Letter to the Editor

Assessing decentralisation is a challenging but necessary task if it should continue as a reform strategy: Reflections from the systematic review by Sumah, Baatiema, and Abimbola

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1. Introduction

We read with interest a recent publication in *Health Policy* where Sumah, Baatiema, and Abimbola (1) conducted a systematic review of the "impacts" of decentralisation on health-related equity. This is as a highly-welcomed contribution to better understand how health systems across the world have strengthened (or weakened) after implementing various forms of decentralisation in the health sector. In the peer-reviewed literature, we are aware of only two other recent systematic reviews on health sector decentralisation. The Cochrane Collaboration's Effective Practice and Organisation of Care Group (EPOC) Group has published a review protocol that aims to assess the effectiveness of decentralisation in improving access to health care, utilisation of health services, population health, and other outcomes of interest (2), although its final report has not been published as of this writing. A systematic review in another peer-reviewed journal has examined the impacts of decentralisation in low and middle income countries using the "six building blocks of health systems" framework of the World Health Organization and finds both positive and negative effects in the six building blocks and, therefore, mixed results (3).

Building on Sumah's work, this letter expands on selected aspects emerging from the review, namely: (a) What does impact in the context of decentralisation mean?; (b) How should we assess a complex intervention?; and (c) What are the possible ways forward for studies on decentralisation?

2. Impact vs. effectiveness

Impact may be defined as "any effect of the service (or of an event or initiative) on an individual or group" (4), suggesting therefore that it can be either positive or negative. On the other hand, effectiveness has been defined as "the extent to which a specific intervention, when used under ordinary circumstances, does what it is intended to do" (5). A systematic review of effectiveness will have to identify what primary aims were attributed to decentralising health services and must also examine implementation issues and the context within which decentralisation is placed as these are inextricably linked to why a complex

intervention may succeed or fail (6). On the other hand, a systematic review on impacts will have to identify a broader set of outcomes, and possibly even consider non-health-related outcomes, which can inform policymakers of consequences, both intended and non-intended, of decentralisation as well as allow a comprehensive assessment of its system-wide effects. We need systematic reviews on questions of both impact and effectiveness as each may generate different but equally meaningful lessons for policymakers. Indeed, Sumah's review on the impacts of decentralisation to health-related equity is a re-affirmation that decentralisation itself is complex and "could either lead to equity gains or exacerbate inequalities" depending on context (1), that is, the prevailing political circumstances, socioeconomic developments, people's values and priorities, among other interlinking components and processes.

3. The challenge in assessing a complex intervention

Sumah's review points to the limitations in the study designs and "the general challenge of most studies in establishing causal relationships" (1). The Cochrane EPOC Group, for instance, limits systematic reviews to only four study designs with the lowest risk of bias: randomised and non-randomised controlled trials, controlled before-after studies, and interrupted time series or repeated measures studies (7). It is, however, difficult to imagine how a community randomised trial, for example, comparing decentralised districts (experimental group) with centralised districts (control group) can be feasible when decentralisation is often implemented as part of a public sector reform process in a country. On the other hand, is there an added value in including other study designs, such as cross-sectional studies, when the Cochrane EPOC Group itself states that "it is difficult, if not impossible to attribute causation from such studies" (7)? Reviewers who wish to assess either the impact or the effectiveness of decentralisation are therefore in a situation where they must strike a balance between minimizing the risk of bias on the one hand, and what studies are realistically available on the other hand.

We wish to offer two considerations to address this issue. First, systematic reviews on the impacts or effectiveness of decentralisation cannot be performed in isolation from the system where it is implemented. In the words of Sumah *et al.*, decentralisation represents "many complex and interconnected set of processes. . . that should therefore be implemented and evaluated as a complex intervention for which outcomes are neither straightforward nor predictable" (1). Within such a complex and dynamic system, systematic reviews on decentralisation should therefore recognize "a priori" that the impacts or effectiveness of decentralisation are typically context-specific (8), although the dynamic interactions that contribute to such impact or effectiveness may be structured through the development of logic models (6,9), something which Sumah *et al.* could have used to better guide their review process. Secondly, study designs such as cross-sectional studies and qualitative studies do carry a high risk of bias. Nevertheless, we believe that such study designs must be considered rather than excluded outright because of the useful information they can provide to help explain why decentralisation succeeds or fails in achieving what it was intended for (effectiveness), or why outcomes are positive in some settings and negative in others (impacts). In other words, the purpose of including these "other" study designs is not to demonstrate the causality behind the impact or the effectiveness, but to complement the interpretation of the results of analysing the "more rigorous" study designs by trying to describe the context and to capture the evidence-based relationships that can shed light on why the observed impacts or effectiveness were so. Unfortunately, Sumah *et al.* have not included specific study designs in their search strategy and eligibility criteria, leading us to wonder on the variety of study designs detected during the search process. Moreover, the differences in the study design of each of the nine eligible papers included in their review could have been analysed further to help explain the observed variations in health-related equity.

