

# The international knowledge base for new care models relevant to primary care-led integrated models: a realist synthesis

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**Declared competing interests of authors:** Alison Turner reports membership of the National Institute for Health Research (NIHR) Dissemination Centre Advisory Group. The Strategy Unit (NHS Midlands and Lancashire Commissioning Support Unit) was commissioned to support the Dudley Multispecialty Community Provider (MCP) vanguard, and Alison Turner has been involved in providing evidence analysis in support of the local evaluation of the vanguard. Abeda Mulla reports membership of the NIHR Health Services and Delivery Research (HSDR) Prioritisation Panel (researcher led); The Strategy Unit was commissioned by the Dudley Clinical Commissioning Group (CCG) to deliver a primary care development programme, and Abeda Mulla is involved in providing general practices with service improvement and change support, and evaluating the programme workstreams. The Strategy Unit was also commissioned by NHS England to conduct a rapid research study in the context of General Practitioner (GP) Access, and Abeda Mulla was the technical lead for the project, overseeing all aspects of the analysis and writing the report. Andrew Booth reports being a principal investigator on a NIHR HSDR Evidence Synthesis Centre contract and membership of the NIHR Complex Reviews Research Support Unit Funding Board. Shiona Aldridge works for The Strategy Unit, which was commissioned by NHS England to conduct a rapid research study in the context of GP Access, and she was involved in undertaking the qualitative analysis; she was also involved in providing evidence analysis in support of the local evaluation of the Dudley MCP vanguard. Sharon Stevens reports being involved in providing evidence analysis in support of the local evaluation of the Dudley MCP vanguard and undertaking the evidence review for the NHS England-funded review of managing access in English general practice. Mahmoda Begum reports that, in relation to The Strategy Unit being commissioned by the Dudley CCG to deliver a primary care development programme, she is involved in providing general practices with service improvement and change support, and evaluating the programme workstreams; she was also involved in undertaking the qualitative interviewing and analysis for the NHS England-funded review of managing access in English general practice. Anam Malik reports that, in relation to The Strategy Unit being commissioned by the Dudley CCG to deliver a primary care development programme, she is involved in providing general practices with service improvement and change support, and evaluating the programme workstreams; she was also involved in undertaking the qualitative interviewing and analysis for the NHS England-funded review of managing access in English general practice.

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## Scientific summary

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# Scientific summary

## Background

The New Care Models programme was introduced to the NHS in 2014 and fifty 'vanguard' sites were selected across five different submodels. One of these submodels was a multispecialty community provider (MCP), and fourteen sites were chosen to pilot these primary care-led, community-based integrated care models. Although the model description is new, there is a legacy of integrated care models that the NHS has already experimented with. Furthermore, the MCP model was also a means of applying the international accountable care organisations (ACOs) model, most notably from the USA, which began its own Pioneer programme in 2012.

NHS England is replicating the Pioneer ACO approach of rapid-cycle evaluation and learning and diffusion for evidence-based best practices for a number of reasons, including increasing the speed of adoption and improving the timeliness of knowledge mobilisation, and has advocated shared learning throughout the vanguard models. As part of this, MCP vanguards were required to set out their long-term ambitions in logic models, articulating them in some form of the triple aim of better health, better care and better value. This triple aim has since expanded to form the quadruple aim, to incorporate staff and provider experience.

In keeping with this need for learning, our evidence synthesis aimed to clarify the underpinning evidence base for MCP-like models, both in the UK and abroad. By using a realist synthesis approach, we wanted to explain which of the mechanisms of action in other models might work in the context of a MCP, and how these relate to quadruple aim outcomes.

## Objectives

The aim of this synthesis is to provide decision-makers in health and social care with an 'actionable' evidence base for the MCP model of care. As described in our study protocol [Turner A, Mulla A, Booth A, Aldridge S, Stevens S, Battye F, Spielsbury P. An evidence synthesis of the international knowledge base for new care models to inform and mobilise knowledge for multispecialty community providers (MCPs). *Syst Rev* 2016;**5**:167], we believe that this synthesis can serve as a 'blueprint' with 'active ingredients' to inform the design and delivery of current and future iterations of the MCP model. Specifically, the objectives of the synthesis were to articulate the underlying programme theories behind the MCP model of care, by mapping the logic models of the 14 MCP demonstrator sites, prioritising key theories for investigation to:

- identify sources of theoretical, empirical and practice evidence to test the programme theories
- appraise, extract and analyse evidence, reconciling confirmatory and contradictory evidence
- develop the synthesis, producing a 'blueprint' to explain how the mechanisms used in different contexts contribute to outcomes and process variables
- consult with key MCP stakeholders to validate findings and test applicability to different contexts
- finalise the synthesis, incorporating stakeholder feedback
- disseminate the findings, preparing a series of practical tools to support knowledge mobilisation.

