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Evaluation of *Residential in Reach*: the perspective of residential aged care

ENQUIRIES

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Abbreviations

ACP	Advance Care Planning
ADL	Activities of Daily Living
AV	Ambulance Victoria
ACEBAC	Australian Centre for Evidence Based Aged Care
AHPRA	Australian Health Professional Registration Authority
AIPCA	Australian Institute of Primary Care and Ageing
ANMAC	Australian Nursing and Midwifery Accreditation Council
CCC	Clinical Care Coordinator
CNC	Clinical Nurse Consultant
CPR	Cardio Pulmonary Resuscitation
DHHS	Department of Health and Human Services
ED	Emergency Department
EN	Enrolled Nurse (previously known as Division 2 in Victoria)
EOL	End of Life
GP	General Practitioner
HITH	Hospital In The Home
HINH	Hospital In the Nursing Home
IM	Intramuscular
IV	Intravenous Therapy
LGA	Local Government Authority
LTC	Long-Term Care
NP	Nurse Practitioner
NSW	New South Wales
PCW	Personal Care Worker
PEG	Percutaneous Endoscopic Gastrostomy
RACF	Residential Aged-Care Facilities
RCL	Residential Care Line
RiR	Residential in Reach
RN	Registered Nurse (previously known as Division1 in Victoria)

UK	United Kingdom
URTI	Upper Respiratory Tract Infection
US	United States
UTI	Urinary Tract Infection

Executive Summary

1. INTRODUCTION

- 1.1 People living in residential aged care now are older, frailer, have multiple comorbidities and are more likely to have dementia than previous cohorts, so the medical and nursing care they require is more challenging and complex.
- 1.2 The Australian Centre for Evidence Based Aged Care (ACEBAC), La Trobe University was commissioned by the Department of Health and Human Services (DHHS) to conduct an in-depth evaluation of the Residential in Reach (RiR) service in the Eastern Health region (Eastern@Home) from the perspective of the users of the service.
- 1.3 The aim of the evaluation was to fully explore and explain why some residential aged care facilities (RACFs) use the RiR service more frequently than others.

2. METHODOLOGY

- 2.1 The evaluation commenced in February 2014 and was completed in December 2015. It employed a qualitative approach to explore in-depth the perspectives of Eastern@Home from those who engage with the service including residential aged care facility (RACF) staff such as nurses and managers, residents, families and the general practitioners (GPs) who provide medical management at facilities.
- 2.2 A scoping exercise of all RACFs in the Eastern Health region was undertaken in February 2014 to determine high and low users of the Eastern@Home service and/or Ambulance Victoria (AV) in the January 2014.
- 2.3 High users were determined to be those RACFs that used the Eastern@Home service or AV six or more times in January 2014. Low users were determined to be those RACFs that used the Eastern@Home service or AV no more than three times in January 2014.
- 2.4 Nine RACFs participated in the evaluation and in-depth interviews were conducted with 87 participants. Participants included nursing staff and managers from these facilities, GPs, and members of the Eastern@Home service.
- 2.5 Interviews were audio-recorded and transcribed verbatim. Content analysis used to determine the (explicit) reasons for the use of the Eastern@Home service, as well as the context and implicit reasons for this use. Extracts from participants responses were used to illustrate the findings of the evaluation contextualised by the participants' designation.
- 2.6 A review of documentation (where available) in participating facilities was undertaken to determine if policies and procedures, including advance care plans, were implicated in the use of Eastern@Home and/or AV.

3. KEY FINDINGS

- 3.1** The Eastern@Home service is extremely well regarded by those who use it, in particular facility care staff and GPs. Facility staff reported that they could not do without the service for information and education, advice and support, as well as hands on clinical expertise and management of acutely ill and dying residents. RACFs use the service to assist with the review and management of an array of acute conditions including: chest, wound and urinary infections; medication orders, especially analgesia for pain management and palliation at end of life (EoL); procedures such as change or reinsertion of percutaneous endoscopic gastronomy (PEG) tubes and urinary (urethral and suprapubic) catheters; insertion of intravenous lines for hydration and antibiotics; and to reduce the inappropriate transfer of the residents to hospital.
- 3.2** However, the findings suggest use of the Eastern@Home service may be a substitute for the clinical nursing care that residential aged care providers should provide under the legislation. This evaluation highlights numerous instances where the intention of the National Aged Care Accreditation Standards may not be met by RACFs, and where these services, as well as some GPs and RNs working in this sector are not fulfilling their roles and responsibilities in the provision of quality health care to aged care residents.
- 3.3** This evaluation found that access to timely and appropriate medical care in RACFs is often problematic, especially when residents are deteriorating and/or dying. GPs are often too busy to attend to the medical needs of residents during business hours and in most instance do not provide after-hours services. The locum services seem to be an inadequate substitution for the medical care needs of residents after hours. These services cannot always respond in a timely manner as they are only available after 10pm at night; and many locum doctors do not understand the residential aged care setting and have little experience managing the medical needs of older and/or dying people.
- 3.4** At the same time that the residential aged care sector has become more challenging due to the complexity of care required by residents, this evaluation highlights inadequate staffing numbers and skills mix in most participating facilities. This has implications for the ability of service providers to provide high quality nursing care as required by residents. The number of registered nurses (RNs) working in the residential aged care sector is declining. RNs working in this sector are older than others working in other health care sectors, and many do not have the up-to-date clinical skills and competencies to assess, plan and manage the care required by residents. Increasingly the residential aged care sector is staffed by personal care workers (PCWs), who provide most of the direct care to residents but are an unregulated workforce with no national competency standards and extremely varied levels of education and training.
- 3.5** The evaluation found that many facilities have implemented policies and procedures that reduce the ability of RNs to work to the full scope of their professional practice, effectively deskilling them. Many of the reasons facilities use the Eastern@Home RiR service were clinical nursing responsibilities that

largely could all be dealt with if there were sufficient numbers of skilled and competent RNs in RACFs. The reasons included: routine wound care; management of intravenous (IV) fluids and administration of IV and/or intramuscular (IM) antibiotics; non-complex palliative and EoL care (especially timely administration of medications for pain relief); management of behaviours associated with dementia; emergency and routine change of urinary catheters; and routine change of PEG tubes. Arguably these are all clinical RN responsibilities that align to the Australian Nursing and Midwifery Board of Australia competencies attained at completion of nursing education as regulated by the Australian Nursing and Midwifery Accreditation Council (ANMAC); and required for registration by the Australian Health Practitioner Registration Authority (APHRA).

- 3.6 Residents do not want to be transferred to hospital when unwell. Their preference is to stay in the RACF - 'their home' - with staff they know and trust. However, most RACF policies and procedures, particularly those relating to the provision of end of life (EOL) care and advance care planning (ACP), are poorly understood and administered by health care professionals at all levels. If there are insufficient numbers of skilled and competent staff to care for residents with high care needs, such as when they require palliative care, in most instances (inappropriate) transfer to hospital is the only solution, irrespective of the residents' preferences to stay in the RACF.

4. DISCUSSION

The findings of this evaluation into the factors that influence the high use of the Eastern@Home service are consistent with issues identified in the literature: the older age and increased acuity of the residents; limited access to timely and appropriate medical care; RACF staffing characteristics which includes the employment of fewer RNs with the skills required to meet the needs of residents; and the wishes of residents to remain in their 'home' facility when unwell.

5. CONCLUSIONS

The Eastern@Home service should not be a stopgap for many of the issues identified in this evaluation, especially the inability to access timely and appropriate medical management, and declining number of RNs and skilled RNs employed in facilities to manage the care of residents.

6. LIMITATIONS

The findings are limited by the small sample size and the self-selected nature of participation which have the potential to introduce biases; and by the particular service evaluated (Eastern@Home) which may not be typical of all RiR services as it is geriatrician led. Despite this, the findings do provide some indicative conclusions and more research is needed.

7. RECOMMENDATIONS

7.1 Changing the staffing characteristics in residential aged care

- 7.1.1** To reduce inappropriate transfer of residents to hospital and the increasing reliance on RiR services to provide care that RNs in facilities should be competent, available and able to provide, the Commonwealth Department of Health as the regulator should make explicit policy around the staffing requirements in RACFs. Strengthened Commonwealth policy would enable RACFs to better adhere to the expressed wishes of residents to remain in the facility. All evidenced by findings of this evaluation. The increased acuity of older people living in residential aged care means RACFs need to be able to provide high quality clinical nursing care. It is essential that service providers consider this increasing resident acuity and as a minimum ensure that sufficient numbers of suitably skilled and competent RNs work every shift, including overnight and at weekends, to provide appropriate resident care and supervise less skilled staff.
- 7.1.2** The evaluation also highlights the need for RNs to be competent in the comprehensive health assessment of the older person. Most nursing curriculum does not include this despite population trends suggesting the care of the older person will become a health priority in Australia and elsewhere. The ability to develop and provide nursing care is dependent on assessing and understanding the needs of the person.
- 7.1.3** There needs to be a career pathway and role for RNs wanting to work with older people in residential aged care, supported by tertiary qualifications, including progression to nurse practitioner (NP), which will provide the specialist skills and knowledge required by the sector which has become increasingly complex and challenging with the increased medical acuity of the residents. NPs would not replace RNs in RACFs, rather as already in place in one participating RACF in this evaluation, act as mentors and advisors to a large workforce of RNs and ENs.
- 7.1.4** There is an urgent need for readily accessible, affordable tertiary education programs aimed at upskilling RNs and ENs working in the residential aged care sector to facilitate high quality care, clinical reasoning and understanding of evidence-based practice.
- 7.1.5** It is vital that the barriers that limit skilled and younger RNs and ENs from working in residential aged care, making it a career, be eliminated. This includes: making aged care a priority in undergraduate and postgraduate nursing education; a more transparent decision-making staffing-framework to assign the appropriate numbers of skilled staff, including RNs, to meet the needs of residents, including being readily available when a residents condition changes or deteriorates or the mandating of nurse to resident ratios in all RACFs not just the publically owned facilities; and remuneration to nurses working in this sector be consistent to remuneration in acute care. An agreed competency framework for nurses and other staff may need to be developed.
- 7.1.6** As the largest direct care workforce in the sector, consideration needs to be given to the development of an agreed competency framework for PCWs. This would make them more effective members of the

health care team by increasing their ability to recognise any deterioration in the health of residents, and enable them to more confidently report to nurses.

- 7.1.7** The findings of this evaluation indicates a need for the Commonwealth Department of Health to review its systems for monitoring the accountability of RACFs to ensure that aged care providers deliver sufficient care and resources (staff and equipment) for optimal resident care aligned with current requirements.

7.2 Improved discharge planning for residents in acute or emergency settings

- 7.2.1** To reduce the need for use of the RiR services and readmission to acute care or EDs there needs to be improved discharge planning of residents from these settings. This includes better understanding and consideration from medical and nursing staff in these settings that residents are returning to their 'home' with limited access to immediate medical management, medication orders and pharmacy supplies.
- 7.2.2** Enhanced communication processes are also paramount when residents are discharged from hospitals. Appropriate handover information for RACF staff especially medication orders and advance care plans would greatly improve the continuity of care for residents. RACF staff and the Eastern@Home service report that when a resident is discharged from the ED or acute care there are times when no accompanying medical orders, medications etc are provided and the facility staff are unable to get the GP or locum.

7.3 End of life (EOL) care and advance care planning (ACP) in residential aged care

- 7.3.1** To provide person-centred quality health care RACF nursing staff, GPs and the locum service require further education about the recognition of the EoL care needs of older residents, particularly pain management and PRN medications. This education must include better understanding of the core concepts of ACP, EoL care and/or palliative care. The most recent Government initiatives and empirical research indicate better outcomes for residents and families, as well as facilitation with decision-making for health professionals, if ACP is done well.
- 7.3.2** RACFs should be encouraged to initiate discussions about ACP with residents and their families and if acceptable (to the resident and their family) support them to develop advance care plans. ACP needs to be an ongoing process of conversation involving all parties - resident, family, staff and doctors, with reviews undertaken, at a minimum, annually. Documentation, staff education and quality assurance are key to this process. Successful ACP is dependent on the facility having an organisational commitment to delivering person-centred care, which includes resident participation in decisions about their care.
- 7.3.3** More community education about EoL care pathways and ACP is also required. This should include open and frank discussions about respecting resident choice to ensure that residents' wishes about treatment, are respected and unnecessary interventions are avoided.

7.4 Providing access to timely and appropriate medical care in residential aged care

- 7.4.1** This evaluation found that much of the reliance on the Eastern@Home service is related to a lack of access to timely and appropriate medical care. GPs are not on site in RACFs, are commonly unavailable during the day due to the pressures of general practice, and do not provide afterhours medical services. RACF staff report that: the locum service is an inappropriate substitute for GP due to the time it takes for locums to attend; many locums have little experience with older people; and many locums do not understand the residential aged care sector or know the residents. Serious consideration needs to be given to the need for a ‘new’ model of medical care in residential aged care because of the increased complexity and acuity of residents.
- 7.4.2** One option could be that nurse practitioners (NPs) act as consultants in RACFs when GPs, locum doctors and RiR services are unavailable. This may alleviate the lack of access to timely acute care in RACFs, especially medication review and pain management for palliation; and may be a cheaper option than the introduction of facility-based GPs or geriatrician-led hospital in the home (HITH) programs.

8. *More research need*

The findings of this study provide some indicative conclusions. However, the small sample size, the site for evaluation (Geriatrician-led RiR service) and the lack of data on annualised usage of both services, make it difficult to suggest the findings can be generalizable. More research is need.

1. Introduction

In 2014, with funding from the DHHS, ACEBAC commenced an evaluation of the Victorian RiR service in the Eastern Metropolitan Health region - Eastern@Home - from the perspective of the users of the service including RACF staff, GPs who provide medical management to facilities, residents and families and the Eastern@Home service team. The RiR services provide acute hospital-type care (nursing and/or medical) to older people in RACFs in circumstances where the residents' care can be safely and appropriately managed in the facility. The aim of the evaluation was to fully explore and explain why some RACFs use the RiR service more frequently than others.

