MIDLANDS AND LANCASHIRE
COMMISSIONING SUPPORT UNIT
Strategy Unit

NHS

Out of Hospital Care:

A rapid review of evidence and practice

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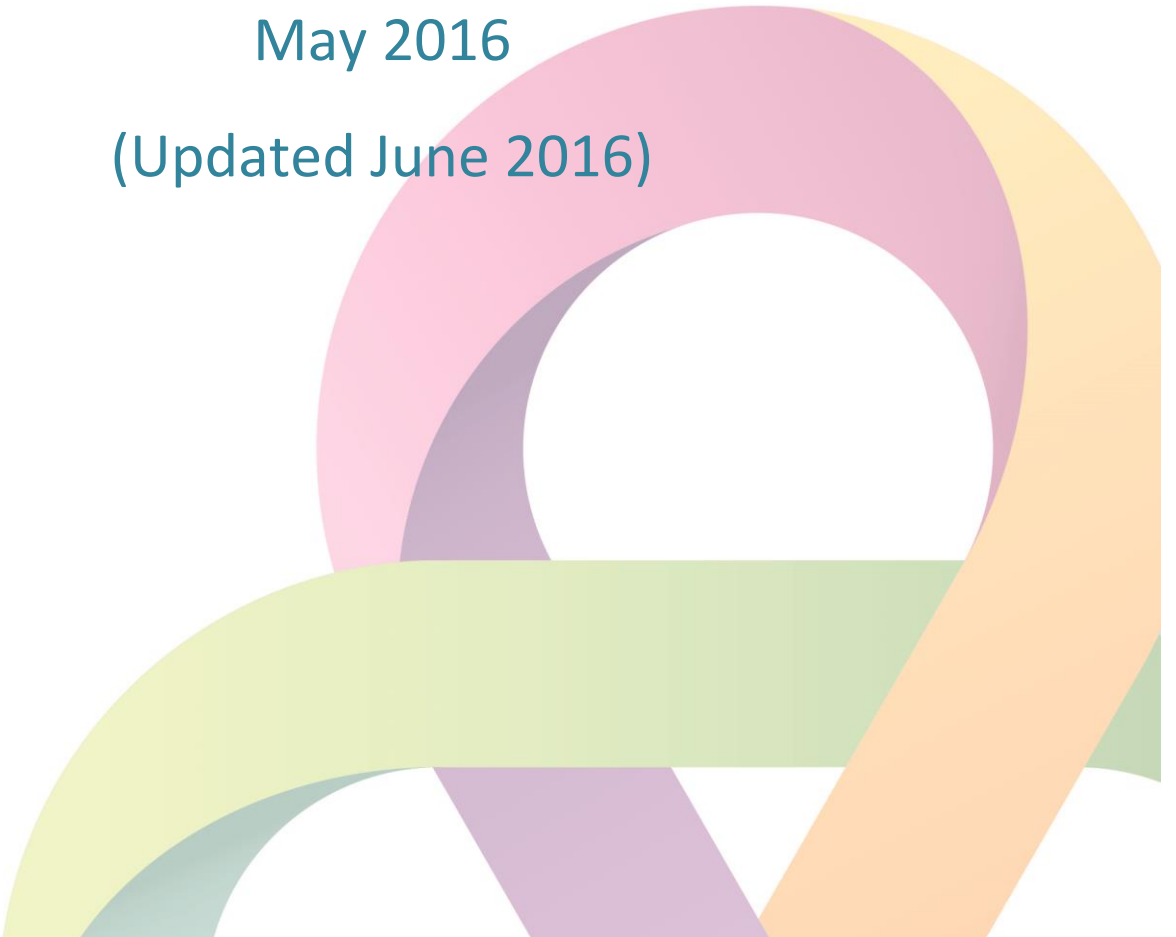

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Executive summary

Current policy direction points towards expanding and strengthening "out of hospital care" to meet the needs of an increasing number of complex (frailty/multimorbidity) patients. However, there are concerns around delays in discharge due to a lack of care arrangements and workforce pressures with the suggestion that there is a need for role expansion of the current workforce.

There are a number of approaches associated with the delivery care closer to home, these include:

- **Telehealth**, which prevents acute hospital attendances and admissions by providing 24-hour remote support and triaging through a video link.
- **Enhanced step-up**, which prevents acute hospital attendances and admissions by treating all adults in crisis not suffering hyper-acute episodes in a community hospital day-case setting.
- **Rapid response and early supported discharge**, which provides treatment in patient homes to patients entering crisis or recovering from inpatient stays to reduce attendances and admissions and length of stay for patients.
- **Reablement,** which helps patients with complex, needs to recover at home and live as independently as possible again after an illness or hospital admission, as well as reducing on-going social care costs, through regular visits for up to six weeks.

There is limited data on the impact of service delivery in primary and community settings; though initial evidence supports care closer to home for patients with less severe needs, with comparable health outcomes and improved patient satisfaction.

Community-based care is not necessarily cheaper than its hospital equivalent, with evidence suggesting that such a move would only be affordable if secondary care services could be significantly reconfigured to reduce capacity. Some interventions may offer greater flexibility due to lower fixed costs. To deliver savings, acute capacity will need to be reduced, which is politically challenging, and relies on substantial and consistent bed day reductions; it is noted that savings are unlikely to be possible within the short term so a long term vision is required. The need to reform the NHS tariff, alternatives such as the 'year of care' for particular patient groups and 'alliance contracting' has also been highlighted.

The reorganisation of workforce is highlighted with the development of emerging roles as well as the expansion of scope of practice of current staff.

A selection of case studies point to the potential of multidisciplinary teams/collaborative working, self-management approaches and telehealth approaches in reducing demand for appointments for GPs but evidence is limited; a summary of key points identified from the case studies is provided on page 20.

