Methodological gaps and opportunities for studying multisectoral collaboration for health in low and middle income countries

Abstract

The current body of research into multisectoral collaborations (MSCs) for health raises more questions than it answers, both in terms of how to implement MSCs and how to study them. This paper reflects on current methodological gaps and opportunities for advancing MSC research, based on a targeted review of existing literature and qualitative input from researchers and practitioners at the 2018 Health Systems Research (HSR) Symposium in Liverpool. Through framework analysis of 205 MSC research papers referenced in a separately published MSC "overview of reviews" paper, this article identifies six broad MSC question domains ("meta questions") and applies content analysis to estimate the relative frequency with which these meta questions and the research method(s) used to answer them are present in the literature. Results highlight a preponderance of research exploring MSC implementation using case study methods, which, in aggregate, does not seem to adequately meet policymakers' and practitioners' needs for generalizable or transferable insights. The content analysis is complemented by qualitative insights from HSR Symposium participants and the authors' own experience to identify six key methodological gaps in research on MSC for health. For each of these gaps, we propose areas in which we believe there are opportunities for methodological development and innovation to help advance this field of study, including: better understanding the role of power dynamics in shaping MSCs; development of a classification framework (or frameworks) of governance arrangements; exploring divergence of perspective and experience among MSC partners; identifying or generating theoretical

frameworks for MSC that work across sectors and disciplines; developing intermediate indicators of collaboration; and increasing transferability of insights to other contexts. Collaboration with researchers outside of the health sector will enhance efforts in each of these areas, as will the establishment and strengthening of pluralistic MSC evidence networks also involving policymakers and practitioners.

Introduction

There is widespread consensus that multisectoral collaboration (MSC) is essential to achieving the Sustainable Development Goals (SDGs) and Universal Health Coverage (UHC), both of which require policies and interventions extending beyond the health sector (1,2). Despite this, many fundamental questions have yet to be answered about MSC for health, which we define here as:

> *"a recognized relationship between part or parts of the health sector with part or parts of another sector which has been formed to take action on an issue to achieve health outcomes (or intermediate health outcomes) in a way that is more effective, efficient, or sustainable than could be achieved by the health sector acting alone."* (3).

A paper by Glandon et al. identifying health policy and systems research (HPSR) priorities on MSC for health in low and middle income countries (LMICs) demonstrated a clear need for more evidence on MSCs and a lack of clarity on the types of research designs and methods that can best generate that evidence (4). In this paper, we appraise the underlying research papers from the previously published HPSR priority-setting exercise to address our first two aims, namely to: 1) identify key research question domains ("meta questions") currently addressed in the MSC literature; and 2) describe research methods used to answer those questions (4). We also draw on participant input from a skill-building workshop at the Health Systems Research (HSR) Symposium in Liverpool, UK (8-12 October, 2018) to address our third aim: to identify methodological gaps and opportunities for MSC research, with a focus on LMICs.

Methods

Key MSC research questions and associated methods (Aims 1 and 2) are derived from 38 review articles that informed a previously published HPSR priority-setting exercise on MSC for health (4) and the underlying research papers from those articles. Reflections on methodological gaps and opportunities (Aim 3) were derived from the underlying research papers, the comments of the authors of the 38 review articles, participant feedback at the HSR symposium, and the research experience of the authors of this article.

MSC review articles and underlying papers

For this analysis, we built on a previously published overview of 38 review articles on MSC for health (4). Key methods for that article, which applied the same definition of MSC as outlined above, are re-printed in Box 1. To obtain a more granular picture of questions addressed and methods used, we retrieved the underlying research papers from the 38 articles included in the overview of reviews. Ten of those 38 articles listed the specific studies reviewed; from those 10 articles (5–14), we identified 207 underlying research papers for the data extraction and analysis described here. The remaining 28 articles from the overview of reviews did not clearly list underlying papers, typically because they were literature reviews; for those articles, we extracted data from the article itself. This resulted in a total of 235 papers included in the data extraction (Figure 1). Thirty articles were excluded because they were not research articles; did not describe their methods; did not include an abstract in English, Spanish, French or Portuguese; or focused on the health sector only. One of the authors (XX) applied framework analysis (15) to inductively identify 5-6 meta questions (Table 1) addressed across the research papers, including four that are project life cycle-related (initiation, governance, implementation, adaptation) and two (measurement, contextualization) that are cross-cutting. Then, one of three authors (XX, XX, XX) applied content analysis (16) to assign labels corresponding to: a) the meta question(s) most closely matching

