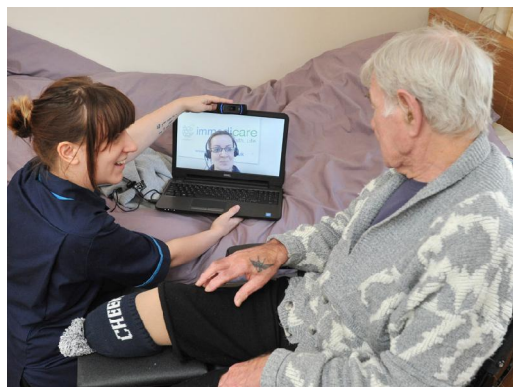


Long Term Conditions and Reducing Demand through Telemedicine

October 10th 2017



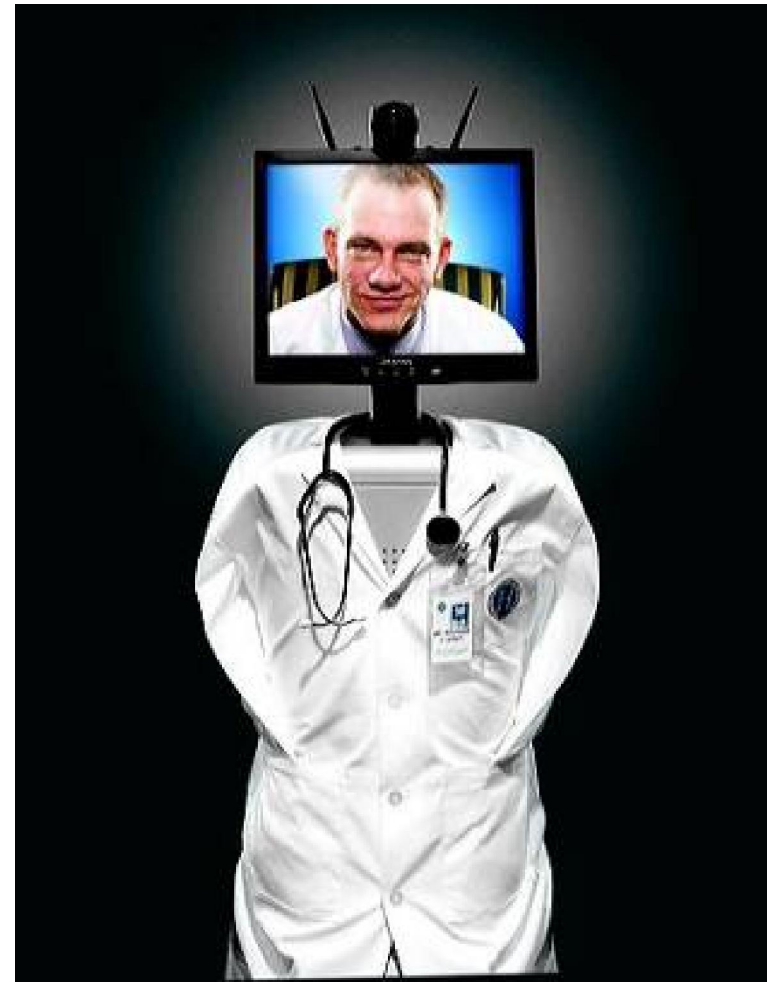
Rachel Binks
Nurse Consultant – Digital & Acute Care
Airedale NHS Foundation Trust

Digital Health



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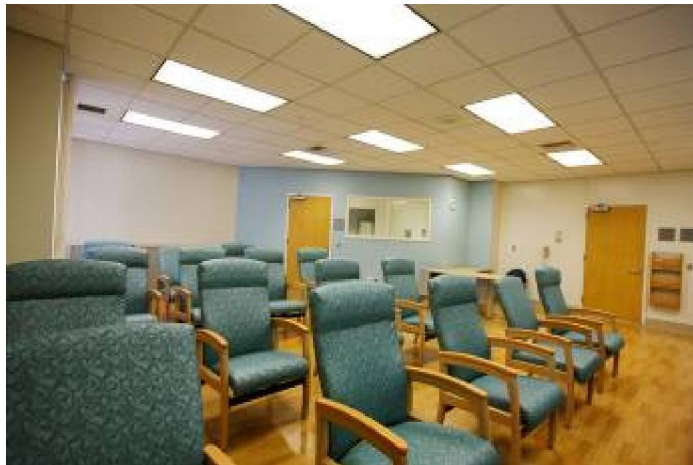
- Telecare
- Telecoaching
- Telemonitoring
- ✓ Teleconsultation



A system designed by default



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Some people seem to do **quite** well without waiting for healthcare support...



Telemedicine Service



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- Teleconsultation by secure video link between nursing and residential homes and the Airedale Digital Hub.
- Providing clinical consultation not a logarithm based approach like 111.
- Hub based at Airedale Hospital staffed by team of 27 senior clinicians 24/7
- Triage and assessment of all requests for GP visits in hours (Additional service called GP Triage)
- Fully managed technical service utilizing bespoke lap tops with HD cameras and with 4G SIM or Broadband



right care today



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Teleconsultation

- Prison health care
- Care at home
- Nursing & residential care
- Supporting end of life patients
- ✓ 24/7 clinical hub
- ✓ improving patient experience
- ✓ changing patient flow
- ✓ reducing costs

Electronic shared record

- ✓ connecting primary & secondary care now
- ✓ connecting whole health & social care economy tomorrow



right time – care anywhere



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Enhanced health in care homes

right place - replicable model



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- 524 Nursing/Residential Care Homes + 50 in implementation
- **Supporting > 20,000 residents**
- 21 CCG contracts
- YTD 18495 clinical video consultations



Number of calls

Calls	Current Month	Last Month	% Variance	YTD
Nursing home	808	721	12% ↑	6,803
Own home	28	18	56% ↑	239
Residential home	1,456	1,311	11% ↑	11,453
Total	2,292	2,050	12% ↑	18,495