Introduction

This rapid review of evidence and practice in out of hospital is divided into two sections.

- Section 1 – Evidence Base provides a short briefing summarising current policy/guidance/evidence on out of hospital care.
- Section 2 – Case studies provides a selection of models/case studies relevant to out hospital care.

Section 1: Evidence Base

Context

The Five year Forward View highlights the importance of expanding and strengthening "out of hospital care" to meet the needs of increasing numbers of patients with multimorbidities often in elderly populations who require complex care delivered closer to home. NICE (2016) are currently developing a multimorbidity guideline examining the assessment, prioritisation and management of care for people with commonly occurring multimorbidities. The guideline is due for publication in September 2016.

For specific patient groups, such as palliative care, the importance of out of hospital care has been consistently highlighted. The RCGP(Thomas and Paynton,2013) noted that patients in the final year of life account for a disproportionate number of the hospital population. The RCP state the need to focus on reducing inappropriate hospitalisation and improving community provision for care for people living at home.

The Future Hospital Commission report states that 'greater collaboration and integration' across professions and care settings will benefit patients with complex and multiple conditions, older patients with frailty and dementia and those with long term conditions (RCP, 2013) could provide acutely ill patients with a smoother patient journey, less fragmentation of care and a possible reduction in hospital re-admission.

In 2015, NICE (2015) published a guideline on the transition between inpatient hospital settings and community or care home settings for adults with social care needs. The guideline underlines the importance of supporting infrastructure, including the availability of services to support people when they are discharged from hospital and ensuring that all care providers, including GPs and out-of-hours providers, are kept up to date on the availability of local health, social care and voluntary services for supporting people throughout transitions and that local protocols are in place so that out-of-hours providers have access to information about the person's preferences for end-of-life care.

Concerns around delays in discharge, due to a lack of care arrangements in the community and the impact on patients, are being highlighted. NHS England (2016) has estimated nearly 1.5 million delayed days in 2015; the majority were due to waits for public funding, residential or nursing home place or for other care arrangements to be in place, such as assessments of equipment or care packages in the home. A review by NHS Providers (2015) reported that eighty per cent of delayed discharges happen to individuals aged 70 or over and noted that, a delay of more than two days negates any additional benefit that could be gained from intermediate care, and a seven day wait is linked to a 10 per cent decline in muscle strength. The authors

also noted that in mental health patients; one in five patients did not receive follow up within seven days of a hospital discharge. The first one to two weeks are a time of elevated suicide risk for these patients.

A King's Fund report (Addicott and Ham, 2014) argues for closer collaborative working between primary and community services in order to support a move of care out of hospitals.

In 2015 Monitor published a suite of resources examining care closer to home including a literature review, financial modelling and case studies. Their literature review (Monitor, 2015a) identified a number of approaches in the delivery care closer to home, these include:

- **Telehealth**, which prevents acute hospital attendances and admissions by providing 24-hour remote support and triaging through a video link.
- **Enhanced step-up**, which prevents acute hospital attendances and admissions by treating all adults in crisis not suffering hyper-acute episodes in a community hospital day-case setting.
- **Rapid response and early supported discharge**, which provides treatment in patient homes to patients entering crisis or recovering from inpatient stays to reduce attendances and admissions and length of stay for patients.
- **Reablement,** which helps patients with complex, needs to recover at home and live as independently as possible again after an illness or hospital admission, as well as reducing on-going social care costs, through regular visits for up to six weeks.

Evidence examining care closer to home has examined the impact of schemes on patient outcomes, financial impact and workforce.

Patient outcomes and effectiveness

The literature review (Monitor, 2015a) suggests there is evidence to support care closer to home for patients with less severe needs, with comparable health outcomes and improved patient satisfaction. The evidence base seems less clear for patients with more severe needs, where the risk is greater. A review by Imison et al (2015) on the impact of enhanced primary and community care service on acute hospital care found little evidence about the scale of impact but did point out that the limited scale and scope of service delivery in primary, community and intermediate care have not produced enough data.

Two recently published systematic reviews on COPD (Echevarria et al. 2016) and heart failure (Qaddoura et al. 2016) have reported positive outcomes for patients. Echevarria et al (2016) assessed the impact of early supported discharge and hospital at home for patients with an acute exacerbation of COPD found a trend towards lower mortality compared to usual care patients and lower costs for ESD/HAH. Qaddoura et al. (2016) reported that in patients with heart failure, hospital at home increased time to first readmission by 14.13 days and improved health related quality of life at 6 and 12 months. The authors also reported that in RCTs hospital at home pointed to a trend of decreased readmissions risk but had no effect on all-cause mortality.

A recent study (Winpenny et al., 2016) examined the evidence for improving the effectiveness and efficiency of hospital outpatient services. The authors conducted a number of sub-studies in five areas: referral management centres (organisations established to review referrals and potentially diver t hem away from

hospitals), in-house review of referrals by GPs, financial incentives to reduce referrals, consultants contracted to community organisations and, last, international experiences of moving care from hospital into the community. The authors concluded:

- "High-quality care in the community can be provided for many conditions and is popular with patients.
- It may not be cheaper to move care into the community, and more evidence is required on cost-effectiveness.
- Moves towards care in the community can be justified if high value is given to patient convenience in relation to NHS costs or if community care can be provided in a way that reduces overall health-care costs."

