

Evaluating the role of community-based multi-disciplinary teams in integrated health and social care in England: Overview of findings from the Pioneer evaluation and their implications for health and social care integration

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Abstract

Objectives: This paper synthesises the findings of an evaluation of community-based multi-disciplinary teams (MDTs), primarily serving older people with long-term conditions, undertaken as part of a wider evaluation (2015–2022) of the Integrated Care and Support Pioneer Programme (2013–2018) in England. The MDT evaluation was undertaken in two contrasting Pioneers with 11 MDTs covering four models of MDT functioning.

Methods: The synthesis, set against our conceptual framework of MDT functioning, draws principally on the findings of semi-structured interviews with local strategic level health and care leaders, frontline MDT staff, and patients and their informal carers, observations of MDT meetings, and an online survey of MDT staff.

Results: MDTs were seen as an essential means of working towards local health and care integration. While local contexts shaped the precise aims, structure, composition and ways of working of the different MDT models studied, there were strong similarities across the teams in how staff viewed the nature and benefits of MDT working. MDTs were perceived as having the potential to provide more holistic care to patients, speed up access to care, improve access to a wider range of services and enhance care at home. Benefits to staff included better information sharing; reduced duplication of tasks; enhanced collective responsibility and problem-solving, which enriched decision-making; opportunities to learn from, and

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about, the remits of other professional groups and services; and the erosion of traditional professional hierarchies. However, barriers to MDT working, including the absence of shared patient records, inadequate infrastructure and resources, and concerns about the ability to measure and demonstrate the value of MDT working, were also identified. Patients and their informal carers reported valuing good communication with their health and care providers but often appeared unaware of an MDT's involvement in planning their care. This suggests there is some distance to travel in terms of how MDTs communicate their roles to those they serve.

Conclusions: At the service delivery level, our findings' implications for policy and practice include the need for greater integration across patient records and data systems, and greater investment in specialist services (e.g., housing) currently absent from MDTs. However, our research also highlighted challenges to evaluating the outcomes of 'integration' both as a concept and at the service delivery level. Changes to both the research environment and the approach to evaluation are also warranted.

Keywords

integrated care and support Pioneers, community-based multi-disciplinary teams, policy and programme evaluation, health and social care integration

Introduction

The Integrated Care and Support Pioneer Programme (2013–18)¹ was one in a series of similar pilot initiatives launched by national government in England in recent decades to encourage greater coordination at local level between the National Health Service (NHS) and local authority-funded adult social care services from which other parts of the country could learn.² Typical of other national pilot programmes in the period, it relied very heavily on supporting volunteer local areas to develop their own approaches to integrated health and social care, held together in this particular case by an aspirational commitment to embody the principles of integrated health and social care set out in the set of 'I-statements' promulgated by a coalition of national user organisations.^{3,4} The 'I-statements' encapsulated service users' expectations of how the health and social care systems should work together to ensure seamless, high quality care organised around users' needs and lifestyles. The 'I-statements' substituted for a clearly defined set of interventions or any particular mechanism of change that Pioneer sites were expected to implement. It was up to each of the 25 Pioneers to craft its own approach to improving horizontal integration between local NHS services and those funded by local authorities.

Each Pioneer, therefore, interpreted the expectation of belonging to a national programme somewhat differently. Despite this, the early evaluation of the programme identified that the establishment or extension of community-based multi-disciplinary teams (MDTs), primarily focused on helping to plan and coordinate the care and support of older people with multiple long-term conditions and living in their own homes, was a very common activity.⁵ This remained the case throughout the life of the programme.⁶ In many cases, these teams appeared to characterise the local Pioneers' integration efforts. Similar MDTs, often based

around groups of general practices, were also widespread beyond the Pioneers, and remain the most common manifestation in England of local efforts to deliver more integrated models of care.⁷ Their common rationale was that MDTs were a key mechanism for organising more holistic, patient-centred forms of care based on shared information and joint decision making with patients, thereby contributing to better quality care.

Despite the support for community-based MDT working, it has proved difficult to demonstrate its positive impacts quantitatively.⁷ Nonetheless, when reviewing the initiatives contained in the Pioneers' plans, undertaking scoping work for the evaluation and discussing their integration initiatives with representatives of the Pioneers at workshops held as part of the wider evaluation of the Pioneer Programme,⁸ MDTs appeared to be the interventions most likely to affect service users' experiences directly.^{9,10} Hence, the national longer-term evaluation of the Pioneer programme (2015–2022), which consisted of three work packages as described in the first paper in this supplement,⁹ focused a considerable amount of its resources on attempting to understand how MDTs working with older people with multiple long-term conditions in their own homes functioned in practice and the impacts they made.

The era of national integration pilots ended with the gradual emergence, towards the end of the Pioneer programme, of large scale 'integrated care systems' (ICSs), which were later put on a statutory basis in July 2022 with the establishment of 42 Integrated Care Boards (ICBs) in England.¹¹ The ICBs are NHS bodies responsible for all but the most specialised NHS services for populations of one to three million people and work alongside a wider statutory integrated care partnership (ICP) convened jointly by local government and the NHS. The ICP aims to coordinate the activities of NHS, local government (e.g., social care and public health) and the voluntary sector concerned with

health and wellbeing to develop a health and care strategy for the ICS, and to plan and coordinate local services. It is intended that the ICSs meet their objectives through the work of both statutory bodies and more local agencies at 'place' level within each ICS area. 'Places' are often defined by individual local authority boundaries with populations of 250,000 to 500,000 and are thus the closest descendants of the Pioneers. The findings of the MDT component of the Pioneer evaluation are most relevant to this level within ICSs.

This final paper in the supplement aims to identify and summarise the cross-cutting findings from each of the preceding analyses and perspectives, and to relate these findings to the conceptual framework of MDT functioning set out in the introductory paper in the supplement.⁹ This framework was used to guide the design and data collection. This final paper also attempts to relate the findings to other research in the field. It further aims to analyse the implications of the findings for future policy, practice and research, with particular reference to the current English health and care system context.

