International Initiative for Impact Evaluation

Evidence gap map

Health

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Performance measurement and management in primary healthcare systems in low- and middle-income countries: an evidence gap map

Performance measurement and management (PMM) systems are designed to systematically measure and improve the performance of healthcare delivery systems at the level of healthcare workers, patients, organisations and populations. Their effective functioning is important for creating high-quality primary healthcare services in low- and middle-income countries. Investment in effective PMM strategies is important for achieving the Sustainable Development Goals related to health, improving the quality of care and saving lives.

This brief presents the findings of an evidence gap map that provides an overview of existing studies on the effects of PMM interventions and describes remaining gaps. Although there is a growing evidence base on interventions that focus on implementation strategies and financial arrangements, gaps remain for evaluations that study accountability arrangements and those that explore multilevel outcomes.

Highlights

- Most of the evidence is concentrated in Sub-Saharan Africa (56%) and South Asia (19%).
- Most of the impact evaluations are randomised (71%), followed by before-and-after studies (21%). Others use a mixed-methods approach.
- The majority of available evidence focuses on implementation strategies (e.g. in-service training and continuous education) and financial arrangements (e.g. performance-based financing).
- There is a lack of evidence on accountability arrangements, including audit and feedback, public release of performance information, and social accountability interventions.
- The majority of studies focus on individual outcomes amongst health workers or patients, whilst few examine more complex organisational outcomes or equity effects of PPM interventions.

Main findings

We identified 137 impact evaluations and 18 systematic reviews for inclusion in the map. The total studies produced annually in the PMM field increased from 2 in 2000 to 23 in 2017, with a substantial annual increase between 2013 and 2017. No systematic reviews were conducted prior to 2010. Nine of the systematic reviews were rated as high confidence, two as medium confidence and seven as low confidence.

Of the 137 PMM impact evaluations, 56% were undertaken in Sub-Saharan Africa, 19% in South Asia, 11% in East Asia and the Pacific, 9% in Latin America and the Caribbean, and 5% in the Middle East and North Africa.

Evidence exists primarily on implementation strategies and financial arrangements

Most studies focused on either implementation strategies or financial arrangements. Together, they account for more than 90 per cent of studies in Sub-Saharan Africa and Latin America and the Caribbean. They also represent two thirds of studies in South Asia and the Middle East and North Africa, and 65 per cent of studies in East Asia and the Pacific.

Implementation strategies are designed to create changes in the organisation of healthcare services, workers' behaviours or the patients' use of services. The most frequently studied forms of this strategy include in-service training, supervision and continuous education. Gaps remain for interventions focused on continuous quality improvement.

Financial arrangements are designed to provide financial incentives to promote pro-performance behaviours amongst providers and organisations. Studies in this category primarily focus on performance-based financing for providers, rather than for individuals.

Gaps in evidence on accountability

Accountability arrangements in PMM systems are organisational, institutional and social arrangements used by health system actors for stewardship towards improved performance. This category of PMM interventions is the least studied. Some studies focus on public release of performance information and social accountability interventions, predominantly in South Asia and Sub-Saharan Africa. The biggest gap in evidence on accountability arrangements relates to audit and feedback interventions, with only two studies focusing on providers and none on organisations.

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Existing studies mostly examine individual outcomes

Most of the studies focus on individual outcomes by examining the effects on healthcare providers or patients. For providers, studies most frequently measure immediate outcomes, such as the acquisition of knowledge and skills or adherence to guidelines. Longer-term outcomes, such as morale, attitudes, beliefs and perceptions, turnover and retention, workload, stress, burnout, and sick leave are the least-assessed outcomes. For patients, the majority of studies focus on physical health outcomes; few assessed behavioural outcomes (e.g. adherence to treatment) or effects on mental health. The focus on individual outcomes is also reflected in the identified systematic reviews.

Population is the next most frequently studied level of analysis. The majority of these studies examine outcomes in service utilisation, and some focus on coverage of services. Access to services outcomes has been infrequently studied.