For specific areas the authors noted the following:

Area	Key points
General practitioners with a special interest (GPwSI)	Can provide an effective addition to specialist outpatient services associated with high levels of patient satisfaction if well trained and supported. Unclear on whether they are cost-effective alternative to outpatient clinics. Introducing GPwSIs also has "the potential to produce 'supply-induced demand' if GPs' referral thresholds are lowered."
Discharge from outpatients to primary care	Importance of administrative support and resources for general practice so that follow-up protocols can be reliably followed. Need for adequate support from specialists when queries or problems arise.
Shifted outpatient clinics	Moving consultant clinics into the community can be justified only if (a) high value is given to patient convenience in relation to NHS costs or (b) community clinics can run at a scale to enable the efficiencies of patient throughput in a hospital clinic to be realised.
Specialist attachment to primary care teams	Arrangements have a stronger educational focus than shifted outpatient clinics. There are currently few evaluations and when they have been carried out they appeared costly.
Telemedicine and telecare	In England, it is unlikely, in general, that video consultations will be a cost-effective alternative to outpatient clinics. Very few evaluations of telemedicine present robust economic analyses.

An earlier study (Sheaff et al. 2015) examined cases of general practices which had developed new services. The authors reported that general practices in the study offered additions of new services and specialisations reflected the GPs' personal background and interests. For example, one practice had recruited a GP with a cardiology specialism, but not as a GPwSI because of the cost. The authors noted that GPs felt that presence of specialised GPs encouraged the recruitment of patients and resulted in a better service for them, but also tended to create more clinical and care coordination work in treating patients with

complex care needs, because if a specialised GP was present, the other GPs tended to use them. The authors also reported that "heavy workloads had neutralised financial incentives at the margin" and that "to care for patients with complex care needs, general practices have to supplement their own services with some combination of CHS, hospital (NHS or private), mental health, social care (local authority or third sector) and diagnostic services (NHS or private)."

Financial impact

A King's Fund report (Addicott and Ham, 2014) highlights community-based care is not necessarily cheaper than its hospital equivalent, suggesting that such a move would only be affordable if secondary care services could be significantly reconfigured to reduce capacity. This is concurred by evidence that PRUComm (Bramwell et al, 2014) provided for NHS England in a brief report, which concluded that the evidence for cost savings associated with moving care 'closer to home' is limited, although such care is generally safe and appreciated by patients.

Nolte and Pitchforth (2014) examined 19 systematic reviews on the economic impacts of integrated care. They found that evidence of reduced utilisation of hospital services, cost-effectiveness and cost/expenditure reductions was weak, very mixed and difficult to interpret. The authors noted that many of the reviews were unable to consider costs beyond the health systems (such as the impact of unemployment or loss of income because of illness).

More recently, Monitor (2015b) has produced an analysis of financial impacts on several care closer to home models (telehealth, enhanced step-up services; rapid response and early supported discharge and reablement services). Their analysis is based on modelling the cost expenditure of the different models. The findings of the analysis suggest these models are more likely to reduce the rate of expenditure growth rather than deliver savings.

The report also highlights that some interventions may offer greater flexibility due to lower fixed costs (see figure 1). To deliver savings, acute capacity will need to be reduced, which is politically challenging, and relies on substantial and consistent bed day reductions; it is noted that savings are unlikely to be possible within the short term so a long term vision is required. This vision will need to incorporate a range of system-level approaches to manage capacity and patient flow, including, for example, diagnostics and patient transport. The guide also includes information to support business case development.

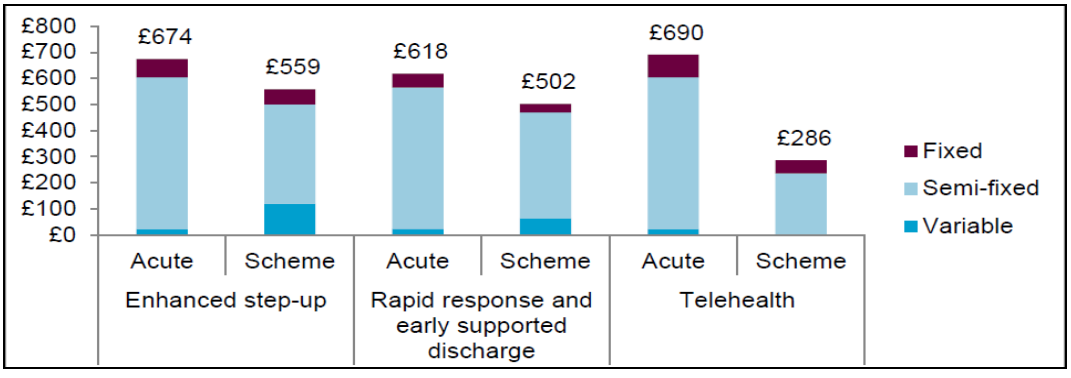


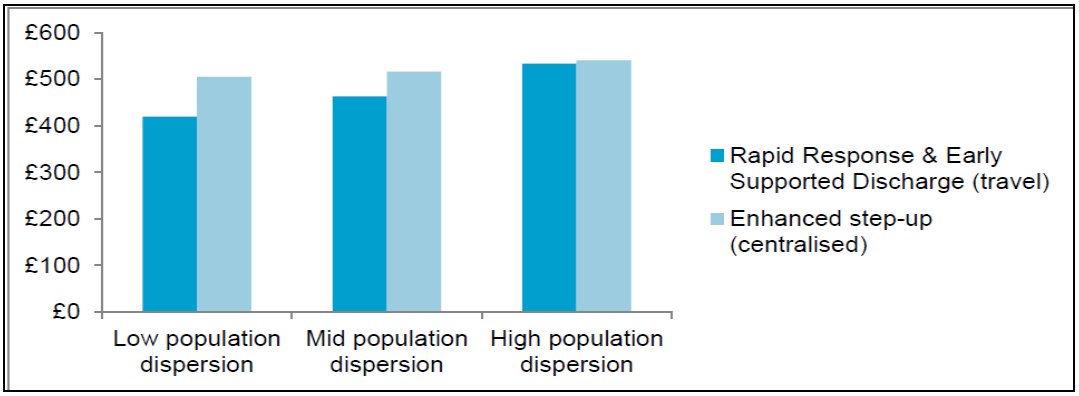
Table 1: Cost of a patient on a community-based scheme compared to an equivalent patient in acute (Monitor, 2015b)

