



ELDAC acknowledges the Traditional Custodians of the many traditional lands and waters throughout Australia. We recognise the knowledge, strength and resilience of Aboriginal and Torres Strait Islander Peoples, and their continuing connections to land, sea and community. ELDAC pay the utmost respect to Elders past, present and future.

## The ELDAC Digital Dashboard - Tracking End of Life Care Processes and Indicators for Reporting and Clinical Decision Making

**Professor Jennifer Tieman, Co-Lead, ELDAC Project, Flinders University**  
ACSA Quality in Aged Care Online Symposium, 24 April 2022

## What I'm going to cover

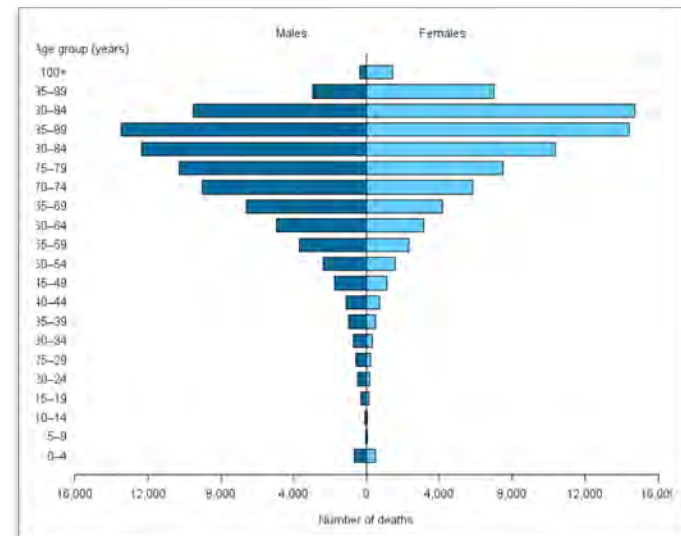
1. ELDAC, ageing, end of life and technology
2. Developing the Digital Dashboard
3. The EDDI Trial
4. Working to embed the Dashboard



# ELDAC, ageing, end of life and technology

## Background

- 1 in 6 Australians are over 65 years (16%).
- Ageing population has complex health and caring needs.
- Overall, 80% of this who died aged 65+ had used aged care in the 8 years before death.
- Almost 30% of the deaths occur in the residential aged care setting.
- We are living longer and dying older.



Source: AIHW National Mortality Database (Table S2.1).

# Technology in aged care

**Administrative**

**Education**

**Telehealth**

**Clinical care**

**Advanced  
technologies**

What about technologies with considerations for end of life care?

## Why a dashboard?

- Innovative approaches can facilitate quality care for those who are at the end of their life.
- A digital dashboard is an electronic interface used to acquire and consolidate data across an organisation. The use of such technology could facilitate quality care for older people at the end of life.



## ELDAC - Facilitating EOL care with technology

End of life Directions for Aged Care (ELDAC) project is a government-funded national project that aims to improve the quality of palliative and end-of-life care provided to older Australians in the aged care sector.



The Technology and Innovations stream of ELDAC is carrying out range of projects to develop and test technology solutions that could help aged care providers to plan and deliver quality end of life care.

ELDAC Technology  
and Innovation for Australian  
aged care and palliative care



# ELDAC Technology and Innovation Projects



## Digital Dashboard

Find out how embedding the Digital Dashboard in your IT system can help you organise end of life care and support your residents or home care clients.

[Learn More](#)



## Care worker App

Learn more about how we are developing a new app to support careworkers who care for clients in their home.

[Learn More](#)



## ProSeek

Search for Australian aged care projects in our database or add your own project looking at end of life in aged care.

[Learn More](#)



## Home care search filter

Discover how you can search for published articles looking at aged care home care research with just one click.

[Learn More](#)



## Online self-care

Visit our online selfcare resource and find out how taking care of yourself is not only good for you but for the people you care for.

[Learn More](#)



## Reports and Reviews

Read our reports on technology and innovation.

