EVIDENCE BASE FOR STOCKPORT TOGETHER INTEGRATED SERVICE SOLUTION

Healthy Communities

1. We have looked at the innovative work in this field in a number of areas including Wigan, Salford, Leeds, Rotherham, and Newquay as well as drawing on national reports and strategy documents. In particular we have drawn on the 2016 **NICE guidance** Community engagement: improving health and wellbeing and reducing health inequalities, which notes the significant increase in recent years in published evidence on community engagement, providing good evidence that community engagement improves not only improves health and behaviours, but "…also improve people's social support, wellbeing, knowledge and self-belief."

2. Public Health England advocates a family of approaches based on "…mobilising assets within communities, promoting equity and increasing people's control over their health and lives.", and including:
   - Strengthening communities
   - Volunteer and peer roles
   - Collaborations and partnerships
   - Access to community resources

3. The Team Around the Place proposals draws on a strong evidence based approach known as **Local Area Coordination (LAC).** LAC is a radical approach for the transformation of public and community based services, a prevention strategy building community capacity, a model of support for vulnerable people which focuses on identifying and supporting those who need help before they hit crisis and working towards building an inclusive resilient community around them. The recent report "People, Places and Possibilities" describes the model in more detail: http://www.centreforewelfarereform.org/library/type/pdfs/people-places-possibilities.html

4. In Stockport members of the Team around the Place will form relationships, develop opportunities and help people meet their own needs before they fall into crisis or need public services. This approach has been shown to impact significantly on GP surgeries, with reduced attendances from the significant cohort in every surgery of "patients who need people not pills". (From 'Reducing the Pressure in General Practice: A new model of care' Altogether Better: www.altogetherbetter.org.uk)

5. Nesta and and The Health Foundation's 2016 report, *At the heart of health: Realising the value of people and communities*[1] supports the NHS Five Year Forward View vision for a new relationship with people and communities and based on its review of the evidence identifies three dimensions of value
   - Mental and Physical health and wellbeing
   - NHS sustainability
   - Wider social outcomes

6. The report identifies good cost effectiveness evidence for the positive impact of self-management on reducing health service utilisation, including emergency department visits, and peer support has been shown to improve patients' capacity for self-care as well as quality of life. Based on the evidence review, five areas are identified as showing significant potential to improve quality of life for people with long-term conditions and deliver benefits across the three dimensions of value:
   - Peer support
   - Self-management education
   - Health coaching
   - Group activities to support health and wellbeing
   - Asset-based approaches in a health and wellbeing context

7. In Wigan a successful pilot project employing two Community Link Workers in primary care covering 11 practices has led to a borough-wide implementation. The pilot covered two practice clusters with a combined population of approx. 45,000. In the first four months in post they supported 122 patients, built effective relationships with a range of voluntary and community sector organisations and assisted patients to access a range of support and activities, including debt services, food banks, carers support, dementia support, foreign language classes and tai chi.

8. Robin Lane General Practice in Leeds, is one of 60 GP Practices in 16 CCG areas where the Altogether Better approach to generating social action through health and community champions has been delivered and evaluated. By recruiting more than 50 Practice Health Champions, the Practice has been able to increase its patient list by 57% from 8,500 to 13,000 patients without any increase in Primary or Secondary Referrals and a 10% reduction in use of A&E. There is evidence of increased efficiency by dealing with failure demand, and the practice have reconfigured their staff team and redesigned their offer to respond to the new challenges, choosing not to appoint to a vacant salaried GP post but instead choosing to invest in a Community Matron and a Wellbeing Coordinator.

9. Evaluation of work in 30 General Practices, drawing on evidence from the UK Government's Foresight Project and the New Economics Foundation, shows that 216 'types' of Practice Health Champion-led activities brought about improvements in patients' wellbeing, resilience and ability to adapt, cope and live well with long term conditions as well as a gaining a better understanding of how to use services. The

[1] Nesta, 2016. http://www.nesta.org.uk/publications/heart-health-realising-value-people-and-communities

evidence tells us that when it works for patients we see significant improvements in mental health and wellbeing and overwhelming support from practice staff to sustain the work:

- 94% of patients surveyed had improved mental health and wellbeing
- 95% of staff surveyed recommend and want to continue after the funded period has ended[2]

10. Evaluation of the Rotherham Social Prescribing Pilot found that patients accessing the Pilot were already high users of hospital care and assessed as at high risk of accessing unplanned hospital care in the future: in the 12 months prior to referral Social Prescribing patients cost commissioners an average of £3,018 per client in inpatient stays, Accident and Emergency attendances and outpatient appointments alone. These patients' use of hospital resources, measured through the number of inpatient stays, Accident and Emergency attendances and outpatients appointments, reduced by up to fifth in the 12 month period following their referral to Social Prescribing[3].