Monitor highlighted that some schemes are cheaper because they deliver care using lower-cost resources, others because they deliver the same care to patients in fewer days. Key points noted by Monitor include:

- "Telehealth, when well designed and run at scale, can deliver triage more cheaply by using lower-cost resources.
- Rapid response and early supported discharge services both offer care more cheaply on a per day basis than inpatient care, and patients generally require fewer days on these schemes than they would in acute settings.
- Well-designed reablement schemes can reduce social care packages for patients by around 60%; a Monitor analysis shows that reablement schemes can deliver £6.4 million of cumulative net savings over five years per 100,000 people attending A&E. For the local health economy on which they modelled the financial impact of a reablement scheme, this equates to around £40 million cumulative saving over five years.
- The savings from reablement schemes accrue to social care whereas the schemes themselves may be financed by clinical commissioning groups and delivered by community or acute providers.
- It can take up to three years for schemes to reach their intended scale and achieve this impact. Schemes could take longer to have an impact if they require changes in clinical behaviour and patterns of referrals to become established or rely on familiarity with new technology."

Monitor (2015b) also modelled the cost of schemes in areas of differing population density (table 2).

Table 2: Per patient cost of schemes in areas of differing population density outside London (Monitor, 2015b).



Several authors have pointed to the need to reform the NHS tariff. NHS Clinical Commissioners (2015) point out that the tariff was introduced when reducing waiting lists was a priority and that "members feel this now works against the long-term priorities by concentrating money and resources on hospitals". The authors call for alternative payment models to be developed. This approach is supported by Bramwell et al. (2015) who point to alternatives such as the 'year of care' for particular patient groups and 'alliance contracting' in which groups of organisations are contracted to deliver specified outcomes for a given population, sharing risks and rewards. The authors do point out that as yet there is no evidence on the impact of such contracting on healthcare services.

Challenges

Monitor (2015c) identified a number of challenges common across different contexts including:

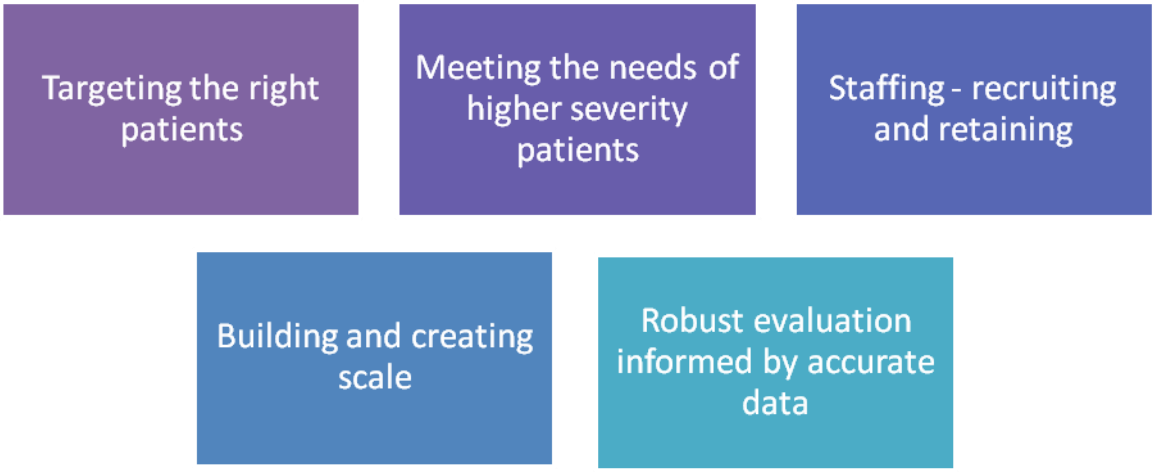


Figure 1: Implementation Challenges for Care Closer to Home (Monitor, 2015c).

Monitor (2015c) highlight that the lessons learned suggest the need for a clear focus – for example, is admission avoidance intended to support patients in crisis or preventing crises from occurring? Monitor is developing tools to support risk sharing agreements and capitation based payments; there is also work to support new payment approaches for the New Care Models Vanguards which will be shared. The 15 case studies (Monitor, 2015d) offer some insight into the design and implementation of a range of interventions, although there is limited information on outcomes: selected examples of the case studies are provided in section 2.

A recent study (Sheaff et al., 2015) found patchy coverage for 'virtual ward' or 'hospital at home' models of care, with the main obstacles to care co-ordination within the integrated organisations being: professional silos, with rivalries between occupational groups and discrepant information technology systems for different divisions (care groups) within one organisation.

Workforce

The Future Hospital Commission (RCP, 2013) promoted an increase in generalism and review of workforce. A recent review by the Centre for Workforce Intelligence (2015) on the acute medical workforce pointed to the role of geriatricians changing to increase community-based support and integrated care, which may limit their availability for the provision of secondary care facility-based acute medical care.

Evidence on the impact on workforce of the shift of care from acute to community is emerging but is underdeveloped.

Singh (2006) reviewed best practice in shifting hospital care into the community, looking at the impact of a range of interventions, including a number relating to the relocation of care. With regards to the impact on GP workload, Singh concluded:

"It is also difficult to draw conclusions about the impact of shifting secondary care on GP workload. GPs tend to perceive that their workload increases when services are shifted from secondary care, but little substantive data are available. Some studies suggest that if workload does increase when care is shifted, this is largely administrative rather than clinical work."