[Learn More](#)

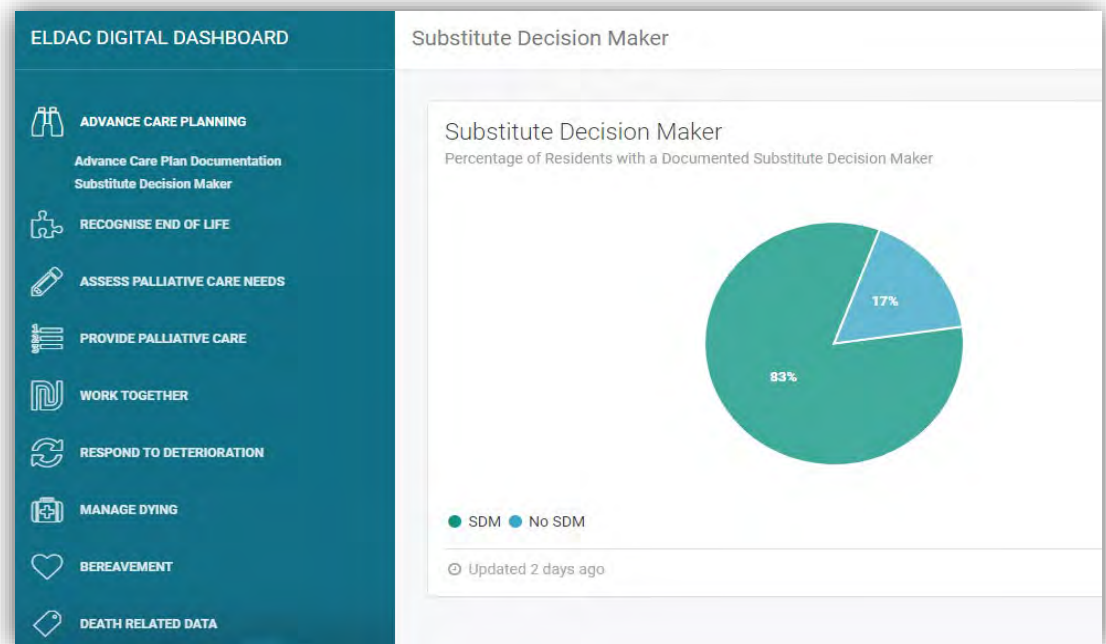




# Developing the Digital Dashboard

# The ELDAC Digital Dashboard

Develop a dashboard to integrate within a service's clinical data management system & provide a framework for quality EOL care planning and provisioning.



## Aims for the Digital Dashboard

- **Adaptable**  
Works with the tools, processes and mechanisms of care already in place at a service/IT system level.
- **Not a stand-alone technology**  
Seamless integration into existing clinical data management system.
- **Evidence based product**  
Based on relevant aged care policy, guidelines and end of life care evidence.
- **No duplicate data entry**  
Dashboard uses data that is collected within the service's IT system, so no need to feed data.
- **Provides real time data**  
No need to wait to view care summaries and prompts.

## The ELDAC Digital Dashboard: A rigorous build process

- A literature review
- Case study interviews
- Review of aged care and palliative care policy documents and alignment with ELDAC Care Model
- Co-design workshop to finalise components
- Development guided by technical team, Technology and Innovations Working Group and Reference User Group

## Cross mapping with National Pall care standards and the ELDAC care framework

	Aged care quality standards relevant to Dashboard	Additional standards	ELDAC framework components	National Palliative care standards 2018
	ST 1- Consumer dignity and choice			
1	1.2 Culturally safe care- involving religious spiritual care and family involvement			St 1 Assessment of Needs
2	1.3 EOL and Advance care planning- include- trigger developing a new one and for re-evaluation of existing one + sharing it with other providers	2.2, 3.3, 3.5	Discuss ACP + Recognise EOL +Assess EOL needs	St 1 Assessment of Needs
3	1.5 Synthesized evidence based summaries for clinicians so they could provide care/education to clients and to support their best practice.			St 9 Staff Qualification and training
4	1.6 Privacy confidentiality and data management policies- devised and made available to end users.			
	ST 2- Ongoing assessment and planning with consumers			
5	2.1a Regular family meetings with the resident involved + external care and services provider- for appropriate care planning (if need be)	2.3	Recognise EOL + Assess EOL needs	St 2 Ongoing assessment and planning with consumers
6	2.1b Risks- need to evaluate and minimise well known risks for each individual- Hospital admission antibiotics, leaves, fall, and polypharmacy.	3.2		
7	2.4 Documentation of care plan and change in status - consider documentation, storage and sharing this change so all relevant providers can access	3.5, 4.4	Working together	St 5 Transitions within & between services
	ST 3- Personal care and clinical care			
8	3.1 Best practice clinical care- Timely and tailored (this means regular evaluation of care goals), and based on evidence (making evidence summary available to all providers- Flags?)		Develop palliative care plan + Manage dying	St 4 Providing care
9	3.4 Identification of deterioration early on- (? EWS Tools??) Physical cognitive and mental decline. (Think of flags and triggers)		Respond to deterioration + Manage dying	St 4 Providing care
10	3.6 Timely referrals to other services as necessary (Consider, what are the triggers for what type of referrals)	4.5	Working together + Develop palliative care plan	St 5 Transitions within & between services
11	3.6 Consider referral and handovers systems that facilitate smooth care transitions and enables comprehensive care delivery process in RACFs		Working together	St 5 Transitions within & between services