the research question(s) posed by the authors; b) an inductively generated list of methods, as reported by the authors; and c) whether the paper included a theoretical framework to guide the analysis, which we defined as *"any empirical or quasi-empirical theory of social and/or psychological processes, at a variety of levels (e.g., grand, mid-range, and explanatory), that can be applied to the understanding of phenomena"* (17). In practice, the latter determination was based on the authors' mention of a theoretical framework or lack thereof. Any questions about the appropriate label(s) were discussed within the reviewer team to arrive at a consensus decision.

Box 1: Key methods for the previously published overview of reviews of MSC research (4)

Search strategy

- Controlled vocabulary and keyword search to match four key MSC concepts in article titles and abstracts across eight major health and social science databases
- Searched articles published between January 2000-March 2017

Inclusion criteria

- Published in English, Spanish, French, or Portuguese, with an abstract available in English; Published in the peer-reviewed or grey literature;
- Described collaborations that include institutions within the health sector plus one or more non-health sectors;
- Described collaborations that include at least one key objective or outcome that relates to human health, well-being or a determinant of health; and
- Described collaborations that identify at least one official government office/department/entity of the country in which action is being undertaken as a key actor/stakeholder.
- Note: Articles were excluded if considered not to be a review (including, for instance, commentaries, case studies, project or policy narratives, and articles with no described methodology for a review). There were no restrictions related to the income level of the countries in which the underlying research was based.

Search results

- Search yielded 5,376 records, which were then reduced to 159 through two rounds of abstract screening, and then to the final 38 articles through full text review
- Of the final 38 articles, 21 focused on high income countries (HICs), six focused on LMICs, and 11 did not specifically mention any countries (e.g., because they had a global scope), or included countries from a mixture of income categories.

Figure 1: Diagram of article selection for data extraction

(Figure 1.jpg)

MSC-themed sessions at the Health Systems Research Symposium in Liverpool

Participant input from the HSR Symposium was gathered through small group discussions in which participants (see details in Supplementary File 1) identified outstanding MSC research needs related to one or more meta questions (see Table 1) and then proposed methods to help address some of them. Notes from facilitators and workshop rapporteurs were collated for review.

Table 1: Meta question domains related to multisectoral collaboration for health

Meta question domains	**Illustrative question topics from articles**	**Illustrative research needs (framed as questions) from workshop**
Initiation: *How can or should MSCs be initiated?*	Key opportunities, conditions or drivers for MSC formation; appropriate scope and scale; which partners to engage and when and how to engage them	"When is MSC most beneficial or necessary (as opposed to single sector approaches?)" "What are the main incentives and disincentives for other sectors to address a health issue?" "How can we best frame health issues to other sectors? "What are the policy narratives that can be employed to identify common goals for different sectors?"
Governance: *Which governance structures and mechanisms work best for MSCs?*	MSC governance structures and attributes, including leadership; voice, inclusiveness and representation; roles and responsibilities; accountability and information sharing mechanisms	"What types of leadership and governance structures or modalities are most effective for MSCs?" "What is the process of determining the leadership home for multisectoral activities?" "How do we determine whether the right stakeholders are engaged?" "How can we understand the power distribution between key stakeholders/sectors for a given issue and leverage it for multisectoral collaboration?"
Implementation: *How can MSC implementation be better understood and managed?*	MSC implementation, including key strategies, approaches, challenges and success factors; building capacity for engagement; maintaining stakeholder commitment	"What types of capacities are needed for multisectoral action – for the coordinator and for other stakeholders?" "How can we better understand the mechanisms of collaboration in MSCs and how they contribute to key outputs" "How can we compare MSC implementation processes (formal and informal) as they occur in practice, to what was planned?" "How do we establish and maintain a high level/quality of stakeholder engagement?"
Adaptation:	Key factors and actions affecting sustainability of MSCs over time;	"What factors are necessary for sustaining MSCs over time?"