Methods

The empirical papers in this supplement of the *Journal of Health Services Research & Policy* report the largely qualitative findings of the component of the wider Pioneer evaluation focused specifically on community-based MDTs. These findings present the perspectives of different local actors involved in, and affected by, the Pioneer programme: patients and their informal carers ('patient' is used as an umbrella term throughout the supplement to include users and clients of other services), local strategic and managerial staff, and frontline health and care staff.⁹ This approach allowed for an exploration of the contribution and experiences of a range of managerial, clinical and other stakeholders at different levels within the Pioneers' local health and care systems, against the backdrop of national policy imperatives towards integrated care. This is relatively unusual in studies of service integration.

The MDT evaluation was undertaken in two contrasting Pioneers with 11 MDTs covering four models of MDT functioning. These are referred to as P1 and P2 in what follows, with more detail in this supplement's introductory paper.⁹ The recruitment of contrasting Pioneers and inclusion of a range of MDT models also enabled exploration of how different contextual and MDT-specific characteristics shape MDT functioning and perceived performance (e.g., outputs and impacts on staff and patients), as outlined in the conceptual framework (see Figure 1 Durand et al.⁹).

The conceptual framework of community-based MDT functioning, described in the introductory paper,⁹ was developed to help identify the domains and activities on which we needed to collect data, to facilitate the exploration of

potential causal pathways between these dimensions of MDT working and relevant outcomes, and to help us understand the impact of factors such as different contexts and MDT operating models on outcomes. Data were collected using a range of different methods, as follows:

- *Interviews with strategic and managerial staff responsible for care integration* - contributed to understanding local strategic and operational goals, contextual and environmental factors, intervention inputs, group processes, and perceived outputs and outcomes
- *Interviews with frontline MDT staff* - contributed to exploration of their understanding of formal MDT goals, expected inputs and processes, and their perceived outputs and outcomes
- *Observations of MDT meetings* - contributed to exploring and understanding inputs and intervention processes (collaboration and group behaviours), plus gaining insights into the added value of MDT working, and key staff and resources (e.g., local authority housing staff), published separately¹²
- *Interviews with service users and informal carers* - contributed to understanding context, requirements of target populations, and experiences of care, including perceived collaboration (or not) between professionals and services in providing care
- *Experiences of staff and patients during COVID-19 pandemic* - contributed to understanding changes in inputs, resources and processes in the face of a major system disrupter.

Results

Differences and similarities between the MDT models

Despite the differences between the four models of MDTs studied in the two Pioneers in composition, objectives and ways of working,¹²⁻¹⁴ there were strong similarities between the teams in how staff viewed the nature and benefits of their teams. Frontline MDT staff conceptualized the team as overwhelmingly driven by a shared sense of purpose to deliver care more holistically, especially to the most vulnerable, and often overlooked, patients. MDT working was judged to benefit both patients and staff. Staff also regarded teams as contributing to reducing the influence of traditional professional hierarchies and boundaries, and to providing effective means for collective problem-solving and sharing responsibility for patient care between professionals with different skills and knowledge.^{12,14} Working through inter-professional 'tensions' and managing responsibilities within the inherent constraints of time and expertise seemed, if anything, to strengthen relationships within the

team, build a sense of shared purpose and enhance the ability of the MDT to work effectively in the local health and care system.

Despite strong similarities in study participants' understanding of the nature of an MDT, the ways of working and precise roles of each MDT were adapted to the context and the needs of their populations. In some cases, this was reflected in team boundaries being porous, allowing membership to adapt to meet local needs flexibly. Other differences were more formal, including those between teams that primarily fulfilled a coordinating function and those that combined this with providing at least some elements of direct care and support.

In both Pioneers, the MDTs supported older patients, including those discharged from acute hospitals, and also attempted to prevent unplanned hospital admissions. P1's MDTs also responded to other adults with complex needs, and played a largely care-coordinating role, with a focus on supporting GPs and general practice staff to respond more effectively to the needs of patients with multiple needs and conditions. P2 MDTs focused more exclusively on frail older people, and as well as co-ordinating and planning care, provided direct support to those on their caseloads. Patients and their informal carers did not routinely attend MDT meetings in either Pioneer.

P1's MDTs coordinated the care journeys of individuals referred to them, considering such cases, usually quite briefly, at their meetings to determine next steps in their management and routes through care. For example, they advised referrers and those handling cases directly about the pathway judged most appropriate to a patient's needs, oversaw progress along such pathways, receiving and responding to progress reports at team meetings and, in principle, overseeing or conducting reviews at different points in a patient's journey. Much of this role was not visible to patients though they might be aware that their case was being overseen by staff beyond those directly providing their care. In contrast, P2's MDTs combined care coordination with providing direct support and care, particularly in the immediate aftermath of discharge of frail older patients from local acute hospitals.

Principal cross-cutting findings

The main issues related to MDT working across health and social care identified from the different analyses presented elsewhere in the supplement are set out below.

- (1) *MDT functions and roles in local systems (related to context in the conceptual framework)*: MDTs were seen by both strategic level managers and frontline staff as an essential means of working towards local health and care integration, but the local context shaped their precise aims, structure and resources.

