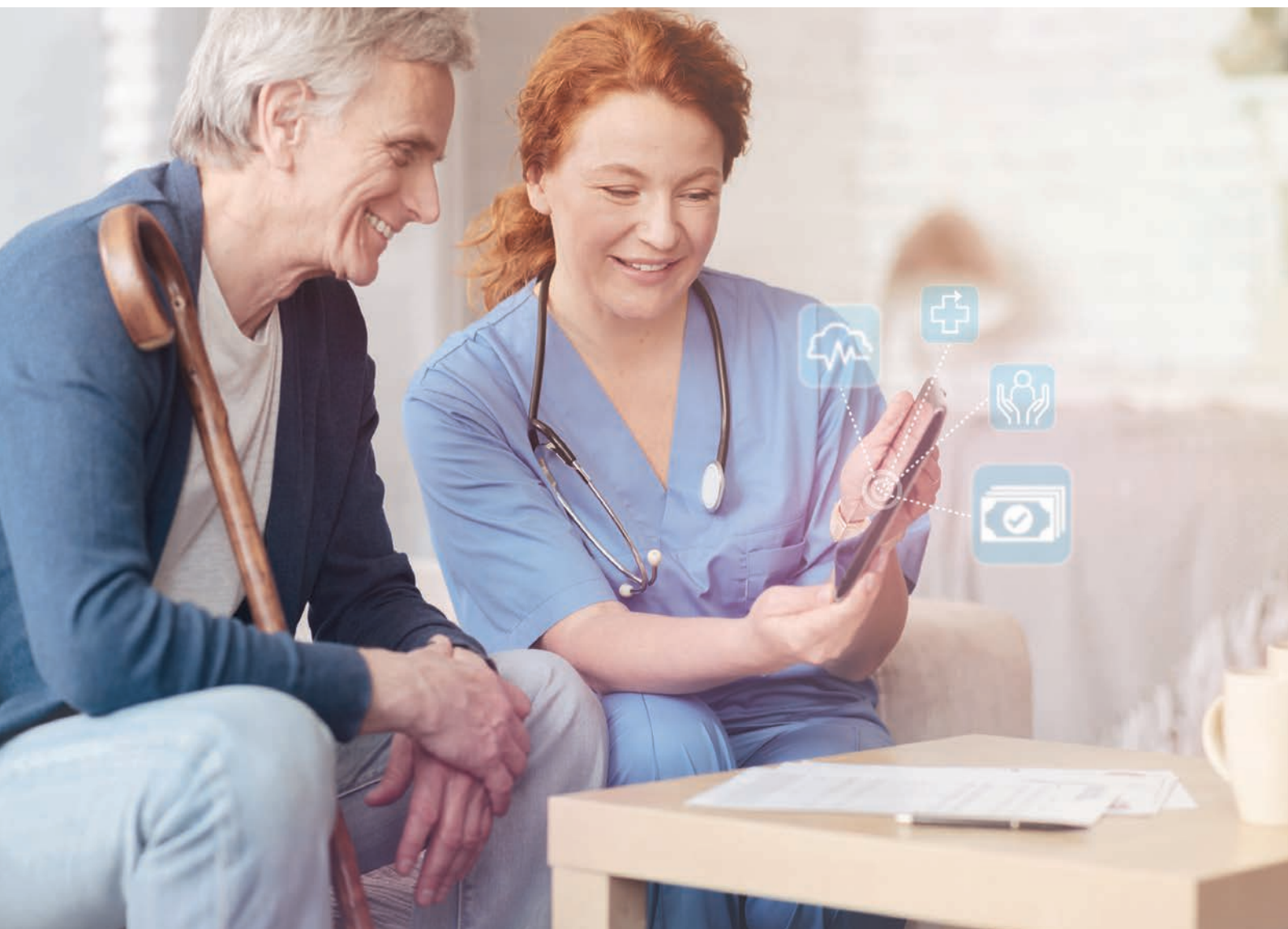




NHS Demand Management from Care Homes

A £1bn opportunity for NHS England



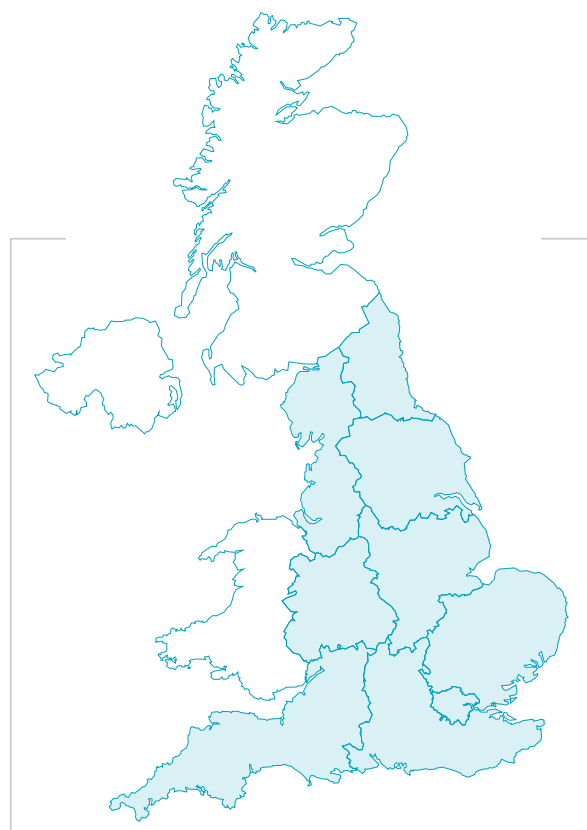
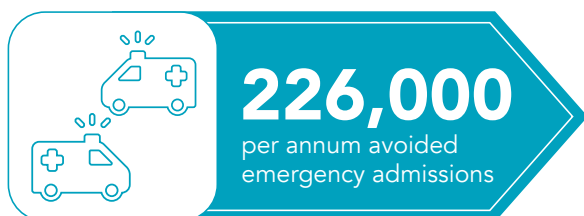


Improving services for care home residents through the use of clinically-led technology-enabled models of care has delivered impressive results in existing, large scale, regional programmes.

Demand for critically constrained acute and primary NHS resources has been dramatically reduced, releasing much needed capacity, whilst improving care.

Analysis presented in this paper indicates that if this was scaled across NHS England, the value of the capacity released would be close to £1b per annum, avoiding over 226,000 emergency admissions and saving 2.5 million bed days.

Service improvement for care home residents for NHS England





Why demand management from care homes should be a priority

For NHS England, in common with all healthcare systems, the dual implications of an ageing population and the associated increasing prevalence of chronic conditions are placing unsustainable demand on healthcare resources. In response, there is wide recognition of the need for urgent change to reduce demand on constrained and costly resources, but achieving this at full population scale is complex and slow.

To achieve accelerated and sustainable change, it is becoming increasingly important to identify focussed patient groups which generate disproportionately large resource requirements, but for whom targeted interventions can be made which simultaneously improve care and reduce consumption. Care homes residents are such a group.

