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C O R P O R A T E A D V I S O R Y

REPORT TO

Department of Human Services
Programs Branch
Metropolitan Health and Aged Care Services Division



RESIDENTIAL AGED CARE IN-REACH CLINICAL SUPPORT PILOT PROGRAM EVALUATION 2009

SUBMITTED BY

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Abbreviations used in this report

ACLS	Aged Care Liaison Service
AH	After Hours
ANUM	Associate Nurse Unit Manager
AO	Admitting Officer
AV	Ambulance Victoria
CCF	Congestive Cardiac Failure
CNC	Clinical Nurse Consultant
COPD	Chronic Obstructive Pulmonary Disease
CRS	Clinical Response Service
DHS	Department of Human Services
DMC	Dench McClean Carlson Corporate Advisory
ED	Emergency Department
EFT	Equivalent Full Time
GP	General Practitioner
GPV	General Practice Victoria
HARP	Hospital Admission Risk Program
HITH	Hospital in the Home
HLC	High Level Care
IDC	Indwelling Catheter
IV	Intravenous
KPI	Key Performance Indicator
LLC	Low Level Care
MATS	Mobile Assessment and Treatment Service
NUM	Nurse Unit Manager
OT	Occupational Therapy
PDF	Portable Document Format
PEG	Percutaneous Endoscopic Gastrostomy
RAC	Residential Aged Care
RAD	Response, Assessment and Discharge
RAMU	Rapid Assessment Medical Unit
RDNS	Royal District Nursing Service
RECIPE	Residential Care Intervention Program in the Elderly
REFCOM	Ambulance Victoria's non-emergency triage dispatch system

REG	Medical Registrar
RN	Registered Nurse
ROS	Residential Outreach Service
ROSS	Residential Outreach and Support Service
SRS	Supported Residential Service
UTI	Urinary Tract Infection
VEMD	Victorian Emergency Minimum Dataset
WDMS	Winter Demand Management Strategy
WDS	Winter Demand Strategy

1.0 EXECUTIVE SUMMARY

Introduction

- 1.1 Dench McClean Carlson Corporate Advisory (“DMC”) was appointed by the Department of Human Services (“DHS”) to undertake an evaluation of the Residential Aged Care In-reach Clinical Support Pilot programs (“In-reach”).
- 1.2 The review commenced in April 2009 and was completed in June 2009.
- 1.3 In response to the observation that significant pressure was experienced by metropolitan health services during the winter period July 2007 to September 2007, DHS developed a 2008 Winter Emergency Demand Strategy.
- 1.4 One part of this strategy was to reduce demand on Emergency Departments (“EDs”) from patients presenting from residential aged care (“RAC”) services. This has been undertaken by trialling models of aged residential In-reach clinical support strategies in ten health services. The aim of the In-reach pilots is to reduce the need for transfer of aged care residents to an ED if appropriate and safe care can be provided in their own environment, therefore providing an alternative to the ED for relatively simple clinical procedures.
- 1.5 Ten independent In-reach programs were developed by the ten health services. The In-reach program was required to build on an existing service and utilise resources already available in the health service.
- 1.6 A number of key deliverables were given to the ten health services. These are detailed in Chapter 2.0 Background. A summary of the ten health models is provided in Chapter 2.0 and full descriptions are provided in Chapters 4.0 and 5.0.

Methodology

- 1.7 The key components of our methodology for the review included desk research, and detailed interviews with approximately 30 stakeholders including In-reach and RAC services representatives, DHS staff, Ambulance Victoria (“AV”), General Practice Victoria (“GPV”) and other stakeholders.
- 1.8 There was also a thorough assessment of the quantitative data supplied by the In-reach services to DHS, and the Victorian Emergency Minimum Dataset (“VEMD”) and assessment of the results of an independent survey sent to health services (including the In-reach teams), RAC services, AV, General Practitioners (“GPs”), GPV and other stakeholders.
- 1.9 A full description of the methodology is provided at Chapter 3.0 and the instruments are provided in the Appendices.

Conclusions

- 1.10 The review found that the In-reach program is well regarded by all stakeholders.
- 1.11 The In-reach program clearly helps avoid the unnecessary travel of the older patient to a hospital facility.
- 1.12 Some health services encountered initial start up issues whilst those health services with similar programs already in place found that it allowed them to build on existing strengths.
- 1.13 The variation in practice and difference in level of pre-existing programs and relationships meant that some pilots appeared to be performing better than others. However this did not appear to correlate with the structure of the model. We have provided a list of the factors associated with success in key findings above.
- 1.14 As an overall concept the In-reach program is generally flexible and responsive and meets its aims of providing alternate solutions for what would otherwise be unnecessary or inappropriate referral of an aged care resident to an ED. It is mostly considered accessible and meets referrer and hospital requirements.

Key findings

- 1.15 The following key findings were identified from our analysis of data from interviews, telephone discussions, document reviews, survey and quantitative data from the In-reach services and VEMD.
- 1.16 Perceptions of success were based on issues such as:
- Reliable 24/7 access, preferably with a single point of contact and continuity of staff
 - A good mix of skills including acute skills and community skills in the In-reach teams
 - A supportive attitude from the In-reach teams rather than a critical attitude towards RAC services staff, (a collegiate attitude was noted and valued as most important by RAC service nursing staff)
 - Availability of medical leadership
 - Assistance with decision-making and resolution of treatment issues
 - On going communication to RAC services and other stakeholders
 - A willingness on the part of the In-reach teams to assist with inservice training

Findings specific to patient care

- 1.17 The program assists in the avoidance of unnecessary ED presentations for older patients; it provides good quality of care under the clinical governance standards of the health services and utilises health services protocols
- 1.18 There is a need for more focus on advanced care planning and end of life issues
- 1.19 In-reach teams may also be able to provide services such oxygen and antibiotics for treatment of pneumonia in the RAC services rather than in ED or acute wards
- 1.20 It is difficult to assess cost effectiveness – it is possible some pilots with lower numbers were not cost effective although the In-reach service delivered better care to the older patients than a trip to ED

Findings specific to the In-reach team

- 1.21 Medical leadership adds value to the services that can be crucial when medical intervention is required
- 1.22 ED consultant on call 24 hours was not necessary – part time support from a geriatrician is considered the most valuable and cost effective
- 1.23 Where a relationship has been established between a RAC service and an In-reach team the communication has improved substantially particularly where there has been a single access point and continuity of staff - the building of trust has been substantial and contributes to the improvement of care to RAC residents.
- 1.24 Inservice training to RAC service staff is valuable as it builds positive relationships and reduces demand on In-reach teams and health services; it should continue

Findings specific to the program structure

- 1.25 There did not appear to be any correlation between the structure of the model of care drawn upon (such as Hospital in the Home (“HITH”), Hospital Admission Risk Program (“HARP”) and ED) and the success of the service
- 1.26 Most participants want the service 24/7, 365 days (The cost effectiveness of the In-reach service is difficult to evaluate; a modified service is probably necessary to ensure the best value for money in the low usage times especially between midnight and 5.00 am)
- 1.27 Hospitals have the experienced clinical staff and can offer short inservices in a timely manner when they can have the greatest immediate impact on quality of care

- 1.28 Maintenance of protocols by In-reach teams to avoid substituting for care that is the responsibility of RAC Services should be a priority
- 1.29 With growth in the In-reach service (assuming it continues) and more episodes of care within the existing cost structure, the overall cost effectiveness will improve
- 1.30 The greatest value is achieved both in monetary terms and in quality of care if, in appropriate cases, the ambulance trip to ED is avoided – all models should focus on generating referrals from AV and RAC services.
- 1.31 It is also of benefit reviewing older patients presenting to ED to determine an appropriate model of care which may include treatment in the aged care facility rather than admission to an acute ward.

Findings specific to future directions / recommended followup

- 1.32 It would be beneficial if a working group were established to investigate and further develop alternate protocols for the top diagnosis categories for implementation in RAC services with support from In-reach teams
- 1.33 Health services should liaise more closely with GP networks especially in the adaptation of existing protocols including discharge protocols
- 1.34 Consideration should be given to extending the In-reach program to older people still resident in the community with AV triaging the calls
- 1.35 All In-reach programs should review the good practice approaches described and share information and educational materials where appropriate
- 1.36 Health services should enlist AV as a partner in the development of their In-reach services as AV offer a significant opportunity for referrals
- 1.37 Collection of accurate and complete data from the health services to DHS is desirable for ongoing program review and development
- 1.38 Consideration must be given to linking the data collection fields to those that are already being utilised by health services (however not all health services are using the same data collection medium)
- 1.39 A full discussion of the key findings is provided at Chapter 9.0 and at Chapter 6.0 for key findings relating to data.

Recommendations

1.40 We drew a series of recommendations from our key findings. They are as follows:

1	The program assists in the avoidance of unnecessary ED presentations for older patients, provides good quality of care and should be expanded; 24 hour access should be continued Our review found that stakeholders wanted the program to run all year round and we understand that DHS has now implemented this.
2	Medical leadership, preferably from a geriatrician, adds value and should be encouraged
3	Health services should enlist RAC services as partners in the development of their In-reach services to achieve the greatest overall impact on cost savings for the health system by avoiding ED presentations and developing care protocols in RAC services.
4	Health services should be encouraged to investigate the cost effectiveness of their approach to ensure the best value for money is achieved especially in the delivery of a 24 hour service, with an appropriate modification of the service in the low usage times especially between midnight and 5.00 am
5	All programs should concentrate on an In-reach model that is focused on the RAC services rather than an ED model that focuses on patients already present in ED
6	All In-reach programs should be encouraged to review the good practice approaches and share information and educational materials where appropriate
7	Health services should communicate with AV and provide details of the RAC services covered to enable AV to offer the In-reach alternative in suitable cases
8	Establish a working group to investigate and further develop alternate protocols for the top diagnosis categories for implementation in RAC services with support from In-reach teams
9	Health services should work with RAC services and medical practitioners on advanced care planning and end of life issues
10	Health services should develop good discharge protocols from the In-reach episode especially the provision of a discharge report to GPs
11	Maintenance of scope of service provision protocols by In-reach teams to avoid substituting for care that is the responsibility of RAC Services should be a priority
12	Inservice training to RAC service staff is valuable as it builds positive relationships and reduces demand on In-reach teams and health services, and it should continue
13	Consideration should be given to extending the program to older people still resident in the community

14	Health services should liaise more closely with GP networks especially in the adaptation of existing protocols
15	Collection of accurate and complete data from the health services to DHS is recommended for ongoing program review and development; the recommendations for improvement in data collection should be adopted
16	DHS should consider linking the data collection fields to those that are already being utilised by health services (acknowledging that there is variation between the health services data collection)

2.0 BACKGROUND

Winter Demand Management Strategy 2008

- 2.1 During the winter period July 2007 to September 2007, significant pressure was experienced by metropolitan health services resulting in higher levels of bypass and reduced timeliness for the management of patients in emergency departments.
- 2.2 While winter is a busy period with an increase in influenza-like illnesses and viral gastroenteritis, the impact on health services was more significant in 2007 than in previous years. The impact was evident in the decrease in performance across a range of indicators including: proportion of operating time on hospital bypass, proportion of non-admitted patients treated within four hours, proportion of patients admitted within eight hours and proportion of patients seen within recommended time.
- 2.3 Consultation with health services indicated a variety of reasons for the increased pressure. These included:
- Demand – while the overall increase in presentations across the metropolitan area was not significant, some health services experienced a large increase in volume or an increase in the acuity of patients. In addition, an increase in paediatric presentations was noted in some health services
 - Capacity – many health services experienced decreased capacity due to bed closures for viral gastroenteritis and the changes in sub-acute services due to the transition between the interim care program and the transition care program
 - Staffing – high proportion of sick leave for medical and nursing staff and unavailability of agency staff
 - Gastroenteritis and influenza – almost all health services were affected by viral gastroenteritis with beds being closed on wards as patients were unable to be isolated due to shortage of single rooms
- 2.4 It was clear that each hospital had a unique combination of factors that affected their ability to respond to the increased pressure.
- 2.5 Health services implemented a variety of responses including:
- Increasing staffing
 - Opening additional capacity
 - Deferring elective procedures
- 2.6 While these strategies helped to reduce the effects of increased demand, many health services indicated that a more comprehensive and planned response was needed for 2008.

Key elements of the strategy

- 2.7 To prevent repetition of these problems in 2008, DHS developed a 2008 Winter Demand Strategy. The strategy included three key elements:
- reduce the demand on Emergency Departments
 - increase capacity of health services
 - manage demand better
- 2.8 One part of this strategy was to reduce demand on ED from patients presenting from Residential Aged Care Services. This has been undertaken by trialling models of aged residential In-reach clinical support strategies in ten health services. The aim of the In-reach programs is to reduce the need for transfer of aged care residents to an ED if appropriate care can be provided in their own environment.
- 2.9 Each health service was given the flexibility to develop a program that accommodated existing strengths and capabilities including the availability of staff and resources. The In-reach program was required to build on an existing service and utilise resources already available in the health service.

In-reach Pilot Project deliverables

- 2.10 These key deliverables/requirements were given to ten health services
- Develop and pilot a model of care that provides clinical treatment and assessment support to residents living in aged care facilities
 - Clinical support available 24 hours a day, seven days a week
 - Collaboration with ED
 - Collaboration with residential aged care facilities and general practice
 - Collect and provide data on activity including but not exclusive to: number of patients, reason for referral, and outcome
 - Submit report, detailing the model, referral pathways, what happened, lessons learned and recommendations
 - Participate in external evaluation, which will include contribution to the development of the evaluation method
 - Conduct pilot between 1 July and 31 October 2008

Summary of Models

2.11 The ten health services included in the pilots are

Health service	Pilot description
Austin Health	Expansion of HITH with nursing and medical support from HITH
Western Health	Adding to Aged Care Clinical Liaison role with geriatrician backup - running out of Footscray ED only
Bayside Health	Expansion of existing HARP and HITH support
Bendigo Health Care Group	Dedicated nurse providing In-reach with geriatrician and ED support - large education component
Eastern Health	Expansion of HARP with ED back up after hours
Melbourne Health	HITH based nurses and medical back up - HITH nurse in ED over night
Northern Health	Aged care nurse in ED to triage via access line - back up from existing HARP service
Peninsula Health	Extension of existing HARP service in ED
Southern Health	Dedicated In-reach nurse within HITH with single point of contact
St Vincent's Health	Expansion of HARP with ED back up after hours

3.0 METHODOLOGY

- 3.1 The Residential Aged Care In-reach Clinical Support Pilot Program Evaluation commenced with a project establishment stage to discuss and agree methodology, timeline and project management.
- 3.2 Interviewees were identified in consultation with DHS, and incorporated pilots from metropolitan (three) and regional (one) health services, associated RAC services and other key stakeholders.
- 3.3 A list of key issues for structured interviews was developed and feedback sought from the DHS Project Manager.
- 3.4 We interviewed approximately 30 people and canvassed views from a further six stakeholders at a stakeholder working session. (See Appendix B for a full list of interviewees).
- 3.5 We gathered information by telephone and email from all ten pilot sites and summarised the components of all the models.
- 3.6 Following completion of a significant number of interviews we developed a questionnaire and sought feedback from the DHS Project Manager. The questionnaire was distributed to the health services (with a request that they also send it to the RAC services that utilised In-reach) and to stakeholders for whom we had contact details.
- 3.7 We received data from DHS that had been provided by the pilot programs. The data provided details on all episodes of care that had been managed in the pilots.
- 3.8 We also received an extract from the Victorian Emergency Minimum Dataset. The extract covered all residents of aged care facilities who had presented to the ED in the ten pilot sites for the year prior to the commencement of the In-reach pilot and the year of the pilot. It covered presentations between 1 May 2007 and 30 April 2009. There were 37,846 presentations in the dataset.
- 3.9 Following data collection we convened a number of DMC team meetings for data analysis and developed a draft report for discussion with DHS.

4.0 IN-REACH MODEL OF SERVICE

- 4.1 This chapter describes the pilot programs that have achieved the greatest percentage reduction in ED presentations in the pilot period based on the data provided by the health services to DHS (see Chapter 6.0). We have referred to them as an In-reach model of service. They are:
- Alfred Health with 585 patient episodes recorded by the In-reach team (from 1 July 2008 to 31 March 2009)
 - Austin Health with 159 episodes (from 18 July 2008 to 5 May 2009)
 - Bendigo Health with 464 episodes (from 8 July 2008 to 3 April 2009)
 - Melbourne Health with 306 episodes (from 11 August 2008 to 31 January 2009)
 - Northern Health with 252 episodes (from 1 July 2008 to 31 March 2009)
 - Peninsula Health with 169 episodes (from 5 August 2008 to 26 September 2008)
 - Southern Health with 103 episodes (from 27 September 2008 to 23 March 2009)
- 4.2 As part of our review we conducted in-depth interviews with representatives from Bendigo Health, Peninsula Health and Southern Health.
- 4.3 We gathered information on the models at Alfred Health, Austin Health, Melbourne Health and Northern Health via emails and telephone discussions with nominated representatives.
- 4.4 The tables describe the models and their components. The commentary following is drawn from interview findings where available and from telephone discussions, data and survey evidence.
- 4.5 It is noted that many of the episodes recorded in the DHS data referred to in this discussion were missing item codes. This therefore necessitates a degree of interpretive flexibility when assessing and reporting on this data.

Alfred Health

Service description	<p>The Mobile Assessment and Treatment Service (“MATS”) has existed since 2001 – the Winter Demand Strategy funding enabled the health service to expand the existing service with increased staff, hours of operation and logistics.</p> <p>MATS has had a long established relationship with wider HARP services, HITH, ED medical and surgical inpatient units.</p> <p>Provision of services to 30+ RAC services.</p>
Staffing	<p>Team consists of:</p> <ul style="list-style-type: none"> • HARP manager, HARP Complex Team Leaders, • Geriatrician, General Medical and Advanced Trainee Registrars • ED Physician • Senior Nursing staff, Nurse Bank staff • Allied Health staff - where indicated. • Administrative staff <p>Generally two Registered Nurses (“RNs”) on AM, two RNs on PM weekdays.</p> <p>On the weekend one staff member works and is on call for entire weekend. Senior RN has one to two non clinical days per week for reports/marketing and other administrative duties. (seven RNs combination of Full time and Part time staff)</p> <p>Seven RNs making up a total of 5.2 EFT of RN. NB: this includes an increase of 2.2 EFT for WDMS 24 hour In reach service.</p> <p>One Aged Care Registrar 0.5 EFT of geriatrician Plus extra 0.6 EFT of Medical Registrar (“REG”) time for extended In reach service</p> <p>Medical - weekdays geriatrician 0.5 EFT and Registrars Weekends – On call/Recall by ED physicians (roster 1:5)</p>
Hours available	<p>0800 - 2030 Monday to Friday on site 1000 - 1830 Saturday and Sunday on site</p>
After hours service	<p>0830 - 0800 Telephone on call overnight - done by MATS Nursing Staff</p> <p>On the weekend one staff member works and is on call for entire weekend.</p>
Management	<p>All staff collect data on statistics sheets, data is collected for all direct and indirect patient activities</p> <p>Senior RN collates and compiles data - completes data</p>

	spreadsheet recommended by DHS, in addition to the services existing data collection (used prior to pilot project) All reports are completed monthly
Facilities	The home office for MATS is at the Alfred Hospital - main ward block - adjacent to the Emergency Department Transport - two pool cars - exclusive use by MATS staff
Pre-existing programs	MATS has had a long established relationship with wider HARP services, HITH, ED medical and surgical inpatient units
Education to RAC services	MATS has established links with local RAC services, in addition new relationships were generated with other local RAC services who have sent residents to Alfred Health Emergency departments MATS has printed marketing brochures that outline service, including contact information - these brochures are widely distributed to RAC services and GPs and any other key stakeholders MATS also has a large marketing poster which is displayed at the Health networks poster week and then rotated to ED's (Sandringham and Alfred hospitals) and other clinical areas, including RAC services, to maximise exposure of service

- 4.6 This pilot program covered 30 plus RAC services. The pre-existing MATS service enabled the pilot to leverage off existing communications networks and therefore make an immediate impact.
- 4.7 Alfred Health covered the third highest number of reported episodes with 585.
- 4.8 In 69% of cases the Alfred team were dispatched to the RAC service. Of the 69% (390) of cases attended by the In-reach team, in 333 cases the issue was resolved by the team. However some subsequently required admission to hospital. The information in Chapter 6.0 gives the breakdown of data on patient outcomes.
- 4.9 This meant that in the majority of cases the unnecessary use of ambulance and ED resources was avoided and the adverse impacts of an inappropriate hospital visit on the older patient were averted.
- 4.10 A further 19% of episodes of care were managed with advice over the phone. This amounts to a total of 88% of episodes being managed in the first instance by the In-reach team which can be seen to significantly the efficiency and quality of care to the older patient.
- 4.11 Less than 2% of patients were advised to present to ED. In all a total of 12% of patients were seen by the In-reach team in the ED, where they had either been directly advised to attend or were identified after presentation as appropriate for the In-reach team.

- 4.12 Most of the requests for service were not urgent with only 18% requiring a response within two hours. The majority did request a response within six hours (52%).
- 4.13 So the data reflects well the potential for the program to directly decrease the demand on the ED in dealing with older patients.

Austin Health

Service description	<p>Managed by HITH</p> <p>Re-invigorated previous program for changing PEG tubes (use of this program had fallen off)</p> <p>Fast track x-ray</p> <p>Program Coordinated by HITH Nurse Unit Manager (“NUM”) in conjunction with ED consultant and aged care general manager, including community link (HARP) manager</p> <p>Services provided to 41 RAC services</p>
Staffing	<p>Coordinated by HITH</p> <p>Staffing mix :</p> <p>HITH/In-reach nurse 1.3EFT</p> <p>ED Physician 0.65 EFT</p> <p>Geriatrician 0.1EFT</p> <p>Community Link 0.5EFT</p> <p>Clerical 0.1 EFT</p> <p>GP Consultant – fixed fee</p>
Hours available	<p>Hours available: Monday to Friday</p> <p>0800 to 2300 Telephone Triage</p> <p>1000 to 1700 Team visit</p>
After hours service	Limited – as above
Management	<p>Residential Outreach Service (“ROS”) Steering committee</p> <p>ROS Operational meeting</p> <p>ROS weekly case conference Qualitative data collected</p> <p>Statistical reports available at any time via access database. Data collected, entered and validated daily.</p> <p>Home and Ambulatory Services manager and NUM are responsible for the budget for the In-reach program</p>
Facilities	<p>Program is located within the ambulatory care centre in the main Austin Health patient building</p> <p>Transport: outreach car available all day</p>
Pre-existing programs	<p>Re-invigorated PEG program</p> <p>Utilisation of HITH base</p>

Education to RAC services	A flyer is given to each facility and information has been sent to GPs
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- 4.14 The Austin Health pilot program provided us with data from 159 episodes of care.
- 4.15 Whilst Austin Health had lower episodes of care, there were no episodes of care recorded against Action 4 (provide care co-ordination in ED or ward) in the DHS dataset. This would indicate that unlike many of the other health services, whose staff spent time reviewing the ED patient list for suitable In-reach patients, Austin In-reach team appeared to utilise their resources with onsite visits or telephone consults with RAC services.
- 4.16 In 65% of cases the In-reach team were dispatched to the RAC service, and phone advice was provided in another 23% of cases. In the remaining 12% of cases the patient was advised to present to ED.
- 4.17 In line with many of the health services, the urgency rating showed that 40% of cases could wait two hours with a further 53% able to wait six hours or longer.
- 4.18 This illustrates the potential impact that In-reach can have, when the majority of cases do not require immediate emergency or ambulance assistance.
- 4.19 Demand on ED was avoided in 81% of cases, with a further 14% resolved within the ED thus resulting in reduced demand for inpatient beds.
- 4.20 As would be expected, when the data is broken down by high and low care status of the resident, 64% of cases attended by In-reach were from the high care group.
- 4.21 In both the high and low care groups the issue was resolved by the visiting team in nearly 50% of cases (48% and 46% respectively).
- 4.22 Other avenues utilised included HITH, Fast Track Radiology, and Community Link.
- 4.23 The VEMD for Austin Health demonstrated that the number of ED presentations for residents from RAC services increased from 2286 in the period including winter 2007 to 2347 for the period including winter 2008.
- 4.24 However the flow on to acute decreased from 66% to 59% for the respective periods which is counter intuitive if the less serious cases are not presenting to ED. In these circumstances we would expect to see an increase in the percentage of admissions to wards.
- 4.25 In-reach was just one part of Austin Health's Winter Demand Management Strategy. It contributed to the health services ability to improve issues such as:

- Percentage of time on bypass:
 - July 2007 - 5.8%
 - July 2008 - 1.8%
- Percentage of patients admitted within 8 hours
 - July 2007 - 53.1%
 - July 2008 - 66.4%

Bendigo Health

Service description	<p>Program staffed by specialist nurses</p> <p>Nurses contact ED Admitting Officer (“AO”) for consultation and advice</p> <p>Geriatrician funding for two sessions per week – this effectively allows nurses to contact a geriatrician seven days per week (always one on call over W/E)</p> <p>Service provided to 15 RAC services (1000 beds)</p>
Staffing	<p>Specialist Nurses</p> <p>ED consultant advice</p> <p>Geriatrician (equivalent to two sessions per week)</p>
Hours available	<p>Monday – Sunday</p> <p>To 2300 hours</p>
After hours service	<p>AH – facilities contact the AO directly for consultation and advice</p>
Management	<p>Budget managed by Patient Access and Demand Manager</p> <p>Gather data as requested by DHS</p> <p>Monthly reports to the executive</p>
Facilities	<p>Office on subacute campus (due to space issues)</p> <p>Weekends and nights - staff located in the ED</p>
Pre-existing programs	<p>All existing programs utilised including HARP, HITH and PAC, although not used as much as originally anticipated</p>
Education to RAC services	<p>Pamphlet, flyer</p> <p>Inform GP and other relevant services for the In-reach service</p>

- 4.26 This pilot program covers 15 RAC services in the regional area with 1,000 beds. It covered the fourth highest number of reported episodes with 464.
- 4.27 We interviewed Bendigo Health to gain an understanding of the successes and challenges of the pilot.

- 4.28 There was no pre-existing service although the health services had existing good relationships with GP networks and one of the staff had previously worked for the HARP program.
- 4.29 The decision was made for logistical purposes to limit involvement to those RAC services within an hour of Bendigo.
- 4.30 Feedback from the RAC services concerning the In-reach service is very strongly positive.
- 4.31 Bendigo Health believes that it has good interactions with the local GPs. A feature of its protocols is that the In-reach team asks the RAC services whether they have contacted the GP on the first approach.
- 4.32 This model had strong medical support from a geriatrician who had responsibility for clinical governance.
- 4.33 A good practice feature of this program is the practice of regular Monday morning case conferences with medical leadership from a geriatrician to review cases and provide clinical guidance on any emerging issues.
- 4.34 A second good practice feature is the development of guidelines and the development of a training program for staff by an external provider.
- 4.35 A third good practice feature is in on going communication via a monthly meeting with Directors of Nursing and a monthly Aged Care Forum with GP representatives.
- 4.36 A fourth good practice feature is a comprehensive set of guidelines for the service which is continually updated.
- 4.37 The uptake among RAC services was varied with some much slower than others. There was initially some resistance but the pilot service focused on capacity building not criticism and the uptake was good.
- 4.38 Bendigo Health has offered RAC services inservices in management of diabetes, PEGs, catheters, chest infections, swallowing, symptom management and end of life issues.
- 4.39 Staff believe the pilot has led to a drop in the number of RAC services patients presenting to ED. The VEMD shows that Bendigo Health had slightly fewer patients presenting to ED from RAC services in the period including winter 2008 (981) compared to the period including winter 2007 (1008) refer Chapter 6.0.
- 4.40 The data also shows that the flow on to acute increased from 42% in winter 2007 (424) to 45% in winter 2008 (443). This is what we would expect to see because as the unnecessary trips to ED are avoided it is more likely that those patients who do present will need hospitalisation.

- 4.41 The data provided to DHS by Bendigo Health indicates that the demand on ED was avoided in 66% (298) of the reported episodes of care and a further 7% (34) were resolved in the ED.

Melbourne Health

Service description	<p>Independent program</p> <p>Shares the doctor with HITH but independent of each other</p> <p>Mobile service</p> <p>90% calls visited, 10% managed per phone. 50% of visits require doctor advice</p> <p>Will be taking referrals directly from AV in future</p> <p>Services provided to 49 RAC services</p>
Staffing	<p>RNs with ED experience 2.5 EFT</p> <p>Doctor shared with HITH</p>
Hours available	<p>Single point of entry – mobile phone carried by nurse.</p> <p>0700 – 2130 Mon-Fri</p> <p>0800 – 1830 Sat/Sun</p>
After hours service	<p>No after hours arrangements – assessed as only 25% of patients after hours – increased cost of staff for extended hours not of significant benefit</p>
Management	<p>Budget Managed by Manager HITH/ED Care Coordinator/In-reach</p> <p>Report internally to Division of Medicine</p> <p>Internal statistics generated</p> <p>In-reach budget contributes to medical cover</p>
Facilities	<p>Not co -located with other departments</p> <p>Dedicated vehicle leased to the cost centre</p>
Pre-existing programs	<p>Shares HITH Doctor – otherwise independent service</p>
Education to RAC services	<p>Multiple introduction letters</p> <p>Two inservices per RAC services issues including introduction of the service, managing catheters, urological conditions, catheter insertion, dehydration management and gastro management</p> <p>Facilitate discharge from ED to RAC services</p> <p>Directly engaged with Div GP</p> <p>Brochures for GPs</p> <p>AV aware - will be taking referrals directly from AV in future</p>

- 4.42 This pilot program provided us with data from 306 episodes of care.
- 4.43 Whilst Melbourne Health had lower episodes of care, when compared with the top four, there were minimal (four of 306) episodes of care recorded against Action 4 (provide care co-ordination in ED or ward).
- 4.44 This would indicate that unlike many of the other health services, whose staff dedicated time to reviewing the ED patient list for suitable In-reach patients, Melbourne In-reach team appeared to utilise their time with onsite visits or telephone consults with RAC services.
- 4.45 Melbourne also did not have the benefit of leveraging off a pre-existing program, thus had quite respectable numbers of episodes of care when this is considered.
- 4.46 Melbourne Health took on the In-reach project with the following philosophy in mind: Patients should receive the right treatment at the right time, in the right place from the right people.
- 4.47 It was important to accept that some patients will end up in ED, and some do require admission but that the idea was to concentrate on avoiding unnecessary transfer.
- 4.48 Melbourne In-reach team decided that several features were important for an In-reach program:
- Brand the program – Melbourne Health
 - Single point of access
 - Distinguish service as separate from hospital
 - Engage directly with RAC services
 - Mail outs often to RAC services
 - Engage and report to GPs
 - Keep facilities in the loop
- 4.49 Prior to the In-reach program they identified that the peak presentation times were between 8am and 4pm for low level care patients and between 11am and 7pm for high level care patients. There was little variation between days of the week. The majority of triage categories at ED were 3 or 4.
- 4.50 Analysis of the data provided to DHS by Melbourne Health identified that in 89% of cases the In-reach team were dispatched to the RAC service, and phone advice was provided in another 8% of cases. In the remaining cases the patient was advised to present to ED.

- 4.51 In line with many of the health services, the urgency rating showed that 227 cases could wait two hours with a further 25 able to wait six hours or longer. A relatively small number (54) required an immediate response.
- 4.52 This illustrates the potential impact that In-reach can have, when the majority of cases do not require immediate emergency or ambulance assistance.
- 4.53 Demand on ED was avoided in 93% of cases, with a further 4% resolved within the ED thus resulting in reduced demand for inpatient beds.
- 4.54 As would be expected, when the data is broken down by high and low care status of the resident, 60% of cases attended by In-reach were from the high care group.
- 4.55 In both the high and low care groups the issue was resolved by the visiting team by referral to another service or the issue was resolved by local resources. Only very small numbers of cases were admitted to the ward or ED.
- 4.56 The large numbers of referral to other services by the visiting team are perhaps reflective of referrals to HITH or RDNS, with the end result being that the patient avoids a trip to ED.

Northern Health

Service description	<p>Northern Health currently works closely with the Residential Aged Care Sector in providing both acute and chronic care in RAC services via two Northern Programs based at The Northern Hospital namely HITH and Residential Care Intervention Program in the Elderly (“RECIPE”).</p> <p>The Clinical In reach model was built on the capacity of both programs with the aim to reduce the number of patients from RAC services that present to the Northern ED and require an inpatient admission.</p> <p>At the commencement of the pilot, HITH did not have the capacity to review a referral in the RAC service and admit directly onto the program. RECIPE was able to review occasional referral in the community but like HITH it, did not have the capacity to accept referrals 24 hours a day, seven days a week. The In-reach service expanded on these two limitations by offering a Single Point Of Contact Referral Telephone line, which allowed referrals to be received and discussed in terms of ongoing management.</p> <p>Services were provided to over 40 facilities.</p>
Staffing	<p>RECIPE also expanded its current Nursing EFT in order to facilitate a more rapid response to referrals.</p> <p>HITH geriatrician access has been expanded to facilitate access from 0800 – 1700 Monday though to Sunday. The</p>

	<p>ED Medical Team in collaboration with the ED Care Coordination Team provide medical support after hours.</p> <p>HITH Nursing EFT also expanded to facilitate nursing visits from 0800 to 2000 Monday through to Sunday.</p> <p>Care Coordination EFT also expanded to facilitate responsiveness of the referral line on the weekends.</p>
Hours available	<p>Geriatrician - 0800 – 1700 Monday through to Sunday.</p> <p>Nurse - 0800 to 2000 Monday through to Sunday.</p>
After hours service	ED Medical Team in collaboration with the ED Care Coordination Team provides medical support after hours.
Management	<p>The Care Coordination Manager coordinates the overall program, which is now known as the Residential Response Service, whilst all staffing requirements are managed locally by the nominated Manager of RECIPE and HITH</p> <p>The Aged Care Liaison Nurse is responsible for collating all data on a day-to-day basis as per the spreadsheet, which is forwarded to DHS.</p>
Facilities	<p>Based in the Northern Emergency Department.</p> <p>HITH and RECIPE are located at The Northern Hospital.</p>
Pre-existing programs	<p>HITH and RECIPE</p> <p>The Clinical In reach model was built on the capacity of both programs.</p>
Education to RAC services	<p>Northern Health produced an information brochure, which has been distributed to all RAC services in the area as well as the Northern Division of GP. The organisation is also in the process of producing an A3 Poster for distribution to all local RAC services.</p> <p>Northern Health has strong established links with Residential Care Facilities in the area due to the establishment of the RECIPE Program. Currently, the Residential Response Services is linked into over 40 facilities in the local northern suburbs of Epping, Reservoir, Thomastown, Roxburgh Park, Whittlesea, Fawkner, Glenroy and Preston</p>

- 4.57 Northern Health reported 252 episodes of care.
- 4.58 This pilot program covered 40 RAC services. The pre-existing RECIPE service enabled the pilot to leverage off existing communications networks and therefore make an immediate impact.
- 4.59 As described in the table above, at the commencement of the pilot, HITH did not have the capacity to review a referral in the RAC service and admit directly onto the program. RECIPE was able to review occasional referral in the community but like HITH it did not have the capacity to accept referrals 24 hours a day, seven days a week. The In-reach service expanded on these two limitations.