The RiR program was introduced primarily to reduce the unnecessary or inappropriate transfer of residents to local acute care hospitals, in particular to EDs. The key objective of the services is the provision and management of safe and appropriate care for residents in their home environment at an aged care facility. In Victoria, there are 25 RiR services operating - Alfred Health, Austin Health, Bairnsdale Regional Health Service, Ballarat Health, Barwon Health, Bass Coast Regional Health, Bendigo Health, Eastern Health, Central Gippsland Health Service, Echuca Regional Health, Goulburn Valley Health, Latrobe Regional Hospital, Melbourne Health, Mildura Base Hospital, Monash Health, Northern Health, Northeast Health Wangaratta, Peninsula Health, Southwest Health Care, St Vincent's Hospital, Western Health, West Gippsland Healthcare Group, Werribee Mercy, Western District Health Service, and Wimmera Health Care Group. The RiR service is available to all registered RACFs located within the health service's catchment in metropolitan areas. In regional and sub-regional areas, the catchment area for the RiR program is determined locally by the health service.

The Victorian RiR program consists of different models and variable service availability e.g. none of the sub-regional health services offer a seven day a week RiR service. However, most services are available between the hours of 8am to 4.30pm, to provide:

- On-call telephone support and advice to RACF nurses when a resident becomes unwell
- Visits to facilities to provide acute nursing and/or medical assessment and care of residents, support for aged care staff, and potentially management of resident transfer to hospital
- Visits to EDs and hospital wards to identify residents and facilitate discharge to RACFs through liaison with hospital staff
- On-going education of RACF staff on the acute management of residents.

The first evaluation of the Victorian RiR program undertaken in 2009 concluded that the program was 'well regarded by all stakeholders' and 'assists in the avoidance of unnecessary ED presentations' by residents [1]. More recently, research has demonstrated that the Victorian RiR programs, especially those services that are geriatrician-led, [2] have improved patients' outcomes, including significantly reduced hospital admissions [3].

Similarly, a Victorian medically intensive HITH service used to treat residents with nursing home acquired pneumonia, was found to be a safe and effective alternative to hospitalisation [4]. Evaluation of a similar program in Queensland, the Hospital in the Nursing Home (HINH) service, found that the service reduced resident transfers to acute care services and decreased length of stay in hospital and was moderately cost effective [5]; and in New South Wales (NSW), a nurse-led telephone support service also reduced the number of presentations of older people from RACFs to EDs [6, 7]. While recent research in Western Australia undertaken by Arendts and colleagues [8, 9] with residents and family members, GPs, RACF staff and ED physicians, found multiple interrelated factors influencing the transfer to hospital of residents, very little is known about the RiR programs from the user perspective [5, 10].

This report provides some explanations for the high use of the RiR service in one Victorian health care region and the usefulness of the service from multiple users' perspectives. The report also illustrates emerging issues in the provision of aged care services with the increased acuity of older people living in facilities including: the education and support needs of nursing staff; the impact of the staffing mix on residents' outcomes, especially transfers; limited access to timely and appropriate medical care; and the implication of individual facility policies for ACP and EoL care in this sector.

2. Background

Australians are living longer and as a consequence an increasing number of Australians will require formal aged care services [11] including residential aged care. Australia's ageing population [12] is accompanied by multiple chronicity and increasingly complex needs [13]. Meeting the increased care and support needs of a growing ageing, and increasingly infirmed, population is a critical challenge; especially ensuring a skilled workforce to provide care and access to timely and appropriate medical management. Currently, in Australia an estimated 180,000 people live in RACFs and over half are aged 85 years or older [13]. Older people living in RACFs have higher rates of dementia than the estimated prevalence rates for their age in the community; therefore high-level care is required for the complex health needs of residents especially to manage the behaviours associated with dementia, and to assist with activities of daily living (ADL) [13]. The current residential aged care workforce consist of a mix of RNs and ENs, who are regulated health professionals with a scope of practice outlining their roles and responsibilities, and increasingly, nursing assistants and personal care workers who are unregulated.

The high rate of resident hospital admissions from aged care facilities in Australia [14, 15] is associated with long hospital stays, poor outcomes, and high rates of re-admission [16, 17]; and there is increasing evidence that many of these admissions are unnecessary [18]. The literature suggests that some transfers to hospital of aged care residents could be avoided with appropriate primary care and that the decision to transfer a resident is often based on the limited clinical skills of nursing staff, and/or a lack of resources in the RACFs [8, 9, 19-23]. Factors emerging from the literature associated with the decision to transfer a resident to hospital relate to staffing,

residents and family issues, facility resources and the availability of medical care. Specifically these factors include the:

- Acuteness of the resident's condition
- Level and timeliness of medical care available to staff including communication with key-decision makers such as doctors
- Staff characteristics such as the number of staff, their qualifications and the overall skills mix, and in particular insufficient numbers of RNs who can assess and manage an unwell resident
- Inadequate facility resources including access to equipment to manage the resident in the facility
- Policies and procedures that limit the clinical care that could be provided for a resident in the facility
- Inadequate or absent facility policies and procedures to assist with decision-making regarding management of residents and advance care planning (ACP)
- Role of the resident's family in decision-making and staff concern about family criticism for not transferring to hospital
- Availability of support from other health services such as psychiatric outreach and wound specialist services.

In an effort to reduce the pressure placed on EDs by unnecessary and inappropriate transfers of residents from RACFs, hospital avoidance programs have been introduced in Australia and elsewhere.

2.1 International and Australian Hospital Avoidance Programs

International hospital avoidance programs for residential aged care have expanded over recent years. One of the earliest programs that successfully reduced transfers, hospitalisations and medical costs was introduced in the United States (US) in the 1990s [24] and involved a gerontologist physical assistant visiting a nursing home three to four times a week to provide acute medical care. More recent US programs include the provision of primary care to residents and education to staff in nursing homes by a gerontology NP [25, 26] and the introduction of advanced practice registered nurses in nursing homes to coordinate care [27]. In the United Kingdom (UK), hospital avoidance programs include a multi-disciplinary In-Reach Team providing nursing and physiotherapy support [28]; and mental health specialist in-reach nurses who regularly visit the RACFs to review residents who are displaying need driven behaviours [29]. New Zealand has also introduced a facility-based program that involves a gerontology nurse specialist delivering education to staff, reviewing residents, and conducting residents care management discussions with a geriatrician, GP, pharmacist and a facility RN [30]. In Spain, comprehensive geriatric assessments, medication revisions and education to aged care staff is provided by a team of specialist nurses and doctors [31]; and the Canadian Mobile Long-Term Care Emergency Nursing Program based in local hospital EDs, offers acute care services to RACFs [32].

A number of Australian programs have also been introduced over the past decade. The HITH service in Queensland was extended to include RACFs through the HINH program and involves specialist aged care nurses

working with GPs to reduce or prevent unnecessary hospital admissions [5]. In Western Australia, the Residential Care Line (RCL) service consists of a nurse-led 24-hour telephone triage and clinical advice line, and outreach service to RACFs where necessary [33]; and New South Wales introduced a nurse-led aged care emergency service offering telephone support and clinical guidance to RACF staff and case management of the resident if transferred to the ED [6, 7].

To date evaluations of the international and Australian programs have primarily focused on cost effectiveness and impact on hospital admissions - all programs have proved to be cost effective and all bar one [30] have reduced hospital admissions from RACFs. Other important outcomes emerging from these evaluation include the:

- Early detection and prompt management of acute illness in residents, which while initially costly, is cost-effective in comparison to hospitalisation
- Improved quality of life of residents through early detection and management of illness, continuity of care in place, and avoidance of hospitalisation
- Increased professional knowledge and clinical skills of staff through education, up-skilling and involvement in care planning associated with the programs
- Better policy and planning at RACFs through staff education.

2.2 The Eastern Metropolitan Health Region

The RiR service in the Eastern Metropolitan Health region Eastern@Home, was chosen at the suggestion of the DHHS, as the site for the evaluation of the RiR program in Victoria, as it was the only geriatrician-led service at the time and therefore considered likely to have the capacity to respond to a greater range of resident needs.

The Eastern Metropolitan Health region is the largest geographical catchment area of any metropolitan health service in Victoria. It covers an area of 2,966 square kilometres and includes the inner suburbs of Kew and Hawthorn, large outer metropolitan suburbs such as Croydon, and the semi-rural township of Healesville (see Figure 1). The region comprises the inner eastern Local Government Areas (LGAs) of Boroondara, Manningham, Whitehorse and Monash, and the outer eastern LGAs of Knox, Maroondah and Yarra Ranges. The estimated population of this health region was 1,029,481 in 2011, more than 26% of whom speak a language other than English, and the population has the highest life expectancies compared to all other Victorian health regions [34, 35]. The proportion of the population aged over 65 years in the Eastern Metropolitan Health region is expected to grow to 18.4% by 2020, up from 15.5% in 2011. Compared with the Victorian average (48%), more of the population (59.7%) in this health region have private health insurance [36]. The Eastern Health region has a slightly above average rate of high-care residential aged care places and there are an estimated 1.3 GPs for every 1000 people.

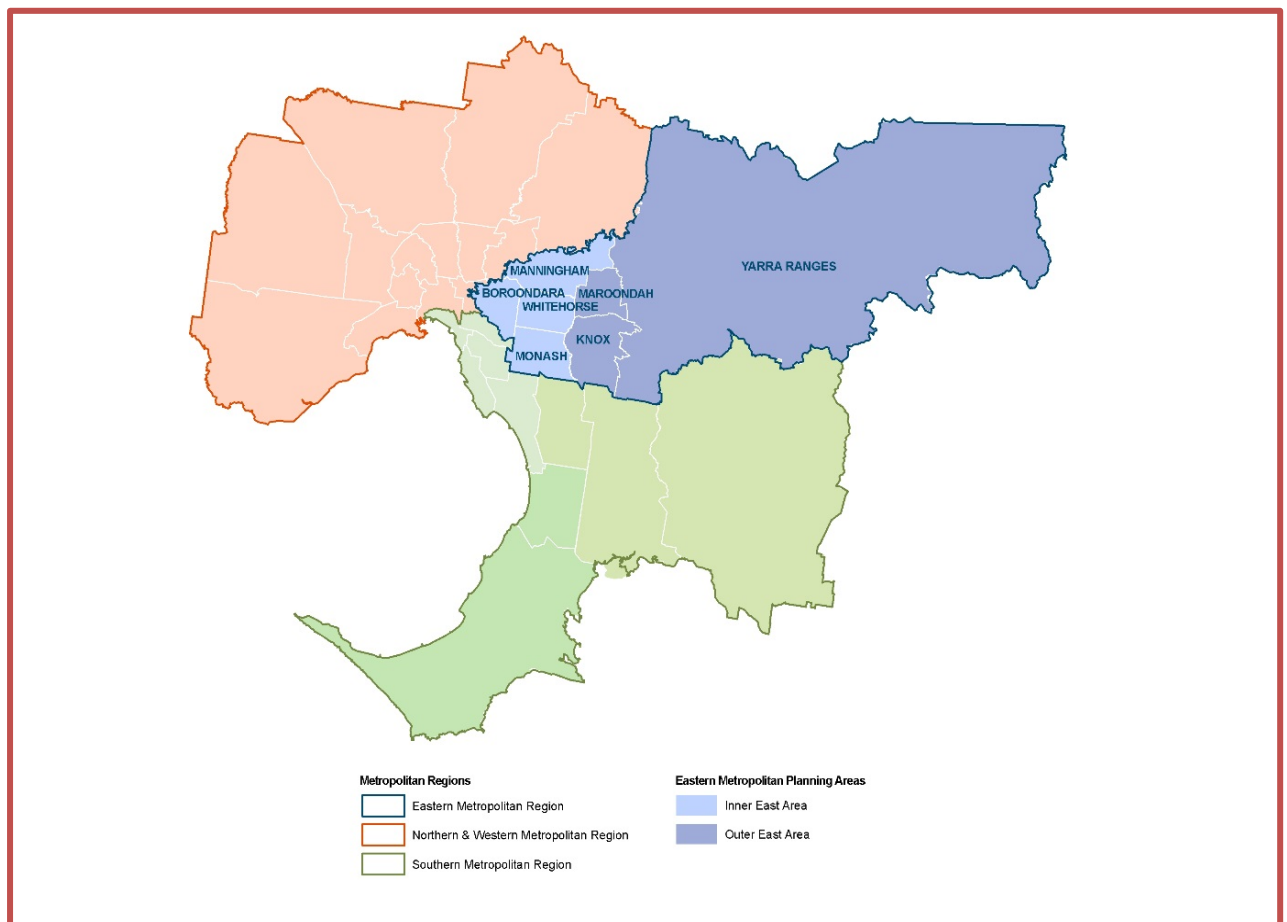


Figure 1: Eastern Health Region

Source: Department of Health and Human Services

2.3 The Eastern@Home Service

The Eastern@Home service aims to support residents in their home environment when unwell and to assist staff with the management of these residents when the GP or the locum service is unavailable, providing an alternative to transfer to the ED or admission to hospital. The service is comprised of clinical nurse consultants, RNs, a geriatrician and medical registrars. Referrals to the service are triaged and followed up by these specialist nursing and medical staff as required. Services provided by Eastern@Home include: medical assessment of acute conditions; phone support and advice to RACF staff about clinical decision-making; and/or a nurse/doctor/geriatrician visit if required after consultation with staff and the resident's GP. The service operates seven days a week between 8am to 4.30pm and accepts referrals for the following acute conditions and resident issues: infections such as upper respiratory tract infections (URTIs), UTIs, cellulitis and gastroenteritis; routine change of PEG tubes; urinary (suprapubic and urethral) catheter problems but not routine changes of catheters; wound complications; and palliative and EoL care [37]. In 2012-13, the Eastern@Home service achieved a significant reduction (23% to 7%) in preventable unplanned readmissions to acute inpatient services [37].

2.4 Residential Aged Care Facilities

Residential aged care in Australia is delivered by not for profit (religious, charitable, and community), for-profit (private), and public sector (a mix of State and local governments) providers. In Victoria for-profit facilities comprise the largest (51.5%) group of providers [38]. In Australia, aged care is largely funded and regulated by the national government. Recent policy reforms focus on supporting older people to live independently in their homes, and building a stronger aged care workforce [38]. The 2,689 Australian RACFs are governed by national Aged Care Accreditation Standards in accordance with the *Age Care Act 1997*. Additionally, the Schedule of specified care and services outlined in the Quality of Care Principles under the Act, clearly define the responsibilities of RACFs in respect to care and services for residents, including the role and responsibilities of facilities to provide adequate nursing staff who can assess, plan and co-ordinate the care of residents [39].

