Evaluation of the Dudley Multidisciplinary Teams (MDTs)

Summary of Final Report

May 2017

For: NHS Dudley Clinical Commissioning Group

Reuben Balfour and Paul Mason (ICF); Fraser Battye and Jake Parsons (SU)

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Background

- Following the publication of NHS England's (NHSE) *Five Year Forward View* Dudley has become one of the areas delivering the Vanguard programme new care models. Dudley is establishing a Multi-speciality Community Provider (MCP), with the intention of enhancing and improving services in the community. To develop and deliver this, Dudley CCG has been working with a range of partners in the health, social care and the voluntary and community sector (VCS) (including The Dudley Group NHS Foundation Trust, Dudley and Walsall Mental Health Partnership Trust, The Black Country Partnerships NHS Trust, Dudley Council and Dudley Council for Voluntary Services).
- Dudley CCG commissioned an evaluation of its new care model from a partnership of the Strategy Unit (hosted by Midlands and Lancashire CSU), ICF and Health Services Management Centre (University of Birmingham).
- The overall approach to the evaluation is described in the Early Findings Report: in summary, the evaluation operates at both the overall system and specific service level (available here: Early Findings Report).
- This evaluation focuses on the MDT element of the care model; it was undertaken by ICF and the Strategy Unit.

Aims and objectives of this research

The evaluation was designed to assess the following questions:

- What is an MDT, which services are represented within Dudley MDTs and what models operate in Dudley?
- How have Dudley MDTs been developed to date, why were they set up and what problems or opportunities were they established to address?
- How were the MDTs intended to operate and how are they operating in practice?
- What factors facilitate working in a multidisciplinary way and what barriers exist that hinder this way of working?
- What difference do Dudley's MDTs have on patients and local services and how is this difference achieved?
- How should Dudley MDTs develop in the future and what lessons can be drawn from the experience in Dudley to date? And,
- What measures could be used by the MDTs themselves to establish whether they are having the desired effect?

Therefore, the evaluation explores:

- How the Dudley MDTs have been developed to date as well as how MDTs operate in practice;
- The different models of MDTs operating within Dudley;
- The key outputs of the MDT model; and,
- The impact the MDT model has had on patients, staff and health and social care services operating in Dudley.

Evaluation methodology

Overview of the method

The evaluation ran over two phases:

- **A scoping phase**:
  - A meeting between the evaluation team and Dudley CCG was held to discuss the scope of the evaluation. Four GP practices were identified as case studies to reflect the different sizes and operational models of MDTs in Dudley.
  - Review of background material relating to the development of the MDT model in Dudley;
  - Literature review to understand the key features of MDTs;
  - Review of current data collected for and in relation to MDTs in Dudley; and,
  - An initial visit to Lion Health to observe an MDT in practice, to refine the evaluation fieldwork approach,

This slide pack provides a summary of information taken from a lengthier and more detailed report containing identifiable information submitted to Dudley CCG. This summary is designed for wider circulation of the evaluation findings.

Detail of evidence gathering fieldwork

An evidence gathering phase consisting of seven components.

MDT meeting observations at four selected GP practices

A total of 12 observations were conducted (three observations per GP practice). Observations explored the different dynamics of the MDTs and how they operated in practice.

MDT staff telephone interviews

A total of 24 telephone interviews were conducted with staff who attend MDT meetings across the four selected practices. Interviews explored the perspectives of staff involved in the operation of the MDT (what worked well, key enablers, challenges and barriers).

MDT stakeholder telephone interviews

A total of 11 telephone interviews were conducted with local stakeholders from Dudley's MDT Implementation Group. Interviews explored the rationale behind the implementation of the MDT model.

Staff online survey

An online survey was conducted with all MDT staff operating within Dudley's 46 GP practices. In total, 140 staff responded to the survey. The survey explored the extent to which the findings from the qualitative fieldwork were indicative of the wider MDT model.

Interviews with MDT patients

A total of seven telephone interviews were conducted with MDT patients registered to three of the case study practices. Interviews explored the patients' experiences of MDT care.

Quantitative data analysis

Analysis was conducted on data provided by Dudley CCG on patients registered with GP practice MDTs and data from routine Secondary Uses Service (SUS) datasets. The quantitative analysis explored the functioning of the MDT model and its potential impacts.