Few studies (approximately 5%) focus on organisational outcomes. Of them, the majority explore adherence to practice, process of care, patient satisfaction and perceived quality of care outcomes. No studies examine changes in organisational culture.

Equity effects and harmful outcomes

Unintended effects, harm, gender, social and equity outcomes receive little attention in the studies and reviews we included. Twenty-eight impact evaluations do address equity, to some extent, mainly by considering place of residence or socio-economic status. Equity determinants (e.g. sex, gender, vulnerability, ethnicity, culture, language, education and age) receive limited attention. None of the studies examine disability, occupation, religion or social capital. Gender and equity issues are also neglected in the majority of systematic reviews.

Implications for future research

Despite a growing evidence base on the effects of PMM strategies in low- and middle-income countries, the limited existing evidence remains a concern for evidence-informed strategies for improving primary healthcare in these countries.

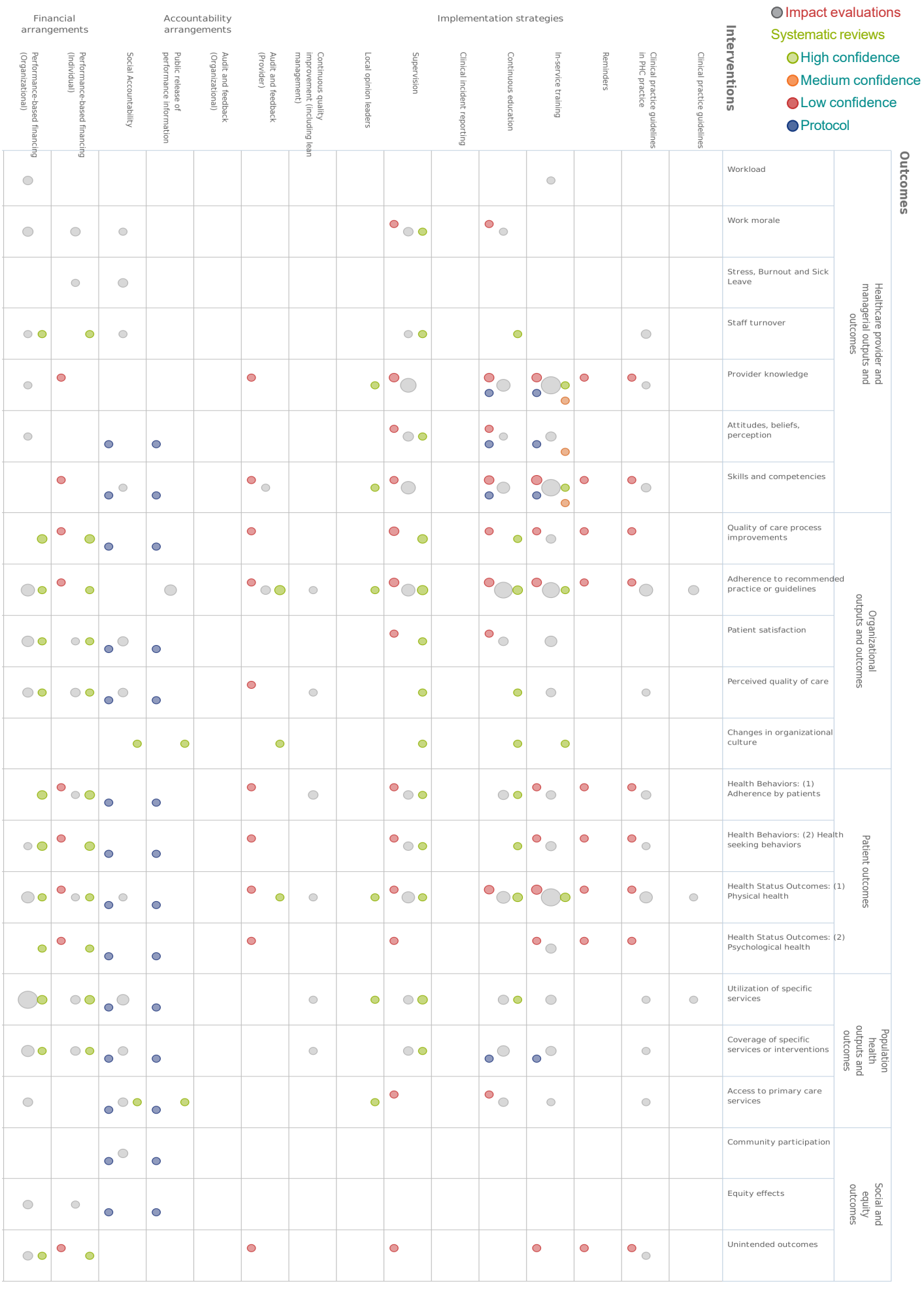
The findings of this evidence gap map have the following implications:

- There is a need for a coordinated research and learning agenda, organised around a common multidisciplinary conceptual framework of PMM strategies as complex adaptive systems.
- Filling evidence gaps should be driven by end-user needs and an improved consideration of the context for the health systems being researched.
- Rigorous impact evaluations provide reliable evidence on effects, but a focus on effects is not sufficient. Future studies should adopt mixed-method impact evaluations, based on convincing theories of change, to address the range of questions relevant for policy and practice, including how and why change happens, for whom, and at what cost.
- Future research needs to address a broader range of outcomes and adopt gender- and equity-sensitive study designs that go beyond subgroup analysis.
- PMM strategies could create perverse incentives, and studies should therefore also pay attention to and measure potentially adverse effects.
- Synthesis gaps remain for high-quality reviews of interventions on clinical practice guidelines, reminders, clinical incident reporting, continuous quality improvement, and organisational audits and feedback.
- Researchers and commissioners should ensure future research meets commonly accepted standards for research transparency, including preregistration, data sharing and comprehensive reporting.

How to read an evidence gap map

The International Initiative for Impact Evaluation (3ie) presents evidence gap maps using an interactive online platform that allows users to explore the evidence base. Bubbles appearing at intersections between interventions and outcomes denote the existence of at least one study or review. The larger the bubble, the greater the volume of evidence in that cell. The colour of each bubble represents the type of evidence and, for a systematic review, a confidence rating (as indicated in the legend). In the online version, hovering over a bubble displays a list of the evidence for that cell. The links for these studies lead to user-friendly summaries in the 3ie evidence database. Users can filter the evidence by type, confidence rating (for systematic reviews), region, country, study design and population.

Performance Measurement and Management in Primary Care Delivery Systems



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What is a 3ie evidence gap map?

3ie evidence gap maps are collections of evidence from impact evaluations and systematic reviews for a given sector or policy issue, organised according to the types of programmes evaluated and the outcomes measured. They include an interactive online visualisation of the evidence base, displayed in a framework of relevant interventions and outcomes. They highlight where there are sufficient impact evaluations to support systematic reviews and where more studies are needed. These maps help decision makers target their resources to fill these important evidence gaps and avoid duplication. They also facilitate evidence-informed decision-making by making existing research more accessible.

About this map

This brief is based on the report *Evidence gap map of performance measurement and management in primary healthcare systems in low- and middle-income countries*, by Wolfgang Munar, Birte Snilstveit, Ligia Esther Aranda, Nilakshi Biswas, Theresa Baffour and Jennifer Stevenson. The authors systematically searched for published and unpublished studies and reviews that took place between 2000 and mid-2018, and then identified, mapped and described the evidence base on PMM strategies in primary healthcare systems in low- and middle-income countries. The map contains 137 impact evaluations and 18 systematic reviews. The characteristics of the evidence are described and mapped according to a framework of 15 interventions and 22 outcomes, with 5 cross-cutting themes.

The International Initiative for Impact Evaluation (3ie) promotes evidence-informed, equitable, inclusive and sustainable development. We support the generation and effective use of high-quality evidence to inform decision-making and improve the lives of people living in poverty in low- and middle-income countries. We provide guidance and support to produce, synthesise and quality assure evidence of what works, for whom, how, why and at what cost.

For more information on 3ie's evidence gap map, contact info@3ieimpact.org or visit our website.

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