Standard Two of the Aged Care Accreditation Standards outlines the responsibility of RACFs with regard to the health and personal care needs of residents including the “*provision of appropriate clinical care by staff with the knowledge and skills*”, particularly “*specialised nursing care needs identified and met by qualified nursing staff*” [39]. The most recent annual report from the Aged Care Complaints Commissioner shows an 11% increase in complaints about care in RACFs between July 2015 and June 2016, compared to the number of complaints received in the previous 12 month period. Complaints related to inadequacies in clinical care, particularly the administration of medications, continence management and residents’ choice and dignity [40].

3. Methodology

This evaluation explored the various circumstances prompting the use of the Eastern@Home service by nine RACFs, including the influence of advance care plans, as well as facility policies and procedures. A qualitative approach was used to explore the views and experiences of the service from those who engage with it such as facility staff, residents and families and the GPs who provide medical management at these facilities. Doctors and nurses working in the Eastern@Home service also participated in the evaluation.

3.1 Ethics Approval to Conduct the Project

Ethics approval to undertake the evaluation was obtained from the Eastern Health Research and Ethics Committee (E35/1314) and La Trobe University Human Research Ethics Committee (HREC). As a requirement of the approval from the Eastern Health Research and Ethics Committee (E35/1314), a letter of agreement to support the evaluation and give permission to staff to participate was obtained from each of the nine facilities prior to recruitment of participants and written informed consent was obtained from each participant before interview. The initial ethics approval from Eastern Health was to recruit four RACFs to participate in the evaluation and an expedited approval was sought from La Trobe University Human Research Ethics Committee. Towards the end of 2014, in consultation with the DHHS, it was agreed that an additional five RACFs would be

approached to participate to increase the total number of informants. To increase the number of RACFS, a modification to the original ethics approval was received in December 2014 from both the Eastern Health and La Trobe University HRECs.

3.2 Study Design and Recruitment

The evaluation employed a qualitative study design and data collection included:

- A scoping of all RACFs within the Eastern Metropolitan Health region to determine their use of the Eastern@Home service and AV to transfer residents to hospital in one month (January 2014) and the average use over the past six months
- Interviews with RACF staff (managers, RNs and ENs) involved in decisions about the transfer of unwell residents, residents who have used the service and their families, GPs who provide medical management to these facilities, and RNs and doctors working in the Eastern@Home service
- A review of RACF policies where available that may influence hospital transfer.

In February 2014, all RACFs (107 at that time) operating within the Eastern Metropolitan Health region were contacted and asked to estimate their use of the Eastern@Home service in the previous month to determine criteria for possible involvement in the evaluation. The following criteria was used to determine which facilities to invite to participate:

- **Low** use of the RiR service and **Low** use of AV to transfer residents to hospital
- **Low** use of the RiR service but **High** use of AV to transfer residents to hospital
- **High** use of the RiR service and **Low** use of AV to transfer residents to hospital
- **High** use of the RiR service and **High** use of AV to transfer residents to hospital

Low use of the Eastern@Home and AV services was determined to be zero to three contacts per month and high use was six or more contacts per month. This design enabled a comparison between high and low users of the Eastern@Home service to more fully explore factors influencing high use.

Recruitment strategies at all sites included liaison with a single staff member, usually the manager or clinical care coordinator (CCC) and the provision of information about the evaluation and what participation involved. Site visits were made by the research team to further elaborate on the evaluation and clarify any queries prior to participation. The facility liaison assisted with identification of potential informants (staff, residents, families and GPs) and in consultation with the research team organised possible interview dates and times, and provided copies of relevant facility policies and documents (see Table 1). Commencing in July 2014, interviews were conducted with RACF staff, residents and their families and GPs who agreed to participate at the first four sites. After these interviews had been analysed, it was determined that residents and families had little to offer about the use of the RiR service either because they could not remember the episode of care (residents) or were dependent on the facility staff or doctor to make a decision about the episode of care (families).

Site ID	Type of Provider	No of Beds	Level of care	*Use of RiR	*Use of AV	Staffing Characteristics	After Hours Medical Cover
1000	For Profit	120 (22 dementia specific)	High	High (n=20)	High (n=16)	AM: 2 RNs, 3 ENs, PCWs PM: 1 RN, 3 ENs, PCWs ND: 1 RN, PCWs 5-10 Agency staff shifts per week	No GP after hours cover No locum service at time of evaluation
2000	Not for Profit	100 53	High Mixed	High (n=9)	Low (n=2)	AM: 1 RN, 4 ENs, PCWs PM: 4 ENs, PCWs ND: 2 ENs, PCWs Has NP who works Monday to Friday (9am to 5pm) ENs work as CCC 1-2 Agency staff shifts and 20 bank staff shifts per week	GPs and Locum Service
3000	For Profit	90	High	Low (n=2)	Low (n=0)	AM: 1 RN, 2 ENs, PCWs PM: 1 RN, 2 ENs, PCWs ND: 1 RN, PCWs	GPs and Locum Service
4000	Public Sector	30	High	Low (n=0)	High (n=10)	CCC/RN AM and PM AM: 1 RN, 5 ENs PM: 1 RN, 4 ENs ND: 1 RN, 2 ENs	GPs and Locum Service
6000	Not for Profit	150 (28 dementia specific)	Mixed	High (n=6)	High (n=10)	CCC/RN Monday to Friday (9am to 5pm) 1 RN every shift in each unit (x 3) every day	Locum Service
7000	Not for Profit	90 (30 dementia specific)	High	Low (n=1)	Low (n=2)	AM: 3 RNs, 2 ENs, PCWs PM: 2 RNs, 2 ENs, PCWs ND: 2 RNs, 2 ENs, PCWs	GPs and Locum Service Also use another Residential In Reach service
8000	Not for Profit	109	Mixed	High (n=14)	Low (n=2)	1 RN every shift weekdays but not at weekend Regularly use bank and agency staff	Residents do not always have own GP GPs often not available afterhours Locum Service
9000	For Profit	75 (12 dementia specific)	Mixed	High (n=5)	High (n=4)	Clinical Care Manager/RN Monday to Friday (9am to 5pm) AM: 3 ENs, PCWs PM: 1 RN, PCWs ND: 1 RN, PCWs Weekends: 1 RN AM only	GPs and Locum Service
10000	For Profit	64 (9 dementia specific)	High	Low (n=2)	High (n=6)	CCC/RN Monday to Friday (9am to 5pm) and on call AH 1 RN, 1 EN every shift plus PCWs	GPs and GP run Locum Service Also use another Residential In Reach service

Table 1: Participating Residential Aged Care Facilities

**In one month (January 2014)*

AM = morning shift, PM = afternoon shift; ND = night duty, AH = after hours.

In December 2014, an additional five RACFs were identified according to the criteria listed above and approached to participate (See Table 1) but only care staff, managers and GPs were invited to be interviewed. On completion of the project in December 2015, 87 participants from nine RACFs, as well as staff from the Eastern@Home service, had been interviewed (Table 2). Participants included: 29 RNs and 20 ENs who are directly involved the decision or not to transfer a resident to hospital; three facility managers; nine clinical co-ordinators; two RNs working in the Eastern@Home service; four GPs who manage the medical care of residents, as well as a geriatrician and medical registrar from the Eastern@Home service; and eight residents and ten family members who had experience of the service.

Table 2: interview Participants (n=87)

* Site 5 is the Eastern@Home service

Site	1	2	3	4	*5	6	7	8	9	10	Total
Participants											
Facility Manager	1						1		1		3
Clinical Coordinator	1	1	1	1		1	1	1	1	1	9
Registered Nurse	2	1	1	4	2	2	8	8	1	2	31
Enrolled Nurse	2	5		2			2	5	2	2	20
Resident	2	3	1			2					8
Family	2	2	2	4							10
Geriatrician					1						1
Doctor		1	1				1			1	4
Registrar					1						1

3.4 Data Analysis

All the interviews were digitally audio-recorded and transcribed verbatim by an independent transcriber. All names of individuals and organisations were removed from the transcripts to maintain anonymity, and all participants were allocated a unique identifier. As this was an exploratory study, content analysis, a method for analysing text data by counting various aspects of the interview transcripts, was used.

Qualitative content analysis is more than merely counting words, it examines the language intensely for the purpose of classifying large amounts of data into categories that represent similar meanings [41] providing a more objective evaluation of the overall content. The interview transcripts were analysed individually with the main ideas of the text as delineated as primary content and the context information as latent content [42]. Content analysis involves inductive identification and description of explicit and implicit themes emerging from the data [43]. Direct quotes were retrieved from the transcripts to illustrate the findings. Strategies used to establish rigor included checking of transcripts against recordings for transcription errors and omissions, and analysis by several members of the research team [44].

The completion of this evaluation project was delayed by a number of issues. The ethics process with Eastern Health was protracted, taking over six months, which meant one RACF approached to participate withdrew before data collection could commence; and another facility had a change of ownership after data collection had commenced which meant re-approaching the new management for continued support and participation.

4. Findings

The findings of this evaluation highlight the fact that use of the Eastern@Home service among the RACFs in the Eastern Metropolitan Health region is extremely variable and driven by a combination of factors. When first contacted in January 2014, some RACFs had not used the Eastern@Home service but most reported using the service two to three times per month, more often in the winter months or when there were outbreaks of infections. Some high users of Eastern@Home that used the service between five to ten times per month, were also high users of AV, although a large proportion of the AV service use in some RACFs, was for transporting residents to hospital for diagnostic procedures such as for x-rays.

4.1 Telephone scoping: Use of Eastern@Home service by residential aged care facilities

To determine high and low use of the Eastern@home and AV services for recruitment of RACFs, in February 2014, all 107 RACFs in the Eastern Health catchment were contacted by telephone and asked to estimate their use of both services in the preceding month (January 2014). Eighty-eight of the 107 facilities (82%) agreed to answer the questions. Reasons cited by the 19 facilities that declined to participate included being too busy, unable to remember the information required, unable to answer these questions without management/organisational consent, and not interested in participating.

Two-thirds (65.9%) of the 88 facilities reported using the Eastern@home service an average of four times (range 1 to 44) in January 2014 and 52.9% reported that this use was typical of most months. Most facilities did not say what they used the service for. Many of facilities reported that their use of the Eastern@Home service increased over the winter months or when there was an outbreak of infection such as gastroenteritis and was dependent of the resident mix.

Yes [typical], and sometimes it could be more – it's increasing (used Eastern@Home 14 times and AV twice in January 2014).

No [not typical]. During winter once or twice a month (did not use Eastern@Home in January 2014).

No [not typical]. In January we used them because of a respiratory outbreak. They helped to coordinate (used Eastern@home 44 times and AV 8 times in January 2014).

Numbers increase when we have palliative care residents (used Eastern@Home 8 times and AV 8 times in January 2014).

The main reasons for using the Eastern@home service cited by facilities was the insertion or changing of catheters, particularly suprapubic or male catheters because none staff in the facility could do this, palliative and wound care, for IV fluids and to assist with infections.

We call them when we do need something like dealing with wounds (used Eastern@home once and AV 3 times in January 2014).

RiR not used often. Used for catheters and IV drips mostly (used Eastern@home once and AV 3 times in January 2014).

Mostly used for palliative care because we have difficulties getting GPs (used Eastern@home 10 times and AV 3 times in January 2014).

A third (34.1%) of the responding RACFs had **not used** the Eastern@Home service at all to January 2014, many citing the limited hours as the reason for this:

We have very supportive doctors only a couple of doors down so we use them instead (did not use Eastern@Home but used AV once in January 2014).

Only just given the phone numbers last week from Eastern@Home so we haven't started using them yet (did not use Eastern@Home but used AV 3 times in January 2014).

Staff need more information about the service they just ring doctors instead (did not use Eastern@Home but used AV 15 times in January 2014).

Not used because RiR is only available during office hours and most incidents occur after hours (did not use Eastern@Home but used AV 4 times in January 2014).

From this data ten (11.5%) RACFs were identified as high users of the Eastern@Home service (i.e. used the service six or more times that month).

Facilities were also asked about the use of the AV service during the same month (January 2014), although they were not asked reasons why they used the service or how many residents were transported to hospital by the AV service. Most (95.5%) of the 88 RACFs reported using the AV service in January 2014; an average of four times (range 1 to 21). Only four facilities (4.5%) did not use the service during January 2014. Most facilities reported using the AV service because they had no access to the medical management or nursing care the residents required, especially overnight, or they lacked the equipment required to manage the resident, such as catheters, so the only option left to staff was to send the resident to hospital via ambulance. Some facilities reported that policies and procedures directed the management of residents.

The policy here, if a resident had a fall, because we don't have locum service at the moment, so if there would be head injury or someone knock their head, the policy is to send them to the hospital. Overnight, we usually send to hospital anybody who needs sub-cut fluids, we don't have any equipment, or if we need a supra-pubic catheter replaced, or a male catheter and we don't know how to do it (used Eastern@home 20 times and AV 16 times in January 2014).

If something happens overnight, then they [resident] would have to go off in an ambulance (used Eastern@home 6 times and AV 10 times in January 2014).

A few facilities used the AV service to transport residents to hospitals for diagnostic procedures or specialist medical review:

Every third day we are sending someone to hospital for an x-ray or something (used AV 10 times in January 2014 but did not use Eastern@Home).

One resident who was attended by the In-reach service and subsequently sent by the service to hospital via ambulance for further investigation and management. No other residents required ambulance services (used Eastern@home once and AV once in January 2014).

This includes [number of times used AV] sending residents to doctors' appointments (used Eastern@home twice and AV 12 times in January 2014).

Twenty (22.7%) facilities were determined to be higher users of the AV service (i.e. used the service six or more times that month), although many reported that their use of AV had lessened with the introduction of the Eastern@Home service.

Eastern@Home are reducing the need [to use AV] (used Eastern@Home 15 times and AV 3 times in January 2014).