At just 0.7% of the population (approximately 383,500 people) this is a relatively small patient cohort, but their demand on NHS resources is disproportionately larger. Recent Tunstall analysis indicates that care home residents may demand over 13.5% of all acute bed days, 9.1% of emergency admissions, 10.7% of ambulance responses, and up to 17.5% of all GP home visits. Unsurprisingly therefore, several large scale regional programmes have sought to reduce demand by minimising and mitigating the key causes of demand from this group. By enabling new, clinically led and technology enabled approaches, acute demand has been reduced by over 40% and key aspects of existing primary and community care by over 60%.

Acute demand
reduced by over
40%

Given the profile of the cohort and the already proven results in regional programmes, demand management from care homes has become a focal area for prioritised consideration, nationally and across Clinical Commissioning Groups, Sustainability and Transformation Partnerships and Integrated Care Systems.

To support this process, Tunstall has analysed existing case studies to develop an integrated reference model to assess the potential if the local results were replicated nationally, and the conclusions are striking; the economic value of the capacity released is close to £1bn per annum for NHS England, £22.4m per STP or £4.7m per CCG.

This paper outlines the analysis, the implications and opportunities. It further highlights the tools Tunstall has developed to enable tailored assessment and modelling of the specific situations and opportunities at regional as well as national level. Unless otherwise stated, all statistics presented in this paper are drawn from the Tunstall reference model.