Number of patients contacted

Information	Current Month	Last Month	% Variance
Nursing homes	528	474	11% ↑
Own homes	11	10	10% ↑
Residential homes	872	804	8% ↑
Total	1,411	1,288	10% ↑

Nursing Homes

Residential Homes

Outcome	Current Month	Last Month	% Variance	YTD	Current Month	Last Month	% Variance	YTD
Patient remained in place of residence	714	625	14% ↑	6,062	1,326	1,169	13% ↑	10,062
Ambulance request for patient	73	77	5% ↓	713	111	126	12% ↓	1,138
Hospital notified of death	19	20	5% ↓	130	21	15	40% ↑	152

Nursing Homes

Day	Current Month	Last Month	% Variance	YTD
Monday	117	97	21% ↑	1,061
Tuesday	121	95	27% ↑	1,014
Wednesday	104	104	0 ↔	942
Thursday	83	84	1% ↓	853
Friday	90	100	10% ↓	968
Saturday	128	132	3% ↓	1,086
Sunday	163	110	48% ↑	981
Time	Current Month	Last Month	% Variance	YTD
Morning	357	354	1% ↑	3,165
Afternoon	449	368	22% ↑	3,740
Hours	Current Month	Last Month	% Variance	YTD
In Hours	322	284	13% ↑	3,457
Out Of Hours	484	438	11% ↑	3,448

Nursing Homes

Calls	Current Month	Last Month	% Variance	YTD
Initial Contact	738	664	11% ↑	6,142
Follow Up Contact	68	58	17% ↑	763

Residential Homes

Day	Current Month	Last Month	% Variance	YTD
Monday	262	190	38% ↑	1,797
Tuesday	218	173	26% ↑	1,622
Wednesday	188	170	11% ↑	1,575
Thursday	174	188	7% ↓	1,456
Friday	180	189	5% ↓	1,645
Saturday	187	247	24% ↓	1,691
Sunday	249	153	63% ↑	1,566

Time	Current Month	Last Month	% Variance	YTD
Morning	710	555	28% ↑	5,025
Afternoon	748	755	1% ↓	6,327

Hours	Current Month	Last Month	% Variance	YTD
In Hours	663	530	25% ↑	5,331
Out Of Hours	795	780	2% ↑	6,021

Residential Homes

Calls	Current Month	Last Month	% Variance	YTD
Initial Contact	1,354	1,204	12% ↑	10,158
Follow Up Contact	104	106	2% ↓	1,195

Nursing Homes

Information	Current Month	Last Month	% Variance
With calls	103	104	1% ↓
With no calls	61	51	20% ↑

Residential Homes

Information	Current Month	Last Month	% Variance
With calls	184	170	8% ↑
With no calls	96	85	13% ↑

Medication/Prescriptions



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Nursing Homes

Action	Current Month	Last Month	% Variance	YTD
Advice given	739	678	9% ↑	6,086
Emotional support	0	0	0 ↔	2
Advice about medication	78	51	53% ↑	537
Prescription requested from GP	53	64	17% ↓	566

Residential Homes

Action	Current Month	Last Month	% Variance	YTD
Advice given	1,356	1,230	10% ↑	10,173
Emotional support	0	0	0 ↔	1
Advice about medication	122	91	34% ↑	838
Prescription requested from GP	104	104	0 ↔	818