Many of the interventions don't seem to measure GP workload and utilisation as an outcome but Singh notes that self-management seems to be associated with fewer GP visits.

A review by the Health Foundation exploring evidence for shifting care from hospital to community settings found no high quality economic analyses that included all costs to the NHS and social care of a shift in services in the long term, and no studies that reported the resources needed to set up a large-scale community-based service (Health Foundation 2011).For specific groups evidence highlights the following:

- For self-management approaches, Zwerink et al (2014) conducted a systematic review on self-management for COPD, finding 8 studies reporting the impact on GPs. Results from the studies are mixed, with 3 reporting lower numbers of consultations for the intervention, 2 reporting higher numbers and 2 reporting comparable numbers; a further study focused on home visits, reporting a reduction in the intervention group.
- *Older people*: Nancarrow et al (2006) found intermediate care can reduce out of hours requirements for GPs and the costs of GP care for patients receiving hospital at home was more than those on the hospital ward.

A Kings Fund inquiry into the quality of general practice (Goodwin et al, 2011) highlights as more care is transferred from hospital to community, the volume of demand on general practice will increase. To accommodate these changes, a shift in roles and responsibilities between the different members of the general practice team is needed. The report suggests that general practice needs to change from solo practitioner to multi-professional teams – almost all general practices now work as health care teams but the skill-mix needs to continue to evolve.

A policy briefing from the Royal College of Nursing (2014) argues that "to effectively shift care out of hospitals and re-provide these services in the community, a whole-system approach is needed. Hospital restructuring cannot happen in isolation but must go hand-in-hand with reinvestment strategies. Otherwise, there is a possibility of creating a transition gap in service provision."

The Nuffield Trust (Imison et al. 2016) has recently published *Reshaping the Workforce* to deliver the care patients need. Commissioned by NHS Employers, the report reviews recent literature highlighting the gap between patient needs and the skills and knowledge of staff. The report includes a number of case studies of examples of reshaping the workforce. The authors argue that:

"The NHS needs to evolve from an illness-based, provider-led system towards one that is patient-led, preventative in focus and offers care closer to home. The Five Year Forward View sets out an ambition to

deliver new models of care that break 'out of the artificial boundaries between hospitals and primary care, between health and social care, between generalists and specialists' to deliver care that is coordinated around what people need and want. However, without radical change in the workforce, this ambition will fail." (Imison et al. 2016)

The authors recommend role expansion of the current workforce and suggest the following:

- "Opportunities exist for support staff, (defined as band 4 and below) who are not professionally qualified, to receive additional training to enable them to take on more caring responsibilities. An example role is Band 4, Assistant Practitioners who are higher-level support workers who complement the work of registered professionals and work across professional groups.
- In the middle pay bands (defined by the authors as Bands 5 – 7) there are opportunities for staff to extend their clinical skills – taking on tasks not traditionally within their scope of practice, or taking on tasks traditionally carried out by other professionals. The authors point to the rising number of patients with multiple co-morbidities and complex needs, who require a different type of professional who is not tied by traditional boundaries and has a broader range of skills. The authors argue that extended roles offer the "opportunity to develop staff to better meet patient need and enhance interdisciplinary working." Examples of extended roles provided by the authors include:
    - nurses are successfully taking on extended roles in chronic disease management in primary care settings;
    - pharmacists are extending their role in a wide range of settings, including primary, community, mental health improving prescribing and medication adherence;
    - physiotherapists can take on many of the musculoskeletal problems seen in primary care and safely manage cases in A&E departments."
- At the higher pay bands (Band 8a or above), the authors suggest that there is scope to enable non-medical staff to take on roles traditionally undertaken by doctors.
- The authors also examined the newly introduced role of physician associate.
- In developing and re-shaping the workforce, the authors argue that local leaders need to be:
    - realistic about the time and capacity needed to support change
    - create a receptive culture for change
    - support transformation with a strong communications and change management strategy
    - build roles on a detailed understanding of the work, staff skills and patient needs
    - invest in the team, not just the role
    - ensure robust triage mechanisms
    - develop and invest in a training capability
    - build sustainability for new and extended roles
    - evaluate change
    - adopt a systematic approach to workforce development and change.

Section 2: Case studies

The Northumberland model

Northumberland (NHS Northumberland, 2015) has seen the development of several approaches with an investment of £200 million to deliver care to patients. Approaches include:

Northumbria Specialist Emergency Care Hospital – launched in June 2015. The hospital has emergency care consultants on site 24 hours a day, seven days a week; A&E department; hi-tech diagnostics; critical care; short-stay paediatric unit and consultant and midwifery-led maternity unit.

There are also **24/7 urgent care centres**, with general hospitals (Wansbeck and Hexham) providing services for people who are coming into hospital for planned care. This includes a full range of diagnostic testing, inpatient wards and outpatient clinics covering a vast array of specialties

Community hospitals in Alnwick, Berwick, Blyth, Haltwhistle, Morpeth and Rothbury provide ongoing inpatient care to those requiring a longer stay in hospital to recover from illness or injury – this is often frail, elderly people. They also provide a range of diagnostic tests, outpatient clinics covering a vast array of specialties.

Integrated care 'hubs' are being developed to deliver urgent primary care (booked GP appointments and walk-in services) over extended hours seven days a week.

There are also locality-based integrated complex care teams to proactively manage those patients with the most complex needs in the community and provide a rapid response when a patient's condition deteriorates. These teams will deliver planned care with locality-based, integrated teams of community nursing, mental health and home care staff, working together with medical leadership from GPs and / or consultants. Also provided is timely specialist advice for both planned and urgent care, via local clinics and home visits, as well as cost-effective diagnostics close to home

Clinicians are employees of the trust, rather than of specific hospitals. This has enabled the Trust to create job plans involving roles in multiple sites and instilling the expectation that clinical staff may be needed to travel and spread their time across several locations if patient needs are to be best served (Naylor et al. 2015).Northumbria's hospitals will continue to operate as part of larger regional clinical networks.

