollout followed the process initially developed at BHS and refined during implementation in 25 Victorian hospitals and health services. Because of the distances involved in a national rollout, regular meetings were held via videoconference.

Each site appointed a Project Officer who was responsible for staff training and education as well as day-to-implementation of the program and data collection. Other key team members at each site were generally the executive lead/sponsor and a lead geriatrician.

The local team at each partner site received constant support from the National Advisory Team (NAT) based in Ballarat.

Assistance with Ethics: Each partner site was required to submit a full ethics application. This required extensive support and assistance from the NAT guided by previous experience.

The study protocol was approved by the relevant Ethics Council at each participating site, Ethics approval numbers are:
HREC/15/TQEH/9 (Government of South Australia, SA Health, Human Research Ethics Committee);
ETH.6.15.105 (ACT Health, Human Research Ethics Committee);
HREC/15/TQEH/9 (Human Research Ethics Committee (Tasmania) Network);
2015-103(Government of Western Australia, Department of Health, Human Research Ethics Committee).

WHAT DID PARTICIPATING SITES RECEIVE?

- Training Materials required to implement the DCHP
- Face-to-Face training from the National Team
- Copies of all surveys and data collection templates
- Immediate support via phone or email
- Monthly videoconferences with the entire DCHP team
- Additional site visits to provide support and to resolve issues
- Opportunity to see the DCHP in action at BHS

The Trial Registration Number is Australian New Zealand Clinical Trials Registry (ANZCTR) ACTRN12615000905561.

Videoconferences: Each site team had a monthly videoconference with the NAT. In addition to ensuring that the project remained on track, this provided a forum to tap in to the knowledge gained from implementing the DCHP in hospitals throughout Victoria.

Site Visits: The NAT visited each site on at least two occasions. The first visit was to launch the program and to run Train the Trainer sessions with staff. The second visit was scheduled according to site needs and was designed to provide further support, to deal with issues, or to celebrate success.

Training and Support: Training materials which have been developed over time were provided to each site as were staff and carer surveys. As part of the data-collection process, templates and spreadsheets were developed by the NAT and supplied to partner sites.

Telephone and email support: In addition to regular communication between the National Project Manager and the local Project Officers, members of the partner teams were also able to tap directly into the knowledge and expertise of each member of the NAT.

BHS Visit: Team members from each partner site were afforded an opportunity to visit Ballarat Health Services to see the DCHP in place and to spend some time with the team there. Personnel from three of the four participating sites availed of this opportunity.

6. National Rollout

6.1 Overview

The primary aim of the national rollout was to implement the DCHP in four partner sites in four different jurisdictions. Once screening was embedded in wards the evaluation of the rollout and uptake investigated the impact of the DCHP and CII in the following domains:

- Carer satisfaction
- Patient quality of life
- Staff perception of confidence in care and satisfaction

An independent evaluation was undertaken by Deakin University Faculty of Health and Deakin Health Economics to evaluate the impact of the DCHP intervention on hospital-acquired complications (HACs), acute hospital length of stay and cost of the acute care patient episode.

6.2 Participation

An expression of interest (EOI) document was circulated to public health services nationally. EOIs were received from health services in all states and territories. Selection of the four partner sites was based on: organisational readiness and the extent of existing support for those with cognitive impairment (CI); stated screening levels for the over-65 population; executive support; and the funding requirement that the sites be distributed nationally and include metropolitan and regional services.

SELECTION OF PARTNER SITES

EOIs received from hospitals/health services in all states and territories.

Selection based on: Level of organisational support around Cognitive Impairment (CI).

Executive support

Current extent of screening of over-65 population for CI.

Mix of regional and metropolitan sites from: SA, the ACT, WA, & TAS

The final selection resulted in signing of partner agreements with four hospital sites across four Australian jurisdictions:

- The Australian Capital Territory;
- South Australia;
- Tasmania; and
- Western Australia.

Within each partner site, the DCHP was implemented across a number of wards. Selection of participating wards was at the discretion of each site's leadership team and a requirement for a spread of wards across medical, surgical and acute aged care.

6.3 Target Population

The target population was all patients aged 65 and over (ATSI 50 years and over) admitted for more than 24 hours to participating wards. Patients were screened for CI using validated screening tools, and form the patient pool for analysis (see Fig 4). There were no patient exclusions. Patients transferred to a participating ward from a non-participating ward were included if they stayed on the participating ward for longer than 24 hours. If patients transferred from a participating ward on which they had stayed for longer than 24 hours, to a non-participating ward were also included.

6.4 Design

The study employed a stepped-wedge, cross-sectional, continuous-recruitment study design (see Table 1). The stepped-wedge methodology is designed to control for potential bias, which may occur as a result of variation in hospital practice and external factors such as the introduction of new policies. In intervention, eligible patients were screened for CI within 24 hours of their admission. Participants remained in the study for the duration of their acute hospital stay.

Table 1. Stepped-Wedge Timeline

Project Timelines *(Go-Live as a fixed date in green)*.

Period Commencing	1/02/2015	12/04/2015	5/07/2015	27/09/2015	20/12/2015	13/03/2016	5/06/2016	28/08/2016	20/11/2016	12/02/2017	7/05/2017
No of Days	70	70	84	84	84	84	84	84	84	84	84
Site #1	BL1 Normal Practice	BL1 Normal Practice	BL1 Normal Practice	**BL2 Baseline (Train and Screen)**	T1 Intervention (Implement DCHP)	T2 Intervention (Implement DCHP)	T3 Intervention (Implement DCHP)	T4 Intervention (Implement DCHP)			
Site #2	BL1 Normal Practice	BL1 Normal Practice	BL1 Normal Practice	BL1 Normal Practice	**BL2 Baseline (Train and Screen)**	T1 Intervention (Implement DCHP)	T2 Intervention (Implement DCHP)	T3 Intervention (Implement DCHP)	T4 Intervention (Implement DCHP)		
Site #3		BL1 Normal Practice	BL1 Normal Practice	BL1 Normal Practice	BL1 Normal Practice	**BL2 Baseline (Train and Screen)**	T1 Intervention (Implement DCHP)	T2 Intervention (Implement DCHP)	T3 Intervention (Implement DCHP)	T4 Intervention (Implement DCHP)	
Site #4			BL1 Normal Practice	BL1 Normal Practice	BL1 Normal Practice	BL1 Normal Practice	**BL2 Baseline (Train and Screen)**	T1 Intervention (Implement DCHP)	T2 Intervention (Implement DCHP)	T3 Intervention (Implement DCHP)	T4 Intervention (Implement DCHP)

Commence Training | Go-Live

BL1 = Established Practice; BL2 = Control; T1 – T4 = Intervention

Due to local variations in organisational readiness and ability to achieve desired screening rates, there was some variation between the planned project timelines in Table 1 and the actual commencement and completion dates. Nevertheless the integrity and intent of the stepped wedge model was maintained throughout the project.

6.5 Program Implementation

Each partner site commenced with a period of establishment (BL1) prior to 12 weeks of control (BL2) in which they demonstrated a project governance structure, obtained local ethics approval for the collection and provision of the evaluation data, and developed a standardised cognitive pathway that included screening for CI.

The development and endorsement of an embedded cognitive impairment pathway of care for patients identified with CI was essential. This key organisational protocol demonstrated organisational readiness. The pathway should align with that proposed by the Australian Commission on Safety and Quality in Health Care (ACSQHC). The pathway needs to describe a governance mechanism and should cover the time from positive CI screen through to patient discharge. This pathway should include the screening process for CI using a validated cognitive screening tool.

STEPPED-WEDGE DESIGN

Each hospital commences at a different (pre-determined) time point

Prior to Control, hospitals implement screening of all patients aged over 65 years (ATSI ≥ 50)

When the first hospital moves from Control to Intervention, the second hospital commences Control.

During Control (12 weeks) all eligible patients are screened

During Intervention (4 successive 10-week periods) all patients are screened AND the DCHP (including use of the Cognitive Impairment Identifier) is implemented

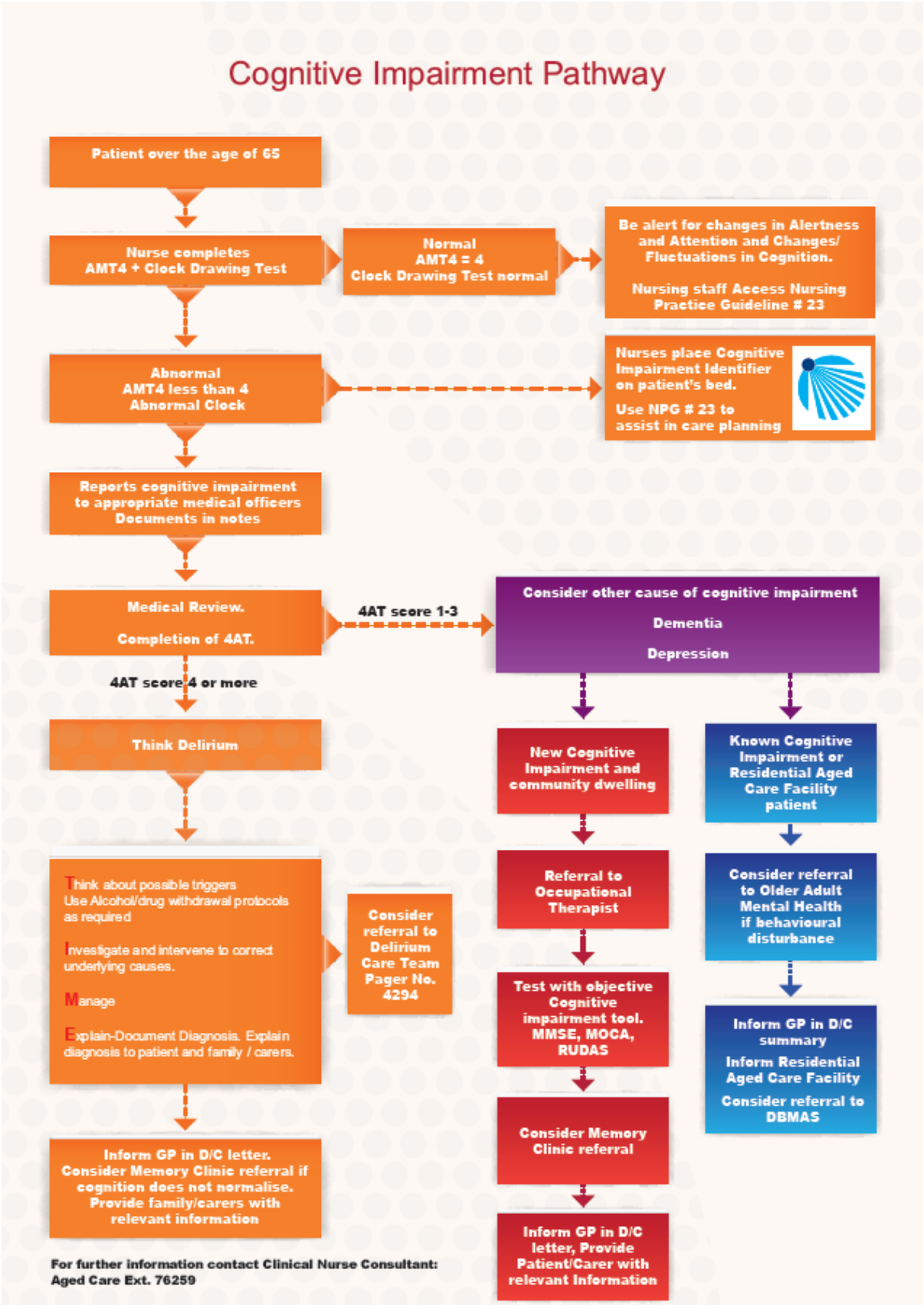

Fig 2. Cognitive Impairment Pathway developed by a participating site (de-identified).

As part of program implementation, there was a requirement for staff to have completed education in relation to use of the screening tools, and implementation of the program. In consultation, partner sites employed a variety of screening tools, although not all partner sites employed the same screening tool or suite of tools. Screening tools and criterion scores utilised by the four hospital sites are summarised in Table 2.

Table 2. Cognitive Impairment Screening Tools

Tool	Acronym	Criteria for positive CI screen	Site
Abbreviated Mental Test[21]	AMT	Score ≤ 7	1
Mini-Cog[22]		Recall 1 or 2 of 3 items and abnormal Clock Drawing; or recall of 0 of 3 words.	4
Abbreviated Mental Test Score 4*[23]	AMT4	Score of 3 or less	2 and 3
Clock Drawing Test^[24]	CDT	Not all clock numbers present, spaced unevenly, or hands pointing to incorrect time.	2, 3 and 4
*Only used in conjunction with CDT ^Used in conjunction with either AMT4 or MiniCog			

Following ethics approval, a further 12 weeks of control (BL2) commenced. During this Control phase patient, carer and staff surveys were administered. Sites also completed ward registration sheets (see Appendix B) to assist in the collection of hospital patient level administrative data. Staff training also occurred during this period.

Control was envisaged as a 12-week period predicated on the assumption that staff on participation wards were already screening all people aged 65 years and over consistently. In reality, this was not the case and, in some cases, sites required longer to reach an acceptable level of screening. When this was achieved, sites were able to implement the DCHP intervention ('Go Live').

'Go-Live' marked the start of the intervention period (T1-T4) when the DCHP was implemented. During intervention, the Cognitive Impairment Identifier (CII) was placed over the bedside for each patient who screened positive for CI, triggering both clinical and non-clinical staff to utilise the key communication strategies. The use of the CII and application of the principles for appropriate use commenced at 'Go-live' and not prior.

The use of the CII was discussed with the nominated carer and the patient with CI. Its application or refusal was recorded for each patient. DCHP explanatory brochures were provided to each partner organisation to assist patients and carers in decisions about participation.

6.6 Training and education activities

Training was initially delivered to the partner site by BHS through a train-the-trainer approach. Partner sites then rolled out the education to all relevant clinical and non-clinical staff. Each partner site was also provided with a training package used in previous DCHP rollouts. DCHP training is about the importance of recognising and appropriately responding to CI in the hospital environment, not about how to screen for CI. During this rollout, additional screening training was required to achieve the target screening rate.

6.7 Data Collected

6.7.1 Patient data

Patient data collected included descriptors (UR number, age, gender, ATSI status, co-morbidity index), hospital episode descriptors (admission date, discharge date, length of stay, principal diagnosis, Diagnosis Related Group (DRG), partition, discharge ward) and measures used (screening instrument, patient quality of life, carer satisfaction data).

6.7.2 Hospital-acquired complications

Hospital-acquired complications (HACs) data included urinary tract infection, pressure injury, pneumonia, and delirium. These were identified by ICD-10 codes from the hospital administrative data. Place of onset of HACs was also collected.

6.7.3 Carer Satisfaction

To assess carer satisfaction, carers of patients screened positive for CI were invited to complete a Carer Satisfaction Survey. The Carer Satisfaction Survey (Appendices C-D) was designed by BHS for use in previous rollouts of the program. The survey consists of 11 questions scored on a 5-point Likert-type scale, and two 'yes/no' questions. Carer surveys were collected during the Control phase and at approximately six months post-intervention. These data are reported as before and after analysis.

6.7.4 Patient quality of life

Patient quality of life was assessed using the Dementia Quality of Life Measure: DEMQOL (Appendices E). DEMQOL is a patient reported outcome measure, which is designed to enable the health-related assessment of quality of life of people with dementia. DEMQOL is designed to work across dementia subtypes and care arrangements and can be used at all stages of dementia. Development of the questionnaire is based on a conceptual framework that included five domains: daily activities/looking after yourself; health and well-being; cognitive functioning; social relationships; and self-concept[25]. DEMQOLs were collected during the Control phase and at approximately six months post-intervention. These data are reported as before and after analysis.

6.7.5 Staff Satisfaction

To assess staff satisfaction, staff from participating wards were invited to complete a staff satisfaction survey. The staff satisfaction survey (Appendices F-G), developed by BHS, and used in previous rollouts, consists of 5 questions rated on a 5-point Likert-type scale, and 3 qualitative questions. The staff satisfaction survey was designed to assess staff confidence, comfort and job satisfaction in dealing with patients with CI. It was also designed to gauge staff perceptions of organisational support and how well equipped the hospital environment is in meeting the needs of patients with CI. Staff surveys were collected during the Control phase and at approximately six months post-intervention. These data are reported as before and after analysis.

6.8 Data Integrity and Management

Data were stored on a secure server with restricted access. Data entry occurred on-site and at the DCHP National Office, in Excel spreadsheets for later analysis using IBM SPSS Statistics version 24. Data were collected from individual partner sites (intervention, outcomes and survey) and from the Health Roundtable (HRT) inpatient episode data base (patient level hospital episode data).

The data collected included patient descriptors (e.g., age, name, UR, ATSI status, comorbidity index), hospital acute episode descriptors (e.g., length of stay, discharge ward) and measures

used (e.g. screening instrument, DEMQOL, carer satisfaction data). Further information around staff attitude towards, and awareness of, CI as well as the resources used to implement the program at each site were also collected.

Data integrity was maintained by having password protected files, and all data stored on a secure server. Data cleaning and analysis of the HRT hospital administrate data was undertaken by members of the Deakin University Evaluation Team.

6.8.1 Outcome Data

Hospital-acquired complication (HAC) data were drawn from routinely collected hospital data supplied by hospitals to the HRT, a not-for-profit membership organisation of health services across Australia and New Zealand. HRT holds routinely collected data for 8 years for all hospitals in the DCHP. Ethics approval was sought and obtained for data sharing with the evaluation team. Data sets were de-identified prior to analysis.

Selection of HACs analysed as part of this study was based on work by Needleman et al.[14] The original methodology to detect common complications in patients used ICD9 codes appearing as secondary diagnoses, but has since been updated to ICD10. For the DCHP evaluation all the diagnostic codes for the patients' episodes were interrogated separately. Patients with at least one of four complications – urinary tract infection, pressure injury, pneumonia or delirium – were considered to be positive for a hospital-acquired complication if the complication was not present or noted at admission, i.e. was not recorded as a Principal diagnosis.

Hospital length of stay data were calculated from a count of the admission and discharge dates, where the admission and discharge days were each counted as one day. Only patients with a LOS greater than 1 day were included in the analysis of outcome variables (HAC, LOS and hospital episode cost).

The hospital episode cost was determined from the National Weighted Activity Unit (NWAU) provided by HRT. This was reported for each patient acute hospital episode. The NWAU is derived from the DRG, length of stay and resource-intensive services, for example Intensive Care Unit stay. The NWAU was multiplied by the base price from 2015 (IHPA) to model total patient cost.

6.9 Risk Register

A risk register was maintained and regularly reviewed at NAT meetings. This ensured that risks were identified early and mitigation strategies implemented.

7. Findings

7.1 Participant Pool and Screening

Overall screening rates were calculated using DCHP project data collected by partner-site project officers and collated by the National team. This was combined with hospital data compiled and analysed by the HRT. The HRT provided total numbers of all eligible patients on participating wards throughout the study while the project data accounted for every patient screened as part of the DCHP.

SNAPSHOT FINDINGS: PARTICIPANTS AND SCREENING

16, 834 patients eligible for inclusion

11,309 (67%) patients screened across the four participating sites.

1970 in Control
9339 in Intervention

Ages:
50 to 102 in Control,
51 to 106 in Intervention

Table 3. Participant Numbers and Screening Rates

Study Period	Not Screened		Screened		Total Cases
	N	%	N	%	
Control Phase	1287	39.5	1970	60.5	3257
Intervention Phase					
Period (T1)	1341	31.5	2914	68.5	4255
Period (T2)	982	31.4	2144	68.6	3126
Period (T3)	875	28.5	2199	71.5	3074
Period (T4)	1040	33.3	2082	66.7	3122
Total	**5525**	**32.8**	**11309**	**67.2**	**16834**

Table 3 shows that of the 16,834 patients who were eligible for inclusion in the study, 11,309 (67.2%) of these were screened. Average screening rates for the Control phase were just over 60% rising to an average of 69% in Intervention. These global rates are in line with screening rates of 60% to 80% reported by the sites in monthly reports throughout the life of the project.

The aim was that partner sites would achieve and maintain a screening rate of 70% of all eligible patients during the Control period and Intervention periods. In reality, however, some sites struggled to achieve this on all participating wards. With assistance, including addition site-support visits, from the NAT all sites managed to achieve this target by the end of Control. This explains the overall Control average of 60.5% which reflects a lower starting screening rate building gradually to around 70% by the end of Control.

In the Intervention phase the rate of screening averaged 69%, rising to 71.5% during T3 and falling back slightly to just over 67% in T4.

The final DCHP sample consisted of 11,309 patients who were screened for CI using a validated tool. There was a total of 1,970 patients in Control and 9,339 in Intervention.

Age

Of the patients eligible for inclusion in the study (n=16,834), age ranged from 50 to 102 years during the Control phase, and from 50 to 106 years in the Intervention phase. The average age of patients was 79 years in both Control and Intervention phases. The average age of participants across the four partner sites ranged slightly from 78.0 to 81.5 years.

The DCHP sample (n=11,309) displayed similar age characteristics to the overall population. Participant age ranged from 50 to 102 years in Control, and from 51 to 106 years in Intervention. In Control, the average age of participants was 79.7 years and in Intervention the average age was 79.4 years. The average age of participants across the four partner sites ranged slightly from 78.5 to 80.5 years.

Gender
Of the 16,834 patients eligible for inclusion in the study, 8,954 were female (53.2%) and 7,880 were male (46.8%). The final sample was representative of these figures; 53.1% were female and 46.9% were male.

Aboriginal and Torres Strait Islander status
People of Aboriginal and Torres Strait Islander (ATSI) status represented 2.3 per cent of all patients eligible for inclusion (n=385). Of the final sample, ATSI represented 1.5 per cent (n=167).