## Methods

We employed an iterative process through which we integrated data from the preliminary logic models with insights from stakeholders (an advisory group consisting of MCP leads and service users) and broader findings from the literature to provide a realist understanding of the MCP model of care. We first identified

MCP programme theories, using the logic models generated by vanguards through generating ‘if-then’ statements from each of the MCPs. These statements were assigned to one of the quadruple aim outcomes (i.e. population health, cost-effectiveness, patient experience or staff experience) and one of the domains across the meta best-fit framework. This framework was developed from previous integrated care programme lessons and policy guidance for MCPs. This process generated a number of themes that allowed for flow diagram illustration in a logic model fashion.

These flow diagrams and their narratives were shared with the project advisory group and, following a series of discussions, eight programme theory components were agreed upon. These were:

- R1 – community-based, co-ordinated care is more accessible
- R2 – place-based contracting and payment systems incentivise shared accountability
- R3 – fostering relational behaviour builds resilience within communities
- M1 – collective responsibility improves quality and safety outcomes
- M2 – multidisciplinary teams provide continuity for patients with long-term conditions/complex needs
- M3 – engaged and trained staff expedite cultural change
- M4 – system learning embeds and sustains transformational change
- M5 – proactive population health is dependent on shared and linked data.

The three ‘R’ theory components were prioritised by the advisory group for realist review, and the five ‘M’ theory components were developed as maps. The next stage of our realist reviews involved searching for empirical evidence in order to test and refine our programme theories within a vast and diffuse evidence base with the literature. Each item of evidence extracted was used to test the individual programme theory component and the degree to which studies supported, nuanced or challenged that theory. For each of the five mapping reviews, we started with a core set of documents, followed by ‘pearl-growing’ and ‘citation-chasing’ strategies to follow up citations and references. We then purposively identified reviews from the broader literature. The finalised programme theory components and emerging findings were tested and validated with a wider MCP stakeholder group.

## Results

The MCP programme theory components that emerged from extracting ‘if-then’ statements from MCP logic models and their thematic mapping to a metaframework (best-fit framework) encompassed an intricate set of overlapping activities and assumptions, highlighting the inherent interdependencies within such a complex service transformation. The components relate to interventions, such as new contracts, as well as behaviours, such as community involvement. These theory components were notable in their coverage of both interventions (what MCPs will do) and ways of working (how MCPs will design and deliver services). The permutation of activities is shaped by contextual factors that differed across the 14 MCP vanguards, including programme design or a legacy of integrated working. There was recognition within the MCP logic models and associated documentation of enablers of, and barriers to, change, but little explicit reference (with limited exceptions) to what might be referred to, in realist methodology, as mechanisms.

The evidence base that pertains to these theory components was, for the most part, limited by initiatives that are relatively new or not formally evaluated (such as enhanced primary care teams, or contracts based on outcomes), particularly in UK settings. A realist methodology therefore allowed for the inclusion of commentaries that, for instance, implicitly referred to mechanisms. The evidence base included limited empirical evidence; there is a limited number of small-scale evaluations comprising uncontrolled before-and-after studies or single-case studies. There are a number of commentaries drawing on experiential evidence. Support for the programme theory components varies, with moderate support for enhanced primary care and community involvement in care and relatively weak support for new contracting models. The limitations of the evidence base related to the long-term impacts of enhanced primary care teams

delivering care closer to home; the heterogeneity of contracting models and variable reporting; and the use of before-and-after methods prone to bias, resulting in a moderate level of uncertainty around the conclusions.

The extraction of data by either realist or mapping approaches allowed for the following summaries.

### R1

To deliver new and expanded roles in primary care as part of the provision of specialist care in the community requires trust between professionals, as well as appropriate training and practical tools to trigger professional willingness to adopt new ways of working, such as task-shifting for community-based care. Subsequent embedding of the effective new ways of working has the potential to achieve the outcomes of better management of chronic conditions and a reduction in the number of secondary care referrals. Cost-savings in this context are possible only following sustained implementation and stabilisation of increased demand, and if the costs of training and additional community services provision are included.