Although staff cited three original MDT aims (reducing hospital admissions, integrating health and social care and targeting high risk patients for support), each of which was driven by both national and local system policy, the way that frontline staff interpreted and implemented these aims appeared to have evolved over time as they tackled the day-to-day practicalities of managing multimorbidity and associated social care-related problems. Frontline staff occasionally experienced tension between focusing on the original policy-based aims and the pressure to respond in new ways to meet immediate patient needs by innovating and taking a more holistic approach to care.^{13,14} The level of professional experience and leadership skills of managers or team leads were also seen as important for championing strategic vision and driving sustained efforts to work in more integrated and less hierarchical ways.^{12,14} While the national 'I-statements' intended to guide the Pioneer Programme were rarely named, both strategic and frontline staff described MDT aims and patient-related activities which were consistent with their content.^{13,14}

- (2) *Benefits and facilitators of multidisciplinary working through MDTs (related to processes, outputs and outcomes in the conceptual framework)*: At local system level, MDTs were seen as having the potential to provide more holistic care, reduce duplication of tasks between staff, speed up access to care and enhance care at home in the hope of reducing unplanned hospitalization.¹³ MDT frontline staff viewed the benefits as: better information sharing, including sharing patient-related information that would otherwise have been less easily accessible; collective problem-solving which enriched decision-making about the best care for the patient; opportunities to learn from other professional groups; and the demystifying of other professionals' remits, referral and intervention criteria, together with the capacities and capabilities of other services.¹⁴ In the survey of MDT staff,¹⁵ GPs were more likely than other professions to strongly agree that the meetings increased their understanding both of the roles of other professionals and of the local services available. A shared sense of purpose to deliver holistic care helped to erode traditional professional hierarchies, and to enable collective problem-solving and shared responsibility for patient care.¹⁴ Staff described feeling valued and heard, irrespective of profession, seniority or job description, while a commitment to equity regardless of seniority and experience level contributed to a sense of cohesion and mutual respect. Some described an absence of obvious medical hegemony.¹⁴ Frontline staff perceived benefits to

patients in terms of improved care co-ordination, improved access to a wider range of services, reduction in the need for patients and carers to repeat their 'stories' to individual services, and the potential to meet the needs of patients who were perceived by staff as 'harder to engage'. The MDT facilitated sharing of information from the services and professionals involved in a patient's care, along with staff understanding of the patient's wishes, thereby enabling the collective identification and co-ordination of a patient-tailored care package.¹⁴ MDTs allowed a more proactive approach to care, for example, by pre-empting potential deterioration or the requirement for further input from services.^{12,14} The proactive and new ways of working needed and implemented during the pandemic¹⁶ echo what staff reported about the flexibility of the porous nature of MDTs.¹⁴ Patients too mentioned the benefits of good communication between the services involved in their care, placing particular value on having an identified individual professional they could contact and who could be relied on to help them navigate services or otherwise support them.¹⁷

- (3) *Challenges and barriers (related to inputs, resources processes, outputs and outcomes in the conceptual framework)*: The main barriers to efficient MDT working reported by strategic leaders and front-line staff were the lack of shared information systems and the inability to access patient records in care systems; differences in, and lack of understanding of, the referral and eligibility criteria of participating services; insufficient resources in terms of finance, time and staffing within the team to optimise the potential for reducing avoidable admissions; and staff turnover, related to uncertainties about the continuation of funding of MDTs.¹²⁻¹⁴ Overcoming or working round these implementation difficulties necessitated obtaining active support of relevant stakeholders, creating new professional relationships and, commonly, changes in organisational cultures.¹³
- (4) *Concerns about the inability to measure and demonstrate the value of MDT working (related to inputs, outputs and outcomes for staff and patients in the conceptual framework)*: Both strategic managers and frontline staff were aware that the benefits of MDT working that they believed their patients realised were not well captured by commonly used performance indicators (e.g., reductions in hospital admissions) with the consequence that the value of MDTs might be systematically under-estimated. Without relevant performance or outcome measures, their achievements might not be recognised or considered unduly dependent on the subjective impressions of staff (while also lacking direct evidence

from patients and their carers).^{13,14} Although there was no apparent consensus among either strategic leaders or frontline staff about which specific indicators might be applied to most appropriately assess MDT performance, the need for use of both quantitative and qualitative or 'softer' measures in order to fully capture performance was voiced.

- (5) *Resources and staff (related to context, inputs (resources), processes and staff satisfaction in the conceptual framework)*: The observations of MDT meetings¹² identified the importance of even basic infrastructure necessary to support community-based MDTs, especially adequate meeting space with good wi-fi connections; shared or at least reasonably accessible separate patient/service user records; and dedicated administrative support. Some general practice settings were not fit-for-purpose with extremely cramped office and meeting spaces affecting the effectiveness of MDT meetings. Administrative support was vital for smooth working but, in some cases, largely dependent on time-limited funding. Regardless of team composition, there was consensus about the appropriateness and value of the diverse mix of skills within the MDTs and/or being able to access this input. P2 MDT meetings were reported to include individuals from a wider range of professions/disciplines than those in P1 (e.g., hospital doctors and occupational or physiotherapists were said to be regular attenders in P2 but not in P1).¹⁵ However, staff in both Pioneers highlighted limitations associated with a lack of specialist input in some areas - in particular, social housing, learning disabilities, the management of specific chronic conditions (e.g., Parkinson's disease, chronic obstructive pulmonary disease, diabetes), pharmacy, community dietetics, end of life care and substance abuse. Expertise on housing appeared particularly valuable for the P1 MDTs (where senior social workers were recruited with expertise in housing matters and experience of the local social housing situation) but specialist housing staff did not take part directly in discussions in the MDT meetings.¹² There was generally a mismatch between the number and range of health services' staff able to attend meetings to agree management plans for patients and their social care counterparts from the local authority. The latter were generally fewer in number. In P1, the two senior social workers representing social care and other local authority services at MDT meetings were tasked with bringing information from colleagues to the relevant MDT and coordinating the implementation of MDT decisions within their own areas of responsibility. They also aimed to improve MDT decisions by directly representing social care

and housing perspectives in the consideration of individual cases and broadening the understanding of NHS staff on the potential roles and resources of local authorities. There was, however, little back-up if they were unable to attend MDT meetings.

- (6) *Patient and carer experience (related to context, and patient and carer experience in the conceptual framework)*: Patients often appeared unaware that MDTs were involved in their care (the exceptions were two of the MDTs in Pioneer P2 where some patients and carers indicated having contact with team members). This has implications for patients' and carers' understanding of the roles and responsibilities of those co-ordinating and providing their care and support, as well as their ability to influence such care. In addition, such gaps in their knowledge and understanding would need to be addressed if patient and carer perspectives are to be incorporated into MDT quality and performance assessment.