## The Dashboard Inclusion items- 'The metric list'

Nine broad items were shortlisted for inclusion:

1. Advance care planning
2. Recognise EOL
3. Assess palliative care needs
4. Palliative care planning
5. Working together
6. Respond to deterioration
7. Manage dying
8. Bereavement
9. Post-death data



## Oversight and the build procedure



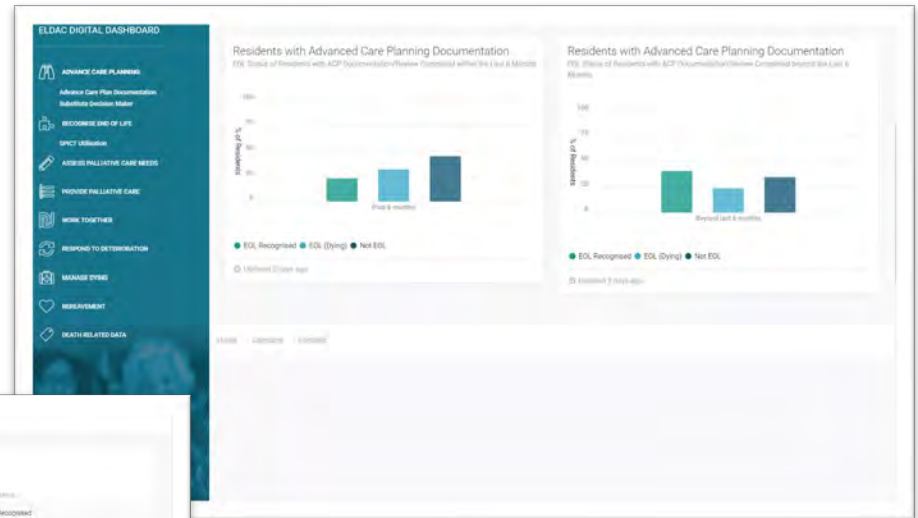
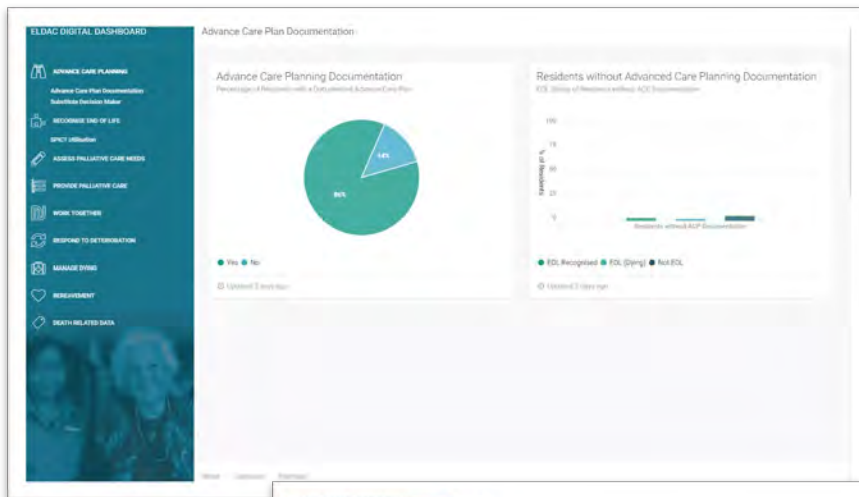
Co-design  
Workshop

Reference  
User group

Dashboard  
working group

- Worked closely with ELDAC Software architect to commence the prototype build
- Prototype versions went through multiple iterations of review and amendment.
- Final version reviewed and approved by the RUG, and Dashboard working group.