How can MSCs be sustained or adapted over time?	adapting MSCs to changing conditions; whether, when and how to conclude MSCs	"How do different stakeholders or sectors conceptualize sustainability?" "How do stakeholder roles vary over time (e.g., at different stages) in MSCs?" "How sustainable is a multi-sectoral approach relative to single sector approaches for a given issue?"
Measurement: *How can the functioning and impact of MSCs be measured?*	Indicators or assessments of MSC inputs/costs, functioning, outputs, outcomes, and/or impacts; value-add of MSC vs single-sector approaches; attributing results to MSC components or partners	"Who decides what gets measured in MSCs? How does the negotiation process for MSC indicators influence implementation and success?" "How can the evaluation approach accommodate the dynamic/evolving nature of MSCs?" "What types of methods make the most sense for studying various aspects of MSCs?" "How best can beneficiary experiences be reflected in the evaluation of MSCs?" "How best can we quantify the costs (e.g., time, labor, resources) of MSC vs. single-sector approaches?" "How does the strength/level of collaboration between actors affect outcomes of interest?" "What is the value-add of MSC? Is it worth the effort?"
Contextualization: *Which contextual factors have the greatest effect on MSCs across place, time, etc.?*	Key contextual factors affecting MSC likelihood, formation, implementation, impact, etc. across place, time, topic, partner type(s), etc., including nature and extent of their influence on MSCs	"How do contextual factors like the political system affect the feasibility, types, and outcomes of MSCs?" "How do informal structures and relationships – e.g., personal networks – affect the feasibility and functioning of MSCs?" "Governance structures, implementation strategies, and evaluation methods all depend on context – how do we identify which contextual factors matter most?"

Findings

Of the 205 papers reviewed, 82% focused on HICs; remaining papers were split evenly between a LMIC focus (9%) and a global focus (9%). Papers differed substantially in how they conceptualized MSC, which was variously approached through the lenses of joined up government, Health in All Policies, integrated health and social services, collaborative governance, social determinants of health, sustainable development, public-private partnerships, policy networks, North-South partnerships, and a variety of issue areas (e.g., One Health, early childhood development, zoonotic disease, antimicrobial resistance, non-communicable diseases, active living environments). Despite the diversity of framing, there was substantial overlap in the types of questions addressed by the studies.

Aim 1: Types of research questions about MSC currently being addressed

Among the 205 papers, the most common research questions (Figure 2a) related to MSC implementation, typically involving a description of how MSCs were managed or coordinated, often with a summary of barriers, success factors, and/or lessons learned.

Measurement questions were the second most common and were often paired with implementation questions. Authors commonly asked some variation of "what happened and what were the results?", typically with greater emphasis on process than outcomes. A minority of papers focused exclusively on measuring the functioning, outputs, outcomes, or impact of MSCs; of these, a large proportion focused on integrated health and social services (e.g., for homeless populations, indigenous groups, etc.).

The third most frequent category of questions related to MSC initiation, typically identifying key conditions, drivers, or obstacles. Several articles sought to prospectively identify MSC design and feasibility considerations in a particular context. Governance questions were often integrated within studies exploring initiation or implementation and were also typically descriptive.

Questions about context and sustainability were relatively few, often focusing on a single context (e.g., particular country initiative, time period, set of actors) and thus not well suited to exploring the relative influence of various contextual factors. The few studies addressing adaptation typically asked about it as a complement to other questions (e.g., "which aspects of a partnership's structure affect its sustainability?").

This distribution is broadly similar for the LMIC-focused articles, albeit with a relatively greater focus on initiation and governance and less on measurement (Figure 2b).

Figure 2: Distribution of research articles on MSC by topical focus/meta question

(Figure 2a.jpg)

(Figure 2b.jpg)

Caption: Figure 2a depicts the number of papers (of the 205 included in the data extraction) addressing each meta question. The assignment of papers into one or more meta question categories was completed by XX, XX, and XX based on the nature of the research questions posed by the article authors. Over half (54%) of the papers addressed more than one meta question, with an average of 1.8 and median of 2 meta questions addressed per paper. Consequently, the sum of the numbers across all the meta questions is greater than the total number of papers reviewed. Figure 2b depicts the same information for the LMIC-focused papers only (n=18).