Findings

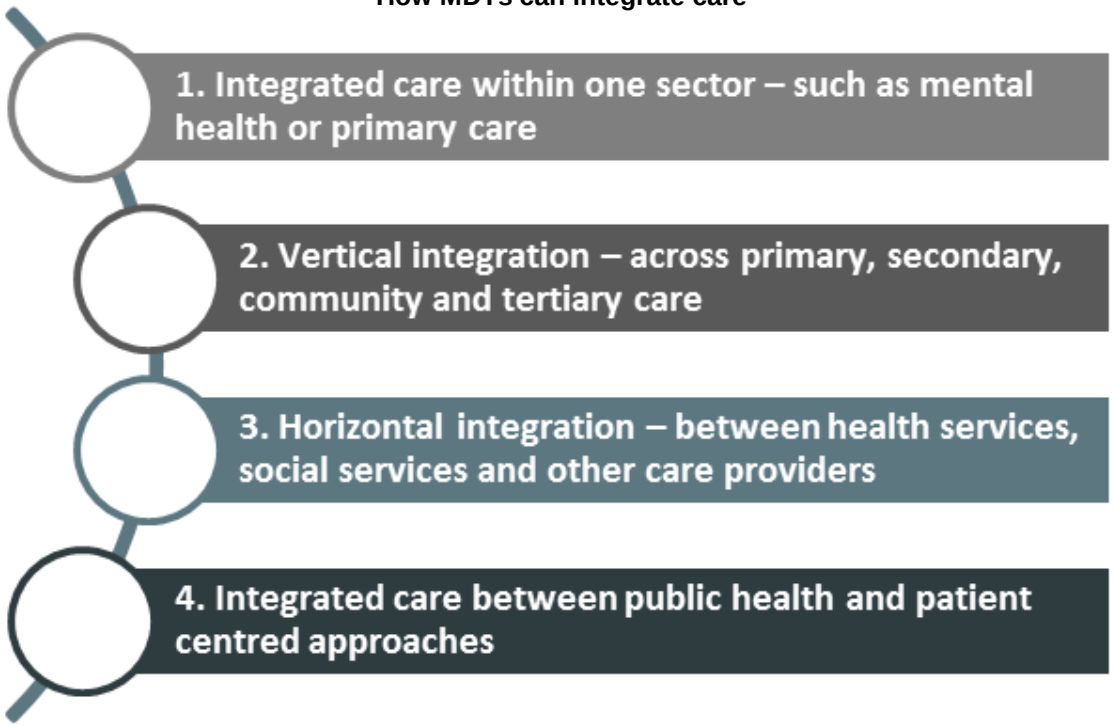
What do we know about MDTs for integrated health and social care services?

Key themes from the literature review

- **MDT members:** MDTs vary in size and professional input but GPs and nurses tend to feature in the majority.
- **Components of MDTs:** promotion of self-management, development of individual care plans and case management are key components of integrated MDTs.
- **Targeting:** the most popular risk assessment tool for targeting patients is through threshold/predictive risk modelling.
- **Outcomes:** MDTs have the potential to achieve improvements for patients: including better healthcare utilisation; clinical outcomes; patient experience; medication adherence; and, quality of life. MDTs can also lead to improvements for professionals, including improved staff experiences (behavioural and health outcomes).
- **Key enablers:** effective MDTs require: good leaderships; formal management and collaborative leadership (e.g. consistent meetings, written documentation); a mix of professionals from different backgrounds (based on interpersonal relationships and mutual respect); and, sharing information and patient records across all team members.
- **Challenges and barriers:** the effectiveness of MDTs can be affected by a lack of shared understanding of the MDT objectives, hierarchies within MDTs and a lack of participation from all MDT members.

- **Findings from the literature review suggest MDTs operate within four specific forms of integrated care.** They can operate: within and across different healthcare disciplines or sectors; between health, social services and other care providers; and reflect integrated care between public health and patient centred approaches.

