

## Supplementary web material

**Table A: RAMESES Quality standards**

<b>Quality criteria</b>	<b>How the criteria were fulfilled</b>
<b><i>1.The research problem</i></b>	
The research topic is appropriate for a realist approach	The review focuses on understanding the complex interactions between organisations, professionals, and service users within health and social care systems. We sought to gain insight into the demi-regular occurrence of context-mechanism-outcome configurations (CMOCs), with the goal of producing actionable findings that could inform decision-making.
The research question is constructed in such a way as to be suitable for a realist synthesis	We sought to compare the programme theories of MCP model of care policy makers with the evidence about CMOCs of MCP-equivalent models of care internationally. Our goal was to explain how the different components of MCP models of care produce different outcomes in different contexts.
<b><i>2.Understanding and applying the underpinning principles of realist reviews</i></b>	
The review demonstrates understanding and application of realist philosophy and realist logic which underpins a realist analysis.	Key realist concepts, in particular ‘mechanisms’ and ‘contexts’ are defined and used consistently throughout the review. We used a realist logic of analysis to provide explanations in the form of CMOCs.
<b><i>3.Focussing the review</i></b>	
The review question is sufficiently and appropriately focussed.	The commissioning of the review was informed by a NIHR Health Services and Delivery Research (HSDR) workshop with service leaders, policy makers and researchers (February 2015) which identified a gap in knowledge about the evidence underpinning integrated care models such as those described in the 5YFV. Our stakeholder group provided feedback about the ongoing relevance and cogency of the research questions.
<b><i>4.Constructing and refining a realist programme theory</i></b>	
An initial realist programme theory is identified and developed.	Chapter 4 does this in depth.
<b><i>5.Developing a search strategy</i></b>	
The search process is such that it would identify data to enable the review team to develop, refine and test programme theory or theories.	The search was conducted in two stages, first to identify programme theories, secondly to identify published evidence with which to test the initial programme theory. Databases searched for published evidence spanned the clinical sciences (MEDLINE, PsycINFO and CINAHL) and social sciences (ASSIA). Search terms for published evidence were based on components of the initial programme theory. No study design search filters were used. Appendices 2&5 reproduce the search strategies.

Quality criteria	How the criteria were fulfilled
<b>6. Selection and appraisal of documents</b>	
<p>The selection and appraisal process ensures that studies relevant to the review containing material of sufficient rigour to be included are identified. In particular, the studies identified allow the reviewers to make sense of the topic area; to develop, refine and test theories; and to support inferences about mechanisms.</p>	<p>In view of the breadth and number of programme theories (which could not realistically be 'held in mind' and used as criteria), studies were selected for inclusion based on criteria (See Appendices 6&amp;7) that encompassed the range and depth of programme theories. The MMAT and AMSTAR critical appraisal tools were used to inform our judgement about the rigour of included studies.</p>
<b>7. Data extraction</b>	
<p>The data extraction process captures the necessary data to enable a realist review.</p>	<p>Data extraction forms were developed (and piloted) to capture key descriptive and methodological details, and empirical data extraction was structured by the programme theories identified. 10% of data extractions were double-checked.</p>
<b>8. Reporting</b>	
<p>The realist synthesis is reported using the items listed in the RAMESES Reporting standard for realist syntheses.<sup>47</sup></p>	<p>We have reported in accordance with the RAMESES reporting standards for realist syntheses.<sup>47</sup></p>