11. Within the Salford Together PACS vanguard an innovative assets-based approach is being implemented as part of a strategy for Integrated Care. This includes recruitment and support of volunteers who deliver a range of activity in various settings, including: digital skills training for older people; well-being plans, (based on the five ways to wellbeing and focusing on what is important to the individual), healthy eating promotion and falls prevention. They have demonstrated significant increases in the confidence in managing health conditions and daily activities, improved psychological wellbeing and increased physical activity among older people participating in the falls prevention classes. The Being Well Salford health coaching service works with people for upto 12 months demonstrating effectiveness including:
    - 48% of smokers quit
    - 70% of people showed increased self-efficacy
    - 21% reduced weight by 5% or more[4]

12. The Newquay Pathfinder Project has been a good source of guidance and evidence, see http://knowledgebucket.org/wp-content/uploads/2014/12/Newquay-Pathfinder.pdf The findings are persuasive, for example• 23% improvement in peoples self-reported wellbeing
    - 87% of practitioners say integration is working very well and their work is meaningful
    - 30% reduction in non-elective admission cost
    - 40% drop in acute admissions for long term conditions
    - 5% cost reduction and reduction in demand for adult social care

13. This business case draws upon the guidance offered through the New Care Models National Support Team for Empowering Patients and Communities. The national

[2] Altogether Better, *Reducing the pressure in General Practice: A new model of care.*
[3] Sheffield Hallam University, 2014. *The Social and Economic Impact of the Rotherham Social Prescribing Pilot: Main Evaluation Report*
[4] Figures from *At the heart of health: Realising the Value (previously cited)*

evidence for further developing the field of person and community-centred approaches for health and well-being is articulated in Realising the Value and other documents available from Nesta . The five approaches are founded on evidence gathered relating to their effectiveness and include Peer Support, Health Coaching, Group Based Activities and Asset Based Approaches all of which are accommodated in this business case.

14. Stockport was one of six selected sites for testing out People Powered Health in 2012-14 and our work contributed to a national business case[5]. The contribution made was the work undertaken in Brinnington GP Practice through Community Navigation and Peer Support provided by Stockport FLAG and Stockport Mind which led to a reduction in GP presentations of over 20%. Not surprisingly, investing in Community Navigation is central to the Core Neighbourhood and Healthy Community Business Cases and is where the proposals overlap.

Core Neighbourhoods

Summary

A review of the evidence demonstrates that **interventions to reduce non-elective hospital admissions** have differing returns according to both the type of intervention and condition targeted. Congestive heart failure and palliative care interventions have achieved the greatest reduction in emergency admissions, at 30-60% and 40-50% reductions respectively. **Integrated care for older people with long-term medical conditions** has achieved significant improvements in two examples, reducing acute admissions by 40%, non-elective admissions by 30% as well as reduced demand for adult social care. **Integrated community COPD teams** have also reduced admissions while increasing supported discharge case loads by 25%.

Other methods to reduce non-elective admissions for specific conditions **include mental health support in A&E** which successfully reduced readmission rates for people with dementia, and **tele-health monitoring** of diabetes, heart failure and COPD.

Evidence is more mixed around **telehealth** – it has been shown to reduce non-elective admissions and attendance in A&E but the technology is unlikely to be cost effective, with little effect on patient wellbeing, due to the high costs of set up and usage. Similarly, evidence on **virtual wards / hospital at home** models is also mixed in terms of cost effectiveness and impact on patients, but may improve outcomes for specific patients.

Several interventions have been shown to be effective in reducing **length of stay**, such as early supported discharge, improved diagnosis and treatment of patients with delirium and dementia, and assertive community outreach (ACT) for patients with long-term mental illness.

[5] Nesta 2013. *The Business Case for People Powered Health*. www.nesta.org.uk/publications/business-case-people-powered-health

Some interventions also **reduce GP contacts** for specific cohorts of the population. For example, proactive **case management of care home residents** in Telford and Wrekin was shown to reduce GP contacts by 32% alongside a significant reduction in A & E attendances and hospital admissions. However, there is little evidence on specific initiatives with the primary objective of reducing GP appointments for defined population groups. There is guidance on reducing demand for appointments, with **self-care for long-term conditions** reportedly reducing visits by up to 69%.

Evidence for individual interventions

Social prescribing

Social prescribing is a useful way of signposting patients to onward services and complements the medical support that people receive, to help them feel more confident to manage their condition(s) and make positive lifestyle choices. 'Ways to Wellness' is a Newcastle primary care social prescribing initiative providing those with long-term conditions with a Link Worker to support them one-two-one. The net savings to Newcastle West CCG are estimated to be between £2m-£7m. (1)

Self-management

The Expert Patient Programme (EPP) is a self-management intervention empowering patients through education and support, improving health related quality of life and reducing their reliance on secondary care. The programme is a patient-led system of group support for sufferers of a range of chronic diseases. It typically consists of 6 weekly 2.5 hour meetings of approximately 10 patients who educate and support each other on topics such as dealing with pain, symptoms and healthy lifestyle choices. A study on the cost-effectiveness of the EPP of c.700 chronic disease sufferers in 2008 showed there was a 49% reduction in average number of inpatient days, a 6% reduction in outpatient appointments and a 73% reduction in occupational therapy home visits for EPP patients (1). After EPP provision costs, this produced a £27 per patient saving. Non-financial benefits include improved patient outcomes such as community integration, sense of wellbeing and empowerment.

Prevention training

Good verbal and behavioural communication between patient and nurse is fundamental to behaviour change attempts and outcomes. Researchers have identified verbal and non-verbal activities that are associated with patients changing behaviour such as empathy, listening, positive reinforcement and many more (2). They conclude that the most effective way of changing behaviour is training staff to collaborate with the patient.