- 4.60 In 59% of cases the Northern team were dispatched to the RAC service. This was in contrast to some of the other health services where the majority of the episodes of care recorded involved coordinating care in the ED or ward.
- 4.61 The demand on ED was avoided in 62% of cases. A further 7% were resolved within ED, thus reducing the demand on inpatient beds.
- 4.62 This meant that in the majority of cases the unnecessary use of ambulance and ED resources was avoided and the adverse impacts of an inappropriate hospital visit on the older patient were averted.
- 4.63 A further 22% of episodes of care were managed with advice over the phone. This amounts to a total of 81% of episodes being managed in the first instance by the In-reach team which can be seen to significantly improve the efficiency and quality of care to the older patient.
- 4.64 Less than 12 patients were advised to present to ED. In all a total of 36 patients were seen by the In-reach team in the ED, where they had either been directly advised to attend or were identified after presentation as appropriate for the In-reach team.
- 4.65 Most of the requests for service were not urgent with only 39 requiring a response within two hours. The majority (146) required a response time of six hours or longer.
- 4.66 So the data reflects well the potential for the program to directly decrease the demand on the ED in dealing with older patients.

Peninsula Health

Service description	<p>The Clinical Response Service (“CRS”) responds to referrals from AV, RAC services and GPs for any eligible resident on the Mornington Peninsula, whether from residential aged care or the community.</p> <p>This was built on an existing program Response, Assessment and Discharge (“RAD”) with AV, accepting referrals from the community to prevent transport to ED. The RAD team would conduct home visits and put in place necessary supports and services to allow the patient to remain safely at home.</p> <p>The CRS program (incorporating In-reach) allowed the input of the medical officer which prevented a large number of presentations to ED.</p> <p>The Residential Outreach Support Service (“ROSS”) is an ongoing program which responds to referrals from RAC services to prevent ED presentations (eg, catheter and PEG care, wound consultation and falls prevention).</p> <p>ROSS also provides ongoing education to facilities on a broad range of topics to build local capacity. Education</p>
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	<p>has included falls prevention, wound care, diabetes, dementia care and upcoming modules on continence, PEG care and infection control.</p> <p>The ROSS team operates within business hours.</p> <p>The CRS built upon these existing programs to provide a 24 hour service for residential care and the community.</p> <p>Services provided to 41 RAC services and ten Supported Residential Services (“SRS”) and all community based residents across the catchment area referred by AV.</p>
Staffing	<p>Existing RAD team - allied health and nursing based in the ED.</p> <p>HARP funding aimed at facilitating safe discharges home from ED to avoid unnecessary acute admissions.</p> <p>M-F 0730- 2230; weekends / Public Holidays 0800 - 1730</p> <p>Existing ROSS team - allied health and nursing outreach team. HARP funded aimed at supporting residents in residential care so they can remain safely in their facilities and avoiding unnecessary hospital presentations.</p> <p>Winter Demand Strategy (“WDS”) funded overnight triage nurse- continued CRS in ED after RAD hours ie 2200 - 0800</p> <p>WDS funded ED consultant on call (including overnight)</p> <p>WDS funded ED consultant coverage in ED during the day on weekends.</p> <p>WDS funded project manager.</p>
Hours available	<p>RAD Hours M-F 0730 – 2230 Weekends 0800 – 1730</p> <p>CRS continued in ED after RAD hours</p>
After hours service	<p>Overnight triage nurse – 2200 – 0800</p> <p>ED consultant on call – mostly by telephone (including overnight)</p>
Management	<p>Project manager for CRS and RAD program manager</p> <p>Statistic gathering (includes time of referral, source of referral, origin of patient, qualification of referrer urgency of call, action taken and outcomes).</p> <p>Separate monthly statistical reports for existing programs, RAD and ROSS.</p> <p>Qualitative reports - satisfaction surveys completed for staff, residential care and patients.</p>
Facilities	<p>Program located in ED (except existing ROSS program which is located off-site at Mt Eliza Centre)</p>
Pre-existing programs	<p>Built on pre-existing RAD and ROSS programs</p>
Education to RAC services	<p>Brochures sent to all residential care facilities in the catchment area (includes High Level Care (“HLC”), Low</p>

	<p>Level Care (“LLC”) and SRS)</p> <p>Brochures sent to AV referral service and local paramedic units. Education sessions provided to local paramedic stations.</p>
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- 4.67 Peninsula Health service covers 77 RAC services and had very strong referrals to its existing programs (RAD and ROSS) for older patients. However it only reported data to DHS on 169 patients seen by the In-reach team between 5 August and 26 September 2008. Its own reports indicated 277 patients were seen by the CRS between August and October 2008. Its existing programs were already working well in business hours with RAC services and AV to avoid many unnecessary ED presentations.
- 4.68 We interviewed Peninsula Health staff to gain an understanding of the successes and challenges of the pilot.
- 4.69 Staff believe the pilot has led to a drop in the number of RAC services’ patients presenting to ED. They particularly felt that the availability of a doctor last winter was crucial as they experienced an especially hard time with gastroenteritis and the health service does not have an isolation ward.
- 4.70 The In-reach pilot funds enable the service to have access to a doctor. Although this access was very valuable, staff now believe that to have a medical consultant on call all night is not the best use of funds and more limited hours of availability will probably meet most needs and be more cost effective.
- 4.71 The staff commented that AV is the largest source of referrals to the pilot. RAC services are also a strong source of referrals but GPs are not. However, the In-reach team is unlikely to be able to respond to GPs as they probably can’t follow up a call from a clinic in the ten minute timeframe expected from AV.
- 4.72 Staff felt the single point of access with one phone number for extended hours was very important.
- 4.73 Staff believe that this is a good service that should be continued and extended and that it is managing patients in the best environment.
- 4.74 In 68% (115) of the reported episodes of care, presentations to the ED were avoided. A further 13% (22) were resolved within ED which reduced demand on inpatient beds.
- 4.75 As might be expected given the operation of RAD and ROSS, the urgency rating for this health service shows that 80% of calls were required to be addressed within two hours. This may be because RAD and ROSS will be attending to more of the less urgent cases.
- 4.76 The VEMD shows that Peninsula Health had fewer patients presenting to ED from RAC services in winter 2008 (2223) compared to winter 2007 (2537). Staff believe that this is due in large part to the availability of after hours access to the In-reach team.

- 4.77 The data also shows that the flow on to acute increased slightly from 54% in winter 2007 (1370) to 55% in winter 2008 (1229). This is what we would expect to see because as the unnecessary trips to ED are avoided it is more likely that those patients who do present will need hospitalisation.

Southern Health

Service description	<p>Currently running on a nursing model only. Clinical Nurse Consultants (“CNCs”) go out to RAC services with medical lead back up and urology unit back up.</p> <p>Referrals are via ACCESS (0800-1600) single number (1300 number) then through to In-reach team.</p> <p>Medically the team is supported by the HITH medical lead.</p> <p>The service is in the process of expanding to a HITH model in which the HITH RNs will deliver direct care in the facilities and a registrar will provide community based visits to medically manage clients and transition clients back to the care of their GP.</p> <p>The development of the service and priorities are set by a steering committee whose membership includes a GP, Senior ED staff and management, Facilities manager, and representation by AV.</p> <p>GPs are engaged in clinical care and direct care is not conducted without their referral</p> <p>18 RAC services currently offered the In-reach service</p>
Staffing	<p>The staffing is comprised of 2.0 EFT CNCs.</p> <p>They self roster to cover a seven day week service with afternoons in particular covered off.</p>
Hours available	In-reach team available 0700 - 2000 Monday -Sunday
After hours service	Not after 2000hrs – does run seven days per week
Management	<p>Acting Director Ambulatory Care Services is responsible for the budget for In-reach</p> <p>Staff report using the DHS template (excel). They also maintain a clinical journal of all client contacts, and the Access unit record data of all referrals derived via Access. Meetings are minuted.</p> <p>DHS data is reported monthly. In-reach meetings are conducted at least monthly.</p>
Facilities	Staff are based off-site -Thomas street Dandenong. The target facilities are located between Casey and Dandenong
Pre-existing	Utilising ED, GP, HITH. This will expand as the model

programs	expands
Education to RAC services	<p>Information sheet provided to clients. Staff contact can be located via the intranet.</p> <p>Education sessions have been provided on catheter care and more are planned for falls assessment etc.</p> <p>The CNCs network in the community and with stake holders internal and external. The service development has been kept tight to ensure the care bundles and model put in place is sustainable.</p>

- 4.78 The Southern Health pilot program provided DHS with data for 103 episodes of care between 27 September 2008 and 23 March 2009. This late start to the program (ie after winter 2008) may be one of the reasons why the reported episodes are low.
- 4.79 Whilst Southern Health had lower episodes of care, when compared with other pilots, there were minimal (three of 103) episodes of care recorded against Action 4 (provide care co-ordination in ED or ward).
- 4.80 This would indicate that unlike many of the other health services, whose staff dedicated time to reviewing the ED patient list for suitable In-reach patients, Southern In-reach team appeared to utilise their time with onsite visits or telephone consults with RAC services.
- 4.81 Southern also did not have the benefit of leveraging off a pre-existing program, and this can also be taken into account when considering the number of episodes of care.
- 4.82 When interviewed, Southern Health identified a number of important strategies that they believed were likely to make their program more successful:
- Single point of contact – ACCESS line
 - Initially targeted small numbers of RAC services
 - Engage directly with RAC services – consider trust issues
 - Started with nursing model only – wanted only to promise what they could deliver
 - Information to GPs
 - Readily identifiable folder for RAC services
- 4.83 Publication of the service was thought to be very well done by the RAC service representative we interviewed. This included:
- Letters sent out
 - Distinctive resource folder (black writing on white folder)

- Laminated signs with phone number and hours.
- 4.84 The RAC service representative noted that the collegiate attitude of the In-reach nurses was valued and that just having someone on the other end of the phone to reassure was helpful in averting ED referrals.
- 4.85 The RAC service representative was very positive about the service.
- 4.86 The education services were highly valued, sessions had been provided on catheter issues and further sessions were planned around other issues including wound management and falls.
- 4.87 The In-reach team had primarily concentrated on urinary catheter issues. They initially identified the RAC services who had the highest presentation of patients with catheter issues and targeted these.
- 4.88 The In-reach model at Southern Health is a nursing based model with medical input at the steering committee level only.
- 4.89 During the time of the In-reach pilot Southern Health reports that the presentation to ED for catheter related care from the targeted RAC services was reduced to almost zero. This was from a previous average of 30 per month.
- 4.90 The team believes that the slower, concentrated rate of implementation will lead to a more sustainable program in the longer term. They believe that the service is fully utilised by the participating RAC services.
- 4.91 The feedback at interview from GP representative was limited. The service was thought to be a valuable idea but the interviewee had had no direct interaction with the In-reach team. It was thought that expansion of the service would be well utilised with suggestions of IV fluid administration and UTI management when IV antibiotics were required.
- 4.92 It was noted by the GP representative that GP involvement with the In-reach program was critical. GPs are thought to be the cornerstone and coordinator of patient care. If GP involvement is lacking then the program may lose its effectiveness.
- 4.93 Southern Health ED reported that their KPIs had improved since the implementation of In-reach.
- 4.94 Analysis of the data provided to DHS by Southern Health identified that in 83% of cases the In-reach team were dispatched to the RAC service, and phone advice was provided in another 11% of cases. In four cases the patient was advised to present to ED and in three cases the patient was identified after presenting to ED.
- 4.95 The urgency rating showed that 32 cases required an immediate response. 36 cases could wait two hours with a further 35 able to wait six hours or longer.

- 4.96 The fact that the In-reach team were dispatched to and managed the majority of cases, especially with such high numbers reporting urgent response, is likely to reflect a very efficient team. It may also indicate that had the In-reach service not been available, the RAC services may well have sent the patient to the ED.
- 4.97 This illustrates the potential impact that In-reach can have, when the majority of cases can be managed out of hospital even if the situation deems an immediate response.
- 4.98 Demand on ED was avoided in 85% of cases, with a further 12% resolved within the ED thus resulting in reduced demand for inpatient beds.
- 4.99 As would be expected, when the data is broken down by high and low care status of the resident, the larger number of cases (91%) attended by In-reach were from the high care group. There were only limited numbers recorded as from the low care group. This may reflect the limited number of and the selection process for the target RAC services.
- 4.100 In the majority of the high care group the issue was resolved by the visiting team. Only very small numbers of cases were admitted to the ward or ED.

5.0 ED MODEL OF SERVICE

- 5.1 In this Chapter we discuss the remaining three programs. It was observed from the data that the patient episodes recorded for these services were more often reported as a 1 (admitted to ward via ED) or a 2 (issue resolved within ED). We therefore grouped these models together as ED models of service. They included the following health services:
- Eastern Health with 145 patient episodes recorded by the In-reach team (from 11 August 2008 to 24 April 2009)
 - St Vincent's Health with 625 episodes (from 4 August 2008 to 31 March 2009)
 - Western Health with 1262 episodes (from 6 July 08 to 31 March 2009)
- 5.2 As part of our review we conducted in-depth interviews with representatives from Eastern Health and St Vincents Health.
- 5.3 We gathered information on the model at Western Health via emails and telephone discussions with nominated representatives.
- 5.4 The tables describe the models and their components. The commentary following is drawn from interview findings where available and from telephone discussions, data and survey evidence.
- 5.5 It is noted that many of the episodes recorded in the DHS data referred to in this discussion were missing item codes. This therefore necessitates a degree of interpretive flexibility when assessing and reporting on this data.

Eastern Health

Service description	Program staffed by nurses, allied health and medical staff (senior registrar) Access to physiotherapy, dietetics and occupational therapy Services provided to 38 RAC services
Staffing	Senior Registrar Nursing staff Allied health access
Hours available	Via HARP seven days per week 0800 -1800 and liaison in ED out of hours
After hours service	Weekend support via ED triage, ED care coordination and HITH
Management	Budget managed by Clinical Program Leader, Health Independence Programs
Facilities	Box Hill Hospital There is a dedicated car / equipment / mobile for the program
Pre-existing programs	HARP ED and HITH
Education to RAC services	Information for RAC services, GPs has been provided – a newsletter article for the GP Division advertising the program was circulated All services within the Box Hill catchment have received information and are covered

- 5.6 This pilot program provided us with data from 145 episodes of care.
- 5.7 At interview the In-reach team at Eastern explained that there had been some initial confusion over the scope of the project. It was understood by the Eastern In-reach team that they were expected to provide a service across the three campuses / EDs that Eastern Health covers.
- 5.8 They had significant difficulty attaining buy in from a medical support group, with the exception of the Box Hill campus ED where they originally sourced their medical backup from ED doctors.
- 5.9 The team commented that GPs had been difficult to engage, with very few respondents and even then, limited availability at short notice meant that they were not a useful source of medical backup for the In-reach program.

- 5.10 Other barriers to effective implementation included short notice from time of funding to expected implementation and staffing backfill for In-reach staff. Less significant barriers were also; car parking permit not available for In-reach team until December 2008, funding considered insufficient for more than one ED.
- 5.11 The program has been revamped with a more limited initial scope. The renewed enthusiasm includes new ideas for future sustainability and cost effectiveness. In redeveloping the program the team have limited the scope to only involve the Box Hill ED and 38 RAC services in the Box Hill area.
- 5.12 The team is keen to expand the service to the other EDs currently under the auspice of Eastern Health.
- 5.13 The program has significant buy in from a consultant geriatrician aligned with the RAMU and the Director of Internal Medicine.
- 5.14 Currently the program utilises a medical registrar from the RAMU who has every weekday afternoon available for visits to the RAC services.
- 5.15 Commonly a patient is discharged from the RAMU with immediate In-reach nurse follow-up and the registrar goes out to review the patient in the RAC service after a few days. This helped to give the RAC service staff further confidence in the service and was thought to limit unnecessary readmission.
- 5.16 The In-reach program has also directly paid a private geriatrician to assess some patients with particularly difficult behavioural issues. This resulted in marked improvement in the behaviour problem for the patients and decreased the need for sedative medication and physical restraints. Therefore the patients also achieved better quality of care.
- 5.17 There are future plans for the In-reach program to directly employ an advanced registrar (geriatric training).
- 5.18 The In-reach team liaise closely with the ED Care Coordination team to minimise the impact of admission or ED presentation to the older patient.
- 5.19 A single point of contact is identified by most stakeholders as important. Some health services have obtained a 1800 number – Eastern Health plans to do this if the next round of funding is confirmed. Telephone diversion for after hours contacts is common.
- 5.20 The In-reach team have noted the likely need for a similar In-reach program into the community in general. There are some older patients on community aged care packages, as well as those for whom in home support of issues like PEG and catheter care would mean better holistic care of the patient.
- 5.21 The issue of risk management is reported to be covered by utilising the current HITH framework.

- 5.22 Currently the In-reach team provides inservice training to RAC services staff on an opportunistic basis, by creating action plans for issues such as CCF, hyperglycaemia and bowel cancer. They have also offered education sessions to local RAC service staff at a cost equivalent to that for Eastern Health nursing staff.
- 5.23 The service was well promoted initially with the then In-reach nurse personally attending all RAC services in the area to advise of service.
- 5.24 The In-reach team are currently working on the issue of medication charts for RAC services use. This would potentially overcome the common problem that some patients face of a longer stay in hospital simply because there is no doctor available to update the medication chart at the nursing home.
- 5.25 The data analysed from DHS for Eastern Health (see Chapter 6.0) demonstrates that in line with many of the health services, the urgency rating showed 31 cases could wait two hours with a further 78 able to wait six hours or longer.
- 5.26 This illustrates the potential impact that In-reach can have, when the majority of cases do not require immediate emergency or ambulance assistance.
- 5.27 The data analysis shows 55 of the episodes recorded involved coordinating care in the ED or ward rather than in the RAC service. This suggests that in these cases the ambulance trip was not avoided but some of the effects of a long stay in ED or a ward will have been averted so optimising the efficiency and quality of care for the older patient.
- 5.28 In the remainder of cases the team was dispatched to the RAC service on 33 occasions, the patient was advised to present to ED in 24 cases and advice was given over the phone in just twelve cases.
- 5.29 Demand on ED was avoided in 47% (61) of cases, with a further 17% resolved within the ED thus resulting in reduced demand for inpatient beds.
- 5.30 The VEMD shows us that the total ED presentations from RAC services was increased from the period including winter 2007 (3828) compared to the period including winter 2008 (4272). The percentage flow on to acute also increased from 57% to 59%. This potentially illustrates a decrease in unnecessary presentations to ED as more patients were considered unwell enough to admit to an acute ward.

St Vincent's Health

Service description	Run out of ED premises 1EFT nursing 1800 number triage and advice Onsite visits by nurses and ED consultants (eg for PEG changes) Services provided to 33 RAC services
Staffing	One EFT nurse - currently job share One nurse with HITH experience (Mon-Tues) and one nurse with ED experience (Wed-Fri). ED consultants Some difficulties with availability of medical back up
Hours available	1800 number 0730 – 1600 Mon-Fri
After hours service	1800 answering machine gives number for AO / ED Consultant / Registrar)
Management	DHS database – sent a couple of months ago but continually updated. Daily handover Qualitative reports Screening of patients admitted - could it have been prevented – eg remind ED doctors to update or advise on advanced care directive
Facilities	Physically located in Office in ED – shared with HARP
Pre-existing programs	Office shared with HARP Equipment – shared with HITH including vehicle
Education to RAC services	Interaction with approximately 33 RAC services Posters at RAC services Newsletters Provision of inservices to RAC services staff

- 5.31 This pilot program covered the second highest number of reported episodes with 625.
- 5.32 We interviewed St Vincent's to gain an understanding of the successes and challenges of the pilot.
- 5.33 St Vincent's did not have existing strong communication links with the RAC services and these had to be developed during the pilot.

- They initially started with five RAC services and currently have 33 facilities participating.
- 5.34 The majority of the episodes of care recorded for St Vincent's (81%) came from the ED rather than as referrals from RAC services. This may be reflective of a slow start in the recruitment of facilities to participate in the project.
- 5.35 Similarly to Western Health and Eastern Health, this means that in these cases the ambulance trip was not avoided but the efficiency and quality of care for the older patient was optimised.
- 5.36 In addition staff commented that they had reduced acute admissions and the data shows that 37% of episodes were resolved within the ED therefore reducing demand on inpatient beds and reducing the impact of hospitalisation on aged patients.
- 5.37 St Vincent's staff note that a high turnover of staff in the RAC services makes maintenance of these referral pathways problematic.
- 5.38 They also note that there are very few referrals from AV.
- 5.39 Feedback from the RAC services is strongly positive. Feedback to St Vincent's from GPs via existing consultation and discussion frameworks is also positive.
- 5.40 The staff felt that risk is well managed with the use of HITH guidelines for treatment where appropriate, and hospitals protocols.
- 5.41 However, some RAC services, especially low care facilities are risk averse and have protocols that require residents to be sent to ED as a risk management measure for health conditions that could well be managed by In-reach teams.
- 5.42 In common with most health service interviewees, St Vincent's believe that there is a significant problem with appliance management in RAC services which leads to presentations to ED that would be preventable if stocks were maintained and RAC services staff were trained. This is especially true for catheter management.
- 5.43 St Vincent's have provided inservice training to RAC service staff. To date they have delivered about 20 on-site inservices about the In-reach program, and they are delivering issue-specific education sessions such as basic injury assessment, neurological assessment and infection control.

Western Health

Service description	Run on two campuses – Footscray and Sunshine Built on pre-existing service – CNCs provide phone advice and visits to RAC services Phone advice and visits provided by geriatrician or ED consultant. AH covered by phone Service provided to 78 RAC services
Staffing	CNCs, Geriatrician, ED Consultant
Hours available	Single phone contact to nurse 0730 – 2030 Monday to Sunday (Footscray) 0730-1630 Monday to Sunday (Sunshine)
After hours service	ED triage nurse holds phone and has a guidelines book to help troubleshoot with RAC services
Management	Weekly reports generated Service has its own budget, under Division of Medicine
Facilities	Office in ED at Footscray, Office near ED at Sunshine, dedicated vehicle
Pre-existing programs	Built on pre-existing aged care liaison service Utilises ED Consultant
Education to RAC services	Information disseminated within hospital Mail outs to RAC services Inservices provided on PEG care, catheter care, sub-cutaneous fluid management, role of aged care liaison services

- 5.44 This pilot program covered the largest number of RAC services at 78. It is likely that the pre-existing aged care liaison service enabled the pilot to leverage off existing communications networks and therefore make an immediate impact.
- 5.45 However the data analysis for Western (see Chapter 6.0) shows that 55% of the episodes recorded involved coordinating care in the ED or ward rather than in the RAC service. This means that in these cases the ambulance trip was not avoided but some of the effects of a long stay in ED or a ward will have been averted so optimising the efficiency and quality of care for the older patient.
- 5.46 Most of its response requirements were for services that did not require immediate assistance. Only about 8% required immediate response.
- 5.47 This pilot avoided demand on the ED in 40% of reported episodes.

- 5.48 The VEMD demonstrates that Western Health had more patients presenting to ED from RAC services in the period including Winter 2008 (2093) compared to the period including Winter 2007 (1735).
- 5.49 The data also shows that the flow on to acute increased only very slightly from 57.5% in Winter 2007 (997) to 57.9% in Winter 2008 (1212) where we would have expected to see a larger percentage flow on.
- 5.50 This is because as the unnecessary trips to ED are avoided it is more likely that those patients who do present will need hospitalisation. Overall it is difficult to draw any conclusion from the VEMD with respect to the impact of the pilot on Western Health.

6.0 DATA ANALYSIS

Data Description

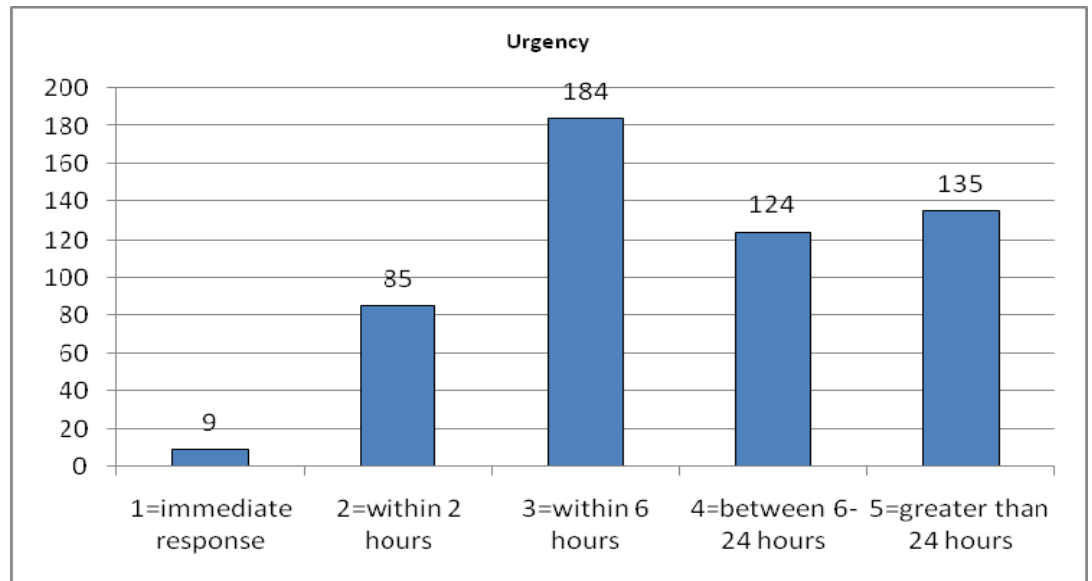
- 6.1 As part of the pilot program, the In-reach providers were required to collect data identified by DHS and submit this for evaluation at the end of the process.
- 6.2 This data was also the primary means for managers to report to DHS as to the progress and outcomes of the pilot.
- 6.3 We received data from the ten pilot sites totalling 4,070 episodes between 1/7/2009 and 7/5/2009.
- 6.4 This data has a number of limitations which have been described at the end of this chapter and the analysis has been completed according to the number of clean data points available. Appendix C outlines the number of data points that have been removed due to incomplete data collection.
- 6.5 The majority of the incomplete data points are as follows:
- Outcome data – 23 for St Vincent's
 - Urgency data – 50 for Northern, 48 for Alfred, 25 for Bendigo, 21 for Eastern
 - Action data – 61 for Northern, 22 for Bendigo, 21 for Eastern
- 6.6 The incomplete data points will be apparent in the following pilot site analysis as the total number of residents seen will exceed the number reported in each category analysed.
- 6.7 The data elements collected were:
- Name of health service
 - Origin of Patient (name of service or ED/ward)
 - Care level of the patient (1=high 2=low 3=NA)
 - Date
 - Time of call to triage
 - Designation of caller (eg RN Div1, PCA)
 - Presenting problem at triage
 - Has the RAC service contacted the GP first (1=Y or 2=N 3=unknown)
 - Urgency
 1. Immediate response (eg ambulance needed)
 2. Within 2 hours
 3. Within 6 hours
 4. Between 6-24 hours

5. Greater than 24 hours
 - Action
 1. Team dispatched to RAC service
 2. Patient advised to present to ED
 3. Advice given over the phone
 4. Provide care coordination in ED or ward
 - Patient outcome
 1. Admitted to hospital via ED
 2. Issue resolved within ED
 3. Issue resolved by In-reach support visit to RAC service
 4. Referral on to another service without visit from In-reach team
 5. Referral on to another service with visit from In-reach team
 6. Issue resolved using local resources
 7. other
 - Total amount of time spent on patient care (including travel and consultations)
 - Time spent on education to RAC service staff
 - Did patient arrive at ED when not advised to (give reason)
 - Other comments
- 6.8 We have analysed the data supplied by the pilot sites to DHS and presented it in the following packages:
 - Site specific data
 - In-reach program data
- 6.9 We have separately presented the data analysis from the Victorian Emergency Minimum Dataset (“VEMD”) data.

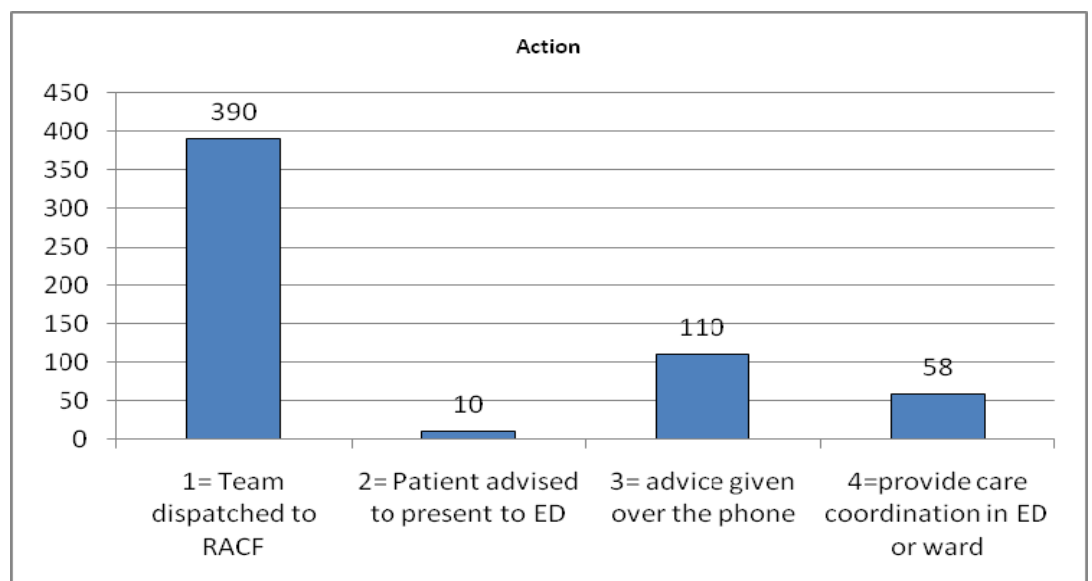
Alfred Health

6.10 Alfred Health has provided data for 585 patients seen by the In-reach team between 1/7/2008 and 31/3/2009.

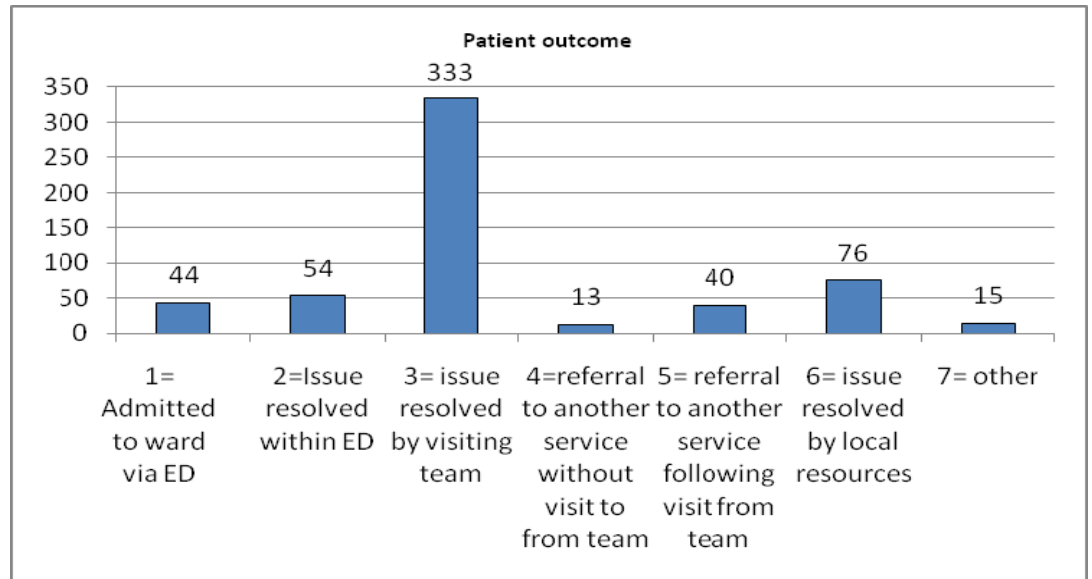
6.11 The urgency rating shows that only 18% of calls (94) were required to be addressed within two hours and 52% (278) were required to be addressed within six hours.