NHS Northumberland also plans to deliver an integrated patient record which is shared across all organisations to enhance communication.

This work builds on the relationships developed between primary and acute care. Northumbria Healthcare NHS Foundation Trust has a long history of partnership working with primary care. There is a strong presence of GPs in senior leadership roles at the trust, as well as longstanding collaboration over clinical decision-making (Naylor et al. 2015).

Since 2006 the trust has worked with a local primary care provider, Ponteland Medical Group, to deliver specialist clinics in the Ponteland Primary Care Centre — including orthopaedics, gynaecology,

gastroenterology, podiatry and basic day-case surgery. The trust has also established a number of joint posts with general practices to share expertise and offer new career options, including jointly held positions for GPs who split their time between general practice and one of the trust's hospitals (Naylor et al. 2015).

Naylor et al. (2015) reported eight metrics used internally by Northumbria to measure the impact of integration:

- total bed days;
- non-elective admissions in the last 100 days of life;
- hospital admissions for ambulatory care-sensitive admissions;
- patient health status (assessed using the EQ-5D tool);
- experience of co-ordinated care (patient- and carer-reported);
- ability to self-manage care.

Progress against these metrics is monitored in each area through a bi-monthly integration board meeting involving commissioners, NHS providers and social care.

In June, consultant cardiologist Dr Doig (Waites, 2016a) reported to the Health Services Journal a:

- 14 per cent fall in emergency admissions in its first 10 months.
- Early signs show NSTEMI (non-ST segment elevation myocardial infarction) mortality rates improving significantly since the centre opened, moving the trust from average to an outlier,
- Trust leaders report 7,500 fewer admissions in the 10 months to the end of April compared with the same period 12 months earlier, saving an estimated £6m.

Dr Doig stated that an important factor is early access to diagnostics, particularly radiology.

The HSJ (Waites, 2016b) also reported the following issues:

- 2,300 patients waiting more than 30 minutes since the hospital opened.
- Figures show 40 per cent of all 30 minute handover breaches in the North East occurred at the hospital in March, with 597 delays compared to 15 at Newcastle's Royal Victoria Infirmary.
- Inappropriate use of ambulances by GPs and community hospitals has been blamed, as well as a surge in demand – the trust saw 43,000 emergency attendances from January to March, up 9,000 on the same quarter of 2015.
- Ambulance handover delays doubled over the same period, with 1,838 taking 30-60 minutes, and 469 taking more than an hour.
- Up to two in five attendances at the new hospital have been walk-ins, with around a third for the lowest two healthcare resource groups.

Protocols used by NHS 111 have been changed after it was discovered patients were being directed there rather than the urgent care centres at Wansbeck, North Tyneside and Hexham.

Selected Vanguard sites

Sunderland

This part of the programme is being supported by the Sunderland GP Alliance.

All Together Better is made up of three distinct parts:

- Enhanced Primary Care
- Community Integrated Teams (CITs)
- Recovery at home

Enhanced Primary Care is targeted towards people who have one or more long term health condition, and who depend on support, but who are not counted among the frailest in the city. Sunderland GP Alliance estimate that this group of patients account for 12 per cent of Sunderland's population but account for 36 per cent of healthcare resources

GPs are also exploring: how they can use the latest technology to deliver care within patients' homes; delivery of more services in the community to make it easy for people to access support; how they can support patients to manage their own condition more effectively and understand what they can do to prevent their health deteriorating; and the use of IT to allow patients to access care in new and innovative ways.

Five multi-disciplinary Community Integrated Teams (CITs) have been implemented with the aim of providing effective, high quality and coordinated response to the most vulnerable people with the most complex needs. These teams aim to keep the most vulnerable out of hospital. The teams are made up of district nurses, community matrons; general practitioners, practice nurses, social care professionals, living well link workers and carers support workers. The CITs create holistic individualised care plans which are supported by the patients GP.

Recovery at Home - – aims to support adults, who are registered with a Sunderland GP and need short term health and or social care support, that can help to keep them living at home, with care wrapped around them while they're at their most vulnerable. Support is tailored to a person's needs and can be any combination of a short term care package, from nursing to therapy to get them back on their feet without having to be hospitalised or needing long term care. GP support is also available within the service. The service operates 24 hours a day, seven days a week, ready to respond quickly to provide support during times of illness or if someone experiences an unexpected change in their condition that could develop into a crisis.

Erewash

This programme focuses on improving and reshaping out-of-hospital services to ensure patients receive the right care in the right place at the right time. There are several schemes which include:

- Reviewing and developing the role of the Care Co-ordinators to support the frail elderly and people with long term conditions.
- Establishing the GP and nurse clinics in the community by providing Primary Care Hubs across Ilkeston and Long Eaton increasing access to primary care across 7 days and later in the evening.

- Continuing roll out of Atrial Fibrillation (AF) Screening Programme to reduce future strokes.
- Developing care home support service to further support this particular group of patients.
- Reviewing the integrated care model and identifying service gaps, including the potential provision of additional community services
- Identify and plan for patients at risk of hospital admission.
- Improving communication, information and support to patients, particularly on and after discharge from hospital; including embedding the Welcome Home Service.
- Ensuring that patients with learning disabilities have equitable access to health checks and preventative screening e.g. cancer.