Reasons for call



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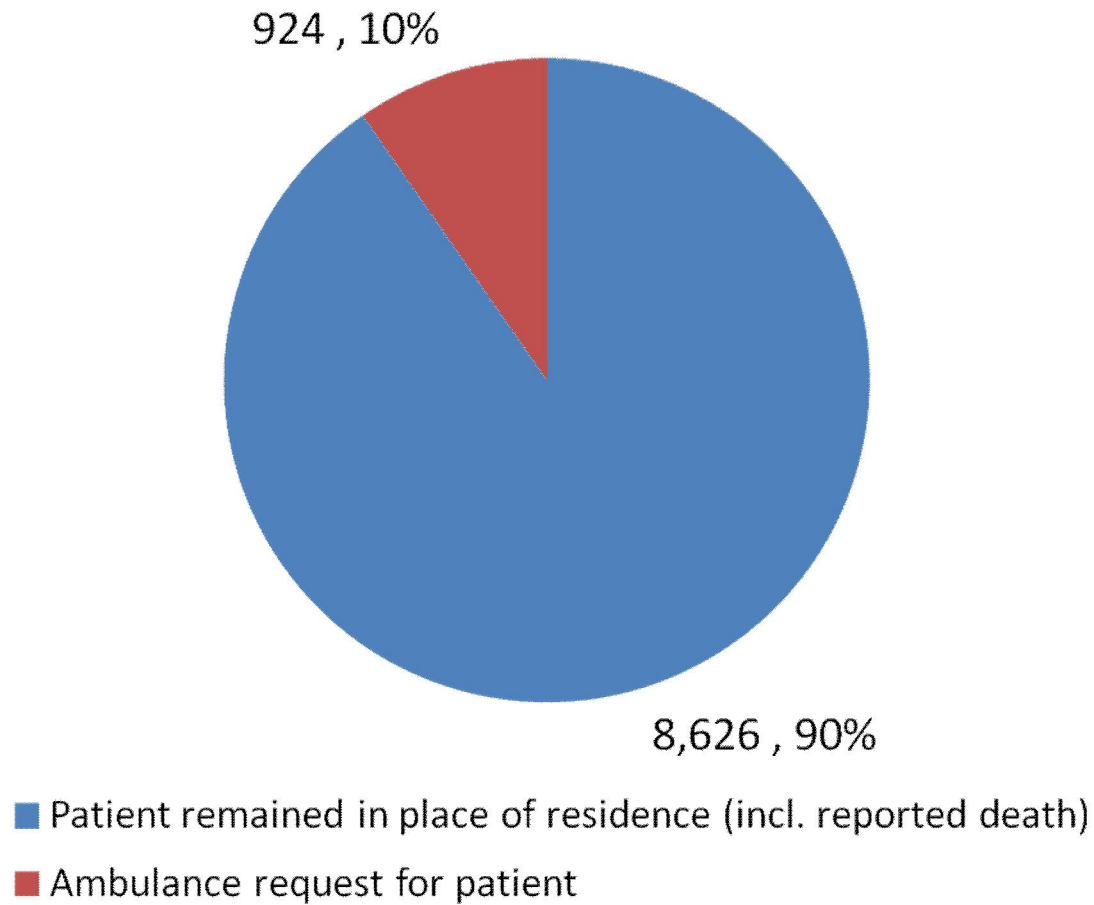
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Nursing Homes				Residential Homes				
Purpose	Current Month	Last Month	% Variance	YTD	Current Month	Last Month	% Variance	YTD
Abdominal pain	4	0	100% ↑	4	1	0	100% ↑	1
Advance Planning / DNAR	6	5	20% ↑	41	5	7	29% ↓	42
Agitation / Confusion	14	10	40% ↑	68	24	28	14% ↓	156
Anxiety / emotional distress	2	1	100% ↑	35	4	3	33% ↑	70
Bowel concerns	7	17	59% ↓	104	23	27	15% ↓	226
Breathlessness	15	11	36% ↑	141	23	32	28% ↓	226
Catheter concern	12	10	20% ↑	112	11	14	21% ↓	133
Cerebral event (suspected TIA / Stroke)	5	7	29% ↓	54	8	10	20% ↓	72
Chest infection (suspected)	132	114	16% ↑	827	197	152	30% ↑	967
Chest pain	3	1	200% ↑	27	12	21	43% ↓	109
Constipation	3	0	100% ↑	3	8	1	700% ↑	9
Continence	0	0	0 ↔	0	0	0	0 ↔	0
Death	16	20	20% ↓	107	19	15	27% ↑	119
Dehydration	6	6	0 ↔	65	14	13	8% ↑	119
DVT (suspected)	2	0	100% ↑	2	2	0	100% ↑	2
EOL Symptoms	18	16	13% ↑	139	28	31	10% ↓	157
Equipment failure	0	0	0 ↔	0	1	1	0 ↔	2
Eye Infection	7	5	40% ↑	98	18	18	0 ↔	165
Falls	53	55	4% ↓	417	161	157	3% ↑	1,192
General Deterioration	28	20	40% ↑	216	49	32	53% ↑	324
GI Bleed	0	4	100% ↓	19	0	3	100% ↓	17
Head Injury	13	11	18% ↑	81	19	27	30% ↓	201
Hematemesis / malaena	0	0	0 ↔	0	0	0	0 ↔	0
Medication issue	40	54	26% ↓	361	58	55	5% ↑	426
Medication review	11	0	100% ↑	11	19	4	375% ↑	23
Mood disorder	7	0	100% ↑	7	5	1	400% ↑	6
Nausea	5	3	67% ↑	18	4	4	0 ↔	36
Other	166	171	3% ↓	1,841	341	294	16% ↑	2,970
Pain Management	19	29	34% ↓	267	40	56	29% ↓	500
Seizure	6	6	0 ↔	59	4	5	20% ↓	43
Sepsis (suspected)	8	2	300% ↑	15	15	2	650% ↑	17
Skin complaint	29	41	29% ↓	497	91	100	9% ↓	917
Spinal Cord Compression (suspected)	0	0	0 ↔	0	1	0	100% ↑	1
UTI (suspected)	70	55	27% ↑	567	120	103	17% ↑	967
Unresponsive	7	0	100% ↑	7	5	1	400% ↑	6
Vomiting	23	13	77% ↑	122	23	18	28% ↑	138
Wound care	11	12	8% ↓	110	36	16	125% ↑	266

Patient Outcomes (April 2017 to July 2017)



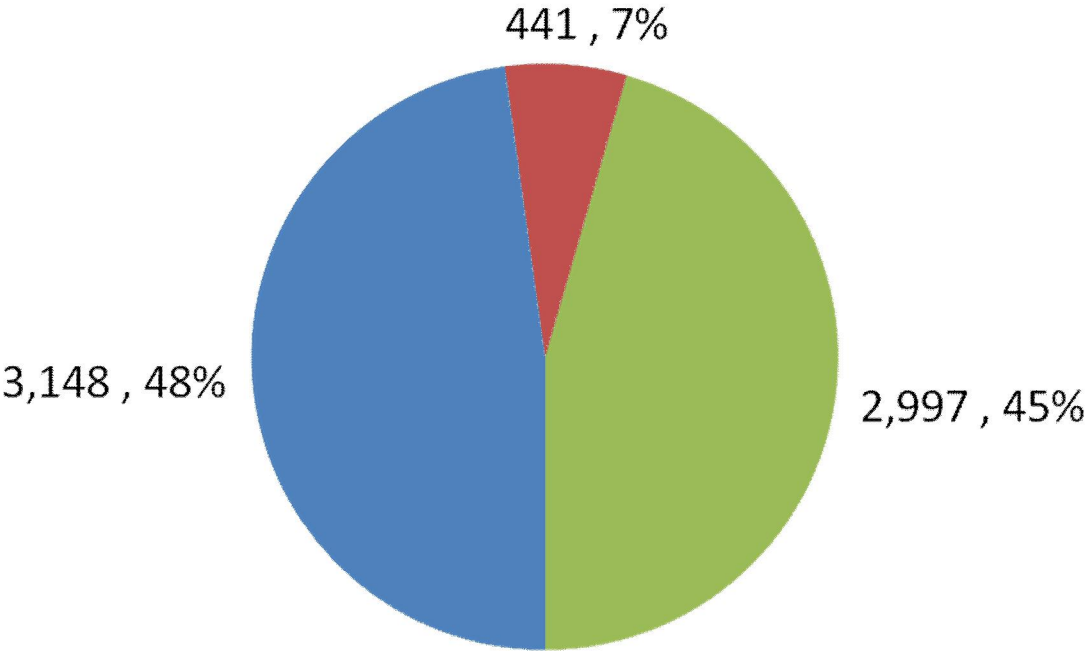
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Impact on GP Referrals (April 2017 to July 2017)