Equipment and home modifications (which allowed for maintenance of independence), timely access to and continuity in care, effective information sharing and communication, professionals who engaged with them in a manner that suggested that their needs mattered, and having a named point of contact were all valued. Where it was difficult to access services or professionals (e.g., GPs), where information sharing was poor, or services were perceived to be inflexible, or where they experienced harm or had concerns about care quality, then patients and carers felt let down, neglected and angry. Perceptions varied as to whether care was considered joined up. Carers experienced their own unmet needs in their caring roles. New ways of accessing care (e.g., from GPs) during the pandemic suited some but not others.^{16,17}

It was notable that the MDT meetings in both Pioneers generally took place without patients or informal carers being present.¹⁴ The teams we studied, particularly in P1, were not directly patient-facing, though their individual members generally did have such roles. In effect, from the user and carer perspective, they were operating 'behind the scenes' to coordinate the inputs from a range of professionals and the local voluntary and community sector, including the work of other teams in direct patient contact. In P1, patients formally consented to being discussed by MDTs though the MDTs generally liaised with individual professionals and sometimes teams more directly involved with the care of the patients being discussed at the meetings. Despite patients and carers not being present, the observed discussions were largely patient-centred.¹² Some MDT frontline staff acknowledged that involving patients more directly might be beneficial but there

was also an acceptance that, given the large number of cases to be discussed at each meeting, this was infeasible. It is possible that MDT meetings could have been made more person-centred rather than relying on professionals as proxies by limiting the number of cases discussed in the time available, thereby enabling more patients and carers to take part directly. In turn, this would have required additional preparatory work to prioritise cases for discussion. It is unclear which team member(s) could have taken this responsibility on behalf of the team.

While both the apparent lack of awareness of MDT involvement in their care co-ordination and the absence of patients/carers from MDT meetings might appear to be in contrast with the Pioneers' focus on the patient-centred 'I-statements', the extent to which patient/carers participation and/or representation in MDT meetings is absolutely necessary is likely to vary depending on the function of the MDT. For example, patient and carer involvement is essential in the conduct of needs assessments but not necessarily in all the coordination activities of the types of MDTs we studied. Many of the patients discussed at MDTs were receiving care directly from other teams, who would ordinarily discuss and explain treatment and support plans to patients and their carers directly. The absence of the patient and/or carer voice in MDT discussions does, however, likely risk limiting the potential for improving services and for identifying harms, particularly with a patient population living with multiple long-term conditions, who have been found to have a higher risk of experiencing safety incidents.¹⁸

These findings indicate that the original MDT framework remains a useful tool for studying and understanding MDTs coordinating health and social care for older people in the community living with multiple long-term conditions. However, it is only a heuristic to assist in collecting data and furthering understanding of how MDTs function and how they might be better supported in the future. Its linear appearance should not be taken to be an entirely accurate account of how MDTs work in practice.

Discussion

Taken as a whole, the findings broadly reinforce rather than challenge the findings of evaluations of the series of other nationally initiated, time-limited, integration pilot programmes in England since the mid-2000s,² including the Partnerships for Older People Pilots¹⁹ and the Integrated Care Pilots,^{20,21} which preceded the Pioneers programme. The findings are also very familiar in light of the findings of the evaluation of the New Care Models Vanguard programme,^{22,23} whose launch

partially overlapped the second wave of Pioneers in 2015 and whose evaluation took place alongside the current study. Each programme included the aim of improving coordination between hospital and community-based services in the NHS and between the NHS and other place-based care and support in specific local areas.

One of the main similarities between the programmes at the patient/user level was the strong focus on improving multi-disciplinary, health and social care ‘case management’ of older people with long-term health conditions living at home. While all initially gave their local sites discretion in how to go about improving care coordination in line with local priorities, and started with broadly defined goals emphasising improving the quality of care and users’ experiences, these were gradually narrowed by central government and its agencies to encourage a closer focus on more urgent and health service-orientated (and also more measurable) targets such as reducing unplanned acute hospital use and delayed discharge from hospital care. This narrowing revealed that, for the centre, ultimately, the pilots became subordinate to, and instruments of, the more immediate requirement to manage financial and demand pressures on the acute hospital sector, perhaps the most highly and politically visible part of the English NHS.

Staff in all the recent pilot programmes, including the Pioneers, were generally positive about the experience of being involved in pilots and in what they had achieved, even if there were relatively few examples of measurable changes attributable to the specific pilots.² As Checkland et al.²³ put it, in relation to the Vanguard:

‘The most common longer term ‘success’ identified by our respondents was not the achievement of particular metrics, or the retention of particular initiatives, it was the development of a local sense of purpose and commonality of vision about what they were trying to achieve.’^{23(p8)}

This is perhaps the most lasting legacy of the series of national pilots that started with Partnerships for Older People Pilots in the early 2000s and ended with the close of the Vanguard programme in 2018.

Pioneer staff at strategic and MDT service delivery levels generally reported positive experiences of attempting to work in more integrated ways.^{13,14} They valued the ability to share information about patients, often in ‘real-time’; learning about services, processes and decision-making of other participating agencies; planning strategies for patients and/or their carers that services found difficult to engage; managing risk; and being supported by colleagues when faced with managing often distressing and stressful cases for which there were few easy solutions. This was echoed in the findings from the observations of MDT meetings.¹² Pioneer key informants, including those who participated in the wider evaluation of the programme, also reported positively

on the experience of having to work closely together during the pandemic and of being encouraged and supported to do so.^{15,16} Many of these findings were echoed in the Integrated Care Pilots^{20,21} and Vanguard²³ evaluations. As such, they can reasonably be considered the cumulative inheritance of practice and learning on which the newly statutory ICSs are hoping to build.

