Health system strengthening evidence review – summary of 2021 update

Sophie Witter on behalf of:
Natasha Palmer, Dina Balabanova, Sandra Mounier-Jack, Tim Martineau, Krista Kruja

ReBUILD FOR RESILIENCE

UKaid from the British people

Objectives

- To rapidly and pragmatically update 2019 evidence review to inform FCDO HSS investments
- Same scope as previous review

HSS definition

(1) **scope**: should have effects cutting across building blocks in practice, even if not in intervention design, and also tackling more than one disease

(2) **scale**: should have national reach and cut across more than one level of the system)

(3) **sustainability**: effects should be sustained over time and address systemic blockages

(4) **effects**: should impact on outcomes, equity, financial risk protection and responsiveness, even though these impacts may occur after a time lag

As per Witter, S. et al. (2019) Health system strengthening – reflections on its meaning, assessment and our state of knowledge. *International Journal of Health Planning and Management*, 1-10.

Methods

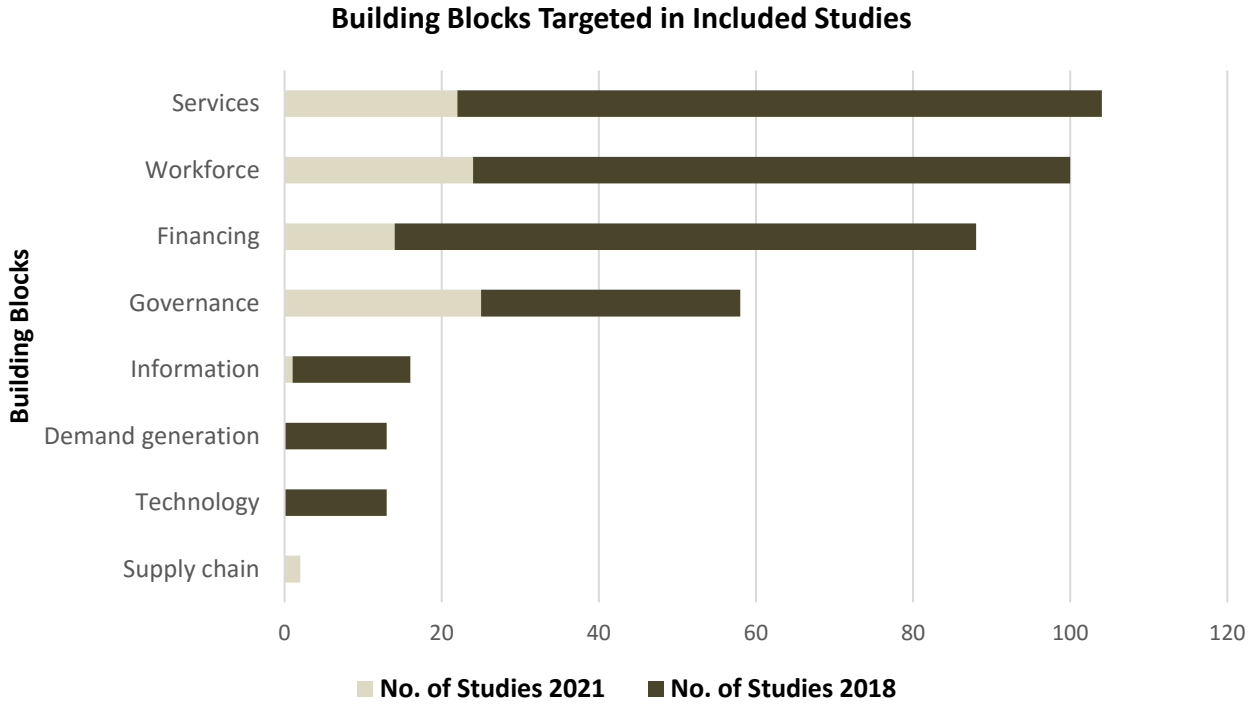
- Systematic search in 7 databases in Oct 2018; again in Jan 2021
- Inclusion criteria:
  - Took place in low- and middle-income countries, including fragile and conflict-affected states and countries in transition.
  - Were published between 2000-2021
  - Described interventions targeting two or more health system blocks, or one block, but with significant spill-overs to others
  - Were in English
  - Included relevant outcomes, as below