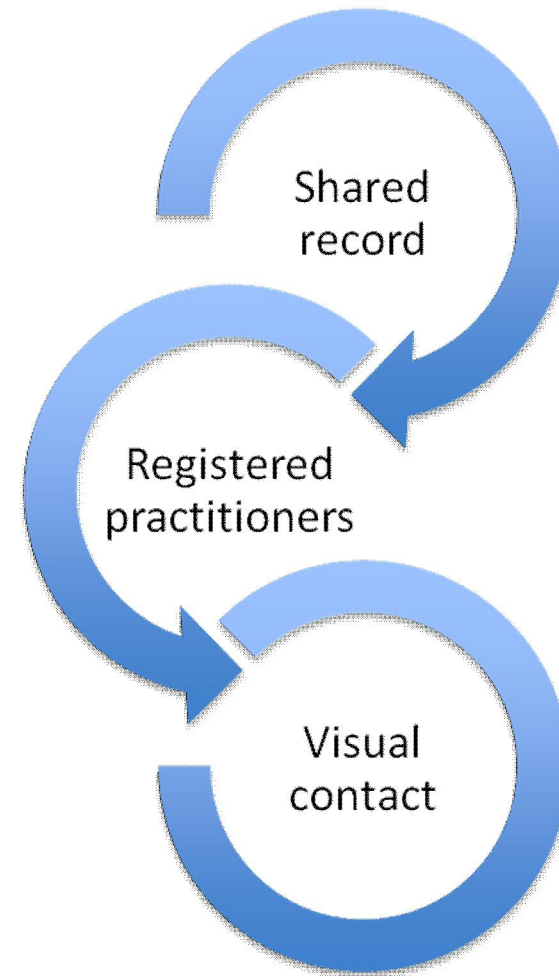
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- Would have called their GP and we referred to a GP
- Would not have called their GP but we referred to a GP
- Would have called their GP but we did not refer to a GP

Other services delivered from the digital care hub

- Gold Line
- GP Triage
- Intermediate Care Hub
- Acute Care Team
- Single Point of Access
- Complex Care Team



GP feedback



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"Of all the changes in the 15 years I have been working this is the greatest change which has reduced workload I can remember. I don't mind the extra "late" duty doc visit as this is more than made up in the drop in other visits. A big thank you to all involved."


Video insight into our Gold Line Service

<http://www.health.org.uk/gold-line>

[Return to the Health Foundation](#)

The Power of People





The Health Foundation




Gold Line

Bringing health care home

“ As soon as you got through you were talking to somebody who was there to care for you and help you.

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 Embed

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Place of Death



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- 1700 patients with GL died in the year ending March 2016
- 1380 had place of death recorded and available to us

Place of Death	Gold Line	England (Dec 2015)
Home	34%	23%
Care Home	25%	22%
Hospice	24%	6%
Hospital	14%	48%

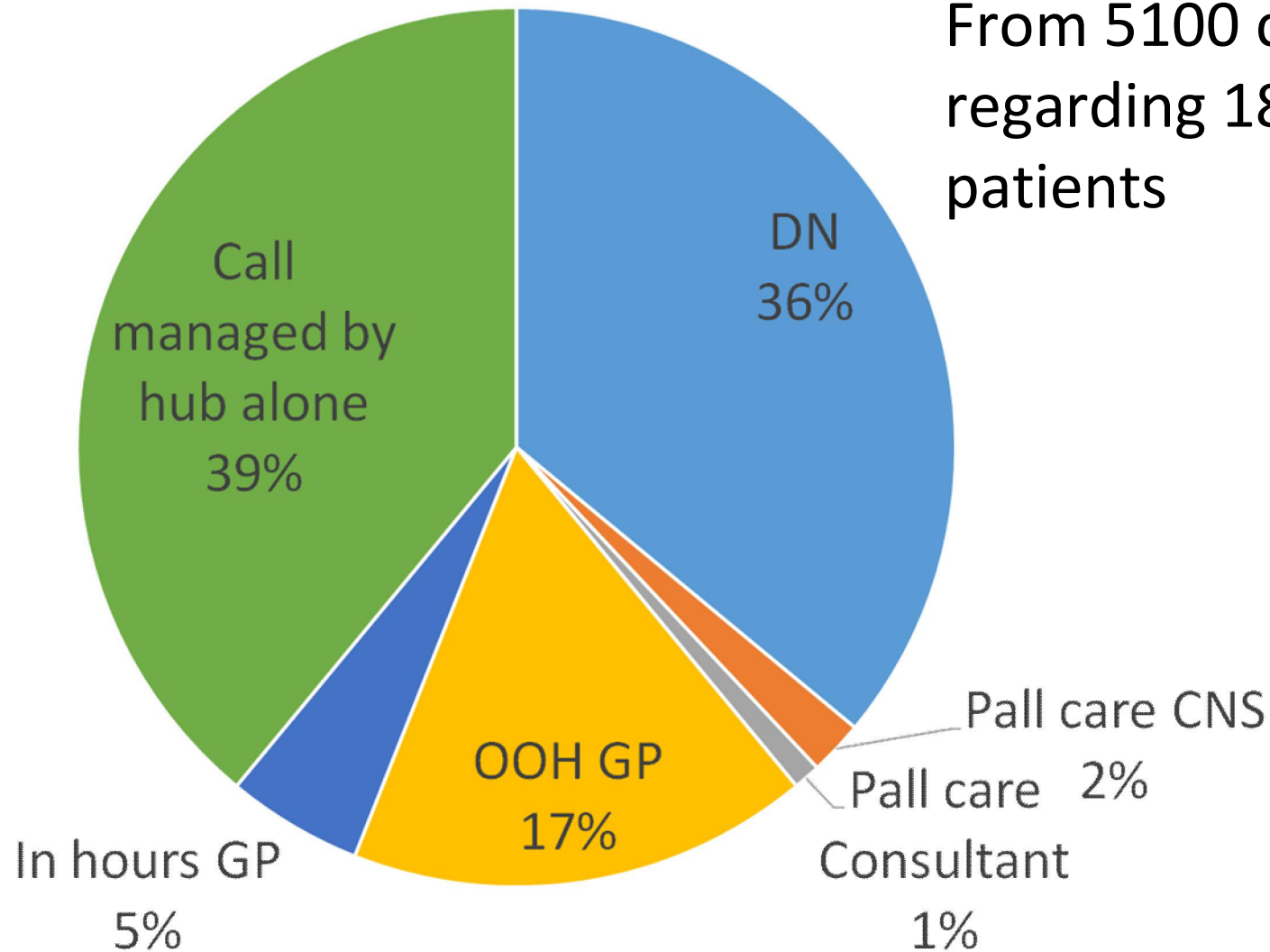
Onward Referrals from Gold Line



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From 5100 calls,
regarding 1813
patients



Building on our innovation



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What will the future look like?