Understanding of the impact of attempts to improve care coordination on the experience of patients and informal carers is more limited. None of the national evaluations was able to undertake a rigorous assessment of patient and carer experience and quality of life comparing pilot patients and carers with similar patients and their carers receiving care elsewhere. This was planned in the current evaluation but eventually proved impossible even in the few Pioneers willing and able to accommodate such data collection.¹⁰ Similarly, no comparative study of service user experience was possible in the national Vanguard evaluation.²³

Another difficulty, as noted above, is that coordination activities may occur ‘behind the scenes’ and not be visible to patients and their informal carers. Consequently, it may be argued that successful activities are less likely to be observed by patients and thus more likely to pass without comment. For example, as in the Pioneer evaluation, the Integrated Care Pilots evaluation deliberately asked service users about their care experiences in general and not about the impact of the pilot itself, since most may have been unaware of the pilot or of any of its specific activities. Service user survey results were reported for 700 users in the Integrated Care Pilots’ areas who had completed two rounds of the survey and who were documented as having received an intervention associated with the pilot. Service users who had not received such an intervention were excluded. As a result, no comparisons were made between pilot and ‘usual’ care. The surveys presented a mixed picture over time. Thus, respondents reported an increase in receipt of care plans and knowledge of whom to contact following an admission to hospital, but also reported being less involved in decisions about their care, being less likely to see the nurse they preferred, being less in control of their lives and being less likely to have their preferences taken into account by care workers.²⁰

The current findings also resonate with a recent umbrella review synthesizing evidence on the factors shaping how collaborations between local health care and non-health care organisations function.²⁴ The study included data from the UK, US, and other countries and identified factors in five interrelated domains:

- *Motivation and purpose* - such as vision, aims, perceived impacts, and commitment to collaboration. For example, unclear aims or lack of commitment can hold back collaboration.
- *Relationships and cultures* - such as trust, values, professional cultures, and communication. For

example, shared values and history of joint working can help organisations collaborate.

- *Resources and capabilities* - such as funding, staff, data sharing and skills, and how these resources are distributed. For example, lack of resources is commonly identified as a barrier to collaboration.
- *Governance and leadership* - such as decision-making, accountability, engagement, and involvement. For example, senior leadership commitment and clarity of accountability are thought to help collaborations function.
- *External factors* - such as national policy, politics, and broader institutional contexts. For example, national policy changes can conflict with local priorities or disrupt existing relationships.

All five domains shaped the work of the MDTs in the current study, and they are included in our conceptual framework.⁹ The first three are most strongly apparent since the main focus of the current supplement is the micro level of health and care integration. However, frontline staff reported that their work was also affected directly by the nature of governance and leadership in the local health and care system.^{12,14} Members of the MDTs shared a commitment to multi-disciplinary working and found that working together had built mutual respect and trust. Resources were clearly important, including those that were in short supply.

Implications for policy and practice

Our findings demonstrate that some of the most fundamental building blocks for enabling better health and social care integration at both system and service delivery levels were not in place when the MDTs were studied, despite promises that were made at the start of the Pioneer programme in 2013.¹

Integrated patient information. Linked and/or integrated patient/service user data systems across health and social care were much discussed at the inception of the Pioneers but progress has been patchy. Lack of routine access to linked NHS and local authority social services data to enable the easier coordination and monitoring of individual patients' care across agencies was highlighted repeatedly in staff interviews about MDT working and through the research team's observations of MDT meetings but is still not widely available currently. Both IT interoperability issues and the lack of shared patient record systems slowed down the real-time exchange of information about patients.

The need for more effective information sharing and communication between the professionals or services involved in their care and between those services and patients was also highlighted by patients and their informal carers. A number of carers and patients pointed out that they effectively had to take

on the role of information integrators between services themselves. Barriers, such as the ongoing lack of shared patient records, need to be addressed as a priority. Ferris,²⁵ former National Director of Transformation at NHS England, makes a strong efficiency case for such investment in high-risk care management describing a service that:

uses aggregated health data to identify people with the highest risk for admission to hospital, and proactively manages their health and social care to avoid recurring acute events and assist with comfort at the end of life. Interoperable patient record systems (or use of the same record system) enable this set of services to be managed in close coordination between GPs, home hospital, and social care. Success of these services is dependent on continuity of relationships, information, and the personalised management plan.^{25(p4)}

Moreover, our experience suggests that investment in integrated health and social care patient information systems should enable the collection, perhaps on a sample basis, but routinely, of some performance data relevant to the goals of MDTs, such as related to patient and carer experience, and quality of care, rather than continuing to rely on performance indicators only partially relevant to the value created by MDTs.

Investment in specialist expertise. Though team membership was described as porous, the need to more easily involve and sometimes include routinely staff with the type of *specialist* expertise required to address the needs of caseload patients - e.g., local housing services, specialist substance misuse teams, etc. - came through clearly. Community MDTs working with groups of general practices cannot expect to be able to include all the potentially necessary expertise. This would be a very inefficient use of scarce skills. However, the normalisation of video conferencing during the pandemic offers a practical way to involve specialists more frequently in the case management discussions of specific patients.

Previous research on MDTs has indicated that greater involvement of social care and other staff who can address the non-medical challenges that caseload patients and their carers face is needed in teams who are performing case management/ care co-ordination.²⁶ The current findings reinforced the value of including senior social work staff in the MDTs, while highlighting the imbalances that exist between NHS and local authority input into such teams.

Communicating with patients and carers. Our findings also suggest that MDTs, regardless of whether designed primarily to co-ordinate care or to be involved in its delivery as well, could better communicate to those on their caseloads their roles in co-ordinating care. Even if it is not feasible to involve patients and their carers in MDT meetings, our

findings suggest that there is still some distance to travel before expectations are fully realised so that patients are consistently made aware that their needs and care are being discussed by an MDT, and are kept abreast of decisions being made about their care, by being routinely provided with care plans or by having a named point of contact on the team. It should be possible for MDTs to find a way to involve patients and/or informal carers more directly and more regularly than currently, perhaps online or by phone.

Support for informal carers. Finally, the vast majority of the patients interviewed depended on family, friends and neighbours to provide informal care and support, sometimes with quite significant implications for the lives of those caring for them.¹⁷ Their needs also require higher priority and accompanying investment from those co-ordinating care for patients.

