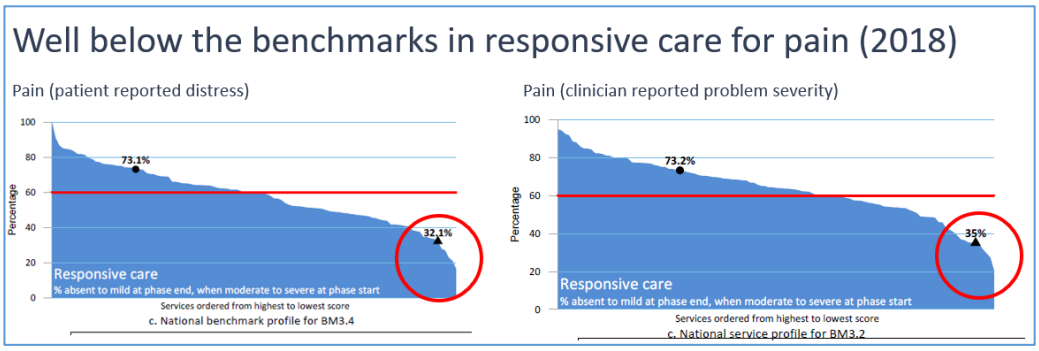
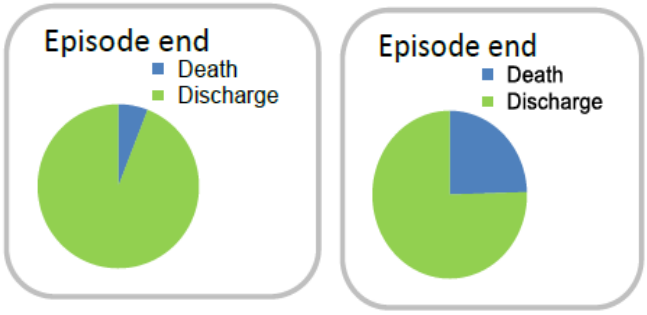
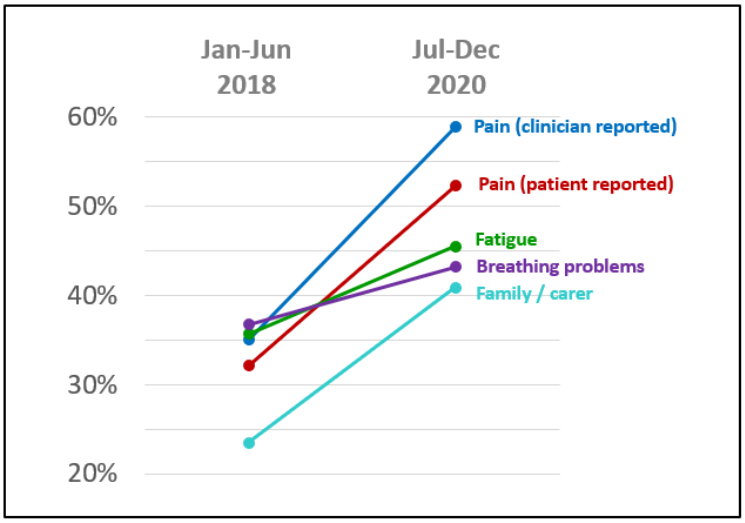
Instructions:

- *Use this template to guide your project and complete your project to report the outcomes*
- *Refer to the Quality Improvement & Change Guide*
- *The report and associated documents are placed in the public domain for other services to use. Please acknowledge the source. If you wish to modify the content, please contact the project coordinator or service directly.*

Service	Ipswich Hospital Community Outreach Team
Outcome Measures	Anticipatory and Responsive Outcome Measures
Project Coordinator	Melanie McBain (NUM)
PCOC Improvement Facilitator	Anna McPherson
Project Time Frame:	Start date: 2018 Finish date: 2020
Project Title	Establishing a palliative care Hospital in the Home (PC-HITH) model to increase patient choice for end-of-life care at home and increase responsiveness to the management of symptoms and problems at home.
Problem Description	The PCOC reports for January to June 2018 revealed that Ipswich community patients were more likely to be discharged to inpatient care than the national average for community services (71% of Ipswich episodes ended with a hospital admission compared to 62% nationally). In particular, the hospitalisation rates were significantly higher for patients in the following phases: - *Unstable phase*: 44% of Ipswich patients were discharged compared to 35% nationally. - *Deteriorating phase*: 73% of Ipswich patients were discharged compared to 27% nationally. Ipswich community patients were also less likely to die at home, with only 6% of episodes ending in death compared to 23% nationally. The report also showed that there was room for improvement on the benchmark results, with the service meeting six of the benchmarks (30%). Of note, the anticipatory pain benchmarks were not achieved and the results for the responsive pain measures were significantly below the benchmark, as highlighted in the circled results in the below figure.  In addition to the evidence in the reports, the service was also motivated by the following factors:

	- Anecdotally, patients and families said that they wanted to receive more care at home but reported that they ended up being sent to hospital after hours and on weekends when there was not an adequate plan in place for managing their symptoms and problems at home. - During consultation on the development of the *Care at the End-of-Life Paramedic Toolkit*, Queensland Health stakeholders, including the Emergency Department and the Queensland Ambulance Service reported delays in providing care because they needed to call the service to access information on existing care-plans. - The hospital was under pressure to show increased efficiency in the cost of delivering palliative care services. It was thus concluded that the current community service model of care was not able to manage patients with more complex or increasing needs in their preferred place of care.
Purpose of the Project	The aim of the project was to adapt the outreach model of care to improve anticipatory and responsive care for patients and families/carers in the community.
Context	The Ipswich Palliative Care Team provide an integrated service to the region, comprised of a 13-bed palliative care unit, a consultation-liaison service, outpatient clinic, and a community outreach team. They service the West Moreton region which has a large geographical area with population of more than 300,000. It is the fastest growing region in Queensland in relative terms, with the population expected to almost double by 2036.
Interventions	The following questions helped to guide the quality improvement process: • Is the seamlessness of our integrated care too convenient for clinicians, at the expense of convenience for patients and their family/carers? • Could our model of care be more patient-centred? • Could we bring hospital care to the patient rather than bringing the patient to hospital? • How could we release time to be more responsive within current resources? • How can we assist patients to stay at home as they deteriorate or become unstable? This strategic questioning led to investigation of the feasibility of implementing a Hospital in the Home (HITH) model for their palliative patients. HITH models were already operational in other settings in the health service, successfully providing short home-based acute care as an alternative to hospitalisation. They determined that by reconfiguring their current resources, and with a small increase in resources for a part-time social worker they could implement a PC-HITH model in the region.

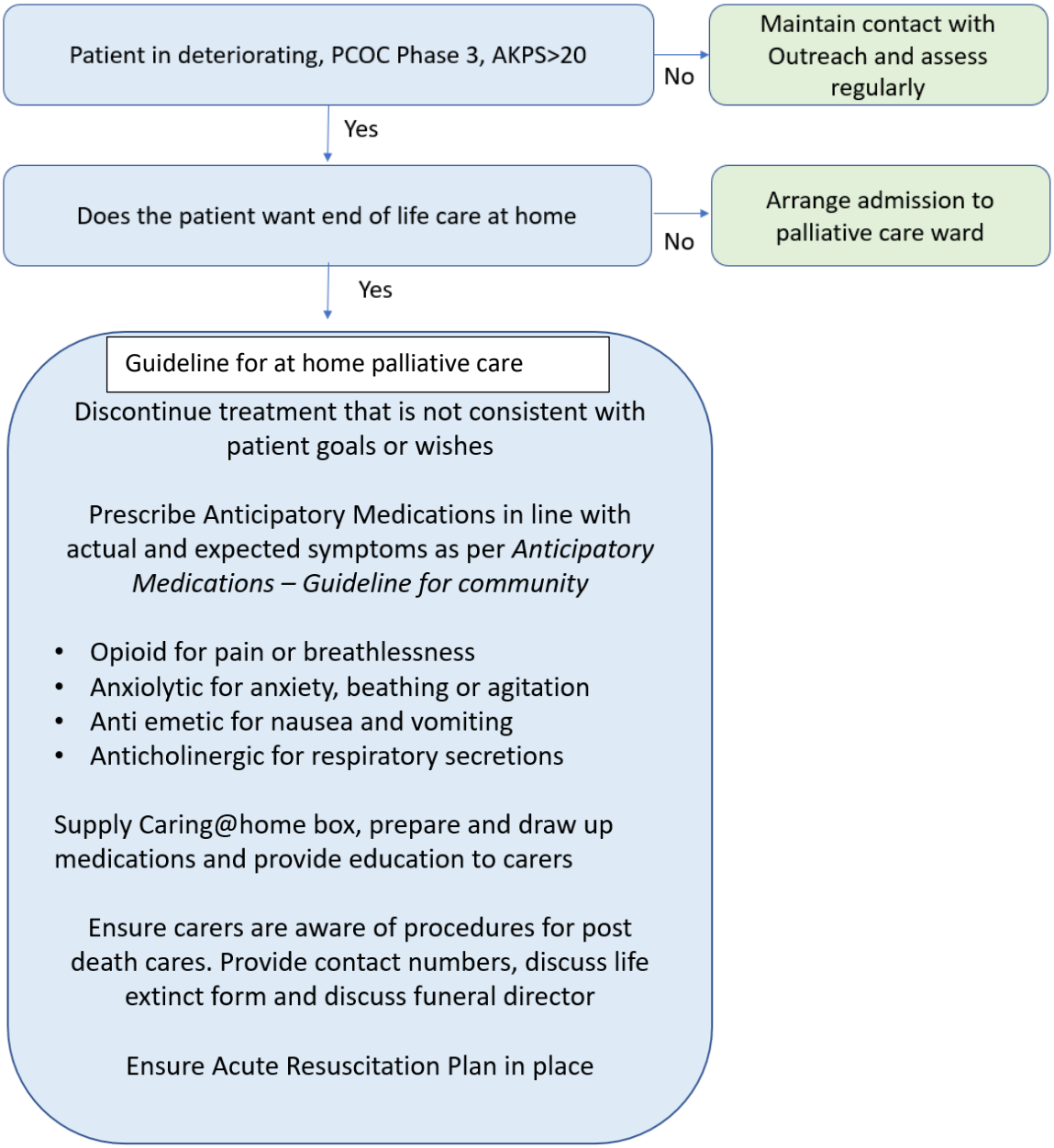
Team/Staff Involved	Melanie McBain (Nurse Unit Manager), Julie Mulligan (Clinical Nurse) and team members of the Palliative Care Outreach Service.
Measures/ Interventions	In January 2019 a virtual ten bed PC-HITH ward was established to deliver intensive hospital-type care to patients at home. Inclusion criteria for patient admissions are: - Unstable phase: requiring daily review and would otherwise be recommended for inpatient care, - Deteriorating phase: requiring daily review and/or titration of end-of-life medications, and/or intensive family support, - Early discharge from hospital: requiring daily change to management, for example this may be a patient who is rapidly deteriorating and wanting to die at home, or a patient who is requiring ongoing symptom management, the majority of which has already been done in hospital. The service also established a pathway to support patients and their families/carers for death at home. This included documenting a plan of care, anticipatory prescribing, consultant review and documenting the patient's wishes in the patient record. Additional support for families/carers was also arranged to include social work intervention and provision of the Caring@home resources. A flowchart titled "*The Palliative Patient Deterioration Pathway*" was created for all patients of the community service (not exclusive of the PC-HITH model) to give staff a protocol to follow when supporting deteriorating patients at home.
Analysis	Hospital utilisation data was used as case in point to establish the need for the PC-HITH model. In the two-year period commencing in January 2019, the PC-HITH model had a total of 321 admissions and a total of 1,621 occupied bed days.
Results	PCOC reports showed a significant increase in the proportion of episodes ending in death in the community, from 5.7% in 2018 to 23.6% in 2020 (see Figure 1 below). In terms of absolute numbers, this represented in increase in the number of deaths supported at home from 7 to 37 in a six-month period. *Figure 1: Episode end mode 2018 vs 2020*  There was also a 10% reduction in episodes ending in hospitalisation mostly impacting patients in the deteriorating phase (45% reduction) and to a lesser extent the unstable phase (7.4% reduction). At the same time, there was also a large improvement in the

