

# Achieving inter-organisational collaboration between health care providers: a realist synthesis of theoretical, empirical, and stakeholder evidence

Ross Millar<sup>1\*</sup>, Justin Avery Auger<sup>1</sup>, Anne Marie Rafferty<sup>2</sup>, Joanne Greenhalgh<sup>3</sup>, Russell Mannion<sup>1</sup>, Hugh McLeod<sup>4</sup>, Deborah Faulks<sup>5</sup>,

<sup>1</sup> Health Services Management Centre, School of Social Policy, University of Birmingham, Birmingham, UK

<sup>2</sup> Florence Nightingale Faculty of Nursing, Midwifery & Palliative Care, King's College London, UK

<sup>3</sup> School of Sociology and Social Policy, University of Leeds, UK

<sup>4</sup> Population Health Sciences, Bristol Medical School, University of Bristol, UK

<sup>5</sup> Engaging Communities Solutions, Blakenall Village Centre, Walsall, UK

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## \*Contact details for the corresponding author:

Dr Ross Millar  
Health Services Management Centre  
School of Social Policy  
University of Birmingham  
Email: [r.millar@bham.ac.uk](mailto:r.millar@bham.ac.uk)  
Phone: [REDACTED]

## Competing interests:

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None declared by all authors

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## Scientific Summary

### Background

Improving the collaboration and integration of services has become a mantra for health care systems. Inter-organisational collaborations (IOCs) such as alliances, groups, associations, networks, and mergers have been closely linked to policy contexts where governments have promoted collaboration as a solution for meeting the innovation, coordination, efficiency and quality challenges currently being faced. A variety of factors have been attributed to achieving success within such initiatives. These include the importance of organisational capacity, having a shared vision, building trust, and collaborative leadership. However, realising the advantages of collaboration is far from straightforward with notable barriers including the influence of historical events, competitive behaviour, the regulatory environment, and a lack of organisational resources.

Despite the burgeoning evidence base and increased policy emphasis on collaborative working, notable gaps in knowledge persist. As a result, our understanding of the mechanisms and processes for spreading and sustaining evidence about how IOC relationships work in practice is limited. Many questions remain about how inter-organisational arrangements work, for whom, and in what circumstances. Given the complexities of collaborative arrangements, contributions identify how 'theories of change' (ToC) approaches provide a way to assess how collaboration synergies are shaped by contexts, behaviours, and structures. Realist approaches to the study of IOCs are advocated, however, applications within health care settings have hitherto remained an underdeveloped area.

### Objectives

The research has the following inter-related objectives:

1. To explore the main strands of the literature about inter-organisational collaboration and identify the main theoretical and conceptual frameworks that can be used to shed light on the conditions and antecedents for effective partnering across sectors and stakeholders.
2. To assess the empirical evidence with regards to how different inter-organisational practices may (or may not) lead to improved performance and outcomes.
3. To understand and learn from NHS evidence users and other stakeholders about how and where inter-organisational collaboration can best be used as a mechanism to support turnaround processes.
4. To develop a typology of inter-organisational collaboration that considers different types and scales of collaborative ventures that are appropriate for particular NHS provider contexts.
5. To generate evidence informed practical guidance for NHS providers, policy makers and others with responsibility for implementing and assessing inter-organisational collaboration arrangements in the NHS.

## **Methods**

A realist methodology is employed to provide useful intelligence regarding how, why, and in what circumstances different approaches to inter-organisational collaboration can improve the performance of NHS provider organisations.

## **Data sources**

Given the large, multifaceted and complex nature of IOCs, an 'initial rough theory' was developed by combining a review of grey and narrative literature, along with systematic reviews of evidence to capture key definitions, typologies, ingredients and outcomes. Subsequent systematic searches were conducted to gather evidence about how IOC works and the contextual factors shaping a range of entities such as alliances, buddying, mergers, acquisitions, and hospital groups. Searches were run between 07.10.20 and 04.03.21 on databases including the Healthcare Management Information Consortium (HMIC), MEDLINE, Social Policy and Practice, and PsycINFO, and Google Scholar. Reference scanning and citation tracking was also employed.

We conducted a realist evaluation to further test our refined programme theory by exploring the experiences of a range of stakeholders comprising the leaders or architects of IOCs, regulators, policymakers, professional bodies, frontline staff, and patient representatives.

### **Inclusion criteria**

The realist review used the following inclusion criteria for the title and abstract stage: “the paper clearly relates to collaborations between one or more public sector organisations on either a structural or individual level” and “the paper is a case study, evaluation, opinion, or review”. Full text screening also included “propositions about the success or failure of collaboration in the public sector, mechanisms underlying how collaboration works, or include information about ‘entry points’ (i.e., drivers of collaboration)”. For the refinement stage, we included papers that 1) were case studies or evaluations (defined as reporting results of arrangements using descriptive methods), 2) report on an inter-organisational collaboration between health care providing organisations, 3) and were in English language, due to resource limitations of the study.

A purposive sampling strategy identified participants through contacts via our study advisory group and from direct contact with potential individuals and organisations identified through scoping work. Participants were chosen based on their likelihood of being able to provide rich information about various aspects of IOCs from either being engaged in formulating, influencing, implementing, or experiencing such arrangements. The final sample comprised 37 interviews and one focus group with eight patient and public representatives.

### **Data extraction**

Selected studies were subject to rigour and relevance checks in line with realist synthesis methodology. The screening for rigour was ongoing and primarily involved only including context mechanism outcome configurations (CMOCs) when 1) supported by clear data in included studies and 2) by multiple sources. For theoretical sources of evidence, only theories that had seen significant use in the literature since publication were used in the building of our middle range theory and CMOCs. No studies or extracts were excluded on the basis of trustworthiness. Analysis of the realist evaluation interview data was performed in NVivo 12 software by one coder (JA) with the coding logic independently verified by a second coder (RM). Coding was performed retroductively combining inductive and deductive logic.