7.2 Program implementation

7.2.1 Staff training

During the study period, there were approximately 2,587 staff working on target wards across the four partner sites. Of these staff, 67.57% received DCHP training (N=1,748). Nursing staff accounted for the highest proportion of staff trained, followed by Non-Clinical, Medical, and Allied Health.

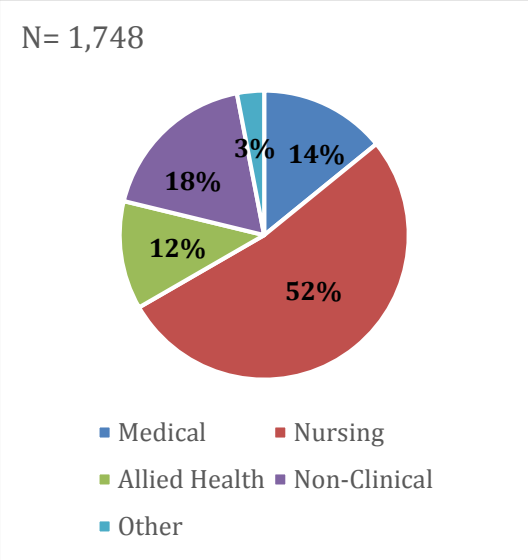

Figure 3. Proportion of staff trained by discipline

The percentage of staff trained varied slightly according to work category. Figures also varied considerably between partner sites (See Table 4).

SNAPSHOT FINDINGS: TRAINING

2,587 staff on target wards during study period

1,748 (67.57%) staff trained including:

- 60% of Medical staff trained
- 73% of Nursing staff trained
- 70% of Allied Health staff trained
- 58% of Non-Clinical staff trained

Table 4. Staff Training Across the Four Partner Sites

Work Category	Medical	Nursing	Allied Health	Non-Clinical	Other	Total
Number of staff	411	1261	302	555	58	2587
Number of staff trained	247	916	211	323	51	1748
Average staff trained	60.10%	72.64%	69.87%	58.20%	87.93%	67.57%
Range of staff trained	50.40% - 100.00%	57.53% - 82.96%	19.44% - 100.00%	40.38% - 98.36%	82.93- 100.00%	61.26% - 74.19%

7.2.2 Comments on training or educational activities at site level

During analysis of staff training data, it became apparent that each partner site had calculated training rates using different procedures, resulting in large variances across sites. There was difficulty in accurately estimating number of staff on wards at some sites. For instance, the total numbers of staff within a discipline were included in some calculations, rather than only the staff that worked on the target wards.

7.2.3 Content summary of training

Training was typically delivered in face-to-face format using a PowerPoint presentation provided to the four partner sites by the NAT. In some instances, training was delivered verbally due to a lack of access to audio-visual facilities. There were no limitations placed on the extent of training, resulting in the delivery of more comprehensive training at some sites, compared to others.

7.3 Cognitive Impairment Identifier

7.3.1 Use of the CII

Of the 3373 patients identified as having CI in Intervention, 1907 (56.5%) had the CII placed above their bed. This figure is comparable to CII usage previously reported at Ballarat Health Services (60%).

Across the sites, uptake of the CII varied from 45.6% to 69.0%. The actual figure for CII usage is likely to be somewhat higher as sites did not always record usage routinely. There were 641 instances (19%) where CII usage was not recorded so it is uncertain as to whether or not the CII was placed. There were 825 cases where it was recorded that the CII was not used (24.5%).

There were 21 recorded instances in which a patient refused placement of the CII. This equates to less than 1% of all positively screened patients offered the CII.

7.3.2 Carer Response to the Cognitive Impairment Identifier

> *"Noted the identifier was above dad's bed and noted that staff then took their time to explain procedures."* – Carer comment

To gauge carer perception of the Cognitive Impairment Identifier (CII) an additional question was included on the Carer Satisfaction Survey Post-Intervention. Question 12 asked carers "In your opinion was the bed based identifier of memory and thinking difficulties useful for helping the hospital staff respond effectively to the needs of the person you care for?" Responses were scored on a 5-Point Likert-type scale where 1= Very Dissatisfied, 2= Dissatisfied, 3= Neither, 4= Satisfied, and 5= Very Satisfied. 73.1% of carers surveyed were either satisfied or very satisfied, 16.1% were neither satisfied or dissatisfied and only 10.8% were either dissatisfied or very dissatisfied.

> *"The blue bed based identifier is very useful, I felt like it is a very useful identifier, and didn't make my mum uneasy about her personal health issues. It wasn't spelt out Dementia. It's a lovely respectable identifier."* – Carer comment

SNAPSHOT FINDINGS: SCREENING AND COGNITIVE IMPAIRMENT

16,834 patients met the eligibility criteria

11,309 (67%) of these were screened using a validated tool

1,970 patients in Control

9,339 patients in intervention.

4,278 patients screened positive for CI

38% of patients aged over 65 (ATSI >= 50) screened positive for CI

7.4 Prevalence of Cognitive Impairment

Of the 16,834 patients who met the eligibility criteria for inclusion, 11,309 (67.2%) were screened for CI. There were 792 reported cases (6.5%) where patients could not be screened for various reasons including physical impairment, palliative status, language barriers, and refusal.

Of these 11,309 patients who were screened, 4,278 (38%) screened positive for CI. Reported CI ranged from an average of 45.9% in Control to an average of 36.1% in intervention. Data from previous rollouts of the DCHP has consistently shown that around 35% of people aged 65 and over in acute setting have CI. The decreased percentage of reported CI from Control to Intervention is likely explained by gradual change as partner sites adjusted to new screening practice.

At an individual partner site level, reported CI varied from 25.8% to 55.4% in Control, and from 27.1% to 43.6% in Intervention. As screening practices became more embedded it is clear that there was a reduction in variance among the four partner sites.

Age and Gender differences

The positively screened group had a mean age of 82.4 years and the negatively screened group had a mean age of 77.7 years. There was a slightly higher percentage of females in the positively screened group (55.9%) as compared to the negatively screened group (51.3%).

Aboriginal and Torres Strait Islanders

Of the final sample screened positive for CI, 1.2 per cent were of ATSI status (n=52).

7.5 Carer Satisfaction

Carer perceptions of the hospital care delivery in Control and Intervention were measured via carer satisfaction surveys developed by the BHS team and used in previous rollouts of the program. Carer satisfaction surveys were collected from 177 carers in Control, and 236 in Intervention. Quantitative analysis of the carer surveys assessed 10 questions scored on a 5-point Likert-type scale ranging from 1=*Very Dissatisfied* to 5=*Very Satisfied*. Analysis of surveys found no statistically significant differences between Control and Intervention phases.

This is contrary to findings from previous rollouts, which have shown an increase in carer satisfaction post-implementation of the DCHP. This is likely explained by high baseline levels of satisfaction in the current rollout.

These baseline levels of satisfaction and dissatisfaction are comparable to figures obtained in post-intervention of previous rollouts. In Control, 84 per cent of carers in were satisfied, 9.6 per cent were neutral and 6.4% expressed dissatisfaction. Comparatively, 73% of carers were satisfied, and 18% dissatisfied in the control phase of the 2004 rollout of the DCHP. These figures improved post-intervention to 84.2% satisfaction and 6.4% dissatisfaction[26].

High baseline levels of carer satisfaction may be due in part to a selection bias on behalf of the hospitals that chose to participate. That is, it is possible that partner sites that applied to participate in the program were already invested in delivering better patient care. In any case, there is certainly a ceiling effect whereby there is limited room for improvement in carer satisfaction scores.

7.6 Quality of Life

Measuring Quality of Life (QoL) in the hospital setting is problematic. The national rollout of the DCHP used the DEMQOL as an exploratory measure of health-related quality of life in patients with CI. 270 DEMQOLs were collected during the Control phase and 236 were collected during the Intervention phase. Analysis of results showed no significant difference between quality of life in Control and quality of life in Intervention.

Further analysis of the DEMQOL assessed differences between Control and Intervention across four domain-specific factors: positive emotion, negative emotion, loneliness and worries about cognition.[27]

Patients in Intervention reported significantly less positive emotion compared to patients in Control however, this was not accompanied by change in negative emotion. There was no change in worries about cognition, which indicates that highlighting cognitive impairment does not affect patients concern about their own cognition. Patients in Intervention reported significantly lower feelings of loneliness, which suggests greater staff engagement and/or carer engagement.

SNAPSHOT: QUALITY OF LIFE

506 DEMQOLs completed across four partner sites

270 Control and 236 Intervention surveys collected

No reduction in quality of life

Patients in Intervention were less lonely

7.7 Staff Satisfaction

A total of 1375 staff surveys were collected across the four hospital sites. 957 surveys were collected during Control (pre-education) and 418 surveys were collected during Intervention (post-education). Of the 1375 respondents, 75.9% were clinical staff, 13% were non-clinical staff, and 11.1% did not specify. 89.3% of non-clinical staff had never been offered in-service or education on dementia or delirium previous to the DCHP rollout.

Questions 2 to 6 of the staff satisfaction survey were designed to measure overall staff satisfaction. Each question assessed a separate domain of overall satisfaction including staff confidence, staff comfort, staff perception of organisational support, job satisfaction, and satisfaction with well-equipped the hospital environment is. Responses were scored on a 5-point Likert-type scale where 1= Very Dissatisfied, 2= Dissatisfied, 3= Neither, 4= Satisfied, and 5= Very Satisfied.

To assess differences between staff satisfaction in Control and Intervention a series of independent *t* tests were conducted. The findings indicate that the DCHP has had a positive impact on overall staff satisfaction. Staff reported higher levels satisfaction in Intervention across all five domains measured. These improvements in staff satisfaction were all statistically significant. Results are presented in Table 5.

SNAPSHOT: STAFF SATISFACTION

1375 staff across four partner sites completed surveys

957 Control and 418 intervention surveys were collected

76% of respondents were clinical staff, 13% were non-clinical staff, and 11% did not specify

89% of non-clinical staff had not previously been offered in-service or education on dementia or delirium

Table 5: Results from Staff Satisfaction Surveys

		Group	N	Mean	Std. Dev	Std.Error Mean	Mean Difference
Q2	**Confidence**	Control	954	3.15	.791	.026	.37**
		Intervention	418	3.52	.787	.038	
Q3	**Comfort**	Control	953	3.18	.820	.027	.35**
		Intervention	417	3.53	.809	.040	
Q4	**Organisational Support**	Control	943	2.80	.853	.028	.40**
		Intervention	417	3.20	.913	.045	
Q5	**Job Satisfaction**	Control	936	2.88	.790	.026	.23**
		Intervention	415	3.11	.818	.040	
Q6	**Hospital Environment**	Control	938	2.60	.858	.028	.14*
		Intervention	414	2.74	.901	.044	

*Significant at .01, **significant at <.001

The very positive results around staff satisfaction have significant implications as it is well established that ensuring job satisfaction is vital to retaining staff and delivering health services efficiently. Job satisfaction a driver of staff engagement[28]. In the acute hospital setting, research has found staff satisfaction to be positively related to service quality and patient satisfaction[29]. In the area of dementia care, a review of job satisfaction has found that job dissatisfaction was the primary cause of staff resignations from dementia care jobs[30]. Since its inception in 2004, the DCHP has consistently been shown to have a very positive impact on staff satisfaction.

SNAPSHOT: STAFF SATISFACTION

Staff satisfaction showed a statistically significant improvement on all metrics following implementation of the DCHP.

Staff surveys covered areas such as confidence and comfort in dealing with memory and thinking difficulties, organisational support, hospital environment, and overall job satisfaction.

8. Program Implementation: Discussion

8.1 Facilitators and Barriers to project implementation

On conclusion of the project, final reports were submitted by each partner site (see Appendices H-K). Reporting requirements included barriers and facilitators to successful implementation of the DCHP. Some issues raised were unique to a particular site but most were common across all sites. Many had previously arisen during regular meetings or in monthly reports. Tables 6 and 7 provide a précis of these Barriers and Facilitators with additional comments from the National Project Team's perspective.

Table 6. Facilitators of Program Implementation

DOMAIN	PARTNER SITE COMMENT	NAT
Ward Champions leaders at ward	The consistent visibility and availability of personnel on wards was vital in driving the project. Key supportive staff included: Aged Care Nurse Practitioner, Clinical Nurse Consultant, Geriatricians, Nursing Director, Nurse Education Facilitator, Aged Care Clinical Nurse, Nurse Unit Managers, Clinicians to drive screening.	Gaining the support of key ward staff (e.g., Nurse Unit Managers) was critical to successful implementation. Wards where key staff are committed to the program have a much higher rate of screening and use of the CII. Where there was at-ward-level leadership from either/both nurse leaders and geriatricians the program uptake improved.
Consumers	Consumer involvement and input was beneficial. Other stakeholders were reassured to know the program had consumer support.	The realisation that the CII was developed in concert with consumers and enjoys their support allays staff concerns around labelling and provides impetus for success. The consumer voice was included in all launches either through AA Local and/or individual patient/family experience.
Accountability	Placing a degree of accountability on staff members helped in achieving screening rates. Conversely, in the absence of accountability screening rates tended to drop off.	Program implementation will not succeed if it is seen to be the responsibility of the project officer or "cognitive champion". Screening will only become embedded when it is seen as "something that we do when no-one else is looking".
Delivery of education by someone on ward level	Education delivered by a Project Officer, an "outsider" limits the embedding of the program whereas delivery of the education by someone on the ward level i.e. medical staff member facilitated the embedding of DCHP processes with everyday work-practices.	Even in cases where the Project Officer was not seen as an outsider and had considerable clinical experience at ward level, endorsement and reinforcement by the medical staff was very important.
National Advisory Team (NAT)	The support offered by the NAT was seen as crucial to successful implementation.	The National NAT was able to provide ongoing and immediate support so that local site teams enjoyed support throughout the project.

Support from ward and department managers	To gain access to staff meetings, permission to use signage around ward to promote DCHP.	This level of access and permission is necessary in order to sell and reinforce the key program messages.
Executive sponsor	Executive support to champion the program and facilitate engagement at the executive level, participation in Steering Committee, providing guidance.	Without executive support, organisational change will not succeed. This is especially true when implementing an "all of hospital" program which impacts on staff across disciplines and at all levels.
Additional personnel/support	Assistance with data collection contributed to higher numbers of surveys being completed and allowed other staff to focus on implementation of the project.	Some sites were able to utilise additional resources such as research students or return-to-work personnel to assist with data collection.
Project Officer	Project Officer role was vital in building and maintaining relationships with key staff. Providing leadership, promotion of the program, project progression, strategic planning, education delivery.	This role was seen as vital to success. Sites are currently looking at developing business cases to develop this into a Clinical Nurse Consultant (Cognition) role to maintain and expand the program.
Alzheimer's Australia	Reinforcement of broader value/national significance	Support from AA at both National and State levels especially with regard to endorsement of the CII as a National Identifier has greatly contributed to the success of the program.
Other support	Support of an administration officer with a clinical background enabled added value in support and education to ward staff during data collection. Academic input and participation on Steering Committee. Quality and Safety Officers, reinforced objectives and linkage with National Standards.	Different sites were able to call on different skillsets. The key message here is that successful implementation requires a number of different engagement strategies.
Previous work	Department of Geriatrics had increased the profile of Aged Care and particularly cognitive impairment. Existence of other programs including Dignity with Care, Caring for Cognitive Impairment Campaign. Meant there were existing education sessions, existing awareness. Baseline levels of skill and knowledge to build on.	Most sites were had undertaken existing work either in the cognitive space or in relevant areas such as falls screening. Integrating, and building on, existing practices (and especially existing successes) can provide an immediate level of momentum.
ACSQHC National Standards	The prospect of a new National Standard which will require screening of all over 65s provided a significant organisational driver.	All participating sites were cognisant of the incoming standard requiring screening of all over 65s and this provides a significant incentive to implement screening. The project has also demonstrated how such a level of screening can be achieved in a relatively short time.

Table 7. Barriers to Program Implementation

DOMAIN	PARTNER SITE COMMENT	NAT
Staff engagement	Sites reported difficulty engaging staff, particularly medical staff, casual staff, and other groups of staff that didn't have regular group sessions where education could be delivered. Consequently, there was variable level of commitment within wards and across hospital sites.	All sites reported varying levels of difficulty in engaging staff and a variety of strategies necessary to increase engagement.
Adopting tools	Sites reported added difficulty when trying to embed the use of a new screening tool (CDT). Staff were reluctant to administer and score a screening tool they were unfamiliar with. Consequently, screening did not always translate to use of the CII. Sites reported difficulty in getting staff to administer the test correctly. This, in turn, impacted on screening rates, and true extent of CI prevalence.	When staff became more familiar with routine screening, screening rates improved.
Documentation processes	Documentation systems that did not accommodate screening, meant that new screening tools (e.g., CDT) was often not completed if amended forms were not available. Significant changes often had to be made to hospital documentation systems, resulting in additional work for staff and distracting from process of embedding the CII.	All partner sites reported that making change to documentation has historically resulted in delays to projects.
Organisational readiness	Sites that did not have routine screening for CI established prior to the DCHP required significant and ongoing effort to explain rationale for screening and increase staff knowledge, and skills to administer tools. Finding the time to screen on busy wards. Routine screening not set up before rollout of program thereby impacting on screening rates.	EoIs expressly required hospitals to have an established process for cognitive screening. Only on project commencement was this found not to be case. Partner sites needed considerable support to get their screening rates up to an acceptable level during the Control period.
Staff attitudes/resistance	In some cases staff attitudes hindered project implementation. Sites reported staff focus on BPSD, and perceptions that CI is an issue specific to geriatric medicine. Use of the word "dementia" in the program title made it difficult to explain to staff when applying to CI. Screening was not initially seen as a priority.	Winning the hearts and minds of staff is crucial to the success of any change program. Use of the word Dementia in the program name, presented an immediate hurdle. The National Stakeholder Advisory Group (NSAG) recommended changing the program name to Cognitive Impairment Care in Hospitals Program
Multiple change processes	Each site reported multiple change processes occurring simultaneously and were faced with instability and competing demands, which resulted in	All partner sites underwent significant change in systems, practices, or built-environment during the project. This results in

	change fatigue and lowered priority for the program, delayed rollouts of education.	change-fatigue but is the reality of working in this sector. Despite this, the program was successfully adopted at all partner sites.
Site specific	Sites reported several external factors specific to each hospital that negatively impacted on project implementation including ward closures, bed closures, instability, governance change, and increased staff sick leave.	These factors were at time seen impact on rates of screening and project uptake as well as on data collection. Overall this didn't impact on successful implementation.
Data collection	Sites found data collection time consuming, drawing focus away from implementation. At times, this resulted in poor compliance with completion of Ward Registration sheets, documentation of screening, outcome and education in notes.	Collecting data or maintaining research support is often seen by staff as an unnecessary distraction from the provision of care. Addressing this requires a range of supports at all levels in the organisation.
Ethics	Lengthy ethics approval delayed commencement of project implementation in some cases.	Ethics processes varied greatly from. Some were streamlined while others required significant time to negotiate.
Non English Speaking Patients (NESB)	Sites reported difficulty in communicating with NESB patients and inappropriateness of the screening tools being used.	This varied from site to site and, seemed to dissipate as staff became more familiar and comfortable in the use of the tools. Development of culturally appropriate screening tools (especially for ATSI patients) remains an outstanding issue.
Executive support	Not having executive support was a barrier that affected engagement at the ward level.	The level of executive support varied from site to site but was generally strong. Strong executive support is critical for success. The EoI document was explicit in its requirement of executive level support.
Ward level leadership	Limited clinical support was detrimental – reinforcing a view that the DCHP did not change patient care. Embedding of the DCHP was further limited by lack of engagement from clinical leaders.	"Selling" the program to clinical leaders on participating wards is crucial. Nevertheless this pays dividends. One ward which was very resistant to the point where the Project Officer almost gave up recorded a 93% screening rate coupled with 100% use of the CII at the sustainability check 6 months post intervention completion.

A key reflection from the site reports was that successful implementation relied on staff engagement across varying levels. Clinical leaders are essential to drive the project on ward level.

8.2 Sustainability

8.2.1 National Meeting

Project officers and key facilitators from partner sites met in Melbourne for a one-day National Meeting. Objectives of the meeting included bringing teams together to build relationships, share experiences, and to celebrate success. Each team presented on their project experience. The meeting also provided an opportunity for teams to exchange learnings, ideas, and expertise.

During the national meeting staff from partner sites shared examples of unexpected benefits of the program. One partner site reported how, through introduction of the DCHP, they have been able to introduce alternative approaches to the use of restraint. Data were also presented showing a reduction anti–psychotic use during the program implementation period. While neither of these outcomes can be directly attributed to the intervention, they suggest that the program has additional benefits which merit further investigation.

8.2.2. Education Platform

Throughout the course of the rollout, all of the partner sites expressed a wish for training materials to be made available on an e-learning module. The National Advisory Team has developed an e-learning module to meet these needs.

The module, as developed, provides two different options - one for clinical and one for non-clinical staff. There is a built-in reporting capability to allow organisations to know which staff (and from which work areas) have accessed and completed the training program. The package is compatible with IT platforms most commonly used by Australian hospitals and may be accessed via iPad or mobile phone in addition to workplace equipment. There is also capacity for further modification and expansion in the future.

9. Independent Evaluation: Deakin University School of Health Economics

9.1 Participant Pool and Screening

The entire available participant pool consisted of all patients aged 65 and over (ATSI ≥ 50) who were admitted to participating wards during the study period. The total number of patients admitted was 16,834. Participating hospitals achieved a screening rate of just over 67% resulting in the screening of 11,309 patients. This is the DCHP population.