4. The decision space approach and possible ways forward

We need to build on the systematic review by Sumah *et al.* and others not to determine the best form of decentralisation applicable for all settings because a standard recipe for it does not exist, but rather to understand what makes decentralisation positively impactful or effective for the health sector in some contexts and not in others. Sumah's review is limited to only six countries (Spain, Canada, China, Switzerland, Chile, and Colombia), suggesting that we lack good studies on decentralisation in many other countries in the peer-reviewed literature. We cannot make valuable recommendations for improving decentralisation based on what we still do not know. Consequently, we need further studies that can be made more meaningful by using a framework able to capture the actual scope of decision-making in health sector functions made available to lower levels of authority after decentralisation. For this purpose, we consider Bossert's "decision space approach" (10) as a useful framework that can guide individual country studies as well as systematic reviews that embed it in their logic models. Interestingly, Sumah *et al.* cite four articles by Bossert but never mention the concept of decision space in the main text. Two studies in Pakistan (11,12) that used the decision space approach have explored its complementary mechanisms with the dimensions of capacity and accountability among decision-makers. Is this synergy among decision space, capacity, and accountability the "gestalt" that can potentially explain why decentralisation succeeds or fails in improving health system performance as well as equity and other health-related outcomes? As long as research methods would enable us to measure these dimensions, it would be interesting to see if the proposed synergy holds true across countries with varying contexts. Assessing decentralisation is indeed a challenging task, but study it—or even debate about it—we must if it should continue as a reform strategy for the health sector and beyond.

Conflict of interests

We are currently involved in a systematic review that aims to examine the effectiveness of decentralisation in improving health system performance.

References

1. Sumah AM, Baatiema L, Abimbola S. The impacts of decentralisation on health-related equity: A systematic review of the evidence. Health Policy Amst Neth. 2016 Sep 13;

2. Sreeramareddy CT, Sathyanarayana T. Decentralised versus centralised governance of health services. Cochrane Database Syst Rev [Internet]. 2013 Nov 15 [cited 2016 Oct 17]; Available from: http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD010830/abstract

3. Cobos Muñoz D, Merino Amador P, Monzon Llamas L, Martinez Hernandez D, Santos Sancho JM. Decentralization of health systems in low and middle income countries: a systematic review. Int J Public Health. 2016 Aug 29;

4. David Streatfield, Sharon Markless. What is impact assessment and why is it important? Perform Meas Metr. 2009 Jul 3;10(2):134–41.

5. Cochrane Collaboration. Glossary of terms relevant for Cochrane Reviews. In 2016. Available from: http://community-archive.cochrane.org/glossary/5#lettere

6. Waters E, Hall BJ, Armstrong R, Doyle J, Pettman TL, de Silva-Sanigorski A. Essential components of public health evidence reviews: capturing intervention complexity, implementation, economics and equity. J Public Health Oxf Engl. 2011 Sep;33(3):462–5.

7. Effective Practice and Organisation of Care (EPOC). What study designs should be included in an EPOC review? EPOC Resources for review authors [Internet]. Oslo: Norwegian Knowledge Centre for the Health Services; 2013; 2013. Available from: http://epoc.cochrane.org/epoc-specific-resources-review-authors

8. de Savigny D, Adam T, editors. Systems thinking for health systems strengthening [Internet]. Geneva: Alliance for Health Policy and Systems Research, WHO; 2009. 112 p. Available from: http://apps.who.int/iris/bitstream/10665/44204/1/9789241563895_eng.pdf

9. Anderson LM, Petticrew M, Rehfuess E, Armstrong R, Ueffing E, Baker P, et al. Using logic models to capture complexity in systematic reviews. Res Synth Methods. 2011 Mar;2(1):33–42.

10. Bossert T. Analyzing the decentralization of health systems in developing countries: decision space, innovation and performance. Soc Sci Med 1982. 1998 Nov;47(10):1513–27.

11. Bossert TJ, Mitchell AD. Health sector decentralization and local decision-making: Decision space, institutional capacities and accountability in Pakistan. Soc Sci Med 1982. 2011 Jan;72(1):39–48.

12. Bossert TJ, Mitchell AD, Janjua MA. Improving Health System Performance in a Decentralized Health System: Capacity Building in Pakistan. Health Syst Reform. 2015 May 19;1(4):276–84.