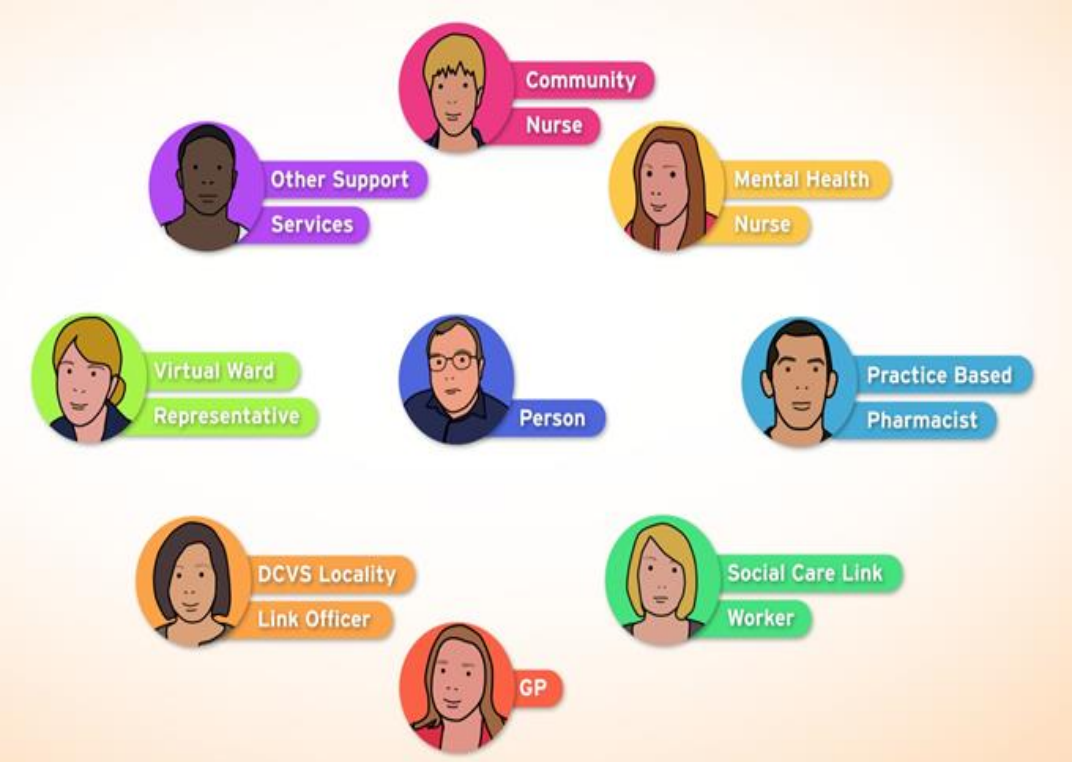
How MDTs can integrate care



Dudley MDTs: the approach

Dudley's model

As an integrated model, a typical MDT includes the following:



Source: Dudley CCG

In addition to the roles listed above, The Dudley Group NHS Foundation Trust has funded a team of care coordinators to support the MDT model from the beginning of 2017, providing support to patients upon being discharged from hospital.

Dudley's approach to implementation

- MDTs are fundamental to Dudley's new care model.
- The CCG took an organisational development approach to implementing the model (rather than a contracting/commissioning approach).
- Implementation of the model started with developing MDTs within five GP practices (early implementers), before roll-out to all 46 practices across Dudley's five localities.

What does the MDT do?

- MDTs are responsible for identifying patients without an up-to-date care plan and at risk of an unplanned visit to hospital, using risk stratification and also professional's knowledge of patient needs.
- Through regular meetings, MDTs assess and discuss the holistic needs of patients based on information from patient records; and develop care plans that respond to any identified gaps in care. MDTs are intended to act as a 'team without walls', with the patient at the centre.
- The Integrated Plus worker role was created to provide a link to the voluntary sector, wider services and support social prescribing.
- Introducing the MDT model responded to a need for change within Dudley's health and social care services: to improve communication between health and social care professionals; as well as enable the better coordination of patient care.

Extended MDT Model

- Through the Vanguard programme, Dudley CCG has also funded new roles within one GP practice to develop and implement an 'extended MDT' model to support a 'proof of concept' for the MDT model, further support wider integration of health and social care within the practice.
- The three practice-based roles are: a mental health nurse (alongside additional primary care mental health support), an advanced nurse practitioner (focusing on patient's with long term conditions), and full-time practice-based social worker (differing from other social workers whom volunteer only a proportion of their time to the MDT).

Findings from the observations of MDT meetings

Key similarities

- **Inputs:** there were a core set of health and social care professionals attending MDT meetings. MDTs deployed similar formal and informal processes of risk stratification to identify ‘at risk’ patients for discussion at meetings.
- **Processes**: all meetings were led by a GP and other MDT members contributed to discussion of patients and the decision making process.
- **Outputs:** discussion in MDT meetings covered both a wide range of health and social issues in relation to patients.
- **Outcomes:** MDTs aimed to improve patient experience of care, reduce demand on secondary care and improve clinical outcomes for patients.

Key differences

- **Inputs:** MDTs varied in the regularity with which they held meetings (ranging from weekly to monthly). There were differences in the types of patient lists used to set meeting agendas.
- **Processes**: the room layout for meetings differed between MDTs. Only one MDT provided facilities where everyone could view EMIS (patient records). Venues also influenced effectiveness.
- **Outputs:** there were considerable differences in the number of patients discussed during meetings. Larger practices appeared to discuss more patients (reflecting their larger patient populations).