Would contact in -reach first and if they couldn't come out, they would then contact ambulance (used Eastern@home 4 times and AV 4 times in January 2014).

Not a lot. We try and call the In Reach first. The main reason for calling an ambulance is when the family request it (used Eastern@Home twice and AV twice in January 2014).

4.2 User perspectives of the Eastern@Home service

All participating facility staff and all but one of the GPs interviewed, highly valued and relied on the Eastern@Home service to meet the medical needs of residents. Facility staff reported that they could not do without the service for information, advice and support, as well as clinical expertise and management of ill and dying residents.

We're all nurses and we're educated, we're trained, we get advanced education here as required, we can manage most situations, but it's those acute situations where you just need that third party to come in and have that promptness. That's the most beneficial part of InReach they're prompt, and their service is ongoing until that treatment is finished (RN).

It's really about the [Eastern@Home] doctor, that's who we're after (RN).

They've got my highest regard. I've worked in aged care for a long time now on weekends. Often I had situations where I've just got no-one and had to send residents to hospital to because I just couldn't get hold of a doctor. To have someone that's willing to come out and implement those services, to prevent the resident from having to go to a hospital visit is fantastic (RN).

I can't always return calls in a timely manner and the [facility] staff are having to make decisions to organise care. InReach has been extremely useful from that point of view. There is the acute deterioration and there's the chronic decline, and I've found that InReach has been helpful in both of those (GP).

Instead of sending the resident to hospital Eastern@Home come and help us here. They do the assessment here and it's less stress for the family and for the resident (EN).

They are supportive, have the information and knowledge and will follow up. There was some policies and procedures here (facility) in relation to head injuries or people suspected as having a head injury and having a fall if they were on warfarin or on aspirin that require the staff to continue head injury obs [observations] for 21 days which was just not possible, not manageable. I phoned InReach and they enabled us to review our policy and procedure for head injuries (Manager/RN).

The various reasons reported by staff for using the Eastern@Home service were: wound management including revision and administration of IV and/or IM antibiotics for cellulitis; to treat infections commonly UTIs and URTIs; palliative care management and EoL care, especially review of medications for pain relief; the management of behaviours associated with dementia; to change urinary catheters including urethral and supra-pubic; for rehydration of residents via IV administration of fluids; and for the routine change of PEG tubes rather than transferring the resident to hospital for this procedure.

*The **acute illnesses** that we've called the Inreach service for: **upper respiratory tract infections, pneumonias** - either community-acquired or aspiration; an **acute delirium** of an unknown cause; **fracture management** of an unstable cervical fracture; **pain management** of a really medically-complex patient; **indwelling catheter** (IDC) management for a gentleman with an enlarged prostate; **medication management**; family consultant and support for a resident with newly diagnosed dementia with behaviours; **support for a GP with end-of-life care management**; aspiration pneumonia forward planning for someone who's got a dysphagia and repeated aspiration pneumonias; and treatment of complex medical issues (RN).*

*We had a resident who **had a fall and had quite a big laceration on the head**. Instead of sending her to hospital and having that whole ordeal, InReach came out and glued it, and we were able to manage it here (CCC).*

***Wound management.** If we're unsure of the wound, they'll come out and help us assess that (RN).*

*When I've called InReach it has varied from **palliative care management or pain management advice and consultation, behavioural management** and quite a few other things. I've used them for **wound management** in an unstable person. I've used them to **organise a mobile x-ray machine** for a suspected fracture [when] the person wasn't displaying the usual signs and symptoms of a fracture (RN).*

***Cellulitis, trouble with catheters.** They're the most common reasons because they need **IV antibiotics for the cellulitis** and the GPs don't deal with blocked catheters that we have trouble with (RN).*

*A gentleman upstairs, he's very demented, very agitated. Currently we need some **assistance with behaviour management - real assistance with some medications**. We are in desperate need. We called InReach because the GP couldn't come. They were fabulous. Gave us some good strategies, also gave us some PRN medications that we didn't have for him. In the end they were here for several days trying to help (RN).*

***Wound management** that is urgently needed when our nurse specialist is not around, say on the weekend. We ring them and then they hand over to our wound specialist (RN).*

*I think one of the things that we've found of late that has been absolutely superb is their [Eastern@Home] involvement in **palliative care** when residents are going into end stage (Manager).*

*I've used them quite a bit for **male catheterisations**, if they've been acutely blocked and I've been trying to clear them, and I can't. Because I can't do male catheterisations myself, and they will come out and do that (RN).*

4.3 Factors associated with high use of the Eastern@Home service

The high use of the Eastern@Home service by some RACFs was characterised by a number of factors related to individual facilities but also by the increasing needs of the residential aged care population more generally with residents being older and have increasing comorbid conditions including dementia that require higher levels of care. These factors include: RACFs staff having limited access to appropriate and timely medical care for acutely ill and/or dying residents; staffing mix in some RACFs - high users of Eastern@Home service and AV had fewer RNs; facility policies that deskill RNs, i.e. policies that direct staff to call AV irrespective of reason or assessment by the RN; and residents preferring to stay in their 'home' (facility) when unwell rather than be transferred to hospital.

One of the lowest users of the Eastern@Home service was the public sector facility. In this facility there was a higher number of RNs and ENs providing direct care across all shifts to a small number of high care residents (30 beds). Staff also had better access to medical care as attending GPs were more readily available and the locum service was used only if the nursing staff assessed that medical care was required. As one of the nurse unit managers in this facility commented "*The staff are not used to using the service, they just ring doctors instead*". The limited use of Eastern@Home service by this RACF was confined to a routine procedure – the changing or replacing of PEG tubes – to limit the transfer of residents to hospital for this procedure.

Here [main reason to call In Reach] it is the changing or replacing of PEG tubes (CCC).

The gentleman that we've got downstairs was being seen by InReach at home and, when he came here, his wife had all the contact details so we just followed on with the care. His peg tube was due for changing so we got the InReach team to come in and assess (RN).

I've been on night shift here now for about 16 years and I can honestly say, I probably, send people to hospital maybe twice a year it's not a huge thing that happens regularly. We will have sometimes a crisis and somebody that, that gets acute dyspnoea or goes into heart failure that even the InReach probably wouldn't be able to manage because you need x-rays and different sort of diagnostic treatments at the hospital to actually diagnose that sort of thing (RN).

While this facility was classified as a high user of the AV service (i.e. used AV ten times in January 2014), this use was related to the transfer of residents to a local hospital for diagnostic tests or for specialist medical management. A few other RACFs classified as high users of the AV service in January 2014 for the purposes of recruitment for this evaluation, also reported using the service to transfer residents for diagnostic tests such as x-rays, while most cited the transfer of unwell residents to hospital EDs for acute care as the main reason for AV use in January 2014.

The aged care sector has become more complex and challenging, and all interviewees reported an increase in the high care needs among the resident population which precipitated the need for access to more medical care and hence the use of the Eastern@Home service.

I would say greater than 50% of residents have dementia. The residents in the dementia unit and there is about 22 at the moment, and a very small portion are able to communicate verbally (Manager/ RN).

Approximately 90 to 95% of the residents are high care, 50% have dementia and 20 or 30% have very limited verbal communication (RN).

I am concerned, apart from the skillset, the coverage of staff to meet the needs of the residents who are now getting frailer. They move in sicker, they don't last as long. When they deteriorate, no-one's really got to know them (Eastern@Home).

I suppose my view about aged care is that it's a palliative service. It's basically a palliative care service. It's not not about Mum's gonna [sic] get better. Here we've got someone who's got physical and mental or physical and cognitive impairment to such a degree that they can't manage at home and they're unlikely to get better (GP).

4.3.1 The need for timely and appropriate medical advice and assistance

Residential aged care staff report difficulties in accessing timely and appropriate medical care when residents became acutely unwell or required medication and/or palliative care. The combination of fewer GPs providing medical management in RACFs and the increased complexity of the residents' high care needs may account for the problems facility staff have in accessing timely care. On weekdays GPs are usually unavailable during the day because of their general practice commitments and after hours including weekends many GPs do not provide clinical services. Staff reported various different instances when they had to use the Eastern@Home service because they could not get medical assistance:

When we've had gastro outbreaks, we've used them [InReach], actually sent, we haven't been able to get a doctor so their doctor would come out and help us (RN).

We called them yesterday just for further advice, follow-up because the GP wasn't available and they prompted us with what to do (RN).

Staff also reported that GPs often refer the residents, via the staff member, directly to the Eastern@Home service so the resident does not have to wait for medical care.

Well when the GP says "This person's got six different diagnoses and I'm struggling to know what to do." So I usually ring InReach and the geriatrician will call back. The geriatrician is really good and will work with that GP to give them that support and expertise (RN).

The majority of the [Eastern@Home] visits are in and around obtaining GP services, medication orders and access medications like IM antibiotics (RN).

On a Saturday mornings especially, you'll try your GP clinic first but you'll always know that you've only got about 30 per cent chance of any joy there. And quite often, like what happened last weekend, someone is deteriorating quickly, moving to end-stage palliation. I rang the GP and he just could not make it. Too booked-up and he requested that we ring InReach (RN).

The GPs will say ‘Ring them [Eastern@Home] don’t ring us’, so they probably tend to want to handball the responsibility (RN).

After hours facility staff have to rely on a locum service, if one is available, because the GP and the Eastern@Home service are unavailable. However, most participants thought that the locum service was inappropriate for the management of ill and/or dying residents because they have to wait at least four to six hours for a locum to attend which is unacceptable when an older person is deteriorating rapidly. Participant comments about visiting locums included: many are unfamiliar with the residential aged care sector or the medical management of older people; do not know the resident or family and were therefore unfamiliar with their needs; don’t always consult the resident’s medical/nursing records before ordering treatment or referral; don’t always assess the resident before ordering treatment or referral; and often take the easiest option, which was to recommend transfer to hospital rather than manage the resident in the facility, especially if palliative or EoL care is required.

I used to do a lot of night shift, for years. When certain locums came to the door I went “Hooray!” When other locums came to the door I shuddered. So I find it to be variable, depending on the actual person (RN).

The locums might come at two o’clock in the morning. So you have to really think, “Well how acutely unwell is this person?” and if they need attention straight away (RN).

It [locum to arrive] usually takes a good four hours. Often they’re hesitant because they don’t know the resident, they don’t know the past history. They can read notes but we’re the ones that are with the residents 24 hours a day and can see whether they’re not right (RN).

I’ve heard about one [locum] that’s come to the nursing home who never ever looks at the resident. Just comes to the computer, listens to what the nursing staff want, will probably write it down. We think he’s [resident] got a UTI. The locum sits there, “Right, start some antibiotics” (RN).

Facility staff reported that a small number of GPs operated their own locum service, or recommended a particular service that they felt confident would provide appropriate care. However, in most instances RACF staff ring the Eastern@Home service because they need immediate medical assistance and feel confident with the service.

Sometimes the [Eastern@Home] nurse will come out to give her own assessment and then report to the geriatrician. She’s the sort of stop-gap between us and the doctor (RN).

The issues are that doctor so and so is not available, and doctor so and so only works or comes to the facility every two weeks or is choosing to come every three weeks which limits the access that residents have to their doctor. The other thing is often the doctors will want to visit in the evenings. So it is always those peak, those busy times when we have reduced staff and we don’t have the key staff (RNs) that are a challenge. So if their doctor is unable to visit there is a request for one of the doctors from the clinic to visit. Some of them have doctors that will cover for them, some of them don’t. It is unusual to extend after the normal hours, and there is no locum service so, obviously the next step is that the staff use InReach (Facility Manager/RN).

I think if the GPs weren't as accessible as they are or locums who are entirely satisfactory then I might think about InReach. Obviously not at night but I might be looking for another support mechanism (RN).

We are substituting for the locum service. I think providing acute care in aged care facilities for the frail elderly, it's got to be sustainable in the long-term. This service goes some ways in meeting some of those gaps but I think if we're able to upskill the GPs to meet their needs better, to, even if we drove the GPs to all visit once a week ... there are some GPs who only come in when they're called, so wouldn't know the resident or the family if only coming when they're sick (Eastern@Home).

Even the GPs and the Eastern@Home service staff expressed reservations about the usefulness of the locum service in the medical management of acutely ill or dying residents.

There are times when they've [locum] come in and there's an entry on the form from the GP saying 'for palliative care' as in end-of-life care. And then the locum comes in because pain issues are not addressed adequately by the current PRN medications. And the locum note was 'query palliative care' and 'GP to review in the morning'. So the [locum] didn't change the drugs, even shifting it to PRN four-hourly to three-hourly or just something essential like that to support the care. So I just wondered whether locum services meet the needs of the frail, older people in an aged care facility and their willingness to prescribe for actual end-of-life care (Eastern@Home).

My confidence in the locums would be 80 to 90 percent but our practice has asked our locum service to ban one doctor who we know is not good from seeing our patients (GP).

Some of the locum doctors are either very new to their job, so they're going in from a hospital environment into an aged care setting. They find it hard to differentiate about what's appropriate care in aged care. So they'll drop the 'send them to hospital' line. Then a few of the people who work in the locum services may be a bit disaffected or feeling a bit disenfranchised and don't care so much, and they'll probably take the line of least resistance so they don't have to get on the phone and call family, medical power of attorneys, ask them what they want. The easiest thing to do is say, "Send them to hospital let them sort it out" (GP).

A locum service can take four to six hours to come out and you can't call a locum service until after four pm. So if staff recognised that the resident needs to be seen at 10 o'clock in the morning and the GP can't come and they're going to rely on a locum, it could be 10 hours before the resident sees a doctor (Eastern@Home).

The InReach doctor has more skill to assess the residents than the locum doctor. By the time they [locum] come, sometimes they come late, about 11 o'clock, the resident might be sleeping, might not be able to respond to the test or the examination. Quite often they say "Send them to hospital." So it is a waste of everybody's time and we've lost the whole day to start the treatment (GP).

Many RACF staff reported using the Eastern@Home service to deal with EoL care when they could not get appropriate medical management for a resident, especially pain management, from GPs who were reluctant to provide PRN or stronger pain medication orders.