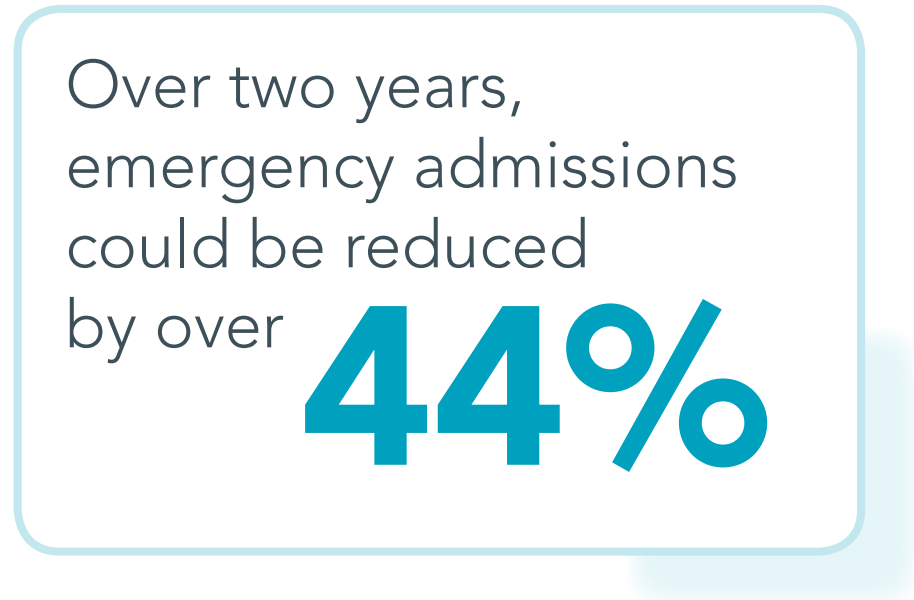
The annual value
of the capacity
released is close to
£1bn for NHS England
£22.4m per STP
or **£4.7m** per CCG

Clinically-led, technology-enabled change: Case studies

Against the backdrop of increasing incidence of chronic conditions and an ageing population, wellness approaches which reduce the risk of condition onset, and seek to best manage the conditions once they are present, are key objectives through most areas of healthcare. Clinically led, technology enabled models of care which facilitate more effective monitoring of conditions such that issues can be identified, and addressed, before they become critical can play a pivotal part in this process. Similarly, monitoring to identify instances when critical situations have arisen can help ensure support is rapidly provided to help mitigate the impacts. Such approaches have benefit across the full population, but even more so for those who are particularly sensitive to such issues.

In the context of care homes, three of the most frequent causes of emergency responses, and ultimately acute admissions, include respiratory infections, urinary tract infections and falls. For each of these causes, approaches such as those outlined above can have considerable impact in avoiding the issues reaching an acute stage, and/or ensuring rapid response to mitigate the impacts if it does.

Reflecting these factors, in 2013/14 Calderdale CCG in association with Calderdale Council and Calderdale and Huddersfield NHS Trust launched the "Quest for Quality in care homes" programme with a clear objective to establish a more consistent and sustainable model of care for older and vulnerable individuals, and to make efficient use of NHS resources. A key focus was to reduce admissions to



hospital from care homes, particularly for urinary tract infections, respiratory infections, falls and fractures.

The programme, initially involving approximately 1,000 residents in 24 care homes and later expanded to over 1,300 residents in 37 care homes, provided additional support to care home staff through the introduction of telehealth and telecare approaches for residents, and crucially a matron-led multi-disciplinary team (MDT) to review and oversee patient care. In parallel, the introduction of access to real time clinical records in care homes has ensured GPs and Quest Matrons have access their patients' records, enabling 'joined up' care and informed decision making.

Advanced telehealth systems provided by Tunstall have provided the data with which to help monitor residents and manage their conditions, flagging those with potential issues such that informed clinical interventions can be taken to prevent deterioration. Telecare solutions have provided

further assurance that in the event of a fall or other physical issue, carers are rapidly alerted such that they can provide accelerated responses.

Each of these aspects working in unison have delivered impressive results. In the second year of the programme alone, Quest enabled care homes reduced emergency admissions by 33% year-on-year, building on the already impressive results in the first year. Similar impacts can be seen in terms of reduced ambulance call outs, conveyances and A&E attendances. The introduction of Quest Matrons also reduced the demand for GP call outs by 45% year-on-year in the second year, again building on the first year's results.

Calderdale is an impressive case study which has demonstrated the success of the combined MDT, telecare and telehealth approach along with access to clinical records, but it is not alone.

Addressing similar issues and recognising the challenge in providing timely support for care home residents, Airedale, Wharfedale and Craven (AWC) CCG commissioned a video based remote consultation service for care homes. The facility enables residents, or their carers, to contact clinicians at the Telemedicine Hub to have consultations on health conditions as they arise and also allow the patient to be treated remotely where clinically appropriate. With support for both in and out of hours, the service has demonstrated considerable success in reducing acute demand (as analysed by York Health Economics Consortium) whilst improving access to services.