# Prototype Dashboard: Example screenshots



**Residents with Advanced Care Planning Documentation/Review in the Last 6 Months**  
Ordered with most Recent Reviewed Entry

Resident	Age	Gender	Recognition
Buddy Campbell	76	Male	EOL Recognized
Daisy Whitlam	72	Female	EOL Recognized
David Cross	79	Male	EOL Recognized
Jordan Lockyer	75	Non-binary	EOL Recognized
Lara Brings	78	Female	EOL Recognized
Mary Beaumont	87	Female	EOL Recognized
Nigel Higginbotham	89	Different identity	EOL Recognized





# The ELDAC Digital Dashboard: Post prototype finalisation

## Engagement with the Aged Care IT Industry (early 2020)

- EOI invited from aged care IT industry to embed the ELDAC dashboard within their system.
- Eight companies submitted and EOI > four embedded it in their system.
- Two companies were able to provide access to the dashboard to their aged care sites immediately.
- A third was able to provide access within the trial period.
- Companies built it into IT system using existing data fields and incorporating any missing data fields. Designed and aligned to the system's native presentation.



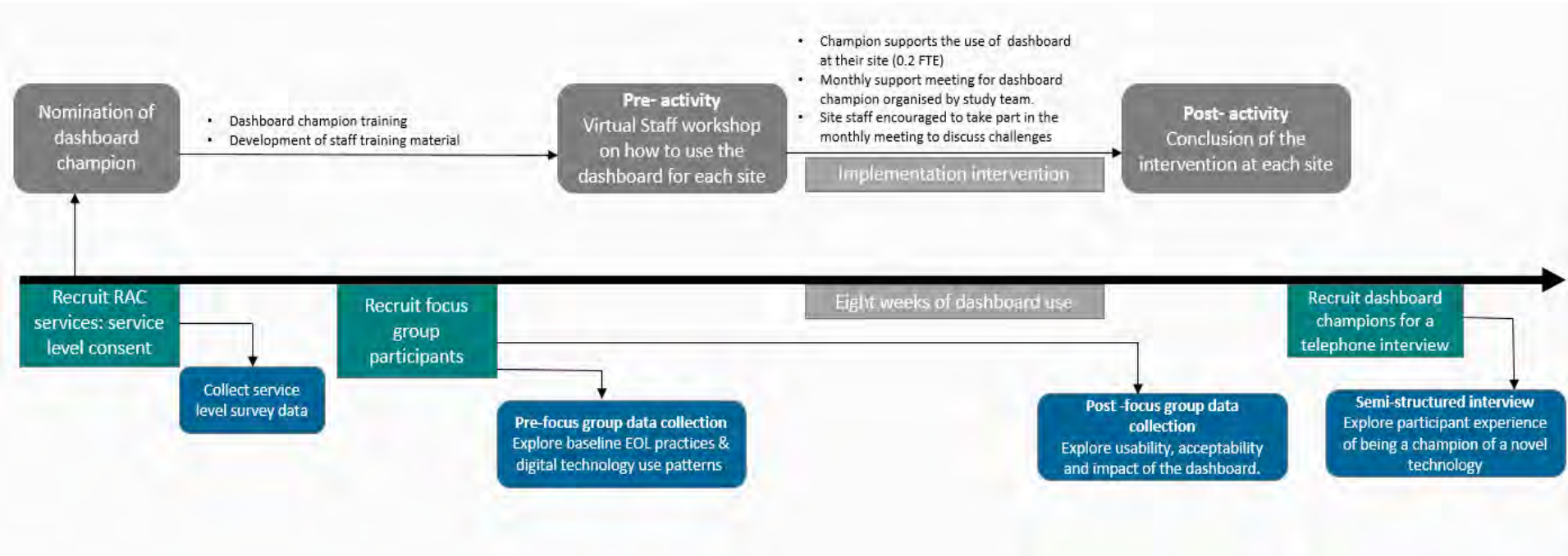
# The EDDI Study

# ELDAC Digital Dashboard Implementation (EDDI) Study

## Engagement with the aged care sector (June- Dec 2020)

- A three-month implementation evaluation study across fourteen residential aged care sites.
- Participating sites had been recruited through the commissioning IT companies.
- Each site was supported by the study team, and a site based 'Dashboard Champion' to ensure appropriate access and use of the dashboard by all relevant site staff.
- Data was collected pre and post.  
Services provided a snapshot of activity.  
Logs of issues and opportunities captured through regular site contact.
- Ethics through Flinders University (Project ID 4432).