What worked well

- The input from the lead GP in the process of triaging individual patients helped prioritise patient lists to reflect staff time pressures. The GP was also central to leading the MDT meeting, including decision-making and providing clinical expertise.
- MDTs displayed good working relationships, contributing to an open and friendly atmosphere and the overall effectiveness of the meeting. The use of roundtable or boardroom style meeting room layouts also contributed to this.

Common challenges

- Poor and late attendance from particular members and services at the meetings was a particular issue for some MDTs. Smaller practices held meetings less regularly (monthly) than larger ones (weekly). Absences affected the ability of teams to conduct effective and holistic reviews of patients. A longer time between meetings compounded the impact of absences.
- A lack of meeting room space also affected the ability of some meetings to function effectively, requiring some members to stand for long periods of time and creating an uncomfortable environment and hampering .

Findings from staff interviews

General feedback	
Professionals had a range of experience in relation to MDT working	Interviewees reported different levels of experience in working within MDTs. Some (such as GPs and nurses) had worked as part of an MDT for over a decade and were used to this approach, whilst others (such as social workers and Integrated Plus workers) had only worked in an MDT since the Dudley model was introduced.
Interviewees were supportive of the overall aims of the MDT and recognised there was a need for change in the way health and social care services were operating	Reflecting on the working practices prior to the implementation of the MDT model, interviewees reported poor communication between services and coordination of care, gaps in services, and inappropriate or avoidable admissions to hospital being significant concerns for primary care in Dudley. *"…I think up until this point a patient would have lots of different professionals involved but there was never a forum for us all to get together and become aware of what everybody else was doing."* (Mental health nurse) They viewed the MDT model as necessary to address these gaps. The model was also understood to support the delivery of care closer to home and the prevention of avoidable admissions to secondary care services, reflecting local and national priorities. Interviews supported the rationale for the MDT implementation.
Outcomes	
Improved effectiveness and efficacy in patient care	Interviewees believed that the MDT meeting had facilitated better decision making in relation to patient care (including the ability to convey patient preferences in a more effective way and prioritising patient needs) and more efficient use of staff time (as a result of improved communication – enabling members to address and clarify queries quicker). *"Just knowing who the people in your team are and the people in your locality … for me as a GP it's made a massive difference, just knowing who to call when I don't know what to do next and I think we don't realise just how much time we'd spent trying to work out who did what in Dudley."* (GP)
Improved knowledge and understanding of services among health and social care professionals	Overall, the model had also improved the knowledge and understanding of what different services within the MDT offer and how best to engage patients with those services. *"*[You're] *not having to go away and ask lots of different people who our district nurse is or who our social worker is … you're not having to chase around all the time having to look for people … you know who they are and you know where they are."* (GP)

Continues over

Findings from staff interviews

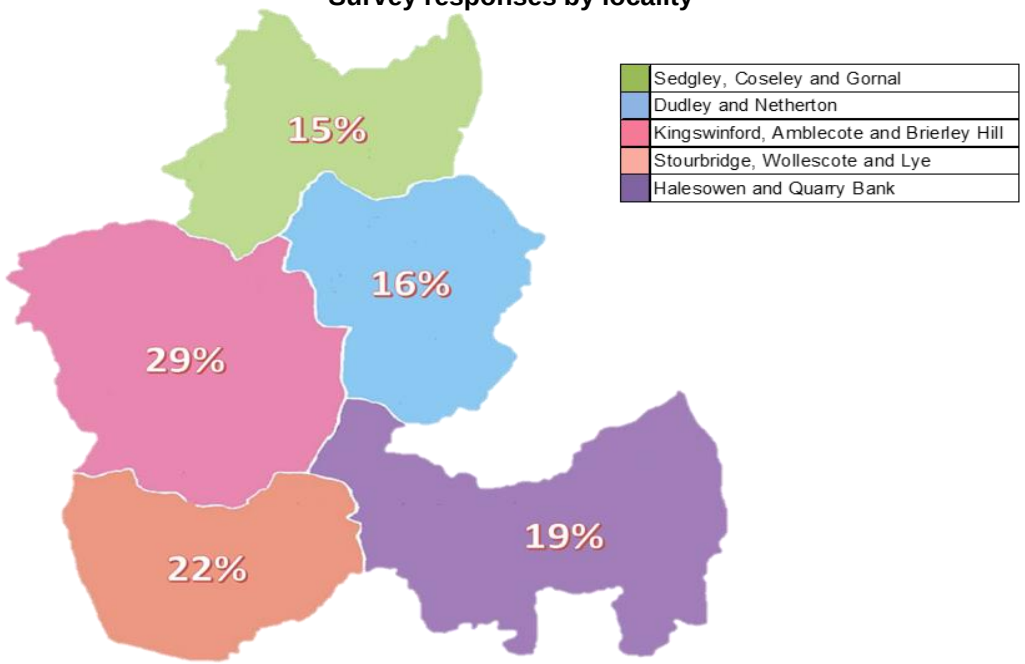
Outcomes (continued)	
Improved patient outcomes	Interviewees described how the MDT model has had a positive impact on patients, particularly in terms of improving their experiences of care (linked to better coordination between services). Patients were also reported to have been supported by the MDTs to remain in their chosen place of care (e.g. at home) and prevented from going into hospital. *"These patients usually end up in hospital, but now we're available to see them in their own home and perhaps deal with the problems instead of them going into A&E and 90% of the time these patients can be treated easily in their own home."* (Non-practice nurse)
The model also provides added value	Interviewees reflected that the input of Integrated Plus in the MDT had enhanced the knowledge of health and social care professionals about voluntary and community services available in their localities. This had also filled gaps in services for patients with issues which fall outside health and social care provision (e.g. social isolation).
Challenges	
Interviewees raised some issues with how the MDT model was performing in practice	Challenges described by interviewees included clashes in the timetabling of MDT meetings, meaning that some members who sat on multiple MDTs were unable to attend all their meetings as there was no coordination between practices. This, in part, led to poor attendance at some meetings, which affected the ability of MDTs to make informed decisions about patients' holistic care needs. In addition, practical issues, in particular inappropriate, or lack of, meeting room space was raised as an issue that negatively impacted on the meeting functioning effectively.