PH care assistants, health trainers and champions make up an important part of the wider public health workforce in England. They support individuals to make positive changes to improve their lives and typically work in primary care or community settings. Evidence has shown that they are able to address health inequalities by involving people from disadvantaged groups or those at risk of poor health.

Making every contact count (MECC) (3)

Making every contact count (MECC) is the term used to describe the mechanism of brief advice and behaviour change intervention. It means that everyone who has contact with the public is enabled to have an impact on public health outcomes by having health chats with people. For example, Health Education North West have provided a freely available 40 minute online training package which includes information on lifestyle risk factors such as healthy weight and safe drinking levels. Evaluation of this training package has been limited but there is evidence to show there was wide take-up of the training and Wirral CVS, community pharmacies and Manchester Metropolitan University used it as part of their training for health staff. The University of Southampton evaluated 'health conversation skills' training and found that staff were more confident in their skills one year on, particularly in creating opportunities, asking open discovery questions and listening.

Prevention programmes

Exercise or rehabilitation programmes are an effective way of preventing unnecessary admissions. Falls prevention programmes are a popular prevention method nationally and can reduce the prevalence of falls amongst old people by 32-37% and can reduce emergency admissions by 20-40%. Other preventative methods include home adaption and improving vision which can also prevent falls by 31% and 34% respectively (4).

Early screening and early diagnosis

Early and opportunistic screening and early diagnosis to prevent or delay the onset of disease has positive public health and economic impacts. One stoke would be prevented for every 37 people screened, with savings of around £134.5m a year through earlier detection and treatment (1). Detecting dementia earlier would reduce care home admissions and a 10% reduction in home admissions nationally would save £120 million in public expenditure on social care. Early screening for colorectal, breast and cervical cancers can reduce emergency admissions by 40-50% (1).

Ambulatory screening is predicted to be cost-effective compared to other screening techniques for all patients aged over 40. The Any Town model (1) estimated that per patient lifetime savings ranged from £56 for men aged 75 to £323 for women aged over 40. Costs for monitoring for early signs of disease are distinct from the budget for medications, meaning that savings in the drug budget do not necessarily translate into resources for early detection. Tackling this requires greater 'joining up' across the system.

Find and Treat teams are specialist outreach teams that work to find and treat those with conditions before they deteriorate and become expensive for the health economy. University College London Hospitals Find and Treat team work alongside more than 200 NHS and NGO front line services to tackle TB among homeless people, drug or alcohol users or those who have been in prison. They use active case finding to detect and then screen patients. NICE have evaluated their service and demonstrated it to be highly cost effective and potentially cost saving (5).

Integrated team working

The Knowsley Partnership for Older People's Projects (POPP) is a local, whole systems approach centred on providing low level support to prevent elderly people falling into the

formal health and social care system (6). Age Concern developed a peer-based mentoring and befriending service, with a flexible support worker service to co-ordinate social care packages. In 6 months, 200 service users were visited or benefitted from the various elements of the projects. The increased provision of low level care and support in the community improved the health, wellbeing and independence of older people, preventing the need for higher intensity care and reducing avoidable emergency admissions.

Reduction in non-elective admissions

Summary of the evidence: interventions which have been shown to reduce non-elective hospital admissions (7):

Interventions in primary, secondary and acute settings that focus on a specific area have differing returns in relation to reducing emergency admissions and the potential level of reductions (4):

- Congestive heart failure: 30-60% reduction
- Palliative care 40-50%
- Mental health 11-35%
- Arthritis 10-30%
- Epilepsy 10-30%
- Medicines management across all other NEL spells (excluding general maternity) 7-8 %

The above is supported by a range of evidence which highlights that interventions that have the strongest evidence of improving quality and saving money include (8):

- Specific disease management programmes targeted at those with severe or moderate asthma, diabetes or heart failure (team based interventions are better value for money than nurse-based interventions)
- Some discharge planning programmes with support, for older people with heart failure as well team based post hospital interventions if started soon after discharge
- Transitional care model for older people with complex needs leaving hospital
- Team co-ordination for stroke patients
- Education, self-management, exercise and rehabilitation, telemedicine - mainly in respiratory and cardiovascular patients
- End of life care - example of a Macmillan service that has significant impact on hospital costs

Interventions supported by less strong evidence but that may still be of benefit include:

- Disease management for general population for heart failure, asthma and diabetes,
- Targeted mental health services
- Some handover systems (if carefully co-developed)
- Some medicine reconciliation programmes
- Some clinical pathway approaches

Ambulatory care sensitive admissions (9)

Ambulatory care sensitive (ACS) admissions are potentially avoidable but make up one in every five emergency admissions. ACS admissions have increased by 48% over the 12 years from 2001-2013, more than the increase in other emergency admissions (34%). Less than half on this increase can be explained by population growth and ageing. 5 conditions account for half of all ACS admissions, of which 3 disproportionately affect older people (UTI/pyelonephritis, COPD and pneumonia).

Examples from elsewhere: (4), (10), (11)

- *Pathfinder-Integrated service for older people (Newquay)* - Joined-up care for older people with long-term medical conditions, such as dementia and breathing problems, to provide tailored support to people as early as possible. People who have been supported have seen significant improvements to their health and wellbeing; fewer emergency hospital admissions and are less dependent on social care support. Outcomes include a 23% improvement in people's self-reported wellbeing; 87% of practitioners say integration is working very well and their work is meaningful; savings of £4.40 for every £1 invested; 30% reduction in non-elective admissions; 40% reduction in acute admissions for long term conditions; 5% cost reduction and an overall reduction in demand for adult social care.