Implications for future research

The challenges we faced in undertaking the evaluation¹⁰ suggest both that a number of changes could be made to the research environment to better facilitate the evaluation of health and social care integration, and that some changes to the focus and approach to evaluation are also warranted.

Since 'integration' or 'coordination' of health and social care is widely sought after and can be defined and pursued in many different ways, it is extremely challenging to evaluate robustly. The Pioneer evaluation demonstrates that policy makers' and research commissioners' expectations of what evaluators can accomplish in relation to the evaluation of health and social care integration in the English health and social care context currently verge on the unrealistic.¹⁰

However, there are steps that could be taken differently, particularly by those designing integrated care initiatives and those commissioning evaluations to improve the situation.²⁷ Researchers have much less room to manoeuvre unless these two sets of actors adapt. For example, more could be done by policy makers when introducing new schemes to make evaluative research easier at little or no extra cost. While acknowledging that English health and care pilots are in effect exercises in 'learning by doing' rather than formal experiments,^{28,29} it would greatly assist evaluators if schemes regarded as 'innovative' could be defined and described in greater detail and more clearly so that they can be distinguished from prevailing forms of integration. The suggestion is not that policy makers prescribe how sites participating in programmes such as the Pioneers innovate, but rather that both policy makers and research commissioners are clearer in defining the type of integration initiatives which they view as innovative, systemically important and feasibly evaluable through comparative studies, when commissioning comparative research. In the Pioneer programme, it was extremely

difficult to distinguish 'intervention' from 'control' areas in terms of their activities because there was a wide range of initiatives within sites, many of which were also likely to be found outside the Pioneer Programme areas or which predated the Programme. It would also help greatly if the patient/service user population of interest could be better defined (e.g., geographically and/or in terms of personal characteristics) to make comparative evaluation easier to design and undertake. This would increase the ease with which routine health and social care service use data could be used for evaluation. More could also be done to support researchers to obtain local health and social care system-wide agreement to participate in an evaluation rather than having to obtain separate agreement from each local organisation.

The range and availability at individual level of routine data, especially on user experience and on health services delivered outside hospitals and in social care, also imposed major limitations on the Pioneer evaluation and could be improved. However, it is recognised that improving routine data is a costly undertaking and has long been discussed. Nonetheless, there is a present need for more straightforward processes for approving sharing of such routine data in an anonymised form with independent researchers than is currently available.

Changes to the focus and approach to evaluation. There are fundamental questions to be asked about the nature of integrated care evaluations in the future. Based on the experience of the long-term evaluation of the Pioneer programme and other recent attempts in England to evaluate nationally inspired integrated care initiatives, the key question is whether the approach needs to change. The invitation to tender for the Pioneer evaluation³⁰ alluded to the difficulties of undertaking an economic and impact evaluation of the Pioneers while at the same time requiring applicants to attempt it.

There was a further major impediment to realising the wishes of those who commissioned the long-term evaluation of the Pioneers. This was the lack of definition of the changes that the Pioneers were tasked with bringing about and of what being a Pioneer entailed. At the patient level, the local action tended to cohere around community-based MDTs organised around groups of general practices with a major focus on improving care coordination for older people living with multiple long-term conditions. However, as highlighted in the analysis of the challenges of evaluating these MDTs,¹⁰ such teams were hardly new or distinctive to the Pioneers.

Health and care 'integration' is perhaps too imprecise a policy goal - more of an aspiration - to be capable of being evaluated as an identifiable 'intervention' using controlled or quasi-experimental means. In the absence of a major change in the way in which national level health and care policy is made (which seems highly unlikely and would not come about simply to serve the interests of better policy

evaluation), arguably the focus should usefully shift away from initiatives and the interventions nested within them towards studying trends in the characteristics, processes and performance of local health and care systems over time. Thus the key research questions would no longer be, for example, 'Is national programme X an advance on status quo ante Y?'. Such a question would be replaced by questions such as: 'How are local health and care systems (e.g., the new Integrated Care Systems in England's NHS) evolving? Are they evolving in ways that are potentially causally associated with greater capacity and capability to deliver care that better meets the needs of patient/client groups A, B, C, etc.?'.

This different approach to evaluation might involve the use of multi-methods longitudinal, prospective cohort designs, involving large numbers of participants in several ICS geographical areas. Findings from the many previous experimental and quasi-experimental evaluations of integrated care system level initiatives and specific interventions could be synthesised to generate a set of process indicators known to be associated with better integrated care experiences and outcomes which would be tracked over time. The empirical focus would be on identifying the changes occurring in processes such as those related to governance, resource allocation, staff development, team working, information systems, individual service delivery and so on, and assessing whether, taken as a whole, these were increasing or reducing the likelihood that services would more closely meet the needs identified by patients/users and their informal carers through repeat surveys.²

Future research on MDTs. Below the system level, there is, however, still a place for evaluations of specific, frequently implemented 'interventions' or 'mechanisms' of health and social care integration. However, rather than attempting the highly challenging task of comparing MDTs with 'non-MDT working',¹⁰ the focus needs to be on comparing the costs and benefits of different approaches to MDT working about which surprisingly little is known. For example, it would be extremely helpful for local service planners to have a much better understanding of the type and number of staff (and thus budget) required to support different scales and complexities of MDT caseload.

It is also pertinent to examine how MDTs have adapted to the advent of Primary Care Networks (PCNs) in the English NHS since PCNs have funded an expansion of the range of professionals working with groups of general practices such as clinical pharmacists, social prescribers and health and wellbeing coaches.³¹⁻³⁴ Furthermore, it would be valuable to understand the impact on patient outcomes and experiences of different models of MDT functioning by, for example, comparing MDTs which focus primarily on co-ordinating care 'behind the scenes' with those that combine both care co-ordination and provision.

A further focus for evaluative research that straddles research and routine monitoring is the development of appropriate measures of MDT performance. Currently, teams rely to a marked extent on their own and selected patients' subjective views of how well they are performing in the absence of tools for local monitoring and evaluation of MDT working.