Encompass

Encompass aims to develop a new model of care that that delivers "high quality, outcome focused, person centred, coordinated care that is easy to access and that promotes wellness and enables people to live independently for as long as possible". The model includes:

Community Networks

Encompass has established five Community Networks across the CCG area. Network members include Patient Participation Groups, organisations that provide health and social care services, voluntary and community organisations, GPs and the CCG. The community networks aim to:

- "Simplify services and removing unnecessary complexity;
- Wrap services around patients, including mental health, social care, specialist nursing and community resources;
- Use these services to build care programmes for patients with complex needs;
- Reduce the need for patients to be admitted to hospital;
- Reach out into the wider community to improve prevention, provide support for isolated people, and create healthy communities;
- Members are drawn from GP practices, frontline staff from key services such as community nurses, social care workers, mental health services, patients, voluntary organisations and charities such as Age UK."

Treating patients closer to home:

A new paramedic practitioner service to help patients stay out of hospital by treating them at home is also being developed. The programme comprises teams of paramedics and paramedic practitioners undertaking some of the GP home visits on behalf of surgeries while also being responsible for most of the 999 emergency calls in the area. GPs will determine which patients are suitable for a paramedic visit.

Monitor case studies (Monitor, 2015d)

Discharge to Assess: South Warwickshire NHS Foundation Trust

This service enables patients to be discharged earlier from acute inpatient wards by co-ordinating care in alternative settings. Care and rehabilitation support is available for up to six weeks. Key features of the

service are: an assessment for care and therapy needs at home with discharge care co-ordinators facilitating patient journey.

The service has not led to an increase in readmissions despite earlier discharge home. The trust's service statistics show that the proportion needing CHC funding after a D2A programme is half that of the group who do not use D2A.

"Challenges encountered by the service include waiting times for community nursing home beds which can be two to three days. This results in:

- excess hospital stays for some patients who cannot be discharged to a community bed on the day they are clinically able to be so
- some patients still having decisions about their long-term care needs made in hospital.

The service has a 27% refusal rate by patients. The trust believes this may be due to the geographical location of the Pathway 3 nursing homes; suggesting that the families of some patients with dementia may not want them to move."

Emergency Multidisciplinary Unit (EMU): Oxford Health NHS Foundation Trust

Abingdon Community Hospital provides an urgent assessment and treatment step-up service to reduce A&E attendances and admissions to acute hospitals. Key features of the service include:

- 7-day admission avoidance service with step-down care from acute settings;
- multidisciplinary team including senior geriatricians and social worker;
- access to rapid diagnostics;
- rapid treatment planning;
- effective triage and can escalate patients to co-located short-stay beds if necessary;
- joint acute and community provider staffing model.

The majority of patients are treated during the day and return home overnight. The unit has access to six short-stay inpatient beds on the community hospital's rehabilitation pathway, which patients can occupy for 72 hours. The Unit comprises clinicians from the local acute trust, occupational therapists and other staff from the community provides medical care. The EMU can jointly employ staff with its acute partners, allowing it a more flexible staffing model. The EMU also works with a hospital-at-home nursing service also run by Oxford Health.

Care Navigation/Telehealth Care Services: South West Yorkshire Partnership NHS Foundation Trust

This service enables a person's condition to be monitored and observed from their home. The service operates Monday to Friday 9am to 5pm, Saturday and Sunday 8:30am to 4:30pm. Integrated with the community matron service, the heart failure specialist nursing service and the community chronic obstructive pulmonary disease (COPD) specialist nursing service, the service is focused on patients who require monitoring, i.e. vital signs, assistance with medication titration, symptom management. Patients are selected using a risk stratification tool, or following referral from their GP or specialist nursing service

Impact
The service is measured against key performance indicators, including reductions in:

- hospital admissions;
- GP appointments;
- visits from community nursing services;

Around 45% of patients using the service said they were visiting their GP less. About 45% fewer GP attendances among those accessing care navigation, health coaching interventions. About 20% fewer GP attendances among those accessing telehealth technologies.

British Heart Foundation

East Cheshire NHS Trust

(British Heart Foundation 2015)

This project aimed to support patients to remain in the community for as long as is clinically possible. It is based at Macclesfield District General Hospital (DGH) where a generic cardiology nurse-led service has been developed in order to allow admitted patients to be proactively identified, seen more quickly, and where appropriate discharged from hospital sooner.

The service aims to help prevent admissions and to discharge patients from hospital sooner. The service has also worked with neighbourhood teams, in their role as part of a 'shared community'. GPs identify patients at high risk of hospital admissions, and invite relevant specialists to review co-morbidities in bi-monthly meetings.

The project has reported savings in excess of £1 million for the last year, based on a saving of 2391 bed days, and a bed day cost of £500. Initial funding from the British Heart Foundation was £154,847 was to support two WTE Band 7 nurses for two years. Three part-time nurses held these posts. The British Heart Foundation has estimated that the cost benefit ratio is £1:£8.8; for every £1 spent the health service saves £8.80.

North Somerset CCG

(British Heart Foundation 2015)

The aim of the project was to "increase and improve the management of chronic HF in the community, thereby reducing emergency admissions to acute care, reducing length of stay for unavoidable admissions, and improving patient ability to self-care".

The service has sought to improve care by optimising medication; increasing patient understanding of their condition; and supporting self-management.

The CCG paid for consultant time (£13,200) and for clinic time (GP room hire charges) at £3.50 per hour and paid £1,400 for 3 ECG machines. Charitable donations from a drug company paid for other equipment. The project was originally awarded £175,867 by the British Heart Foundation for 2.5 WTE Band 6 nurses for two years.

International

The Norrtaelje model (Sweden) (Bäck, and Calltorp, 2015)

The Norrtaelje model is aimed to keep older people in their own homes for as long as possible and is focused on a group of adults with complex needs. 31% of the inhabitants live in the main city and the region includes 63 small villages, numerous lakes and an archipelago with 10,000 islands of which seven are populated.