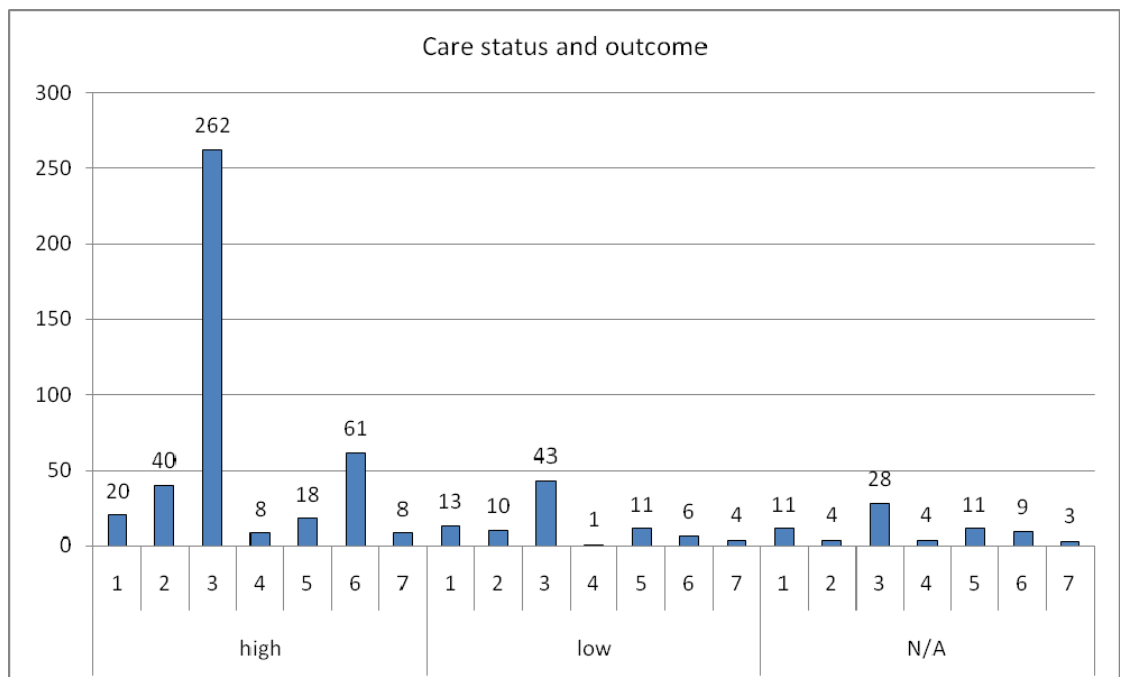
6.12 The In-reach team were dispatched to the RAC service in 69% of the cases (390) and provided phone advice in another 19% (110) of cases.



6.13 The impact of the In-reach team can be seen in that the demand on ED has been avoided in 83% (477) of cases. A further 9% (54) were resolved within ED which reduced demand on inpatient beds.



6.14 The following graph depicts the number of incidents of care according to the patient's level of care status and their outcome. For Alfred Health the majority of patients (73%) were classified as "High" for the level of care status.

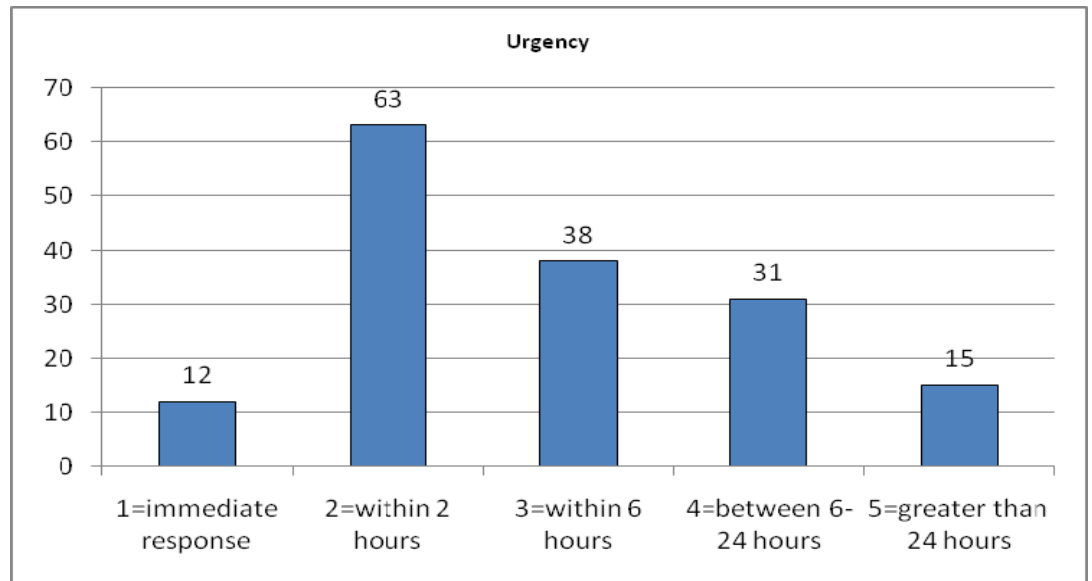


Patient outcome	4=referral to another service without visit to from team
1= Admitted to ward via ED	5= referral to another service following visit from team
2=Issue resolved within ED	6= issue resolved by local resources
3= issue resolved by visiting team	7= other

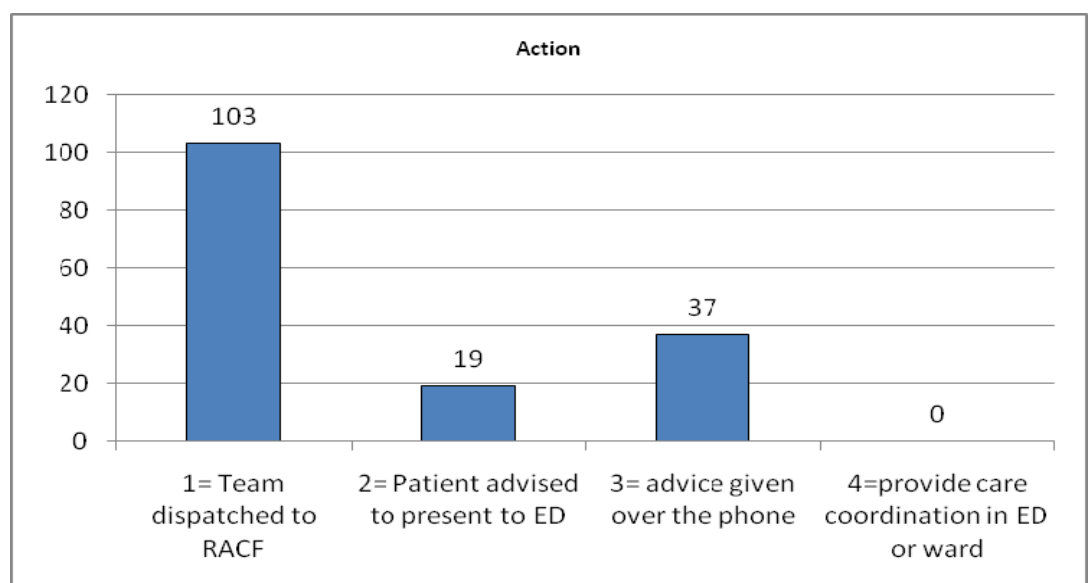
Austin Health

6.15 Austin Health has provided data for 159 patients seen by the In-reach team between 18/7/2008 and 5/5/2009.

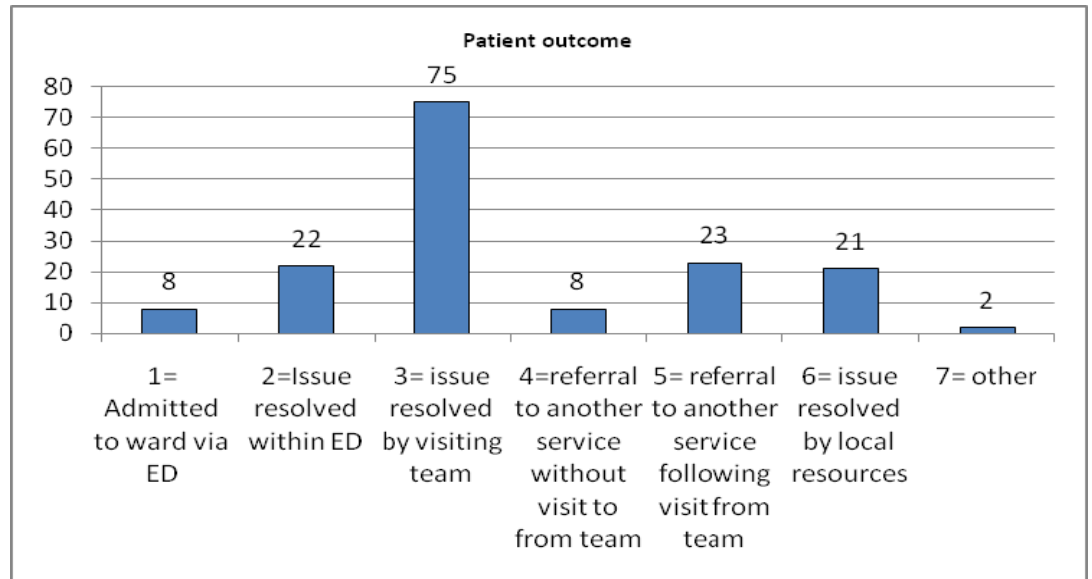
6.16 The urgency rating shows that 48% of calls (75) were required to be addressed within two hours and 71% (113) were required to be addressed within six hours.



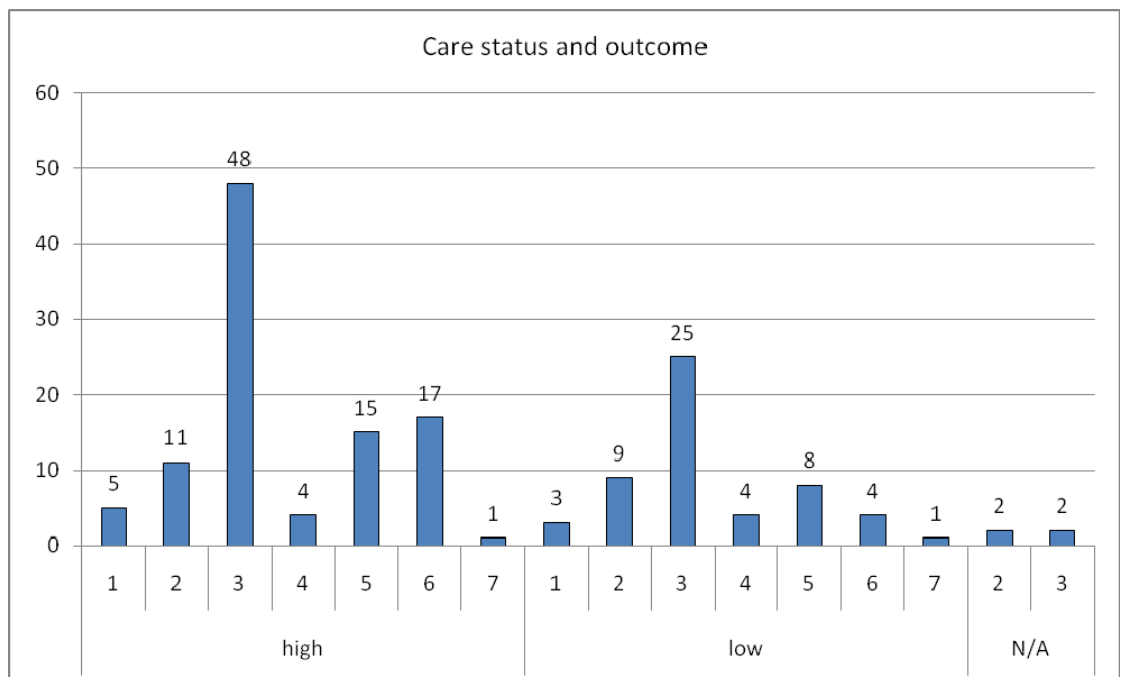
6.17 The In-reach team were dispatched to the RAC service in 65% of the cases (103) and provided phone advice in another 23% (37) of cases.



6.18 The impact of the In-reach team can be seen in that the demand on ED has been avoided in 81% (129) of cases. A further 14% (22) were resolved within ED which reduced demand on inpatient beds.



6.19 The following graph depicts the number of incidents of care according to the patient's level of care status and their outcome. For Austin Health the majority of patients (64%) were classified as "High" for the level of care status.

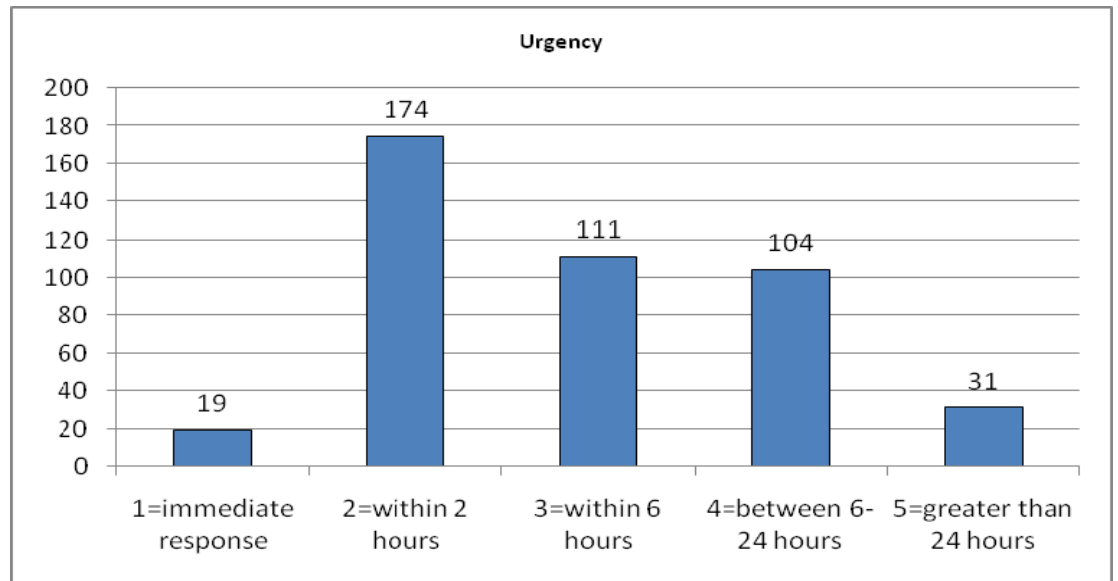


Patient outcome	4=referral to another service without visit to from team
1= Admitted to ward via ED	5= referral to another service following visit from team
2=Issue resolved within ED	6= issue resolved by local resources
3= issue resolved by visiting team	7= other

Bendigo Health

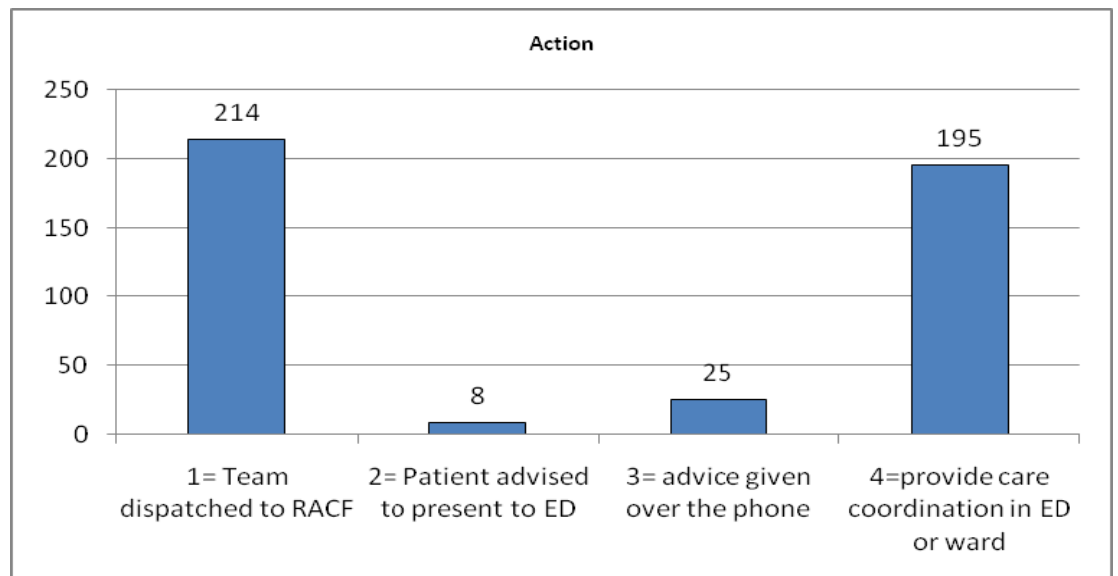
6.20 Bendigo Health has provided data for 464 patients seen by the In-reach team between 8/7/2008 and 3/4/2009.

6.21 The urgency rating shows that 44% of calls (193) were required to be addressed within two hours and 69% of calls (304) were required to be addressed within six hours.



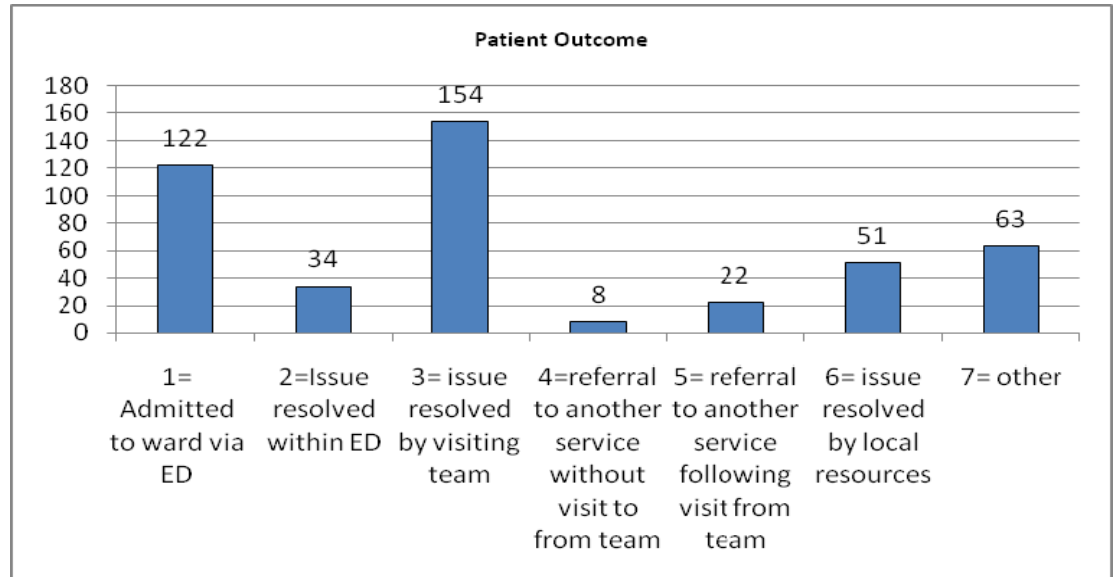
6.22 The In-reach team were dispatched to the RAC service in 48% of the cases (214) and provided phone advice in another 6% (25) of cases.

6.23 This data indicates 44% (195) of the intervention provided by the In-reach team was within the ED or on the ward.



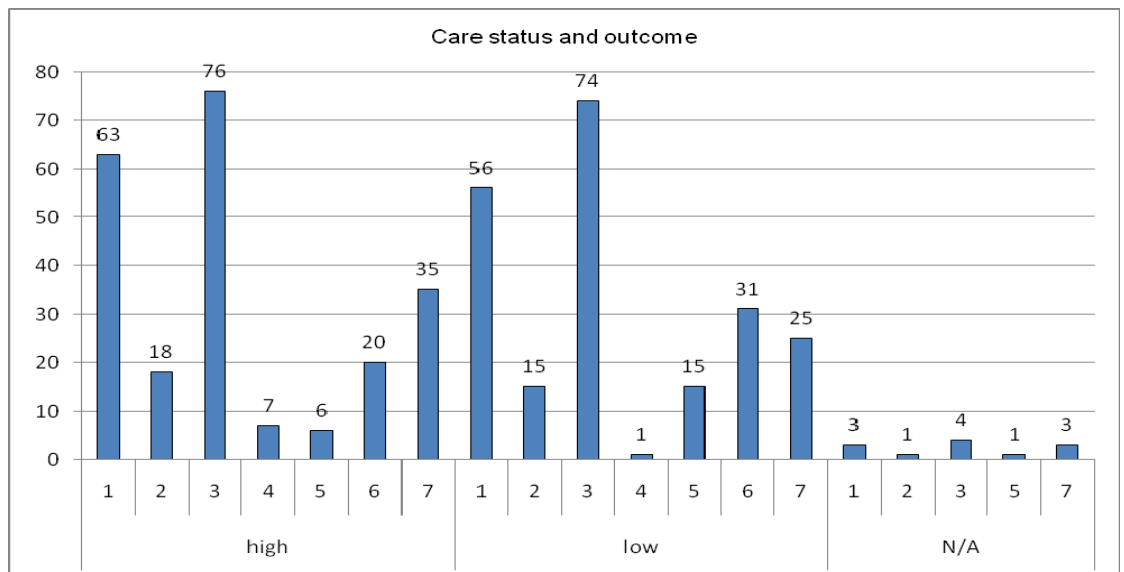
6.24 The impact of the In-reach team can be seen in that the demand on ED has been avoided in 66% (298) of cases. A further 7% (34) were resolved within ED which reduced demand on inpatient beds.

6.25 This data shows that 27% (122) of cases reviewed by the team required admission to the ward via ED



6.26 The following graph depicts the number of incidents of care according to the patient's level of care status and their outcome.

6.27 For Bendigo Health, the patients seen by the In-reach team were fairly evenly spread between high level and low level care residents.

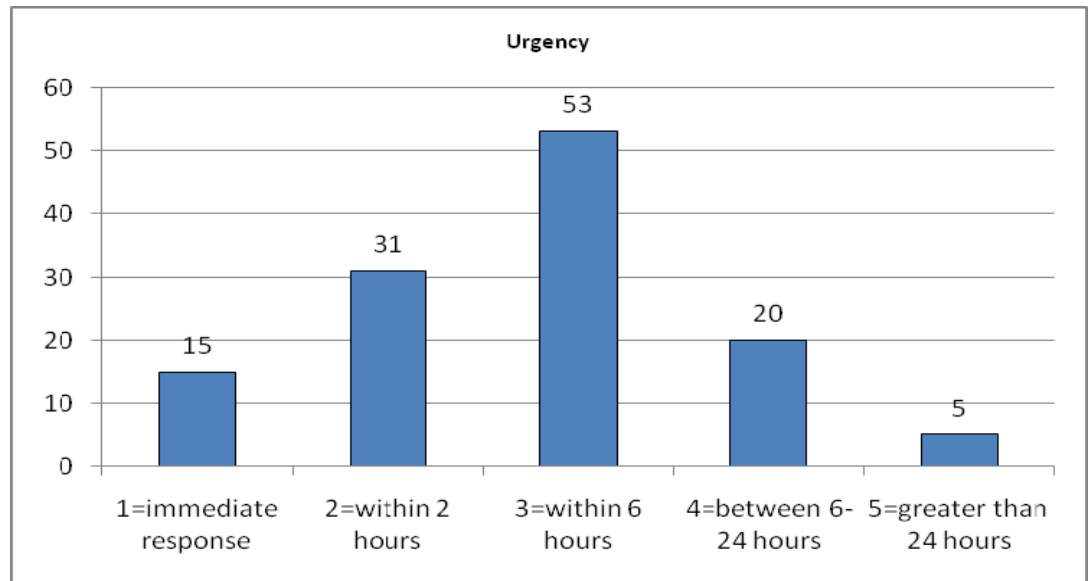


Patient outcome	4=referral to another service without visit to from team
1= Admitted to ward via ED	5= referral to another service following visit from team
2=Issue resolved within ED	6= issue resolved by local resources
3= issue resolved by visiting team	7= other

Eastern Health

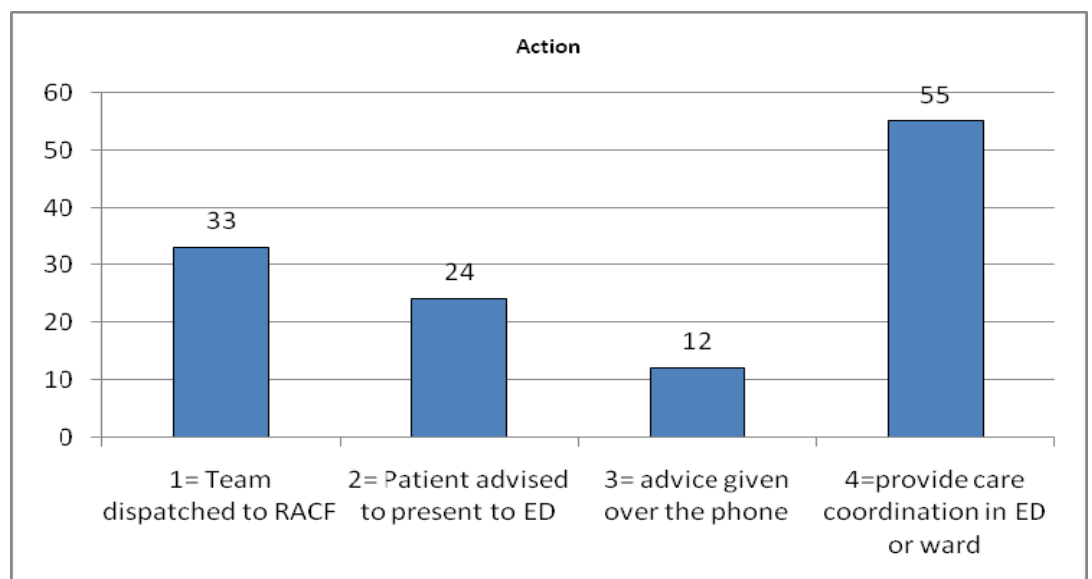
6.28 Eastern Health has provided data for 145 patients seen by the In-reach team between 11/8/2008 and 24/4/2009.

6.29 The urgency rating shows that 37% of calls (46) were required to be addressed within two hours and 80% of calls (99) were required to be addressed within six hours.



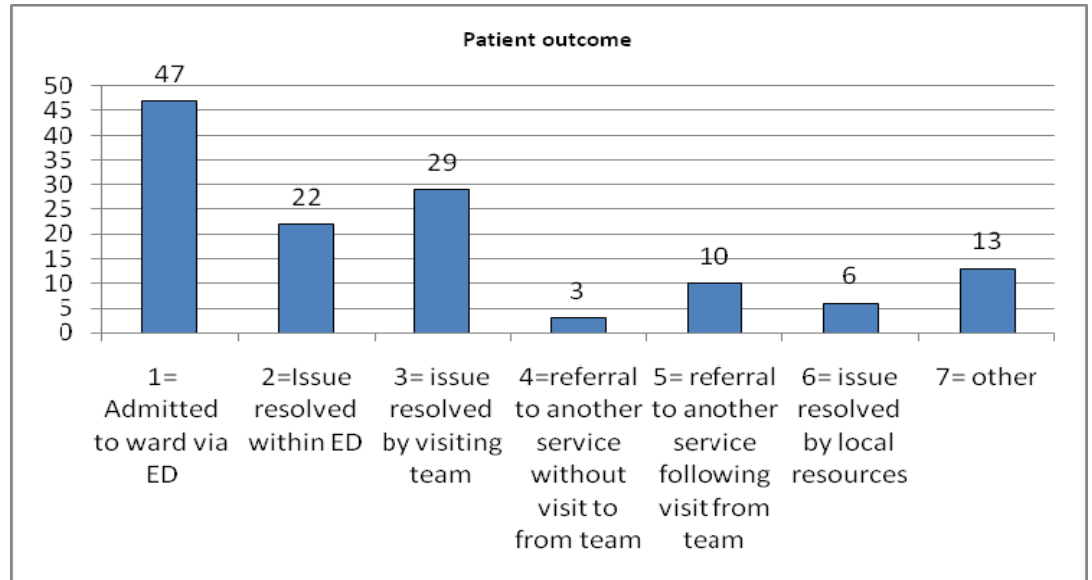
6.30 The In-reach team were dispatched to the RAC service in 27% of the cases (33) and provided phone advice in another 10% (12) of cases.

6.31 This data indicates 44% (55) of the intervention provided by the In-reach team was within the ED or on the ward.



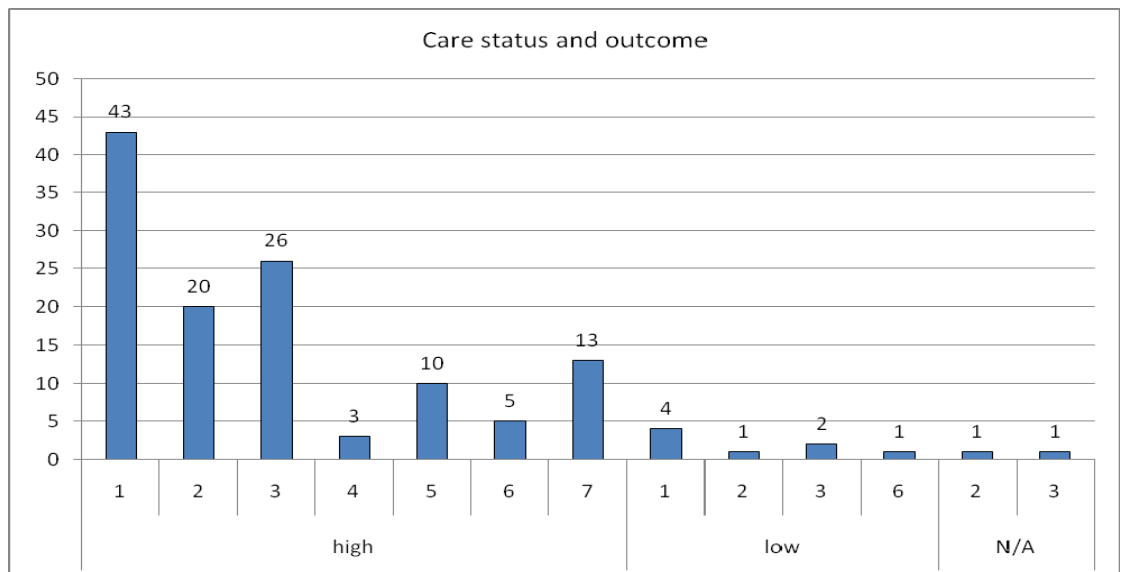
6.32 The impact of the In-reach team can be seen in that the demand on ED has been avoided in 47% (61) of cases. A further 17% (22) were resolved within ED which reduced demand on inpatient beds.

6.33 This data shows that 36% (47) of cases reviewed by the team required admission to the ward via ED



6.34 The following graph depicts the number of incidents of care according to the patient's level of care status and their outcome.

6.35 For Eastern Health, the majority of patients seen by the In-reach team (92%) were classified as high level care residents.

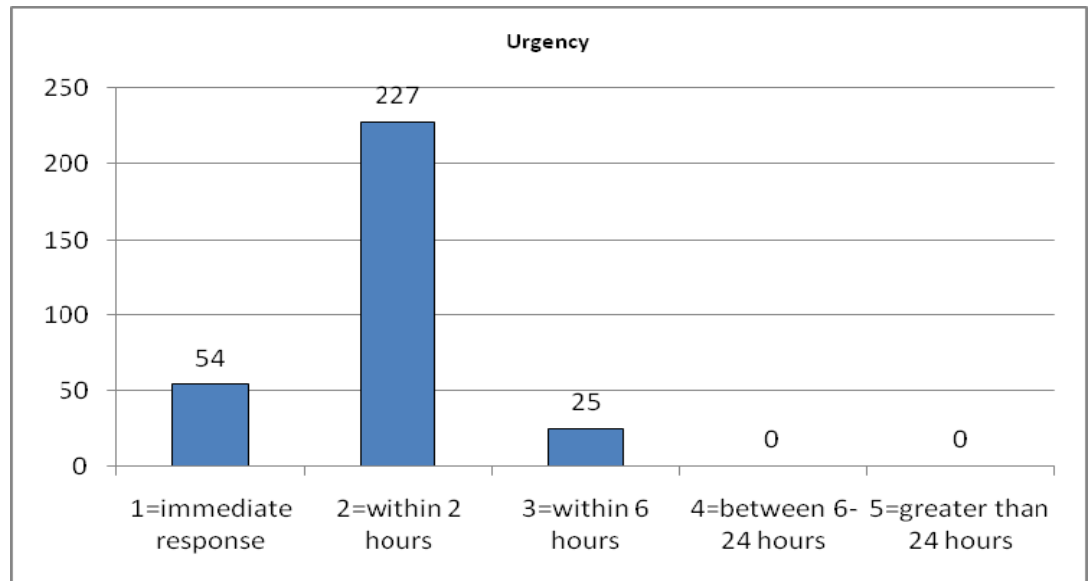


Patient outcome	4=referral to another service without visit to from team
1= Admitted to ward via ED	5= referral to another service following visit from team
2=Issue resolved within ED	6= issue resolved by local resources
3= issue resolved by visiting team	7= other

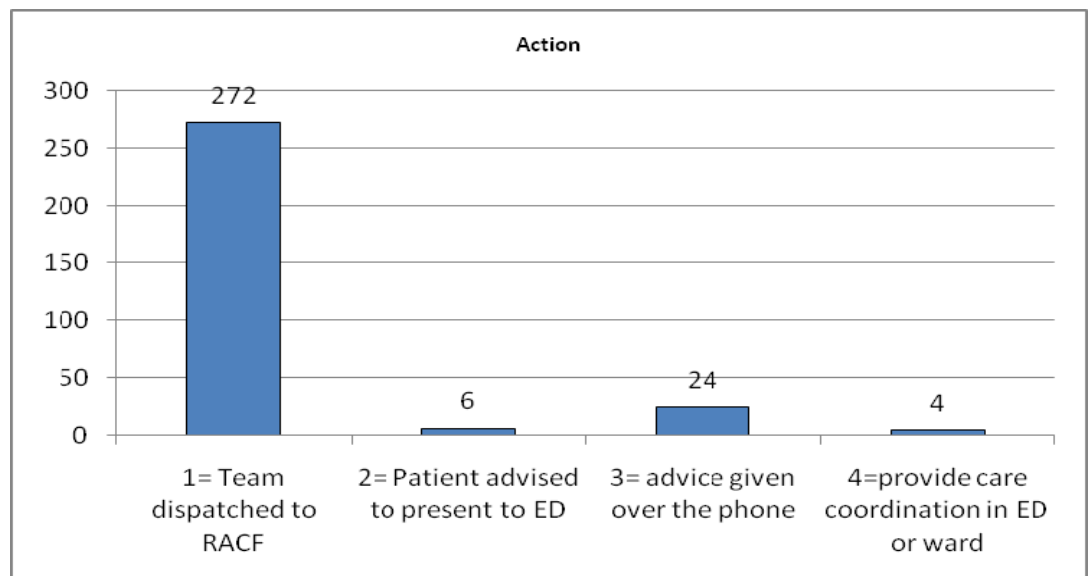
Melbourne Health

6.36 Melbourne Health has provided data for 306 patients seen by the In-reach team between 11/8/2008 and 31/1/2009.

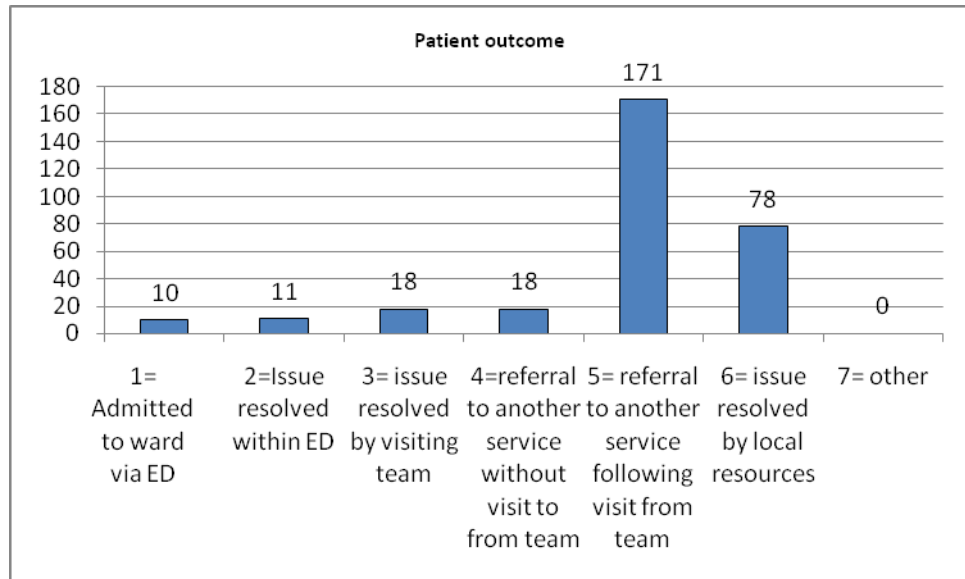
6.37 The urgency rating shows that 92% of calls (281) were required to be addressed within two hours and 100% (25) were required to be addressed within six hours.