### R2

The opportunity for clinicians and patients to engage with providers and commissioners for accountable place-based contracting and payment systems requires the alignment of personal, professional and organisational values and incentives. Moreover, sufficient time needs to be allocated to learning and development, agreeing outcome frameworks, and sharing access to robust high-quality information that includes cost and quality data. This will allow the building of trust, collaboration and shared decision-making for accountability across quadruple aim outcomes. Furthermore, through service users and a diverse group of professionals having the confidence to hold providers and commissioners to account, MCP leaders will be spurred to make informed (re)investments based on clear measures of value and appropriate management of financial risk.

### R3

The development of mutually beneficial relationships in community settings for co-production purposes requires opportunities for equal and reciprocal engagement for all relevant health-care professionals and the local population. Ongoing training, guidance, feedback and practical support for community-based working needs to be provided, and roles, responsibilities and expectations have to be clearly defined. Together, they can empower individuals with the confidence to contribute to decision-making, or the sharing of experience and knowledge, to inform system priorities, especially for the longer-term aims of preventative and holistic care. Shared community ownership of health can result in improved health behaviours and increased social participation, and engender community resilience.

### M1–5

The maps further demonstrate the interdependencies between individual theory components at the individual, organisational and system levels. Professional autonomy and empowerment is critical for driving cultural change that is associated with trust and collaboration, particularly for structural development of multidisciplinary teams and integrated pathways. Cultural change needs to be stimulated through organisational development and system leadership behaviours that promote collaborative, population-based approaches to health care and aligned processes that support delivery. Shared data, in particular, offer the opportunity to improve the co-ordination and continuity of care at the individual and organisational levels, whereas MCP-wide learning can be accomplished through training and feedback loops, built into audit and formative evaluation, to support system learning and improvement.

It is clear that the delivery of a MCP requires inter- and intra-professional and service user engagement from an early stage. Much of this engagement is dependent on the notions of trust and empowerment, at both an individual level and a group level, that is, generated following activities to align values and incentives for an integrated model of care. If successful, this engagement with parallel opportunities for training and development can result in shared decision-making for accountable service users who take responsibility for their own health; accountable communities that manage demand at the most appropriate

setting with high-quality integrated care; and accountable care systems that invest and manage financial risk through agreed contracting and payment arrangements, and embed learning at individual (micro), organisational (meso) and system (macro) levels. Based on our overall findings, we have developed a conceptual model for MCPs that merges the logic model elements with realist mechanisms.

## Strengths and limitations

Conducting a review against a backdrop of continual change in a complex system is challenging; we sought to minimise this by (1) exploring transferable lessons from international comparisons and UK legacy models; (2) seeking to identify generic lessons that may be used to explore future care models that seek to achieve large-scale transformational change within complex adaptive systems (CASs); and (3) utilising the embedded status afforded by being a NHS-based team, and maintaining continuous MCP stakeholder engagement, including telephone interviews with key informants throughout the lifetime of the project (and beyond, for mobilising the knowledge gained).

Although the overall review draws on a broad evidence base, it predominantly derives from within the health sector; there may still be valuable learning elsewhere, for example, from other public services or the private sector, in relation to large-scale public-funded procurements. The iterative approach and stakeholder engagement have focused the search on the identification of key sources, but this does not eliminate the risk of confirmation bias.

## Conclusions

The overall findings are situated within a framework of CASs theory, providing an emphasis on different levels of connectivity: the micro level (agents, both professional and service users), the meso level (provider and commissioning organisations) and the macro level (the MCP vanguards). The necessary operation at the edge of chaos (e.g. dynamic nature and learning from mistakes) is likely to facilitate innovation; the feedback loops will support system learning and adaptation. For the purposes of theory-driven implementation and knowledge mobilisation, the 'capability', 'opportunity', 'motivation' and 'behaviour' (COM-B) model has been used to describe key findings, alongside a set of 'active ingredients', to inform decision-making and practice within future integrated care systems.

New care models are built on the premise of changing behaviours at the individual (i.e. clinicians, support staff, service users, carers, system leaders), community and wider system levels. Using the best-fit framework as a structure and informed by the COM-B model, the 'active ingredients' describe the conditions and activities that may help to support the development of population health-based models of care.

## Study registration

This study is registered as PROSPERO CRD42016039552.

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