Another approach to the evaluation of health and social care integration more generally would be to undertake 'fidelity' studies of interventions in routine practice with a view to improving their implementation rather than attempting to provide evidence of a causal relationship between a particular form of integrated care and a set of user outcomes and their related costs. This approach would obviate the need for hard-to-implement experimental or quasi-experimental study designs. On the other hand, it would require integration initiatives to be theorised and defined much more clearly in advance so that their implementation in practice could be compared with pre-specified, evidence-informed 'model(s)'. Furthermore, the existing evidence base on the core issues in 'fidelity' would likely need to be expanded in order to undertake such studies.

Limitations

There were two main limitations in our MDT evaluation. First, we were unable to study the experience of receiving and delivering care in similar neighbouring localities without MDTs. Similar MDTs were increasingly frequently to be found outside the Pioneer programme areas as the government rolled out subsequent integration pilots (e.g. the New Care Model Vanguard²³), along with a more general drive towards health and social care integration.¹¹ Furthermore, there was little incentive for general practices neighbouring the areas served by the MDTs in the current study to facilitate access to their patients to take part in the evaluation.

Second, there was a reliance on only two Pioneers (albeit contrasting and encompassing 11 MDTs) for this component of the wider evaluation. Despite lengthy negotiations, it was not possible in a number of other potentially interested Pioneers to have all the necessary organisations in the local health and care system to agree to take part. There was no one with the authority across the entire system to approve taking an active part in the evaluation.¹⁰ It is possible that the advent of ICBs¹¹ will make it easier in future to undertake work at the level of local health and care systems in England.

Conclusions

While the aims and roles of the MDTs studied may originally have been driven by national policy, these were viewed as having been shaped over time by local contextual factors and adapted to meet the needs of their populations. A key concern of staff at all levels was their inability in the

absence of MDT-specific, objective outcome measures to truly assess and demonstrate the added value of MDTs. Our research revealed that common problems - such as those related to infrastructure, the absence of shared patient records and the need to fill key professional and service gaps (e.g., housing) in teams - should be addressed with some urgency, to facilitate the effectiveness with which teams can operate to provide the holistic care they aspire to.

Moreover, changes are required to both the research environment and to how research commissioners, participating sites, and evaluation teams approach the evaluation of 'integration'.

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Ethical statement

Ethical approval

Research approvals and those for subsequent amendments were obtained from NHS Ethics (17/LO/0421) and the Health Research Authority (HRA) (IRAS 209623), the LSHTM research ethics committee (Ref: 14474) and the relevant Research and Development (R&D) Offices at the evaluation sites. Informed consent was obtained from all participants.

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Data availability statement

The datasets generated and analysed during the current study are not publicly available because they contain information that would identify the research sites, individuals, and/or case-material, and it would not be feasible to redact or otherwise anonymise them. The data custodian is Professor Nicholas Mays, London School of Hygiene & Tropical Medicine.

References

1. Department of Health. Letter inviting expressions of interest for health and social care integration 'pioneers'. <https://www.gov.uk/government/publications/social-care-integration-pioneers> (2013, accessed 28 June 2024).
2. Lewis RQ, Checkland K, Durand MA, et al. Integrated care in England – what can we learn from a decade of national pilot programmes? *Int J Integr Care* 2021; 21: 5.
3. National Voices. Integrated care: what do patients, service users and carers want? *National Voices* (2013, accessed 31 March 2023).
4. National Collaboration for Integrated Care and Support. Integrated care and support: our shared commitment. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/198748/DEFINITIVE_FINAL_VERSION_Integrated_Care_and_Support_-_Our_Shared_Commitment_2013-05-13.pdf (2013, accessed 28 June 2024).
5. Erens B, Wistow G, Mounier-Jack S, et al. *Early evaluation of the integrated care and support pioneers programme*. Final Report. London: Policy Innovation Research Unit, 2016. <https://piru.ac.uk/assets/uploads/files/early-evaluation-of-integrated-care-pioneers-final-report.pdf> (accessed 9 May 2025).
6. Erens B, Wistow G, Mays N, et al. Can health and social care integration initiatives make long-term progress? Findings from three annual key informant surveys of the integration Pioneers in England. *J Integrated Care* 2020; 28: 14–26.
7. Lloyd T, Beech J, Wolters A, et al. *Realising the potential of community-based multidisciplinary teams*. Briefing. London: Improvement Analytics Unit, The Health Foundation, 2023. <https://www.health.org.uk/reports-and-analysis/briefings/realising-the-potential-of-community-based-multidisciplinary-teams> (accessed 5 May 2025).
8. Miller R, Smith J, Durand MA, et al. *Evaluation of the integrated care and support pioneers programme in the context of new funding arrangements for integrated care in England (2015– 2020) PR-R10-1014-25001: final report to Department of Health and Social Care, and National Institute for Health Research, Policy Research programme: work package 3: engagement with pioneers, policy makers and national partner/user organisations to derive and spread learning*. London: Policy Innovation and Evaluation Research Unit, 2024. <https://research.birmingham.ac.uk/en/publications/evaluation-of-the-integrated-care-and-support-pioneers-programme-> (accessed 28 June 2024).