Findings from survey of MDT members

Overall, findings from the survey indicate that MDT members are positive about all aspects of the model

- A total of 140 MDT members responded to the survey.
- Nearly a third (31%) of all respondents reported being responsible for leading an MDT, with the majority of MDTs being led by GPs (62%) and the remainder by practice managers or nurses.
- The majority (86%) of respondents who lead MDTs felt they had the skills required to chair the meeting. Although 61% said they would benefit from specific training and community nurses stated that they lacked the required skills to chair the meeting.
- Nearly all (93%) respondents stated that their organisation was committed to the model.
- The majority (89%) of respondents stated that they attend meetings on time, leave the meetings with a plan or set of actions, and find the meetings a good use of their time. In contrast, 21% of respondents covering the Sedgley, Coseley and Gornal locality did not think that meetings were well attended by staff or that staff attended meetings regularly and on time.
- The majority (81%) of respondents said they had a clear understanding of the role of other MDT members; and knew others attending by name (81%). Staff covering multiple localities were more likely to state that they were unclear about the roles of other MDT members.
- The majority of respondents said that they had good interaction within their respective teams, including: feeling valued as equal partners (90%); improved working relationships (91%); and the confidence to share their views and expertise during meetings (93%).
- The majority of respondents said that the MDTs operated well outside the meetings (81%) and led to better links between services (85%) (respondents in the Kingswinford, Amblecote and Brierley Hill locality (15%) and the Sedgley, Coseley and Gornal locality (17%) felt that this did not work so well).
- The majority (83%) of respondents believed MDTs were identifying the right patients.
- The majority of respondents felt that the MDT led to improved quality of care (91%), better patient experience (82%) and improved patient outcomes (84%).
- All case managers, practice nurses, practice administrators and Macmillan/heart failure/other specialist nurses felt that they had a greater sense of job satisfaction, as well as the majority of GPs. However, one in five (19%) GPs reported that they did not feel a greater sense of job satisfaction as a result of the MDTs.

Survey responses by locality



Findings from interviews with MDT patients

Findings from patient interviews suggest MDTs are meeting their care needs

- Most interviewees reported living alone (some after the death of a partner) and experiencing difficulties getting out the house unassisted and socialising with family and friends as a result of their health condition(s).
- Interviewees reported the provision of a range of care and support, including through GP consultations (via telephone, home visit or at the practice), nursing teams, carers, Integrated Plus and psychiatric support/care.

  "I have two separate nurses. One looks after my heart because I'm not too clever in that department [and another nurse] *comes and does my general welfare, looking after any requirements that* [I may have]*…I am well looked after in both those circles."*
- Overall, interviewees expressed satisfaction with the care they received, indicating that it was well coordinated, met their health needs and made them feel that their health was being well managed. Some were aware that they were discussed at a meeting and said that this was central to achieving this integration.

  "*From what I understand, they have a meeting about me every Thursday morning to see what my position is, what my health is and whether or not I want to receive any further additional medication…so I'm well looked after in that department. I haven't seen* [my GP] *in a long while. That does me alright. We still exchange messages from time to time if and when I require her."*
- The interviews suggest that support provided by the Integrated Plus worker has a particularly positive impact on patients, helping them to become less socially isolated, build confidence and social networks and engage in local community activities.
- In terms of improvements, nearly all interviewees stated that they were very satisfied with their level of care and could not provide any suggestions for how to improve the care they received. Not having to repeat their story to different people was important to these patients.