- *Proactive case management of care home residents to reduce emergency admissions (Telford and Wrekin):* Figures for ambulance requests and accident and emergency admissions were examined and showed these were significantly higher (nearly 50%) from Bennett House than other care homes with a similar care profile during the same period. A case manager was appointed who was an Independent Prescriber and able to do comprehensive physical assessments of residents needing intervention due to illness or care worker concern. Outcomes included a 32% reduction in GP contacts; the number of ambulance attendances prior to the pilot project averaged 11.6 per month, which were reduced to an average of 5.3 per month, during the project; during 2010-11 there was a significant reduction in A & E attendances and hospital admissions, with a total cost saving of £67,332; the ongoing annual costs for a case manager are anticipated to be as little as £113.

- *Tele-health monitoring of long-term conditions* has been shown to reduce elective admissions. The Whole System Demonstrator (WSD) programme assessed 3,030 people with one of three conditions (diabetes, heart failure and COPD). This was the largest randomised control trial of telehealth and telecare in the world, involving 6191 patients and 238 GP practices across three sites, Newham, Kent and Cornwall. Tele-health monitoring was found to reduce mortality rates by 45%, emergency admissions by 20%, A&E visits by 15%, elective emissions by 14%, bed days by 14% and tariff costs by 8%.

- *Assertive Community Outreach/Treatment (ACT):* (4) Offers longer term ongoing treatment and support to people vulnerable to frequent or long term psychiatric admissions. The service model aims to reduce admissions to of severely mentally ill patients and as the intervention is delivered in the patient's home, it therefore decreases DNA rates for outpatient appointments. Studies showed that those

receiving ACT are: more likely to remain in contact with services than people receiving standard community care; less likely to be admitted to hospital than those receiving standard community care and spend less time in hospital; significantly less likely to be admitted to hospital than those receiving hospital-based rehabilitation and spent less time in hospital; and significantly more likely to be living independently.

Interventions where there is mixed or little evidence of impact on reducing admissions

The evidence can show little or no effect on reducing hospital admissions of the following interventions (though they may have other benefits for e.g. patient care, reducing length of stay etc.) (7):

Interventions with evidence of little or no beneficial effect

- Pharmacist home-based medication review
- Intermediate care
- Community-based case management (generic conditions)
- Early discharge to hospital at home on readmissions
- Nurse-led interventions pre- and post-discharge for patients with chronic obstructive pulmonary disease (COPD)

Telehealth (12)

Evidence on telehealth in general is mixed. The evaluation of the whole systems demonstrator trial on the use of telehealth and telecare showed reductions in activity such as non-elective admissions. However, the costs associated with setting up and usage, usually not supported by disinvestment in other areas, can lead to double running costs. The evidence highlights the technologies used were very unlikely to be cost effective, with little effect on patient wellbeing

However, one case study highlighted the potential of telemedicine in achieving significant reductions in admissions, though no data on costs was provided as part of this case study: (13)

- Airedale NHS Foundation Trust's telehealth hub led to a 45% reduction in hospital admissions and 69% reduction in accident and emergency (A&E) attendances from care homes over the last 12 months. The hub uses video-conferencing technology to connect people (living in care homes, their own homes and in prisons) to specialist medical care, 24 hours a day and seven days a week. The hub is staffed by qualified nurses who assess and triage people, support care home staff in providing additional care, and call upon GP, emergency, community or consultant support when needed. This required a considerable shift in how the workforce was planned and organised.

Hospital at Home / Virtual Wards

The evidence about ***virtual wards*** is mixed but seems to suggest they are likely to cost more than they save. The King's Fund has reviewed trials comparing 'hospital at home' schemes (as an alternative to admission) with the provision of inpatient care. (7) For selected patients, this yielded similar outcomes at a **similar or lower cost**. Elderly patients who are clinically stable and do not require specialist or diagnostic input, had slightly more subsequent admissions in the patient cohort, but also reported **greater satisfaction** with the 'hospital at home' model of care and their care at home was less expensive.

Nursing Home placement length reduction

The evidence says little about effective interventions and approaches to reduce nursing home placement use and length. However, it may be useful to be aware of the risk factors for older people vulnerable to nursing home placement as evidenced in the research: socioeconomic status, having a caregiver, the availability and use of home- and community-based support services, race, acute illness particularly if hospitalization is required, medications dementia, multiple chronic conditions, functional disability, and falls.

Reduction in GP appointments (14) (4)

Some of the examples highlighted previously in this paper that aim to reduce hospital admissions sometimes also deliver reductions in GP contacts/appointments for specific cohorts of the population. However, there is little evidence on specific programmes or initiatives with the primary objective of reducing GP appointments for defined population groups.

However, there is guidance for GPs on organising their surgeries, offices, systems and processes to reduce overall demand for appointments such as working in networks of specialist GPs; extending the practice team to include for example nurse practitioner, pharmacists, health advisors, wellbeing coaches etc.; reviewing how appointments are made (online/telephone etc.); and peer support.

It has been reported that self-care for long-term conditions can:

- Reduce visits to GPs by up to 69%;
- Reduce hospital admissions by up to 50%; and
- More than pay for themselves through savings.