	service's performance against the five responsive care benchmarks (these benchmarks measure the success of interventions in improving moderate or severe symptom/s and problems so that they become absent or mild). As shown in the graph below, the service improved across all domains with significant improvement for pain (both clinician and patient reported outcomes) as well as for family/carer problems. **Ipswich Hospital – Community** Responsive Care PCOC palliative care outcomes collaboration  **RESPONSIVE CARE** • Measures response to care needs. • The benchmark for this is 60%
Interpretation	The high number of admissions under PC-HITH shows that there was good uptake of the new model of care. In addition, the PC-HITH average length of stay (ALOS) was 5.05 days, which is significantly shorter than the service's standard community episodes (ALOS 26.5 days) and around 1.5 days shorter than inpatient episodes (ALOS 6.6 days). This may represent a cost saving to the service.
Summary	The increased proportion of patients dying at home demonstrates that the HITH model can support preference for place of care. Furthermore, patients with more complex or increasing needs now being able to be cared for at home and reducing hospital admissions under the new model of care.
Conclusion	The fact that the service was able to reconfigure existing resources and only required a small additional input makes this a sustainable model. For other community services that may consider implementing this model, it should be noted that HITH patients are considered inpatients of the hospital facility and are thus funded through Activity Based Funding (ABF) to the inpatient ward. This was not problematic for the Ipswich service as it is an integrated model but may pose complications for standalone community services.
Outputs	Further information about the PC-HITH model is available in a YouTube video of a narrated slide presentation available here: [improving outcomes through an integrated model of care - Melanie McBain (Ipswich Hospital) - YouTube]

	Another output from the quality improvement project is the *Palliative Patient Deterioration Pathway* (attached as an appendix).

- For further guidance on completing a Quality Improvement project refer to the *Standards for Quality Improvement Reporting Excellence (SQUIRE) Guideline* http://squire-statement.org/index.cfm?fuseaction=Page.ViewPage&pageId=471 .
- *For further information on Australian quality improvement resources visit CareSearch* https://www.caresearch.com.au/caresearch/tabid/5642/Default.aspx

Appendix 1: <u>Palliative Care Patient Deterioration Pathway</u>



https://metrosouth.health.qld.gov.au/sites/default/files/content/s1215_pallconsult_medicinesguidelines_web.pdf

https://www.caringathomeproject.com.au/