Interviewee characteristics

Interviewees ranged in age from early 50s to late 80s. Although a small samples of interviews, they reported a wide range of health conditions. These included:

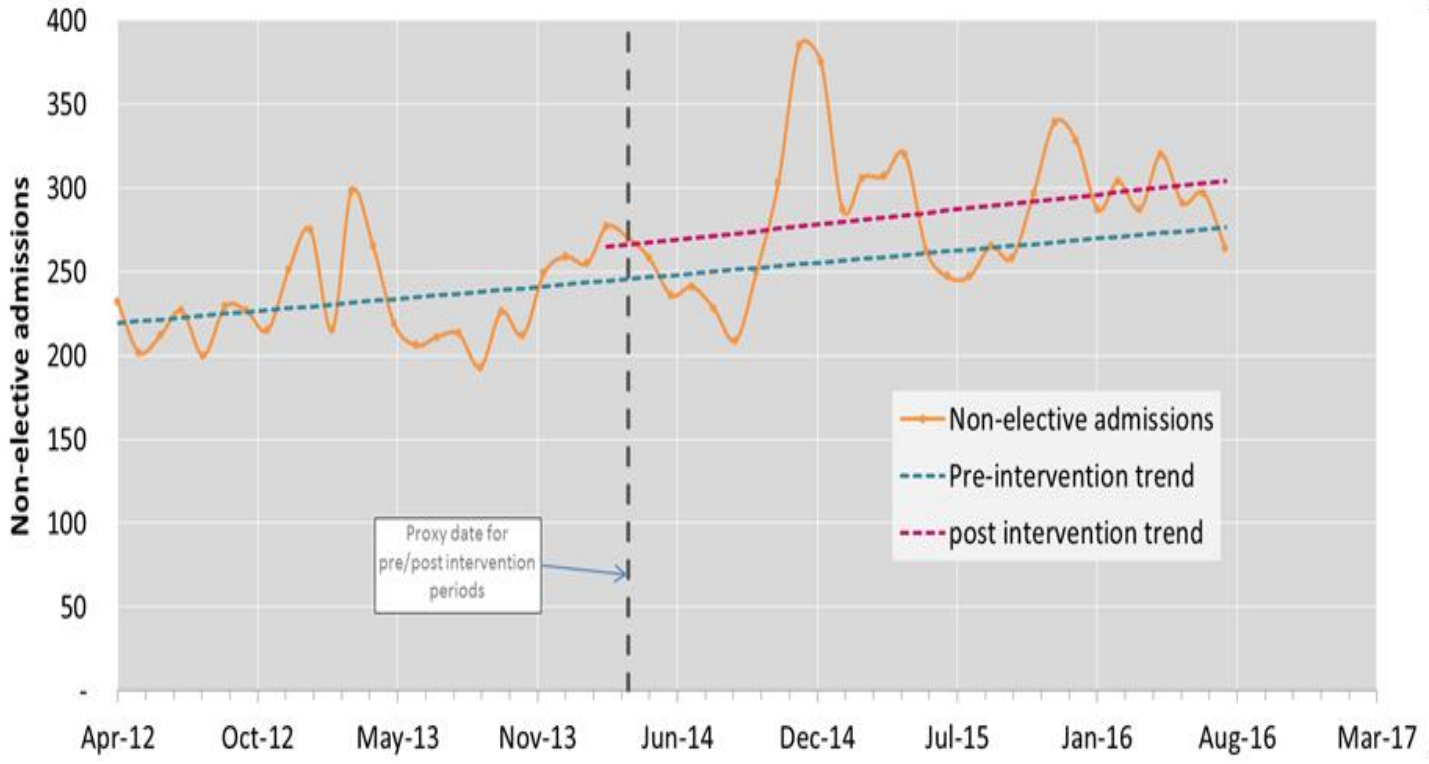
- Chronic obstructive pulmonary disease (COPD);
- Angina (causing low blood pressure due to blocked arteries);
- Arthritis (causing mobility issues);
- Depression, anxiety and paranoia;
- Borderline personality disorder;
- Psychosis;
- Musculoskeletal pain/problems;
- Heart disease/failure;
- Diabetes;
- Churg-Strauss syndrome; and,
- Osteoporosis.