Of those patients who were screened, 4,278 (38%) screened positive for CI and 7,031 (62%) screened negative. Figure 4 provides a graphical representation of participant numbers.

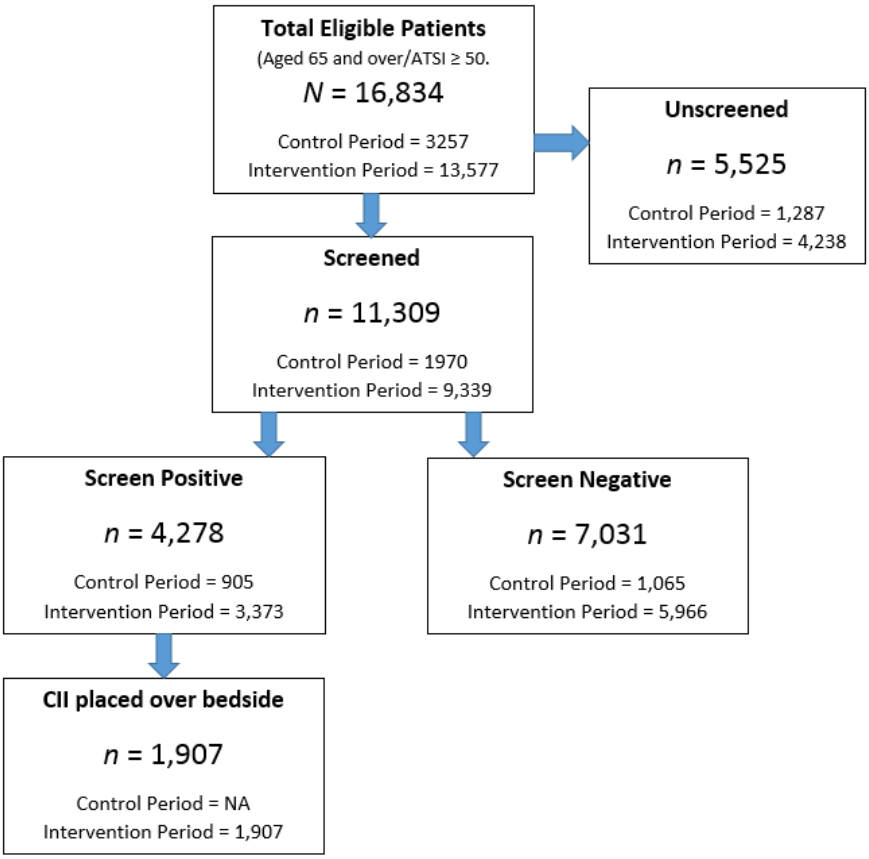

Fig 4 Participant numbers at each stage of implementation of the DCHP.

9.2 Hospital-Acquired Complications (HACs)

The outcome of interest for this section is having at least one of four hospital-acquired complications (HACs) recorded on discharge from the acute care episode as a secondary diagnosis. The four conditions that determine the presence of a HAC are pressure areas, urinary tract infection, pneumonia and/or delirium.

KEY RESULTS: HACS

Those with CI are 3 times more likely to have at least one of:

- urinary tract infection
- pressure areas
- pneumonia
- delirium

During the Intervention phase there was a 14% reduction in the presence of at least one of the four HACs compared to the Control phase. This was statistically significant.

Our findings show that people with cognitive impairment in hospital, that is people who screen positive for CI are 3 times more likely to have at least one of 4 HACs compared to those who screen negative for CI (RR 0.33; 95%CI: 0.305; 0.364), even when controlled for age. In our sample 43% of people who screen positive for CI had a least one of 4 HACs, compared to 28% of the population who screened negative for CI. For those who screen positive for CI the mean number of HACs was 0.57 compared to 0.22 who screened negative (MD 0.35; p<.0001). For just those who screen positive with at least one HAC, there are on average 1.3 HACs recorded per person. Age is a significant predictor of a HAC, for every year of age the risk of at least one of 4 HACs increased by 4%, irrespective of cognitive impairment (RR 1.037; 95%CI: 1.03; 1.04).

To test the impact of the Intervention on the population aged 65 years and older in the study wards, the risk of a HAC in the Intervention period was compared to the risk in the Control period. The results suggested there was no difference between Intervention and Control.

In the population who were screened as positive or negative for CI, during the intervention period there was a 14% reduction in at least one of four HACs (RR 0.877; 95%CI: 0.79; 0.98) compared to the control period. The result was statistically significant and was maintained when controlled for age and gender. When adjusted for hospital site the risk of a HAC remained lower during the Intervention (3%) but the difference between Intervention and Control was no longer statistically significant (RR 0.968; 95%CI: 0.865; 1.083).

This result in the screened (either positive or negative) population suggests the Intervention did have an effect on reducing the risk of a HAC, and the difference was 14%. The effect of the hospital site was large and significant for most of our findings. Using the HAC outcome variable, results suggested that one hospital had a 53% lower risk of a HAC (RR 0.653; 95%CI: 0.59; 0.72) compared to the base hospital, one hospital had the same risk ratio as the base hospital and the third hospital was associated with a 65% increased risk of a HAC (RR 1.55; 95%CI: 1.39; 1.69). The results remained similar when adjusting for age, intervention period and CI (positive, negative, unscreened) suggesting that analysis should adjust for hospital site.

To analyse the effect of the Intervention just in the population who screened positive for CI in the intervention and control periods we performed a sub-group analysis. Although findings were not statistically significant they suggested an 8% increase in the risk of a HAC in the Intervention compared to the Control period (RR 1.084; 95%CI: 0.93; 1.26). This is the population who were most likely exposed to the Intervention as a result of a positive screen

for CI. The model was adjusted for hospital site, age, gender, and whether surgical, medical or 'other' admission. It is difficult to explain this result, it may be related to hospital care and coding practices: once a person had been screened as positive for CI, the detection of HACs may have been more likely and therefore documented and subsequently coded.

KEY RESULTS: LOS

There was considerable variation in LOS across the four hospitals. Median LOS ranged from 4 to 8 days.
Median LOS for unscreened group = 4 days *(no change from control to intervention)*
Median LOS for screened negative group = 6 days *(no change from control to intervention)*
Median LOS for screened positive group = 8 days *(Increased from 7 days in control to 8 in intervention)*

Significant predictors of LOS were age, gender and hospital. The largest predictor of LOS in the population who screened positive was the presence of any one of the four HACs. This was associated with an increase in mean LOS of 5 days compared to those without a HAC recorded.

9.3 Hospital Length of Stay

Results are similar when using length of stay as the outcome variable of interest. In all cases aged 65 years and over in the study wards during the study period the median length of stay is the same in Intervention and Control periods (6 days). The mean length of stay is slightly higher during the intervention period (8.6 v 8.2 days, p=0.008), however a mean difference of 0.4 days is not likely to be clinically or administratively significant. When comparing LOS statistics it is also important to note that the median LOS is a better statistic as length of stay data are highly skewed.

When adjusted for hospital site there is a considerable variation in median length of stay across the four hospitals (Range: 4 to 8 days). This varies by hospital site between Control and Intervention: one hospital had a shorter LOS in the Intervention compared to Control (median LOS is 4 compared to 5 days); two hospitals showed no change between Intervention and Control; and one hospital showed an increase in median LOS from 7 to 8 days.

Considering the median LOS in the population group who were not screened, and those who did screen as positive or negative for CI, there is also a considerable variation in LOS. The group who were not screened during the intervention and control periods had a median LOS of 4 days in each period. The median LOS in the population group who screened negative was 6 days in both periods. This difference in LOS suggests that there is something different between the populations in these two groups (negative screen and not screened). Possible explanations include planned shorter LOS, for example elective surgery where there was less time for screening, or screening thought not to be relevant; patients admitted over the weekend; and patients who outwardly appeared to have no CI.

The median length of stay of 8 days for those who screened positive for CI was considerably longer than both the negative screened (6 days) and unscreened groups (4 days). In addition for those who screened positive the median LOS increased from 7 days in the Control to 8 days in the Intervention. However this model was not adjusted for other variables that are likely to influence LOS, for example hospital, age and HACs. The result may also be related to the HACs result above; that is the risk of a HAC increased in the Intervention. If there was a HAC diagnosed in the hospital setting the LOS might increase as part of managing the condition.

Including hospital site in the model and just looking at the population who have a positive screen, the results show that median LOS varies by hospital site from 6 days to 11 days. Three hospital sites show an increase in median LOS during the intervention period compared to the control period and for one hospital there is a decrease in median LOS from the control period to the intervention period.

Regression analysis of LOS (transforming LOS to natural logarithm to account for skewness) and controlling for intervention period, gender, age, hospital site and screening (no screen, negative screen and positive screen) showed that hospital site, age, gender and screening were all statistically significant for length of stay, however intervention period was not a predictor. This result was maintained when considering only those screened as positive or negative for CI, as well as the population who screened positive. This finding suggests that the longer median LOS observed in the intervention period compared to the control period may have been at least partly explained by other predictors of LOS (age, gender, hospital and CI screen result). There was no change when the CI screen result was removed from the model; that is age, gender and hospital were significant predictors of LOS.

The largest predictor of LOS in the population who screened positive was the presence of any one of four HACs, this was associated with an increase in mean LOS of 5 days compared to the population without a HAC recorded. The adjusted model with a logarithm transformation of LOS showed a significant difference in the adjusted LOS and confirmed the direction of the result, i.e. the adjusted LOS was shorter for the population who screened positive for CI without a HAC recorded. The magnitude of the result wasn't as large as for the original scale model, the model adjusted median difference was -1.61 days (95%CI: -1.67; -1.60). The log transformed LOS is a more robust result due to skewness of LOS.

The difference in LOS in the group who screened positive for CI with a HAC compared to those without a HAC could partly be a reflection of coding practices between hospitals, i.e. hospitals may be more likely to code a complication where it is likely to have impacted on hospital resources (LOS). Nevertheless a statistically significant difference of 1.6 days is relevant. The prevention of HACs in a population screening positive for CI is likely to result in considerable savings to the hospital, including freeing up scarce hospital beds for others.

9.4 Total Cost of Hospital Episode

Findings suggest there was no difference in median total cost between Intervention and Control for all patients in the study wards (median total cost was $8,555). This included both the screened and unscreened population. Consistent with the results for the outcomes of length of stay and HACs, the median total cost varied by hospital ranging from $7,000 to $12,000 across hospital sites. Median total cost decreased in Intervention compared to the Control period for two hospitals (difference is $300 - $400), there was no difference for one hospital and median total cost increased in the Intervention for one hospital ($1000 difference).

The variation in total cost by hospital should be considered in the context of known cost variation by hospitals, the National Hospital Performance Authority reported in 2016 wide variation in mean costs per NWAU for similar patients in large metropolitan hospitals. Three out of four hospitals included in the current study were amongst the highest cost hospitals, with one hospital recording the highest cost per NWAU. Our results based on median cost of all acute patients admitted to the hospital during the study period (N=47,816) showed that ordering median cost from highest to lowest was consistent with findings from the NHPA Report.

In the population who were screened (negative or positive for CI) there was a slight fall in median cost during Intervention compared to Control ($8,980 compared to $9,407). Though this difference was not statistically significant, a difference of $427 per admission may be relevant (and will offset the cost of delivering the Intervention). The regression model when adjusted for age, gender and hospital confirmed that mean cost was lower in Intervention compared to Control, though the result was not statistically significant. For the population who screened positive for CI the median cost in the intervention period was also slightly lower ($9,862 compared to 10,236; difference $374).

There was no difference in median cost between Intervention and Control for the population who screened negative. There was a marked difference in median total cost for the population who screened positive by hospital between Intervention and Control, two hospitals showed a savings of $1,700 and $3,500 in the Intervention. For the other two hospitals there was no difference between Intervention and Control.

In the population who screened positive, the median cost was lower in the Intervention compared to the Control for the population without a HAC recorded (median cost difference $913). In the population who screened positive and there was a HAC recorded there was no difference in median cost between Intervention and Control. A regression analysis adjusted for age, gender, Intervention, hospital and HAC showed that having a HAC increased mean total cost by $4800 (95%CI: -5562; -4171). With exception of Intervention the other variables were all significant.

KEY RESULTS: COSTS

Median cost across control and Intervention was $8,555.
Individual hospital median costs ranged from $7,000 to $12,000.

Median costs fell by nearly $400 in intervention for patients who screened positive for CI. They had a LOWER median cost in intervention compared to control ($10,236 compared to $9,862).

Two hospitals showed a savings of $1700 and $3500 in the Intervention. For the other two hospitals there was no difference between Intervention and Control.

The Intervention did not find a difference in the risk of HAC in the population who screened positive between Intervention and Control, but there was a difference in the population who screened negative. However the savings in median cost in the Intervention period were in the population who screened positive and did not have a HAC. If there were more people recorded as having a HAC in the Intervention compared to the Control in the population who screened positive for CI (as a result of the Intervention), then this would affect DRG coding, more people would be coded to DRGs with a higher resource weight. As costs are modelled on DRG, then this might explain this result.

9.5 Cost of Training

The total cost of training staff across the four hospital sites was $82,900, which included the cost of staff trained as well as fixed and variable costs attributed to each trainer (assumed 3 trainers per site) and the costs of the "train the trainer" model. The mean time per training session was assumed to be 30 minutes with three staff trained per session, based on data provided by one hospital. Wage data were based on Australian Award rates for Nursing, Allied Health, Medical and Health Care Workers. Daytime rates were used and on-costs (30%) were included. A "train the trainer" model was included in the costing which assumed two external trainers training at each site, travel time to each site was included but not the actual costs of travel. The cost per patient who screened positive for CI was $19.40. If each

site achieved 100% staff trained based on numbers from Table 4 in this Report, then the cost per patient who screened positive would increase to $25.

9.6 Independent Evaluation: Conclusions and Discussion

The impact of hospital site is relevant – differences between hospitals are likely to be marked with respect to the hospitalised population, practice differences between jurisdictions (states), coding differences, policies relevant to discharge and post-acute care; post-discharge services (non-acute) and care pathways. Coding practices by hospital are likely to vary, and this would particularly impact on our data, for example coding for HACs can be under- or over-represented and this may impact on the DRG grouping and therefore the weighting used for attributing cost.

Of the three hospital outcome indicators used in this evaluation (LOS, HACs and total cost), LOS probably provides the best indicator in terms of impact on hospital resources. LOS may vary between hospitals and jurisdictions, for example due to different care pathways or availability of post-acute care services, however LOS is less likely to vary between the Intervention and Control periods within a single setting compared to HACs and cost of hospitalisation. The coding of a HAC might be more likely in the Intervention period due to increased awareness of complications as a result of the Intervention. The recording of a HAC will subsequently influence the DRG code and therefore the total cost (modelled on the DRG). As the population who screen positive for CI are more likely to have a HAC than the population who screen negative for CI, any differences is more likely to impact on the results for this population.

Analysis of patient level costs (which reflect actual resource used by patients in the hospital) would avoid the issues identified above. At the time of this evaluation only the hospital that implemented the Intervention first had complete cost data.

10. Conclusions

This national rollout and evaluation of the DCHP has, for the first time, quantified the risk of cognitive impairment to patients in hospital. The broad acceptance that the DCHP has achieved in Victoria was affirmed at a national level. This at risk population is not identifiable without screening, and screening is not sustainable if not linked to an appropriate care plan. Screening is an essential component of the DCHP, and is soon to be embedded into the National Safety and Quality Health Service Standards Draft 2.

Identifying high-risk patients is a key requirement of hospital governance. CI is present in 40% of patients aged 65 and over and these patients are at least three times more likely to experience one of four hospital-acquired complications (HACs) – delirium, urinary tract infection, pneumonia or pressure area, when compared to patients without CI.

Forty three per cent of patients with CI experienced HACs and the DCHP has the potential to reduce this rate. HACs are a key driver of hospital cost so managing the clinical and financial risks associated with CI is a critical quality improvement activity.

In addition to alerting health services to the risks to patients with CI, this large national study has shown the DCHP is transferrable across jurisdictional boundaries and improves support and outcomes for patients with CI and their carers. The intervention resulted in decreased cost in the screened positive group which could offset implementation costs.

The underpinning of patient and carer/family involvement in the development of the DCHP in Victoria and in this rollout is key to its broad acceptance. This national evaluation has mirrored the Victorian experience in demonstrating high levels of acceptability and satisfaction amongst carers, patients and staff. In the acute hospital setting, research has shown that staff satisfaction to be positively related to service quality and patient satisfaction. Measures of staff confidence, comfort and satisfaction when caring for patients with CI all improved with the adoption of the DCHP.

One area of concern raised by both the site teams and consumers was that the program title Dementia Care in Hospitals Program did not reflect the target group. The National Stakeholder Advisory Group (NSAG) recommended that the program title be changed to the Cognitive Impairment Care in Hospital Program.

Achieving change in hospital systems is challenging and requires care models that are cost effective, scalable to service need, easy to implement and well tested. The successful and rapid adoption of the program by sites from across four different jurisdictions suggests the DCHP has all these elements.

11. Recommendations

Based on the experience of implementing the DCHP in four jurisdictions, the independent evaluation of the program and feedback from consumers and the National Stakeholder Advisory Group, the project team recommends:

- The program be extended to remaining States and Territories to meet expressed needs from Health Services nationally.
- The development of a single comprehensive program which integrates the DCHP with other existing programs which cater for specific needs or populations.
- The program name be changed to the Cognitive Impairment Care in Hospitals Program.
- The Cognitive Impairment Identifier be formally endorsed by Government and consumers through Alzheimer's Australia as the national symbol for Cognitive Impairment.
- The provision of support to current partner sites to facilitate their becoming active lead sites in their respective jurisdictions.
- Additional investigation into the impact of the program and especially its scalability and transferability to sites in regional and rural areas.
- A longitudinal study to follow the current project cohort of over 11,000 screened patients to add to existing knowledge around the development of CI and dementia in the Australian population.

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The Dementia Care in Hospitals Program National Rollout and Evaluation - Call for Expression of Interest

Ballarat Health Services Dementia Care in Hospitals Program (DCHP) team, with the support of the Department of Social Services, is seeking expressions of interest from four leading health care organisations to implement and evaluate the DCHP nationally.

The DCHP aims to:

- improve the awareness of, communication with, and care for, patients with memory and thinking difficulties including cognitive impairment, dementia and delirium in the acute setting
- evaluate the impact of the Program on patient, carer and staff satisfaction and its impact on significant hospital risk events

This national roll-out and evaluation is being conducted in association with Alzheimer's Australia who will play a key role in supporting the implementation locally and evaluation nationally. Deakin University is also a key associate and will evaluate the program impact and roll out.

The DCHP is linked to the use of a unique bedside alert - the cognitive impairment identifier (CII). The program was originally designed and successfully implemented at Ballarat Health Services in 2004 with the support of the Victorian Department of Health, and resulted in significant culture and practice change in the care of patients with memory and thinking difficulties, and engagement with their carers. The outcomes have been presented both nationally and internationally. Since its inception BHS has worked with 25 public and private Victorian health care organisations, both regional and metropolitan, to successfully adopt this model of care.

BHS is now seeking to work collaboratively with four health care organisations nationally, to share these learnings and to facilitate further improvements in caring for patients with cognitive difficulties. As required by the Department of Social Services the four successful partner health care organisations will be located in a number of different states and territories across Australia and from a range of settings.

Ethics Committee approval will be required as this program includes a significant component of research and evaluation. The BHS team will, with local support, prepare ethics committee submission paperwork. Partner health care organisations will assist in the data collection required to evaluate change in, staff practice, carer and patient satisfaction and patient care costs and hospital acquired complications. It is hypothesised that introduction of the DCHP will lead to a reduction in risk to and cost of care for patients with cognitive impairment in the acute care setting.

Key Expectations of Partner Organisation:

1) Executive sponsorship and commitment to long term change. Active executive support is vital to achieving culture change. The organisation must demonstrate a commitment to best practice in the care of patients with cognitive impairment and carer engagement. A proven ability to measure change as an organisation is vital and will provide a link between evidence and practice change and act as the driver for long term success and sustainability.

2) Identification of key clinical staff and the infrastructure to recruit a project officer.

3) The appointment of a Steering Committee - comprising of key stakeholders both clinical and non-clinical, consumer representatives (e.g. a carer) and educational facilitators. BHS will work with project officers and key stakeholders from partner organisation to implement the program.

4) Commitment to work in partnership with BHS to implement the program and adopt the program's philosophy. When cognitive impairment is identified and the CII is used, the partner organisation is expected to respond to the patient and carer with appropriate communication and engagement. The use of the CII without an appropriate organisational response is no more than "labelling", and would be unlikely to receive carer and patient support.

5) Commitment to evaluate the process, impact and outcomes of the program. Hospitals are complex care systems, to evaluate change within these systems, it is necessary to measure both process and outcome change. The partner organisation's project team will work closely with BHS in the collection of pre-post implementation data. Partnering organisations will be responsible for timely collection of data and secure transfer for analysis. The evaluation will also require medical record review and partner organisations will be expected to assist in access to patient records in line with organisational policy.

Outcomes may be measured through:

- Existing risk data sets/risk management data and additional staffing data e.g. patient watch hours. Electronic data capture will be a significant advantage.
- Staff, patient and carer pre-post surveys of perception and experience.
- Medical records review for patient risks and outcomes not captured elsewhere.

6) An all of hospital approach to the DCHP program, will include but not be limited to; nursing, allied health, medical, radiology, environmental services (cleaners, porters, menu monitors, ward clerks), security staff if employed by the organisation and the engineering department.