Aim 2: Research methods used to answer MSC research questions

Given the myriad methodological decisions in many studies, we focused on study design and data collection and de-emphasized methods of analysis. For instance, we identified papers that used a case study design, interviews, document reviews, etc. (often in combination) but did not differentiate between them based on their approach to qualitative coding, thematic analysis, or other analytical methods.

Figure 3: Distribution of research articles on MSC by research methods applied

(Figure 3a.jpg)

(Figure 3b.jpg)

Caption: Figure 3a depicts the number of papers (of the 205 included in the data extraction) that applied each of the listed research methods, as reported by the article authors and as tagged by XX, XX, and XX. For the data extraction, we focused on the key methodological aspects of study design and data collection; methods related to data analysis were only included when they had clear implications for the data collection approach. Approximately 61% of the papers applied more than one of the listed research methods, with an average of 2.2 and median of 2 methods applied per paper. Figure 3b depicts the same information for the LMIC-focused papers only (n=18).

Case studies were by far the most commonly used method (Figure 3a), particularly for initiation and implementation questions (Figure 4a). Case studies commonly included a combination of interviews, document review, focus groups, and/or observations, consistent with best practice for case study research (18).

Literature reviews (including systematic reviews) were also common (5th ranked), even after excluding the 28 articles without underlying papers. Surveys mostly addressed questions about MSC initiation, structure, implementation and measurement; these were often self-administered questionnaires sent to MSC implementers and/or beneficiaries. Survey items variously included numbers and types of workers, service delivery figures, Likert-type scales, and open-ended questions about respondent experiences. Quasi-experimental methods, trials, and cohort studies (often including surveys, interviews, and/or secondary data analysis) were far less common and predominantly addressed questions of measurement. Many of these papers focused on measuring the effects of service integration initiatives at the implementation level. While 61% of the papers employed multiple methods, only 8 papers (3.4%) explicitly described using mixed methods; this may be related to the recent increase in the use of mixed methods (19), whereas the underlying papers reviewed range from 2001-2017.

For LMIC-focused papers, the bulk of the research employed reviews, interviews, and case studies to address initiation, governance and implementation questions (Figure 3b, Figure 4b).

Only one third (33%) of the research papers (21% of LMIC-focused papers) applied a theoretical framework to guide their study design. This paucity of theoretical framing is consistent with reviews of MSC papers elsewhere (5).

Figure 4: Distribution of research methods on MSC by topical focus/meta question

(Figure 4a.jpg)

(Figure 4b.jpg)

Caption: Each cell in this table represents the number of times a particular meta question was addressed and a particular research method was applied within the same research paper. The list of methods was inductively generated from the description of methods within each research article; the assignment of papers into one or more meta question categories was completed by XX, XX, and XX during the data extraction process. The colors in

the diagram reflect the joint frequencies of the co-occurring methods and meta questions along a three-color spectrum, where green represents the highest frequency, red is the lowest frequency, and yellow marks the mid-range based on percentile rank in the distribution. Since papers often included multiple meta question and methods, the totals exceed the total number of papers (Fig. 4a: n=205; Fig. 4b: n=18) included in the data extraction.

Aim 3: Methodological gaps and opportunities for development and innovation

As alluded to above, there is a substantial body of literature describing a diverse array of MSCs and a growing list of recommendations and "success factors." For example, Kuruvilla et al.'s review of twelve country MSC case studies highlights the importance of: mobilizing stakeholders around multisectoral issues; establishing shared understanding of the issue(s) and goals; building on existing mechanisms; ensuring adequate resourcing and incentives; continuous learning through monitoring and evaluation; investing in collaborative relationships; and agreeing on criteria for success (20). Similar recommendations can be found in reviews throughout the literature, many of which also draw substantially from case studies (5–8,10,11,13,21–26).