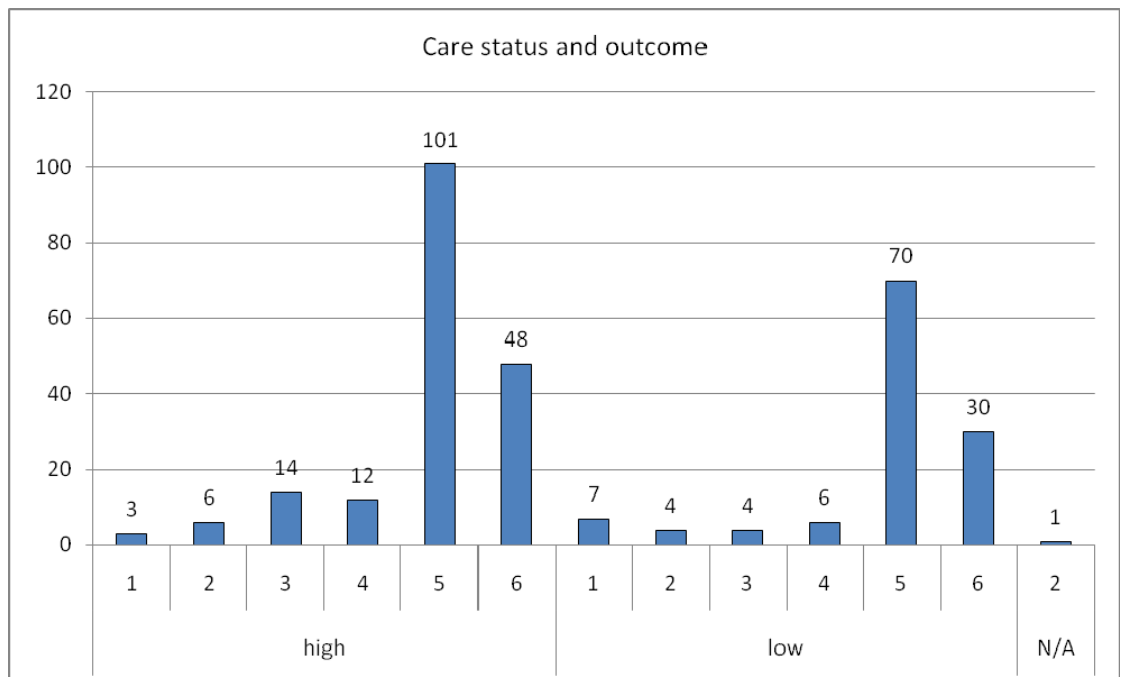
6.38 The In-reach team were dispatched to the RAC service in 89% of the cases (272) and provided phone advice in another 8% (24) of cases.



6.39 The impact of the In-reach team can be seen in that the demand on ED has been avoided in 93% (285) of cases. A further 4% (11) were resolved within ED which reduced demand on inpatient beds.



6.40 The following graph depicts the number of incidents of care according to the patient's level of care status and their outcome. For Melbourne Health the majority of patients (60%) were classified as "High" for the level of care status.

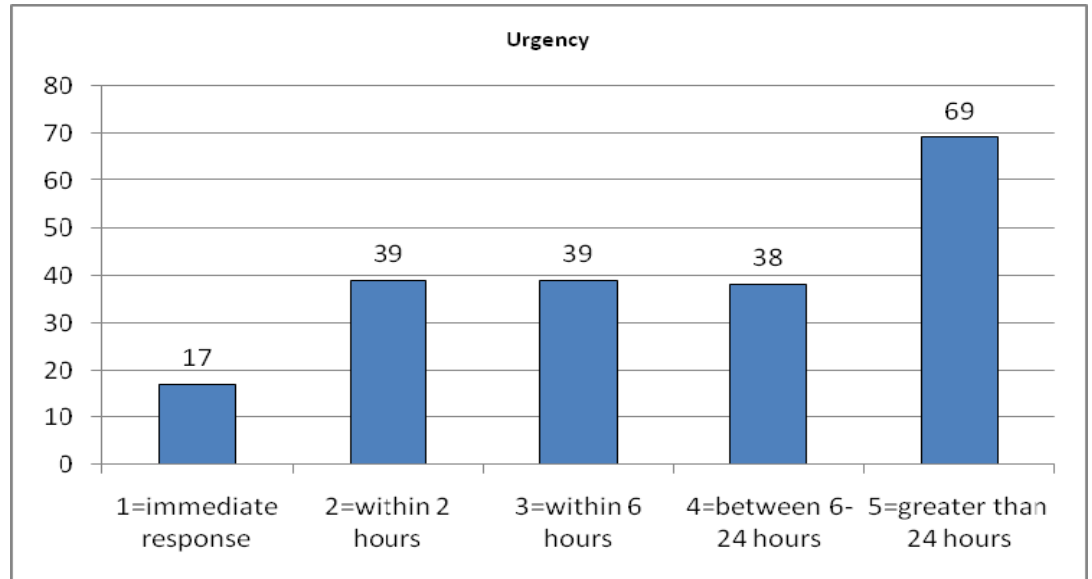


Patient outcome	4=referral to another service without visit to from team
1= Admitted to ward via ED	5= referral to another service following visit from team
2=Issue resolved within ED	6= issue resolved by local resources
3= issue resolved by visiting team	7= other

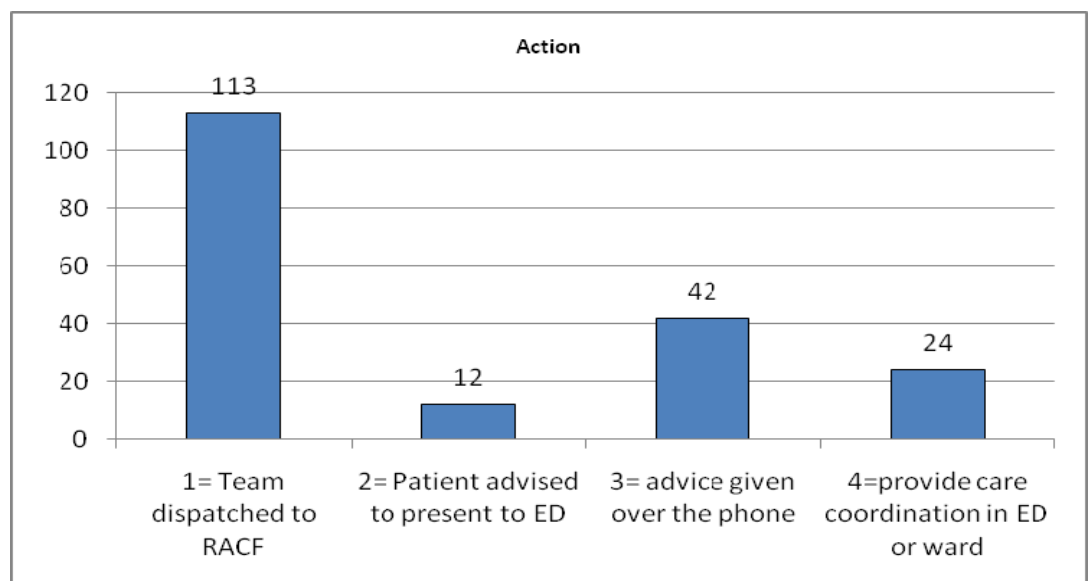
Northern Health

6.41 Northern Health has provided data for 252 patients seen by the In-reach team between 1/7/2008 and 31/3/2009.

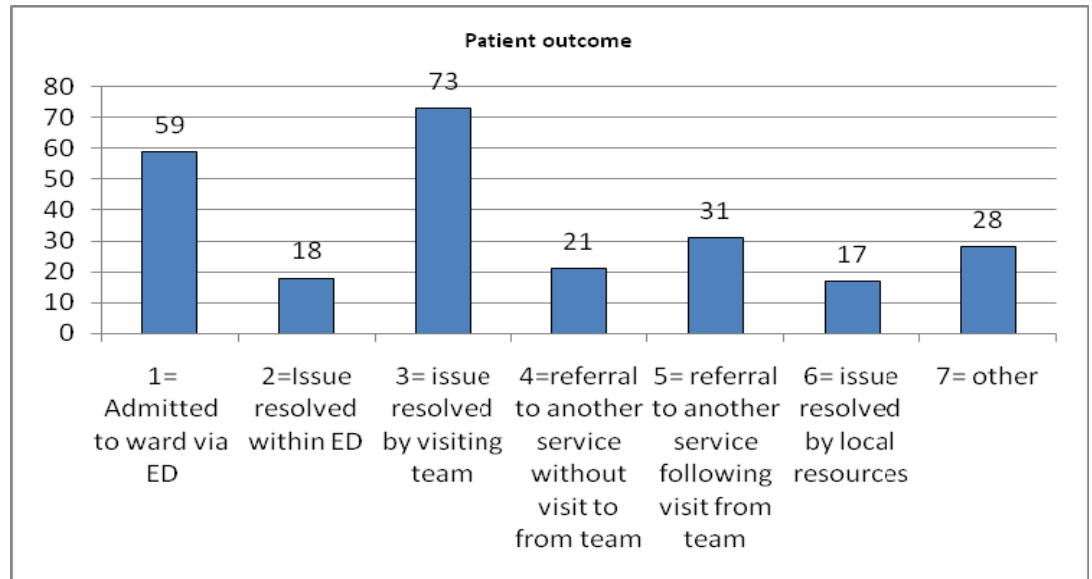
6.42 The urgency rating shows that only 27% of calls (56) were required to be addressed within two hours and 47% (95) were required to be addressed within six hours.



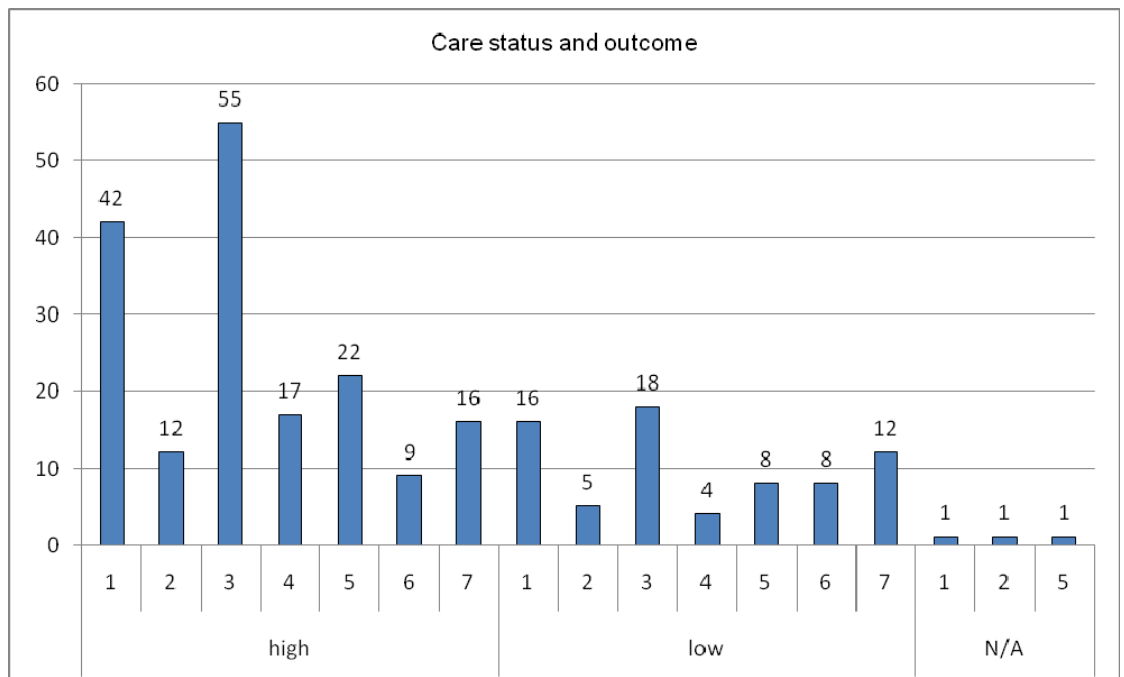
6.43 The In-reach team were dispatched to the RAC service in 59% of the cases (113) and provided phone advice in another 22% (42) of cases.



6.44 The impact of the In-reach team can be seen in that the demand on ED has been avoided in 62% (170) of cases. A further 7% (18) were resolved within ED which reduced demand on inpatient beds.



6.45 The following graph depicts the number of incidents of care according to the patient's level of care status and their outcome. For Northern Health the majority of patients (70%) were classified as "High" for the level of care status.

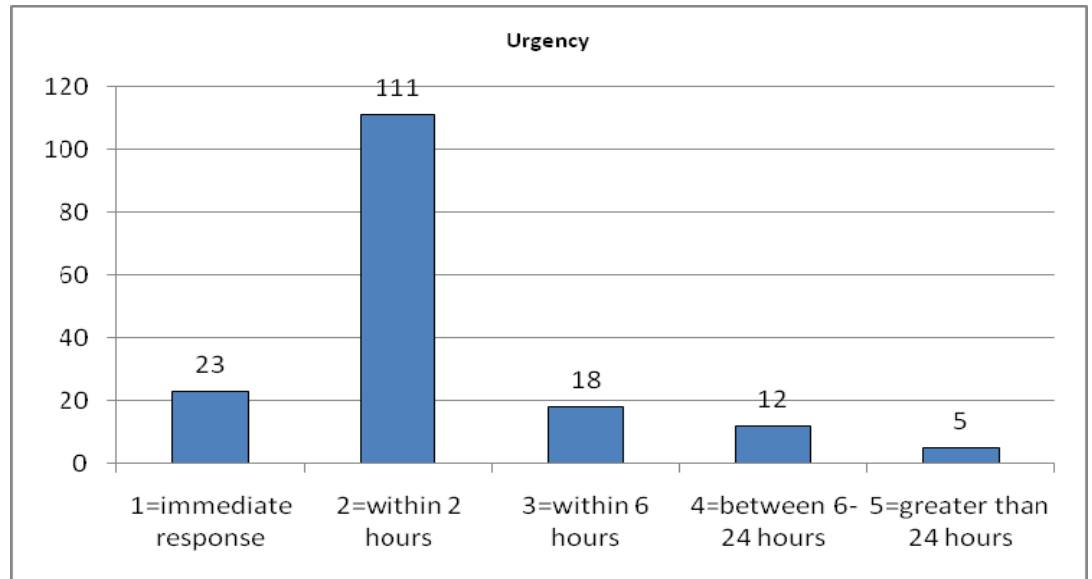


Patient outcome	4=referral to another service without visit to from team
1= Admitted to ward via ED	5= referral to another service following visit from team
2=Issue resolved within ED	6= issue resolved by local resources
3= issue resolved by visiting team	7= other

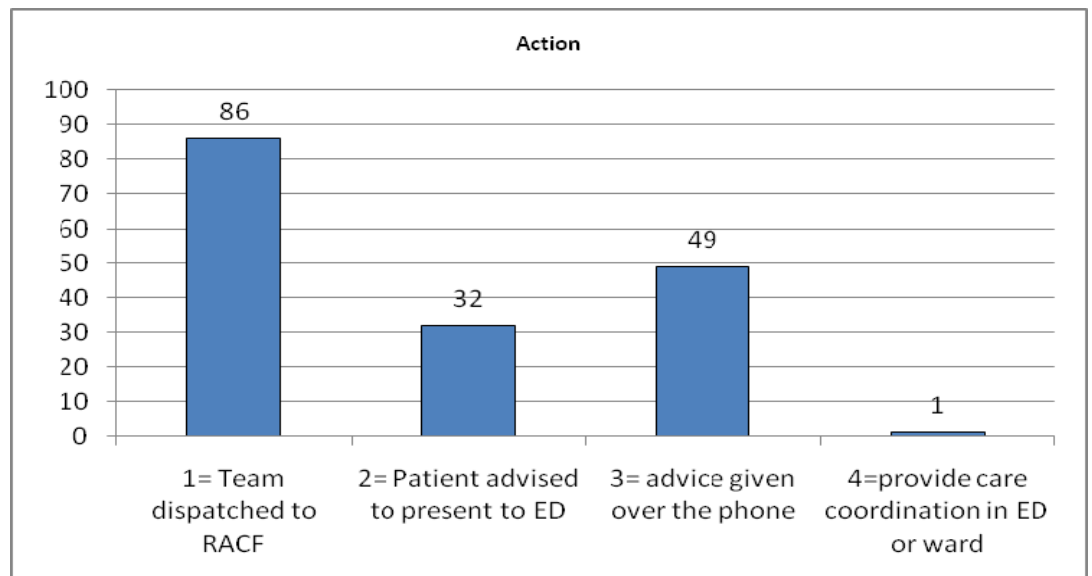
Peninsula Health

6.46 Peninsula Health has provided data for 169 patients seen by the In-reach team between 5/8/2008 and 26/9/2008. We believe this is an incomplete dataset as Peninsula Health internal reports identify 277 In-reach care episodes between August and October 2008.

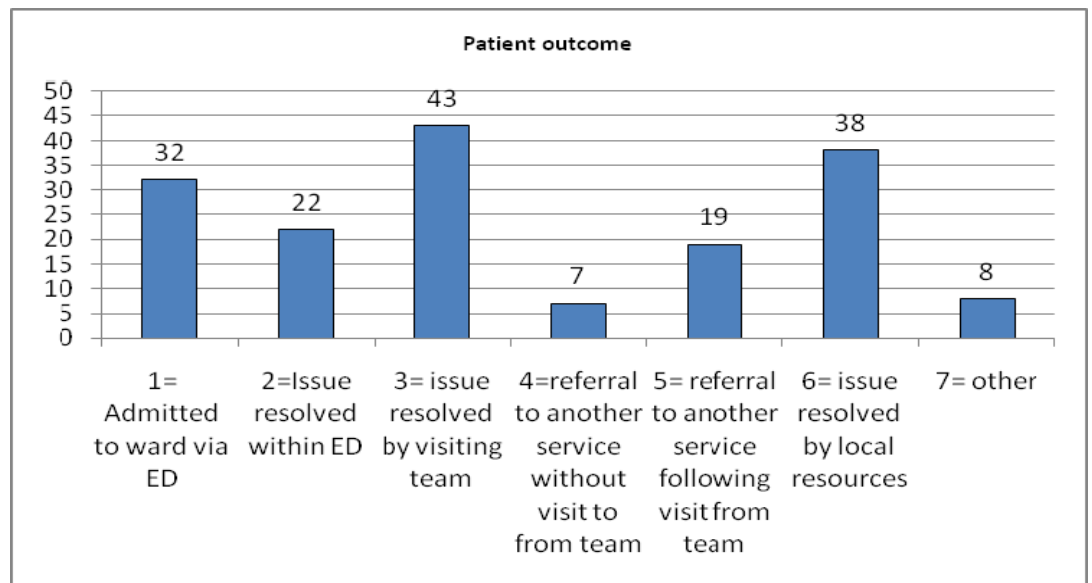
6.47 The urgency rating shows that 80% of calls (134) were required to be addressed within two hours and 90% of calls (152) were required to be addressed within six hours.



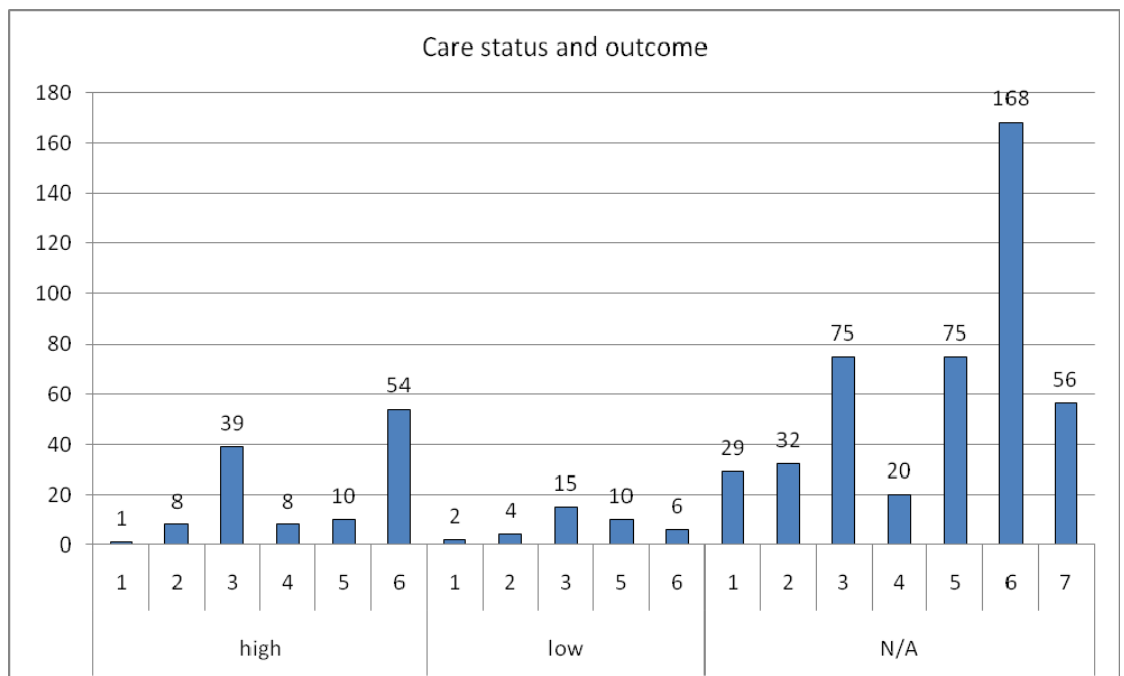
6.48 The In-reach team were dispatched to the RAC service in 51% of the cases (86) and provided phone advice in another 29% (49) of cases.



6.49 The impact of the In-reach team can be seen in that the demand on ED has been avoided in 68% (115) of cases. A further 13% (22) were resolved within ED which reduced demand on inpatient beds.



6.50 The following graph depicts the number of incidents of care according to the patient's level of care status and their outcome. For Peninsula Health the majority of patients (75%) were classified as "N/A" for the level of care status.

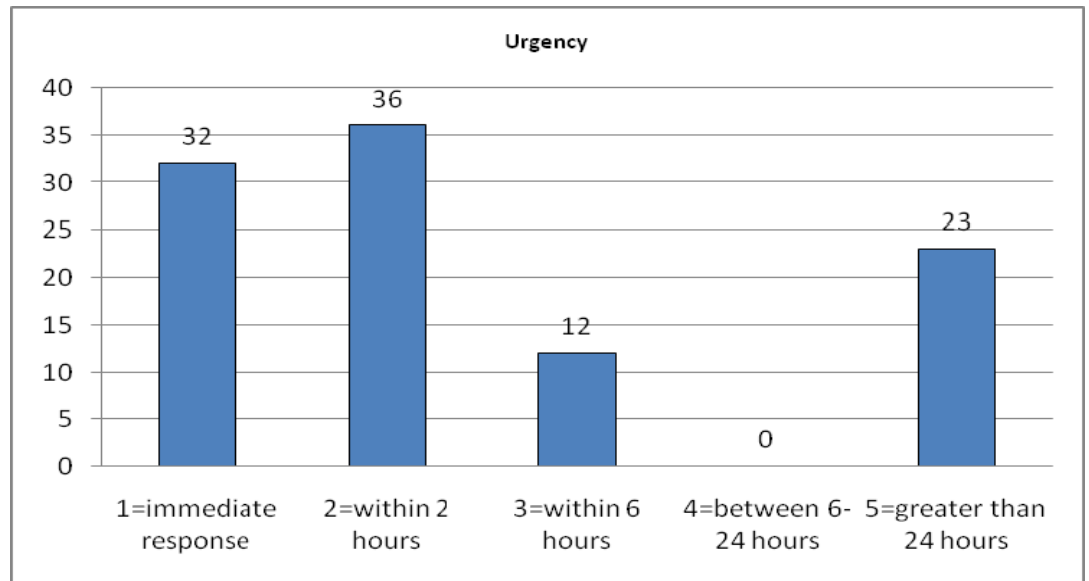


Patient outcome	4=referral to another service without visit to from team
1= Admitted to ward via ED	5= referral to another service following visit from team
2=Issue resolved within ED	6= issue resolved by local resources
3= issue resolved by visiting team	7= other

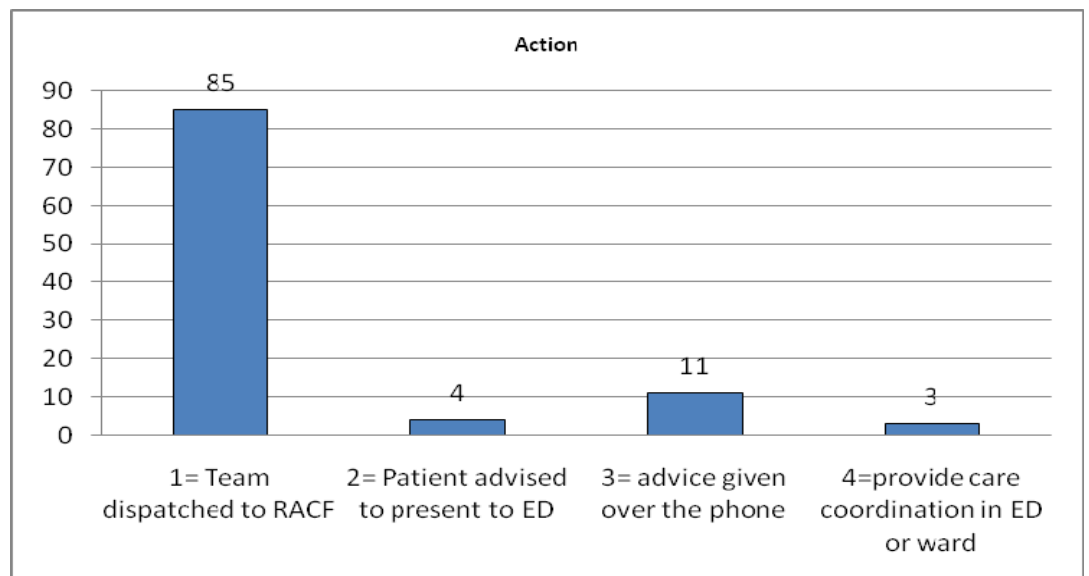
Southern Health

6.51 Southern Health has provided data for 103 patients seen by the In-reach team between 27/9/2008 and 23/3/2009.

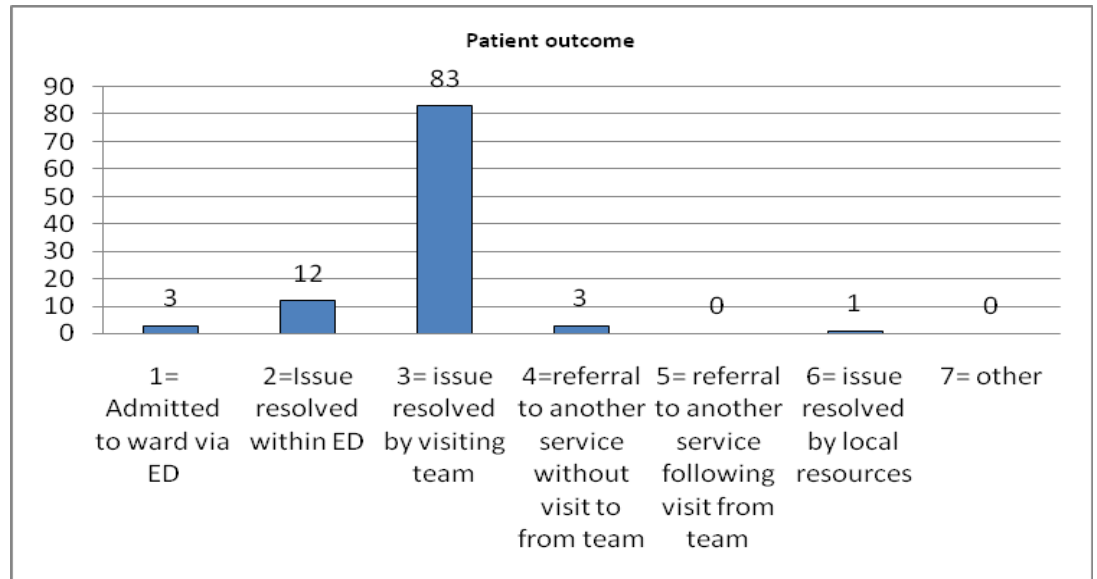
6.52 The urgency rating shows that 66% of calls (68) were required to be addressed within two hours and 78% (80) were required to be addressed within six hours.



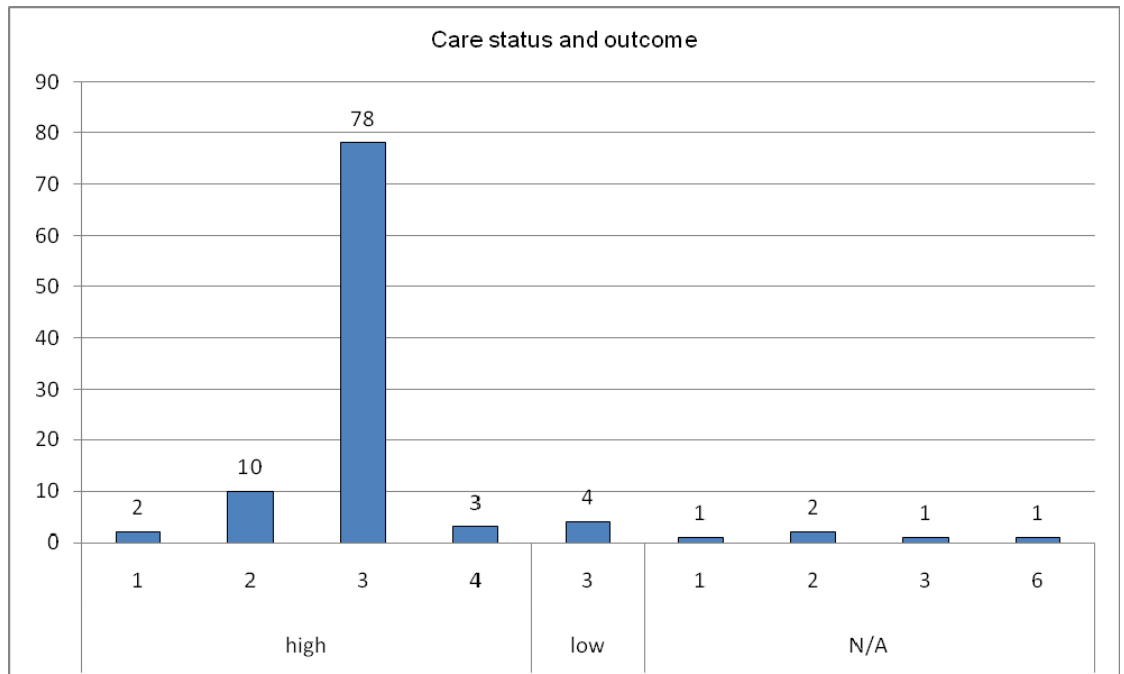
6.53 The In-reach team were dispatched to the RAC service in 83% of the cases (85) and provided phone advice in another 11% (11) of cases.



6.54 The impact of the In-reach team can be seen in that the demand on ED has been avoided in 85% (87) of cases. A further 12% (12) were resolved within ED which reduced demand on inpatient beds.



6.55 The following graph depicts the number of incidents of care according to the patient's level of care status and their outcome. For Southern Health the majority of patients (91%) were classified as "High" for the level of care status.