7) Identification of appropriate settings for delivery of the program, for example all the medical and surgical wards of the acute hospital. Experience suggests that the wider the delivery across an organisation the greater the impact on organisational culture.

8) A commitment to engage and involve carers of patients with cognitive impairment as partners in care throughout the hospital experience. Carers provide invaluable information about the needs and preferences of patients with cognitive impairment, and must be actively engaged in providing and supporting care in the hospital.

9) Commitment to sustainable change in dementia care in the acute care setting. Systemic changes are sought to ensure continuous improvement and sustainability of the program. It is hoped that the partner organisations will experience benefit from the program supported by the outcome data such that they would be willing to support the roll out of the DCHP in their State or Territory.

10) An established process of identifying cognitive impairment when present in patients, or an ability to readily introduce a means of identifying cognitive impairment in the patient population using validated assessment tools .

Practicalities - Time and Resource Commitment Required From Partner Organisations

1. The total project time is expected to be 18 months.

2. BHS will arrange a planning day at the commencement of the program to provide a comprehensive understanding of the programs philosophy and plan for implementation of the DCHP.

3. BHS will visit partner organisations to facilitate a training day with key staff utilising the train the trainer model of learning.
4. Additional support will be provided by BHS throughout the programs duration, if requested or deemed useful by participating organisations.
5. The project officer is responsible for: meeting project goals and deliverables within the timelines including - milestone reporting, notes access, secure data collection and transfer, other support required to complete the evaluation and the practical arrangements.
6. Regular email and phone conferencing with BHS to support the implementation of the program, including education, CII usage, and secure data collection and transfer.
7. An ability to coordinate and deliver an all of hospital education, with access to both clinical and non-clinical staff across day and night shifts.
8. Building a local Project Budget inclusive of in-kind support.
9. Nominate key program champions or key clinical staff at a ward level. These staff members are crucial to the roll-out and sustainability of the program. Champions can sustain momentum at a clinical level, and provide a key communication point from the clinical perspective directly to the project team.

Ballarat Health Services will Provide Partner Organisations with:

1. A funding package for partner organisations. This will be a significant contribution to staffing, travel and equipment costs.
2. The DCHP education package.
3. Training of project officers and key stakeholders.
4. The provision of ongoing support and mentoring to the project officer and team through regular phone and email contact, with the scope for additional visits to partner organisations based on a needs analysis.
5. Cognitive Impairment Identifiers as required for the initial roll out.
6. Facilitation by BHS of the first education roll-out with executive and staff at each partner organisation.
7. Data gathering and evaluation tools, e.g. Carer Satisfaction Survey, Staff Perceptions Survey and medical record audit tool.
8. Data evaluation and reporting in collaboration with Deakin University.
9. Access to carer/consumers via Alzheimer’s Australia.

Expressions of Interest must be send to A/Prof Mark Yates:

E.mail - marky@bhs.org.au

Phone - (03)53203704 (Kim Dean PA)

Mobile – 0419398007

Questions or clarifications about this document or its completion can be directed to A/Prof Mark Yates.

Expressions of Interest must be received by Monday 22th of September 2014

The BHS Dementia Care in Hospitals Team:

A/Prof Mark Yates

Geriatrician

Ms Meredith Theobald

Director of Nursing Subacute Services

Ms Michelle Morvell

Cognition Clinical Nurse Consultant

Expressions of Interest Response

The response to this Expression of Interest Document will assist the BHS team chose the four partnering health services and must include:

a) Maximum 4 page summary demonstrating how the organisation plans to meet the Key expectations and the practicalities (see above).

b) Completed Data Sheet(see below) detailing anticipated work areas/campuses/ programs to be involved, staff numbers and staff mix.

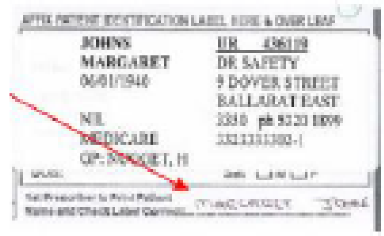
Data Sheet

Information Required	Response
Name of organisation	
Name of contact person	
Contact person details (Postal address, phone, email, fax)	
Identify the key executive/managers who will sponsor and participate in the initial meeting with the BHS team? Give a brief summary of roles/ areas/levels within organisation.	
Will the whole hospital be involved? If not please detail the facilities/ campuses from your Organisation likely to be involved in the project. What	

acute wards/services will this involve (eg: medical, ortho, general surgery etc). What proportion of the organisation dose this represent?	
Please give an indication of the number of staff likely to participate in the program education and delivery. Include a list of the main disciplines/work groups likely to participate (eg: nursing, allied health, medical, reception staff, non-direct care staff etc.)	
How many potential organisational champions have you identified? What areas of the organisation do they come from?	
Does your organisation have a process for screening for Cognitive Impairment? If so please detail key elements.	
Please describe your organisations electronic data capture capability for patient outcomes such as - LoS, Hospital Acquired Complications, individual patient extra staff support. Do you collect any risk data specific to patients with cognitive impairment?	
Any other details we should know?	

Appendix B: Ward registration sheet

Ward Registration Sheet: Dementia Care in Hospitals Program

	Screen Score	Clock-face Drawing	Carer Informed	CI in Place	DCHP Office Use Only DEMQOL / Carer CODE
	Enter Score Here	Normal or Abnormal	Yes or No	Yes or No	Insert Code Here: ------------------------ DEMQOL? ☐ Carer? ☐
Afix Bradma Label Here	Enter Score Here	Normal or Abnormal	Yes or No	Yes or No	Insert Code Here: ------------------------ DEMQOL? ☐ Carer? ☐
Afix Bradma Label Here	Enter Score Here	Normal or Abnormal	Yes or No	Yes or No	Insert Code Here: ------------------------ DEMQOL? ☐ Carer? ☐
Afix Bradma Label Here	Enter Score Here	Normal or Abnormal	Yes or No	Yes or No	Insert Code Here: ------------------------ DEMQOL? ☐ Carer? ☐
Afix Bradma Label Here	Enter Score Here	Normal or Abnormal	Yes or No	Yes or No	Insert Code Here: ------------------------ DEMQOL? ☐ Carer? ☐
Afix Bradma Label Here	Enter Score Here	Normal or Abnormal	Yes or No	Yes or No	Insert Code Here: ------------------------ DEMQOL? ☐ Carer? ☐

Ward Registration Sheet BL2: 180915

Dementia Care in Hospitals Program

Carer Satisfaction Survey - Baseline

Please circle the number which best represents your opinion:

1. How satisfied are you the hospital staff knew the person you care for has problems with memory and thinking?

1	**2**	**3**	**4**	**5**	**?**
Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	Unsure

2. How satisfied are you staff introduced themselves to the person you care for on a regular basis?

1	**2**	**3**	**4**	**5**	**?**
Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	Unsure

3. Are you satisfied the person you care for was not expected to do more than they were capable of, e.g. remembering to keep to a fluid restriction, attending to toileting needs etc?

1	**2**	**3**	**4**	**5**	**?**
Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	Unsure

4. Are you satisfied the staff explained things to the person you care for in a simple way and checked if they were understood?

1	**2**	**3**	**4**	**5**	**?**
Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	Unsure

5. How satisfied are you the staff made you welcome to provide information about the person you care for? e.g. were you asked about their likes and dislikes, or difficulties they have with communication?

1	**2**	**3**	**4**	**5**	**?**
Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	Unsure

6. When you voluntarily offered information regarding the person you care for, how satisfied are you the staff listened to or took notice of you?

1	2	3	4	5	?
Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	Unsure

7. Are you satisfied the hospital staff were understanding of any challenging behaviours that may have been exhibited by the person you care for?

1	2	3	4	5	?
Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	Unsure

8. Have you and /or the person you care for had positive experiences within a hospital setting?

Yes/No?

If yes, what made it positive?

If no, what made it negative?

9. How satisfied are you with the information you were given about the condition and treatment of the person you care for?

1	2	3	4	5	?
Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	Unsure

10. How satisfied are you hospital staff gave you the option of receiving discharge information for the person you care for, e.g. information about follow-up appointments, medication changes?

1	2	3	4	5	?
Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	Unsure

If satisfied, was it adequate?

Yes/No?

11. How satisfied are you this hospital is friendly for people with memory and thinking difficulties and their carers?

1	2	3	4	5	?
Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	Unsure

All feedback is very useful for us in better meeting the needs of people with memory and thinking difficulties.

Should you have any questions regarding this questionnaire contact please contact

(Fill in contact details here)

Thank you for your time and effort in completing this survey.

Dementia Care in Hospitals Program

Carer Satisfaction Survey - post

Please circle the number which best represents your opinion:

1. How satisfied are you the hospital staff knew the person you care for has problems with memory and thinking?

1	2	3	4	5	?
Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	Unsure

2. How satisfied are you staff introduced themselves to the person you care for on a regular basis?

1	2	3	4	5	?
Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	Unsure

3. Are you satisfied the person you care for was not expected to do more than they were capable of, e.g. remembering to keep to a fluid restriction, attending to toileting needs etc?

1	2	3	4	5	?
Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	Unsure

4. Are you satisfied the staff explained things to the person you care for in a simple way and checked if they were understood?

1	2	3	4	5	?
Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	Unsure

5. How satisfied are you the staff made you welcome to provide information about the person you care for? e.g. were you asked about their likes and dislikes, or difficulties they have with communication?

1	2	3	4	5	?
Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	Unsure

6. When you voluntarily offered information regarding the person you care for, how satisfied are you the staff listened to or took notice of you?

1	2	3	4	5	?
Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	Unsure

7. Are you satisfied the hospital staff was understanding of any challenging behaviours that may have been exhibited by the person you care for?

1	2	3	4	5	?
Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	Unsure

8. Have you and /or the person you care for had positive experiences within a hospital setting?

Yes/No?

If yes, what made it positive?

If no, what made it negative?

9. How satisfied are you with the information you were given about the condition and treatment of the person you care for?

1	2	3	4	5	?
Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	Unsure

10. How satisfied are you hospital staff gave you the option of receiving discharge information for the person you care for, e.g. information about follow-up appointments, medication changes ?

1	2	3	4	5	?
Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	Unsure

If satisfied, was it adequate?

Yes/No?

11. How satisfied are you this hospital is friendly for people with memory and thinking difficulties and their carers?

1	2	3	4	5	?
Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	Unsure

12. In your opinion was the bed based identifier of memory and thinking difficulties useful in helping the hospital staff respond effectively to the needs of the person you care for?

1	2	3	4	5	?
Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied	Unsure

All feedback is very useful for us in better meeting the needs of people with memory and thinking difficulties.

Please feel free to make any additional comments regarding the bed base identifier of memory and thinking difficulties.

Should you have any questions regarding this questionnaire contact please contact

(Fill in contact details here)

Thank you for your time and effort in completing this survey.

Appendix E: Dementia Quality of Life Measure

DCHP

Final field test item-reduced DEMQOL (v4)

Study ID | | | | | | | | | |

DEMQOL (version 4)
To be used with interviewer manual

1. Ensure you have permission from ward/unit clinical staff to administer this survey to this patient
2. Ensure that you have read out aloud to the patient the DCHP patient information sheet
3. Ensure that you have provided the patient with a large print copy of the DCHP patient information sheet

Instructions: Read each of the following questions (**in bold**) verbatim and show the respondent the response card.

I would like to ask you about your life. There are no right or wrong answers. Just give the answer that best describes how you have felt in the last week. Don't worry if some questions appear not to apply to you. We have asked the same questions of everybody.

Before we start we'll do a practice question; that's one that doesn't count. *(Show the response card and ask the respondent to say or point to the answer)*. **In the last week, how much have you enjoyed watching television?**

a lot **quite a bit** **a little** **not at all**

Follow up with a prompt question: **Why is that?** *or* **Tell me a bit more than that.**

For all of the questions I'm going to ask you, I want you to think about the last week.

First I'm going to ask about <u>your feelings</u>. In the last week, have you felt …

1.	**cheerful? ****	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
2.	**worried or anxious?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
3.	**that you are enjoying life?****	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
4.	**frustrated?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
5.	**confident?****	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
6.	**full of energy?****	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
7.	**sad?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
8.	**lonely?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
9.	**distressed?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
10.	**lively?****	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
11.	**irritable?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
12.	**fed-up?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
13.	**that there are things that you wanted to do but couldn't?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**

Next, I'm going to ask you about <u>your memory</u>. In the last week, how worried have you been about …

14.	**forgetting things that happened recently?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
15.	**forgetting who people are?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
16.	**forgetting what day it is?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
17.	**your thoughts being muddled?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
18.	**difficulty making decisions?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
19.	**poor concentration?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**

Now, I'm going to ask you about your everyday life. In the last week, how worried have you been about …

20.	**not having enough company?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
21.	**how you get on with people close to you?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
22.	**getting the affection that you want?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
23.	**people not listening to you?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
24.	**making yourself understood?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
25.	**getting help when you need it?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
26.	**getting to the toilet in time?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
27.	**how you feel in yourself?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**
28.	**your health overall?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**

We've already talked about lots of things: your feelings, memory and everday life. Thinking about all these things in the last week, how would you rate …

29.	**your quality of life overall?**?**	☐**a lot**	☐**quite a bit**	☐**a little**	☐**not at all**

**items that need to be reversed before scoring

Dementia Care in Hospitals Program

Staff satisfaction survey – pre education

Before you receive education about the Dementia Care in Hospitals Program, we are interested in your views and experience of dealing with patients with cognitive impairment and their carer/family. The information will assist the hospital in training staff, improving the quality of care for these patients, and improving communication with carers/families.

All replies will be strictly confidential and you will not be identified in any way.

Please tick the box which best describes your position.

☐ **clinical staff**, e.g. nursing, medical, allied health etc ☐ **non-clinical staff** e.g. engineers, ward clerks, etc

Non-clinical Staff: Have you ever been offered inservice or education on dementia or delirium?

Yes ☐ No ☐

1. What proportion of patients do you think you come across in the hospital with dementia, delirium or memory and thinking difficulties?

10% ☐ **20%** ☐ **30%** ☐ **40%** ☐ **50%** ☐ **60%** ☐ **70%** ☐ **80%** ☐ **90%** ☐

2. How would you rate your confidence in dealing with patients with dementia, delirium or memory and thinking difficulties?

very low ☐ low ☐ satisfactory ☐ high ☐ very high ☐

3. How would you rate your level of comfort in dealing with patients with dementia, delirium or memory and thinking difficulties?

very low ☐ low ☐ satisfactory ☐ high ☐ very high ☐

4. How would you rate the level of organisational support you receive when dealing with patients with dementia, delirium or memory and thinking difficulties?

very low ☐ low ☐ satisfactory ☐ high ☐ very high ☐

5. How would you rate your level of job satisfaction in dealing with patients with dementia, delirium or memory and thinking difficulties?

very low ☐ low ☐ satisfactory ☐ high ☐ very high ☐

6. In your experience how well equipped is the hospital environment to meet the needs of patients with dementia, delirium or memory and thinking difficulties?

very low ☐ low ☐ satisfactory ☐ high ☐ very high ☐

7. Have you experienced any problem or difficulty working with patients with dementia, delirium or memory and thinking difficulties?

Yes ☐ No ☐

If you answered yes, please list the 3 most significant difficulties:

1. .....

   .....
2. .....

   .....
3. .....

   .....

8. What do you think is important in working or communicating effectively with patients with dementia, delirium or memory and thinking difficulties? Please list the 3 most important:

1. .....

   .....
2. .....

   .....
3. .....

   .....

9. Have you experienced any problem or difficulty working with the carer or family of patients with dementia, delirium or memory and thinking difficulties?

Yes ☐ No ☐

If you answered yes, please list the 3 most significant difficulties:

1. .....

   .....
2. .....

   .....
3. .....

   .....

Dementia Care in Hospitals Program

Staff satisfaction survey – post education

Before you receive education about the Dementia Care in Hospitals Program, we are interested in your views and experience of dealing with patients with cognitive impairment and their carer/family. The information will assist the hospital in training staff, improving the quality of care for these patients, and improving communication with carers/families.

All replies will be strictly confidential and you will not be identified in any way.

Please tick the box which best describes your position.

☐ **clinical staff**, e.g. nursing, medical, allied health etc ☐ **non-clinical staff** e.g. engineers, ward clerks, etc

Non-clinical Staff: Have you ever been offered inservice or education on dementia or delirium?

Yes ☐ No ☐

10. What proportion of patients do you think you come across in the hospital with dementia, delirium or memory and thinking difficulties?

10% ☐ **20%** ☐ **30%** ☐ **40%** ☐ **50%** ☐ **60%** ☐ **70%** ☐ **80%** ☐ **90%** ☐

11. How would you rate your confidence in dealing with patients with dementia, delirium or memory and thinking difficulties?

very low ☐ low ☐ satisfactory ☐ high ☐ very high ☐

12. How would you rate your level of comfort in dealing with patients with dementia, delirium or memory and thinking difficulties?

very low ☐ low ☐ satisfactory ☐ high ☐ very high ☐

13. How would you rate the level of organisational support you receive when dealing with patients with dementia, delirium or memory and thinking difficulties?

very low ☐ low ☐ satisfactory ☐ high ☐ very high ☐

14. How would you rate your level of job satisfaction in dealing with patients with dementia, delirium or memory and thinking difficulties?

very low ☐ low ☐ satisfactory ☐ high ☐ very high ☐

15. In your experience how well equipped is the hospital environment to meet the needs of patients with dementia, delirium or memory and thinking difficulties?

very low ☐ low ☐ satisfactory ☐ high ☐ very high ☐

16. Have you experienced any problem or difficulty working with patients with dementia, delirium or memory and thinking difficulties?

Yes ☐ No ☐

If you answered yes, please list the 3 most significant difficulties:

1. .....

   .....

2. .....

   .....

3. .....

   .....

17. What do you think is important in working or communicating effectively with patients with dementia, delirium or memory and thinking difficulties? Please list the 3 most important:

1. .....

   .....

2. .....

   .....

3. .....

   .....

18. Have you experienced any problem or difficulty working with the carer or family of patients with dementia, delirium or memory and thinking difficulties?

Yes ☐ No ☐

If you answered yes, please list the 3 most significant difficulties:

1. .....

   .....

2. .....

   .....

3. .....

   .....

Dementia Care in Hospitals Program:

National Rollout and Evaluation

Project Evaluation and Program Sustainability Reporting Guide

Documenting the Project Activities

What is required for this part of the evaluation is comprehensive documentation of what was involved in implementing your project, including a description of all activities undertaken in planning and delivering the project activities, the participants involved and the resources utilised.
Typically a process evaluation also includes commentary on factors that assisted achievement of project outcomes and the barriers or difficulties that had to be overcome. Although the aims and proposed project activities are described in the original project proposals, the process evaluation addresses what actually happened in implementing the project and is essential to adequately interpret project outcomes and to assess the extent to which program outcomes could be achieved in other settings.

How to use this reporting guide
Please use as much space as necessary; all that is required is information under the headings provided and roughly in the format suggested here.
When providing responses it is useful to consider the impact on: Patients, Carers, Staff, and Organisation and community.

Project Objectives

- Improved communication by hospital staff with patients who have a cognitive impairment and with the carers of the patient cohort that results in a more positive patient experience in hospital.

- Increase in staff knowledge regarding the care of patients with a cognitive impairment that has a positive impact on the prevalence of modifiable adverse events.

- Decreased utilisation of specialling staff and the prevalence of code blacks in those patients with CI.

PROJECT ACTIVITY	PROJECT TIMELINE
Nursing delivering TTT packages	June 2015
Allied Health delivering TTT packages	June 2015
Medical staff delivering TTT packages	June 2015
Development Screening Tools Education package for Nursing	June 2015
Nursing delivery Screening Tools Education	June 2015
Practicalities of the pathway explored	July 2015
Baseline DEMQOL and Carer Surveys	July /August 2015
Refining of patient tracking system to follow patient through the hospital	July 2015
Non-Clinical Staff Education packages delivery	July/ August 2015
Clinical Lead concept developed and connected to the clinical leads to Master Class days	July 2015
Magnets for Journey Boards developed	July 2015
Mark Yates attended for site audit	July 2015
Specialling data collection method finalised	July 2015
New connections made with AASA	July 2015
Established connections with ward staff	July 2015
Master Class Planning	July 2015
Master Class Day 1: Full day of Education the 3D's Delivered	August 2015
Clinical Audit developed for Cognitive Impairment Clinical Pathway	September 2015
CII introduced	September 2015
Pre-op screening work group commenced	October 2015
Meetings with AASA to strengthen collaboration and develop a meaningful activities list	October 2015
Clinical Lead Reference Group formed	October 2015
Regular 30 minutes time allocated to intern orientation training day around CI	November 2015
N1B recommenced on the project	November 2015

Referral pathway development to include inpatient and outpatient referral pathways	December 2015
Trial of the "Google Translator APP on I pads" and translation sheets	December 2015
AIN training in cognitive impairment commenced with AASA and to continue on regular rotation	December 2015
Fiona McKenzie involved in the program providing additional Executive Level support	January 2016
Planning commenced for the roll out of the DCHP Program at the HOSPITAL	February 2016
Master Class Day 2: Full day of Education the 3D's Delivered	February 2016
Working group formed for the roll out of the DCHP Program at the RAH	February 2016
Executive DON [name removed] visit to the project wards SITE	February 2016
EPAS Education commenced and all other training ceased	February 2016
Tasmanian Project Officer visit to gain an understanding of program roll out	February 2016
Preparation for the launch of DCHP at RAH, Clinical Pathway and OWI development	March/ April 2016
Staff surveys	March/ April 2016
DEMQOL and Carer Surveys	May/ June/ July 2016
DCHP Launch at RAH BHS attended	June 2016
Final Month of screens	July 2016

3. Personnel involved in project planning and implementation

3.1 Project staff

List those staff responsible for implementing the project.