New models of care:

“...in some places the future is already emerging, for example in Airedale...”



Growing national media interest in what we do



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Digital hub cuts care home referrals

Digital hub cuts care home referrals to GPs by almost 30%. A telemedicine service run by a Yorkshire NHS trust has cut ambulance calls by almost 30%. Staff in more than 200 care homes across England in Keighley and can seek advice 24 hours a day from a team of senior nurses who have online access to the service. The aim is to improve care and to make best use of resources. "We started off with the local population, and now we're looking at Airedale. "We now look after care homes in the region. The hospital has run a telemedicine service for its care home initiative, recently described as a vanguard site for new care homes in England. The service now covers 217 care homes with 3754 calls. Had it not been there, there would have been 4754 calls to GPs and 29% of the calls to the ambulance service. Tuggey told The BMJ that telemedicine has cut conventional ways. A formal audit of 100 care homes covered by the service, generated a 14% faster decline in emergency department referrals. A typical case might be an old lady who has fallen and is taken to the emergency department and assessed by a senior nurse with access to the digital hub. She is then seen by a GP via a video link.

thebmj

NHS seeks answers in digital health technology



Special Report: FT Health: Digital Innovation
UK health leaders insist technology is key to doing more with less.

Simon Stevens, chief executive of the NHS in England, has sketched a future in which patients will, more and more, interact digitally with the health service. For those in their teens, 20s and 30s, according to Mr Stevens, "the idea of booking appointments and physically turning up to GP surgeries for routine things is an alien concept."

Some parts of the NHS, which is entirely funded from taxpayers' money, have indeed enthusiastically embraced technology, but others have been slow to do so. Yet the NHS, traditionally slow to embrace new technology, is now struggling to establish itself as the current best practice as the no. of patients has risen. Robert Wachter, who has been



A future of mobile-centric healthcare could save lives



Tech innovations can help patients self-manage their conditions and keep track of older people as well as those in care homes. Picture the scene: an elderly woman with bronchitis is overcome by breathlessness while out for an afternoon shop. Instead of ignoring the problem, she immediately turns to her mobile phone, which is measuring her breathing rate and integrating that reading with other personal health data. The program decides that she needs a GP consultation within two hours, books it at a local walk-in centre and even tells her which bus to catch.

Far from being science fiction, this kind of scenario represents the kind of reality the NHS must work towards, says Sir Bruce Keogh, NHS England's medical director. With spiralling costs, demand increases and staffing issues squeezing existing resources, a future of mobile-centric healthcare would increase efficiency - and maybe save lives. Deborah El-Sayed, director of digital and multi channel at NHS England, says that the focus comes from a realisation that mobile phones are now central to our lives. "The NHS has often been 10 years behind other businesses in terms of technology, but this time we are trying to bring healthcare to people to fit in with the way they live their lives."

Salford Royal hospital's chief information officer Rachel Dunscombe is excited at the possibilities that the mobile phone offers, but she is worried about data security and the backlash that will come at which technological innovations are being introduced. She says: "A few well-thought-out and correctly aimed interventions will do far more than a scattergun introduction of funky toys."



Video link to elderly cuts hospital visits



A round-the-clock service that connects care home residents to nurses over a video link has slashed unnecessary ambulance journeys, hospital admissions and GP appointments. Airedale NHS foundation trust in West and North Yorkshire said that a "telemedicine" service launched in February had reduced ambulance call-outs to care homes by almost 30 per cent and GP referrals by 40 per cent. A third of calls to the digital hub at Airedale General Hospital are dealt with remotely, with no need for further action. Participating care homes have been given laptops with high-quality cameras, as well as staff training on how to use the service.

Want to read more? Register with a few details to continue reading this article.



Airedale Telemedicine Studies & Reports

(Report used in impact forecast highlighted)



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Organisation	Date	Title
Healthwatch	2016	Telemedicine in Care Homes: A Qualitative Evaluation
NHS England	2016	Top 100 Care Homes Ambulance Conveyance
SS CCG	2016	Care Home Innovation Programme (CHIP)
Lancashire County Council	2016	Analysis of NWAS call outs to care homes – older people service user category
East Lancashire District North West Ambulance Service	2015	NWAS Cost savings per care home data
Airedale Digital Hub	2016	Audit of 30 GP referrals for Pendle Care Homes
Bain & Co	2016	Detail to support development of Vanguard Hypothesis Generation
Airedale Vanguard	2016	Value Proposition
AWC CCG/ANHSFT	2015	AWC Review of case notes to assess effectiveness of TM
Airedale Digital Hub	2016	Telehealth Jan 2016 current awareness
Airedale	2016	Bringing Healthcare Home. Final Report. Health Foundation. Shared Purpose
YHEC	2015	Telemedicine Service Evaluation and Economic Modelling
	2015	Telemedicine in care homes in AWC. Clinical Governance
	2016	Evaluation of a Pilot project for the implementation of TM in CH in Bradford

Impact ...