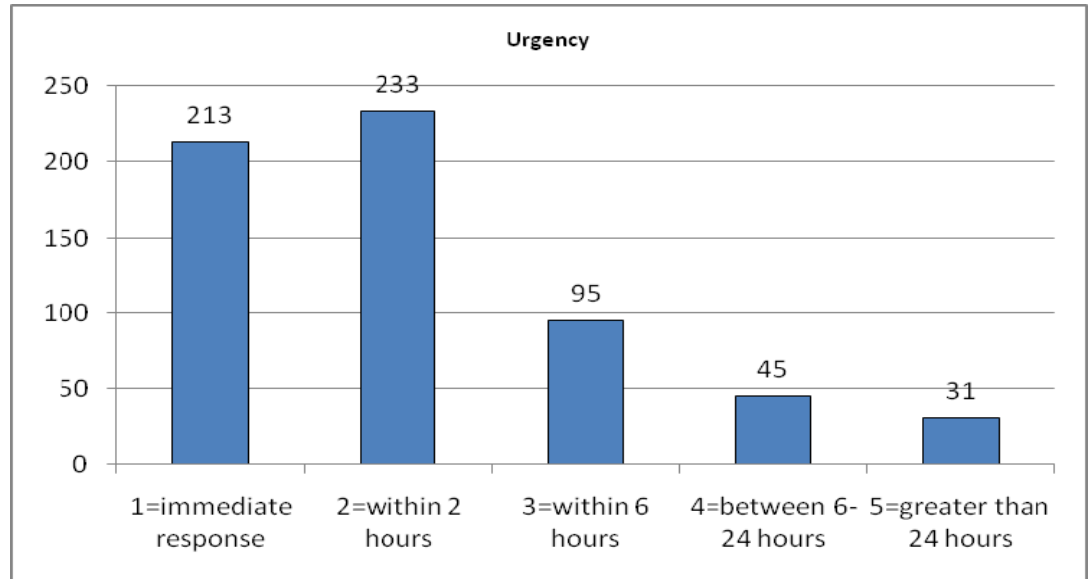


Patient outcome	4=referral to another service without visit to from team
1= Admitted to ward via ED	5= referral to another service following visit from team
2=Issue resolved within ED	6= issue resolved by local resources
3= issue resolved by visiting team	7= other

St Vincent's Health

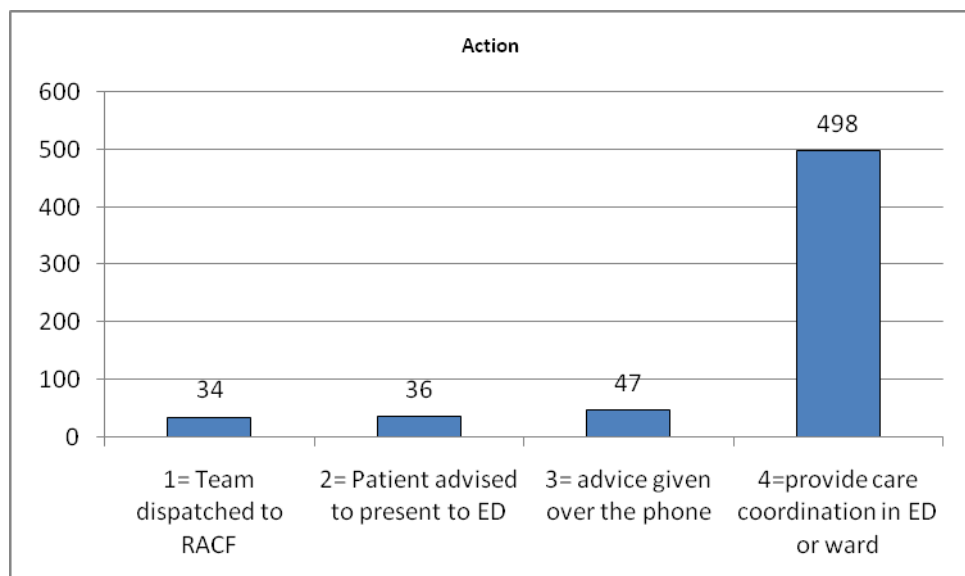
6.56 St Vincent's Health has provided data for 625 patients seen by the In-reach team between 4/8/2008 and 31/3/2009.

6.57 The urgency rating shows that 72% of calls (446) were required to be addressed within two hours and 88% of calls (541) were required to be addressed within six hours.



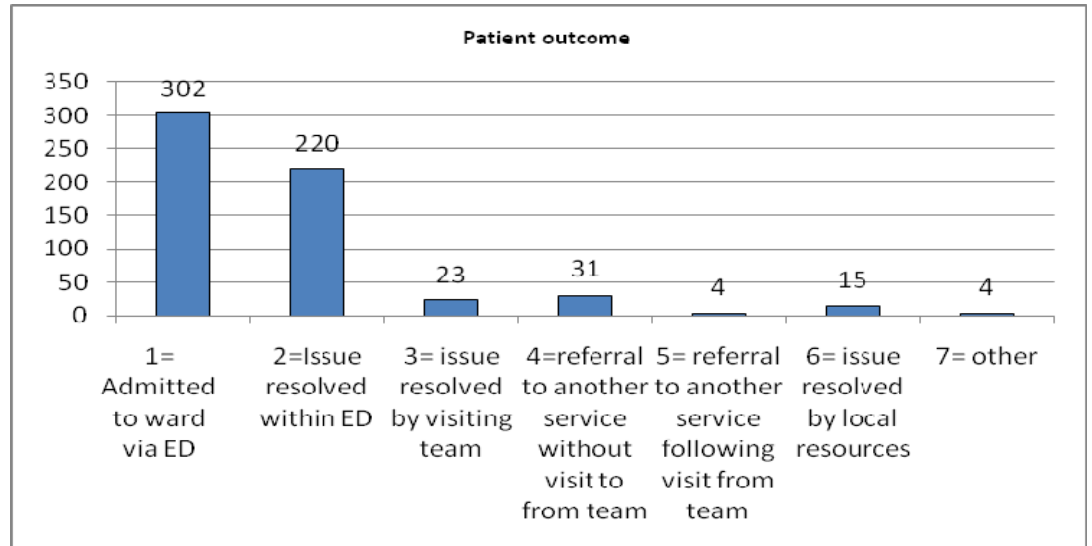
6.58 The In-reach team were dispatched to the RAC service in only 6% of the cases (34) and provided phone advice in another 8% (47) of cases.

6.59 This data indicates 81% (498) of the intervention provided by the In-reach team was within the ED or on the ward.



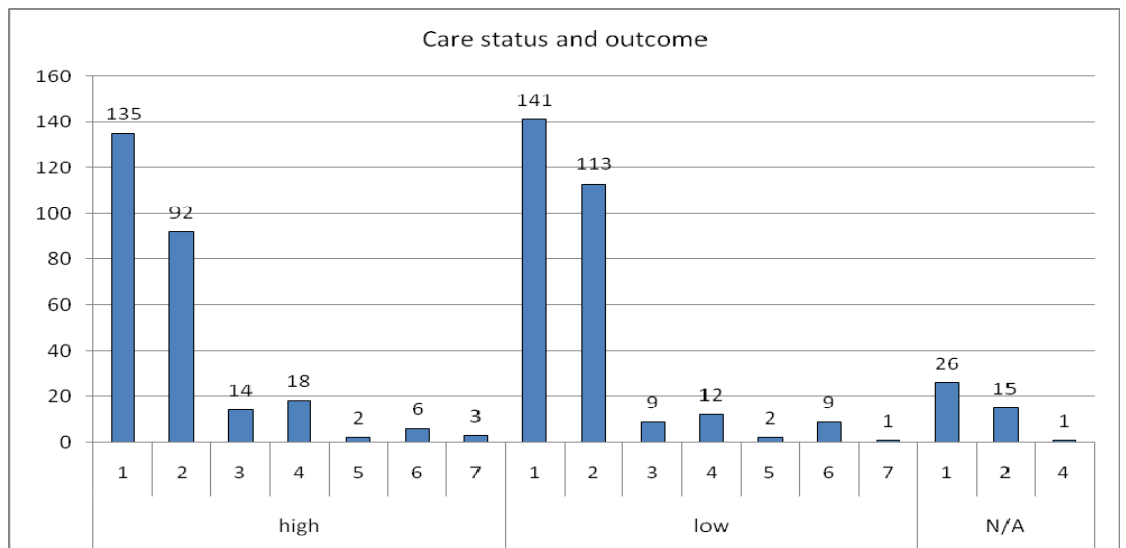
6.60 The impact of the In-reach team can be seen in that the demand on ED has been avoided in only 13% (79) of cases. The data does show that 37% (220) episodes were resolved within ED which reduced demand on inpatient beds.

6.61 This data shows that 50% (302) of cases reviewed by the team required admission to the ward via ED



6.62 The following graph depicts the number of incidents of care according to the patient's level of care status and their outcome.

6.63 For St Vincent's Health, the patients seen by the In-reach team were fairly evenly spread between high level and low level care residents.

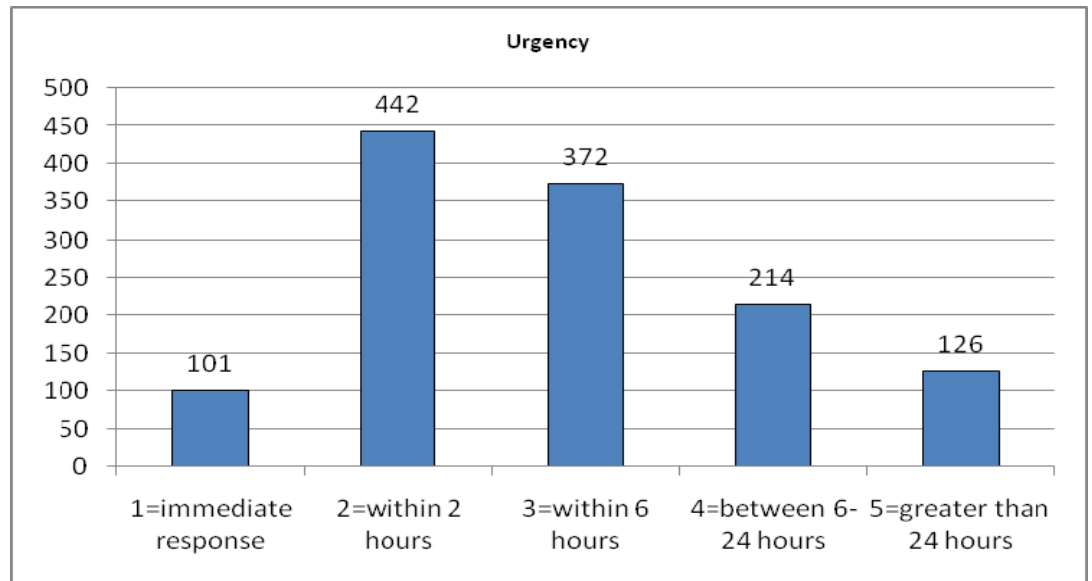


Patient outcome	4=referral to another service without visit to from team
1= Admitted to ward via ED	5= referral to another service following visit from team
2=Issue resolved within ED	6= issue resolved by local resources
3= issue resolved by visiting team	7= other

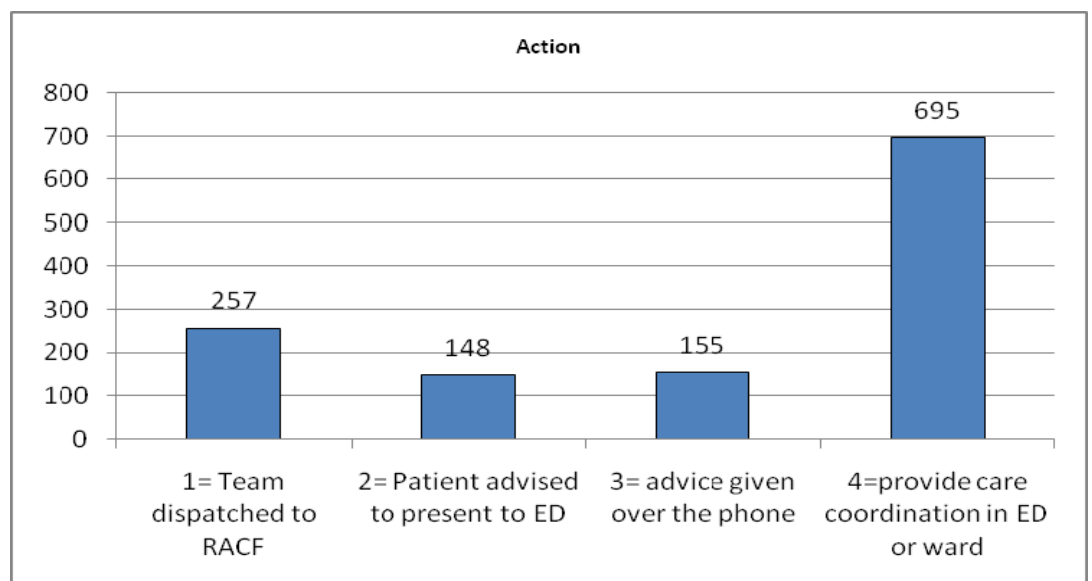
Western Health

6.64 Western Health has provided data for 1262 patients seen by the In-reach team between 6/7/2008 and 31/3/2009.

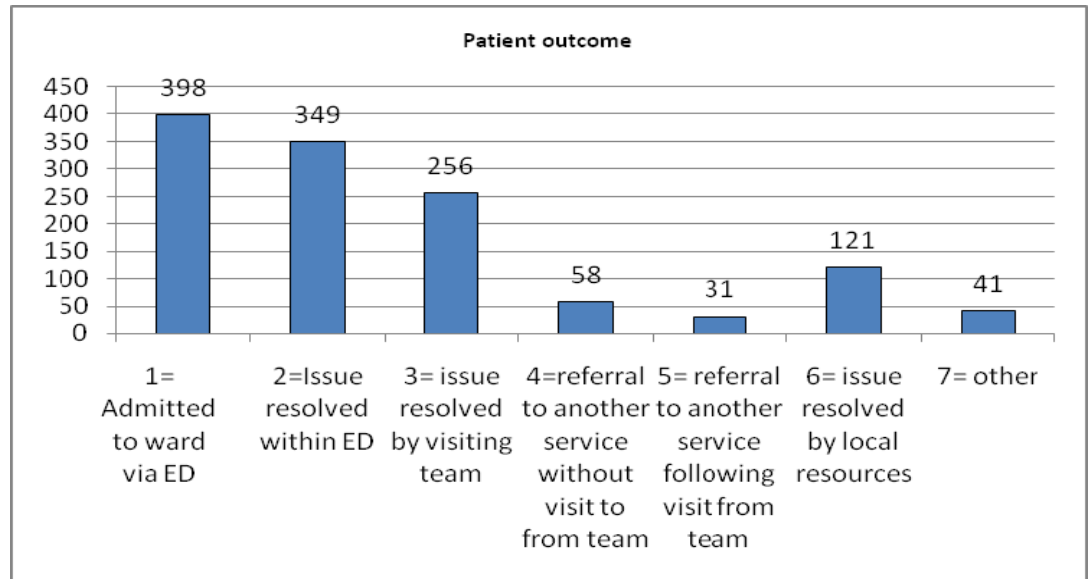
6.65 The urgency rating shows that 43% of calls (543) were required to be addressed within two hours and 73% (915) were required to be addressed within six hours.



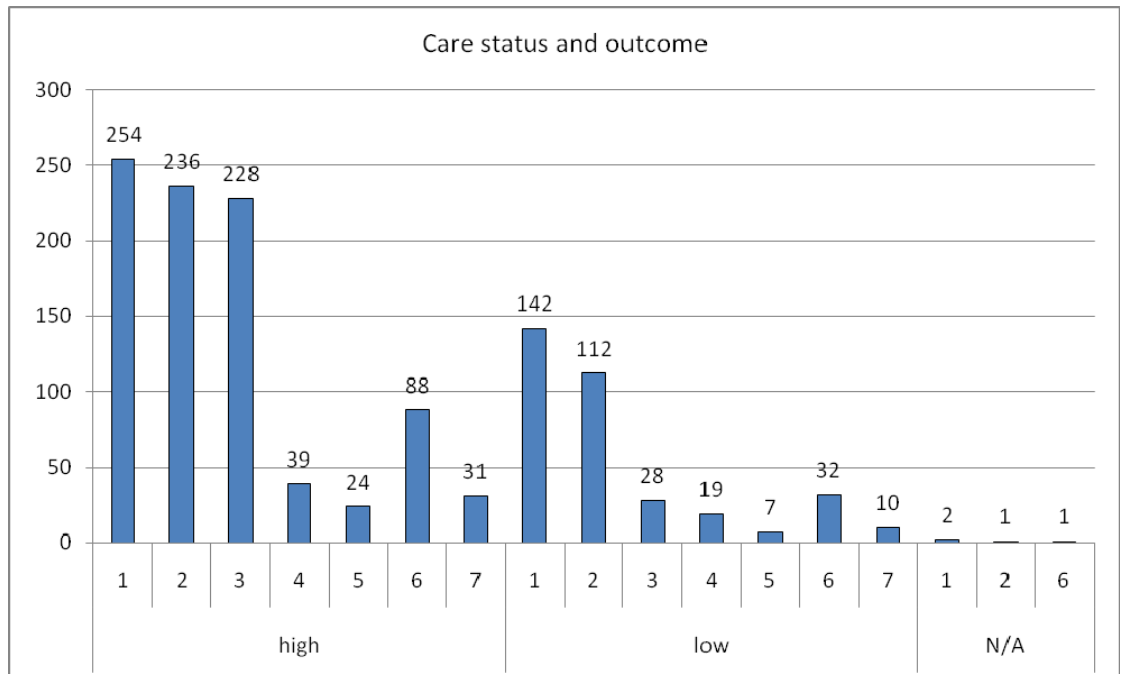
6.66 The In-reach team were dispatched to the RAC service in 20% of the cases (257) and provided phone advice in another 12% (155) of cases.



6.67 The impact of the In-reach team can be seen in that the demand on ED has been avoided in 40% (507) of cases. A further 28% (349) were resolved within ED which reduced demand on inpatient beds.



6.68 The following graph depicts the number of incidents of care according to the patient's level of care status and their outcome. For Western Health the majority of patients (72%) were classified as "High" for the level of care status.

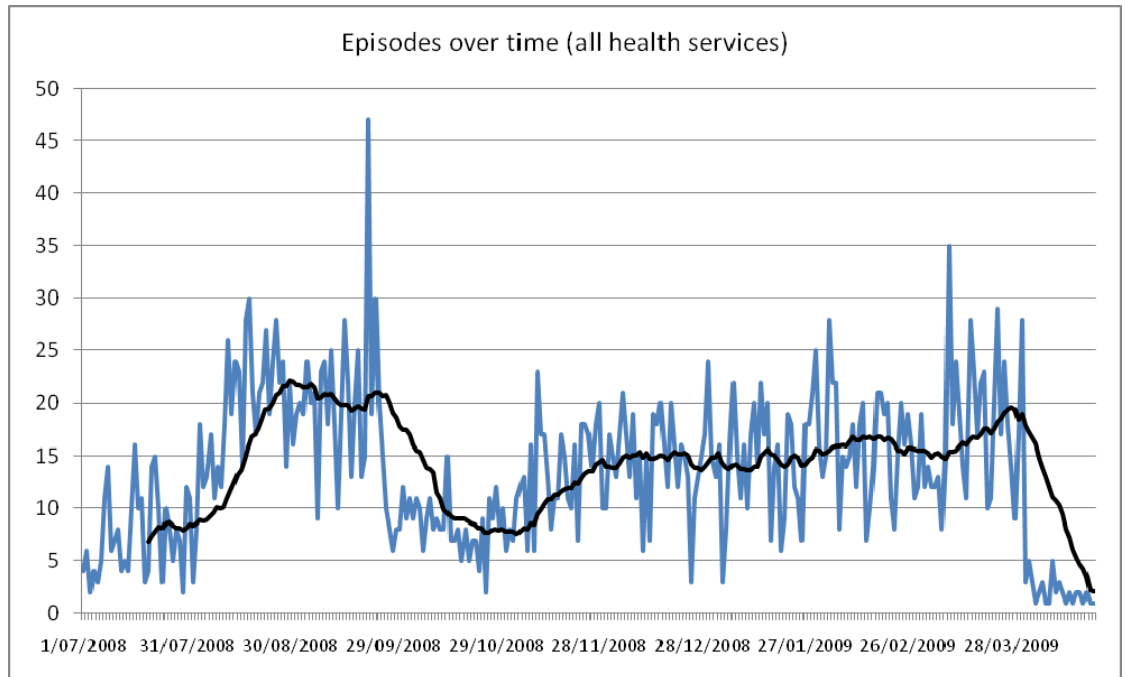


Patient outcome	4=referral to another service without visit to from team
1= Admitted to ward via ED	5= referral to another service following visit from team
2=Issue resolved within ED	6= issue resolved by local resources
3= issue resolved by visiting team	7= other

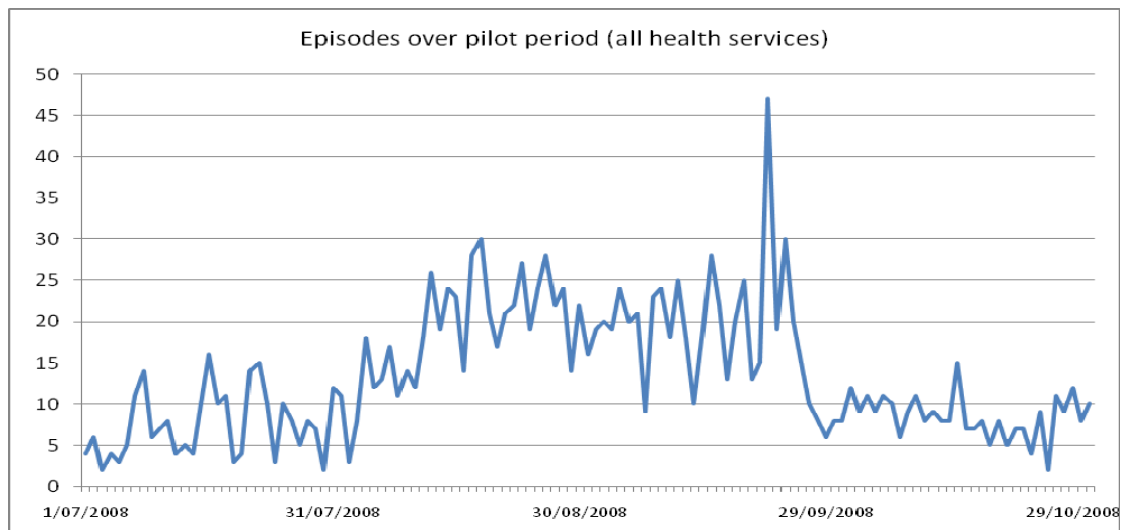
Overall Data

6.69 The following graphs depict data based on the performance of the ten pilot sites.

6.70 Data collected by all health services spans 1/7/2008 to 7/5/2009. The following graph depicts the trend in number of episodes during this time. It can be seen that the peak occurs during winter 2008, the level stabilises during the following summer and has a slight trend upwards toward the end of the data set.

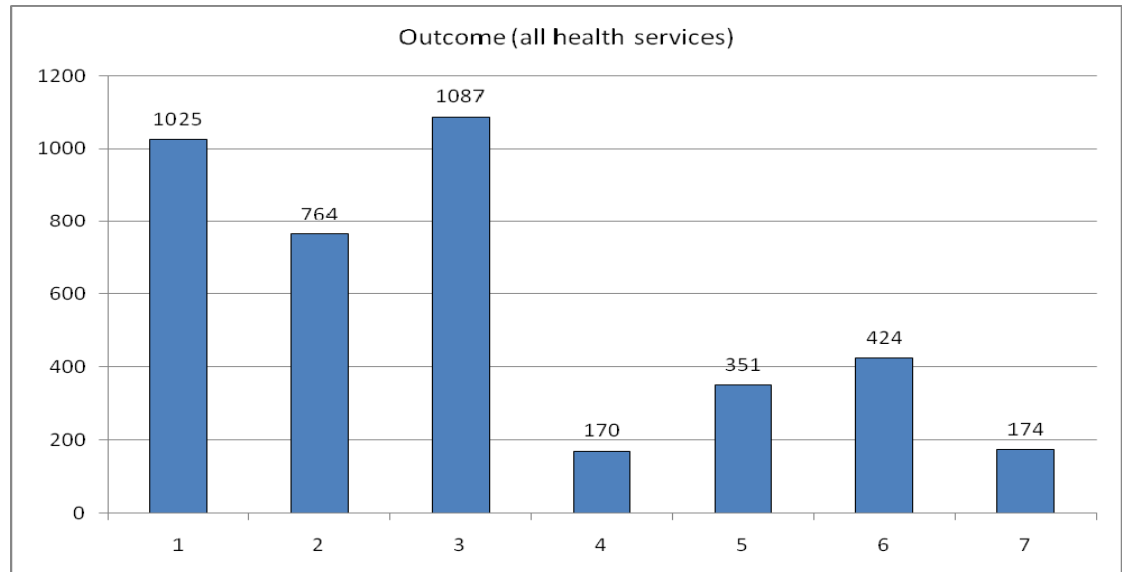


6.71 The following graph demonstrates the number of episodes during the pilot period, 1/7/08 to 31/10/08. This data demonstrates an initial small uptake during July with the peak months being August and September.



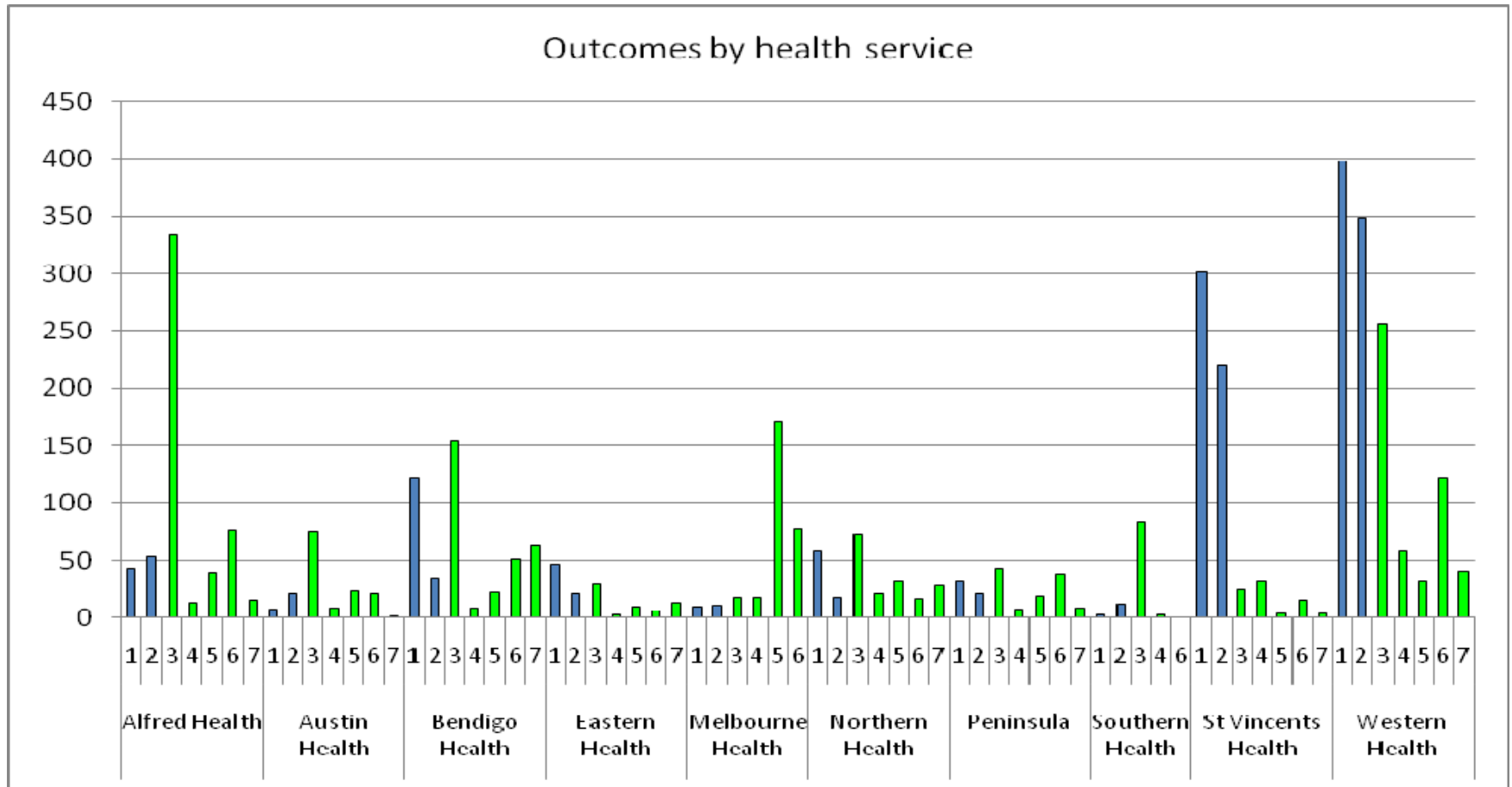
6.72 The outcome data below shows that for the 3995 episodes where data has been collected, 55.2% (2206) were resolved without the need for ED input or admission. A further 19.1% (764) were resolved in the ED and not admitted to the ward representing a reduction in demand on inpatient beds.

6.73 The 55.2% resolved without need for an ED review would not all have required ED input but were potential ED candidates had the In-reach service not been available.



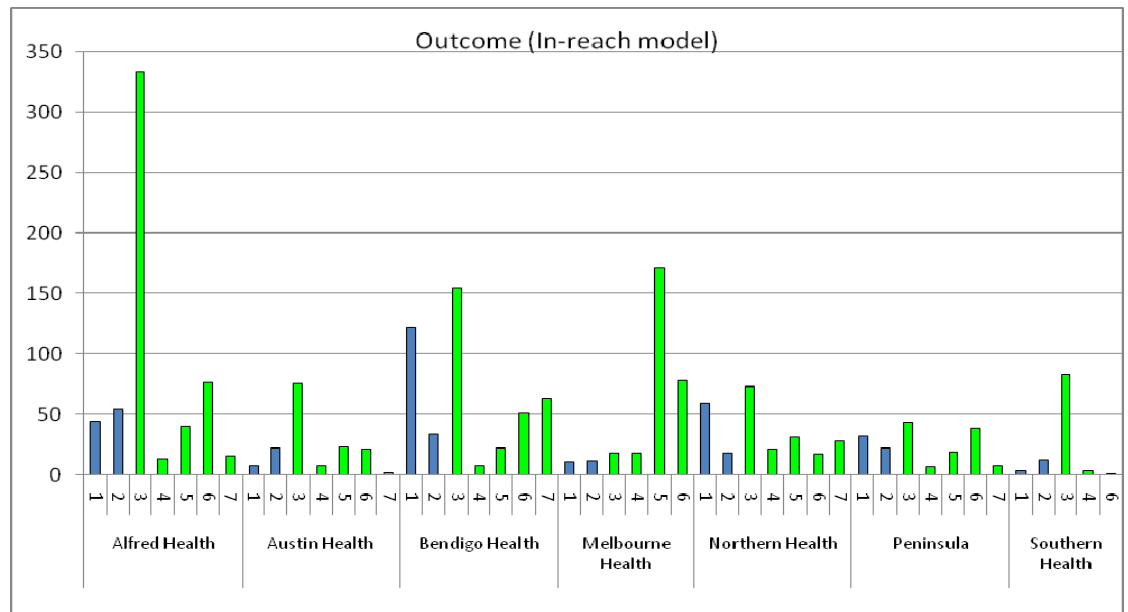
Patient outcome	4=referral to another service without visit to from team
1= Admitted to ward via ED	5= referral to another service following visit from team
2=Issue resolved within ED	6= issue resolved by local resources
3= issue resolved by visiting team	7= other

6.74 The following graph shows a comparison of the quantity of patients seen by the ten pilot sites and the outcomes achieved. Again, the In-reach teams that have achieved outcomes three to seven (green) represent reduced demand on ED and outcome two represents reduced demand on inpatient beds.



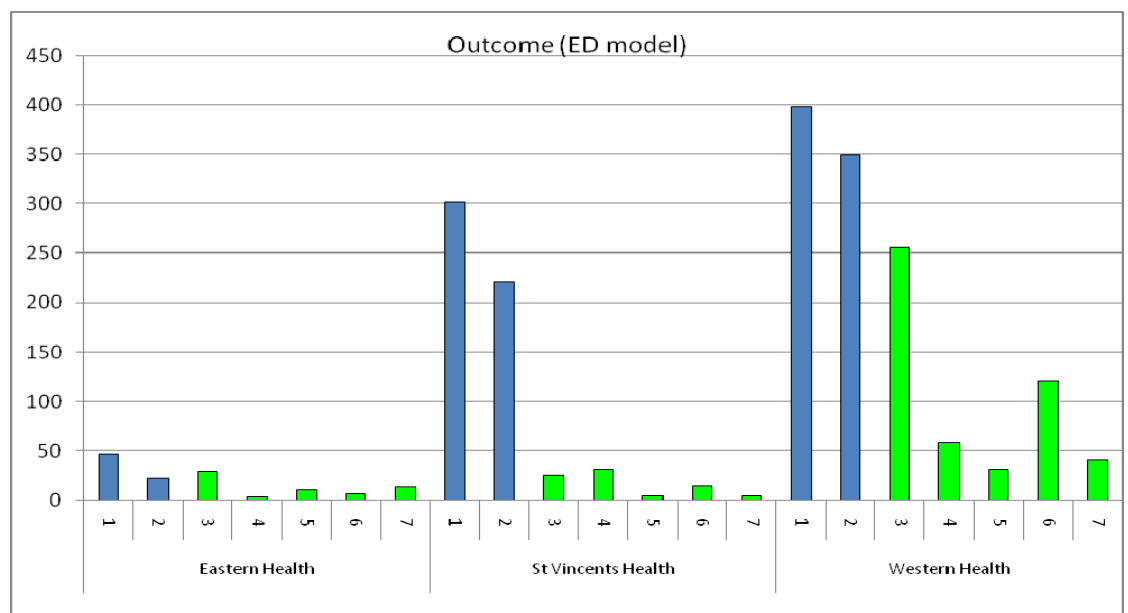
Patient outcome	4=referral to another service without visit to from team
1= Admitted to ward via ED	5= referral to another service following visit from team
2=Issue resolved within ED	6= issue resolved by local resources
3= issue resolved by visiting team	7= other

6.75 The seven In-reach models of service, as defined by achieving greater than 60% avoidance of ED presentations are Alfred, Austin, Bendigo, Melbourne, Northern, Peninsula and Southern.