There are a couple of GPs that I would see that that would be a problem. Yesterday I called InReach to come and write up a care plan for end-of-life care. We really needed it in the middle of the night so I was thankful. I did that but, if we didn't have those meds, what would

have happened to that gentleman? He would have been packed off to hospital (RN).

I don't think GPs are good at end of life planning. One of our GPs is quite good at doing end-of-life care management but the other GPs no. They don't know (RN).

Some of them are just in denial or even if you persuade them to write something, they'll write, "Give one dose every eight hours" or something. It's not what at that stage you're looking for. There have been instances when we've had a GP who is reluctant to go along a particular line that all the nursing staff are advocating, and we've used the opportunity when the GP was unavailable or away and the person was unwell, to call InReach, (RN).

Some GPs really are very involved with their residents, so they take offence if there's someone else who's come into the picture that they didn't know about. And then that offence certainly goes up if there's someone frail, they're not dying of this particular acute episode but we see that next time they might deteriorate and we're trying to set it up so that when they do deteriorate they can be cared for in the facility with some palliative medications written up. But the GPs sometimes find that a little bit offensive, "Well they don't need it now, why are you writing it up? They're clearly not dying." I mean we've spoken to the families. The families totally agree and the resident as well so that's not the issue. Also some facilities call us when the GP is on leave because they feel that "Well this GP doesn't quite get the warm fuzzies [sic] done very well or the prescribing, so while they're on leave why don't we call you?" Honestly, it puts us in an awkward situation at times (Eastern@Home).

I think we have to be clear that the doctors, nurses, residents, and family all should be on one page, and should be working as a team because I found some doctors were very upset because they think, they don't want to do all this treatment and they don't want to advise all this medication or whatever. So then, in that situation, the nurses are in a different situation. Like at one time, we needed to make a decision because the resident was deteriorating, the doctor didn't want that service [InReach] to be called and they don't have time to come (EN).

Participants also reported that residents are discharged from acute care settings to the RACF (their 'home') with no medication orders, care management plans or any communication to the nursing staff. As GPs are not on site in RACFs and commonly unavailable during the day and after hours, nursing staff are reliant on the Eastern@Home service to write up medication orders. The Eastern@Home service also reported being called immediately when a resident is discharged from acute care back to their 'home' facility because there are no accompanying medical orders, medications etc. and the facility staff are unable to get the GP. Facility staff felt that acute care and ED doctors and nurses did not fully understand that when residents return to an aged care facility, they are returning to their 'home' rather than some interim place for recovery and recuperation. This sentiment was also reported by the Eastern@Home service who are trying to educate medical staff in the local hospitals.

Just the other day a resident was admitted straight from hospital and there was no formal diagnosis or anything. All there was, was the medication charts. That's all that came with him. There was nothing about what sort of diet he had, nothing about whether he was ambulant. Extremely difficult. Staff can look that sort of thing up the next day but this person arrived in the evening and we had nothing except his medications (RN).

What we would like more from hospitals with discharge is an indication of whether they actually think it's worthwhile this resident going back (to hospital) because we usually don't

get that. When you've got someone who's just come from hospital and appears be quite unwell but the family isn't prepared for the fact that they've sort of come here to die. I have had it has happened a number of times, where that resident is really very ill and they're going down. I consider them to be quite unstable and my first reaction was going to be to send them back to hospital (RN).

The hospitals need to understand what facilities can and can't manage, because it's not a one-way street; it's a continuum and sometimes residents are sent out to facilities where their needs aren't and can't be met by the staff (Eastern@Home).

One of the biggest problems is there's very poor linkages between primary care, general practice and the way that the public and the private hospitals interact, the lack of communication and teamwork (GP).

When somebody's discharged, they're often discharged with change of medications but we don't often get a drug chart that we can sign off. If they're discharged and a GP's not available, they're often not getting those medications (RN).

4.3.2 Staffing and skills mix in residential aged care facilities

This evaluation found staffing in participating facilities was an important indicator of the use of the Eastern@Home service. In one 'for profit' facility with 120 beds, 50% of which are high care including 20 dementia specific beds, there were 60 direct care staff. This included two RNs to cover the morning shift (a RN to resident ratio of 1:60) and only one RN to cover the evening and night shifts (a RN to resident ratio of 1:120). In this facility two or sometimes three ENs worked each morning and evening but none worked night shifts. Therefore this facility was heavily dependent on PCWs for direct care. This facility also used agency staff on average five to ten shifts every week. This facility was a high user of both the Eastern@Home and AV services and at the time of data collection had no afterhours GP cover or a locum service.

Many participants commented on the low number of RNs working in some RACFs, including the Eastern@Home staff who report that they often attend some facilities irrespective of the reason because they know there is no one able to properly assess or manage a resident's condition. The number of RNs working on weekends or at night were very low and in some facilities there was no RN actually on site. Weekends and overnight was often times when staff were unable to get medical care, and the Eastern@Home service does not operate over night.

Basically, I work Monday to Friday seven in the morning to three in the afternoon, overseeing the clinical care (RN).

All the GPs commented on the lack of trained staff, particularly the ever diminishing number of RNs, and the casualisation of the workforce. RACFs are increasingly reliant on PCWs to provide direct care for residents, many of who have little education and experience.

We have facilities of concern or should we call them facilities who need more support, where we say, "We'll just come and see your patient" because over the phone we may not be able to get the information or it may not be reliable. It's often because there's all PCWs and there might be one trained staff. In one particular facility the trained staff member hasn't really had anything to do with that resident, the PCWs have told that person that the resident

appears unwell but the trained staff haven't seen them. So the staffing mix, that's very important (Eastern@Home).

Some nurses [I have confidence in], some no. It varies greatly from place to place and from time to time. I've been going to a particular nursing home for 30 years and there have been over 20 CEOs in 30 years and equally the same number of DONs [Directors of Nursing]. Change is a bad thing because there's no continuity. So some nurses are fantastic and some are not so good. When a nurse rings me up and tells me my patient has a fever and I ask what the temperature is I often get told "I don't know, doctor. I was just told to ring you" and I despair (GP).

When we've got a person who works occasionally or casually, is an agency nurse or maybe a nurse who's not used to the resident, it makes it a bit more difficult to be confident in their ability to assess and manage. It also depends on what their level of experience and what their degree of education is (GP).

There was facility where we were concerned. Someone who was dying, in pain, and we said "Could you please give this medication now" and there was just an indifference by staff to acting sooner rather than later. It's really hard sometimes (Eastern@Home).

The nurses will not take responsibility any longer, and there are no nurses in the nursing homes. They're PCWs, most of them haven't even had children therefore they don't understand when someone is sick what to do. They've hardly ever been sick in their own life. They are not trained (GP).

In a number of participating RACFs there was one RN 'on call' during the evening or night shift. With no RN working on site the remaining unsupervised facility staff include ENs who were often not confident or endorsed to give medications, and PCWs who were not educated or skilled to undertake the appropriate assessments when a resident becomes unwell or able to give pain medications as required. Some participants reported withholding pain relief overnight as they do not wish to 'disturb' the on call RN. When there is no RN on a shift to assess and manage an acutely ill or dying resident who requires pain relief, other staff become increasingly reliant on using AV, locum services and on the Eastern@Home service, as they do not have the skills to manage the residents.

We have had situations where the only person that can give the sub-cut morph is on call and staff will put the staff members on call needs before the resident's needs. So they'll call that RN at midnight and if they know that she's got to start work again at eight they won't call her again overnight to come in and administer the morphine. They'll wait until morning (Eastern@Home).

One of the wounds we had, they [facility staff] had a wound plan that they were managing and then the Div 1 [Division 1/RN] went on leave. Obviously, they must have had a Div 2 [Division 2/EN] covering but when she (Div 1) came back, she realised how much the wound had deteriorated. So the Div 2 [EN] had been doing the dressings vigilantly but her ability to assess and recognise deterioration in the wound wasn't there until someone of a higher level came back in and saw it (Eastern@Home).

A lot of facilities have one Div 1 [RN] overseeing a number of separate units and Div 2s (ENs) who have skills but don't have the knowledge base to make decisions (Eastern@Home).

The RNs interviewed voiced concerns themselves about the number of residents they were responsible for, and the fact that they often did not get to see everyone or keep up to date with what was happening in the whole facility. The RNs participating reported feeling burnt-out – the responsibility of caring for so many older and frailer residents was making many nurses consider leaving the sector, and some felt they had lost the confidence and skills required to manage acutely ill residents and needed more education.

When you consider the workload of the RN; you're in charge and you're on call for the 60 residents in other units as well as working in a unit, like a hands-on at night, then you've got all the other units you've got to supervise as well. And anything can happen at that time - you can be in the middle of something else. So the care co-ordinator has to come off her job and do those jobs, RN only skills such as giving IV antibiotics, for the whole unit. So it's staffing, a practical workload thing (RN).

When I was giving the nursing education for the (university) group, we raised the question about male catheterisation and even within that course, they have to prioritise what they're going to be teaching their Div 1 nursing students. The course currently doesn't incorporate male catheterisation because they felt that it was just not common enough. I think that is going to change. You've got to meet the residents' needs (Eastern@Home).

They [RNs] need more education. An intelligent Division 1 nurse should start recognising which patients we can refer to InReach and which are not, which we can manage or we can look after here (GP).

[We use Eastern@Home] Maybe once a week. It depends on the confidence of the nurse that's on duty as to how they feel about making those decisions because some don't want to make a decision and so they'll ring for backup. I'm quite confident at making some decisions and I'll do things myself. But, if there's things like, somebody needs sub-cut fluids and we don't have any supplies or if we need a supra-pubic catheter replaced, or a male catheter and we don't know how to do it, and it's an acute thing, then we will call InReach (RN).

A number of facilities also had a high number of staff that did not have English as their first language, including the RNs. This was commented on by participants, who added that poor language skills make it difficult to communicate with residents and other staff, and to participate in education.

Sometimes it's their [RACF staff] strong accent on the phone as well. Because the thing is, if we're misunderstanding them, there's a potential for mis-triaging (Eastern@Home).

It's often because, well there's all personal care workers [PCWs] and there might be one trained staff. So often it's just the staffing mix (Eastern@Home).

4.3.3 Facility governance and policies that deskill RNs

RACF staff participants reported that they had policies governing the decision-making regarding falls in residential aged care, particularly if the fall involved the resident sustaining a head injury. The Eastern@Home team felt that this was driven by not unreasonable concerns about litigation, and the need for a coroner's determination of cause of death, even in very old and frail residents with dementia.

I'm happy to ring InReach before an ambulance anytime, unless there's something broken, then we just don't have an option (RN).

Falls are complicated because it's probably driven by the coroner's requirements as well,

which is really hard. And even GPs when I say to them, “Look, this resident, next time they fall and they hit their head, do you want them to send them back in [to hospital] again?” Well they have to. If they bleed that it’s a coroner’s. I think they’re falling all those other 101 times because of their dementia. The death certificate would be dementia, and I’m happy to write dementia on the death certificate, but one particular GP said, “Look, I’m not because, if they fell, it could be a subdural”. And this is obviously with discussion with the family already who have said, “There’s no point getting a scan for a confirmed subdural wound. You’re not going to be treating it.” But when you consider locums, locums are even more wary of litigation when it comes to such cases (Eastern@Home).

Other policies that tended to govern decision-making and the use of Eastern@Home service and also deskill RNs in some facilities included no administration of IV therapy or male catheterisation by staff. However this was not universal among the participating facilities and a lack of equipment in the facility such as required to give IV antibiotics or rehydrate a resident intravenously was also a reason to use Eastern@Home.

[We use the InReach service] because they (residents) need IV antibiotics for cellulitis or a catheter and GPs don’t deal with catheters, like blocked catheters that we have trouble with, and we cannot give IV antibiotics. They [doctors] don’t do IV antibiotics either. So it’s either the residents goes to hospital or we call InReach. They [facility management] are trying to bring it in [change the policy to let RNs give IV antibiotics and deal with blocked catheters] in the future, which will be good, because I can do all that (RN).

If somebody needs sub-cut fluids and we don’t have any supplies or if we need a supra-pubic catheter replaced, or a male catheter and we don’t know how to do it, and it’s an acute thing, then we will call InReach (RN).

RNs also reported that policies in the RACF limited their scope of practice, such as: inserting and maintaining intravenous lines for hydration or antibiotic therapy; giving intramuscular narcotic analgesics; and inserting or changing male urethral catheters. Notwithstanding that the RNs were not undertaking these practices due to policy restrictions, many also felt that their clinical skills required up-dating in these areas.

It is a facility policy more than legislative [that the RN working in the RACF cannot give IV medications] because, as a Div 1, they’ve all trained in the past - they’re rusty and some of them said, “Oh look, we, I haven’t done a sub-cut line for ages. And most of them couldn’t cannulate so it’s an issue (Eastern@Home).

We’ve had a, a resident who’s unwell, who’s had a series of TIAs (transient ischaemic attacks] and is not responding but is not really for resus and, the family don’t want him sent to hospital. The GP came in and wanted him started on sub-cut fluids. We had nothing here so we rang InReach (RN).

Some participants reported that the facilities they worked in had no specific policies they knew of that governed decision-making when a resident becomes acutely ill or has a fall. The following quotes demonstrate this:

[Decisions regarding the medical needs of the resident] are based on the advance care plan and also the clinical judgement from the RN (RN).

We don’t have any policy directives for when to call the service (Eastern@Home) at the moment and I think it would be helpful if there was, just for a prompt, for those staff who are unsure [are unsure to ring] because a lot of staff forget that service is available (RN).

No, we haven’t got a policy. We just, it’s always done through the care co-ordinators (EN).

Other RNs simply do not have the skills because when they did their nursing training (the old apprentice style education and training model undertaken in hospitals) some of these skills, especially cannulation, were not part of the RN scope of practice and they have never up-graded their skills. The Eastern@Home service also reported that other facility staff, especially PCWs who do the majority of the direct care work with residents, find it challenging to work in an environment with acute care equipment.

The PCWs are really quite uncomfortable with anything that looks hospital-like. So we don't put that up overnight if they're running PCWs overnight. So we've adapted our treatment to suit the, the capabilities of the staff and their anxiety (Eastern@Home).