While the literature offers a wide variety of MSC examples and implementation tips, there has been little exploration of how contextual factors affect MSCs (e.g., in terms of feasibility, implementation, outcomes). Limited application of theoretical frameworks and relatively infrequent use of quantitative and mixed methods – even for questions focused on measuring MSC outcomes – make it difficult to elucidate and measure the causal pathways through which MSCs produce desired outcome(s) (12). These gaps constrain the specificity of insights about MSCs, resulting in high-level recommendations that, while conceptually sound and intuitively appealing, leave many important questions unanswered (4).

Participant discussion at the HSR Symposium reinforced the above observations, while delving further into research needs and gaps associated with MSC meta questions and opportunities for addressing them. This section summarizes key gaps that emerged from participant discussions, one for each meta

question (acknowledging that some cut across multiple meta questions), and offers illustrative examples of how these can be re-framed as opportunities for enhancing MSC research.

Initiation

Gap: Limited understanding of the role of power in shaping MSCs

While papers studying MSC initiation often describe key steps in the formation process and salient contextual factors, power dynamics between partner institutions are often underexplored. There is limited understanding of how power imbalances affect MSC formation, structure, and implementation, including negotiation between stakeholders about what constitutes "success" and which indicators to measure. A better understanding of the processes through which interventions were selected may reveal undocumented objectives of the MSC which might otherwise go unaccounted for.

Opportunity: Incorporate power analysis into studies of MSC formation and implementation

Research on how the distribution and exercise of power affects MSC development may provide additional insight into how and why a given MSC took shape in a particular way and foreshadow stakeholder dynamics during implementation. For instance, Okeyo et al. (27) are conducting a case study of MSC during the policy formulation stage of the First 1000 Days Initiative in Western Cape Province, South Africa. Using a combination of stakeholder mapping, document review, in-depth interviews, and observation, the team seeks to understand stakeholder power dynamics during the negotiation process, determine why and how particular interventions were prioritized, and identify specific aspects of the initiation process with ongoing implications for MSC implementation.

Governance

Gap: Lack of clarity about how to identify and compare governance arrangements for MSC

Governance arrangements are complex and highly variable across initiatives, making it difficult to compare them and ascertain which arrangements are effective in various circumstances, for certain

types of partners, and to achieve certain objectives. The need for more information about governance structures was highlighted in multiple papers (8,28) and echoed at the HSR symposium.

Opportunity: Theoretical and empirical classification of key types of MSC governance arrangements

There is a need to distill types of arrangements so that MSCs can be classified and compared. Authors such as Rasanathan et al. have proposed a draft typology based on the role of the ministry of health (e.g., lead actor, partner, supporting actor, etc.) (2). Others, such as Keast, have discussed the need to consider partnerships of different levels of operation (strategic/policy, administrative/managerial, and practitioner levels) (29). Such efforts should be complemented by empirical approaches to identifying emergent partnership structures. For example, Khan, Hanefeld et al. (30) are applying qualitative methods and social network analysis to investigate connections and power dynamics between stakeholders involved in policy setting and implementation around antibiotic use in Pakistan. Broader application of similar MSC network mapping across a variety of contexts may be useful for identifying structural patterns (both formal and informal), which in turn may help refine theoretical types. This should be complemented by empirical assessment of key factors that make these governance arrangements work (or not) in various contexts, such as the political economy analysis of a multi-sector nutrition initiative in Pakistan by Zaidi et al. (31), which highlighted the importance of where the MSC governance structure is administratively housed, the design and authority over financing and monitoring mechanisms, and the provision of dedicated resources for horizontal coordination.

Implementation

Gap: MSC implementation processes often remain a "black box"

MSCs are often characterized by complex dynamics within and between stakeholder institutions throughout implementation. Objectives, interventions, and processes may change in unexpected ways

in response to contextual factors and unforeseen circumstances. Unpacking what actually happened can be difficult even in the best-case scenario.

Opportunity: Implementation research taking into account diverse experiences between MSC partners

Applying implementation research frameworks, including identifying implementation strategies and outcome variables, can help structure research on MSC processes. It may also be useful to explicitly document discrepancies in implementation experiences between partners, given that each partner has a unique perspective, motivation, and role, and may be at a different stage of acceptance, adoption, and implementation at any given time. Mondal et al. (32), for instance, are studying the implementation of a national tobacco control policy in a southern state of India by examining it from the perspective of each of the key partners. Building on a landscape analysis of the macro policy context, the mixed methods explanatory case study employs network analysis to characterize relationships between actors and a combination of in-depth interviews and observations to identify contextual factors, facilitators and barriers affecting each partner's engagement in the MSC.