Quantifying the impact of Dudley's MDT model

Findings from the quantitative analysis suggest MDTs are targeting patient groups as expected but hospital admissions have continued to increase

- Since April 2014, over 7,000 patients have been added to practice-based MDT registers across the CCG. The average number of patients managed by MDTs per 1,000 registered population across each GP practice in Dudley since the model was introduced is 22. Some MDTs have supported comparatively large numbers of patients compared to others, which have supported comparatively few (range 15 to 46);
- The majority of patients added to MDT registers were aged over 64 (78%); although there were a considerable number of younger patients who received support;
- More women than men were supported by MDTs (55% of registered patients were female), but age profiles of female and male patients were broadly similar;
- Analysis of the trend data shows that there has been an increase in non-elective Ambulatory Care Sensitive (ACS) admissions since the model was introduced (although it is not statistically significant), suggesting that the model has not had a positive impact on non-elective ACS admissions.
- However, these findings should not be interpreted as evidence of no impact (e.g. it may be that the impact is either not large enough to detect or that the positive impact is masked by other changes). It is also possible that other factors may have affected this trend (e.g. changes in recording practice resulting in the addition of previously unrecorded activity or increases in activity as a result of other system changes such as reductions in social care provision).

Trends in non-elective ACS admissions for patients aged over 65



Source: SUS data

Quantifying the impact of Dudley's MDT model (continued)

Quantitative analysis suggests MDTs have supported a decrease in the average length of stay for hospital admissions

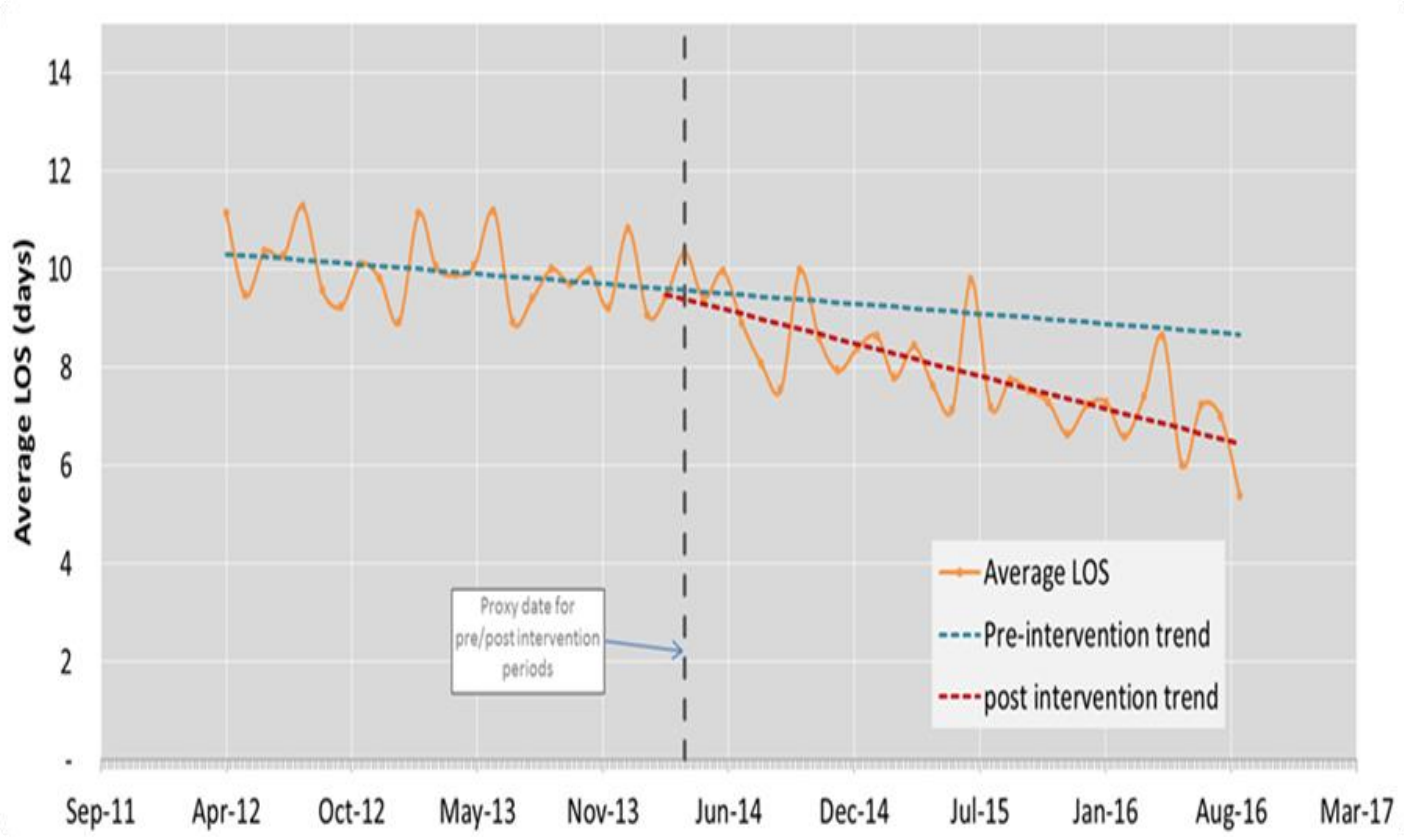
- There has been a decrease in the average length of stay in the post-intervention period. It is estimated that there would have been around 9,600 additional bed days during the post-introduction period (April 2014 to August 2016), had the MDT model not been introduced. This equates to around £2.1m assuming an average bed day cost of £221;
- However, the analysis could not rule out the possibility that this trend is affected by other factors, such as changes in other parts of the health system.