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## Data synthesis

Theory gleaning synthesised document evidence according to whether they shed light on entry points into collaboration, contextual factors, mechanisms, or other elements relating to collaborations that helped elucidate the underlying ideas and assumptions regarding how collaboration was intended to work. Theory refinement aimed to test the identified CMOCs against case studies and improve our programme theory. The realist interviews and focus group provided further refinement the CMOCs relating to collaborative functioning as well as glean novel CMOCs relating to collaborative performance. Interview data were retroductively analysed in NVivo 12.

## Results

The realist synthesis incorporated reviews, middle-range theories, case study and organisational evaluation literature. A total of 86 papers produced a refined realist theory that surfaced the interrelated roles of trust and risk tolerance, faith, task complexity, interpersonal communication, cultural integration, perception of progress, among others, and how these causally interact to drive collaborative behaviour. The results demonstrate that in mandated or highly integrative collaborations, the locus may be shifted from trust towards contractual obligation and a sense of confidence that the partner will act collaboratively. These chains of CMOCs were situated within a 'causal web' to depict how distant contextual items and their mechanisms work to affect the outcomes underpinning organisational performance.

Stakeholder interviews supported the CMOCs identified within the review. In doing so they further articulated how building and sustaining trust was connected to the leadership skills and behaviours of authenticity, empathy, visibility, and generosity. A commitment to place based approaches also featured, along with the importance of stakeholder engagement, data analysis, and project management. The findings also show how a delicate balance is required for building faith, where energising leadership is tempered by the stark capacity issues facing current NHS contexts. The importance of priority setting and data analytics features in building faith, however, increasing task complexity can reduce faith particularly when working across boundaries. Interviews also stress the need for confidence and memoranda of understanding in particular types of IOC.

The results present the first comprehensive realist evaluation of how well-functioning IOCs can drive performance improvements. Drawing on the domains of collaborative performance, the interviews and focus group identify how Cultural Efficacy mechanisms prove to be particularly important in driving improved communication, better coordination, shared improvement strategies, and reputation management. Organisational Efficiency mechanisms highlight the causal links between collaboration and improving financial and workforce resource allocation, as well as better coordination to increase responsiveness as well as reduce duplication. Technological effectiveness sheds light on the benefits collaboration can bring for research and development and working across clinical pathways.

## Conclusions

Through analysis of theoretical, empirical, and stakeholder evidence, the research presents a synthesis of middle-range theories and CMOCs to better understand how, why, and what circumstances IOCs are effective for NHS providers. It finds that the core mechanisms of collaborative functioning comprise the development of trust, faith, and confidence. The extent to which task success or failure is achieved is mediated by supporting mechanisms related to capacity, legitimacy, complexity, conflict, and risk tolerance. Performance improvement from collaboration can be achieved when mechanisms underlying organisational efficiency (e.g. reduced duplication of effort), cultural efficacy (e.g. enhanced coordination in local health system), and technological effectiveness (e.g. sharing clinical expertise) are activated. The findings conclude that performance improvements occur in a context of collaborative functioning, which in turn drive improvements in long term outcomes including care quality, safety, efficiency, and experience.

The findings provide a range of practical steps that organisations can take in the development of IOCs. This includes the development of diagnostic surveys for assessing collaboration to help organisations assess their readiness for collaboration as well as diagnose collaborations which are already progressing. A pilot of the survey with a Mental Health Provider Collaborative shows promising signs for its utility in providing a valuable means for stimulating discussion with regard to the perceived readiness for collaboration. A maturity index for collaboration is also presented to assess levels of collaboration and encourage critical discussion and reflection.

A range of theoretical, empirical, and policy implications arise from this research. Specific issues that warrant further consideration and investigation, include:

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1. Where much of the analysis of IOCs has captured the experiences, processes, and outcomes from the perspective of those leading programmes and initiatives, further research is needed to gather workforce perspectives regarding how new processes are understood and operationalised, and how IOCs shape patient and user interactions.
2. Research is required to better grasp how IOCs can engage and improve population health by further involving patients and communities by drawing on principles of co-design and co-production.
3. Covid-19 has been a driver for activity using digital platforms for communication, yet further research is needed to better understand and nurture 'interpersonal communication' across digital platforms and the role of digital technology in facilitating collaboration.
4. Further research is needed to investigate the applicability and adaptability of a number of the elements raised by this project, such as the roles of faith, trust, and other mechanisms, within the formation and maintenance of place-based partnerships. Learning from other national contexts could facilitate such efforts, with further comparative studies of IOCs from across the UK and beyond.
5. A review of regulatory models and perspectives for overseeing collaborative ventures is required, learning from other sectors and health care contexts where appropriate.
6. Building on our realist theory of collaborative performance, further research is needed to disentangle the motivators and drivers from the 'outcomes' associated with IOCs. Such analysis can support the current policy landscape placing greater emphasis on measuring the outcomes and social value generated from collaborative working.
7. Further research is required in order to articulate the cross sectoral relationships within the current IOC policy agenda. The place and positioning of social care and third sector requires further development. Furthermore, greater attention to the role of public/private partnerships is needed, and the private sector more specifically, within collaboration and integration agendas.

## **Study registration**

The review component of this research is registered at PROSPERO with ID CRD42019149009. This study was granted favourable ethical opinion from the University of Birmingham Ethics Board, as well as Health Research Authority on January 14th 2020.

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