4.3.4 Advance Care Planning (ACP) and End of Life (EoL) care: Residents' preferences to stay at 'home'

Participants in this evaluation reported that many RACF staff, including RNs, and some GPs providing medical management to residents, fail to recognise when a resident needs EoL care, especially the need for palliation and specifically, pain relief. There was very little pre-emptive prescribing by GPs of pain relieving medications and some GPs either lacked the knowledge or were afraid to order 'PRN' narcotics. Participants reported using the Eastern@Home service in such instances to obtain medication orders for pain relief and end-of life palliation, effectively circumnavigating the GP to manage the pain and palliative needs of residents:

I work night shift so there would be really cases that this resident complains of pain and doesn't have any PRN order, and because of the policy of this place, no nurse initiated medication (RN).

The GP was really reluctant to start...he didn't like using...he didn't like us playing God. So he was really reluctant to write up for pain management. Pain management to me is really important so I went a little bit over his head and, it was really bad of me and I know that but my resident needed help so I called InReach. They were able to write up some really good palliative medications. This lady had oral tumours that were affecting her swallowing so they actually applied some medications because we couldn't get it at the chemist. So they were able to supply us with some local anaesthetic, oral local anaesthetic to help with the pain. And she passed away peacefully (RN).

For instance, this fellow who died on the weekend. The doctor knew that he was in pain but had prescribed him a Norspan patch but the Norspan patch was only on the Friday night. That was the first time it was applied. So he wouldn't have even had any pain relief. And, really, in my opinion, any doctor would have looked at that resident and said, "He needs morphine." Why wait a whole week for that Norspan patch to take effect when he looked like he wasn't even going to last that long? (RN).

The lack of skilled staff, especially RNs in some RACFs, who should be able to assess the need for, and then manage end of life care as per their scope of practice and role, compounds this problem and at times residents do not receive quality EoL care. As previously highlighted in this report, if there is no RN or a medication endorsed EN overnight in a RACF, the staff on duty may not disturb the on call nurse and a resident may remain in pain until the next shift.

This finding raises the question about RACFs adequately preparing for EoL care in consultation with residents,

their families and GPs through the use of ACP. Advance care planning is the process of planning for future health and personal care whereby individual values, beliefs and preferences are made known so as to guide future clinical decision-making especially if there is a loss of capacity to make decisions or to communicate [45]. The Eastern@Home service always ask to see the advance care plan before they review a resident, as this will govern much of their medical management. However, this evaluation found that many participating RACFs did not have well designed advance care plans, did not implement plans in a timely fashion, and did not involve all parties (the resident, family, staff and GP) in the ACP. Only one participating facility, a public sector residential aged care service, acknowledged that they had a formal protocol and procedure for advance care planning. This included the use of a health service standardised form to guide care, and a formal interview with the residents, if able, and family on the day of admission as well as the requirement of a GPs signature.

On admission we need to explain to the family, I need to clearly ask them whether this person is for resuscitation or not, or for what kind of decision they want to take. So there is an Eastern Health specialist form, advance care form, we need to fill on the same day and sign by family. And then we, then it need to be signed by GP as well (RN).

So we do advance care planning with our residents and their families. That's something that's been implemented over the last year. So all of the residents have got an end-of-life plan. They'll tell you everything, what their wishes are and how they would like it managed. Some families are really reticent to do those plans and they put very minimal information. So it's a lot of communicating with the families if peoples' condition deteriorates. I think some people don't like putting things in writing because it means they're having to make a decision, especially if their loved one's got dementia and can't make that decision for themselves. But we try and sort of guide as best we can, and you talk them through it (RN).

In most participating RACFs the advance care plan was a single page document with tick boxes to answer statements about resuscitation and these were given to families to complete when a person was admitted. Some facilities had a process that included ACP discussions between staff and the family but often the resident or GP were not included; and others reported that they were 'finalising' ACP to be a more inclusive process - the advance care plan was 'being redesigned' or 'in the process of developing another plan'. A small number of RACFs had no ACP documentation. Who initiated the ACP discussion was not generally documented or formalised through a RACF policy or procedure and the plans were not reassessed or re-evaluated over time:

The advance care plans here are very limited, and they are about whether you want to be resuscitated or not, and what sort of measures you want to put in place. So do you want active treatment, do you want non-active treatment, do you just want whatever interventions. They are really quite limited and only one page. It tends to happen in partnership with the GP but near the end of life rather than on admission (Manager/RN).

We have a policy and procedure on ACP and that is helpful. We have a form and a discussion. It's usually given to the people to think about for a while. Sometimes we can have people for quite a long time and the family never come around to actually making an advance care plan. They usually have a meeting with the care co-ordinator. And sometimes the doctor and, actually, even in the dementia unit with people who are still able to make such choices and have input (RN).

The form that we have now is about preferences and treatment but it's not very explicit. So I

think [service provider] is starting now to have a look at other organisations and adapt one that is suitable... I'm sure they're in the process of doing so (RN)

It really depends on the facility very much so, it varies facility by facility. Some, are just ticking the boxes and sometimes you get just typical responses (Eastern@Home).

We do all ACP on admission. And it can change, obviously, as, you know, families change their mind. We've got a form that they fill in or take away and bring it back within the first week. Because some people don't want to answer those questions, it can be confronting, so they take them away, discuss it with other family and then bring it back signed and we put it in their file. I am, or another RN is involved, with the family but the GP is not involved. It's not really their role (RN).

All the residents and family members, as well as the facility staff and GPs interviewed reported that residents do not want to be transferred to hospital when unwell and particularly, for EoL care. Residents overwhelmingly want to stay in the facility - 'their home' - with staff they know and trust, rather than spend hours on an uncomfortable trolley in a hospital emergency department or ward with people they do not know.

I was transferred here from a public hospital from Angliss Hospital. I had a fractured spine and my local doctor has a big practice and is very busy, and at times she's not been able to come when I've needed her and, with her permission, we've contacted InReach and had doctors come here. I needed to have my back x-rayed and the doctors thought it would be better if it could be done here rather than sent in there via ambulance so they sent a mobile x-ray machine over here, and the x-rays were done here. And at no, you know, discomfort for me. It was very good. Well, apart from the travelling, I'd rather stay here. I think it's because of this place. It's home, the staff here, you know, if you've got anything wrong or say recently my husband died and the staff here got me through that. They're so good and they're so interested (Resident).

Well they (RACF staff) needed to cannulate me and they couldn't really do it here. They felt they weren't good enough. I'd rather stay here because I like all these people here. It's like a family here (Resident).

They wanted to bring me into hospital because the last time I was really in a bad way when I was there and I think here you have everything what you want. You have your own things around you. I think it is better to stay here, not to go, to go in hospital, and the people here are terrific. I just said, "Well I like to stay here." I know the last time it was three weeks 'til I have been there in the hospital. That's not any good for me. I was better when I came home (Resident).

People say that they don't want resuscitation but they want active treatment. There are others that then will say, "No, we just want comfort measures," which we can do here (RN).

It is very difficult if families don't want to make that decision. It's odd because, when they go into hospital, they make that decision. When they come here, they don't want to make that decision because they don't want to come to terms with the fact that this is the end-stage (RN).

I've had to say to ambulance people, even just recently, "This person that I'm sending has no advance care plan." But it's not because the people here haven't tried to get an advance care plan; it's more because the family don't want to go there. If they do have to do an advance care plan they want CPR [cardio pulmonary resuscitation]; they want transfer to hospital; they want all these things. So we have to do that, even if we feel like this is, worse for the resident. We have to send them to the hospital. It's hard to explain in the middle of the night for people to make a decision (RN).

The resident didn't want to go to hospital. We always ask what the family's wishes are, what the residents wishes are and sometimes we do send them in because that's what they want. So it's really important that we ask the question, and our aim is to try and keep them at the facility where possible (Eastern@Home).

The families interviewed said that they were generally supportive of keeping their family member (resident) in the facility, however they also said that when they are asked directly to make this decision by staff, they often find it difficult to maintain the wishes of their loved one. Other participants also reported that families often rely on the facility staff to guide them in these decisions.

The family members will say, "Well we want whatever the doctor thinks is best," They don't like making the decision. They don't know the options I suppose also. And sometimes, it gives them that opportunity to realise that perhaps there is a limit to acute treatment and maybe we won't be doing the same treatment next time. It's sort of a step down from hospital, acute, active treatment and then facility-based active treatment. And the recurrent aspiration pneumonia and the advanced dementias, those sorts of cases, they start to see that it's a revolving door and, at some stage, things need to stop (Eastern@Home).

I would go by what she [RN] has to say because she's a nurse and she's familiar with all the things that can happen (Family).

It's very difficult if families don't want make that decision. It's odd because when they go into hospital they make that decision. When they come here, they don't to want make that decision because they don't want come to terms with the fact that this is the end-stage (RN).

In addition to a desire by residents to stay in their home facility, RNs and GPs reported that communication problems arose when residents were transferred to and back from hospitals which tended to increase the use of Eastern@Home for medical management, especially medication orders. Respectful, understanding communication between RACFs, acute care hospitals especially the ED, and GPs was thought to be paramount in maintaining the resident's wishes of remaining at home (the RACF) when ill and/or dying. This should include the use of the advance care plan, although most RACF staff participants did not mention this when interviewed. However, some RACF staff reported instances of needing to send a resident to the ED for pain relief, as they were unable to get medical care from the GP or locum service. Often the response from the admitting hospital was less than understanding as the health care professionals in acute care failed to understand the limited care available in the facility due to a lack of skilled staff, no medication orders, and no access to medical care.

We've got a few residents at the moment on continuous oxygen. Off and on they've been going to hospital. Of course, hospital ED departments are really not interested and they've been driving us or driving the families to use InReach. In fact, ED staff told the families categorically "not to bring them back here, it's not, we're not a hotel" (RN).

One night I had to put a person in an ambulance and send them to [hospital]. I was nearly in tears as well. Then I had the hospital call and abuse me. I said, "Hang on! The person's palliative, they're dying. If you look at the drug chart I sent, they've got no pain meds. I can't get a locum here and the local doctor will not answer the phone at night. What do you want me to do? I just want some pain meds and send him back. So stop abusing me" (RN).

5. Discussion

The findings of this evaluation indicate that the Eastern@Home service is used by many RACFs in the Eastern Metropolitan Health region to substitute for inadequate or limited access to skilled nursing care, medical management and the resources required by facilities to provide quality health care to residents. High use of the Eastern@Home service is associated with decisions made by RACF staff and on behalf of GPs related to: the overall increased acuity of residents; a lack of skilled nursing staff (high users of Eastern@Home service and AV have fewer RNs); limited access to timely and appropriate medical management of acutely ill and/or dying residents; the desire of residents to remain in the facility when they are unwell or dying; and facility policies that direct the care and management of residents which deskill RNs by preventing them from being able to work within their scope of practice. These findings suggest that in many instances the intention of the Aged Care Act 1997, and Quality of Care Principles 2014¹ which form the basis of the aged care accreditation standards and outline specific care requirements and services to be made available to residents by RACFs, may not be being met.

5.1 The current residential aged care population

As older Australians are now encouraged to remain at home longer, those entering residential aged care facilities are older and more frail, and most have multiple chronic illnesses associated with ageing including dementia. In 2014, a third of the 173,974 permanent residents and 2,842 people in residential respite care were aged 90 years and older and more than half of all residents had a diagnosis of dementia, the proportion increasing with age [46]. As a consequence of population ageing and people entering RACFs being older and sicker there is increasing demand for high care residential places and the care required has become more complex and challenging for staff. High care consists of almost complete assistance with most ADLs 24 hours per day by RNs or under the supervision of RNs [38]. Increasingly older people are admitted to residential aged care later in the trajectory of their dementia and other chronic diseases and are thus more dependent, with more-complex needs and in a greater state of vulnerability [47]. In 2013-14, the majority of first time admissions were aged between 85 and 89 years and two thirds of these first admissions were classified as high care (behaviours associated with dementia, assistance with ADLs and management of complex care) [46]. The older the resident the more likely they are to require high care. This increased higher dependency and clinical complexity of aged care residents [48, 49] means their medical management and nursing care needs have also intensified.

5.2 The provision of medical management in RACFs

¹ Aged Care Legislation Amendment 2016, Quality of Care Principles 2014, Federal Register of Legislation, at <https://www.legislation.gov.au/Details/F2016C00451/CanPrint>

All older people should have access to medical care when they need it irrespective of whether they live in their own home or in a RACF, yet the 2011 Productivity Commission inquiry into the care of older Australians identified people living in RACFs as being marginalised in terms of *access to* and *quality of appropriate* medical care [50]. Exacerbations of existing chronic illnesses coupled with an increased susceptibility to new illness or injury due to age and frailty, means that often older people living in RACFs require skilled nursing care and prompt medical management. Hospital avoidance services, like Eastern@Home, have been introduced to increase the options available and support people to receive care in the most appropriate setting and to reduce the pressure placed on hospitals particularly the EDs by older people, when often they can be managed in their 'home' residence.

GPs working collaboratively with RACF staff and allied health providers play a key role in delivering high quality health care to older people living in residential settings and have the opportunity to improve the quality of life of older residents. However, in line with the current literature [48, 51-53] this evaluation shows there are increasing challenges for GPs providing medical care to residents and facility staff reported problems in getting timely and appropriate medical care for residents. Besides the complexity of care required by residents, the provision of medical care in RACFs is also a challenge because of the demands of primary care – busy GP clinic schedules. A decade of research undertaken by the Australian Medical Association indicates a gradual decline in the number of medical practitioners providing services to people living in residential aged care² - only 21% of GPs regularly engage in residential aged care [54]. This is coupled with shorter consultations, despite increased levels of complexity in the care required by residents, and an increase in after-hours consultations, often by locums [53, 55].

The GP workforce has changed over the past few decades [56], fewer GPs provide medical services to RACFs and those that do tend to be older [48, 57, 58]. This trend has also been reported in the US [59]. Research demonstrates considerable differences between the types of consultations GPs encounter in primary care even with older people, compared to those in residential aged care [48, 52, 53] where the management of chronic conditions including some that are not frequently seen in everyday primary care such as dementia, stroke, and heart failure; as well as complex medication management including the prescribing opioid analgesia and antipsychotics. Other challenges to GPs working in RACFs noted in the literature are the low numbers of nurses, especially skilled nurses who have the capacity to assess residents and relay accurate information to doctors verbally and in documentation, and the use of casual or agency staff who do not know the residents – continuity of staff facilitates trust and makes it easier for GPs to treat residents [60-62].