9. Durand MA, Wistow G and Mays N. Evaluating the role of community-based multi-disciplinary teams in England's Pioneer integrated health and social care programme: setting the scene. *J Health Serv Res Policy*. 2025; 30.
10. Durand MA, Erens B, Wistow G, et al. Evaluating health and social care integration in England's Pioneer programme: the challenges of undertaking research in service delivery and research regulatory systems that are unsuited to that purpose. *J Health Serv Res Policy*. 2025; 30.
11. UK Parliament. Health and care act 2022. <https://bills.parliament.uk/bills/3022/publications> (2022, accessed 28 June 2024).
12. Douglas N, Mays N, Al-Haboubi M, et al. Observations of community-based multidisciplinary team meetings in health and social care for older people with long term conditions in England. *BMC Health Serv Res* 2022; 22: 758.
13. Pacho A, Wistow G, Mays N, et al. The role and functions of community-based multi-disciplinary teams (MDTs) in two Integrated Care and Support Pioneers: perspectives from local system leaders. *J Health Serv Res Policy*. 2025; 30.
14. Thana L, Durand MA, Wistow G, et al. Frontline staff perspectives on multi-disciplinary team (MDT) working and the effectiveness of integrated service delivery: findings from the Evaluation of the Integrated Care and Support Pioneers in England. *J Health Serv Res Policy*. 2025; 30.
15. Erens B, Durand MA, Al-Haboubi M, et al. *Economic and impact evaluation of health and social care integrated community-based Multi-Disciplinary Teams: results from a survey of staff involved in MDTs*. London: Policy Innovation and Evaluation Research Unit (PIRU), 2021. [https://piru.ac.uk/assets/uploads/files/mdt-staff-survey-2020-report-\(erens-et-al\)-final-october-2021.pdf](https://piru.ac.uk/assets/uploads/files/mdt-staff-survey-2020-report-(erens-et-al)-final-october-2021.pdf) (accessed 26 June 2024).
16. Rehackova L, Durand MA, Pacho A, et al. The impact and legacy of COVID-19 on community-based multi-disciplinary teams organising integrated health and social care for older people with long-term conditions: findings from the Evaluation of the Integrated Care and Support Pioneers in England. *J Health Serv Res Policy*. 2025; 30.
17. Durand MA, Thana L, Al-Haboubi M, et al. The views of older patients on community-based multi-disciplinary team caseloads and informal carers about health and care services in two integrated Care Pioneer sites in England. *J Health Serv Res Policy*. 2025; 30.
18. Panagioti M, Blakeman T, Hann M, et al. Patient-reported safety incidents in older patients with long-term conditions: a large cross-sectional study. *BMJ Open* 2017; 7: e013524.
19. Windle K, Wagland R, Forder J, et al. *National evaluation of partnerships for older people projects: final report*. Canterbury, London and Manchester: Personal Social Services Research Unit, 2009. <https://www.pssru.ac.uk/pub/dp2700.pdf> (accessed 11 May 2023).
20. RAND Europe and Ernst & Young. *National evaluation of the Department of Health's Integrated Care Pilots*. Final report, full version. Prepared for the Department of Health. Cambridge and London: RAND Europe and Ernst & Young LLP, 2012. https://www.rand.org/content/dam/rand/pubs/technical_reports/2012/RAND_TR1164.pdf (accessed 11 May 2023).
21. Roland M, Lewis R, Steventon A, et al. Case management for at-risk elderly patients in the English integrated care pilots: observational study of staff and patient experience and secondary care utilisation. *Int J Integr Care* 2012; 12: e130.
22. Morciano M, Checkland K, Billings J, et al. New integrated care models in England associated with small reduction in hospital admissions in longer-term: a difference-in-differences analysis. *Health Policy* 2020; 124: 826–833.
23. Checkland K, Coleman A, Croke S, et al. *National evaluation of the vanguard new care models programme report of qualitative case studies: understanding system change*. Manchester: Canterbury and London: Universities of Manchester and Kent at Canterbury, and London School of Hygiene & Tropical Medicine, 2021. [NCM_qualitative_case_study_report_FINAL_POST_REVIEW.pdf](https://www.manchester.ac.uk/national_evaluation_of_the_vanguard_new_care_models_programme_report_of_qualitative_case_studies_understanding_system_change) (manchester.ac.uk) (accessed 28 June 2024).
24. Alderwick H, Hutchings A, Briggs A, et al. The impacts of collaboration between local health care and non-health care organizations and factors shaping how they work: a systematic review of reviews. *BMC Public Health* 2021; 21: 753.
25. Ferris TG. Unit cost and hope: increased NHS resilience through tech-enabled transformation. *Future Healthc J* 2024; 11: 100021.
26. Stokes J, Riste L and Cheraghi-Sohi S. Targeting the 'right' patients for integrated care: stakeholder perspectives from a qualitative study. *J Health Serv Res Policy* 2018; 23: 243–251.
27. Kumpunen S, Edwards N, Georgiou T, et al. *Evaluating integrated care: why are evaluations not producing the results we expect? Event summary*. London: Nuffield Trust, 2019. <https://www.nuffieldtrust.org.uk/resource/evaluating-integrated-care-why-are-evaluations-not-producing-the-results-we-expect> (accessed 5 May 2025).
28. Holder H, Gaskins M, Wistow G, et al. *Putting integrated care into practice: the North West London experience*. London: Nuffield Trust, 2015. <https://www.nuffieldtrust.org.uk/research/putting-integrated-care-into-practice-the-north-west-london-experience> (accessed 5 May 2025).
29. Smith J, Wistow G, Holder H, et al. Evaluating the design and implementation of the whole systems integrated care programme in North West London: why commissioning proved (again) to be the weakest link. *BMC Health Serv Res* 2019; 19: 228.
30. Department of Health. *Invitation to tender, Department of Health Policy Research Programme Evaluation of the Integrated Care and Support Pioneers Programme in the context of new funding arrangements for integrated care in England*. London: Department of Health, 2014. <https://piru.ac.uk/assets/uploads/files/pioneers-invitation-to-tender-2014.pdf> (accessed 5 May 2025).

31. Parkinson S, Smith J and Sidhu M. Early development of primary care networks in the NHS in England: a qualitative mixed-methods evaluation. *BMJ Open* 2021; 11: e055199.
32. Smith J, Parkinson S, Harshfield A, et al. Early evidence of the development of primary care networks in England: a rapid evaluation study. *Health Soc Care Deliv Res* 2022; 10: 1–108.
33. Baird B, Lamming L, Bhatt R'T, et al. *Integrating additional roles into primary care networks*. London: King's Fund, 2022. <https://www.kingsfund.org.uk/insight-and-analysis/reports/integrating-additional-roles-into-primary-care-networks> (accessed 5 May 2025).
34. NHS England. Additional roles: a quick reference summary. <https://www.england.nhs.uk/long-read/additional-roles-a-quick-reference-summary/> (2023, accessed 5 May 2025).