- Intermediate outcomes:
  - Service access
  - Service coverage
  - Service quality & safety

- Long-range outcomes:
  - Improved health – covering morbidity and mortality
  - Equity of outcomes/distributional effects
  - Cost-effectiveness
  - Responsiveness, such as patient-centredness
  - Social and financial risk protection
- Augmented by identification of relevant studies (published and grey), using expert knowledge

Included studies

- 240 (up from 193) studies were identified as meeting our criteria.
- Most studies were reviews, including both systematic and non-systematic/literature reviews (n=79), quantitative (n=54), and mixed methods studies (n=26).
- A majority of studies were from low income contexts.
- The largest number of studies addressed service delivery (n=104), followed by health workforce (n=100) and then health financing (n=88).
- Just under half of included studies addressed long-range health outcomes.



Governance summary

- There is increasing evidence that governance-specific interventions, including **civil participation** and **engaging community members with health service structures and processes** (for example, via social accountability interventions such as Community Score Card), can lead to tangible improvements in health (focusing usually on maternal and child health outcomes) as well as better service uptake and quality of care.
- Capacity development and mentoring are central for effective governance. Studies suggest that **complex leadership programmes** blending skills development, mentoring and promotion of teamwork bring about improvements in service quality, management competence and motivation.
- Eleven studies addressing **comprehensive HSS** approaches identify good governance as the most important factor shaping these programmes for improved health and access to services – but here governance reform was embedded within complex, system-wide reform programmes so precise interpretation is difficult.
  - Two key mechanisms for improving outcomes was seen to be: a) collaborative working models involving different stakeholders working in synergy to achieve long-term strategic reform goals across micro/meso/macro levels of the health system and within the public sphere, and b) careful sequencing of the reform phases with sustained government support for long-term health system transformation.
- Evidence on the effect of **decentralisation** as a stand-alone intervention in health system governance on health outcomes highlights mixed effects, although the type of governing body and context may be important.

Health workforce summary

- Most evidence on “workforce plus” interventions (addressing workforce and at least one other building block) is focused on **bundled retention packages for health staff** in underserved areas – where outcomes assessed are usually staff attrition rates.
  - These interventions usually combine educational, regulatory and financial incentive design changes.
  - Evidence of effects on retention is mixed – short-range evaluation of the Zambian Health Worker Retention Scheme showed positive effects, but a longer-range piece across workforce cadres did not support these findings.
- Skills mix (**task shifting**) approaches have been successfully used to address shortages of more highly skilled but scarcer professional groups. Non-formal cadres of health workers, such as community health volunteers, can help address staff shortages as long as the tasks are not too complex.
- Workforce performance can be improved by **well-designed performance management systems** that at a minimum may reduce absenteeism but have also been shown to improved service delivery. Individual performance contracts can also reduce absenteeism, however how well these function in practice is shaped by the political and societal conditions. Supervision can lead to improvements in quality and productivity. Workforce performance is more likely to improve when a coherent combination of strategies is used. There are examples of effectively developing an organisational culture of performance, which impacts on individual performance of health workers.

Health financing summary

- There is good evidence to steer **approaches to financing for health in aggregate** (not HSS but may enable it)
  - Public spending on health is associated with improvements in life expectancy and child and infant mortality across a number of studies, as well as more equitable distributions of health outcomes at population level when compared with private spending. These effects are more pronounced in LICs. More emphasis now on financing common goods
- **Provision of external aid** is associated with improved outcomes (especially infant mortality rates) and health equity, including in FCAS – but this effect depends on the aid delivery approach (harmonisation with domestic systems and priorities is key).
- However, evidence on positive health outcome and equity effects from **aid coordination mechanisms** (SWAPs, joint assessments and budget support – as "financing plus" interventions that combine financing and governance changes) is limited.
- Health outcome and equity effects arising from a range of other "**financing plus" interventions** (PBF, purchasing reforms, contracting in/out, reforms to the mix of public and private providers operating in the health sector, and others, most of which combine financing and governance reform) are mixed. New evidence emerging on PBF and DFF highlighting shared pathways, including autonomy, resourcing, feedback. Some improvements (utilisation, inputs to quality) but impacts on financial protection and equity disappointing to date.
- Overall, design which moves towards good practice, implementation, learning process and function matters more than formal labels – as per WHO HFPM.