Quantifying the impact of Integrated Plus

Dudley CVS also conducted research to estimate the impact of Integrated Plus on NHS services between September 2014 and May 2016. Findings show that:

- Based on the provision of support to 44 people at an average cost of £8,547, an estimated cost saving/avoidance of up to £375,000 was made to the NHS; and,
- Based on a sample size of 41 patients, Integrated Plus have reduced the number of inappropriate GP visits by 30%, home visits by 21% and telephone consultations by 35%. This is equal to a saving of £5,170 to the NHS.

Trends in average length of stay for non-elective ACS admissions for patients aged over 65



Source: SUS data

Conclusions and recommendations

Conclusions and recommendations

Conclusions

- **Aims:** Dudley's MDT model aims to operate as a 'team without walls', integrating primary care with a range of other services (including mental health and social care) to coordinate care and improve outcomes for patients most at risk.
- **Implementation:** MDTs were implemented through an organisational development approach with a set of core principles to be adapted to individual practice contexts**.**
- **Rationale:** there is widespread support for the model across a range of professions and the different localities of Dudley. The MDTs are understood as addressing system challenges relating to a lack of coordination and inefficient use of resources.
- **Overall performance:** MDTs are functioning as intended and in line with evidence of best and effective practice identified in our literature review.
- **Membership of MDTs:** a wide range of professions attend MDTs; however, some MDTs experience low attendance (usually as a result of diary and workload issues). The extended MDT model facilitated more consistent input and attendance from members.
- **Leadership and communication:** The leadership of MDTs is strong and communication between services has improved. Problems of sharing information persist.
- **Targeting patients:** MDTs use different tools but share a common approach to identifying patients most at risk of unplanned contact with secondary care.
- **Patient care and outcomes:** MDTs provide for the coordination and planning of integrated patient care and this has improved patient experience and outcomes compared to the previous system.
- **Increased knowledge and use of VCS services:** the Integrated Plus worker role has enhanced knowledge of other staff and filled gaps in support for patients in relation to social isolation in particular.
- **Outcomes for professionals:** these include – better use of professionals' time; increased knowledge of patients' needs; improved relationships with other professionals; enhanced knowledge of local VCS services and their role in integrated care; and, improved job satisfaction.

Recommendations

- Provide training for MDT chairs tailored to their role in the Dudley model. Specific sessions may be required for non-GP chairs given disparity in confidence.
- Consider how organisational support and CCG messaging can address the importance of appropriate venues for MDT meetings.
- Work with MDT chairs to explore the issues of non-attendance and how these can be addressed, perhaps through liaison with partner service managers.
- In those areas where members report that there are not shared understandings about the purpose of the MDT, work with chairs to identify organisational support needs. Some MDTs are well established; a small number would benefit from additional support. An event to bring MDT members and stakeholders together to reflect on the findings of the evaluation could provide an agreed agenda for support and development.
- With MDTs in all practices, some professionals are required to attend multiple meetings. A Dudley MDT timetable would coordinate meetings to ensure minimal competing demands. This will have added importance with the introduction of mental health MDTs in Dudley.
- Consider the further roll-out of the extended MDT model to practices, to further explore the potential benefits indicated by the evaluation evidence.
- Consider MDTs as an opportunity to test and develop the digital requirements of integrated care. As the MCP evolves, staff from currently different agencies and services will require access to care records in the way that MDT staff do already. MDTs' current requirements exemplify this, offering a useful starting point for the MCP's digital strategy.
- Practices may benefit from learning from others' approaches to risk stratification and patient identification.
- Following this report, the ICF/Strategy Unit team will be developing a suggested dashboard of outcome measures, to support a common approach to monitoring. This should be introduced – carefully and with appropriate piloting – to practices so that there are shared understandings of, and approaches to, MDT outcomes.

Get in touch: paul.mason@icf.com