Staff member	Position	Time involved (EFT)
[name removed]	Nursing Director	0.2FTE
[name removed]	Geriatric Consultant	0.1 FTE
[name removed]	Nursing Education	0.6FTE
[name removed]	Administrative Support	0.4 FTE
[name removed]	Senior Project Officer	1.0 FTE

3.2 Committees and groups

For each committee, reference group and/or working group established to help plan and/or implement the project please provide:

Dignity in Care Group/ Dementia, Cognitive, Delirium Group

- Purpose: Change the culture of care and provide a strong focus on training and knowledge translation to improve consumer experience in Dementia and Delirium Care. For further information visit webpage www.sahealth.sa.gov.au/DignityInCare
- Membership: [name removed], Geriatrician; [name removed], Nursing Director Geriatric & Palliative Care; [name removed], Volunteer Coordinator; [name removed], CSC; [name removed], ACPC; [name removed], Pharmacist , [name removed], ACPC; [name removed], CN; [name removed], CSC; [name removed], CSC; [name removed], CSC; [name removed], Enrolled Nurse.
- Number and frequency of meetings over the life of project
- Other individuals and organisations consulted in planning and/or implementing the project.

Committee Name: Dementia Care in Hospitals Program Leadership Group SITE

- Purpose: To progress the program implementation throughout the project
- Membership: [name removed], Nursing Director; [name removed], Consultant Geriatrician; [name removed], Project Officer and [name removed], Nurse Education Facilitator
- Weekly meetings over 56 weeks

SITE Project Ward CSC Meeting

- Purpose: To consult and engage CSC's in the ongoing needs of the DCHP Project
- Membership: [name removed], NEGA CSC; [name removed], SG CSC; [name removed], N1B CSC; [name removed], N2 CSC; [name removed], S2 CSC [name removed], DCHP Project Officer
- Monthly over 7 months, 7 meetings.

SITE Clinical Leads Reference Group

- Terms of reference or committee purpose
- Purpose: To consult clinicians on the floor regarding innovation and ideas that have come from the project
- Adhoc meetings; 5 meetings

Committee Name: Cognitive Impairment Implementation Working Group SITE 2

- Purpose: To plan the implementation of the introduction of the DCHP Program at SITE 2
- Membership: [names removed]

- Monthly meetings for 9 months; 9 meetings

Note all work attended by Sub-groups presented to the Implementation Group for approval.

Committee Name: Cognitive Impairment Education Sub-group

- Purpose: design the education packages for program roll out
- Membership: [names removed]
- Fortnightly meetings for 3 months; 6 meetings

Committee Name: Cognitive Impairment Clinical Pathway Sub-group

- Purpose: Development of a clinical pathway for staff to follow
- Membership: [names removed]
- Number and frequency of meetings over the life of project
- Other individuals and organisations consulted in planning and/or implementing the project.
- Fortnightly meetings for 3 months; 6 meetings

Committee Name: Cognitive Impairment OWI Sub-group

- Terms of reference or committee purpose
- Membership: [names removed]
- Number and frequency of meetings over the life of project
- Other individuals and organisations consulted in planning and/or implementing the project.
- Adhoc Meetings; 10 meetings

Others consulted during the project

- Consumers: [names removed]
- Membership: [names removed]
- Fundamentals of Nursing Care
- CALHN National Standards Standing Committees,
- CALHN Consumers Groups
- CALHN Work Health Safety

4. Other communication strategies used in planning or implementing the project

- Daily Ward Round
- Wall displays on each ward
- Monthly screening numbers displayed on each ward
- Engagement of CSC's in development of processes in the project
- DCHP Banners at the access to all project wards
- Updates In-Central Hospital Newsletter
- Nursing Director Meetings with updates for Clinical Leaders
- Geriatric Medicine Meetings with updates for Medical Staff
- Master Class day to promote the program and support informal leaders on the ward developed in conjunction with DTSC
- SITE Newsletter

5. Training or education activities

- **Allied Health**: A train the trainer (TTT) model was utilised for Allied Health Staff with the BHS TTT Power point at TQEH. 46 Staff trained over 5 sessions. 100% trained
- **Nursing staff numbers:** 162 staff trained over 24 sessions; note not all sessions identical, some staff attended more than one session and some staff who attended training were not from DCHP Wards. When considering all staff as single units regardless of location source 377 staff were trained. 74%.
- **Nursing staff delivery**: Initial session that was broad with the aim of providing general information on cognitive impairment, DCHP and engagement of staff (60 mins staff double time). They also had a second session that was about using the AMTS/ CAM tools and the clinical pathway process (30 min staff double time). In addition to this a Master Class Day (8hrs) was delivered twice.
- **Medicine:** The power point used to deliver face to face training and ongoing Intern orientation training includes DCHP (65 Staff trained).
- **Non-Clinical Staff:** Various delivery methods including rolling education on a monitor, face to face delivery and power point training (120 Staff over 5 sessions, 100% trained)
- **Content summary** of the training attached, Appendix 1
- **Who delivered the training**
  - Allied Health: Occupational Therapist, Physiotherapist, Pharmacist, Social Worker
  - Nursing: Consultant Geriatrician, Nurse, Nurse Education Facilitator
  - Non-Clinical: Nurse or power point mode
- **Feedback**: Education materials take a considerable amount of time to prepare and require good consultation with multiple stakeholders. Before commencement of the DCHP Program additional consultation and preparation of education material was required. Engagement of expert teams like Nursing Education is imperative and requires a dedicated staff member focusing on the topic to ensure support of the program roll out.

6. Other activities undertaken as part of the project

Use of the journey board to identify cognitive impairment
Developmental Process

- Discussion with the Clinical Practice Unit around the huddle concept and the value of identifying CI at the huddle
- Engagement of ward CSC's and clinical staff in discussion and agreement of the CII use on the journey board
- Practical mechanics of producing the CII

Deliverables

- 20 magnets of approximately 3cm square provided to each project ward for journey board use for positive screens

Meaningful Activities Program
Developmental Process

- Initial discussions with NEGA who had existing activity kits

- General discussions with infection control
- Combined meeting with AASA to gain expert advice on content of kits

Deliverables

Outline of purpose of program and kit contents to guide wards

Nursing Care Plan Guide

Developmental Process

- A search of international guidelines for care of the older person with dementia
- Summary of practical nursing interventions to provide quality care
- Development of a visual wall chart to prompt staff
- Consultation with consumers, AASA, ward CSC's, Clinical Education, Clinical Practice Unit, and the Clinical Leaders Group for DCHP

Deliverables

- Poster size display to prompt nursing staff to consider a diversity of approaches to care planning of the older confused patient.

Clinical Pathway Audit

Developmental Process

- Audit development based on key steps in the DCHP Clinical Pathway
- Trial of audit on 10 files
- Amendment of audit based on trial

Deliverables

- Clinical Pathway Audit

Pre-op Clinic Screening Working Group

Developmental Process

- Surgical CSC's raised awareness of the need for screening to commence in pre-op
- Nurse Practitioner in Orthopaedics trailed concept of screening pre-op with elective patients
- Engagement of Surgical Directorate Nursing Director at TQEH to lead a working group around concept
- Significant stakeholders identified for the working group
- Meetings commenced
- Issues explored
- Pre-op screening column added to AMTS form as pre-op screens getting confused with post op screens
- Working group identified future work for the concepts of pre-op screening

Deliverables

- Working Group Established and pre-op column for AMTS identified

Trial of Sunflower
Developmental process

- Identification of a system to provide a visual summary of the patients life and common interests
- Consultation with Clinical Leads group
- Two wards identified with interests in the trial
- Ongoing trial

Deliverables

- Laminated A3 Sunflower tool provided to two DCHP Project Wards

Trial of Calvary Agitation Scale with adaptions
Developmental Process

- Identification of tool to measure trends in agitation with the aim to identify antecedents that can be managed.
- Adaption of tool to include MD Team, medications and visitor interactions to allow the antecedents to be clearly linked to escalation of behaviour
- Consultation with nursing and allied health to finalise adaptions

Deliverables

- Adaption of the Calvary Agitation Scale Document

7. Other resources expended

List any other costs involved in implementing the project in addition to staff time above.
SITE-sensitive information removed

8. Barriers

What were the main barriers to achievement of project objectives?

Barrier	**Description**	**Impact on project and remedial action** (if any)
Barrier 1	Perception that staff too busy to screen	One surgical ward struggled with finding the time to screen but successfully identified one staff member to drive screening
Barrier 2	Process challenges	Referral processes were at times unclear making it difficult to provide staff with direction. Impact not quantifiable
Barrier 3	EPAS	Significant change in the documentation system in a hospital wide approach created large amounts of work for staff and distracted progress of embedding of the CII
Barrier 4	Language	CALD and ATSI clients have struggled with the appropriateness of the AMTS tool and staff have difficulty communicating with those patients who do not speak English
Barrier 5	Change Fatigue	The region has gone through significant change for an extended period of time with no stability, creating a heightened sensitivity to additional change
Barrier 6	Culture	The importance of screening and the use of the CII was not initially seen as a priority or of any importance

Barrier 7	Uncertainty	Significant ward closures and relocation of wards has created an sense of uncertainty in the staff and distracting staff from the progress of embedding the CII
Barrier 8	Staff focus on BPSD	Staff were very concerned about the impacts of BPSD on the ward and staff rather than on screening and the use of the CII

9. Facilitators

Facilitator	Description	Impact on project
[name removed]	Nursing Director	Vision, leadership, engagement of Executive/ Nursing Directors
[name removed]	Consultant Geriatrician	Vision, leadership, engagement of medical staff, Partnership and Education
[name removed]	Nurse Education Facilitator	Leadership, planning, engagement of ward staff and Education Team, education development, promotion of the program, education delivery, online education development
[name removed]	Project Officer	Leadership, engagement of ward staff, process mapping, promotion of the program, education delivery, online education development, project progression and strategic planning

10. Project outcomes

Please list and describe the main achievements attributable to participation in this project

Achievement	Description
Achievement 1	Screening embedded across 5 DCHP Wards
Achievement 2	Use of the CII embedded across 5 DCHP Wards
Achievement 3	Education resources developed for face to face sessions (3D's and Screening)
Achievement 4	Education resources developed for online sessions (3D's and Screening)
Achievement 5	Discussions around clear pathways to geriatric outpatient referrals commenced
Achievement 6	Culture shift to an awareness for the need to identify on admission those patients who have cognitive impairment
Achievement 7	Staff knowledge of cognitive impairment increased
Achievement 8	Meaningful Activities Program
Achievement 9	Nursing Care Plan Guide for Cognitive Impairment Patients
Achievement 10	Clinical Pathway Audit

11. Maintenance and Sustainability

- Introduction of mandatory updates for nursing to include DCHP Program principles
- Orientation for all hospital staff to include DCHP Program principles
- Clinical Pathway and Organisational Wide Instruction for Cognitive Impairment
- Nursing to have cognitive impairment as a specific portfolio
- Screening and use of the alert to be included in annual standard based audits
- Develop a business case for two Cognitive Impairment Nurses for each the RAH and TQEH sites

12. Becoming a Lead Site for the DCHP

- The development of the Master Class Day provides a platform for expert care and leadership from Nursing staff to formally and informally mentor staff.
- Continuing promotion of DCHP Principles at a State and National level through conferences/ seminars.
- Promotion of the unique challenges of dementia and cognitive impairment through Dementia Awareness Month
- Executive Leads for cognitive impairment
- Safety and Quality to drive the importance of screening and CII
- Ongoing committees to strategically promote the needs of patients with CI and to generate dialogue around innovation in practice

13. Key learnings and reflections

- Clinical Leaders on the floor are the key to sustainable change
- Education material and the role of Educators is foundational in delivering culture change
- Consumers make our efforts to improve practice more relevant
- Adaption of process needs to include multiple partners to ensure engagement and sustainability
- Barriers need to be clearly articulated with well-developed strategies in place prior to and during the roll out of a project
- Education material needs to be well developed through an extended process of consultation prior to the commencement of education delivery
- Senior staff need to be well engaged and informed prior to the commencement of the project
- Process parameters around new programs need to be decided upon prior to commencement of the program and then only altered when absolutely necessary as it creates confusion for the clinicians on the ground.
- Communication strategies for all stakeholders need to be articulated and formalised prior to the project commencement

Dementia Care in Hospitals Program:

National Rollout and Evaluation

Project Evaluation and Program Sustainability Reporting Guide

Documenting the Project Activities

What is required for this part of the evaluation is comprehensive documentation of what was involved in implementing your project, including a description of all activities undertaken in planning and delivering the project activities, the participants involved and the resources utilised.
Typically a process evaluation also includes commentary on factors that assisted achievement of project outcomes and the barriers or difficulties that had to be overcome.
Although the aims and proposed project activities are described in the original project proposals, the process evaluation addresses what actually happened in implementing the project and is essential to adequately interpret project outcomes and to assess the extent to which program outcomes could be achieved in other settings.

How to use this reporting guide
Please use as much space as necessary; all that is required is information under the headings provided and roughly in the format suggested here.
When providing responses it is useful to consider the impact on: Patients, Carers, Staff, and Organisation and community.

1. Project Objectives

Include a brief statement of your organisational objectives with respect to:

- Implementing the Dementia Care in Hospitals Program (DCHP)

  Improve the quality and safety of care for older patients within medical, surgical, geriatrics and oncology wards of Canberra Hospital & Health Services (SITE).
  Increase staff awareness, knowledge and skills in caring for patients with cognitive impairment (CI)
  Reduce hospital costs and adverse incidents, especially falls, associated with CI
  Through improved recognition of CI in the acute setting, facilitate appropriate post-discharge follow up and linkages to improve care across the continuum.
  Assist with organisational preparedness for accreditation against the new standards that have a greater focus on cognition.

- Participating in the National Rollout and Evaluation of the DCHP.

  Contribute to a nationally significant research project
  Raise the profile of CI within SITE
  Obtain data to inform current and future decision-making on service needs
  Build relationships with key community partners including Alzheimer's Australia ACT.

2. Project activities and project schedule

List the main activities undertaken over the period of the project.

Project activity	**Timeline (months)**
Notification of successful application to participate in DCHP	? February 2015
Ethics submission	? May 2015
Program launch	Month 0
Ethics approval	Month 0.5
Recruitment of Project Officer	Month 0.5
Project planning including establishment of governance structure	Month 1
Development of Cognitive Impairment Pathway	Month 1
Process to amend clinical form	Month 1-2
Staff education on pilot wards	Month 1-3
BL2 data collection (screening on pilot wards)	Month 2-4
Recruitment of administrative assistant	Month 4
Go-Live on pilot wards	Month 4
T1 pilot wards	Months 4-7
Visit by Hon. Ken Wyatt MP	Month 7
T2 pilot wards	Month 7-10
Staff education on second tranche wards	Month 8-10

Follow up baseline data collection on second tranche wards	Month 9-13
Development of Cognitive Impairment Procedure	Month 9-20
T3 pilot wards	Month 11-13
Implementation phase second tranche wards	Month 13-15
T4 pilot wards	Month 14-18
Staff education and program rollout to remaining wards	Month 15 - 19
Final data collection and report	Month 18-19
Development of local transition plan	Month 18-20

3. Personnel involved in project planning and implementation

3.1 Project staff

List those staff responsible for implementing the project.

Staff member	Position	Time involved (EFT)
[name removed]	DCHP Project Officer	1.0
[name removed]	DCHP Administrative Assistant	0.6 FTE Dec 15-April 16, 1.0 FTE April 16-Dec 16

3.2 Committees and groups

For each committee, reference group and/or working group established to help plan and/or implement the project please provide:

- Name of Committee
- Terms of reference or committee purpose
- Membership (individual and position)
- Number and frequency of meetings over the life of project

Dementia Care in Hospitals Project Executive Steering Committee
Terms of Reference are at Attachment A.
Membership was as follows:

Name	Position in Organisation
[name removed]	Executive Director (ED), Rehabilitation, Aged and Community Care (RACC) – chair
[name removed]	Director of Nursing, Division of Medicine
[name removed]	Director of Geriatric Medicine, RACC
[name removed]	Clinical Director, Division of Medicine
[name removed]	Director of Nursing, Division of Surgery & Oral Health
[name removed]	Assistant Director of Nursing, , Division of Clinical Support and delegate for [name removed]
[name removed]	Director of Nursing, Cancer Ambulatory and Community Health Support
[name removed]	Director of Nursing, RACC

[name removed]	Allied Health Representative (Psychologist), Division of Medicine
[name removed]	Patient Experience Leader, HealthCare Improvement Division
[name removed]	Junior Medical Officer
[name removed]	Health Care Consumers Association
[name removed]	Health Care Consumers Association
[name removed]	CEO Alzheimer's Australia STATE
[name removed]	Carers STATE
[name removed]	A/Prof Nursing, and Delegate for Synergy Nursing and Midwifery Research Centre.
[name removed]	Project Officer – ex officio

The Executive Steering Committee met monthly. A total of 15 meetings were held. Meetings were not held in December 2015 and October 2016 due to lack of a quorum.

Dementia Care in Hospitals Project Working Group:
Membership was as follows:

Name	**Position in Organisation**
[name removed]	RACC – Project Officer (Chair)
[name removed]	Executive Director – RACC
[name removed]	Coordinator for Accreditation and Risk Management – Business and Infrastructure
[name removed]	Quality Officer – Healthcare Improvement Division
[name removed]	Director of Allied Health – RACC
[name removed]	Registered Nurse – Rapid Assessment of Deteriorating At Risk (RADAR) Team & Memory Assessment Service (MAS)
[name removed]	Aged Care Nurse Practitioner
[name removed]	DBMAS Manager - Alzheimer's Australia STATE
[name removed]	Carers STATE
[name removed]	Healthcare Consumers Association
[name removed]	Assistant Director Ward Services – Division of Clinical Support Services
[name removed]	JMO
[name removed]	ADON of RACC
Nominated representatives	Wards 5A, 5B, 6A, 6B, 7A, 8B, 9A, 9B, 10A, 11A, 11B, 14B/11C.

The Working Group met a total of 10 times. It was initially set up to meet monthly, and did so from August 2015 – April 2016, however attendance from ward representatives was poor and the meetings were deemed not to be fulfilling their objective. The Executive Steering Committee determined that the group should meet less frequently with an agenda focussed more on information sharing and problem solving. The three final meetings of this group were at 2-3 month intervals, and arranged well in advance of nursing rosters to facilitate attendance of key ward staff. Attendance and participation from ward staff slightly improved for the final three meetings.

Other individuals and organisations consulted in planning and/or implementing the project.

The Office of the Chief Nurse was involved in the initial project planning.

4. Other communication strategies used in planning or implementing the project

Please describe any communication strategies, in addition to the consultations and committees described above, that were employed in the project (e.g., use of posters, display boards, newsletters, website etc.).

The DCHP was formally launched in June 2015 with a one-day event in the Hospital auditorium, attended by a wide variety of clinical and non-clinical staff.

General information about the DCHP was available on the STATE Health website, and will be updated before the project concludes. Each ward received a written resource folder containing information sheets about the DCHP. These were issued to the ward Clinical Nurse Consultants (CNC) (Nurse Unit Manager equivalent) and Clinical Development Nurses. Wards utilised these resources differently according to their needs. Some wards placed laminated copies in the patient medication charts, or displayed them on notice boards or in the tea room. Electronic copies were also provided. At the end of the project these were updated and standardised across all wards. Similar resources were issued to non-clinical areas.

Where appropriate, participants at education sessions received a DCHP folder containing information sheets as relevant to their area, a bookmark and a pen.

Each ward received a monthly poster containing feedback on their compliance with screening and use of the Cognitive Impairment Identifier (CII), including in graph format to show trends. Other information relevant to each ward was included, eg examples of incorrect clock faces, as well as content intended to provoke reflection on how individual patient care might change as a result of the program. These posters were placed on each ward's Quality Board, and the relevant Quality Officer was also provided a copy so the DCHP could be included in regular Quality Board meetings.

Comparative ward performance data was not provided at the individual ward level, as per advice from the ward CNCs that this would be counter-productive to staff engagement. However this data was reported to the Steering Committee and Working Group.

Posters focussing solely on promoting the importance of the Clock Drawing Test, with examples of correct and incorrect clock faces, were also displayed on some wards.

Only two newsletters were issued during the project, one at the commencement and one at the one-year mark in August 2016. Steering Committee and Working Group members had discouraged the use of regular communiqués or newsletters, citing "information overload" amongst frontline staff and noting that they were unlikely to achieve the desired communication outcome. No feedback from clinical areas was received from either newsletter.

The Project Officer and Aged Care Nurse Practitioner (ACNP) gave an oral presentation at the ACT Allied Health Symposium in April 2016, on the DCHP and the follow up ACNP service.

A/Prof Mark Yates presented at Internal Medicine Grand Rounds in March 2016.

The Project Officer and Executive Sponsor presented on the progress of the DCHP in a number of forums, such as the Falls Standard Committee, the Directors of Nursing meeting, and various divisions' senior nurses meeting. The compliance

rates related to screening and the use of the CII were tabled at these forums towards the latter stage of the project.
A collection of patient case studies was provided to ward 14B/11C, outlining the benefits of the program, in an effort to increase staff engagement.
The DCHP was included in ACT Health's 2014-2015 and 2015-2016 Annual Reports.
The Director of Geriatric Medicine attended a range of medical unit meetings to engage with medical colleagues. An abbreviated DCHP training presentation was given, hence these were recorded as staff training (see next section).

5. Training or education activities

Please describe

- The process by which the training content was developed.