HIS and PSCM summary

There is still limited evidence on the impact of investment in HIS on long-range health outcomes or intermediate health indicators. Although some of what we know is indicative of the importance of this area, HIS reforms were most likely to be bundled within broader system strengthening packages, so effects were difficult to tease out.

- Updated searches in 2021 show the addition of one systematic review in this area but still limited evidence

PSM summary

- Evidence formally linking investment in supply chain to improved access to healthcare or better outcomes is scarce – mostly grey literature-based. This is in general an underexplored area of research – perhaps because it is perceived as more "operational" in focus than some of the other intervention areas. But some increase in attention noted:
- Seidman and Atun conducted a systematic review which aimed to explore whether 1) efforts to improve supply chains and procurement processes yield cost savings for health systems in LMICs and 2) these efforts lead to increased availability of drugs, vaccines or other health commodities (Seidman and Atun, 2017).
  - They identified 25 references that were relevant to the first question and 15 references that addressed the second.
  - Their overall conclusions include that different supply chain management systems can yield similar results in different contexts and that centralised procurement has the potential to achieve cost savings across many contexts.
  - However, their findings note the many different metrics used to quantify the impact of supply chain improvements on health systems and therefore the difficulty of comparing or synthesising findings across studies. They also note the great context specificity of the findings.
- Vledder 2019 RCT of two SC systems in Zambia concludes that a more direct distribution where clinics order and receive medicines supply directly from the central agency through a "cross -docking" arrangement significantly reduces the frequency and duration of stock outs compared to a traditional three-level drug distribution system.
  - Authors note that 'Even when supply chain system redesign ...are demonstrated to be technically robust using rigorous evidence, they often require navigating a complex political economy within the overall health system and its actors'

Service delivery summary

- **Basic or essential packages of health services** have been examined primarily in fragile and conflict-affected settings (FCAS) settings as a means for focusing limited resources on core services and aligning donors, often in combination with contracting out services to NGOs (e.g. in post-conflict settings). Empirical evidence on impact is limited
- **Strengthening primary care services** (including integrated community case management of childhood illness – new review out in 2021) and the implementation of effective strategies to reach underserved populations are seen as central to system strengthening and there is good evidence of positive effects on health outcomes. Existing evidence is suggestive of positive effects on service access and coverage, and health outcomes (focusing principally on infant and child mortality and morbidity, and maternal health).
  - Successful programmes tend to blend Community Health Worker- (CHW) based models with strong referral systems and provision of first level care to improve access.
  - District wide interventions that combine supply and demand activities tend to produce better results.
- **Service integration** interventions usually span multiple building blocks, but primarily at meso or micro level. Effects vary according to domain. Mother and child health integration interventions are supported by fairly good evidence of positive impacts on health outcomes (perinatal mortality and child mortality principally) and intermediate outcomes; evidence for HIV is mixed depending on the service area with which HIV services are integrated.
- Effects on neonatal and child mortality, as well as a cluster of other health outcomes (including nutritional markers) arising from **IMCI** (integrated management of childhood illness), are conflicting, depending on study location and the fidelity of implementation, which has differed in marked ways between contexts
  - There is a clearer consensus that service quality improves where IMCI has been implemented.

Conclusion

Overall, there remains reasonably strong evidence of HSS interventions producing beneficial effects on system outcomes in the right circumstances, including:

- civil participation (engaging community members with health service structures and processes and increasing accountability),
- leveraging collaborative models involving different stakeholders and health units and other sectors to work towards a clear objective,
- bundled retention packages for health staff in underserved areas,
- most interventions within health financing, though the importance is less the formal labelling of arrangements than shifting towards accepted good practices in revenue raising, pooling, purchasing and provision,
- many of the service delivery reforms, including strengthening community-level services, introducing integrated care packages such as IMCI and ICCM, PHC strengthening, service integration (especially comprehensive approaches) and some quality improvement initiatives, and
- complex interventions targeting multiple areas within a larger scale reform initiative, adapted iteratively using data
- plus need for more work in understudied areas e.g. HIS and PSM