Whilst much focus is rightly placed on costly acute NHS resources, primary and community resources are of course also constrained. As well as reducing demand, new approaches can also help increase access to services. Analysis of the available data indicated the potential for over 60% reduction in GP care home call outs, but of course other clinicians are also involved in the delivery of care.

As an example, in Northern Ireland, the Southern Health and Social Care Trust led the "Digital Undernutrition Service" focussed on technology-enabled improvements for the Nutrition and Dietetic Service addressing care home residents. The service, using an online monitoring solution developed by Tunstall partner Inhealthcare, enabled care home staff to record data for their residents such that undernutrition could be quickly identified and interventions taken.

For those patients already under the care of the Nutrition and Dietetic service, where their conditions were stable, care could be managed by the care home staff alone, but where not, or where new issues were identified, the Nutrition and Dietetic service could then intervene.

Over two years,
GP call outs could
be reduced by over
60%

This focussed process meant the Nutrition and Dietetic service could address those areas with real need, freeing up others which would have been purely for monitoring. As a result home visits were reduced by 90%, and critically, through the capacity released, the waiting time to access the service was reduced from six weeks to between one and two.

The process also meant supplements could be curtailed where not required which generated further cost savings.

Across each of these cases, the results have shown consistent characteristics of improved care, reduced demand and released capacity with significant economic value. The Tunstall reference model has been developed drawing on each of these cases.



The opportunity for NHS England

Building on the case studies and coupled with wider analysis of national level data, Tunstall has developed a reference model which allows the potential opportunities to be analysed and modelled at national (NHS England) and regional (STP or CCG) levels.

Comprehensive secondary analysis of the case studies has been undertaken to derive the mean baseline and indicative improvement levels per resident. Spanning emergency admissions (including bed days consumed), A&E attendances, ambulance attendance and GP home callouts, the approach has created a platform for full scaling of the potential benefit and associated economic value across each of these dimensions.

At NHS England level, the full potential impacts including the level of reduction relative to overall national demand across all elements of the population are shown in the table below.

Aspect	Demand reduction from care homes		Reduction as % of full population activity
	Number pa	%	
Reduction in emergency admissions	226,748	44.3	4.04%
Reduction in A&E attendances	296,270	44.0	1.45%
Reduction in ambulance attendances	423,243	44.0	4.70%
Reduction in GP home call outs	2,014,986	63.0	11.02%
Reduction in bed days consumed	2,557,945	39.1	5.31%

The potentially releasable capacity is valued at

£984.6M pa
for NHS England.



Based on the operational impacts shown, the mean costs per instance (for care home residents, noting for example the long average length of stay from this cohort once in admitted care), the total value of the potentially releasable capacity is £984.6 million per annum for NHS England.

Whilst the value alone and the impact for care home residents is striking, it is also clear that the scale is sufficient to have beneficial impacts across the population as a whole. In particular, releasing 2.6 million bed days per annum which represents over 5.3% of overall bed day capacity, plus over 4% of all emergency admissions.

For general practitioners, if the benefits were realised at national scale this would save over two million home visits per annum and, based on the indicative time demanded per attendance, this suggests a potential saving of 1.5 million hours, or 876 WTE GPs per annum.

Evaluation at local level

Given the scale of potential opportunity, focussing on NHS demand management from care homes is increasingly a priority for health leaders at regional as well as national levels.

In response, alongside the national level analysis, Tunstall has developed a set of modelling tools to enable

the potential to be assessed at STP, CCG or related organisational levels. In the first instance this allows the potential to be identified on a simple pro-rata basis relative to an STP/CCG's population. Whilst this may provide a good initial indication, local conditions and priorities also need to be taken into account. The full modelling dashboard therefore enables all of

these aspects to be incorporated such that the local situation and potential opportunity can be modelled based on the specific operating and economic position. Alternate change scenarios can be considered and change sensitivities assessed on a 'what if' basis to provide progressively more informed analysis.

Conclusion

The need for solutions which enable more effective patient care and which reduce demand on already stretched NHS resources is, of course, pressing. The results achieved through existing regional programmes and the potential identified at national level

means urgent consideration of similar approaches is increasingly being demanded by all health and care leaders. As the UK market leader for telehealth and telecare services Tunstall is able to support this process not just at solutions levels, but also by

supporting STPs and CCGs to assess the potential and plan actionable change programmes to realise the benefits.

Next steps

To learn more about the recent analysis and the means of assessing the potential for your organisation please contact your account manager, or alternatively call **+44 01977 661234** or email **enquiries@tunstall.com**



Tunstall Healthcare (UK)

Whitley Lodge
Whitley Bridge
Yorkshire
DN14 0HR