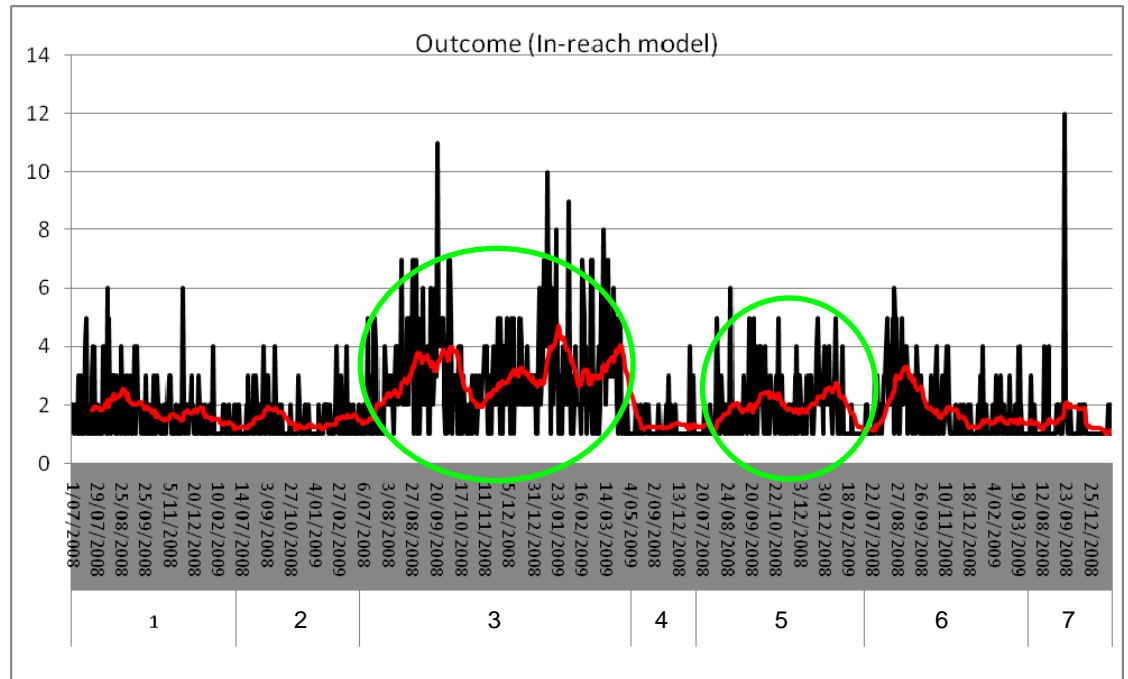
Patient outcome	4=referral to another service without visit to from team
1= Admitted to ward via ED	5= referral to another service following visit from team
2=Issue resolved within ED	6= issue resolved by local resources
3= issue resolved by visiting team	7= other

6.76 The remaining three represent an ED model of service and include Eastern, St Vincent's and Western.



Patient outcome	4=referral to another service without visit to from team
1= Admitted to ward via ED	5= referral to another service following visit from team
2=Issue resolved within ED	6= issue resolved by local resources
3= issue resolved by visiting team	7= other

6.77 The outcome over time is demonstrated below for the In-reach model services. The trendline shows that the presentations with outcome three (issue resolved by visiting team) and outcome five (referral to another service following visit from team) have an increasing trend over time. This demonstrates that these services have increased their ability to visit aged care facilities and resolve issues without the need for the resident to present to ED.



Patient outcome	4=referral to another service without visit to from team
1= Admitted to ward via ED	5= referral to another service following visit from team
2=Issue resolved within ED	6= issue resolved by local resources
3= issue resolved by visiting team	7= other

VEMD Data

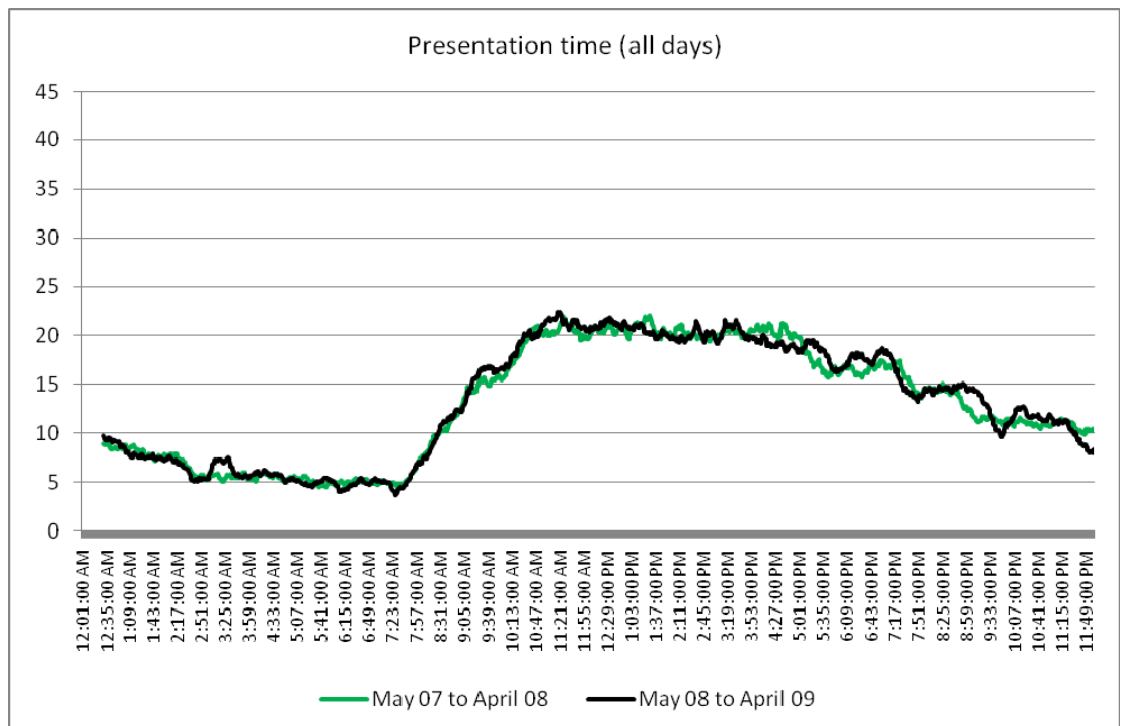
6.78 The following VEMD data represents all presentations to ED by residents of aged care facilities including both high care (nursing home) and low care (hostel) residents.

6.79 The data is drawn from the presentations to the ED of the ten pilot health services sites between 1/5/2007 and 30/4/2009. There were 37,846 presentations during this time.

6.80 The time of day for presentation demonstrates that the high demand time for aged care facility residents lies between 7.00 AM and 10.00 PM.

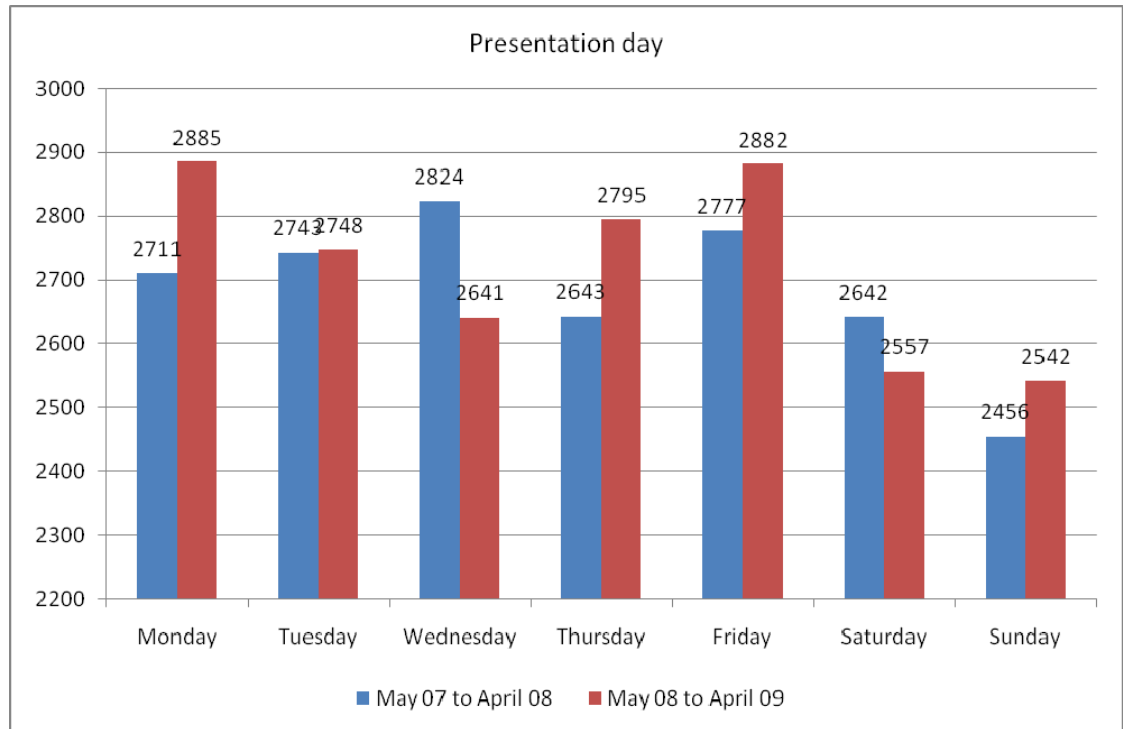
6.81 This data would suggest that the biggest impact for the In-reach service would be if its service were able to receive referrals and respond prior to the influx from aged care facilities. It is also apparent that the demand from aged care facilities overnight is low and therefore it may not be an efficient use of resources to staff the service during this time.

6.82 To match service to this trend, In-reach staff would need to be receiving referrals before an ambulance is called (from approximately 6.00 AM to 7.00 AM) and be available throughout the day until the referrals decrease (from approximately 9.00 PM to 10.00 PM).

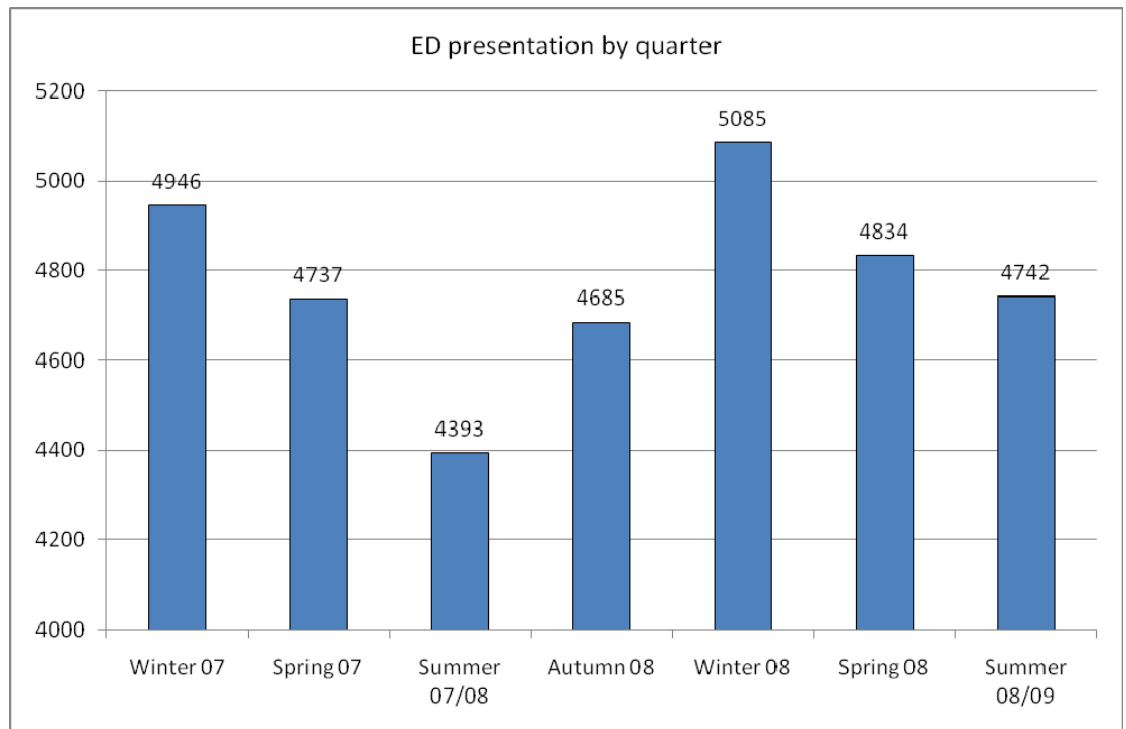


6.83 Data demonstrating presentation time by day of the week is included in Appendix D.

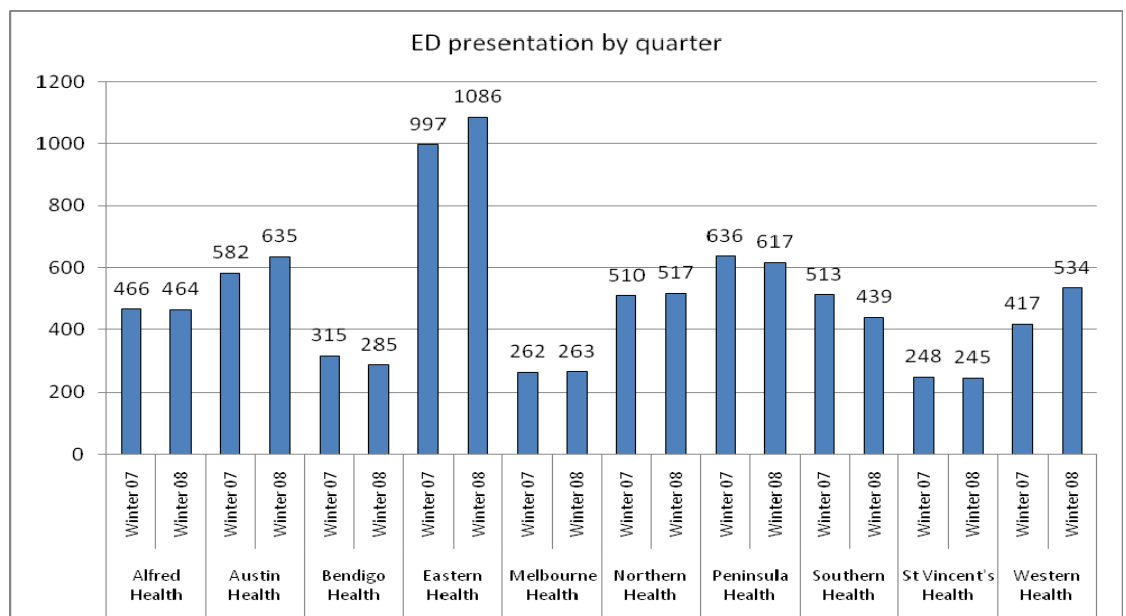
- 6.84 The day of presentation data shows that there is a higher ED demand for residents of aged care facilities during week days, however this only represents approximately a 10% reduction in demand on weekends.
- 6.85 This data shows that the demand for an In-reach service is present seven days per week.



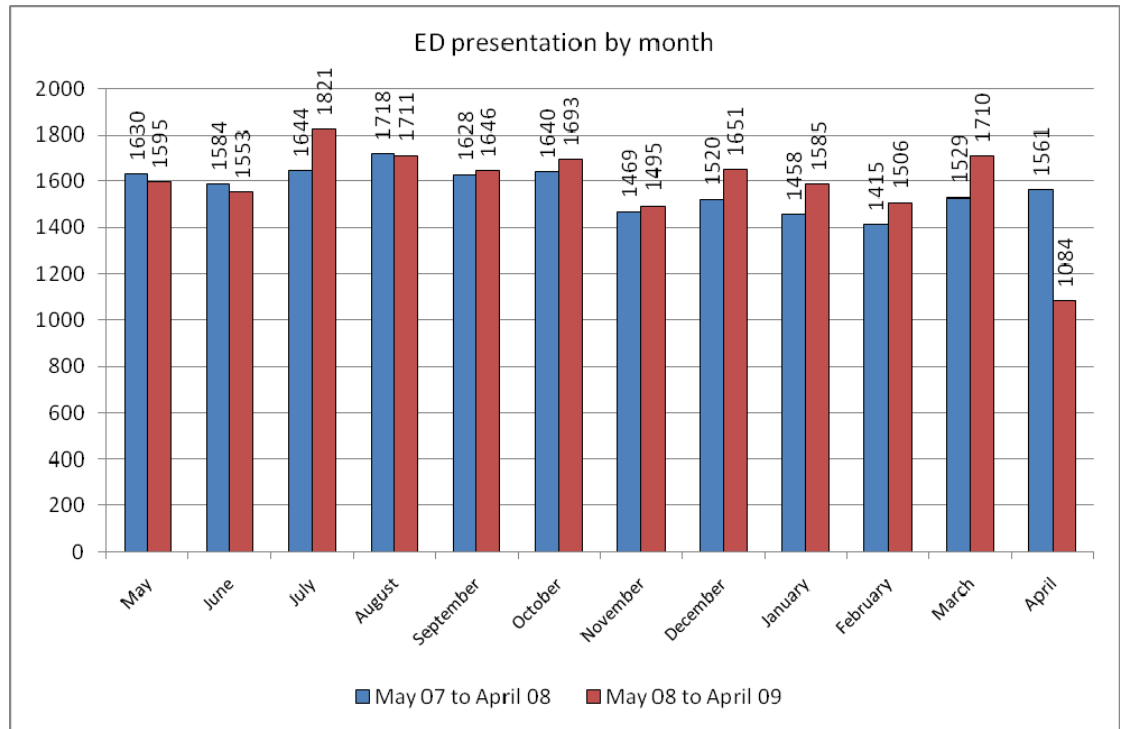
6.86 The following presentation data reflects the increase in demand for ED by residents of RAC services during the winter period. This data also demonstrates that the demand the other quarters is still high and may warrant the service provided by the In-reach teams.



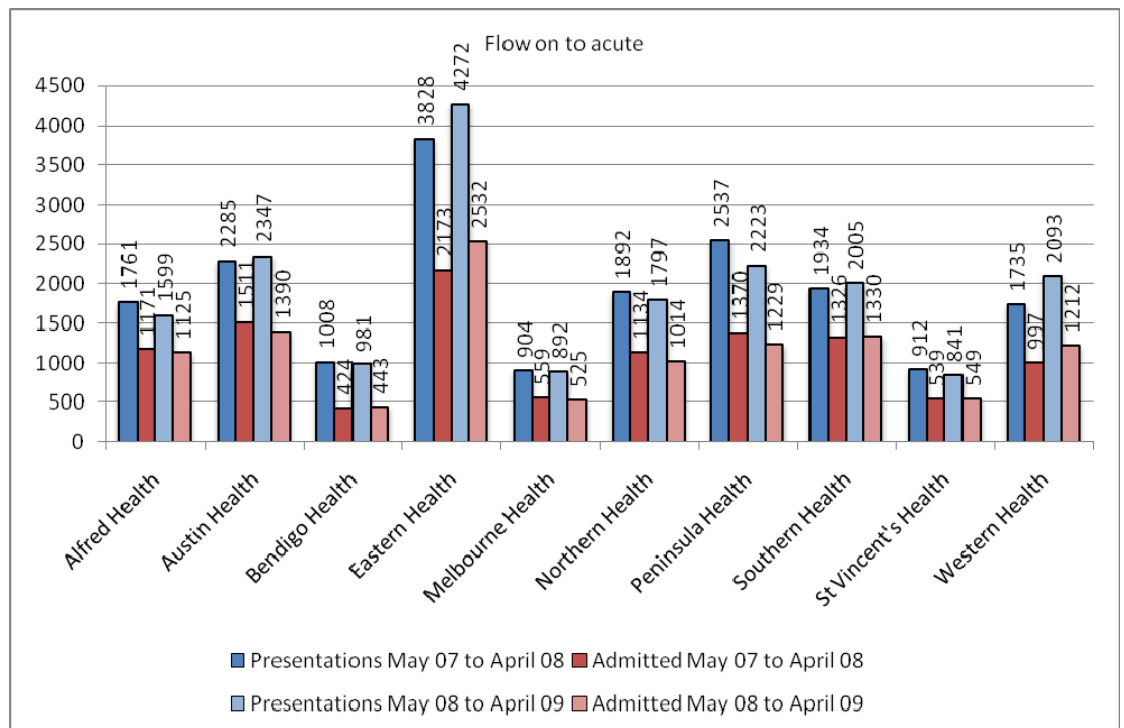
6.87 The following shows the ED presentations for the winter prior to the pilot compared to the winter of the pilot for the ten pilot sites. The previous data demonstrated an overall increase in presentations for Winter 2008 and therefore the fact that seven of the ten sites were able to decrease or maintain their demand shows that the In-reach may be impacting on presentations from RAC services.



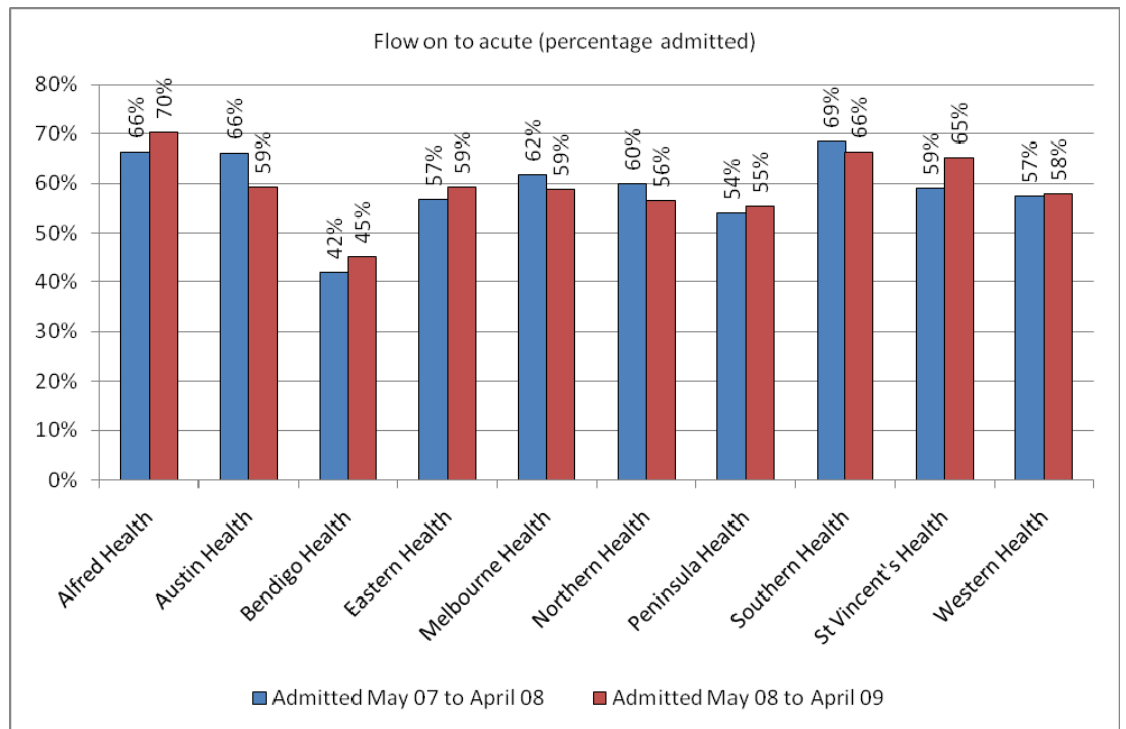
6.88 The monthly presentation data demonstrates that the ED presentations were higher most months of the second year of data. This again reinforces the increasing demand on ED over time.



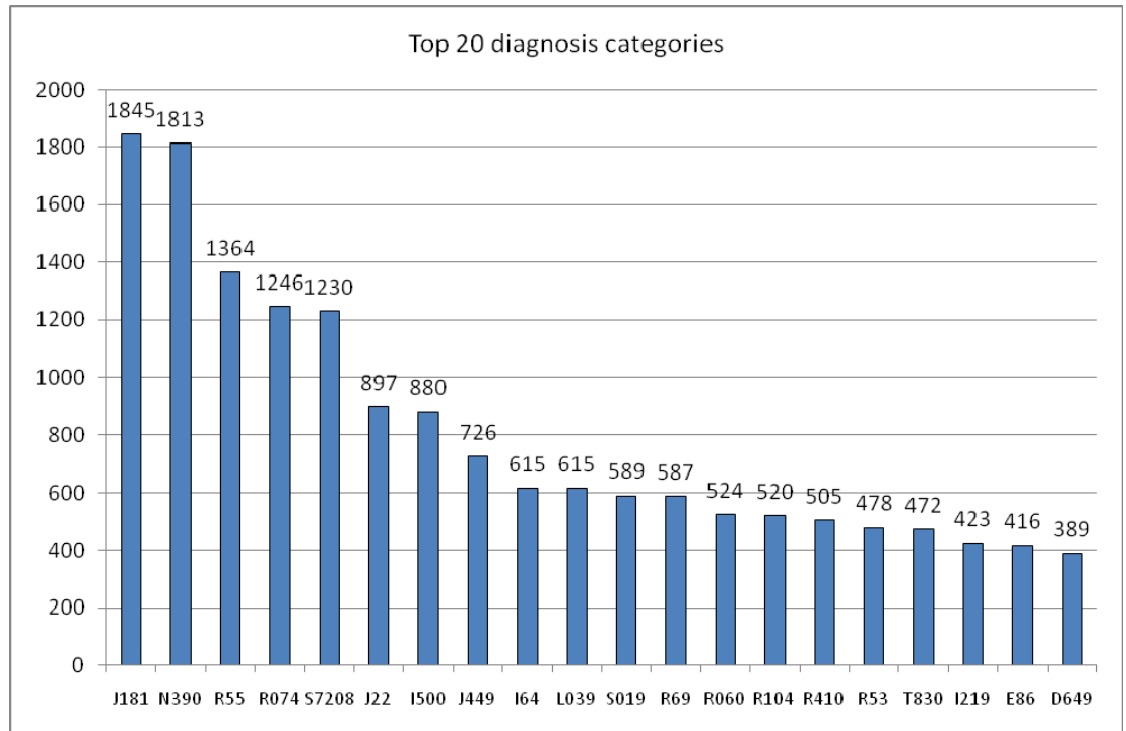
6.89 The following data demonstrates the number of RAC service presentations to each health service compared to the number admitted to a ward within the presenting hospital.



- 6.90 The following breakdown demonstrates the previous data as the percentage of presentations from RAC services admitted for each year analysed.
- 6.91 This can be interpreted as the appropriateness of presentations and would be expected to increase as programs such as In-reach manage those not requiring ED or acute input.
- 6.92 Six of the ten sites have increased the percentage admitted which would suggest the In-reach programs may be managing those residents that are appropriate, while those requiring more intense intervention and therefore admission are presenting to the ED.

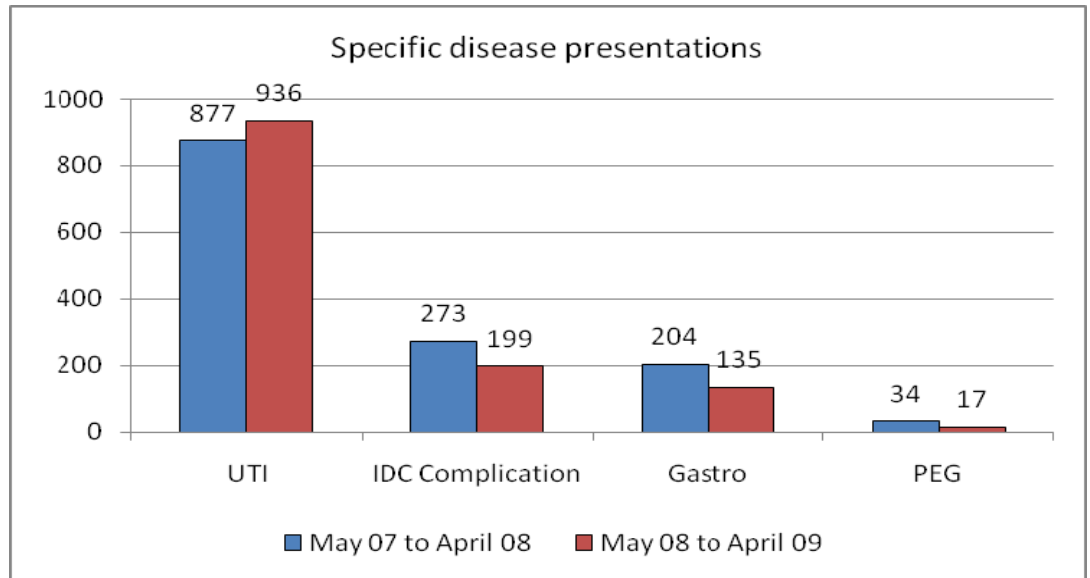


6.93 The top 20 diagnostic categories for the ED presentations are listed below. Many of these demonstrate a requirement for an ED assessment to stabilise the patient medically. The impact of the In-reach team would be most beneficial in the diagnostic categories where the medical imperative is low however input is needed to prevent the condition deteriorating.



1	J181	Lobar pneumonia unspecified	11	S019	Open wound of head part unspecified
2	N390	Urinary tract infection site not spec	12	R69	Unknown & unsp causes of morbidity
3	R55	Syncope and collapse	13	R060	Dyspnoea
4	R074	Chest pain unspecified	14	R104	Other and unspecified abdominal pain
5	S7208	Fracture of other parts of neck of femur	15	R410	Disorientation unspecified
6	J22	Unsp acute lower respiratory infection	16	R53	Malaise and fatigue
7	I500	Congestive heart failure	17	T830	Mech comp urinary (indwelling) catheter
8	J449	COPD unspecified	18	I219	Acute myocardial infarction unspecified
9	I64	Stroke not spec haemorrhage or infrct	19	E86	Volume depletion
9	L039	Cellulitis unspecified	20	D649	Anaemia unspecified

6.94 One key area the In-reach team is able to impact on has been the management of IDC complications. The graph below demonstrates a 27% decrease in the number of ED presentations for this category following the introduction of the In-reach program.



Data Limitations

- 6.95 When analysing the data collected by the pilot sites there were a number of issues which resulted in unclean data as follows:
- Incomplete data entry
 - Inconsistent units (eg time in minutes versus time in hours)
 - Mixed numerical and text data entry in some categories
 - Inconsistent definitions within categories (eg 1 to 5 versus 1 to 7 for collection category)
 - Inconsistent data layout between sites
- 6.96 The first implication of these issues is that the comparison between sites is less powerful if the data is not consistent. The data needs to be altered to match and there is a risk that the original meaning of a set of data may be changed due to interpretation.
- 6.97 The second implication of the issues is the inefficiency in analysis that results from the time involved in cleaning the data. This has implications for the quality of the data as well as the cost of analysis as the time taken to clean the data can be substantial.
- 6.98 When setting up a data collection process it is important to ensure that the data collection can be highly accurate through liaison with the people who will be doing the data collection and input.
- 6.99 The data entry should also be controlled by utilising the technology available to limit the data entry to the format that will be used in the analysis going forward.
- 6.100 Consideration must be given to linking the data collection fields to those that are already being utilised by health services. This raises its own problem as not all health services are using the same data collection medium.

7.0 INTERVIEWS AND SURVEY – RESULTS AND ANALYSIS

Interview results

Implementation successes

- 7.1 Most of the interviewees believed that there were more implementation successes than barriers.
- 7.2 In general most commented that it is a very good program with superlatives such as “fantastic” often used.
- 7.3 The inservices offered in the early stages by the In-reach teams were especially valued in the refreshing or upskilling of RAC service staff. While many RAC service staff are competent and confident in their clinical judgements, others, especially those with less call for clinical assessments or less experience, are not so confident. The inservices have covered the following areas:
- Catheter management
 - PEG management
 - Infection control
 - Diabetes and hyperglycaemia
 - Chest infections
 - Swallowing
 - Symptom management
 - Congestive cardiac failure
 - Bowel cancer
 - Wound management
 - End of life issues
- 7.4 Another implementation success was the development of good relationships with other participants in the care of older patients. These included:
- AV
 - GPs
 - RAC services
 - improved intrahospital relationships

- 7.5 Direct engagement with the RAC services was seen to be beneficial, with early promotion of the pilot and frequent mail outs to RAC services helping to keep the service in front of mind. Having a single point of access for the RAC services to use was also very valuable.
- 7.6 Health service staff reported the beginning of problem solving of long term issues such as those that are presented by lack of updated medication charts, which can prevent a patient being discharged in a timely fashion if no GP is available, and the need for IV fluids which had previously necessitated a trip to ED.
- 7.7 The pilot has lead to improved discharge of patients from hospital back to RAC services, in many cases leading to discharge from the ED rather than admittance to an acute ward.
- 7.8 AV has developed an information matrix providing details on which RAC services are covered by an In-reach pilot for ease of referral by AV staff. AV is a very good source of referrals for a number of pilot programs.
- 7.9 For some pre-existing RAC services support programs, the extra funding was used to access a doctor which provided a valuable addition to resources and had a clear impact in preventing ED presentations.

Outcomes / Results

- 7.10 The health services have received very positive feedback from patients and patient's representatives and RAC services staff.
- 7.11 RAC services staff are feeling more supported with In-reach in place
- 7.12 The ad-hoc train-the-trainer and in-service process offered by the In-reach teams is highly valued by RAC service staff.
- 7.13 Increasingly links between nursing staff in health services and RAC services have developed with shared education sessions offered in some services now.
- 7.14 AV indicated that they have "overwhelming support" for the program. However limitations to hours and services make referring difficult.
- 7.15 Some hospitals have tapped into pre-existing AV information and triaging guidelines, especially the phone triaging guidelines.
- 7.16 AV believes it has achieved a good uptake of the In-reach program with Alfred Health and Peninsula Health.
- 7.17 Health services feel ED presentations and acute admissions have decreased as a result but the objective data on this aspect is hard to interpret.

Barriers and Transition Issues

- 7.18 Initially RAC services were reluctant to call the In-reach teams to visit the facilities because they feared undue criticism. However the In-reach teams concentrated on advice and education, and confidence gradually developed that In-reach teams would provide assistance rather than criticism.
- 7.19 The initial short duration of program and uncertainty of the future was seen as problematic. Staff in RAC services and health services change constantly and AV staff rotate every twelve weeks. It is difficult to recruit users to a program that may only be in existence for a few months.
- 7.20 Lack of, or out of date supplies eg catheters have provided a barrier to resolution of a care episode in the RAC services. Health services have develop workarounds in some cases to overcome this issue but RAC services should be encouraged to assess patient needs on an ongoing basis and proactively arrange with families for appropriate supplies to be kept for each patient.
- 7.21 In some cases there are not strong relationships between AV and health services because of limitations on hours and on the facilities serviced. It is much easier for AV to deal with cases in RAC services in the Peninsula catchment for instance as AV knows that all RAC services in the catchment will be covered. It is difficult for AV in catchments where only some of the RAC services can access the In-reach service.
- 7.22 The AV crew rotation every twelve weeks leads to loss of knowledge regarding the In-reach program in particular areas. One health service notice a significant drop off towards the end of the initial In-reach pilot and when they investigated the cause found that the AV staff were no longer referring as the new crews were not aware of the availability of In-reach teams.
- 7.23 Some RAC services have pre-existing policies that act as a barrier to using the In-reach teams. These RAC services have protocols that require them to call 000 for an ambulance in identified cases. Facility staff say that this is a risk management issue that is driven by family and regulatory pressure. They comment that there is pressure to call 000 even when staff in the facility believe they can manage the health issue themselves.
- 7.24 Some health services had difficulty sourcing medical back up and they believe that this impacted on the resolution of some cases.
- 7.25 There are commonly multiple GPs seeing patients within each RAC service and this makes information distribution difficult.
- 7.26 There are barriers to discharge of residents back to RAC services with some facilities having policies regarding days and time of return eg no returns on weekends, no returns after a certain time of day. In-reach teams are developing negotiating skills to ensure timely discharge.