The presentation given at the launch and provided by A/Prof Yates was used the basis for the training, with content amended according to the needs of different groups.
In September 2015 a meeting was held with the Director of Staff Development Unit Elizabeth Renton, and a number of nurse educators to discuss the DCHP education and the potential impact of Version 2 of the National Standards with respect to education on CI. The content of the basis DCHP training was reviewed and the training was subsequently registered on Capabiliti, ACT Health's electronic learning and development system.
The DCHP training content was reviewed by relevant staff prior to delivery to different groups to ensure its applicability, including:

- [name removed], Deputy Director Prevocational Education and Training, Medical Officer Support, Credentialling Employment and Training Unit
- [name removed]RN, Transition to Practice RN Education Educator, Clinical Development Nurse & Midwives Professional Development Program Coordinator, Staff Development Unit
- [name removed] RN, Enrolled Nurse Coordinator and Assistants in Nursing Program Facilitator, Staff Development Unit
- [name removed], Education Manager, Alzheimer's Australia ACT
- Various service managers, such as Food Services and Wards Services

Expert review was also provided by Dr Anil Paramadhatil and Nerriann Bullman RN ACNP.
Written and informal evaluations were received and feedback incorporated as appropriate.

These main points were covered in all sessions:

- Aims of the program (improve the hospital care experience for people with memory and thinking difficulties and their carers)
- Patient and carer experience of acute hospital with CI
- Reasons for the program and risks associated with CI in the acute setting
- Content of the program (education / awareness, screening, communication, CII)
- The 9 key communication strategies
- Extent of rollout of program at Canberra Hospital and any specific process instructions

Sessions delivered to ward nursing staff included more detail on the processes of screening and use of the CII.

Extended sessions were delivered to graduate RNs, ENs and AINs. These sessions included information developed by the ACNP on the differences between dementia delirium and depression, case studies, and behavioural and psychological symptoms of dementia. These sessions also incorporated additional media including:

- "Barbara's Story" http://www.guysandstthomas.nhs.uk/education-and-training/staff-training/Barbaras-story.aspx
- file:///X:\Video3_What%20is%20Alzheimer's%20disease%%20on%20Vimeo.mp4
- http://teepasnow.com/resources/teepa-tips-videos/dementia-101

- The training format (length of training, any support material produced, any follow-up training).

Training was always delivered in face-to-face format. Sessions ranged in length from 15 minutes to two hours. The DCHP powerpoint presentation was usually given, although there were several instances where there were no audiovisual facilities available (some ward staff areas, wardsperson's area). In these cases the information was delivered verbally and with written resources provided.
Ward 6A requested repeated education sessions to more fully understand the program, and to allay some specific concerns, prior to the program starting. Wards 11A and 14B/11C also requested repeated education sessions in an effort to increase staff engagement several months after the program commenced.
The second tranche wards required repeated sessions to reinforce the purpose of and processes around the use of the CII, when their implementation phase commenced.

The groups for whom the training was developed (i.e., the target groups).

- Ward-based nursing staff (CNCs, CDNs, RNs, ENs, AINs)
- Relief / casual pool nursing staff (RNs, ENs, AINs)
- Night duty nursing staff (RNs, ENs, AINs)
- Nursing shift coordinators
- Allied Health staff (physiotherapy, occupational therapy, speech pathology, psychology / neuropsychology, nutrition, social work, Aboriginal liaison)
- Medical officers (junior medical officers, resident medical officers, staff specialists, visiting medical officers)
- Food Services staff
- Wardspersons
- Ward Clerks
- Cleaners
- Pathology collections staff

- The number of sessions conducted for each group.
- Number of attendees.
- Percentage of staff from each target groups who attended the training sessions (and follow-up if required).

- Who delivered the training, including qualifications/role of the trainer(s).

[name removed], DCHP Project Officer, B.App.Sci (Phty), Grad Cert Public Sector Management
[name removed], Aged Care Nurse Practitioner, Masters Clinical Nursing Nurse Practioning
[name removed], Director Geriatric Medicine, Dr Anil Paramadhathil, FRACP, MBBS, MMed

- Any feedback on the quality of the sessions and material used.

Please see Attachment E.

6. Other activities undertaken as part of the project

For each activity briefly describe the developmental process, what was entailed and the deliverables.
Development of Management of Cognitive Impairment Procedure:
The Project Officer drafted the procedure, circulated it for consultation, made amendments, and maintained the Consultation Feedback Register.
Development of consumer handouts on delirium and the Cognitive Impairment Identifier:
The Project Officer drafted the handouts, circulated these for consultation, made amendments, presented these at the Consumer Handout Committee, and liaised with the Communications and Engagement Branch graphic design services regarding the final formatting and artwork.
Caring for Cognitive Impairment Campaign: The Project Officer was the nominated contact for the Caring for Cognitive Impairment Campaign, and wrote, gained approval for and submitted the Canberra Hospital “story”.
Visit by the Hon. Ken Wyatt MP:
The Project Officer and Executive Sponsor worked closely with Mr Wyatt’s office, the DCHP National Office, Alzheimer’s Australia and internal stakeholders to coordinate a successful visit to Canberra Hospital, and a valuable opportunity to promote the DCHP.

7. Other resources expended

The DCHP funding has covered the cost of purchasing custom-printed stickers to amend the Patient Care and Accountability Plan (PCAP).
ACT Health committed additional monies to recruit a Project Officer at a level considered necessary to successfully implement the project.

8. Barriers

What were the main barriers to achievement of project objectives?

Barrier	**Description**	**Impact on project and remedial action** (if any)
Organisational capacity to implement screening	Routine screening for CI was not established prior to DCHP. There was no formal Procedure to mandate the requirement for screening.	Significant and ongoing effort was needed to explain the rationale for routine screening and increase staff knowledge and skills to administer screening.
Documentation of screening	PCAP required amendment for Clock Drawing Test (CDT) screening to be documented	Forms were amended via the use of a sticker, while awaiting a wider review of the form which was due in December 2015 but has not yet occurred. Delay while sticker went through Clinical Records approval process. Ongoing issues with maintaining a stock of amended forms on each ward. Ongoing DCHP resources spent on physically placing stickers of forms and delivering them to wards. Clock drawing test was often not attended if the correct version of the form was not available. Issue has not yet been resolved.
Selection of CDT as a screening tool	Staff were reluctant to administer CDT and had difficulty interpreting results correctly	Impacted on screening rates and identification of CI. Much effort was invested in "selling" the value of the CDT and educating staff in the interpretation of the results. There were instances where an incorrect clock face provoked a "light bulb moment" for a staff member, but these were outweighed by the ongoing difficulty of getting staff to administer the test correctly.
Accountability for screening rates	CI screening was not a reportable indicator on routine ward audits	DCHP performance was reported back to wards and relevant management and executive, but this was outside the Measuring Patient Care audit process and therefore arguably there was less accountability for DCHP performance within the standard quality and safety framework.
Variable engagement at Executive level	Not all relevant Executive were visible and vocal in their support of DCHP.	Executive Sponsor was active in seeking engagement of all relevant Executive but this was not always successful, and in turn affected engagement at the ward level in different areas.
Medical engagement	Low attendance at scheduled education and difficulty accessing time at unit meetings	Impact of low awareness of DCHP principles and processes among medical workforce, and perception that management of CI is an issue specific to geriatric medicine and of low relevance to other specialties. Remedial action included leverage from Dr Paramadhatil's position to increase engagement, and inclusion of Clinical Director Division of Medicine and a junior medical officer in Executive Steering Committee.
Inconsistent ward- and team-level champions	Nomination of key ward- and team-level staff to take responsibility for driving the project was encouraged by the Project Officer but not	Not all wards / teams had consistent personnel to drive the project. Attendance of at Working Group meetings was poor. The project relied too heavily on Project staff to educate, encourage and drive processes at the ward level. When Project staff were less visible / available, compliance with the DCHP dropped off.

	required by the relevant management.	
Casual / relief staff	Low attendance and scheduled education	SITE has a relatively high rate of usage of casual / relief staff. Low awareness of DCHP contributed to lower screening rates and lower use of CII on wards. A number of education sessions were scheduled but attendance was poor as the training was not considered mandatory. Shift coordinators and managers of the relief pool were provided with information about the DCHP to reinforce messages.
No Cognition Nurse Specialist position	Limited clinical support for management of CI at the ward level	This reinforced a view that the DCHP did not significantly change patient care. ACNP provided limited clinical input to inpatients, but this was largely outside her role. Project staff continued to emphasise the importance of identification of CI and improved communication, and promote the DBMAS services where appropriate.
Poor engagement from Clinical Development Nurses	Education was almost exclusively delivered by Project Officer as an "outsider" to the ward	This limited the embedding of the DCHP processes within the everyday work practices and culture of the wards. Project officer attended CDN meetings, provided CDNs with written and electronic resources, requested their participation in joint sessions, and also requested they deliver education themselves. The majority of CDNs did not take on these tasks at all, so if left up to them the education would not have occurred.
Staff perceptions about dementia	Some nursing staff did not acknowledge that CI was an issue in their patients, and maintained that this was a geriatric / residential aged care issue. Use of the word "Dementia" in the title of the program was an issue.	Impacted on staff willingness to engage with the program and comply with the requirements. Staff expressed concern about the use of the CII and being seen to be labelling the patient as having dementia. Required much effort to explain the rationale in terms of "cognitive impairment" and include issues such as delirium management to widen the context. Also required some overt discussion about the existence of stigma about dementia within the health professional community.
Organisational processes	Additional / changing requirements for reporting and release of information	Impacted on ability of Project Officer to receive feedback and direction from the National Office as the project entered its final phase. Project Officer and Executive resources were redirected towards the process of obtaining approvals for release of information.
Organisational change	Multiple change processes occurring simultaneously	The capacity of wards and teams to absorb multiple changes is limited. The DCHP was not well enough established on most wards to be maintained when there is additional unrelated change undertaken.

9. Facilitators

What factors were important in helping achieve project objectives?

Facilitator	Description	Impact on project
National Office	Support and direction	The regular contact (structured and ad-hoc) with the National Office and the responsive and encouraging support, was essential for maintaining the momentum of the project.

Executive Sponsor	Executive support	Championing of project, actions to facilitate engagement at the executive level, creation of linkages with other strategic imperatives eg activity to reduce falls, support and guidance to Project Officer.
Director Geriatric Medicine	Executive / senior medical support	Championing of project, created engagement with medical colleagues, support and guidance to Project Officer.
Relevant Executives	Participation in Steering Committee	Championing of project, creating engagement with their respective areas, guidance of project and support to project officer.
Ward CNCs	Implementing the program	The DCHP was established most successfully when the CNC was engaged and drove the program strongly at the ward level.
Aged Care Nurse Practitioner	Clinical expertise, staff education, development of follow up memory assessment service.	Support to project staff. Follow up of patients with delirium or who had unexpected finding of CI while in hospital. Demonstration of value of program to acute staff through enhanced patient outcomes.
Project Officer and Administrative Support	Consistency and visibility on wards. Recruitment of an experienced EN as project admin support	The Project staff's efforts to build relationships with key ward staff, and visit wards daily to reinforce and support the program was important. There were no interruptions or loss of corporate / project knowledge during the course of the project. The admin officer's clinical background enabled her to add value in support and education to ward staff during the data collection process. Her daily presence and perseverance on the wards was a very important facilitator of screening and use of the CII.
Alzheimer's Australia	Engagement in Committees and other activities	Reinforcement of broader value / national significance of project. Other valuable activities for the aged care wards were fostered through this relationship.
Health Care Consumers' Association	Support for project and engagement in Committees	Consumer input was provided throughout project, and to associated activities such as the development of consumer handouts. Other stakeholders were able to be reassured that the project had consumer support.
[name removed]	Support and direction	Academic input to the Executive Steering Committee and linkage with University of Canberra.
Research student	Student assisted with project for 2 months.	Student contributed significantly to the collection of DEMQOLs and Carer Surveys during BL2.
Quality and Safety Officers (QSOs)	Championing of project	QSOs reviewed ward results at Quality Board meetings, and reinforced objectives and linkage with National Standards.

10. Project outcomes

Please list and describe the main achievements attributable to participation in this project

Achievement	Description
DCHP program established	DCHP is operating on 14 wards, and is anticipated to be rolled out to the final general medical ward in the near future (this ward has recently transformed from a medical short stay to a general medical ward, hence the delay in DCHP rollout).

Data collection	Adequate data was collected as per the research protocol
Audit and reporting	Cognition screening is now included in the routine audit process. Whether a cognition screen has been attended has been added to the standard clinical incident reporting tool.
Cognitive Impairment Procedure	A formal procedure for Management of Cognitive Impairment is soon to be endorsed
Staff education	Education was delivered to a significant number of staff throughout the project.
Establishment of a Quality and Safety Officer position for CI within the Clinical Quality and Safety Unit	This position will continue to support the DCHP across Canberra Hospital & Health Services
Strengthened relationships with key stakeholders	Alzheimer's Australia ACT participated in the Executive Steering Committee and Working Group, and in the delivery of staff education. Visits were exchanged with the team from the Queen Elizabeth Hospital Adelaide, and they conducted several educational forums while in Canberra including a GP dinner.
Establishment of Aged Care Nurse Practitioner service	Service providing post-discharge follow up of patients who have had delirium or where there are ongoing concerns regarding their cognition. The ACNP works closely with the Alzheimer's Australia ACT Dementia Advisor. The ACNP is receiving a steady flow of referrals from acute ward staff.

11. Maintenance and Sustainability

Provide a brief description of the organisation's strategy to ensure maintenance and sustainability of the DCHP.

Oversight of compliance with the key DCHP indicators will become the responsibility of individual wards with the support of the Clinical Safety and Quality Unit (CSQU). A CSQU Quality Officer will be assigned cognitive impairment as their area of responsibility across SITE. Cognition screening has already been incorporated into the standard Measuring Patient Care audit template. Results will be reported through the relevant Divisional Quality and Safety meetings and the Falls Standard Committee meeting.

New nursing Clinical Leadership roles are being developed and implemented across Canberra Hospital. These are senior ward-based nursing positions which will be deployed on targeted areas, to enhance the capacity of the ward CNC to lead patient quality and safety initiatives as well as manage patient flow. These staff are expected to support the ward CNC and the relevant CSQU Quality Officers in the ongoing maintenance of the DCHP at the ward level.

A strategy for ongoing staff education is being developed with the Director of our Organisation's Staff Development Unit and Senior Managers within CSQU. Discussions are underway to determine how the DCHP training should be implemented in the future with respect to the ACT Health Essential Education Policy and Guideline that is currently in the process of being renewed. The current thinking is that base-level DCHP education (e-learning) becomes highly recommended for all staff, including students, volunteers and clinical contractors, and the content is also included in the written ACT Health Information and Reference Guide. It is recognised that there is also scope to develop additional training for targeted clinical groups, covering content such as:

- Information on SITE-specific processes eg how to administer screening tools, how to document the results accurately

- More detailed information on clinical management of dementia and delirium
- More detailed information on the management of behavioural and psychological symptoms of dementia (BPSD)

This content was covered in the DCHP training that has been delivered, to varying degrees dependent upon the audience.
In the interim and while awaiting the development of the e-learning package, the ACNP and the Clinical Quality and Safety Unit have access to the DCHP training materials, and the ACNP and the CSQU Quality Officer assigned cognitive impairment have been promoted as the point of contact for wards and areas requiring further face-to-face education.
STATE Health has recently recruited a new Deputy Director General – Quality, Governance and Risk, [name removed]. Discussions have already occurred to engage her in the development of a strategy for sustainability.

12. Becoming a Lead Site for the DCHP

Provide a brief description of the organisation's strategy to become an effective lead site for the program. Please include

- Activities undertaken to date
- Planned actions

STATE Health is currently developing a Clinical Services Framework (CSF) to rebase the direction for the delivery of health services. ACT Health will identify what whole-of-Territory services are required and should be provided over the next ten years through the CSF. This document will guide health policy and will inform the development of specialty service plans (SSP) for individual services and service groups.
The Draft CSF will be provided to the Director-General for consultation approval in the first quarter of 2017, and stakeholder consultation on the draft CSF will commence in the second quarter of 2017.
The SSP will drive the development of models of care which will include prevention and promotion, early detection and intervention and integration of services across providers and settings.

The development of the ACT Dementia Services Action Plan is anticipated to be finalised following the confirmation of the CSF. This will provide a whole-of-STATE approach to facilitating the STATE health system in responding effectively to the needs of people with dementia, their carers and families into the future. Hospital improvement initiatives such as the DCHP are anticipated to be highlighted in the Plan.

The DCHP will be rolled out to the new HOSPITAL from its opening in 2018. Plans are underway to embed the CII into the entirely electronic program for bedside signage.

13. Key learnings and reflections

These may be at either an organisational or a personal level.

Knowledge and awareness of CI amongst staff, especially nursing staff, was generally lower than assumed at the commencement of the project. It was therefore

necessary to invest more time than anticipated in “selling” the merits of the program and providing staff with education from a very basic level.

The level of organisational readiness and ability to implement routine screening for CI was lower than assumed. The PCAP had only been in use for 3 months before the start of the project and there was limited audit data available on compliance with the form. Project staff formed the strong impression that although the AMT4 was included in the PCAP, compliance with its completion was low prior to the commencement of the DCHP.

Frontline staff and management consistently reported that the pace and scope of change generally throughout the organisation limited the capacity of frontline staff to respond to additional expectations and implement new practices, which affected the success of the DCHP. This was demonstrated when the introduction of a trial of a partial electronic clinical record on one ward was associated with a sharp decline in compliance with the DCHP. Over the course of the project a significant number of staff verbalised tiredness of and cynicism towards change of any kind. Project staff had to invest ongoing effort in building the case for change and “selling” the program.

Throughout the project there was a level of tension between fulfilling the research imperatives and program implementation. At times the program was implemented without a fully effective change management process, in order to fulfil data collection requirements. This was not necessarily apparent at the time but became more obvious in hindsight when the program did not take hold as well as anticipated. On some wards the research imperative resulted in a tendency towards an unhelpful focus on meeting performance targets for screening and use of the CII, and not enough attention on meaningful change in patient care and outcomes. The DCHP did consistently reinforce the overall goal of improving patient care and experience, but this was one of a number of somewhat competing messages to impart.

The ward CNCs have proven to be the critical enabler of the project. Their varying levels of engagement, commitment, and management styles did impact directly on the success of the project on different wards.

Project staff had limited capacity to provide specialist advice on the clinical care of patients with CI and BPSD or other clinical challenges associated with their CI. This contributed to feedback that the DCHP did not go far enough to achieve meaningful change in patient care and outcomes. SITE does not employ a Cognition Nurse Specialist / CNC. Having a role such as this working in tandem with the DCHP Project Officer would have greatly supported the rollout of the program. Likewise, having a formal Procedure in place to articulate the required processes may have improved staff engagement and compliance.

The issues regarding the PCAP should be noted as a major barrier to the project and an ongoing sustainability risk. The decision to modify the form using stickers was made as a short-term solution based on information that the form was to be reviewed within 6 months of the project starting, and the changes would then be incorporated in the printed form. This relatively minor process issue turned into an ongoing problem and consumed significant project resources. Keeping the wards stocked with amended forms required constant effort, and even with this it was impossible to ensure that every patient had the correct version of the form in their chart. If an old version of the form was used, the CDT was rarely completed. Project and other RACC staff spent significant time collecting, amending and delivering forms. After the DCHP Administrative Support Officer’s contract ended in December 2016 this task has fallen to the Project Officer, and attempts to shift responsibility to a more appropriate area have been unsuccessful to date.

The DCHP Working Group had limited success. Ward staff have difficulty attending meetings that are not mandatory, even with months of notice and strong promotion.

A better alternative would have been for the Project Officer to routinely attend the various existing ward and divisional management meetings. Although this would not have achieved the aimed-for cross-fertilisation of ideas across areas, and would have been very time consuming, it would have provided a more regular and consistent forum to communicate messages and gain management support.
A forum specifically for DCHP Project Officers may have been useful, to share ideas on the "nuts and bolts" of the project.
There were several instances of feedback that the name of the program incorporating the word "Dementia" and the use of language such as "carer" were oriented toward residential aged care settings and not relevant for acute hospitals. Feedback of this type may also reflect a level of stigma surrounding dementia and ageism amongst the health professional workforce, which was also perceived by project staff. The program may have been better received if it was branded as "cognitive impairment". It is recommended that during future program rollouts, specific consideration is given to the issues around reducing stigma in the workforce.

14. Any other comments

N/A

Dementia Care in Hospitals Program:

National Rollout and Evaluation

Project Evaluation and Program Sustainability Reporting Guide

Documenting the Project Activities

What is required for this part of the evaluation is comprehensive documentation of what was involved in implementing your project, including a description of all activities undertaken in planning and delivering the project activities, the participants involved and the resources utilised.
Typically a process evaluation also includes commentary on factors that assisted achievement of project outcomes and the barriers or difficulties that had to be overcome. Although the aims and proposed project activities are described in the original project proposals, the process evaluation addresses what actually happened in implementing the project and is essential to adequately interpret project outcomes and to assess the extent to which program outcomes could be achieved in other settings.

How to use this reporting guide
Please use as much space as necessary; all that is required is information under the headings provided and roughly in the format suggested here.
When providing responses it is useful to consider the impact on: Patients, Carers, Staff, and Organisation and community.

1. Project Objectives

- Introduce a process that would lead to sustainable change in the care of older patients with cognitive impairment in the acute care setting.
- Provide education to clinical and non-clinical staff across the hospital about Cognitive Impairment and the benefits of using a Cognitive Impairment Identifier(CII).
- Introduction of the Dementia Care in Hospitals and a Cognitive Impairment Identifier across all wards at SITE.
- Implementation of clinical pathways to assess and manage patients with cognitive impairment.
- Link current hospital protocols and practice guidelines within DCHP framework
- Involve carers/family in the care of cognitive impairment which will add to the SITE commitment to engage and involve carers as partners in care.
- Improved screening process for Cognitive Impairment through the use of validated screening tools .
- Engage SITE staff to see CII as a new safety and quality tool and to achieve a high level of compliance.
- Have SITE seen as a leading organisation in the care of older people with cognitive impairment in the Acute Care setting.