# EDDI Study flowchart



## Participants of the EDDI study

Service level: Aged care services with access to the Dashboard



Individual level: Clinicians using the Dashboard



Individual level: dashboard champion of each site

## Evaluating the implementation of the Dashboard

### Who was involved ?

72 staff consented, 57 took part in the focus groups and/or the interviews

- Majority were RNs and ENs involved in direct care provisioning role.
- Between 10-20% were Clinical Nurse Consultants involved in broader care planning role.

### What did we find out?

- Dashboard embedded within existing IT systems provided an opportunity to support existing work processes.
- Dashboard presented a useful mechanism to prompt clinical actions, track care needs and enable reporting to management.

## Results from the Implementation Study

### Results suggest:

- It is feasible to work collaboratively with the residential aged care sector to implement an end-of-life dashboard.
- Participants saw value and found it supported end of life care.
- There is a basis for implementing the dashboard more broadly.





Working to embed the dashboard



# Sharing the Dashboard

## Building awareness

- Webpages and aged care and IT articles
- Supporting materials
- Conference attendances

## Approaching IT and aged care

- 20 show and tell sessions, reviews currently in process
- Working with the sector

## Demonstrating the benefits



### Getting started: ELDAC Dashboard Build

So, you've decided to include the ELDAC Digital Dashboard in your IT system. Congratulations, this will be of great value to your clients and will help them with care planning and reporting.

We've put together a quick guide to get you started.

1. Make sure you have permission from Finders University to build the dashboard using the map of variables and reports. They will provide you with the **Data Variables Guide** and the **Clinical Implementation Guide**.
2. Check what variables already exist in your system that match those specified in the **Data Variables Guide**.
3. Identify any specific fields or documents that you already capture in your system that could show that relevant information is being collected (e.g. SPACTM, Advance Care Directive form, End-of-Life pathway).
4. Identify any missing variables in your system and schedule their inclusion in the system.
5. Create an information architecture for the dashboard.
6. Code to extract required data variables from your clinical system to the dashboard.
7. Complete programming to create the specified relationships between variables to create dashboard displays and reports.
8. Organise a trial of data input and data transfer of the system data variables to the dashboard.
9. Test performance of dashboard displays and specified reports of dashboard elements.
10. Develop email and print capabilities for reports as required.
11. Consider customizing your system by including site specific links and tips.
12. Prepare a support document for services and customers on the dashboard.



Need more information?  
[eldac.project@finders.edu.au](mailto:eldac.project@finders.edu.au)



### Implementing the Digital Dashboard: Queen Victoria Care (Hobart)

- 137 beds
- Leedsfarme, Hobart
- Residential aged care facility
- 175 staff

Located in Hobart, Tasmania, the Queen Victoria (QV) Care Hobart residential aged care facility provides care and services to over 130 residents. With 175 clinical, care, and support staff working together to provide high-quality care to their residents, QV Care identifies palliative care as a key component of the service they provide.

While being in Tasmania has meant that QV Care encounters ongoing challenges in accessing local palliative care services, the team has been keen to rely on the knowledge and expertise of their in-house staff. In recent times, QV Care has adopted approaches including using the ELDAC Digital Dashboard to enhance the quality of palliative care they provide to their residents.

Continuous quality improvement is an ongoing priority for QV Care, who said they signed up to build the ELDAC Digital Dashboard in an ongoing effort to improve their clinical practice in palliative care. When QV Care's IT platform provider integrated the ELDAC digital dashboard, the team adapted the dashboard into their service's workflow without hesitation.

"The ELDAC Digital Dashboard aligned with QV Care's model of person-centred care, helping us to focus on our residents' clinical needs and preferences through data collection, and directly improving person-centred outcomes within our palliative care approaches."