- 7.27 The short time frame from funding allocation to start up was seen as a significant transition issue for some health services. Those with strong pre-existing relationships to leverage off found the start up easier than others.
- 7.28 It was difficult to recruit appropriately skilled staff as a mix of skills were needed including community and ED experience. The staff will need to be retained if the program is to be sustainable. Some programs recruited staff from the ED which was seen as making ED staffing more difficult. Others took a decision not to recruit from ED so as not to weaken its responsiveness and recruited externally.
- 7.29 Where staff were recruited from ED, HITH and other programs backfilling was an issue.
- 7.30 Continually rostering appropriately skilled staff was an issue, especially covering the night shift.
- 7.31 There was some under-utilisation of programs already in existence such as the GP liaison teams.
- 7.32 There appears to be a lack of communication between GPs and In-reach teams and a reluctance of the In-reach teams and AV to discuss the program with GPs at time of request for ambulance. This could be a missed opportunity for information distribution about the program. It was noted that in a number of cases the In-reach protocols included asking the RAC service staff to call the patient's GP before they call the In-reach team.

Publication and uptake

- 7.33 Where pre-existing relationships were strong uptake was fast. It was slower and more difficult where networks and relationships were not strong.
- 7.34 Most of the health services provided numerous information sources about the program to RAC services, AV and GPs and some health services have regular In-reach newsletters that are distributed to RAC services. There was evidence of opportunistic advertising from many health services.
- 7.35 Some In-reach teams were pro-active and sourced clients from ED rather than waiting for phone calls to come in.

Referral processes

- 7.36 Most health services opted for a single point of contact including one phone number - sometimes a 1800 number.
- 7.37 As awareness increased, RAC services came to utilise services more; one service went from five RAC services accessing the service at the commencement of the pilot to 33 participating at the time of this evaluation.
- 7.38 AV promoted referrals by advising previously unaware RAC services of the program and encouraging its use.
- 7.39 Some patients were sourced from ED. They were taken on by In-reach teams who did not have sufficient calls direct from RAC services or AV to fully utilise their time. These cases were often resolved by the In-reach team with out needing admission. ED staff report that this is of great assistance especially when the ED is busy.
- 7.40 Sometimes health services have needed to be reminded of their own services by AV eg PEG reinsertion service.
- 7.41 There is an occasional referral from the community via allied health practitioners.
- 7.42 Referrals from GPs were not common although they came occasionally via AV. If AV receives a call from a GP typically it does not call the In-reach teams; it responds with an ambulance.

Communication

- 7.43 The In-reach services are easily contacted when the users are aware of the service.
- 7.44 Multiple names for the pilot at multiple health services make access and understanding difficult.
- 7.45 Agency nurses in RAC services are often not aware of the service and turnover of RAC service staff is common. Constant communication and high visibility flyers and posters are necessary.
- 7.46 There are also similar communication issues from the health service perspective given the mobility of staff in health services.

Conditions for success

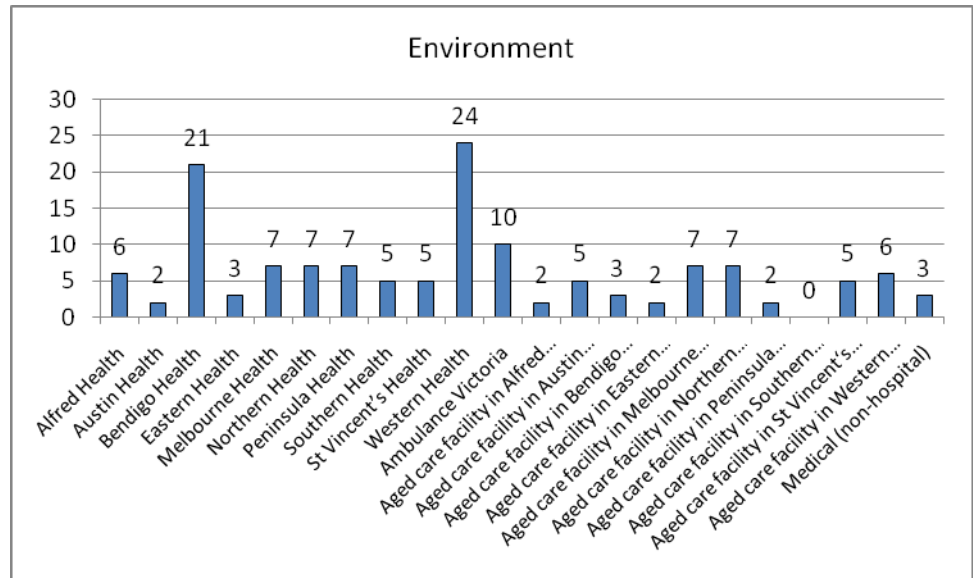
- 7.47 One name, one phone number across the state and a separate number for AV access would be most useful.
- 7.48 Participants want the service all year round, seven days per week with peak use hours funded (perhaps 6am to 10pm).
- 7.49 In-reach staff with community experience as well as ED experience are very well regarded, especially by AV.
- 7.50 Upskilling of RAC service staff is necessary for maximum utilisation and best outcomes.
- 7.51 The provision within the RAC services of in-date and available stores is a recurring issue that needs focused management.
- 7.52 Consideration and involvement of existing programs and research would assist buy in from GPs. Working sessions with GP liaison groups and GPV would be useful.
- 7.53 The program would also benefit from regular meetings between In-reach services, AV and GP liaison groups.
- 7.54 There is good buy-in from rest of the health services, especially EDs.

Survey results

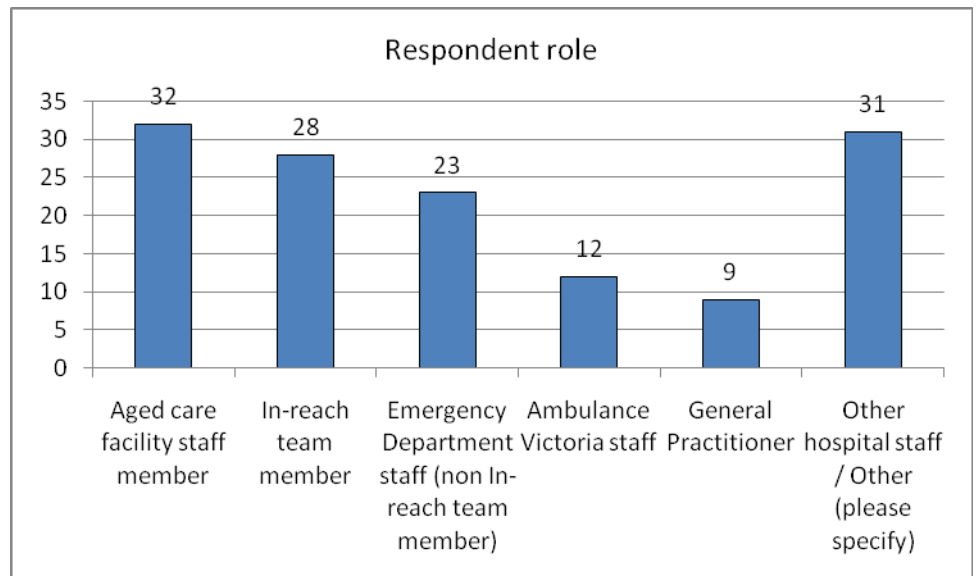
- 7.55 The on-line survey was developed to provide a feedback forum for all In-reach pilot program stakeholders.
- 7.56 The survey was developed by incorporating issues raised during the interview process to further explore their impact and relevance.
- 7.57 We distributed the survey link via email to all key contacts identified during the interview process including:
- Pilot site managers
 - RAC service contacts
 - Stakeholder group
- 7.58 The key contacts who received the email were encouraged to distribute the survey to all In-reach stakeholders.
- 7.59 The survey distribution allowed for three response methods:
- Direct link from email message to on-line survey
 - Reference to the DMC website which contained a link to the on-line survey
 - Attached PDF version of the survey which could be printed and posted or faxed to DMC
- 7.60 The initial email distribution was sent to all interviewees as well as the identified contact for the In-reach program at the pilot sites not being interviewed. The interviewees distributed the link or hard copies to their own database of stakeholders.
- 7.61 The survey was available on-line for three weeks in May 2009 on a secure website.
- 7.62 A copy of the survey has been included at Appendix E.

Sample characteristics

7.63 We received 131 responses from the following sources. (Respondents were able to select more than one option)



7.64 The respondents were represented as follows:



7.65 The 31 responses under “Other hospital staff/Other” were made up of hospital staff, managers, stakeholders, and staff from HITH and HARP.

Findings

7.66 A five item Likert scale was chosen to measure agreement as to the impact of the In-reach program according the following questions:

- Strongly agree 5
- Agree 4
- Neither agree nor disagree 3
- Disagree 2
- Strongly disagree 1

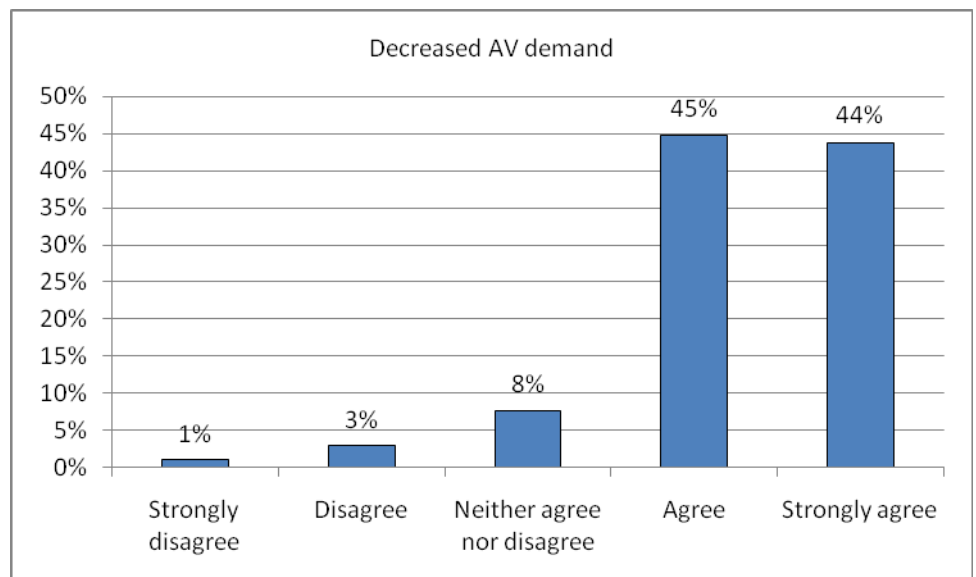
7.67 The following questions were asked of the survey respondents and the responses received are depicted in the graphs.

7.68 Where free text comments have been received, the themes have been included.

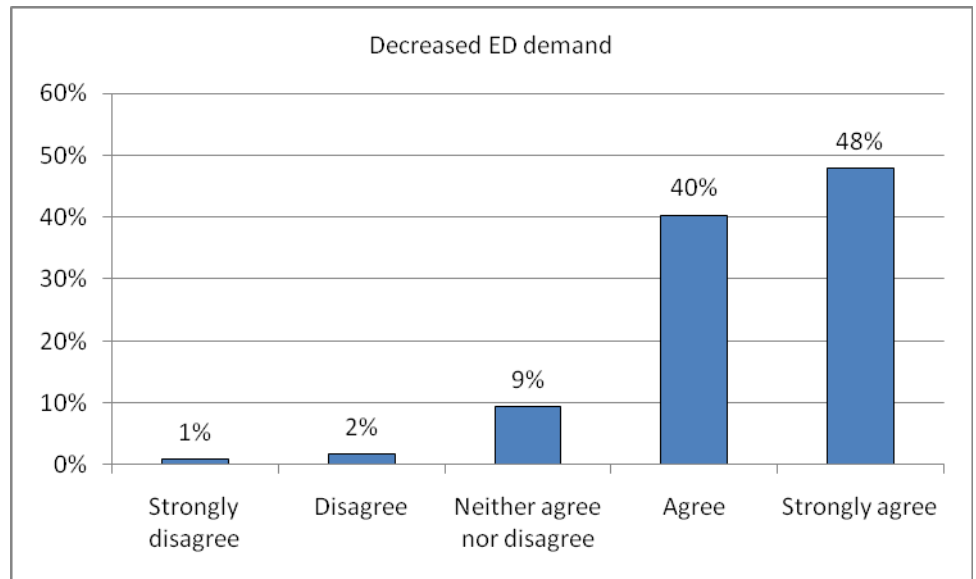
7.69 The first three questions asked for the level of agreement as to the impact of the In-reach program in reducing the demand on AV and ED.

7.70 The following graphs demonstrate that there is very strong agreement that the In-reach program has reduced demand on these services with almost 90% of respondents selecting agree or strongly agree for each of the three questions.

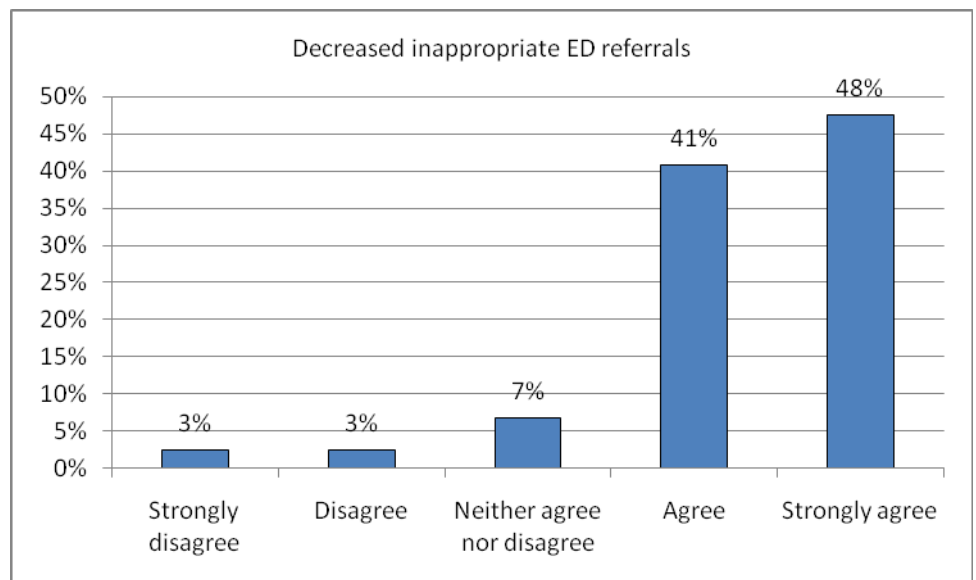
The In-reach pilot has decreased demand on Ambulance Victoria by residents of aged care facilities.



The In-reach pilot has decreased demand on the Emergency Department by residents of aged care facilities.

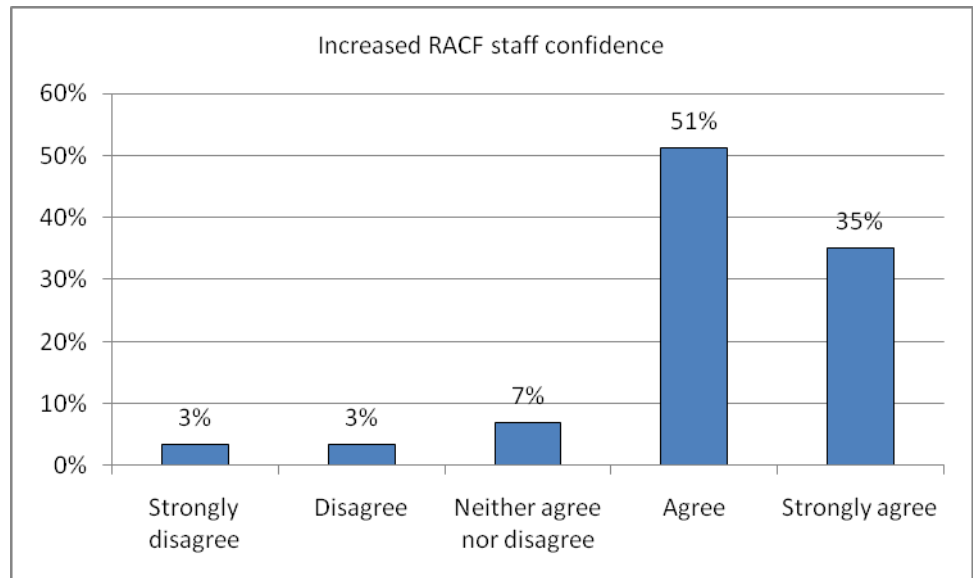


The In-reach pilot has decreased inappropriate referral of residents of aged care facilities to the Emergency Department.



- 7.71 The next question asked about the level of agreement as to the impact of the In-reach program on the confidence of the RAC service staff to manage residents in their own environment.
- 7.72 The response to this was strong agreement with 86% of respondents selecting agree or strongly agree.

The In-reach pilot has facilitated an increase in the confidence of aged care facility staff to manage residents in their own environment.

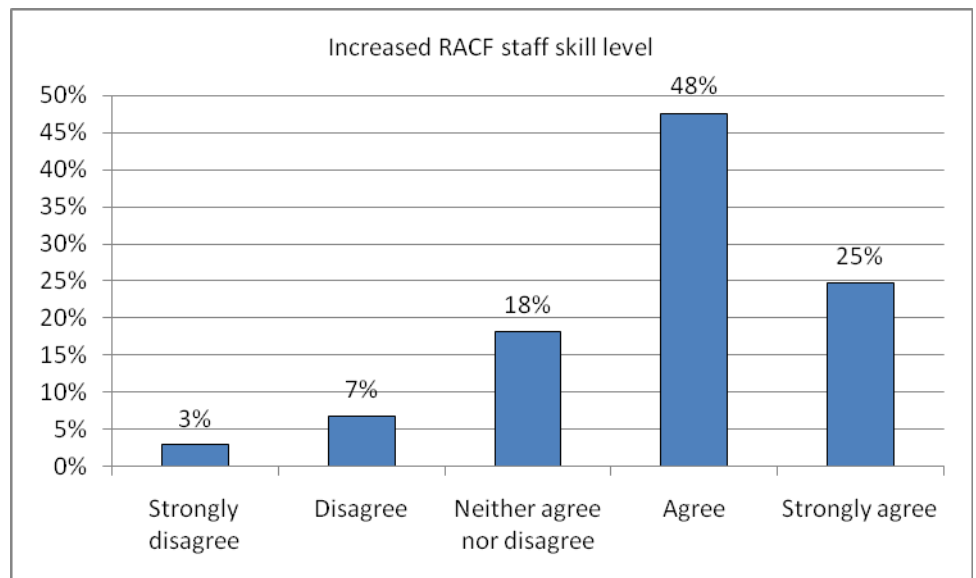


- 7.73 Free text comments were a bit mixed with some respondents suggesting confidence is not the issue, rather resourcing.
- 7.74 The majority of the free text comments suggested the availability of an additional resource to be able to provide input was seen as beneficial, particularly to reassure staff that their decision has been correct when they are in a non-acute environment managing someone with acute symptoms.

“By working with staff in facilities and for those staff to have access to experienced staff by phone they feel more confident. Most staff already know what to do and just need someone to tell them they are correct.”

- 7.75 The question of the In-reach impact on the skill level of RAC service staff showed agreement, however not as strong as in the previous questions with 73% selecting agree or strongly agree and 18% selecting neither agree nor disagree.

The In-reach pilot has facilitated an increase in the skill level of aged care facility staff by accessing the In-reach team as a training resource.



- 7.76 The free text comments to this question again suggested the skill level of staff is not an issue, rather the resources available.

“The team did not provide any training, and I do not think this is required. Medical assessment and care is what is required and was delivered. This need is not about deficits in our knowledge, but simply we cannot put in IV’s and manage AB drips, transfusions, subcutaneous fluids (as we are a home not a hospital) the support of these programs allows for this to be done here avoiding disruption to resident with a transfer.”

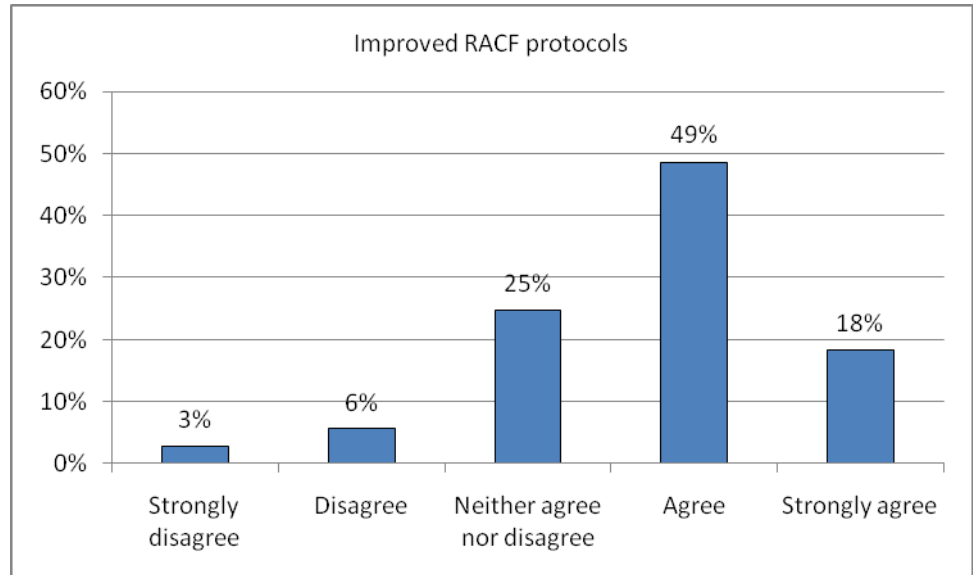
- 7.77 Some free text comments suggested that the availability of some support was of benefit.

“By performing education sessions and showing staff skills on a one-on-one basis staff attain a higher skill level especially with PEG tubes and Catheter care.”

“Assisted in developing problem solving processes.”

- 7.78 The question of improving protocols for management of RAC service residents showed good agreement with 67% of respondents selecting agree or strongly agree.

The In-reach pilot has assisted in the improvement of protocols for management of residents of aged care facilities.



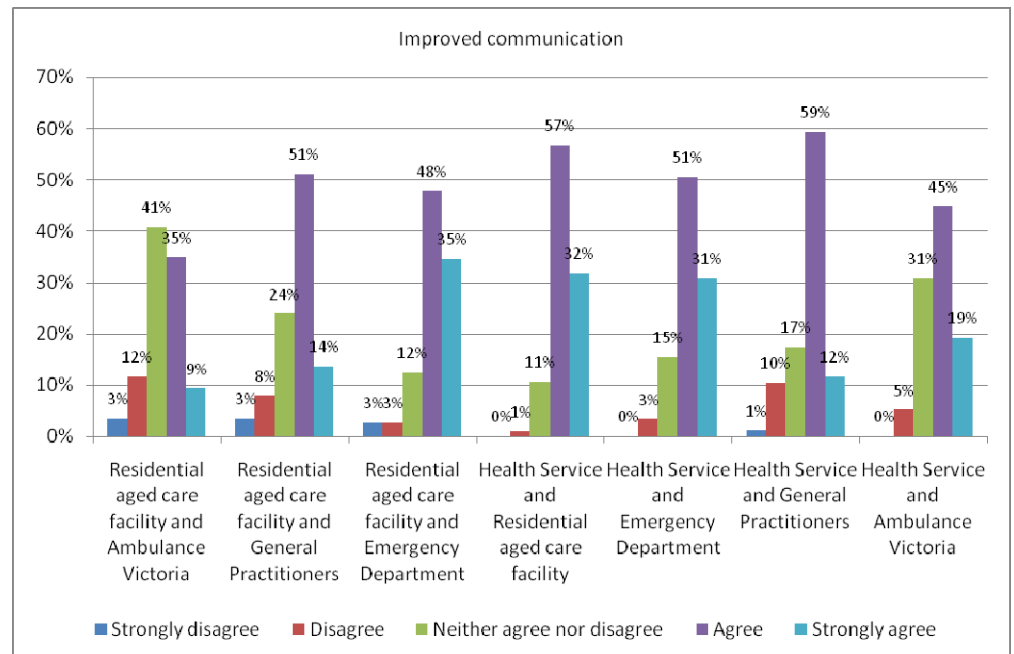
- 7.79 The free text comments suggested that the In-reach programs have resulted in a rethink of some protocols for resident management.

“Management in facilities of simple dehydration using s/c fluid was not done at all in our catchment. Facilities are now starting to think about how to manage many things in their facility now instead of calling ambulance as first line management.”

“The knee jerk reaction of sending the resident to ED is avoided.”

- 7.80 Communication between the various stakeholders was addressed in the next questions.
- 7.81 The strongest responses relate to the communication improvement between:
- RAC service and ED
 - Health service and RAC service
 - Health service and ED
- 7.82 Each of these received greater than 80% of responses as agree or strongly agree.

Communication – the In-reach pilot has facilitated an increase in the communication between:



- 7.83 The free text comments indicate that communication has improved with the In-reach project.

“Communication is one area that has increased dramatically not only in phone calls but in the information that is sent with residents when they do get sent to an Emergency department.”

“Establishing communication links has taken time. In-Reach has built a good relationship B/W all parties.”

- 7.84 The results above and other free text comments report that improvements in communication have not occurred to the same extent across all of the key stakeholders in this area.

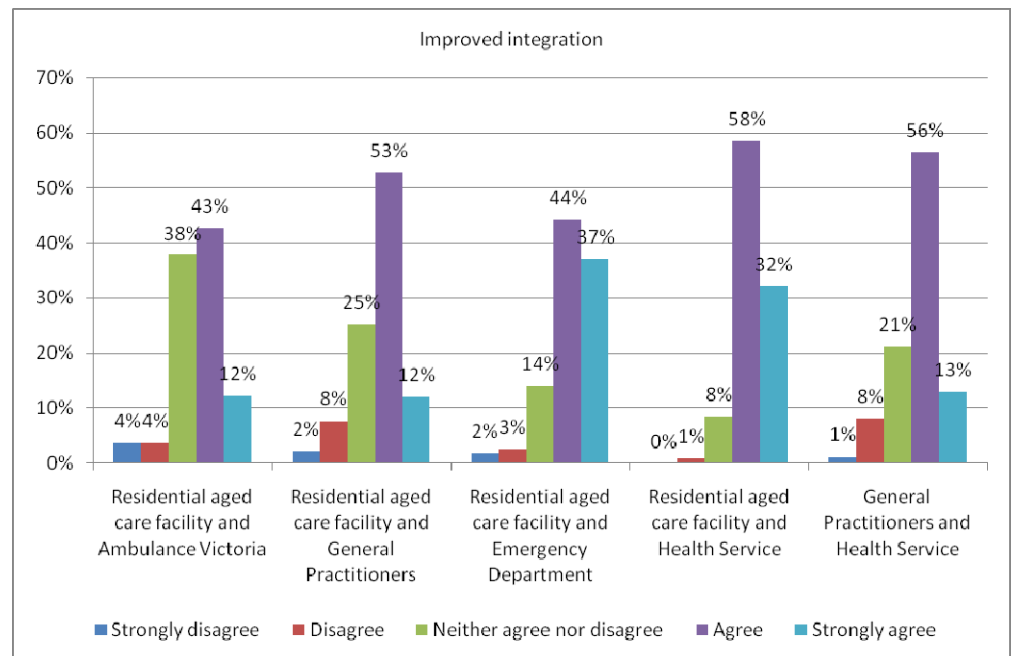
“The In-reach project is unable to dictate communication between Ambulance, GP and RAC service. We can only improve on

communication between our health service and the GP and RAC services.”

7.85 The impact on integration of the stakeholders shows that the respondents agree there has been an improvement in the integration between the RAC service and the ED and between the RAC service and the health service. For both of these more than 80% agree or strongly agree that improvements have been made.

7.86 The strongest agreement is shown in the integration between the health service and the RAC service which may reflect the relationships that the In-reach teams have been developing.

Integration – the In-reach pilot has facilitated an improvement in the integration between:



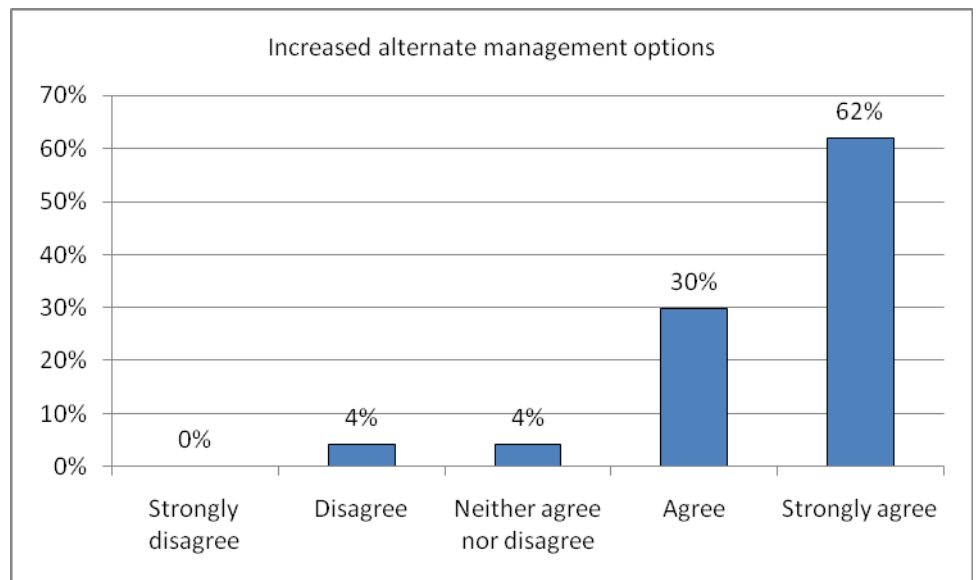
“There has been a marked improvement in discharge barriers for residents returning to the residential facility after an acute episode.”

7.87 A number of the free text comments and the data above suggest that the integration with GPs has not been improved and there are still significant communication issues.

“The program did not take advantage of the work done by divisions of general practice ie yellow transfer envelopes, transfer protocols, accessing of program providing allied health services to RAC services (ACAI), nor took advantage of the existing network of contacts maintained by the division.”

- 7.88 The respondents have demonstrated a very strong agreement with 92% agreeing or strongly agreeing that the In-reach program has improved the management of some specific procedures or conditions.

The In-reach pilot has increased utilisation by aged care facility staff of alternate management options for some clinical procedures (eg indwelling catheter replacement) and specific conditions (eg urinary tract infection management).

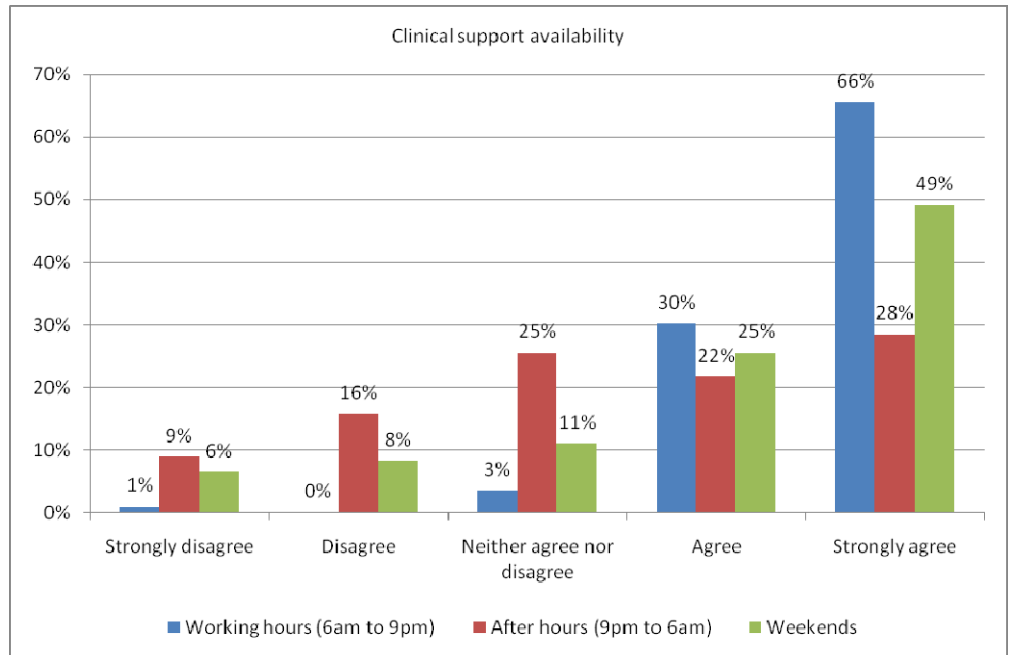


- 7.89 A number of the free text comments reflected the following sentiment:

“Presentations for IDC, SPC PEG tube replacement have dropped off completely since the inception of the pilot. Facility staff are much happier with these procedures occurring in the facility as there is less disruption to the resident and to staff and other residents as well.”

- 7.90 The availability of clinical support from the In-reach team has been agreed or strongly agreed by the respondents to have improved during working hours and on weekends by 96% and 74% respectively.
- 7.91 The after hours availability has not been seen to have improved to the same extent with 50% of respondents selecting neither agree nor disagree, disagree or strongly disagree.

The In-reach pilot has resulted in higher levels of clinical support being available to residential aged care facility staff during:



- 7.92 The free text comments reflect the same sentiment with reduced after hours support.

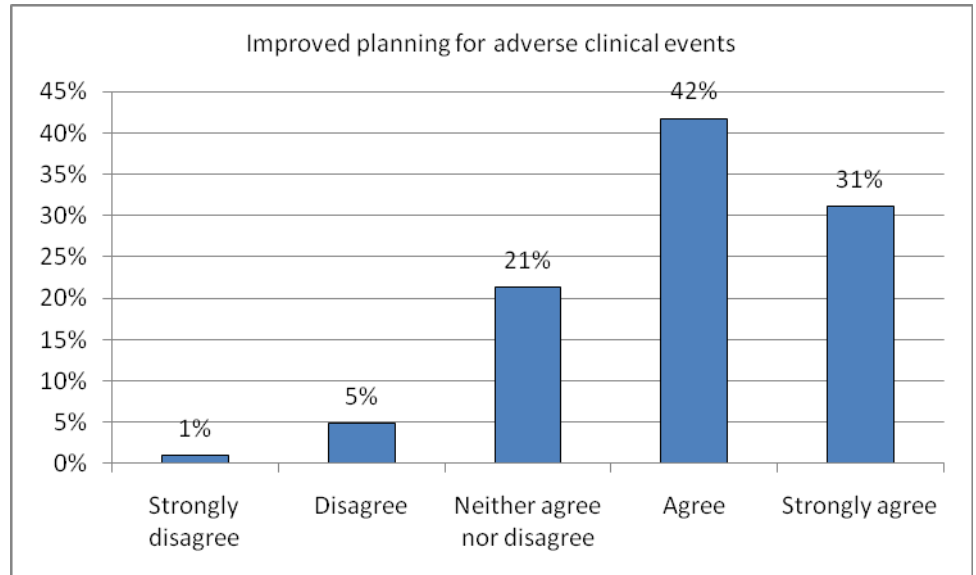
“Service not available after 9pm”

“Phone service only after hours.”