² Australian Medical Association. 'More support needed for doctors working in aged care, 31 May 2010. Available at: <https://ama.com.au/media/more-support-needed-doctors-working-aged-care>

This evaluation highlighted the dissatisfaction among RACF staff and some GPs with locum services, however the use of medical deputising services (locums) to provide after-hours medical care to people in RACF increased substantially (39%) between 2008-2012 with the locums attending nearly twice as many older people living in facilities compared to those living in the community [55]. This reflects not only the increased acuity of people living in RACFS but also the lower number of GPs providing medical management in this sector. Locums differ from GPs in that they are not required to have vocational training or postgraduate training, they do not know the resident (patient) and in many RACFs they are not supported by nursing staff who are skilled and are familiar with the resident, therefore possibly challenged by many of the same staffing issues experienced by GPs providing medical management in RACFs [61, 62].

Research suggests that to improve access to medical care and the quality of medical management in RACFs, especially from GPs, requires effective models of care delivery and better reimbursement [63, 64]. Various models of general practice care to RACFs exist [64], although there is limited evidence as to which provides the best outcomes for residents and all provide low reimbursement. A model of comprehensive supportive care for older medically complex residents, similar to that used in the provision of cancer care, has recently been proposed.³ Responding to the increasing complex care needs of the residents associated with chronicity and ageing, and the decreasing numbers of GPs working in the sector (both findings highlighted in this report), the new model could include facility based medical practice and the support of a multidisciplinary team such as nurse practitioners skilled in aged, dementia and palliative care, and paramedical staff to support regular clinical review. A similar model – an Integrated Health Care model – with on-site medical management has been introduced by one for-profit provider for its RACFs. This model employs vocationally registered GPs with a strong interest in geriatric medicine and a specialist nurse on-site to oversee clinical care and educate other RACF staff to deliver more complex care [65], and is currently being piloted in another state. Other suggests to address this issue include increasing the utilisation of the Medical Benefit Schedule items to support greater GP involvement in residential care e.g. resident medication management reviews and or GP contribution to a multidisciplinary care plan [51].

5.3 Communication between health services: acute care and residential aged care

The issues of poor communication and a lack of information transfer between acute care and aged care settings, particularly of medication orders and ACP found in this evaluation, have been reported in the Australian [66-68] and international literature [59, 69, 70] with poor outcomes for residents noted. Medication errors account

³ 'Supportive care: not only for cancer'. Ian Maddock, Medical Journal of Australia, June 27th 2016 at <https://www-mja-com-au.ez.library.latrobe.edu.au/insight/2015/24/ian-maddock-new-old-age>; 'A new old age'. Ian Maddock, Medical Journal of Australia, June 29th 2015 at <https://www-mja-com-au.ez.library.latrobe.edu.au/insight/2016/24/supportive-care-not-only-cancer#comment-20847>

for a high proportion of morbidity and mortality following transfers between health care sectors [71, 72]. Communication is a key cause of patients' complaints in the EDs noted in the literature [73]. Healthcare transitions, such as transfer from the ED or acute care to residential aged care, have been cited as particularly at risk for medication and therapeutic errors [66, 74]. The communication of accurate medical information is fundamental to providing quality care to all patients as they transfer between sectors in the health care system, and even more important for older people as they account for more transfers and are frailer and have multiple co-morbid conditions. A search of the literature suggests that discharge planning of older people to RACFs, including communication of medication orders, is an ongoing issue [75]. Most health care sectors work in isolation and do not share the information or data systems required for continuity of care such as medical history and medication charts, resulting in the fragmentation of care, lack of coordination between services and duplication of services, and increased health costs [76, 77]. Communication barriers between health care sectors have been identified as being related to the structure and characteristics of the different sectors, the difference in and use of information technology systems, inter-professional relationships, and organisational cultures [78].

A systematic review of initiatives designed to improve the transition between acute care and aged care settings, in particular communication [79], found that a standardized patient transfer/discharge form may assist with the communication of advance care plans/EoL directives and medication lists and that pharmacist-led review of medication lists may help identify omitted or indicated medications on transfer. Australian interventions introduced to assist with better communication between acute care services and aged care include: a randomised controlled trial of medication-management transfer summaries from hospitals; timely coordinated medication reviews by accredited community pharmacists; case conferences with doctors and pharmacists [80, 81] which resulted in fewer medication errors; and the Residential Care Intervention Program for the Elderly [82], a geriatrician-led supported discharge service for older aged care residents that was not only successful in improving communication across all health care sectors but reduced hospital bed-utilisation and costs.

5.4 RACF staffing – the declining numbers of skilled nurses

In this evaluation participants reported inadequate numbers of RNs in RACFs to assess and manage the clinical nursing care required by residents, especially when they are unwell and dying. In some participating facilities (see Table 1) there were no RNs on duty overnight or at weekends which means the provision of clinical nursing care and management for residents may be compromised. In other facilities the ratios of residents to the one RN or EN on duty was very high, for example, one RN to 150 residents. The inclusion of a CCC, usually an RN, in the staffing numbers is often misleading given the administrative duties required in these positions, especially where there are high bed numbers. CCCs report having little time for direct clinical nursing assessment or care, which also potentially results in compromised care for residents. All of these factors associated with inadequate numbers of skilled and competent staff in RACFs is seemingly associated with high use of both the RiR service and AV to transfer residents to hospital, many of these potentially avoidable.

The declining levels of RNs with the ability to attend to the complex needs of residents, especially at night, has been consistently reported in the academic literature [83-86], in government [87] and industry reports [88], and increasingly in the Australian media [89, 90]. Recently, in response to changes in the Aged Care Funding Instrument (ACFI) which will reduce funding to RACFs, many service providers have stated they will be forced to further reduce the number of nursing staff [91].

In addition, the evaluation found that some RACF policies restrict RNs from providing care within their scope of practice [92]; and some facilities do not have the resources, including equipment, required for nurses to provide the necessary personal and health care to residents. Specifically, these findings highlight the use of the Eastern@Home service to replace nursing and medical care required to be provided by service providers, particularly care that could be provided by RNs including:

- The administration of pain relief because no RN was rostered on duty or was on call but the staff did not wish to disturb her/him
- The changing of urinary catheters or setting up of IV lines for administration of fluids for hydration because RACFs did not have skilled/qualified staff to do this and did not have this equipment
- Unskilled staff on duty who are unable to assess the deteriorating condition of a resident and manage the resident accordingly. PCWs do not have a scope of practice/work and are trained, somewhat variably to assist residents with ADLs. [93] p.12].

The research evidence shows that number and composition of staff in RACFs, particularly the number of nurses, is a key factor in the provision of quality care for older people. The literature consistently shows that higher total staffing levels, especially nurses, in RACFs is directly associated with high quality of care and that inadequate numbers of staff, especially nurses, and a limited skills mix is associated with poor care and unsatisfactory clinical outcomes for residents [95, 96, 99-105].

Registered nurses should have the knowledge and skills to plan, assess and supervise resident care as this is within their scope of practice; and the literature shows they have the time to do this when employed in greater numbers [94, 95]. The Australian standards for RN practice [96] specifically outline the requirements for nurses working in all health care sectors, which includes the ability for comprehensive assessment of individuals, development of care plans in consultation with other health care professionals and the implementation and evaluation of care. The standards also reiterate the need for nurses to maintain ongoing education and training to develop professionally in order to sustain their professional practice. Many of the issues highlighted in this evaluation in relation to the high use of the Eastern@home service suggest some RNs working in residential aged care need further education, particularly in comprehensive health assessment of the elderly; and that RACFs must find ways to maintain the RNs scope of practice, rather than impede it through protocols or policies. Between 2011 and 2013 The Aged Care Branch of the Victorian DHHS contracted ACEBAC to develop, deliver and evaluate a Comprehensive Health Assessment (CHA) of the older person education and training package,

in which more than 1200 RNs and ENs in the Victorian public health sector participated [97]. Evaluation of the CHA package highlighted two considerable gaps in the care of older people: the majority of (61%) nurses attending the CHA workshops had never received this type of education and training before; and older people were infrequently comprehensively assessed in practice. The CHA education and training had a significant impact on the knowledge and confidence of the nurses attending resulting in improvements in resident outcomes. With a greater focus on clinical assessment in the workshops, participating nurses reported that they felt better equipped to handover a well-articulated clinical picture of the deteriorating resident which led to prompt treatment. Ten nurses from the public sector facility participating in this evaluation of the Eastern@home service had completed the CHA education and training in 2013. The importance of this should be considered in light of the very low use of the Eastern@home service at this facility and high use of the AV service to transport residents for diagnostic procedures in January 2014. We would argue that the increased knowledge and confidence among the nurses at this facility who had undertaken the CHA education improved resident outcomes including assessment of unwell residents leading to transfer to hospital via the AV service for diagnostic tests such as x-rays. Some of the identified resident issues requiring further investigation might otherwise have gone unnoticed without nurses trained in this modality.

Whilst this evaluation did not directly measure resident outcomes, reports from participants illustrated in the findings and cited above, highlight instances of compromised clinical nursing care within RACFs and transfer to acute care when staffing was inadequate i.e. when there were insufficient RNs and ENs to adequately assess the needs of residents and provide the necessary care. The literature evidence shows that high RN staffing levels in RACFs reduces the occurrence of adverse clinical outcomes for residents such as declining functional ability, urinary tract infections, weight loss and pressure ulcers [94, 98], as well as unnecessary hospitalisation [95, 99]. Fewer transfers of residents to hospital is also associated with access to NPs by RACF staff [18] and there is strongest evidence supporting the relationship between higher RN staffing levels and higher RN ratios within the staff skill mix with quality indicators (resident wellbeing and clinical outcomes) [84-86, 99-101]. In Victoria, the Safe Patient Care (nurse to patient and midwife to patient ratios) Act 2015 [102] requires approved operators of publically owned RACFs to maintain a minimum number of nurse (RNs or ENs) to resident ratios for high care beds. High care beds account for 67% of all resident beds in Australia [103]. The Act recommends nurse to residents ratios of 1:7 and one nurse in charge on a morning shift; 1:8 and a nurse in charge on an afternoon shift; and 1:15 over-night. In the public sector RACF participating in this evaluation, the staff to resident ratios were in line with the Act (1:5 in the morning, 1:6 in the afternoon and 1:10 over-night). This facility had very low levels of use of the Eastern@home service, mainly for the changing or reinsertion of PEG tubes, and their use of the AV service related to the transfer of residents to hospital for diagnostic tests or specialist medical review. Private and not for profit RACFs in Victoria are not bound by this Act, and this evaluation found the nurse to residents ratios to be very low across all shifts in participating facilities, especially in those facilities classified as high users of the Eastern@home and AV services. For example, at Site 1, a private RACF with 120

high care beds including 22 dementia specific beds, the nurse to resident ratios were 1:24 in the morning, 1:30 in the afternoon and 1:120 overnight. Consideration needs to be given to the possible association between the high use of the Eastern@home and AV services and the low numbers of nurses employed in these facilities.

The number of RNs employed in RACFs in Australia has decreased 31% from 21% in 2003 to 14.9% in 2012 [87]. This reinforces a trend identified in 2007 whereby RACFs reduced their reliance on RNs for the provision of direct care to residents. The number of full time equivalent RNs in 2003 was 16,265 and this has dropped to 13,939 in 2012. In the same time period bed numbers have increased by 24%, from 148,547 beds in 2003 to 184,570 in 2012. Therefore the ratio of RNs to bed numbers has substantially decreased – in 2003 the RN to bed ratio was 0.1095 and in 2012 the RN to bed ratio was 0.0752. This dramatic decline in the number of RNs working in residential aged care has NOT been offset by an increase in ENs as their number has remained stable over the same period [87].

However, focusing solely on the diminishing numbers of skilled RNs working in RACFs fails to address the impact of other staffing issues which influence on the quality of care residents receive, and the increased reliance by facilities on hospital avoidance programs such as the Eastern@Home service. Other factors in the residential aged care sector such as high staff turnover, the increasing use of agency staff, and the adequacy of staff training and experience, as well as the organisation of care and individual facility management, all impact on the quality of care provided to residents and resident outcomes. Retention and turnover in the aged care sector has been a significant and longstanding problem in Australia, with estimates suggesting the average annual turnover is 25% [104]. There is a significant relationship between high staff turnover and poor resident outcomes [98, 105]. In 2012, three-quarters of RACFs identified staff shortages and difficulties in recruitment of staff - 63% reported shortages of RNs, and 33% needed more ENs [87]; particularly in regional and rural areas. In 2012 RNs were the most difficult staffing group to recruit and retain in the residential aged care sector, and as a result, many RNs working in RACFs were working longer hours than they prefer [88]. In 2012, 29% of RNs in RACFs were working over 40 hours a week. Of those RNs working extended hours, only 6% reported wanting to do so. RNs report high work-life dissatisfaction, the highest among the aged-care work force groups, and higher than the Australian workforce average. Due to these staff shortages RACFs are becoming more reliant on agency staff and increasingly, non-professional care workers. In 2012, over half (55%) of RACFs were using agency staff and 31.2% use at least one agency RN a fortnight, an increase from 26% in 2003 [87]. Two RACFs participating in this evaluation reported high use of agency staff, five to ten shifts per week in one facility, perhaps indicative of stress and burnout among staff.

There has been a worldwide trend to the employment of increasing numbers of unregulated, non-professional care workers in RACFs [47] and the same trend has occurred in Australia [104]. However, non-professional care workers in Australia, such as PCWs, have variable education and training, no scope of professional practice and

are not registered; they are poorly paid with limited opportunities for advancement; 25% speak a language other than English [106] and like other aged care staff have high rates of employment turnover [104].