It is hoped that self-care will reduce demand for GP consultations: "Patients will become more familiar with all of services that are available to them and, therefore, utilise alternatives to traditional general practice where appropriate."

Neighbourhood Teams

The box below sets out the key model attributes relating to the neighbourhood teams:

Implements an agreed joint risk stratification or identification approach to identify and manage individuals with health and social care needs that can and should be met within their local community.

- A single care plan which is prepared based on knowledge of the local population
- In order utilise a single care plan, the system must allow for the following:
  - Shared record
  - Shared accommodation
  - Shared IT system
  - Joint workforce
- Utilises pooled budgets in order to reduce barriers to access of resources in a timely manner
- Utilises personal budgets to allow individuals choice and access to services which best meet their needs

The essential elements of the neighbourhood model are:

- A Holistic assessment of health and social care need
- Joint working and decision making
- Regular Multi-Disciplinary Reviews
- A named Care Coordinator
- Shared care record
- Shared care plan

Integrated case management

The evidence highlights the benefits of a case management approach as part of a wider integrated care approach (including self-management, prevention, education etc.) On its own, case management may not be a net efficiency gain, as some approaches may cost more to implement the approach than the efficiencies delivered. One study by Roland et al found that case management interventions unlikely to reduce emergency admissions, although overall inpatient and outpatient costs can be significantly reduced (15). However, overall: *"Despite the mixed evidence it is widely accepted that case management is a valid approach for managing individuals with highly complex needs and long-term conditions."* (16)

Examples from elsewhere (4)

- At Castlefields Health Centre in Runcorn, Halton PCT, a social worker was introduced to work alongside a district nurse to introduce an integrated case management approach identified as potentially high users of hospital services. Castlefields also introduced a case manager for cancer patients. Over four years there was a 15% fall in unplanned hospital admissions; A&E attendees and GP visits fell by 30%; there was a 41% decline in bed days, leading to approximately £1m in savings.

- Management Chronic Conditions Management Demonstrator sites in Cardiff, Carmarthenshire and North Wales, across all three there has been an 18%

decrease in total bed days from 2008 to 2010, with a drop from 36,099 to 29,771, a calculated cost reduction of £1,723,131; and a reduction in the numbers of emergency medical admissions for each chronic condition by 11.3% over 2008-2010.

- Aetna implemented a telephonic care management programme at Sandwell PCT in May 2009, targeting patients at highest risk of hospital admissions. Aetna nurses worked one-to-one with patients building care plans and overseeing regular care requirements. Small rewards were also issued to patients meeting personal milestones. A six month evaluation found that enrolled patients had slightly lower rates of urgent admissions compared to them prior to enrolling in the programme and the control group. An independent report estimates that stand alone case management can reduce hospital admissions by 5% (4).

Identifying patients and service users (15)

An MDT approach using case management will be more likely to succeed by using more sophisticated methods of identifying patients at higher future risk of using more costly health services (risk stratification).

The research highlights patients who have a high number of current emergency admissions will tend to have fewer emergency admissions in the future, which makes it inefficient to provide interventions to those patients currently experiencing lots of emergency admissions. Clinical judgement has also shown to have an impact on finding more suitable patients, as well as better use of data, such as bringing in hospital and A&E admissions data, GP data and data from social care.

Examples from elsewhere: (17) (18)

- Several studies indicate that organisations are using the Combined Predictive Model. Croydon, for example, is mentioned in one case study report, where it was run by members of the public health department who had the experience and capacity to run the model.
- To ensure sustained used of the model, in Devon, the virtual ward staff and general practice were also set targets, 'for example by specifying a minimum proportion of virtual ward patients that were to be identified by the predictive model as opposed to clinical referral'.
- Funding for risk stratification and case management was built in to the directed enhanced service in Devon and Wandsworth, a fact which the case study authors believe 'is likely to ensure continued primary care support for this model of care'.
- Torbay developed a tool based on Kaiser Permanente's Know your Population model, which categorises service users into three tiers according to the complexity and urgency of their needs, and the risk involved in meeting their needs. Team members of different professions rate service users on their caseloads according to criteria agreed among all team members. In Torbay, using and testing the model meant that teams started to value and trust each other's assessments, even when they were different.

Care coordination (4), (16), (19)

In order to ensure robust care planning and co-ordinated care, the evidence suggests the benefits of a designated case manager who can carry out the care planning and act as the key person navigating the system on behalf of the patient/service user. The literature is ambivalent about who should carry out this role, but suggests the benefits of the case co-ordinator/manager having a clinical background (nurse, community matron, social or mental health worker, GP etc.) with added benefits if this role is able to prescribe medication.

A review of findings from 34 systematic reviews of integrated care published in last 10 years found the following in relation to using care co-ordination:

- 57% (8 of 13 reviews) assessed care coordination and found a positive impact.
- Hospitalization reduced by ~37% (average from 2 reviews analysing hospitalization)

Shared care plans and records (4)

A review of findings from 34 systematic reviews of integrated care published in last 10 years found the following in relation to the benefits of shared care plans:

- 64% (7 of 11 reviews) assessed care plans and found a positive impact.
- Personalized approaches using tailored information influence health behaviour more than uniform approaches.
- Hospitalization reduced by ~23% (average from 2 reviews analysing hospitalization)
  .