2. Project Activities and Project Schedule

DCHP Project Activities

Project Activity	Timeline (Months)
Expression of Interest document	22/09/2014
Identification of key clinical staff and infrastructure	22/09/2014
Commencement of Project Officer	21/06/2015
Executive support	08/09/2014
Stakeholder involvement	08/2015
Ethics Approval	20/07/2015-18/12/2015
Program Launch	16/09/2015
Baseline 1 Control	10/2015
Baseline 2 Training	21/12/2015-14/03/2016
Go Live	14/03/2016
T1	02/04/2016
T2	23/05/2015
T4	10/10/2016 - 18/12/2016

Personnel involved in project planning and implementation

3.1: Project Staff

STAFF MEMBER	POSITION	TIME INVOLVED Hours
[name removed]	PROJECT OFFICER	
[name removed]	ASSOCIATE INVESTIGATOR DEPUTY NURSE CO-DIRECTOR	4hrs/month
[name removed]	ASSOCIATE INVESTIGATOR CONSULTANT GERIATRICIAN/HOD	2hrs/month
CLINICAL NURSE SPECIALISTS	16	8 4 hrs/month
NURSE MANAGERS	6	3 hrs/month
STAFF DEVELOPMENT NURSES	19	8 hrs/month
MANAGERS(Non Nursing)	8	4hrs total
DATA ANALYSTS/MANAGERS	2	1hr/month
REPROGRAPHICS		10 hours Total
HEALTH INFORMATION MANAGEMENT SERVICES		4 hours Total
SITE PUBLIC RELATIONS		4 hours total

STAFF MEMBER	POSITION	TIME INVOLVED Hours
GRAPHIC DESIGN		12 hours total

The Steering Committee consisted of the Project officer and the Associate Investigators. There was planning around establishing a working group however the difficulty in accessing members from the Community Advisory Committee and Alzheimer's to be involved in a timely manner meant that there was no working party or implementation committee formed.
There was ongoing communication with the Alzheimer's State CEO [name removed] regarding the program rollout at SITE.
The Project Officer invited to present to the Dementia Behaviour Management Service regarding the SITE program.
Project Officer attended 3 meetings with Senior Policy Officers from DOH re program rollout and progress .
Project Officer met with the Executive Director of Nursing (EDON)SITE to outline program and its benefits for patients. EDON was very supportive of program and its objectives and has shown continued interest throughout the duration of the program.
Meetings arranged with Nurse Co-Directors and Deputy Nurse Co Directors as part of planning prior to commencement on Tranche 1 wards. Issues discussed included measuring improved patient outcome, impact on ward staff workloads.
Project Officer met with senior Allied Health staff including the Allied Health Co-ordinator and Acting Head of Occupational Therapy
Presentations were also given to The Medical Executive Committee and the Nursing Executive committee and received positive feedback and commitment to support.
Other stakeholder meetings included Manager - Security, Phlebotomy, Head of Department Imaging Services,
Senior Nurse engagement included presentations to Nursing Education Forum and Clinical Nurse Specialist Committee

4. Other Communication Strategies used in planning or implementing the project
Identifying and supporting CII champions at ward level
Use of DCHP banners. Positioned on the entrance to wards and in lift wells
Display boards on wards outlining DCHP program and use of CII. Used a variety of educational and posters and included a CII
Communication posters–used in lifts and notice boards
Clock Drawing Test posters. Bright orange with examples of abnormal clocks. Benefits outlined with supportive evidence.
Geriatric Medicine physician support
Presentations to General Medical Physicians by Geriatricians
Discussions with Accreditors during the recent Hospital Accreditation regarding the program. They were particularly interested in how improved screening will link to improving patient outcomes by assisting to reduce hospital falls.

5. TRAINING OR EDUCATION ACTIVITIES
The training content was provided by DCHP with some additional information regarding local rollout added to the PowerPoint presentation.
The DCHP launch included a 2 hour Train the Trainer session for Senior Nurses, Staff Development Nurses and other allied health staff. 16 staff members attended with the feedback from majority of responders being positive.
The DCHP education package was presented to Staff Development Nurses and Educators at the Nursing Education Forum.

Meetings were held with the Clinical Nurse Specialists, and Staff Development Nurses on each of the wards to review the package, provide feedback and answer concerns. Ward based education sessions for nurses, allied health, doctors and support staff were also arranged at this time. Ward sessions were run in a variety of setting- tea room, meeting rooms, training areas and included sessions for staff who worked at night.
Ward sessions consisted of a 45 min PowerPoint presentation as provided by DCHP with handouts of the PowerPoint plus Communication Tips book marks as an aid memoire. The presentation for Hospital Service Assistants and Cleaners was modified to remove some of the clinical content. Sessions were also provided to Phlebotomy staff within their department.
Catering staff on wards do not have time allocated for education but do have a short information sharing session (5-10 min) at the beginning of the shift. Information about the CII and what its function is was highlighted. This was also supplemented with ward based "coaching on the run" sessions
The CII was also part of the monthly induction education session on delirium and dementia that new patient support staff receive. This was provided to 110 staff over 2015/2016
The education to all staff(except Medical Staff) was undertaken by the DCHP Project Officer whose substantive role as Clinical Nurse Consultant-Aged Care incorporates staff teaching on issues relating to care of the Aged including Delirium and Dementia.
Medical education to junior doctors was provided by a geriatrician. This addressed the CII as part of a cognitive screening pathway and guidance about further investigation.
Education was provided as part of Intern education sessions and the Basic Physician Teaching program. The information is available on the post- graduate medical education MOODLE website.

6. OTHER ACTIVITIES UNDERTAKEN AS PART OF PROJECT
Program Launch.
As part of raising the profile of a new program and demonstrating executive support for the rollout across the hospital, the program was launched in with presentations by The Executive Director-[name removed],EDON-[name removed] and the CEO of Alzheimer's Australia STATE [name removed] Talking points were provided by the DCHP Project Officer for the SITE executives as well as liaison with Alzheimer's Australia re the CEO's presentation.
There was positive feedback from the attendees. The launch was discussed with the SITE Public Relations department who invited local media. The local community newspaper reported the launch. Internally there was good coverage in the SITE Bulletin as well as links to the Australian Commission on Safety and Quality in Health Care twitter account.

Cognitive Impairment Pathway
The pathway was based on a tool developed by the University of Dundee and NHS Tayside in Scotland. Approval was sought and gained to use their "TIME" mnemonic in the pathway as well as a new SITE medical review document for cognitive impairment. The medical review document was initially envisaged as a sticker but a hard copy document was felt to be a better option.
This pathway was developed by the DCHP Project Officer in conjunction with the Consultant Geriatrician and Head of Department - Aged Care and Rehabilitation and sent to Geriatricians, Senior Nurses in Aged Care, General Medicine and Orthopaedics as well as Senior Occupational Therapists for feedback. Feedback was also received from the Clinical Association JMO representatives about their perception of additional workload, excessive test ordering and lack of guidance about form usage. Additional meetings with representatives were held and additional guidance in regards to use of form, test ordering and seeking assistance from senior colleagues were included in revised document.
Nursing Admission Assessment
Following discussions with the Chair of the Nursing Practice Committee, the cognition assessment section of the Nursing Admission Assessment document had completion of the Clock Drawing Task and AMT4 and commencement of Cognitive Impairment Pathway included. These changes and the associated benefits were presented to the Clinical Nurse Specialist group.
Identification of ATSI in patients.
Met with Aboriginal Liaison Health workers regarding the identification of ATSI patients. The Health workers were interested in the program however due to their overwhelming workload, requests for meetings with manager were not successful.
Discussions with SITE Hospital Information Management led to the generation of a daily report that identified all ATSI patients over 50 years of age to assist in identifying this small but at risk population
Other Resources expended
External Graphic Designer: The cognitive impairment pathway was developed with an external graphic designer at a competitive cost to ensure timely completion due to workload related to preparation for the Accreditation process the Hospital was undertaking in 2016.
Chocolates and cake as staff encouragement to attend education sessions and completion of clock faces.
Postage.-Stamped envelopes to facilitate return of carer surveys. Registered postage to send documents to Ballarat. Design and purchase of magnets for journey boards to facilitate identification of patients with cognitive impairment.

Barriers

Barrier	Description	Impact /Remedial action
Completion of screening	AMT4 completion consistently high> 90% Highest monthly CDT completion rate was 51% in Nov 2016 from a CDT completion rate of 25% at the beginning of the program.	True extent of cognitive impairment on wards (i.e. "positive" results) less than expected. A lower than hoped for CDT completion rate meant that we would have missed a number of patients who had cognitive impairment but scored a negative result on the less sensitive tool. Ongoing d/w CNS and SDN's Having CDT on nursing admission assessment documentation may improve compliance. Plan to audit revised document I month after release and provide education as required
Lengthy ethics approval process	HREC approval received Nov 2015 following submission in July 2015 Institutional approval gained 18/12/2015	Reduced period of time for data collection Delayed rollout
Competing educational requirements	Ward based education sessions needed to fit in around other educational needs. Often difficult to get wards educated in a timely manner. Particularly difficult in the 6 months prior to accreditation	Delayed rollout
Use of CII's	Screening did not translate to use of CII's. Particularly where AMT4 screening was normal and CDT abnormal. Minimal documentation about usage Lack of carer awareness about the use of CII's	Patients with CII not identified with potential care safety implications. Use of journey board magnets as a reminder. This increased MDT awareness and participation. Facilitated earlier interventions through better recognition of patients with CI. D/w Senior staff Purchase of Perspex document holders to place CII's on more obvious places in wards.
Completion of carer surveys	Low response rate from carers for physical copies	Smaller numbers than expected. Impact on statistical analysis. Use of phone surveys. Additional staff member (restricted duties- work injury) to assist with calls
Local Human Resource /infection control Issues	State Government/ Department of Health staff freeze (21/1/2015-1/07/2016) Bed closures/Increased staff sick leave relating to gastroenteritis	Reduced numbers of hospital staff on wards who had awareness of the program Increased numbers of Agency staff who were unaware of DCHP/CII Reduced patient numbers on trial wards to screen for up to 6 weeks.

Barrier	Description	Impact /Remedial action
		Reduced hospital staff to screen patients
Variable level of staff commitment on wards.	Consistency of completion rates for screening and use of CII varied within wards and across the hospital Dementia Champions had to deal with staff issues around the change rather than being a resource to improve care.	Reduced screening Reduced CII usage Reduced engagement with carers Withdrawal from role due to increased levels of stress at not being able to do the role they committed to. Plan to seek new dementia/CI champions on all wards at SITE. Revisit work done by SITE Nursing Research relating to developing clinical champions.

FACILITATORS

Facilitator	Description	Impact on Project
Senior Nurse Engagement	Demonstrated support for program at ward level. Demonstrated leadership	Better attendance at education, better completion rates of screening and use of CII's
Staff Development Nurses	Demonstrated support for program Inclusion of all staff	Improved number of sessions, higher attendance rates, better organised sessions
Manager Engagement (Non ward areas/Non clinical areas)	Demonstrated support for program at department level. Demonstrated leadership	Better attendance at education
Audio-visual / reprographic services	Provision of timely services	Ability to get required documentation quickly. Design and production of educational/promotional material in a timely manner
Falls Committee	Strong supporters of screening inpatients for cognitive impairment. Championed the use of the Cognitive Impairment Identifier. Increased the profile of the program through linking it to quality and safety outcomes.	Raised awareness of the importance of screening Encouraged use of Cognitive Impairment Identifiers Recommended ongoing staff education on the links between cognitive impairment and falls.
Highly engaged ward staff	Pockets of highly engaged ward staff-(not always senior staff) who completed screening and use of identifier	Spikes in completion rates of screening and use of CII Role modelling for other staff.

PROJECT OUTCOMES

The introduction of an additional valid screening tool has increased rates of identification of cognitive impairment	AMT4 completion has been consistently high, with increasing completion rates for the Clock Drawing Task and AMTS
Raised awareness of cognitive impairment	Education has been provided to all wards, preadmission /Day of Surgery, General High Dependency Unit. Medical education for Junior doctors and involvement of the SITE Clinical Association Junior Medical Officers in the design process

	Awareness raising in the form of Poster presentation at ward level as well as information provision to hospital visitors. Executive support for the program and its outcomes.
Raised levels of staff knowledge about cognitive impairment	All wards have received ward based education. Non clinical support staff received additional education in addition to induction education. Night staff included in the program Medical education provided to junior staff through a variety of sessions. Online education is available
The profile of SITE in relation to the management of patients with cognitive impairment has been raised	Contact was made from public and private hospitals regarding the program. Presentation at the state-wide Falls Community of Practice highlighted the SITE program to metro, rural and regional sites. Ongoing discussions with Department of Health re the program Joining Commit to Cognitive Caring campaign
Addition of new assessment and treatment pathways/protocols has improved documentation	Nursing assessment documentation now has increased cognitive screening. Nursing Practice Guideline re care of the older person with confusion was reviewed in line with DCHP rollout. Cognitive Impairment Medical Review document was developed as part of the program and as part of the Cognitive impairment pathway
Implementation of care pathways and updating and reviewing current protocols in line with DCHP has led to improved models of care.	Care of cognitive impairment pathway was developed to assist in care and management of the cognitively impaired patient. Management of Agitation in Older Patients on Medical and Surgical Wards at SITE pathway was updated as part of the DCHP rollout.

11. Maintenance and Sustainability

The CNC role will continue to support the education of staff /patients and carers regarding the benefits of cognitive screening for patients. This will be done through liaison with ward SDNs to provide/support ongoing staff education. Provision of direct staff support to assist with the care of patients with cognitive impairment.

Continued provision of education regarding cognitive impairment at induction for Patient Support staff.

Medical education of junior medical staff will be facilitated by one of the Medical Education Registrars focussing heavily on Delirium.

Highlighting cognitive impairment as an agenda item at clinical meetings as well as Divisional and other management meetings. Raised profile of cognitive impairment at hospital falls committee and feedback through link nurses will also assist in the embedding regular cognitive screening in nurse's routine care of patients.

Other DCHP sites found benefits with Geriatricians raising awareness amongst senior colleagues. The SITE Geriatricians have started raising the profile within other services e.g. Ortho-Geriatrics, Vascular-Geriatrics and General Medicine

A series of 4 full day study days is planned in conjunction with Alzheimer's WA for 2017.One of the objectives is to increase nursing staff knowledge of cognitive impairment and the use of screening tools and CII at SITE.

Education on Cognitive Impairment for junior doctors is available on the SITE Moodle.

Management of patients with confusion/cognitive impairment is available on a number of

areas on SITE Intranet however discussions have been commenced with Webmaster to have these combined in a "one stop shop".
There are experts across the MDT and within the hospital that are committed to improving care and outcomes for older patients in the Acute Care setting.

Becoming a Lead Site for the DCHP

Availability of full time senior staff who will continue to be available to provide information/support to sites who take up the DCHP
There is a high level of awareness and support for the SITE program at the WA Department of Health as a result of meetings and networking with Senior Policy Officers in the Subacute, Community & Aged Care Directorate (SCACD). SCACD also auspice regular Expert Reference Group Meetings with the Heads of Geriatric Medicine Departments from all Public Hospitals and will be in an excellent position to drive and support the implementation at other sites, utilising SITE as an exemplar.
Discussions with hospitals in the public and private sectors regarding the program have occurred.
There is a strong commitment to development of and involvement with Models of Care/networks across the multidisciplinary team at SITE .

Key Learnings and Reflections

Resistance to change is a constant variable.
Personal currency doesn't count for as much as I thought. I was expecting my work relationships to improve acceptance/engagement of the program
Not everyone sees the same benefits/importance of the program as you. To me the link between cognitive impairment, patient risk and outcomes, frailty, staff workload etc. was obvious.
Engagement by senior staff at ward level is important for success.
The medical/surgical divide exists. What is considered important often depends on whether there is a medical or surgical focus
Staff seeing an apparently cognitively intact person draw an abnormal clock is often an" Ah Ha" moment that gets greater engagement. Harnessing those highly engaged staff is really important.
Getting people to be champions is harder than expected and staff often find the role stressful and withdraw from it.
Need to sell the screening process and TIME guide as a useful aide to better manage patients rather than obligatory paperwork to be completed

Discussion Points raised from Data Report.

Comment was made that a large number of duplicate records were removed from the original datasets.

- A number of patients would have had data collected several times during an inpatient admission because they may have changed wards as part of their treatment eg moved from G74 to C16 and then onto C17 for inpatient rehabilitation.

Low number of records in T2

- Project Officer on leave during this period

Insights into Hospital at T2

- State Government Staff freeze
- Increased staff sickness with increased use of agency and casual pool staff.
- Largest number of patients presenting with Influenza like illness since 2012.

Lower CI baseline that increases with intervention

- Better awareness leading to increased identification
- Possibility that changes in patient profile on ward G71 and C16 increase CI prevalence

- Improved coding aligned with better documentation

How was hospital coding carried out/changed during program?

- Directive to demonstrate improvement in coding at SITE due to threats to Block funding
- Departments met with coders routinely. Geriatricians met with coders fortnightly to review patient records that has increased in frequency to weekly.

Impact of screening not translating into CII use.

- Reduced patient/carer involvement
- Use of Cii magnets on the journey boards increased multidisciplinary team awareness and participation. Facilitated earlier intervention through better recognition of patients with CI

A substantial number of palliative and ESL patients compared to other sites.

- Could this be due to site specific Care of the Dying Patient protocols?

Project Evaluation and Program Sustainability Reporting Guide

Documenting the Project Activities

What is required for this part of the evaluation is comprehensive documentation of what was involved in implementing your project, including a description of all activities undertaken in planning and delivering the project activities, the participants involved and the resources utilised.
Typically a process evaluation also includes commentary on factors that assisted achievement of project outcomes and the barriers or difficulties that had to be overcome.
Although the aims and proposed project activities are described in the original project proposals, the process evaluation addresses what actually happened in implementing the project and is essential to adequately interpret project outcomes and to assess the extent to which program outcomes could be achieved in other settings.

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When providing responses it is useful to consider the impact on: Patients, Carers, Staff, and Organisation and community.

1. Project Objectives

Introduction of the program will assist and support other initiatives, including the Clinical Redesign project, in achieving better patient care, reducing average length of stay for patients with Cognitive Impairment and promote clearer communication with families and between services.
Specific outputs include:

- The development of more effective policies and protocols for identifying and caring for people with a cognitive impairment; and
- A program of education targeted at all hospital staff to support the understanding and implementation of the new policies and protocols

This project will link to and complement the Cognitive Champions Program at the SITE together with the stronger focus on cognitive impairment in the new national safety and quality health service standards. It will also support clinical redesign directions and initiatives at the hospital.
Implementation of the DCHP will contribute to the hospital working towards the revised National Standards from the National Safety and Quality Health Service and the Delirium Clinical Care Standard
Participation in the National Rollout and Evaluation of the DCHP provided the opportunity for the SITE to participate in research aimed at improving care for those patients in hospital with a cognitive impairment.

2. Project activities and project schedule

Project activity	**Timeline (months)**
Ethics Approval • Application completed by the National Research Team in consultation with the SITE team.	Submitted 17/2/16 Approved 11/3/16
SITE Governance Approval • Application completed by the project officer and approval received the 16/6/2016	3/2016 to 6/2016
Development of reporting tool to generate patient lists for the data collection. • Worked with Business Intelligence Unit to develop an accurate data base for admissions.	BL1
Establishment of routine screening on participating wards. • Education • Ward Champions • Targets for wards to achieve and rewards/prizes • Unit and hospital newsletter articles to promote program.	1/2016 to 1/5/16 to achieve required 80% screening.
Data Collection • Ward registration folders made available ○ Education provided to wards clerks about program and requesting assistance with recording eligible admitted patients.	BL2

- Ward staff educated/prompted to complete folders throughout the program. - Compliance reported back to NUM's and they also prompted staff. - Staff Satisfaction surveys - Collected throughout the program; marked as either pre or post intervention. - Patient Surveys - Collected in BL2 and in T2 - Undertaken with the assistance of Kathy Flynn, RN on a return work program. - Carer Surveys - Collected in BL2 and T2 - Undertaken with the assistance of [name removed], RN on a return work program. - Some phone surveys undertaken where it wasn't possible to speak in person. Mail out of surveys if this was the carers preference with pre-payed return envelope.	
'Go –Live' commence use of the CII on the wards. - Pre-implementation education. - Supply of the CII - Supply of the CII Information Brochure	25/7/2016
"Cogtober" Competition between wards targeting completion of the cognitive screen and correct use of the CII. - Project officer monitored compliance and if wards able to maintain this. - Afternoon tea provided for wards if targets met. - Increased profile of project at ward level.	October & November 2016
Review of the Mini-Cognitive Test - SITE version not current. - Ward staff reported it was difficult to use and directions on it unclear. - Education included direction about frequently asked questions. - Clock drawing scored separately to the recall in the registration folder to improve accuracy of results, with good effect. - Research current tools.	6/2016 – 4/2017

• Liaised with internal stakeholders regarding updating the Mini-Cog, proposed changes forwarded to Mini-Cog author. • Soo Borson, Mini-Cog author agreed to minor change to current version of Mini-Cog and use in the SITE. • Updated Mini-Cog test with the Safety and Quality Unit SITE, going to through process for endorsement.	
Cognitive Impairment Pathway, Process to have endorsed in Hospital • Cognitive Impairment Pathway has been available in draft on the participating wards to assist staff. • Draft pathway has been reviewed by the SITE EDON and she supports the current document and roll out across the hospital. EDON has requested education in May and June 2017 to support a roll out across hospital in July. • ADON for Education is assisting with planning the education program • Safety and Quality Unit reviewing Cognitive Impairment Pathway and Protocol and assisting with having them endorsed.	Duration of project

3. Personnel involved in project planning and implementation

3.1 Project staff

Staff member	Position	Time involved (EFT)
[name removed],	Project Officer	1 EFT
[name removed],	A/ Director Aged care and Geriatric Medicine, SITE	0.2 EFT
[name removed],	Principle Policy Analyst	
[name removed],	Group Manager (Executive Sponsor)	
[name removed],	NUM, Aged Services Team	
[name removed],	Acting Project officer	4 months (1EFT)
[name removed],	Geriatrician	
[name removed],	Geriatrician	
[name removed],	Admin Support	0.2 EFT
[name removed],	RN, return to work	Variable, assisted with patient and carer surveys.