Adaptation

Gap: Inadequate theoretical or conceptual framing of MSCs

The limited application of theoretical frameworks suggests a lack of conceptual clarity about how to study MSC for health. As with single sector initiatives, MSCs are likely to experience fluctuations in partner priorities, funding, internal capacity, and other factors. There may be turnover among individual leaders, champions, and boundary spanners. While an appropriate theoretical framework is relevant at all life cycle stages, it may be particularly useful for anticipating and making sense of changes over time, as well as helping partners determine whether, when, and how the MSC should adapt to changing circumstances.

Opportunity: Systematic reviews of MSC theoretical frameworks, within and beyond health sector

One critical starting point is common definitions and frameworks. There is a need for stock-taking of the various ways in which MSC is conceptualized, particularly given the substantial body of work on MSC theories in other fields like public administration. Multi-disciplinary systematic reviews of theoretical frameworks for MSCs may help identify common elements and points of variation across topical areas, sectors, and stakeholder types. Toward this end, Dar et al. (33) are conducting an umbrella systematic review and comparative thematic concept analysis to understand how "sustainability" is operationalized across One Health disciplines, including human health, animal health, and the environment. The study also draws on key informant interviews with health security stakeholders in Nigeria and Ethiopia to develop an analytical framework for evaluating sustainability that will be commonly understood and accepted by each of the sectors involved.

Measurement

Gap: Difficulty measuring results and impact attributable to MSC

Multiple authors have noted inter-related challenges in developing monitoring and evaluation frameworks for MSCs, including: limited understanding of causal pathways to population-level changes (9)*;* missing links between short-term and long-term outcomes (34); and poor or non-existent indicators and targets. This has impeded attribution of observed population-level outcomes to MSCs (12,35). Consequently, the evidence base linking investments in MSCs to health and equity outcomes is often inadequate to make a compelling case to many decision-makers, both in the public and private sector (36). Given the effort, time, cost, and complexity of MSCs, it is not reasonable to assume that MSCs are always more appropriate or effective than single sector approaches.

Opportunity: Identify and measure intermediate indicators of collaboration

This challenge highlights the need for thoughtful, rigorous evaluation of MSCs. Given the opacity of implementation processes, there may be value in identifying and measuring appropriate indicators of collaboration as intermediate steps along the causal pathway toward intended outcomes. While the nature of the collaboration will vary between MSCs, it may be possible to identify specific, ongoing relationships that represent critical points of interface between partner institutions. Studying these relational interfaces may shed light on the health or strength of a collaboration. As a demonstrative step in this direction, Glandon et al. (37) conducted a mixed methods study to develop and test a psychometric scale measuring collaboration between three key types of frontline workers from two ministries (health and nutrition) who work in triads across nearly a million villages in India. Such a measure could be used to investigate the link between frontline worker collaboration and outcomes of interest (e.g., immunization of mothers and infants) and to help assess interventions to improve collaboration. As the number and variety of intermediate indicators for MSC grows, it may become possible to identify a set of core or standard indicators to enable comparability across contexts.

Contextualization

Gap: Limited ability to draw transferable lessons for other MSCs

The purpose, partners, relationships, structure, and funding of each MSC are influenced by the interplay of political, economic, cultural, social and organizational contexts. Collaborations cannot be easily replicated from one place to another, as it is difficult to disentangle the approach from the context. The lack of research into contextual factors makes it difficult to draw transferable lessons for MSCs elsewhere.