Cross-cutting reflections

- Assessing impact of health system interventions on HSS and the system as a whole remains limited. Some work ongoing with BMGF support to try to address some of the methodological issues, building on our evidence review of 2019
  - Any feedback from FCDO on our HSS indicators from 2019?
- Increase in evidence supporting whole system reforms, complementary supply/demand approaches, and adaptive approach to reforms (e.g. use of pilots in China)
- Still often inverse relationship of investment to evidence (e.g. lots of expenditure on HIS and PSM by actors such as GFATM and GAVI but little formal evaluation)

COVID-19

- Not many impact studies as yet – mainly modelling, commentaries etc
- During the Covid-19 pandemic, an effective response was often seen as linked to a **well-governed response by a national steward (most often the government) working with coalitions of actors from across sectors**.
- Another analysis argues that preparedness depends on health systems ability to learn from prior pandemics, as learning after rare events is not always institutionalized (Sharma et al., 2021).
  - The responses are often reactive rather than proactive, while the **structures and institutional mechanisms to retain flexibility to adapt policies** are critical
- Crisis reinforces importance of, for example:
  - **integrating health security and investment in common goods** such as surveillance into national HSS (Wang et al., 2020)
  - 'software' features such as **trust** (Palagyi et al., 2019)
  - **effective health system/community linkages and intersectoral collaboration**, to ensure effective communication and support for the wider social action that is needed (Wallace et al., 2020)
  - use of **digital technologies** for a range of needs generated by the pandemic (Mahmood et al., 2020).

Donor engagement with HSS

Mechanism	Frequency
Introducing new systems	14
Training	14
Developing products & tools	11
Conducting analysis or assessments	10
Financial support	10
Conducting studies or pilots	9
Developing policies, plans or strategies	9
Engaging stakeholders	9
Introducing or Improving processes	9
Advocacy	8
Coaching or mentoring	7
Developing guidelines	6
Establishing institutions and organisations	5
Providing inputs	5
Restructuring, reforming, repurposing, strengthening, organisations or institutions	4
(Supportive) supervision	4
Policy dialogue	3
Resource mobilisation	3
Establishing legal and institutional frameworks	2
Monitoring performance	2
Problem-solving or trouble-shooting	2
Providing information or advice	1
Strengthening relationships within or between organisations	1

2019 MCHSS lit review for DFID. Overall question: **what approaches have donor-funded interventions aimed at strengthening health systems used? Have these approaches been effective or ineffective, and why**?

- The review identified 23 different approaches or ‘mechanisms of change’ (inductively coded by researchers) that donors have employed
- The programmes described by the included studies used 1 - 14 of the mechanisms of change listed here to strengthen country health systems
- The average number of mechanisms employed was six
- As bundled, hard to attribute impact to individual mechanisms, even where study design allows for overall impact assessment

Health system process goals identified as having been achieved (in order of frequency)

Health system process goal	Frequency
Infrastructure	20
Staff deployment	20
Capacity-building	19
Active Learning Cycle	11
Resources	10
Information Systems	10
Teamwork & Collaboration	10
Engaged communities	8
Mutual accountability	7
Leadership	6
Integrated and appropriate service delivery	5
Expanded package of services	4
Culture	3
Pooled risks	1
Prioritising prevention	0

Intervention implementation and design factors

Favourable

- Ownership by key country stakeholders
- Buy-in from health ministries or health sector coordination structures
- Alignment with national plans, national reporting systems and ongoing country activities
- Consistent, in-country programme staff
- DP coordination
  - Studies suggested that donor coordination could be strengthened by creating a shared understanding of programme objectives and the roles and responsibilities of each partner, as well as formalising processes for participation and communication, and introducing strong accountability mechanisms.
  - Successful coordination efforts were also thought to depend on accurate information about how much donors were spending on different aspects of HSS at both the country and global level.
  - Impact evidence not available however

Unfavourable

Contextual factors such as shortages of health workers and other skilled staff, poorly funded health systems and political uncertainty

Thank you

www.ReBUILDconsortium.com
@ReBUILDRPC

switter@qmu.ac.uk

This project is funded with UK aid from the British people