Systems need to be in place to support equal access to information and decision-making processes across all of the professional groups involved. For example, in Croydon, where they used the Combined Predictive Model, no portal was made available to display outputs to GPs (18). Nor did GPs, hospital staff or social workers have access to the common medical record, which was only available to community health care providers and matrons. The result was a lack of engagement from GPs and may have contributed to the project reverting to a traditional model.

Workforce (17) (13) (7) (19) (20)

The evidence suggests that the future workforce for an effective integrated health and care system will need to be deliver care in a different way – shifting to working in a multi-professional approach and changing the balance of professional hierarchy and roles. The evidence highlights the need to review the balance between generalist and specialist staff and ensuring the future focus is on driving ‘collaborative practice development’ not ‘continuing professionals development’ – working across professions, not developing individual professions. Current staff need to develop the skills to care for people with multi-morbidities that span mental and physical health and skills to act as a ‘partner’ and facilitator; rather than an ‘authority’ – this requires significant cultural change.

Furthermore, the 'caring' role is critical to effective integrated care but often, for staff without professional qualifications, frontline delivery can be challenging and risky , but may not be recognised via pay, and staff might not receive the right supervision or development opportunities or support.

Several of the literature reviews underline the importance of paying attention to culture and relationships as well as organisational structures. The evaluation of the North West London integrated care pilot found 'little evidence to suggest that multidisciplinary groups were fostering a significant cultural shift in ways of working'. Establishing agreed roles and responsibilities may overcome some of the conflicts that arise for professionals - for example, creating new roles that support new ways of working but also promote a shared understanding of the purpose of the joint venture. Strong teams also reduce dependence on any single professional group and so work can be shared – e.g. of multi-speciality handovers, extended nursing roles (including prescribing), GPs working with primary care nurse practitioners and HCAs.

The evidence suggests that developing team working may be more important than developing the roles of one professional group. Effective teamwork requires "flexibility within the care team is essential, supported by approaches that enable role substitution through staff empowerment."

Integrated teams should be able to manage staff employed by more than one employer. There are examples of third sector organisations who have seconded or placed their staff into integrated teams, working alongside the public sector staff.

There is less evidence or examples of ***how*** workforce planning, cultural aspects and team working have been developed and sustained to deliver highly effective integrated teams.

Dementia (4) (21)

There are around 800,000 people living with dementia in the UK, and the disease costs the economy £23 billion a year. By 2040, the number of people affected is expected to double and the costs are likely to treble. The NHS has been estimated to account for only 8% of these costs, with social services accounting for 15%, informal care for 36%, and accommodation for 41%. These figures are likely to be a significant underestimate of the true cost of dementia. For example, the 8% (£1.84 billion) that is accounted for by the NHS only includes direct old age mental health spending. We also know that almost two thirds of acute hospital beds are occupied by people over 65, and that 30% of these patients will be suffering from dementia and 20% from delirium. Cognitive impairment is often not recognised or assessed systematically in general hospitals. This is a major reason for delayed discharge and is often not reported to primary or secondary care on discharge. Patients with dementia have longer lengths of stay and greater mortality than other patients.

Interventions to improve effectiveness of dementia services include:

- Dementia awareness training for doctors and allied healthcare professionals in hospitals can aid with early recognition and the evidence also suggests that it can have a significant impact on length of stay.

- Post-diagnostic support - A review of the literature found carer stress to be the best predictor of entry to institutional care. A separate review found a lack of specialist support, particularly post-diagnosis. A randomised-controlled trial showed that carer support could benefit the carer's health and delay institutionalisation.
- In 2011, Norfolk and Waveney Mental Health NHS Foundation Trust established a Primary Care Dementia Service, with 15 qualified nurses. They took referrals from primary care and community matrons and offered initial assessments, support and advice. They specialised in helping patients with long term physical conditions were cognitive decline was a significant co-morbidity. This aimed to reduce admissions and delay institutionalisation.
- Intensive case management involves early multidisciplinary input to draw up a comprehensive management plan with the patient and their carers and aim to ensure that only those at high risk are placed in institutional settings. Evidence from Scandinavia and from Manchester shows intensive case management of people with moderate dementia delays institutionalisation.
- Dementia carries a five-fold increase in the risk of nursing home placement. A service in Camden and Islington has run clinics in care homes in association with GPs over the last five to six years, attended by 8-10 nursing home staff of various backgrounds, four times yearly over a morning. This has resulted in a reduction in emergency referrals, improved staff morale and improved accessibility to advice for patients not attending the home clinics.
- The palliative care needs of people with dementia are complex and care is often poorly planned and co-ordinated. Good multidisciplinary palliative interventions can avoid unnecessary admissions and treatments, provide symptomatic relief. The Greenwich Advanced Dementia Service has looked after about 130 people with advanced dementia at home and has enabled about 75% to die well at home with appropriate support. The service saved around £2.5 million for an investment of about £200,000 84.
- Reduction in hospital admissions—the number of potential hospital admissions for dementia services in West Sussex was reduced by almost 100 in the past year
- The 'Living Well with Dementia' initiative offers a quick response service to individuals and their families and provides information and practical support to maximise independence and delay the need for institutionalised care. Outcomes include reduced hospital in-patient bed use reduced average length of stay improved hospital discharge and contributed to cost savings with medication.
- Dementia early detection - Croydon has had a Memory Services facility since 2004 and is cited in the National Dementia strategy as an example of best practice. The estimated savings if 10% of care home admissions were prevented would, by year 10, be around £120 million in public expenditure (social care) and £125 million in private expenditure (service users and their families), a total of £245 million.
- Whole system case conferences using an acute integrated mental health pathway - Mersey Care NHS Trust implemented a programme that embeds liaison services within all acute providers in the PCT cluster and reviews patient care across providers with focus on home support, care homes and prescribing

GPs at the centre

The evidence is ambivalent about the membership of teams for MDTs and does not suggest whether teams wrapped around primary care are more effective than others.