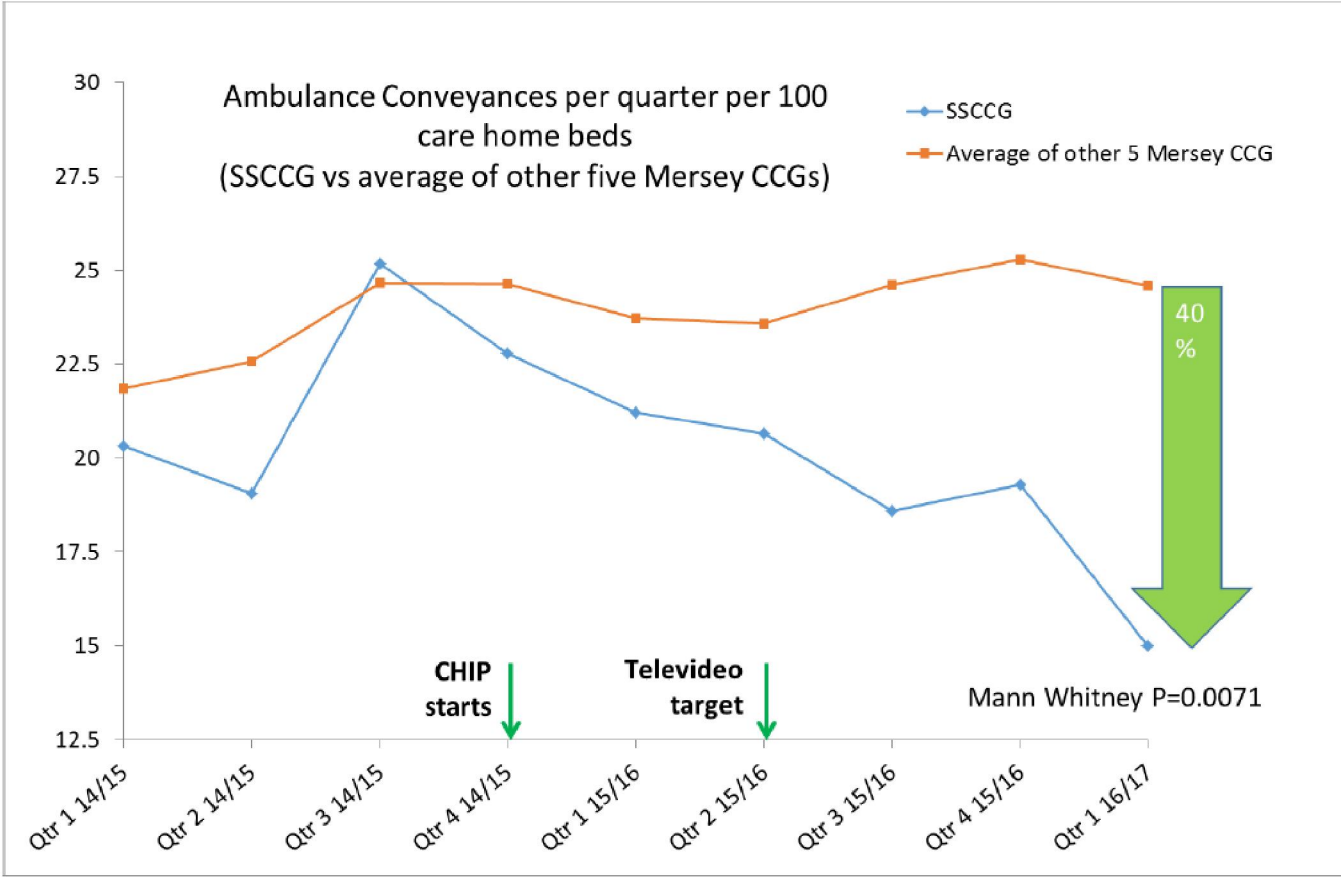


"THE GOOD NEWS IS, PROFITS ARE UP 74%, THE BAD NEWS IS, WE DON'T KNOW WHY."

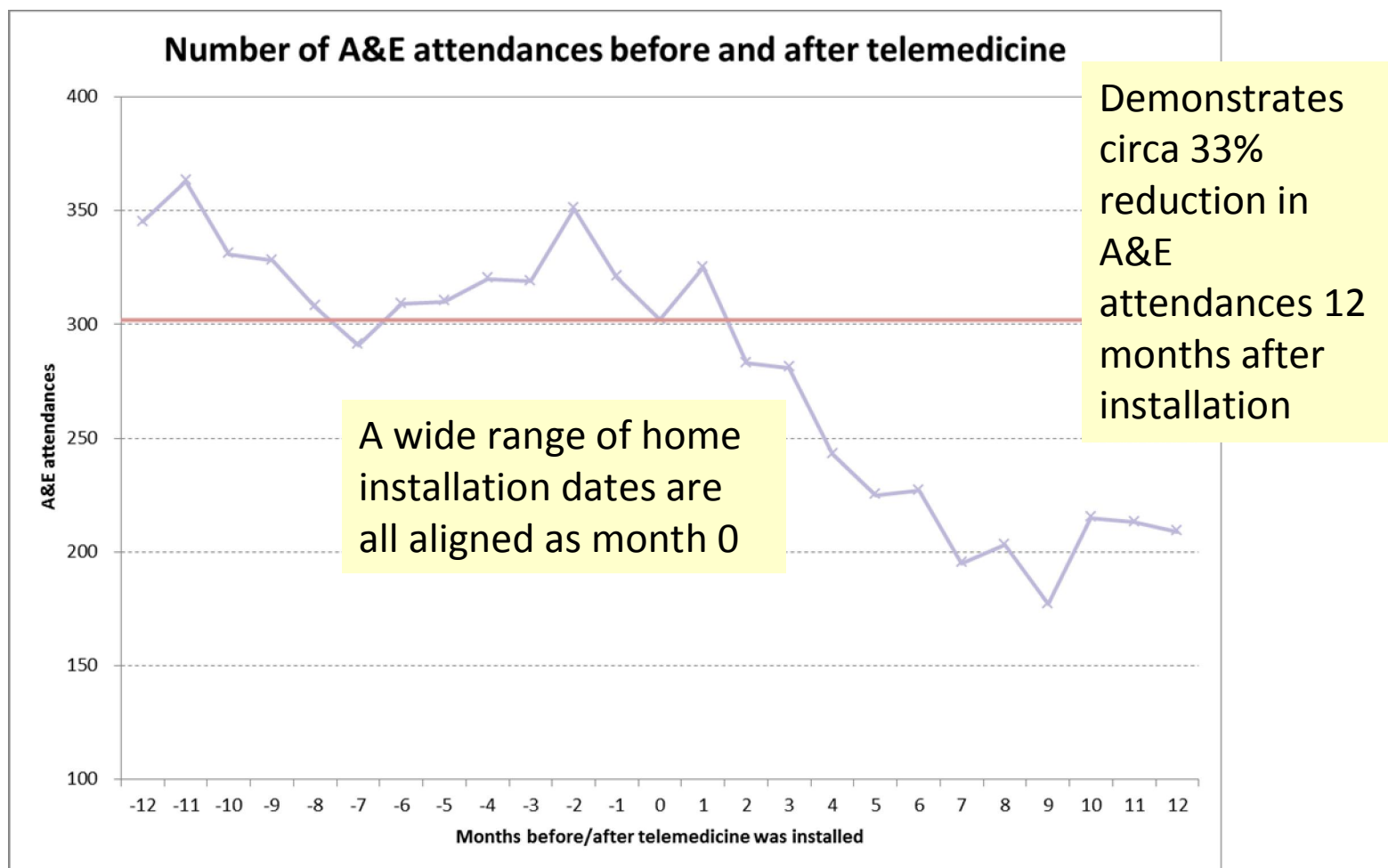
South Sefton CCG Care Homes Innovation Programme