At the service level, the dashboard helped QV Care in fostering a culture of care that brings palliative and end-of-life care to the forefront of the service's caregiving processes. Using the dashboard improved their awareness of the palliative care pathway and the importance of communication and planning throughout. It also assisted in assessment and care planning, directly impacting day-to-day care and outcomes for residents.



### What is the ELDAC Digital Dashboard?

The ELDAC Digital Dashboard (the dashboard) is a system application designed to provide you a comprehensive framework for palliative and End of Life (EOL) care planning and provisioning. The dashboard is based on the ELDAC Care model, and it can be integrated into clinical care systems of aged care services.



The Dashboard helps  
**Clinical staff:** Prompt & prioritise care, reduce gaps in documentation.  
**Managers:** Track performance and carry out audits/self-assessment.  
**Organisations:** Report service level EOL care.

### The Dashboard tracks the following key elements of EOL care

<b>Advance Care Planning</b>	<ul style="list-style-type: none"> <li>Residents without an ACP document.</li> <li>ACP review date.</li> <li>Substitute decision maker review date.</li> </ul>
<b>Recognise End of Life</b>	<ul style="list-style-type: none"> <li>Residents assessed/assessed as being in their EOL stage.</li> </ul>
<b>Assess Palliative Care Needs</b>	<ul style="list-style-type: none"> <li>Residents across different stages of their decline trajectory.</li> </ul>
<b>Provide Palliative Care</b>	<ul style="list-style-type: none"> <li>Residents without a palliative care plan.</li> </ul>
<b>Work Together</b>	<ul style="list-style-type: none"> <li>Residents receiving some form of expert palliative care input.</li> <li>Family conference and review date.</li> </ul>
<b>Respond to Deterioration</b>	<ul style="list-style-type: none"> <li>Hospitalization trend and reasons.</li> </ul>
<b>Manage Dying</b>	<ul style="list-style-type: none"> <li>Residents on EOL care pathway or plan.</li> </ul>
<b>Bereavement</b>	<ul style="list-style-type: none"> <li>Residents or families provided with some form of bereavement or grief support.</li> </ul>
<b>Health related data</b>	<ul style="list-style-type: none"> <li>Place of death, resident's stage classification on the day of their death.</li> </ul>

## What can the ELDAC Dashboard offer care provision?

**Palliative and end-of-life care is core business of aged care**

- The dashboard helps improve, track and report your palliative and end of life care practices.

**Offers the mechanism for you to sustain learnings and achievements visualised and gained via the Dashboard.**

**The ELDAC Digital Dashboard helps:**

- Clinical staff: Prioritise care, carryout relevant EOL care assessment, reduce gaps in clinical documentation.
- Managers: Track performance and carry out audits/self-assessment
- Organisation: Report service level EOL care practices



## Sustaining practice with the ELDAC Dashboard

The data that the dashboard tracks and presents to you are all the data points of interest for the Commonwealth:

- ACP, Substitute decision maker, identifying resident's decline, assessing and providing palliative care etc.
- The system provides information that can be used in reporting

The Dashboard aligns with the ELDAC Care Model

- ELDAC resources can directly support issues identified within the service or organisation
- For “graduating” ELDAC services, the Dashboard can enhance sustainability of changes



## How can your service get the ELDAC Dashboard?

- The ELDAC Flinders team can supply the dashboard prototype codes, integration manual and data variable guides.
- Our team can help you in your dashboard related discussion with your IT provider.
- The Dashboard is not a complicated upgrade and it is part of what all IT companies should be providing.
- Dashboard can be integrated by external IT company OR having a local version built by in-house IT teams.
- If you have an inhouse IT department, they can build the dashboard within their own system without additional resources.

If you are interested in finding out more about the ELDAC Digital Dashboard please contact [eldac.project@flinders.edu.au](mailto:eldac.project@flinders.edu.au)

## What can the ELDAC Digital Dashboard offer?

- End of life/palliative care and technology are two key issues in aged care
- The ELDAC Digital Dashboard can be integrated into clinical care systems.
- It is based on ELDAC Care Model.
- It has been implemented and tested in an implementation study.



**Thank you AND lets stay connected**



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