GP engagement however is highlighted a critical success factor in successful development of integrated care teams in neighbourhoods.

Strong links with partners including patients

Strengthening partnership with patients is one area that that research clearly highlights as improving the quality, effectiveness and cost effectiveness of health and care services. In developing integrated neighbourhood level teams, a patient focus is vital to the success of these teams and the evidence highlights a clear link between higher levels of patient activation and better clinical outcomes and lower costs.

Patient activation is defined as the knowledge, skills and confidence a person has in managing their own health. Patient activation is a better predictor of health outcomes than known socio-demographic factors such as ethnicity and age. People who are more activated are significantly more likely to attend screenings, check-ups and immunisations, to adopt positive behaviours (e.g., diet and exercise), and have clinical indicators in the normal range. Patient activation scores and cost correlations show less-activated patients have costs approximately 8 per cent higher than more-activated patients in the baseline year, and 21 per cent higher in the subsequent year.

Studies of interventions to improve activation show that patients who start with the lowest activation scores tend to increase their scores the most, suggesting that effective interventions can help engage even the most disengaged. Tailoring service delivery according to patient activation levels can maximise productivity and efficiency by ensuring that the level of support provided is appropriate to the needs of the individual.

Several studies have demonstrated a significant link between patient activation scores and health care costs, with more activated patients having lower rates of hospitalisation and fewer visits to A&E, even after controlling for disease severity and demographics.

Many integrated care pilot schemes have been launched, most of which share the same goal – a new service delivery system that leads to better outcomes for specific groups of patients… But few of these have succeeded in transforming the relationship between patients and clinicians. The management and care of long-term conditions still tends to be seen as the clinician's responsibility rather than a collaborative endeavour with active patient involvement and effective self- management support." (22)

Patient and service user activation (22)

The evidence clearly shows that empowered patients and service users that are supported to self-care their conditions can lead to significantly improved outcomes – both in quality and cost effectiveness.

As well as these shorter term benefits of patient activation, there is a need to consider the long-term gains from empowering the public to take greater control of their physical and emotional health and wellbeing. There are increasing levels of non-elective admissions, with only a third of these being due to a growing elderly population. Underlying demand for emergency admissions is decreasing with the reductions in prevalence of serious illnesses and accidents. Hence, it is suggested that the remaining two thirds of the increasing numbers of emergency admissions are explained by changes in the public attitudes, rising risk aversion amongst people and amongst health and social care staff as well as increasing social isolation, and higher expectations form the public.

In this context, Stockport needs to significantly develop patient activation and empowerment, coupled with community based interventions that build dialogue between health and care organisations and communities.

Primary care virtual access to specialists. At Leeds Teaching Hospital, a specialist nurse-led geriatric care telephone service (PCAL) was set up to provide specialist advice to GPs and community staff. In 2013, it provided advice on 209 older patients which avoided 26% of potential admissions. (23)

Models elsewhere

The **Buurtzorg neighbourhood care model** is a Netherlands based model of district nursing which is gaining international attention for being entirely nurse-led and cost effective. Buurtzorg provides 24/7 access to care via a home visit or telephone, and is for patients who are terminally ill, suffer from long-term conditions, dementia or require home care following major surgery. The model is 40% cheaper than other homecare organisations and has reduced care hours by 50% through initiatives to promote health and self-care. (24) (25) Nurses in Sweden, Norway, Japan and the United States are adopting the Buurtzorg model, and a similar model is being piloted in London by Guy and St Thomas NHS Foundation Trust.

Comprehensivist Model (26)
The University of Chicago Health System launched the Comprehensive Care Physician (CCP) model in 2012 to align inpatient and outpatient care for high-risk Medicare beneficiaries.5 The CCP program is available to Medicare patients with at least 1 admission to the general medicine service at the University of Chicago Hospital in the previous year. Patients who enroll are paired with a CCP (a trained hospitalist) who assumes responsibility for providing both inpatient and outpatient care. Each CCP cares for a panel of roughly 200 high-risk older patients and is supported by an interdisciplinary team including advance practice nurses, registered nurses, social workers, and case coordinators.

Comprehensive Care Physician outpatient clinics are co-located at the University of Chicago Hospital, and CCPs round on admitted patients for several hours each morning. In the afternoon, CCPs see other patients in their panel in the outpatient setting, focusing specifically on those who have been discharged. Co-location also allows CCPs to visit patients who present to the emergency department—after automatic alert via pager—to provide initial direction on care goals and plans and potentially avoid unnecessary inpatient admissions.