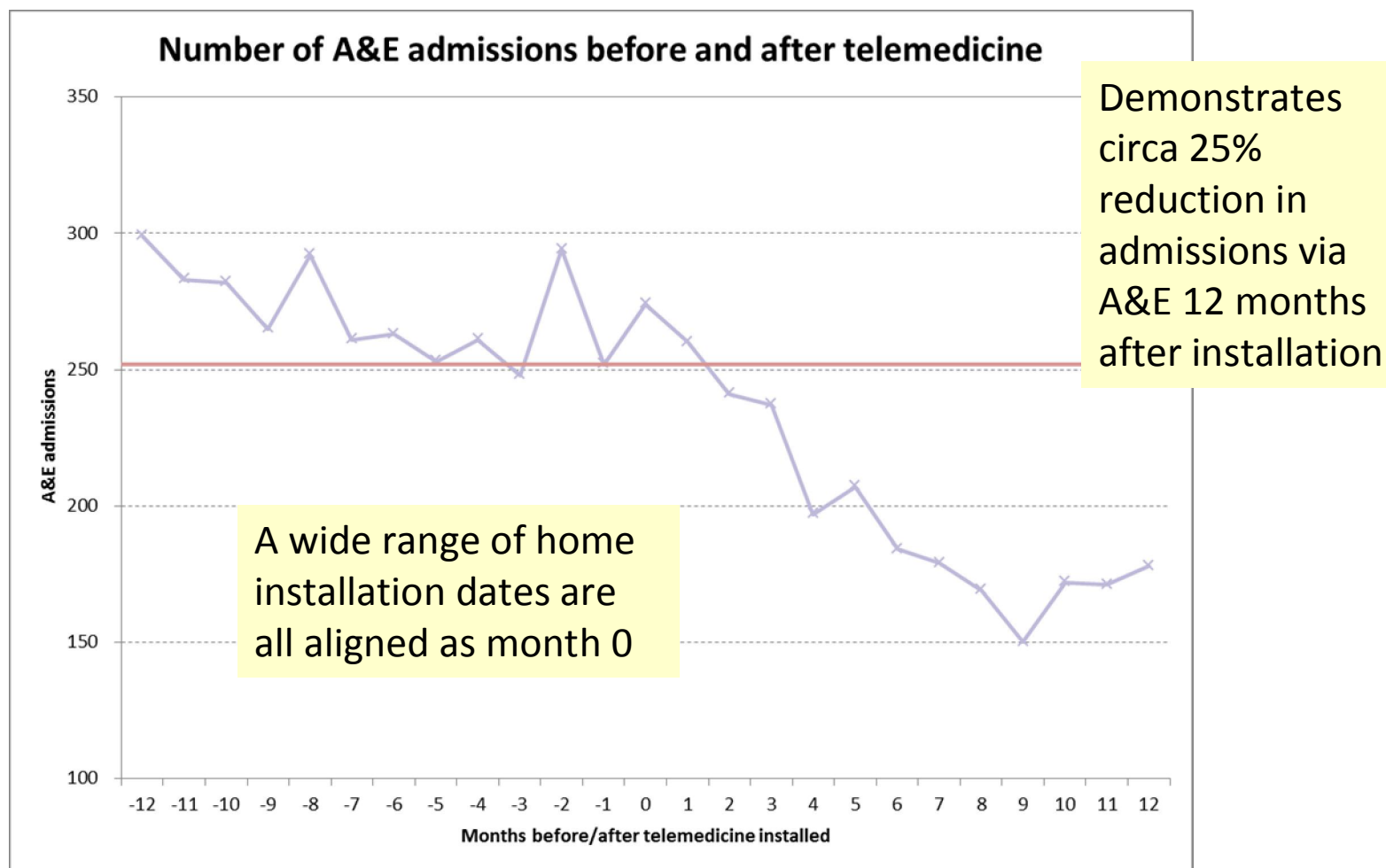
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Care Homes in Bradford and Airedale circa 130 homes Impact