**Table B: Main causal links between the 13 MCP components in the revised programme theory**

<b>MCP component (1-13)</b> <b>IF</b>	<b>MCP component (1-13)</b> <b>THEN</b>	<b>Causal Link</b>
1: NHS managers establish MCPs	2: Network management will develop	R1:2
2: Network management develops	3: MDTs will develop	R2:3
	6: Care coordination through IT use will develop	R2:6
	7: Planned referral networks will develop	R2:7
3: MDTs are established	4: culture change in the health system	R3:4
	5: MDT working supports voluntary involvement	R3:5
	6: MDT working produces informational continuity of care through IT	R3:6
	7: Planned referral networks will develop	R3:7
	8: MDTs produce better demand management systems	R3:8
	9: Preventive health care will develop	R3:9
	10: MDTs produce care planning at patient level	R3:10
	11: MDT working diverts patients from hospital to primary care	R3:11
4: Culture changes occur in the participating organisations	12: MDTs produce better patient experience and outcomes	R3:12
	3: MDTs will develop	R4:3
	9: Preventive health care will develop	R4:9
5: Voluntary sector becomes involved in MCPs	12: Culture change in healthcare providers produces better patient experience	R4:12
	9: Preventive health care will develop	R5:9
6: HIT is used to strengthen informational continuity of care	12: Voluntary sector involvement contributes to improved patient outcomes	R5:12
	3: Informational continuity of care promotes MDT working	R6:3
	7: Planned referral networks will develop	R6:7
	8: Informational continuity of care promotes demand management systems	R6:8
	9: Informational continuity of care promotes preventive care	R6:9
	10: Care planning for individual patients will become more prevalent	R6:10
	11: More patients will be diverted from in-patient to primary care services	R6:11
7:planned referral networks develop	13: Informational continuity of care saves costs	R6:13
	10: Care planning for individual patients will become more prevalent	R7:10
8: Demand management systems develop	11: More patients will be diverted from in-patient to primary care services	R7:11
	11: More patients will be diverted from in-patient to primary care services	R8:11

10: Care planning for individual patients becomes more prevalent	9: Preventive health care will develop	R10:9
	11: More patients will be diverted from in-patient to primary care services	R10:11
	12. Patient experience and care will improve	R10:12
11: More patients are diverted from in-patient to primary care services	12. Patient experience will improve	R11:12
	13. NHS costs will reduce	R11:13

**Table C: Causal links in the initial programme theory for which we found insufficient evidence and which were thus not carried forward in to the revised programme theory**

<b>MCP Component (1-13)</b>  <b>IF</b>	<b>MCP Component (1-13)</b>  <b>THEN</b>	<b>IPT Causal Link</b>
4 Culture changes occur in the participating organisations	8 that will produce demand management systems	4:8
5 Voluntary sector becomes involved in MCPs	8 Demand management systems will reduce pressure on secondary care	5:8
7 Planned referral networks develop	8 Demand management systems will be strengthened	7:8
7 Planned referral networks develop	9 Preventative health care occurs	7:9
8 Demand management systems develop	9 Preventative health care occurs (and vice-versa)	8:9
8 Demand management systems develop	10 Care planning occurs at individual patient level	8:10
11 More patients are diverted from in-patient to primary care services	Other: General practice will benefit	11:other
Other: Care coordination and demand management systems occur together	Other: More responsive urgent care develops	other

**Table D: Evidential status of additional causal links to those in the initial programme theory**

№		Additional Causal Links	Studies: Number (quality appraisal score)	Evidential status
3	4	MDT produces culture change in the health system	1 (50%)	
	5	MDT working supports voluntary involvement	1 (50%)	
	6	MDT working produces informational continuity of care	1 (50%)	
	8	MDTs produce better demand management systems	1 (75%), 2 (50%), 1 (25%)	
	10	MDTs produce care planning at patient level	1 (100%), 5 (75%), 5 (50%), 1 (25%)	
	11	MDT working diverts patients from hospital to primary care	2 (75%), 1 (50%), 1 (25%), 2 SRs (9/11, 7/11)	
	12	MDTs produce better patient experience and outcomes	2 (100%), 3 (75%), 2 (50%), 2 (25%)	
4	7	Culture change promotes referral network development	1 (100%), 1 (75%), 1 (50%)	
	12	Culture change in healthcare providers produces better patient experience	1 SR (6/11), 1 narrative review (0/11)	
5	12	Voluntary sector involvement contributes to improved patient outcomes	5 (100%), 2 (75%), 1 narrative review (0/11)	
6	3	Informational continuity of care through IT promotes MDT working	1 (75%), 1 (50%), 1 (25%)	
	8	Informational continuity of care through IT promotes demand management systems	1 (100%), 1 (75%), 1 (50%)	
	9	Informational continuity of care through IT promotes preventive care	3 (100%), 1 (50%)	
	13	Informational continuity of care through IT saves costs	1 (50%)	
<b>KEY</b>				Partial/minimal support
				Supporting evidence
				Substantial evidence