Extensivist Model (26)

CareMore Health System, a subsidiary of Anthem, is a Southern California–based network model health maintenance organization that operates Medicare Advantage plans and delivery sites across 6 states. Most CareMore patients are cared for by primary care physicians in a traditional medical home model. High-risk older patients (approximately 5%) are identified through periodic risk assessments, predictive algorithms, and physician referral. For these patients, trained hospitalists—referred to as “extensivists”—lead a care team that includes nurse practitioners, case managers, medical assistants, a social worker, and a nutritionist.

Extensivists typically have a panel of approximately 100 patients and, along with their care team, are responsible for providing both inpatient and outpatient services for high-risk patients. When high-risk CareMore patients are admitted to the hospital, their extensivist provides care throughout the admission. Extensivists also oversee discharge planning, either to home or to a postacute setting. For patients discharged to postacute sites, extensivist physicians continue to provide direct care. After returning to the community, high-risk patients have short-term follow-up with the same extensivist physician at an outpatient clinic.

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Intermediate Tier

As part of an initial exercise to identify best practice in intermediate tier, we have looked at services in other parts of England. The literature search focused on the following areas; Sunderland, Wakefield, South Warwickshire, Sheffield, Nottingham, Bradford and Leeds.

The common themes identified in these areas are:

- Admission Avoidance
- Supported Acute Discharge
- Supporting patient independence

The most common service elements in these areas are:

- **24/7 access:** Services available 24/7 every day of the year, based on need.
- **Single point of access:** A central point maned by skilled call handlers and navigators to transfer and triage all Intermediate Care referrals received to ensure the appropriate response is provided to the patient.
- **Discharge to Assess:** Patients are discharged once medially fit and have an assessment with the appropriate members of the social care and community intermediate care team in their own home.
- **Community Rehabilitation/Care at Home:** Rehabilitation and reablement services providing multi-disciplinary teams providing care packages within the patient normal residence.

- **Crisis Response:** 24/7 response and support through health and social care crisis where an acute hospital admission is not to be the best option for the patient. The patient is assessed, diagnosed, treated and supported at home.

Acute Interface

1. Integrated Urgent Care

The need to redesign urgent and emergency care services in England and the new models of care which propose to do this are set out in the *Five Year Forward View (5YFV)*. The Urgent and Emergency Care Review proposes a fundamental shift in the way urgent and emergency care services are provided, improving out of hospital services so that they are delivered more care closer to home and reducing hospital attendances and admissions. We need a system which is safe, sustainable and that provides consistently high quality. The vision of the Review is simple:

- For those people with urgent care needs they should be provided as a highly responsive service that delivers care as close to home as possible, minimising disruption and inconvenience for patients and their families.
- For those people with more serious or life threatening emergency care needs, we should ensure they are treated in centres with the very best expertise and facilities in order to maximise the chances of survival and a good recovery.

The current to the future system we proposed five key elements of change. These should apply to all patients, regardless of their age, location, co-morbidities or physical and mental health needs.

The document highlights five key elements for change, which must be taken forward to ensure success:

a. To provide better support for self-care.
b. To help people with urgent care needs get the right advice in the right place, first time.
c. To provide highly responsive urgent care services outside of hospital, so people no longer choose to queue in A&E.
d. To ensure that those people with serious or life-threatening emergency care needs receive treatment in centres with the right facilities and expertise, to maximise chances of survival and a good recovery.
e. To connect all urgent and emergency care services together, so the overall system becomes more than just the sum of its parts.

2. Ambulatory Emergency Care

The evidence suggests that an effective ambulatory care service can reduce emergency admissions by 20-30% “Ambulatory care is clinical care which may include diagnosis, observation, treatment, and rehabilitation, not provided within the traditional hospital bed base or within the traditional out-patient services that can be provided across the primary/secondary care interface”.

The Royal College of Physicians – Acute Medicine Task Force & endorsed by the *College of Emergency Medicine, 2012 Implementing AEC* ensures that, where appropriate, emergency patients presenting to hospital for admission are rapidly assessed and streamed to AEC, to be diagnosed and treated on the same day with ongoing clinical care. Processes are streamlined, including review by a consultant, timely access to diagnostics and treatments all being delivered within one working day. This has improved both clinical outcomes and patient experience, while reducing costs.

Effective implementation requires a whole-system approach to include primary care, and community and ambulance services working with the acute site to establish patient pathways (ref 4) This approach is based on the *Directory of Ambulatory Emergency Care for Adults*, which was first published by the NHS Institute for Innovation and Improvement in December 2007: version 3 was published in 2012 www.ambulatoryemergencycare.org.uk/directory.

Clinical teams using this approach report managing significant numbers of emergency patients quickly, without the need for full admission, converting at least 20–30% of emergency admissions to AEC. Pioneers of AEC have achieved good results, with growing evidence of the impact:

- An ambulatory score of 5 or above results in the person being more likely to be discharged within 12 hours.

- 10 days in hospital (acute or community) leads to the equivalent of 10 years ageing in the muscles of people over 75 People with long term conditions are twice as likely to be admitted to hospital, will stay in hospital disproportionately longer and account for over 60% of hospital bed days used.

Additional evidence reviewed included:

- *Ambulatory Emergency Care, The Middlesbrough Experience,* NHS Institute for Innovation and Improvement
- *Directory of Ambulatory Emergency Care for Adults*, NHS Institute for Innovation and Improvement, November 2012
- *Kettering General Hospital NHS Foundation Trust Case Study*, June 2016