Opportunity: Establish a set of key contextual details to include in MSC research

Studies of MSC would benefit, both individually and collectively, from fuller elaboration of contextual details. In qualitative research, *thick description* refers to "the (researcher's) process of paying attention to contextual detail in observing and interpreting social meaning" (38). This not only helps readers critically appraise the interpretation and make an informed inference about the applicability of the findings to other contexts (39), it also plays a critical role in refining the theory(ies) guiding the researcher's interpretation, helping ensure that they are "capable of continuing to yield defensible interpretations as new social phenomena swim into view" (40). Drawing on the same concept (if not necessarily the specific method) of elucidating context to guide interpretation, MSC research – regardless of the method(s) applied – would be strengthened by the systematic inclusion of a key set of contextual details in all research publications, supplemented by any additional details deemed relevant for a given MSC. While the specific set of contextual factors considered "key" is likely to emerge and evolve over time, the 2018 analysis of twelve country case studies by Kuruvilla et al. (20) and the multisectoral case study methods guide they drew from (41) include several logical candidates, such as: MSC rationale and objectives; drivers of MSC initiation; the type and number of sectors and stakeholders involved; location; breadth of scope (e.g., pilot vs. at scale); main beneficiaries; required resources; time span; and key process, output, and outcome indicators.

The five methodological challenges outlined in this paper (power dynamics between stakeholders, type of governance arrangement(s), theoretical or conceptual framework(s), diversity of stakeholder experiences, and measures of collaboration functioning) represent notable information gaps currently limiting the interpretation of MSC research findings; consideration and description of each as part of broader set of contextual details would substantially assist readers' efforts to derive transferable insights from MSC successes and failures alike.

Conclusion

Focusing specifically on research addressing collaboration across thematic sectors, but including health, this analysis indicates that a sizeable majority of MSC research to date has taken the form of case studies and associated methods, most commonly focusing on questions related to MSC implementation and, to a lesser extent, initiation. While over half of the studies (54%) sought to assess the functioning and/or impact of MSCs, these efforts have been largely qualitative, excepting studies on integrated health and social services. While there is ongoing value in well-conducted, theory-driven case studies, there is also a need for implementation research and a greater use of mixed methods, including quantitative assessment of MSC implementation and outcomes. Further, MSC research would be strengthened by greater employment of conceptual frameworks and theories; the development of typologies of collaboration that facilitate comparison of different collaborative approaches; and greater attention to context and how this affects processes and outcomes. The methodological gaps identified here also underscore the need for greater engagement with researchers outside of the health sector as well as the establishment and strengthening of pluralistic MSC evidence networks also involving policymakers and practitioners.

Given the interdependence of health with other SDGs, the term “MSC for health” in some ways obscures the need for fuller recognition of the targeted outcomes of non-health stakeholders (e.g., as opposed to trying to convince them to prioritize health outcomes), as underscored by Alfvén et al. proposed for health sector professionals broadly (42). At the same time, the term reflects an assumption that many stakeholders are likely to continue to prioritize their sector-specific objectives and ascribe instrumental rather than intrinsic value to other sectors’ objectives when allocating resources. Public health and health systems researchers, for instance, will likely continue to be primarily focused on investing in interventions and collaborations that will influence health outcomes. Similarly, given that MSCs 1) come at a cost (e.g., time, labor, and resources to develop shared vision and strategy, to manage coordination,

communication, accountability, relationship-building, etc. across potentially very different organizational structures, processes, and cultures), and 2) cannot be assumed, a priori, to produce better outcomes than single sector interventions, health sector policymakers may be (justifiably) disinclined to invest in an intervention that risks being less effective or efficient in achieving targeted outcomes simply because it is multisectoral (political pressures and incentives notwithstanding). Stakeholders primarily focused on other sectors are likely to behave analogously. More empirical work is needed to help stakeholders both within and outside the health sector understand the conditions under which MSCs are most likely to outperform single sector approaches for their respective objectives; this, in turn, may help facilitate the identification of mutually advantageous MSC opportunities.

While this analysis is not representative of the field of study as would be a fresh literature search inclusive of all MSC research papers (including those with alternate definitions of MSC), the articles nonetheless are numerous, diverse, and present a fairly clear and consistent picture of the state of the field in terms of the main types of MSC research questions and methods appearing in the literature.

In sum, while the challenges to strengthening research on MSCs for health are considerable, there is increasing recognition of the importance of this domain of study, both for the achievement of the SDGs and other health goals. The research community needs to invest soon in methodological development to benefit a broad array of future MSC studies and, consequently, provide more nuanced and context-relevant guidance to policymakers and practitioners tackling multisectoral issues.

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