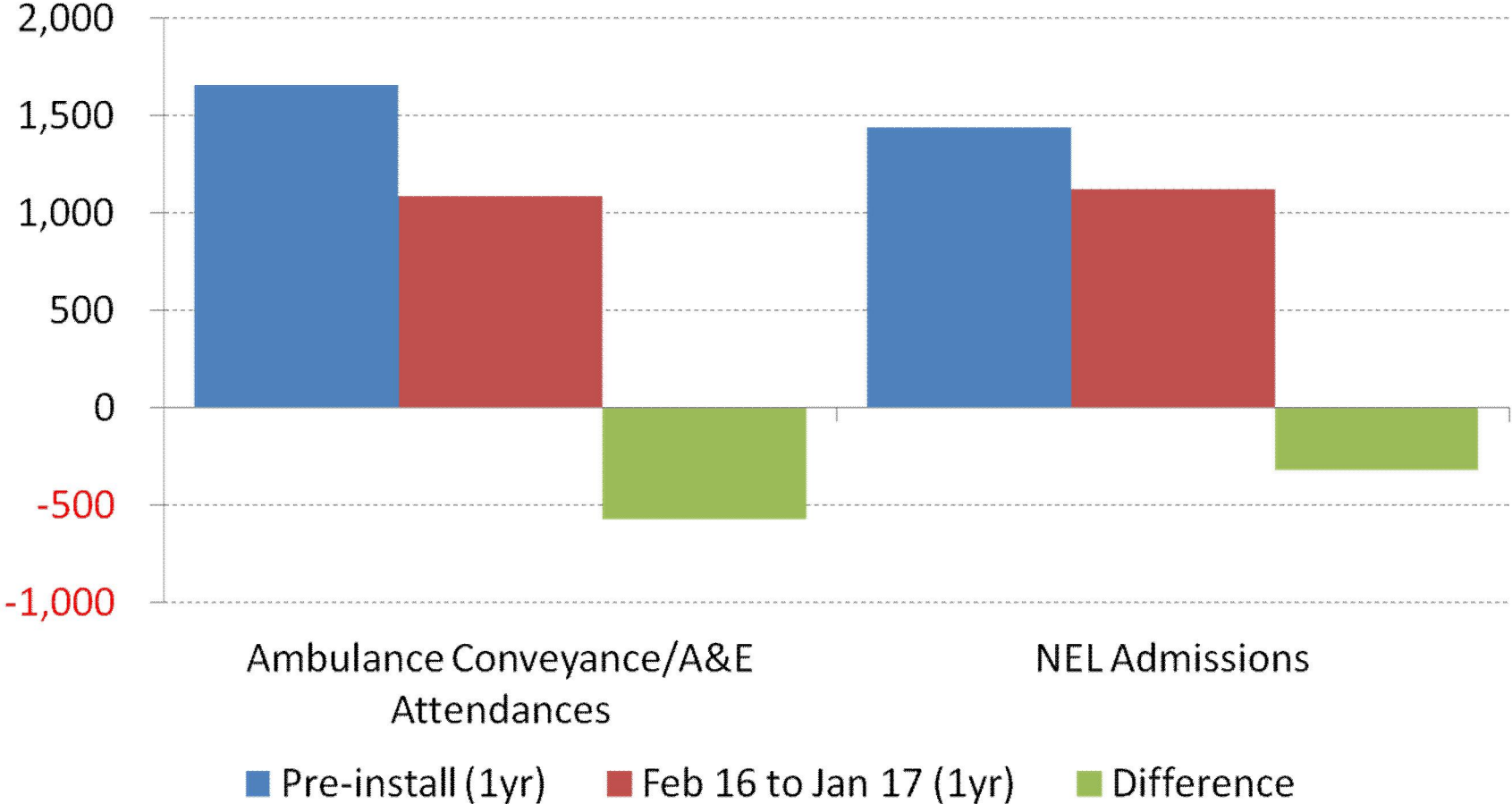


Care Homes in Bradford and Airedale circa 130 homes Impact



Airedale Wharfedale Craven CCG care homes impact (n=51)

Compares Unplanned Care Activity before and after installation



Further potential



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- **Primary Care enhancement – called GP Triage**
 - In hours, care homes are prevented from requesting GP visits direct from GP Practices and must make a video-call to the Digital Hub for patient assessment
 - This service is charged at an additional £2,400 per home/year. Currently provided in circa 100 homes in East Lancashire, Dudley and Aylesbury.
- **GP Video access to care homes via APP** (extensive trial commencing in East Lancs April 17)
- **MDT conferencing** with Community Nurses, GPs, Digital Hub and Care Homes
- **Virtual Training to Care Home Staff** (already available in Bradford and Airedale)
- **Provision in patient's own home**
 - Identification of patients at high risk of hospital admission or readmission
 - Proactive Digital Hub care management via care plans
 - Linked to Community Nursing and GP care
 - Move equipment between high risk patients at 6 week intervals to improve cost effectiveness
- **Diversion from NHS 111 and 999**
 - Non emergency calls are intercepted and passed to the Digital Hub for assessment and management

Care Home Manager



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“ Telemedicine is brilliant, the staff are always using it, I hardly get any phone calls during the night, as she used to , staff would be lost without it “,

“ you know you are passing the responsibility onto Telemedicine”.

Innovation potential



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“The innovation that telemedicine promises is not just doing the same thing remotely that used to be done face to face, but awakening us to the many things that we thought required face to face contact, but actually do not.”

David D Asch MD, MBA,
Perelman School of Medicine, University of Pennsylvania

Scaled Average Care Homes Annual Savings WY and Harrogate STP



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	Good	Better	Best
Annual Savings per care home – Ambulance Journeys, A&E Attends and NEL Admissions	£9,600	£14,400	£19,200
Investment for 558 Care Homes Annually (average per locality) (£4,800 per Care Home)	£2.68M (£447k)	£2.68M (£447k)	£2.68M (£447k)
Annual Cash Releasing Benefits for 558 care homes	£5M	£7.8M	£10.6M
Additional benefit layer 1 (not included to date)	Avoided GP Call Outs		
Additional benefit layer 2 (not included to date)	Avoided community nursing visits & also link with Social care teams to optimise capacity.		
Additional benefit layer 3 (not included to date)	MDT working		
Additional benefit layer 4 (not included to date)	Virtual training and supervision of care home staff		

Questions



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*Technology Enabled Health
– the art of the possible...*

<http://www.airedaledigitalcare.nhs.uk/>