3.2 Committees and groups

SITE Steering Committee - Dementia Care in Hospitals Program

Purpose:

To provide ongoing advice to the Project Management Team on the implementation and evaluation of the National Dementia Care in Hospitals Program (DCHP).

Role and Function

The Steering Committee is established to provide strategic guidance and monitor performance during implementation of the program.

The functions of the Steering Committee will be to:

- provide strategic guidance in the development and implementation of the program;
- monitor performance, identify issues and provide advice in relation to the implementation of the program;
- identify complementary initiatives and identify potential resources; and
- promote communication between key stakeholders for the successful roll out of the program.

Membership

[name removed], (Consultant Geriatrician);

[name removed], (Consultant Geriatrician);

[name removed], (Consultant Geriatrician);

[name removed], (Nurse Unit Manager,

Aged Services and Assessment Team);

[name removed], (Deputy Executive Director of Medical Services);

[name removed], (Principal Policy Analyst);

[name removed], (Group Manager, Complex, Chronic and Community Service);

Alzheimer's Australia STATE;

[name removed], (Consumer Representative).

Meeting Times:
The Steering Committee met monthly.

Cognitive Care Working Group
Existed prior to the commencement of the project
Purpose**:**

The SITE Cognitive Care Working Group aims to improve communication, consultation, aid with direction and guidance for the implementation of evidence-based quality improvement activities for elderly patients with cognitive problems, following advice from the key stakeholders.

Membership:

- [name removed], (Consultant Geriatrician);
- [name removed], (Consultant Geriatrician);
- [name removed], (NUM Aged Services Team);
- Registered Nurse (Emergency Multidisciplinary Assessment Team);
- [name removed], (NUM: TCP Unit);
- [name removed], (Principle Policy Analyst);
- [name removed], (Nurse Practitioner: Aged Care);
- [name removed], (Occupational Therapist);
- [name removed], (Neuropsychologist);
- [name removed], (Manager, Clinical Classification & Information Services);
- [name removed], (NUM: Acute Older Persons Unit);
- [name removed], (Clinical Nurse Educator); Safety and Quality Unit Rep.

Meetings:

The group has met as required for the past 18 months due to difficulty arranging a schedule to suit enough members. Where there is a need for input/feedback about documents this has been undertaken via email and a member collating this. The working group met on one occasion on the 4/7/16 where the project officer gave a brief about the project and it was agreed the working group would review and provide feedback to the project officer about documents developed for the program. They have reviewed and had input primarily into the Cognitive Impairment Pathway and supporting protocol and the Cognitive Impairment Identifier Brochure

Nursing Leadership & Advisory Committee.

The Nursing Leadership & Advisory Committee is the principal professional nursing committee of THO-S. Provision of Nursing Leadership across THO-S on Nursing and Professional and Clinical governance.

Membership:
Executive Director of Nursing (Chair);
Group Manager Complex, Chronic and Community Service;
Group Manager Medicine; Group Manager Surgery;
Group Manager WACS;
ADON Research, Practice Development;
ADON Education, Practice Development;
ADON Medicine;
ADON Surgery;
ADON WACS;
ADON Complex, Chronic & Community Service.

Project: The project officer gave a brief outlining the project 24/4/16, including the research goals and aim to roll the program out across the hospital and being a lead site for the state.

Surgical Heads of Department Meeting.

Membership: Heads of all surgical departments

Strategic leadership

Attended meeting on the 1/6/16 with [name removed], and gave an overview of the program and planned roll out and content of the education.

4. Other communication strategies used in planning or implementing the project

Wards/Units:

- Ward rounds on each ward most work days, using daily report of admissions to check data collection and prompt RN in charge to follow up compliance.
- Attending ward in-services and meetings; able to answer questions and promote the program.
- Placement of DCHP posters around the wards
- Display board; Project outline, key documents, pathway and goals.
- Display board to show monthly screening statistics on each ward
- Resource folder on each ward with key working documents and process outlined.
- Patient journey boards; highlight patients that needed screening on the ward.

Hospital:

- Unit, medical division and hospital newsletter articles.
- Aged Services Intranet page; resources for hospital staff.
- Nursing and Medical ground round.

Primary Care:

- GP south newsletter article.

5. Training or education activities

Development:

- The education power point provided by the National Project Team was the basis for the education to all staff.
- The screen tool utilised in the SITE was the Mini-Cognitive Test, this was already an endorsed form in the hospital but not routinely used by ward clinical staff. The education for staff administering this was developed in conjunction with the Department of Geriatrics and online resources; e.g. http://mini-cog.com/ ; http://www.alz.org ; http://actonalz.org/
    - Agreement on what constituted a normal clock face in the context of screening.
    - Examples collected to be included in education to clinical staff.
    - Consultation with Stroke Unit about using the Mini-Cog to screen in this population.
    - Consultation with Acute Rehab and Neurosurgery regarding screening in head trauma.
- The existing education being given in the SITE about Delirium screening, prevention and management was reviewed to ensure consistency of content and language.

- Review of the *Better Way to Care: Safety and high-quality care for patients with cognitive impairment (dementia and delirium) in hospital.*
- Review of the ACSQHC Delirium Clinical Care Standard.
- Existing SITE policies and guidelines about Delirium and Dementia were considered to ensure education was consistent with them.

Content:

- Project history
- Rational for adopting the program at the SITE
    - Improved outcomes for individuals and system.
    - Revised National Standards
    - Delirium Clinical Care Standards
- Cognitive Impairment: what this means in the context of the program.
- Routine screening.
    - Mini-Cog
    - How to administer
    - How to score.
- Cognitive Impairment Identifier
    - How developed
    - When to put it up.
    - Incorporating it into practice.
- Key communication strategies.
    - How they apply to you
- Organisation Goals
    - Improved care

Format:

- Education was given in using a power point presentation: there were 2 developed; one for clinical and one for non-clinical. The main difference was less discussion of the screening tool and how to use it in the non-clinical version.
- Education was given face to face and during in-service times for each unit or discipline, by members of the project team.
    - 20 to 40 minutes depending on the mix of disciplines and questions.
- Intermittent attendance at ward hand overs and staff/unit meetings allowed for follow up and gave the staff opportunities to ask questions. In these instances a formal presentation was not used.
- NUM's were asked to raise project at staff meetings and provide feedback for the Project officer about meeting project targets and check for issues that the Project officer needed to address. Project Officer attended some staff meetings when able and to address issues.
- Display board on the units.
        - Project outline.
        - Documents
        - CII information brochure

- The project officer did a ward round most work days; often staff had questions about the program which gave the opportunity for further informal education. Either in small groups or one on one.
- Ward resource folder included.
    - DCHP power point presentation hard copy
    - DCHP staff information sheet.
    - Cognitive Impairment Identifier Information Brochure.
    - Draft Cognitive Impairment pathway
    - Better Way to Care: Safety and high-quality care for patients with cognitive impairment (dementia and delirium) in hospital.
    - "How to talk with patient and family about the screen result and use of the CII" Guide.
- Ward Champions were nominated on each ward.
    - Resource person for each ward.
    - Contact for the project team.

Target Groups: The main focus initially was the wards participating in the project and primarily the nursing staff as they needed to complete the screening and initiate the use of the CII. Overall there were 2 main groups, clinical and non-clinical. The education sessions were open to all staff and at times a mixture of clinical and non-clinical staff were at the same sessions.
Clinical: 83 formal education sessions
553 staff attended but this will include staff who attended more than 1 session.

Non-Clinical: 11 formal education sessions
151 staff attended but this will include staff who attended more than 1 session.

Educators

- Education was booked through the Clinical Nurse Educators on each ward.
- Discipline specific education was booked through department managers
- The education was given by members of the project team.
    - [name removed], Clinical Nurse Consultant
    - [name removed], Acting Clinical Nurse Consultant
    - [name removed], Geriatrician.

6. Other activities undertaken as part of the project

Caring for Patients for Patients with a Cognitive Impairment in the Hospital Setting; Professional Development Day. 7/3/17.

- Study day for clinical staff aimed at improving awareness and skills.
- Advertised across the hospital but priority given to staff on wards participating in the roll out.
- Multiple disciplines attended: Nursing, OT, and Medical.
- Speakers were source from internal and external clinical experts.

0845-0945 (1 hour)	Caring for Patients with Cognitive Issues from an Immigration Background	Hans Schmidt (Migrant Resource Centre)
0945-1030 (45mins)	Palliative Care in End-Stage Dementia	Dr Alison Cleary; Geriatrician
1045-1130 (45mins)	Pharmacological Impact on Cognition	Dr Blair Adamczewski; Geriatrician
1130-1215 (45mins)	Delirium	Leanne Smart; CNC Aged Services.
1300-1330 (30 mins)	Dementia Care in Hospitals Program	Nathan Dadswell-Booth
1330-1415 (45 mins)	Personality Disorders	Dr David Lang, Liaison Psychiatrist
1415-16:30 (2 hour)	Communication, Dementia & Changed Behaviour	Kathy Mason, Alzheimer's Australia

- Attended by 38 staff, numbers were limited to allow for interaction. There was more interest than positions available, the aim is to run other education days and these staff will be advised when training opportunities arise.
- Feedback from staff who attended was positive and staff indicated the day was worthwhile and improved their understanding of topics covered.

7. Other resources expended

Ward Competitions: To achieve buy in from staff at key points in the project and improve the profile, the wards were given targets around screening and CII use to achieve. The project team provided prizes (box of chocolates) to wards when targets achieved.
October 2016 the team ran a competition, called "Cogtober" between the wards to raise the profile of the program and in particular the use of the CII. The prizes for the wards was an afternoon tea through SITE catering, payed for by the DCHP project, once they achieved the targets set.

8. Barriers

What were the main barriers to achievement of project objectives?

Barrier	**Description**	**Impact on project and remedial action** (if any)
Governance structure and implementation plan not completed in the planning phase.	The steering committee and terms of reference was slow to be set up. Project implementation plan not completed in planning phase.	• Project officer commenced roll out and was trying to set up routine screening on the wards at the same time as set up the governance and develop the implementation plan. • Support provided by [name removed] (Project team member) to complete the Steering Committee Terms of Reference and initial draft of the Implementation plan to allow project officer to focus on setting up ward screening.
No existing reporting tool to track admitted patients	Multiple IT systems for tracking patients but no existing way of generating an accurate electronic list of admitted patients	• Worked with Business Intelligence Unit to develop reporting tool. ○ Described data required. ○ Trialled reports and checked for accuracy. ○ Multiple meetings with Business Intelligence. ○ Developed a report and accurate method of generating list of eligible admitted patients
Routine cognitive screening not established prior to the project	The SITE did not have any routine screening for cognitive impairment occurring on the wards prior to the commencement of the BL1 phase	• Initial screening rates low and required a lot of time during the base line period to achieve the 80% screening required. Forced the team to focus on the nursing staff on the participating wards and particularly using the Mini-Cog Test. The broader organisational education and plan had little time spent on it during BL1. • Extra visit from the national project team to meet with key managers and discuss issues and solutions, this helped engage the managers as drivers of the project and achieve the screening target required.

The SITE was finalising Accreditation when the project commenced.	SITE had just gone through the accreditation process and was dealing with the report.	• Ward staff had just been through multiple compliance audits and changes to processes to assist with accreditation. • Staff expressed fatigue with new forms and processes, queried the benefit to patients of all the forms that are required. • Improved with time and education. All education acknowledged the work undertaken by staff and included examples of how awareness of cognitive impairment can assist to improve care.
Hospital Redevelopment	SITE is currently being redeveloped, resulting in participating wards being moved and some amalgamations.	• Uncertainty on the wards about future, high levels of stress and frustration with broader organisational change at times. • New processes for project seen as a lower priority than bigger issues; ward changes and associated uncertainty. • 1BN medical moved locations and had changes to bed numbers during the project. • 2B surgery moved locations • 2B ortho moved and amalgamated with surgical specialties, resulting in a mixture of staffing from both wards. • 6A increased bed numbers and included general medical patients as well as the acute older persons unit.
Accessing forums for staff education for some groups.	The education platform varies for different groups of staff throughout the hospital. The food services and medical orderlies don't have regular sessions for large groups. The senior surgical staff are have been difficult to access for	• Lower rates of education for food services, medical orderlies and senior surgical staff. • Medical orderlies now have monthly education day for staff and this includes a routine session about the DCHP. • Email of DCHP education and outline to Food Services Staff, as well as ongoing booking of small group education. Will be the non clinical group that benefits most from an online learning package. • Email from Dr Frank Nicklason to Senior Surgical Staff outlining the DCHP and including the education session power point presentation.

	group education sessions	Also requested that they attend face to face education when able and if they can provide a forum for group education to advise the project officer.
Compliance with data collection	Completion of the Ward Registration sheet has generally had a low compliance rate apart from 2A surgery.	• Some data lost as patient moved wards or were discharged and there was no record of use of the CII or education for patient or carer. • Time consuming following up data not recorded in the registration folders. • Daily ward round by project officer with list of new admission, quick check of compliance, which also gave the opportunity for education and list of patients was provided to the RN in charge or NUM assisted. • Ward Champions to educate and prompt at ward level. • Feedback to ward NUM's regarding compliance. • Formal and informal education to ward staff about the data collection, especially aims.
Compliance with documentation in patient medical notes	Low rates of documentation of screening, outcome and education in the progress notes.	• Opportunity for handover to other staff not utilised. • No record of education for patient and or family and agreement to have the CII displayed. • Unable to gather this data for project from scanned medical notes when registration sheets not completed • Education included the need for complete documentation. • Ward Champions role included education and prompting of documentation. • Cognitive Impairment Pathway draft on participating wards included direction to complete documentation.

9. Facilitators

What factors were important in helping achieve project objectives?

Facilitator	Description	Impact on project
Work done by the Aged Care Service and Department of Geriatrics prior to DCHP.	SITE has had an Aged Care Clinical Nurse and Department of Geriatrics for many years. Gradually increased the profile of Aged Care and particularly cognitive impairment.	• Existing education sessions for staff about Delirium, screening and management meant there was a baseline level of knowledge and skill on the wards to build on. • Awareness of cognitive impairment in the elderly had already improved in recent years. Increased recognition that more can be done to support people. • Higher profile for the Department of Geriatrics in recent years, better able to promote the project. • Ortho/geriatrics service. Geriatrics Reg round on the Ortho ward daily to review post op patients and pre-assessment clinic review of high risk patients by Geriatric service. High level of staff awareness of the issue of post-operative Delirium on the Orthopaedic ward.
ACSQHC: Revised Standards; Caring for Cognitive Impairment and Delirium Clinical Care Standard	The ACSQHC work re-enforced the benefits of the DCHP and working towards a broad roll out	• THS signed onto the Caring for Cognitive Impairment Campaign, recognition from state-wide executive of the importance of the issue and indirect support for DCHP. • The soon to be released revised National Standards allowed the project team to state the hospital will have to implement routine cognitive screening and improve support for those that screen positive. Helpful when liaising with hospital executive about implementation and sustaining the DCHP.
Project staff familiarity with hospital.	The project team were recruited from the Aged Service Team and Department of Geriatrics within the SITE.	• Able to quickly identify key staff on wards and in departments to recruit to assist with the implementation. • Familiar with existing hospital systems, policy and procedure. • Knowledge of previous work done at the SITE to support patients with Cognitive Impairment and working with existing internal stakeholders

Ward and department managers support	All managers contacted to assist were supportive.	• Access to staff meetings and education sessions. • Signage around wards to promote DHCP. • Provision of data e.g. staff lists. • Project being driven by staff on the ward as well as the project officer.
Executive support	The EDON and ADON's made themselves available to support the project. Followed up with wards regarding achieving project targets	• Access to senior staff to brief them on the project. • Attended meetings with unit managers and re-enforced expectation that targets met. • EDON reviewed Cognitive Impairment Pathway, supporting broader roll out of same. Has set a time table for roll out of screening and use of the CII across the remainder of the hospital

10. Project outcomes

Please list and describe the main achievements attributable to participation in this project

Achievement	Description
Implementation of routine cognitive screening on participating wards.	• Prior to project no routine screening was being done by ward staff of admission. • Mini-Cog test was available as an endorsed hospital document but not routinely used. • Able to achieve 80% of patients 65 yrs. and over being screened using the Mini-Cog and sustain it for the project on most wards.
Implementation of the CII.	• Participating wards now using the CII at the bedside for those that screen positive for impairment. • Education being provided to non-clinical staff, being very well received and staff are positive about contributing to improving communication and support. • CII has been well received on the whole by patients and their families, appreciate the hospital trying to improve care.
Data Collection	• Patient screening and CII use. • Patient, Carer and Staff satisfaction surveys , pre and post intervention. • Sitter data collection. • Staff education, pre and post intervention.

Broader recognition of the prevalence and issues associated with cognitive impairment in hospital for the elderly	• Ward staff are now discussing screen results, aware that they often don't pick up cognitive impairment in a social conversation. • Executive are starting to consider how the revised standards can met and acknowledging that cognitive impairment in the elderly will need to be addressed • Revised admission risk assessment tool that directs nursing staff when completing an admission will include routine screening for patients 65yrs and over using he Mini-Cog and use of the CII for those that screen positive
State wide meeting to start sharing knowledge	• Initial state wide meeting being organised in June 2017, to be attended by the ACSQHC to provide an update on the Caring for Cognitive Impairment Campaign and the changes to the National Accreditation Standards. Representatives from the North and North-West regions will attend; this is on the background of moving to a single statewide health service rather than 3 regions. • Aim is to share what is happening in each area and begin discussing ways we can support each other and share existing work/processes.

11. Maintenance and Sustainability

1. Including routine cognitive screening and the use of CII on the hospital wide admission risk screening tool that is used for all patients admitted to the acute hospital. Revised form is currently in the process of being endorsed.
2. Project officer working with the ADON for Education to incorporate education about the Mini-Cog and DCHP into the education planned for the broad roll out of the new admission risk assessment tool for all nursing staff.
3. Education: Agreement from the ADON managing the hospital online learning platform to assist with implementation of online learning package once available from the National Project Team.
4. Nursing hand over report to include result of the Mini-Cog and CII use, this is generated at ward level for each nursing handover for shift changes.
5. Ward Champions; organised for participating wards. Staff to fill this role on other wards as DCHP more broadly rolled out.
6. Aged Services Team to provide ongoing support to the wards as part of their role, assist with prevalence audits.

7. Aged Services CNC to incorporate support role and be resource for other sites as directed by Executive as part of their substantive position, once project officer role finishes. Ongoing education sessions until online package available.
8. Geriatrician within Department to have ongoing support role, Head of Department, Dr Nicklason, is considering make it part of his role, if not he will allocate it to another Geriatrician.
9. Cognitive Impairment Pathway and supporting hospital Protocol to outline processes for hospital staff and auditing for compliance. Compliance reported back to the ward NUM's and relevent hospital committees.
10. Membership Aged Services Team CNC/Project Officer on the SITE Cognitive Care Working Group.

12. Becoming a Lead Site for the DCHP

The STATE Health Service is currently restructuring from 3 regions to one state wide model to reduce duplication, improve efficiency. This gives opportunity for discussion with stakeholders at other sites about implementing the program and the SITE Executive expectation that where possible there is a state wide approach gives further impetus.

- June 2017 meeting of Stakeholders from South, North and Northwest for an update from the ACSQHC and discussion of current work in each area and opportunities to share resources.

13. Key learnings and reflections

Organisational

- There is generally recognition of the need to better support patients with Cognitive Impairment and start working towards the soon to be released revised National Standards from hospital executive.
- There is limited scope for delivering face to face education to the non-clinical staff in the hospital; online education package is the only realistic way of capturing a high percentage of staff.
- Ongoing education to clinical staff about the value of screening, using the identifier, communication and incorporating this into management/discharge plans will be crucial to the sustainability. If staff do not see that it helps the patient and improves their work day, compliance will likely be poor.
- Non-clinical staff have been the most appreciative of the education, they don't usual receive this type of education and have the opportunity to ask questions. Generally keen to contribute to supporting patients as able and appropriate.
- Undertaking this project as time of large change for the SITE and THS has added to the challenge of engaging staff who are already dealing with

many issues related to the redevelopment and restructuring. At times it felt like the final straw, when staff where asked to take on aspect of the project.

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Personal

- The project has taken me out of my comfort zone as a clinician working on the wards and given me an insight into project management and implementing change within an organisation.
- Improved ability and confidence when presenting education or briefings to larger groups.
- Review and development of policy and procedure, improved skills and awareness of what is required to effectively manage this in the hospital environment.
- First experience with a larger research project, has been a challenge and has greatly improved my ability to work as leader and advocate for Aged Care in the SITE.