The model is characterized by: funding responsibilities for a single population; an increased focus on health promotion for the population, and a common and integrated health and social care organisation to achieve greater patient and user benefit.

For patients at home/in nursing homes, a process was created for the integrated provision of health, social care and rehabilitation (IVOP). This process considered home service/residential care and their connections with district nurses, physicians and paramedical staff at home care, primary care, rehabilitation as well as at the hospital.

A key feature of the model is that of care coordinator; this role supports the older adult with complex needs to navigate between homecare, rehabilitation and hospital/primary care. He/she is most often a home care worker.

For older people who are hospitalised, care planning is undertaken by the physician in charge and the responsible case manager. A care plan is made for the future care outside the hospital. The case manager at the hospital liaises with a care manager and other involved professionals, in order to make a plan care that will help ensure a good transition from the hospital to appropriate living and care at home/in a residential home. Representatives from the emergency department and the wards created and implemented routines and checklists to improve the processes. The level of costs was consistently about 50% less than the Swedish average.

PRISMA: Program of Research to Integrate the Services for the Maintenance of Autonomy (Canada) (MacAdam 2015)

This service is aimed at those aged 65 years and over with significant functional disabilities (defined by the service as score of over 15 or an Iso-SMAF profile of 4 or higher). Key features of the service include:

- A multidisciplinary team, composed of representatives of the participating agencies, meets to solve clinical problems
- A case Manager performs the basic assessment, to develop the care plan based on client needs and family input, coordinate care with the primary care physicians, refer to other professionals as required, .

Most case managers are social workers or nurses although other disciplines such as physiotherapists or occupational therapists can take on the case management role. Case managers can provide direct services, such as nursing, but on a very limited basis. The caseload goal is 40–45 clients per worker

although the authors report that caseload is currently about 50 clients in some areas and there can be wait lists for case management

Costs: Figures for the cost implementation for the project are available for 2002 figures. Implementation costs were approximately £15 aged 65 or older in urban areas and from £20 to £26 per senior in rural areas

Te Whiringa Ora: person-centred and integrated care in the Eastern Bay of Plenty (New Zealand) (Carswell 2015)

This is a community-based programme in New Zealand that facilitates interdisciplinary care for patients and their family. It targets those with a chronic disease who have high inpatient admissions or emergency department presentations. It is based in a rural part of New Zealand that has a large indigenous population, and a relatively high level of social deprivation. Features of the service include:

- An assessment of need.
- A series of home visits.
- Telephone monitoring where deemed necessary.
- Self-management support.
- Referrals to other social, community and health services.
- A shared care plan.
- Telehealth monitoring.

In a more recent evaluation of the Te Whiringa Ora scheme, an economic analysis by Synergia Ltd. (funded by Healthcare of New Zealand), estimated that the project's 'net' savings over five years for a community of 50,000 people was NZ$6.8 million (£3.3 million sterling) with a potential to 'break-even' within 12 months

Regarding physician impact, qualitative interviews from the health professionals indicate that the programme is generally seen as positive and find the programme helpful as it provides a service for their clients that they cannot within the tightly control framework of the standard 10 min consultation process.

BUURTZORG Model (Netherlands) (Kings Fund, 2013)

Established in 2006, the BUURTZORG Model works with GPs to deliver community care. In 2013 the service has 6500 nurses working in 630 independent teams with 35 staff in administrative posts and 15 coaches, covering 60,000 patients per year. Each independent team has a maximum of 12 nurses, each with 40 to 50 clients, who organize and are responsible for the complete patient care process, including care planning and assessment; staff are considered generalists.

Service users are typically:

- are elderly
- have multiple pathologies
- have symptoms of dementia
- have been discharged from hospital recently
- be chronically or terminally ill.

Cost effectiveness for the organization are listed below:

- Overhead costs: 8% (average 25%)
- Profit rate: 8% (Buurtzorg is NON profit)
- Sickness rate: 3% (average 7%)

In 2010, Ernst & Young found the average costs were overall 40% less than other home care organizations.

Summary of key points - case studies

Service provision	Examples
Increasing patient understanding of their condition; and supporting self-management	North Somerset CCG Care Navigation/Telehealth Care Services: South West Yorkshire Partnership NHS Foundation Trust Sunderland The Norrtaelje model (Sweden) BUURTZORG Model (Netherlands)
Multi-disciplinary Community Integrated Teams/extending roles/case management	Te Whiringa Ora: person-centred and integrated care in the Eastern Bay of Plenty (New Zealand) PRISMA: Program of Research to Integrate the Services for the Maintenance of Autonomy (Canada) The Norrtaelje model (Sweden)
Tele-health	Te Whiringa Ora: person-centred and integrated care in the Eastern Bay of Plenty (New Zealand South West Yorkshire Partnership NHS Foundation Trust
Impacts	
Financial impact	BUURTZORG Model (Netherlands) - Overhead costs: 8% (average 25%) Te Whiringa Ora: person-centred and integrated care in the Eastern Bay of Plenty (New Zealand) estimated that the project's 'net' savings over five years for a community of 50,000 people was NZ$6.8 million with a potential to 'break-even' within 12 months. PRISMA: Program of Research to Integrate the Services for the Maintenance of Autonomy (Canada) -$27 per person aged 65 or older in urban areas and from $37 to $47 per senior in rural areas (2002 dollars). Operational costs per case ranged from $1811 in urban areas to from $1570 to $2246 in rural areas at an average caseload management of 35 cases per worker. East Cheshire NHS Trust - estimate of: £1 spent the health service saves £8.80.
Patient/system outcomes	South West Yorkshire Partnership NHS Foundation - 45% fewer GP attendances among those accessing care navigation, health coaching interventions - 20% fewer GP attendances among those accessing telehealth technologies.

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