While limited Australian research is available [107], international research (United States, United Kingdom, Canada, Norway, Sweden, and Germany) has shown that increased privatisation within the residential aged care sector is associated with decreases in number of RNs employed in the ‘for profit’ nursing homes, less money being spent on nursing and support services [108, 109] and as a consequence, poor quality care [110-112]. A systematic review and meta-analysis of observational studies and randomised controlled trials investigating quality of care in ‘for-profit’ versus ‘not-for-profit’ nursing homes, found the delivery of care was higher quality in ‘not-for-profit’ services related to higher quality staffing, irrespective of the number of nurses employed. What the review could not take into account when analysing the number and qualifications of staff was staff turnover, the use of agency staff, and the professional mix of staff, all of which may influence the findings [113]. More recently, there have been calls in the US for higher minimum nurse staffing levels in nursing homes to address these serious quality problems identified and comply with regulations governing the provision of care [114].

At the same time as population ageing increases the demand for aged care, the aged care workforce is itself ageing and a recent study from Norway found that older age of nurses is an important factor in poor levels of overall ‘competence’ of nursing staff in aged care, both residential and community. The authors speculate this could be associated with not being able to, or not wanting to stay up-to-date with current skills, and not having access to further education and training [115]. The Australian residential aged care sector workforce is also ageing. Approximately 57% of the residential aged care sector workforce are 45 years or older, which is significantly older than the Australian workforce as a whole [116] and the proportion of all care staff aged over 55 years has increased from 17% in 2003 to 27% in 2012 [87] with RNs and ENs comprising the oldest occupational groups in this sector. The average age of RNs working in the aged care sector in Australia is 47 years and most work part-time [117]. As most of the RNs participating in this evaluation appeared to be older, it is likely that they completed their initial nurse training under the hospital based apprenticeship model, and some did provide this information voluntarily. In addition, many current pre-registration university-based nurse education curricula provide little theoretical understanding of the complex needs of older people, especially those in residential aged care, and students have scant clinical experience working in this sector. Most aged care clinical experience is conducted in the first year of the undergraduate Bachelor degree, when student nurses are observers only. There is little opportunity across the curriculum for student nurses to be actively involved in the planning and delivery of care for this cohort and early negative experiences often influence later choice for employment. There are very few post-graduate courses in aged care or care of older people and even fewer which prepare specialist practitioners in the care of people living with dementia. The majority of education and skill development for this workforce takes place in the workplace. Certainly many of the RACF staff interviewed

in this evaluation of RiR reported that they were prevented from practising these skills by facility policies thereby losing their competency.

Several participants in this evaluation raised the idea of NPs possibly acting as intermediaries for RACF staff and GPs or other medical professionals, or as a consultant for staff when GPs and the RiR service were unavailable. In Australia, a NP requires a Masters level of education for endorsement with national registration bodies and entry into practice. NPs can operate across a range of health care sectors and contexts in an advanced practice nursing role and their scope of practice includes, but is not limited to, advanced health assessment, diagnosis and management, referral, medicines prescribing, and the ordering and interpretation of diagnostic investigations [118].

International research indicates NPs working in the residential aged care sector were highly supported by GPs, allied health professionals, RNs and care staff, and that residents were confident and satisfied with the care they received from the NPs [119]. A key finding of a recent review of admissions to two Melbourne EDs was the recommendation that a hospital outreach service staffed by NPs would reduce the number of avoidable transfers from aged care facilities to EDs [120], a finding supported by international research [121]. An evaluation of the role of NPs in Australian residential aged care [122] found high levels of acceptance of the NP service by users (RACF staff and residents) and other health professionals, as well as high levels of resident satisfaction. The NP provided early comprehensive assessment of residents' conditions which would ordinarily require medical management; timely diagnostic, investigative and treatment decisions; enhanced communication with other health care providers, coordination and monitoring of the resident. However, findings related to the cost effectiveness of the service were unclear and several barriers to the effectiveness of the service including funding and jurisdiction were identified. In other countries, including Canada [123, 124], the US [125] and the UK [126], NPs provide services in long-term (residential) care homes to address the challenge of caring for an increasing older and frailer population with multiple chronicity, rising health care costs, and limited access to medical doctors. A systematic review of the effectiveness of NPs working in long-term care (LTC) settings [127] showed strong evidence of positive outcomes for residents and staff alike including lower rates of transfers to acute care and EDs and reduced costs and better quality of care [25, 26, 128-130]. Views on the role of NPs in LTC settings from residents, families, doctors and facility managers are also positive. They are perceived to establish caring relationships with residents and family members which are more person-centred care and enhance the quality of care [119, 131].

5.5 Advance care planning (ACP) and end of life (EoL) care in RACFs

In line with the literature [132-134] this evaluation residents, family and staff report residents' preferences to stay in their 'home' facility with staff they know when unwell. However, also in line with the literature [8, 19, 135, 136] the evaluation also found that ACP was poorly implemented in most participating RACFs, possibly contributing to the transfer of residents to hospital via ambulance [137].

Given the ageing of the Australian population the number of older people dying in residential aged care services is also increasing [138]. As one participant in this evaluation reported '*residential aged care is palliative care*'. Just over two-thirds of the women and half of the men aged 85 and older who died in Australia in 2010-2011 had resided in a RACF in their last year of life [139]. Despite these facts, a large amount of research in the area [140-143], successful government initiatives [144] and increased media reporting of the topic in Australia [145-148]⁴, this evaluation found that advance care planning (ACP) was often poorly implemented in most participating RACFs. Many participating care staff, including some nurses, and all bar one of the GPs, had limited understanding of the concepts of ACP. There were large disparities in the type of 'plans' used by the participating RACFs, how these were managed and who was involved in the discussion and decision-making. In some facilities ACP documents were simply a one page that provided the resident and family with limited information and required a tick to questions such as 'do you wish to be resuscitated?' There were few RACFs that had a formal process for discussion with the resident and family that was documented and reassessed regularly. Only one participating facility (public sector) had a systematic approach to ACP. This involved a discussion between an RN in a dedicated role and the resident if able, and family on admission which was guided by the use of form used throughout the health service where preferences about care and decisions at EoL could be documented. Part of this systematic process required the GP to sign the form acknowledging the residents and family's decisions.

ACP includes anticipatory EoL conversations, subsequent documentation of wishes and care, as well as the right to refuse in advance, treatments [149]. It is the process of planning for future health and personal care to so that individual values, beliefs and preferences are made known to guide future clinical decision-making especially if there is a loss of capacity to make decisions or to communicate [45]. ACP focuses on planning for a 'good' death, with elements of individual needs, anticipated withdrawal or withholding of clinical interventions, symptom control especially pain relief, and dying in a preferred place, as well as not being admitted to hospital [150]. It leads to better outcomes for residents and their families and has been shown to assist with decision-making among health professional [135, 151]. The literature highlights the importance of ACP for residents, family, RACF staff and doctors, especially consideration of the provision of pain medication at EoL [152-155]; and to prevent re-admission to acute care [72]. Advance care plans need to be clear, inclusive and comprehensive to be effective [156].

In Australia, ACP has been a targeted interventions with legislation or policy supporting it since 2011 [45, 157]. In 2014, Victoria developed a strategy for ACP in health services [45] which provides practical information to guide the systematic implementation of ACP. How well ACP has been adopted across the residential aged care

⁴ A search of the major Australian newspapers over last five years found over 70 articles on ACP and EOL care.

sector is unknown. In this evaluation no participants mentioned this strategy and ACP seems to be poorly understood and administered in an ad hoc fashion.

The major barriers to the discussion and implementation of ACP are: the social and personal taboos about discussing death and dying; avoidance by medical professionals to take responsibility to initiate, coordination and documentation of the ACP discussion; the absence of robust and standardised procedures for recording and retrieving ACP documents across multiple health care settings; and legal and ethical concerns about the validity of such documents [143]. As a society, we are hesitant to talk about death, which is still considered a taboo subject. This often inhibits planning for EoL care, even in RACFs where residents are very old and frail, and this may result in a person's end of life wishes not being followed. Much of the literature identifies the need for early conversations with residents and families [158], and documentation [159], as well as health care professional confidence and competence in ACP communication. Although the ACP process has proven benefits if undertaken properly [144], there are low awareness and implementation rates for advance care plans in Victoria and Australia [141, 160].

Similarly, EoL and palliative care were, in some instances, poorly understood by RACF staff and GPs; and as previously noted many GPs were risk averse with regard to the provision of PRN medication orders for dying residents. Staff noted that often the family would defer to them regarding the 'appropriate' decision about transferring a resident to hospital or keeping them in the facility, irrespective of an advance care plan where the resident has expressed a desire not to be transferred. These findings are supported in the popular and academic literature and by Government reports which suggest that the acceptance and operationalisation of ACP has been slow, despite evidence of its effectiveness and benefits and appropriate assessment and treatment of pain is inadequate [161, 162].

Most, if not all of EoL care for people living in RACFs is provided within the facility and this type of care is likely to increase with population ageing [163], however the literature shows residents are still being inappropriately transferred to hospital when they are dying [164-166]. While awareness of the EoL care needs of older people dying in these settings has increased in Australia in recent decades, results from this evaluation suggest RACF staff and GPs need to readjust their focus and increase their skills and knowledge in order to meet the specific EoL needs of residents [167]. In Australia, quality EoL care, especially end of life palliative care is poorly understood and practised in RACFs [167] despite government initiatives and guidelines to assist facilities to develop and implement suitable policies and procedures [168]. Research has also highlighted the need for ongoing palliative care education among RNs and PCWs working in RACFs [169].

Communicating about EoL care to residents and their families is a vital skill for health care professionals working in residential aged care as most people entering facilities are older and frailer [167, 170]. However, EoL care is a difficult topic and many health care professionals, including nursing staff in residential facilities [171, 172] are uncomfortable discussing these matters irrespective of the setting [173]. Most older people

welcome the opportunity to discuss EoL care, yet are rarely given the opportunity or involved in such discussions [174]. In Australia, clinical guidelines have been developed to assist health care professionals with communication of EoL issues for settings where adults have life-limiting illnesses [175] and recommendations have been made to introduce EoL care plans to assist both health care professionals, individuals and their families [176]. Australian research undertaken to evaluate [169] and measure the acceptability and feasibility of ACP and EoL care pathways in RACFs is mixed [144, 169, 177]. While the introduction of ACP and EoL care pathways have been shown to improve residents and family outcomes [144] and reduce the number of unnecessary admissions to hospital [177], acceptance by RACF staff and GPs varied and was critical to the successful implementation. Inclusion of EoL care pathways in facility policy as part of routine care was also found to be important in the implementation and outcomes of this research. The research findings indicate that GP involvement was important to the level of EoL care pathway use [169, 177], highlighting the need to involve and education GPs in EoL care education. Resource issues were highlighted by families in reporting their experiences of the EoL care pathway in RACFs, particularly staffing levels, with one relative reporting ‘shameful staff-to-resident ratios’ [169], p.355).

The finding from this evaluation that families often rely on advice from RACF staff to assist with decisions to transfer their unwell family member (resident) is also noted in the literature [23, 178]. Possible reasons for this documented in the literature include families having insufficient information about the resident’s condition, prognosis, ACP and treatment options [151, 179]. Upholding the decisions made by residents, including their intentions for EoL care, is paramount. ACP should be discussed and documented on admission to residential aged care [178] to obtain understanding and consensus between all parties (the resident, family, staff and GP) to reduce unnecessary transfers to acute care. Education for nurses [172] and GPs [151] has been recommended as the key to improvement of ACP and EoL care in RACFs, benefiting residents and their families as well as staff and reducing inappropriate transfers to hospital.

6. Limitations of the Evaluation

While this evaluation provides some indication of the impact of the introduction of the RiR service on residential aged care services from the perspective of users of the service, findings are limited by the sample size, the inclusion of only one publically owned facility due to the self-selected nature of participation, and the lack of empirical data on use of both the Eastern@home and AV services by participating facilities. These limitations have the potential to introduce biases and reduce the generalisability of the findings.

The evaluation collected qualitative data from staff, residents and family members at nine RACFs (less than 10% of RACFs in the Eastern Metropolitan Health region) and four general practitioners providing medical management to residents in the project. In some facilities despite numerous efforts, we were unable to interview night duty staff who have less access to medical care when a resident becomes ill or is dying and therefore

possibly have more need for a service such as RiR. The presence of more senior staff such as managers and clinical care co-ordinators in some of the group interviews may also have inhibited free and frank discussion of the issues. Recruitment of GPs who provide medical management at the participating RACFs also proved to be extremely difficult, despite participating facilities providing their contact details. Common reasons cited for non-participation by GPs via practice managers and receptionists included that they ‘were too busy’ and ‘do not participate in research’. Recruitment of doctors as research participants is known to be difficult [180, 181], especially when the research is qualitative. In addition, the Eastern@Home service is not typical of all Victorian RiR services as the team includes a geriatrician, whose presence in the service was acknowledged by most RACF staff and GPs participating, as access to such expert knowledge and skills was highly desirable. Some RiR services are staffed solely by RNs so RACF staff do not have direct access to such expert medical knowledge. Due to the study design and therefore ethics approval, we did not collect empirical data from participating RACFs, the Eastern@home or AV services, to more fully quantify the use of the RiR or AV services by facilities in the Eastern Health catchment. Further research is needed to more fully understand the impact of the RiR program in Victoria.

7. Conclusion

Meeting the complex health care needs of people living in RACFs needs to be addressed as a health system priority. The people entering residential aged care now are older with multiple chronic illnesses including dementia, which require more nursing care and medical management than previous generations. A new model of medical care is urgently required for this sector, including financial incentives, to address the limited access to timely and suitable medical management currently experienced. The sector requires more RNs and all nurses employed in residential aged care need to have the educational background and a clinical skills set to comprehensively assess and manage older residents when they become acutely ill. An aged care career pathway for RNs should be considered, as should NPs working as geriatric consultants in the residential aged care sector to support and educate RNs and ENs. Service providers (organisations and managers) need to reconsider policies and protocols that prevent RNs from working within their full scope of practice. As poor communication between the acute and residential aged care sectors was another finding of this evaluation, moves to increase the use of technology and telecommunication methods to reduce communication errors would be ideal; for example *ehealth* records that travel with residents (patients) would assist all sectors and the ambulance services with the review of residents’ medical history, medication orders, and ACP. RACFs need some form of mandated implementation of national guidelines on ACP to reduce unnecessary hospital transfers and comply with residents’ wishes to stay in their ‘home’ facility.

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