“Not operating 24 hrs per day”

- 7.93 The planning process to manage adverse clinical events is agreed to have improved with the In-reach program with 73% of respondents agreeing or strongly agreeing.

The In-reach pilot has improved planning for adverse clinical events in the residential aged care facility.



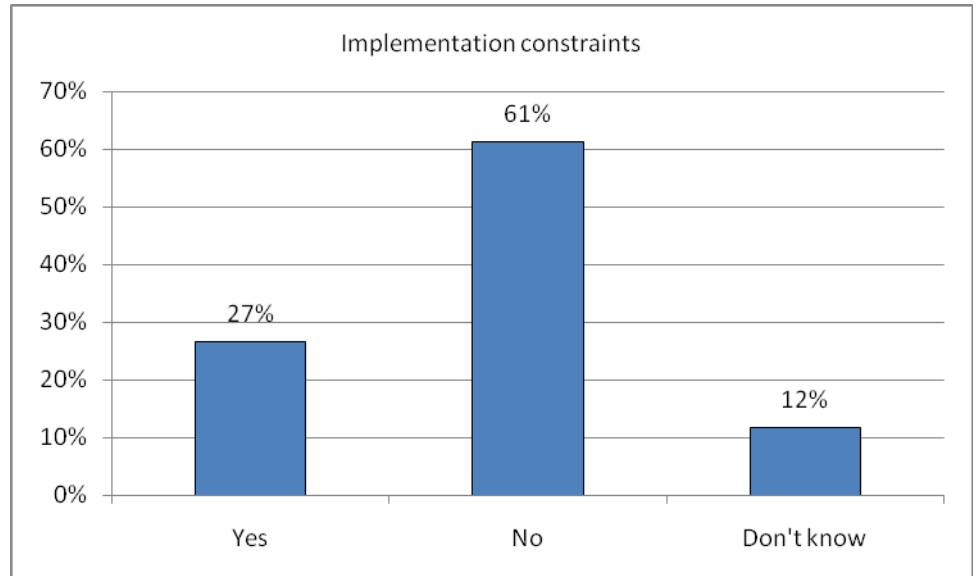
- 7.94 The free text comments also support an increase in the planning with the resources from the RAC service and the In-reach team.

“Advanced Directives are becoming thought of more frequently especially with education around palliative care.”

“Prevention of potential serious wound/ ulcer to progress to septic, increase awareness of falls to reduce harm, more resource to RAC services staff to gain information for onsite good quality care rather than waiting for disaster to happen.”

7.95 Barriers to the implementation of the In-reach program were reported by 27% of respondents

Were there any barriers or constraints to the In-reach pilot being implemented in your workplace?

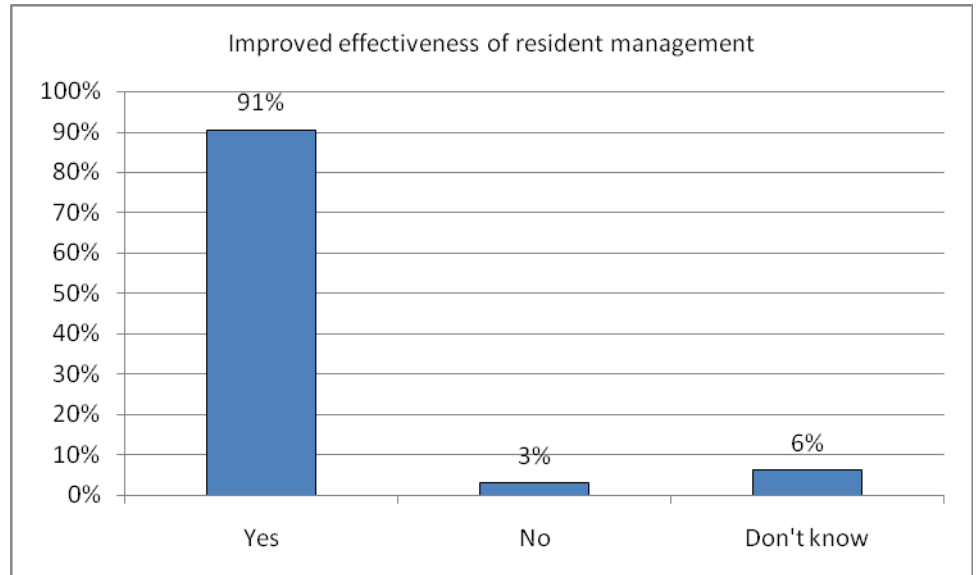


7.96 The barriers reported came from a number of areas as follows:

- After hours staffing
- Increasing awareness of the program
- Resistance to change/new program
- Lack of consultation with some stakeholders eg GP Divisions
- Rotation of medical staff – loss of knowledge

- 7.97 There is very strong support for the In-reach program with more than 90% of respondents saying the management of medical issues for RAC service residents has improved following the introduction of the program.

Has the In-reach pilot lead to more effective management of medical issues for residents of aged care facilities?



- 7.98 The free text comments emphasised the overall support of the program, describing improvements for the patient as well as for the staff involved.

“Empowering and educating the RAC service staff and also having the RIR staff available to assess the resident has enable improved medical management. The GPs are now much more informed about the condition of the client and are able to implement investigations and management with more confidence than previously.”

“Aged care staff state that they feel more confident to manage acute medical issues, knowing that they have the support of the In reach staff.”

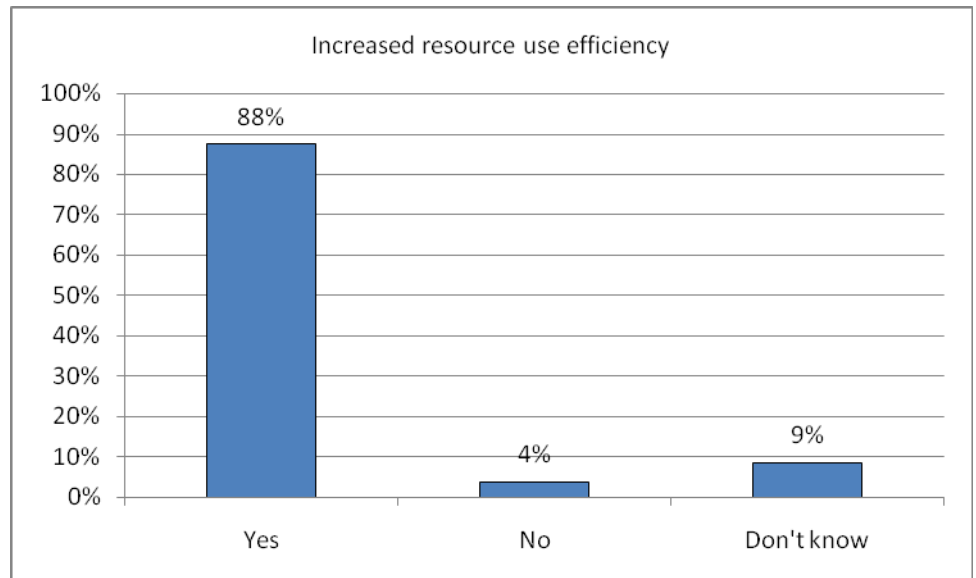
“Increase in advance directives and knowledge of appropriate diversions from emergency or avoidable admission to hospital for residential care clients - which is an improvement for the resident.”

“Prior to In-reach all residents were sent to Emergency Dept - whether it was required or not.”

“Resident staying in facilities and be recieving the right treatment. residents returning home soon, better outcome for everyone- resident, family, hospital and residential aged care facilities.”

- 7.99 Again, the respondents strongly believe the In-reach program has lead to more efficient use of resources when managing RAC service residents.

Has the In-reach pilot lead to more efficient use of resources?



- 7.100 The free text comments report the following improvements in the use of resources.

“A lot fewer presentations to ED for problems that are easily managed within an aged care facility. Avoid the elderly spending a long time on ambulance trolley / emergency department in the cold / at night. Avoid subsequent issues like pressure sores, distress due to leaving facility.”

“Decreased ambulance use, transferring aged care clients to E D for assessments.”

“Their service has reduced ambulance costs, residents costs in taxi fares, reduced resident waiting time, provided excellent feedback on our residents in hospital care.”

- 7.101 The respondents were also asked if they had any suggestions for improvement for the program. There were 71 responses to this question with a range of themes.

- 7.102 A summary of the themes include the following:

- Increased levels of support – 24/7
- Increased staffing
- Dedicated medical support
- Improved information sharing across In-reach programs
- Increased liaison with GPs
- Increased marketing of the program

8.0 GOOD PRACTICE LEARNINGS

- 8.1 There were a number of examples of good practice which we observed and have identified here for ease of reference.
- 8.2 Good communication with stakeholders was in evidence in some pilots. We collected examples of posters and regular updates provided to RAC services which helps to ensure that RAC services remain aware of the In-reach contact number even when there is a change in RAC service staff.
- 8.3 A single and reliable point of contact available 24/7 helped to build the trust in RAC services that they would be able to get the support when it was needed even if it was needed out-of-hours. We observed services maintaining this contact in a cost efficient way by handing over the contact phone to an existing out-of-hours service eg the triage nurse between midnight and 5am. It was also good practice that the nurse was given the In-reach guidelines to assist in decision making.
- 8.4 Health services noted that the continuity of service provision and contact person assisted in building confidence.
- 8.5 Active partnering with AV helped services access referrals where they did not initially have good contact with the RAC service. AV was willing to triage the calls and advise the RAC service of the In-reach service.
- 8.6 AV has developed a matrix that identifies which RAC services have access to In-reach services and allows them to efficiently determine which calls should be triaged. It may be useful for health services who do not cover all the RAC services in their catchment to proactively identify the RAC services they cover to AV.
- 8.7 We noted that In-reach teams provided short (eg an hour or less) and timely inservices to RAC service staff in the following areas:
- Introduction of the In-reach service
 - Dehydration and sub-cutaneous fluid management
 - Role of aged care liaison services
 - Basic injury assessment
 - Neurological assessment
 - Urological conditions
 - Gastroenteritis management
 - Catheter insertion and management
 - PEG management
 - Infection control
 - Diabetes and hyperglycaemia
 - Chest infections

- Swallowing
 - Symptom management
 - Congestive cardiac failure
 - Bowel cancer
 - Wound management
 - End of life issues
- 8.8 We believe that these inservices help support RAC service staff especially in areas where they do not have many cases or recent experience. They have the benefit of being developed very quickly in response to a particular issue and the specific protocols for management can be established with the In-reach team and the RAC service staff at the time the inservices are run. This is a good example of action learning where the learnings are immediately applied.
- 8.9 We noted that even when RAC service staff moved to another facility the training they had received was applied in the new facility and sometimes resulted in the new facility accessing the In-reach team where they had not done so previously.
- 8.10 We considered the practice of regular Monday morning case conferences with medical leadership from a geriatrician to review cases and provide clinical guidance on any emerging issues to be an example of good practice.
- 8.11 Direct payment to a private geriatrician has provided a good resolution to a difficult behavioural issue.
- 8.12 One service has developed good links with palliative care services for best management of terminally ill patients.
- 8.13 The development of guidelines tailored to the In-reach service is a good practice that some of the pilots adopted (others utilised existing hospital protocols). One pilot commissioned the development of a training program on In-reach services for staff by an external provider.
- 8.14 Where pilots could provide In-reach teams with both community skills and ED skills it was well regarded by participants. In particular participants considered that GPs valued the acute skills while AV valued the community skills.
- 8.15 One service has on going communication via a monthly meeting with Directors of Nursing and a monthly Aged Care Forum with GP representatives. This is delivering benefits to the In-reach program.

9.0 KEY FINDINGS

Specific Findings

- 9.1 The following findings have led to the development of specific recommendations.
- 9.2 The program assists in the avoidance of unnecessary ED presentations for older patients. It provides good quality of care under the clinical governance standards of the health services and utilises health services protocols. RAC Services accept those standards. We did not hear of any adverse incidents in the pilot programs and nearly all the participants interviewed believed that risk and liability management was adequately covered.
- 9.3 There did not appear to be any correlation between the structure of the model of care and the success of the service. Rather perceptions of success were based on other issues such as reliable 24/7 access, a good mix of skills including acute skills and community skills, a supportive attitude rather than a critical attitude towards RAC service staff, availability of medical leadership, assistance with decision-making, on going communication and a willingness to assist with inservices.
- 9.4 The development of good relationships with other participants in the care of older patients was a significant successful outcome. These included:
- AV
 - GPs
 - RAC services
 - Improved intra-hospital relationships
- 9.5 Good communication was a key driver of success. RAC staff are often mobile and agency staff do not always have local knowledge of In-reach programs. Where the health services provided information sources and regular In-reach newsletters to RAC services, AV and GPs, the communication helped overcome knowledge gaps and supported the pilots.
- 9.6 Feedback to the health services from patient representatives indicates that the service is very well regarded and is considered to reduce the stress on older people that usually accompanies a trip to the ED.
- 9.7 Most participants believe the pilot should be expanded to cover all year round and that 24 hour access should be continued.
- 9.8 Medical leadership adds value to the services and has been described as crucial when dealing with conditions that require medical intervention.

- 9.9 The provision of an ED consultant on call 24 hours was found to be an expensive option that was not necessarily well utilised. Support from a geriatrician (usually less than full time) was generally considered the most valuable and the most cost effective.
- 9.10 Medical leadership, preferably from a geriatrician, adds value by optimal management of:
- Prescription medication required for treatment of an acute condition
 - Discharge medication charts for utilisation by staff in the RAC services
 - Intravenous fluid management
 - Medical decision-making at end of life
- 9.11 There is a need for more focus on advanced care planning and end of life issues. Families often insist on older patients at the end of their life being sent to ED because there has been no discussion or consideration of the alternatives until sudden deterioration occurs. In-reach teams could consider liaison with palliative care services for best management of terminally ill patients in RAC services.
- 9.12 Services that did not have reliable access to medical leadership found this to be a significant short coming in best practice delivery of In-reach services.
- 9.13 In the pilots, health services felt that some approaches did not deliver best value outcomes. We found it difficult to access costing information to identify the value to the community of the service delivered. While there appears little doubt that the pilots delivered better care to the older patients especially where stressful visits to the ED were avoided. It is possible that in some models it was a more expensive option than presentation to ED would have been.
- 9.14 Health services should be encouraged to investigate the cost effectiveness of their approach to ensure the best value for money is achieved especially in the delivery of a 24 hour service, with an appropriate modification of the service in the low usage times especially between midnight and 5.00 am.
- 9.15 In the timeframe of the review we were unable to obtain definitive costing data that would allow us to reach a conclusion on the cost effectiveness of the In-reach service as against the usual ED service.
- 9.16 However it does appear that for the pilots that reported the smaller numbers of episodes of care that the average cost per episode might be higher than the average cost per episode of care if there were no In-reach service.
- 9.17 We would anticipate growth in the In-reach service if it continues, so it is likely that there will be more episodes of care within the existing cost structure improving the overall cost effectiveness.

- 9.18 The greatest value is achieved both in monetary terms and in quality of care if, in appropriate cases, the ambulance trip to ED is avoided. All models should focus on generating referrals from AV and RAC services as well as reviewing ED presentations.
- 9.19 While calls to In-reach services from GP clinics would be welcome by the In-reach teams, it is felt that they are unlikely to be able to respond in the ten minute timeframe. It is recognised that many GP practices do not have a facility where patients can wait under observation for an In-reach response team. AV advises that they do not triage calls from GPs; they despatch an ambulance.
- 9.20 Health services should enlist AV as a partner in the development of their In-reach services as AV offer a significant opportunity for referrals. If AV can identify all RAC services covered by an In-reach program then they can triage calls early and contact the In-reach teams. If In-reach teams develop strong relationships with RAC services they can work with RAC service staff to proactively manage care episodes that would otherwise present to ED.
- 9.21 All In-reach programs should be encouraged to review the good practice approaches identified in this report and share information and educational materials where appropriate.
- 9.22 Inservice training to RAC service staff is valuable as it builds positive relationships and reduces demand on In-reach teams and health services, and it should continue. We note there is some concern that In-reach not replace services that are funded by the Commonwealth but we believe hospital staff are best placed to offer short (30 minutes to an hour) information sessions to small numbers of RAC service staff tailored specifically to the conditions and symptoms affecting their residents. This advice can lead to an immediate reduction in demand on ED.
- 9.23 Hospitals have the experienced clinical staff and can offer the inservices in a timely manner when they can have the greatest immediate impact on quality of care. It is unlikely that an external provider could offer this flexibility. RAC services should also be encouraged to offer more formal training to their staff on a regular basis to ensure on going professional development.
- 9.24 Consideration should be given to extending the program to older people still resident in the community. Peninsula Health offers this service via the ROSS program and AV strongly supports this service. The AV REFCOM provides the triage for the calls as there are no RAC service staff to describe the patient status to the In-reach team. Eastern Health offers a similar service.
- 9.25 Maintenance of protocols by In-reach teams to avoid substituting for care that is the responsibility of RAC Services should be a priority. There have been indications that, in a small number of cases, RAC services staff have attempted to use the In-reach team for service provision that is the responsibility of the RAC services. The motivation appears to be to reduce RAC service costs. The In-reach teams have declined to provide those services and advised the RAC

- service staff that they need to contact the responsible Division 1 nurses or GPs.
- 9.26 Some In-reach protocols require In-reach staff to ask whether the patient's GP has been contacted before they consider the referral. This is considered good practice.
- 9.27 Health services should liaise more closely with GP networks especially in the adaptation of existing protocols. GPs have advised that existing protocols that could have been used in the establishment of the In-reach pilots were not considered. It is probable that the staff concerned did not know about them.
- 9.28 One comment received in the survey responses commented "*The program did not take advantage of the work done by divisions of general practice ie yellow transfer envelopes, transfer protocols, accessing of program providing allied health services to RAC services (ACAI), nor took advantage of the existing network of contacts maintained by the division.*"
- 9.29 It would be beneficial if a working group were established to investigate and further develop alternate protocols for the top diagnosis categories for implementation in RAC services with support from In-reach teams. In-reach pilots that have targeted particular conditions for attention have been able to improve the management within the RAC services by helping RAC service staff establish good appliance stocking and re-ordering systems and agreed protocols for matters such as infection control.
- 9.30 In-reach teams may also be able to provide services such oxygen and antibiotics for treatment of pneumonia in the RAC services rather than in ED or acute wards. We think there is further benefit to be gained here.
- 9.31 Collection of accurate and complete data from the health services to DHS is recommended for ongoing program review and development. We have provided a number of recommendations for data improvement in Chapter 6.0 under the heading Data Limitations and we suggest they be considered carefully. For some categories more than 20% of episodes reports were incomplete. This reduces the reliability of the conclusion drawn from the data.

Other Issues to Consider

- 9.32 Eastern Health had a difficult start in the first pilot. It appears that they tried to spread the resources too thinly and did not achieve the cooperation they wanted for the best results. We suggest a key learning is not to spread resources too thinly in the start up stage. Once protocols and relationships are properly established then the program can be expanded.
- 9.33 Consideration may be given to using brokerage as part of the In-reach delivery. We were advised that the RDNS quoted price for catheter management was \$130. In some cases this may be more cost effective than despatching an In-reach team and it may help in

extending services for instance in regional areas or at times when resources are stretched.

- 9.34 One way of offering service overnight is to provide the Triage nurse with the In-reach protocols and the In-reach contact phone for monitoring. In this way the service is seen as continuous.
- 9.35 Linkages with Community Aged Care Package for residents in their own homes might be usefully investigated if In-reach teams are considering extending beyond RAC services.
- 9.36 Failure of appropriate appliance supply (mostly catheters and PEGs) was often cause for a visit to the ED via ambulance.
- 9.37 There was a view that some disciplines and workgroups in RAC services are tasked inappropriately. In particular attention should be given to the administration component of NUM's work. It would be better if more time was available for clinical leadership from Division 1 nurses in RAC services. The scope of work should consider for example that medications could be transferred from Associate Nurse Unit Managers ("ANUMs") to other appropriately trained individuals eg endorsed Division 2 nurses.
- 9.38 This would free up time for clinical work thus allowing In-reach input to further support clinical upskilling of the NUM and ANUMs. This in turn would allow them to further educate and upskill other members of their team.
- 9.39 Interaction with the In-reach team would also operate to decrease the isolation of senior clinical staff.

Specific Evaluation Questions

- 9.40 The evaluation brief asked specific questions regarding the effectiveness of individual models of practice based on how the pilots affected a number of parameters. We have addressed these questions in the table below:

Question	Response
Affected the number of RAC patients presenting to ED	<p>There is evidence that ED presentations for the management of a number of complaints has decreased significantly.</p> <p>Given the number of ED presentations avoided in the data provided to DHS (see paragraph 9.38 below) we would conclude that the pilots have resulted in a decrease, however the VEMD data shows a decrease in ED presentation from RAC residents for six of the health services and an increase for the other four. In only two cases</p>

	<p>were the increases significant. (paragraph 6.87)</p> <p>We are unable to determine what level of increase might have been expected without the In-reach program.</p> <p>Direct comments from the survey include:</p> <p><i>“Education for troubleshooting in the facility has resulted in reduced presentation to ED especially out of hours</i></p> <p><i>IDC, PEG, wound, radiology outpatients, these services previously would present to ED</i></p> <p><i>Mainly IV Antibiotic and subcutaneous fluid replacement therapy, blood transfusions and suturing also; which is excellent as we have not been required to have our residents wait in ED's for prolonged periods. If they had more funding to have more staff, it would further improve the attendance of urgent medical assessment and intervention (usually required for the need for IV AB therapy for respiratory or UTI's).</i></p> <p><i>Most clinical procedures can be done by In-reach at aged care facility without need to transfer to emergency.</i></p> <p><i>Presentations for IDC, SPC PEG tube replacement have dropped off completely since the inception of the pilot. Facility staff are much happier with these procedures occurring in the facility as there is less disruption to the resident and to staff and other residents as well”</i></p>
<p>Affected the number of RAC patients admitted to an acute ward</p>	<p>In six of the health services the percentage of patients admitted from ED to an acute ward increased. This is what we would expect to see as the patients with conditions not needing hospitalisation are avoiding ED presentations. Therefore the group that do present to ED are more likely to need to be admitted.</p> <p>However in four of the health services, the percentage admitted increased. (Paragraph 6.92)</p>
<p>Effect on alternatives to ED for relatively simple clinical procedures and specific conditions</p>	<p>There is evidence from the interviews and the survey that the alternative treatment in the RAC services by the In-reach teams has been quite successful. The direct comments from the survey respondents in the box above (in italics) provide some detail.</p>
<p>Affected the perception of staff in RAC services, health services and relevant stakeholders about the amount of clinical support</p>	<p>It is apparent from the interviews and from the data that there is much reduced demand for In-reach services (or ED presentations) between midnight and 5am, but there is demand for all seven days a week.</p> <p>However RAC service staff clearly want access</p>

<p>available, especially after hours</p>	<p>to clinical support for the full 24 hours a day.</p> <p>The In-reach teams need to consider the most cost-effective way of delivering a continuous service so that RAC service staff continue to have confidence that they can call the In-reach team instead of the ambulance in appropriate cases.</p> <p>Survey comments:</p> <p><i>The hours these programs are available contribute significantly to whether they provide increased clinical support after hours and on weekends, some do and some don't.</i></p>
<p>Affected planning for adverse clinical events in the RAC services</p>	<p>Progress is being made in planning for adverse events.</p> <p>However the interview evidence suggests that other influences such as family pressure and the regulatory requirement to demonstrate appropriate duty of care lead RAC services to call for an ambulance in some circumstances where an In-reach team could provide a suitable response.</p> <p>The In-reach teams interviewed are aware of these issues and are working on improvements. Medical leadership is valuable in this area as families will often take note of a doctor's comments about planning for end of life issues.</p> <p>Survey comments:</p> <p><i>Advanced Directives are becoming thought of more frequently especially with education surround palliative care</i></p> <p><i>Development of action plans with chronic conditions</i></p> <p><i>Prevention of potential serious wound/ ulcer to progress to septic, increase awareness of falls to reduce harm, more resource to RAC services staff to gain information for onsite good quality care rather than waiting for disaster to happen</i></p>
<p>Affected communication between RAC services and hospitals,</p>	<p>Where a relationship has been established between a RAC service and an In-reach team the communication has improved substantially. In particular where there has been a single access point and continuity of staff the building of trust has been substantial and can only contribute to the improvement of care to RAC residents.</p> <p>Survey comments:</p> <p><i>Communication is one area that has increased dramatically not only in phone calls but in the information that is sent with residents when they</i></p>

	<p><i>do get sent to an Emergency department</i></p> <p><i>Due to our hospital having care coordination, and an aged care liaison nurse, the program has not increased the amount of contact we have with the hospital, it has however increased their contact with us by the increase in their follow up calls to check on residents and feeding into other services such as RECIPE and HITH (which is excellent for all concerned).</i></p> <p><i>ED communicates with facility if we need more information or prior to the patient being returned to the facility</i></p> <p><i>Establishing communication links has taken time. In-reach has built a good relationship B/W all parties.</i></p> <p><i>The communication is between ACF staff and In-reach / HITH staff not ED staff.</i></p> <p><i>ROSS Team acts as a resource and communication mode to interact between RAC services and hospital and via ED staff with the MAS. ROSS Team encourage interaction with GP if ROSS Team seen or get referral to a resident via pre-consent that RAC service inform GP prior referring to ROSS Team.</i></p>
<p>Affected communication between GPs and hospitals</p>	<p>This is an area that needs more work. There does not appear to be substantial communication between GPs and hospitals. However some In-reach teams try to ensure that the patients GP has been consulted before a referral is taken.</p> <p>Survey comments:</p> <p><i>GP divisions were not included in the planning phase until very late in the process, and many care decisions already taken without the input of the GP who is the primary health practitioner for residents</i></p> <p><i>Small impact on health service and GP communication RIR tends to pick up the pieces</i></p>
<p>Effectiveness of integration between the In-reach program and ED</p>	<p>Feedback from the interviews indicates that in most cases the EDs are very supportive of the In-reach teams, see them as having a positive impact in managing potential ED cases and in some cases provide resources to assist. This can include staff and equipment.</p> <p>However there is evidence that not all EDs are supportive in providing access to medical support and leadership when it is necessary.</p>
<p>Effectiveness of integration between the RAC services, GPs and</p>	<p>The interviews provided some evidence that this integration was commencing but more work is needed. We believe this will increase as the</p>

<p>AV and ED/health service</p>	<p>pilots develop. All parties support the concept of the program and seem prepared to contribute to developing protocols.</p> <p>Survey comments:</p> <p><i>The staff involved in the pilot have fostered increased awareness of the capabilities of RAC service staff and this has helped in decision making regarding discharges etc</i></p> <p><i>There has been a marked improvement in discharge barriers for residents returning to the residential facility after an acute episode.</i></p> <p><i>Ambulance Victoria slow to implement suggestions, ? due to procedural requirements.</i></p> <p><i>We have always worked well with our GP's within the constraints that they apply, this program has certainly facilitated improvement in the integration with other programs within the local health service such as HITH.</i></p>
<p>Effectively bridged the gap between services provided within RAC services and Commonwealth funded RAC services service agreements.</p>	<p>There is some uncertainty between what should be funded within RAC services fees and what falls to the State hospital system to fund.</p> <p>There is a dichotomy between RAC services being considered as residents' homes and also operating in some circumstances in the way a hospital would.</p> <p>Some nursing interviewees commented that care is offered in RAC services that in the past would have been offered only in hospitals, and this situation will continue as our frail aged live longer with more health issues requiring management.</p> <p>In-reach teams are careful not to take on work that should be funded by the RAC services and have protocols designed to assist decision-making in this regard.</p> <p>This would appear to be working well at this stage but it should be carefully monitored. Any protocols developed could be considered by the working part recommended to investigate management protocols for the Top 20 Diagnoses work.</p> <p>Survey comments:</p> <p><i>Appropriate avoidance of acute care services and appropriate in reach management of residential care clients, reduction in length of stay where admission is required and improvements in return to aged care facilities with in reach support. Management of appropriate aged care residents in their home</i></p>

	<p><i>with in reach support</i></p> <p><i>A lot fewer presentations to ED for problems that are easily managed within an aged care facility. Avoid the elderly spending a long time on ambulance trolley / emergency department in the cold / at night. Avoid subsequent issues like pressure sores, distress due to leaving facility.</i></p> <p><i>Yes, no longer clogging up Emergency Departments with residents There is support for RN Div 1's when assessment of resident's clinical condition is required. Impossible to get GP's to visit when required - previously relying on a locum service - poor clinical care for our elders. In-reach should receive continuous funding from Federal / State governments + hours of service should be 24/7.</i></p>
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9.41 This table summarises the ED presentations avoided and the issues resolved in ED from the operations of the In-reach pilot in the identified health services.

Health Service	ED presentations avoided	Issues resolved in ED
Alfred Health	83% (477)	9% (54)
Austin Health	81% (129)	14% (22)
Bendigo Health	66% (298)	7% (34)
Eastern Health	47% (61)	17% (22)
Melbourne Health	93% (285)	4% (11)
Northern Health	69% (170)	7% (18)
Peninsula Health	68% (115)	13% (22)
Southern Health	85% (87)	12% (12)
St Vincent's Health	13% (79)	37% (221)
Western Health	40% (507)	28% (349)
	2,208	765

9.42 The responses to the survey are covered in details in Chapter 7.0. In the table below we have summarised the key survey results.

Survey Question	Agree
The In-reach pilot has decreased demand on Ambulance Victoria by residents of aged care facilities.	Approx 90%
The In-reach pilot has decreased demand on the Emergency Department by residents of aged care facilities.	Approx 90%
The In-reach pilot has decreased inappropriate referral of residents of aged care facilities to the Emergency Department.	Approx 90%
The In-reach pilot has facilitated an increase in the confidence of aged care facility staff to manage residents in their own environment.	86%
The In-reach pilot has facilitated an increase in the skill level of aged care facility staff by accessing the In-reach team as a training resource.	73%
The In-reach pilot has assisted in the improvement of protocols for management of residents of aged care facilities.	67%
Communication – the In-reach pilot has facilitated an increase in the communication between participants.	80%
Integration – the In-reach pilot has facilitated an improvement in the integration between participants.	Varies – see Chapter 7.0
The In-reach pilot has increased utilisation by aged care facility staff of alternate management options for some clinical procedures (eg indwelling catheter replacement) and specific conditions (eg urinary tract infection management).	92%
The In-reach pilot has resulted in higher levels of clinical support being available to residential aged care facility staff during specified hours.	Varies – see Chapter 7.0
The In-reach pilot has improved planning for adverse clinical events in the residential aged care facility.	73%
Were there any barriers or constraints to the In-reach pilot being implemented in your workplace?	27% yes
Has the In-reach pilot lead to more effective management of medical issues for residents of aged care facilities?	90%
Has the In-reach pilot lead to more efficient use of resources?	88%

Top 20 Diagnoses

- 9.43 Our analysis of the VEMD identified the top 20 diagnoses for older patients resident in RAC services.
- 9.44 It is likely that a number of these conditions (depending on severity) could be managed in the RAC service if the staff had suitable protocols and the support of In-reach teams with appropriate access to medical review and support.
- 9.45 Of the top 20 the following could be considered:
- Pneumonia
 - UTI
 - Faints
 - Lower respiratory infection
 - Congestive heart failure
 - COPD
 - Cellulitis
 - Open wounds (lacerations)
 - Disorientation
 - Malaise and fatigue
 - Catheter management
 - Volume depletion
 - Anaemia
 - PEG blockage (not in the top 20 but significant)

10.0 RECOMMENDATIONS

10.1 From the analysis of the key findings we developed the recommendations below:

1	The program assists in the avoidance of unnecessary ED presentations for older patients, provides good quality of care and should be expanded; 24 hour access should be continued Our review found that stakeholders wanted the program to run all year round and we understand that DHS has now implemented this.
2	Medical leadership, preferably from a geriatrician, adds value and should be encouraged
3	Health services should enlist RAC services as partners in the development of their In-reach services to achieve the greatest overall impact on cost savings for the health system by avoiding ED presentations and developing care protocols in RAC services.
4	Health services should be encouraged to investigate the cost effectiveness of their approach to ensure the best value for money is achieved especially in the delivery of a 24 hour service, with an appropriate modification of the service in the low usage times especially between midnight and 5.00 am
5	All programs should concentrate on an In-reach model that is focused on the RAC services rather than an ED model that focuses on patients already present in ED
6	All In-reach programs should be encouraged to review the good practice approaches and share information and educational materials where appropriate
7	Health services should communicate with AV and provide details of the RAC services covered to enable AV to offer the In-reach alternative in suitable cases
8	Establish a working group to investigate and further develop alternate protocols for the top diagnosis categories for implementation in RAC services with support from In-reach teams
9	Health services should work with RAC services and medical practitioners on advanced care planning and end of life issues
10	Health services should develop good discharge protocols from the In-reach episode especially the provision of a discharge report to GPs
11	Maintenance of scope of service provision protocols by In-reach teams to avoid substituting for care that is the responsibility of RAC Services should be a priority
12	Inservice training to RAC service staff is valuable as it builds positive relationships and reduces demand on In-reach teams and health services, and it should continue
13	Consideration should be given to extending the program to older

	people still resident in the community
14	Health services should liaise more closely with GP networks especially in the adaptation of existing protocols
15	Collection of accurate and complete data from the health services to DHS is recommended for ongoing program review and development; the recommendations for improvement in data collection should be adopted
16	DHS should consider linking the data collection fields to those that are already being utilised by health services (acknowledging that there is variation between the health services data collection)