How learning-by-doing can help cut through complexity in health service delivery

There is no single solution for successfully scaling-up key interventions and reaching the poor. Implementation research, using tools and approaches that are inclusive, participatory, and flexible, is essential for "learning-by-doing" to understand what works best in a particular context.

A pregnant woman is transported to a health clinic via boda-boda in Eastern Uganda as part of an FHS pilot study on transport voucher schemes.

Key messages

1 Often our assumptions about how a particular intervention will work prove to be inaccurate. Even where policies and programmes have sought to identify how they might affect the broader health system, there are often unpredictable effects.

2 Implementation research allows us to learn from failure and adapt interventions in response to contextual changes – something that should become routine. Research and learning processes must run simultaneously with policy change and implementation.

3 Policy reforms and designs must be flexible enough to accommodate responses to changes in the implementation environment.

4 Health systems and policy researchers can play convening and advocacy roles, by bringing multiple health systems actors together, by providing lessons learned from implementation and evidence about poor and marginalized populations, and by finding innovative ways to showcase their voice in policy and management dialogue.

5 Continuous engagement of stakeholders must be achieved at multiple levels to ensure that lessons learned feed back into the policy and implementation processes.

Introduction

Intervening in health systems in low- and middle-income countries (LMICs) is complex. In many LMICs, health systems data are fragmented and incomplete, and therefore difficult to use well in decision-making. Too frequently, health system policies are created in silos that fail to consider how these new policies will interact with existing health and cross-sectoral policies. Furthermore, countries often cannot fully predict the impact (good and bad) of policy reforms and programmatic interventions that have been borrowed from other settings. Even when policy-makers and program implementers try to anticipate how interventions might affect the broader health system, it is hard to do because of the dynamic nature of health systems and the contexts within which they exist. Getting the right stakeholders to agree and take action is also a challenge. Typically, lack of stakeholder engagement leads to limited buy-in for policy implementation. Selective stakeholder engagement often leaves poor and marginalized populations out of the discussion, voiceless.

As a result, many policies fail due to a lack of learning from how things do not work and the failure to bring in important stakeholder perspectives and resources to the decision-making table. A stronger and more systematic emphasis on learning is needed to better implement and scale-up life-saving health systems interventions.

> **❝❝**For the things we have to learn before we can do them, we learn by doing them.**❝❝**
> (Aristotle, *The Nicomachean Ethics*)

Evidence

Throughout the duration of the Future Health Systems project (FHS), country teams have committed to undertaking systematic learning though implementation research and by bringing together key actors involved in service delivery. We share, below, some examples of how FHS teams have embodied a "learning-by-doing" approach, and what the consequences of this approach have been.

Engaging stakeholders: In Uganda, maternal mortality in rural areas remains stubbornly high, despite significant government and donor investments over time. Researchers from Makerere University School of Public Health are using a participatory action research approach to implement a package of complementary interventions to increase institutional deliveries in rural Uganda, through strengthening and building upon existing local resources. The team recognized the need to engage with stakeholders at multiple levels – policy-makers, district-health officials, community members – in order to understand the

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complex barriers to reducing maternal mortality and identify local resources, such as local savings groups and transport options, to overcome these barriers. The research team continues to examine how to better understand and engage with stakeholders using old and new tools – such as stakeholder analysis, participatory impact pathways analysis, and most significant change. Engagement with local stakeholders has informed how the intervention was adapted to better meet the needs of its beneficiaries. District health officials, for example, have been able to influence the research design and use the research project's findings in their decision-making. Engaging with the community through the most significant change approach has provided early evidence of what is and is not working and the ability to adjust the intervention to better serve beneficiaries.

Recognizing complexity and system-wide effects: In 2009, the Chinese government implemented widespread health system payment reforms as part of a broader package of health reforms designed to enhance financial protection and promote equity and quality of care. While these reforms were determined and announced nationally, they left significant discretion to county level officials in how to implement the reforms. The effects that a particular policy, such as payment reform, will have depend upon interactions with other parts of the broader health system: how resources are raised, services organized, essential drug policy, etc. The FHS China research team worked with officials in three counties to track the effects of early reforms and inform later rounds of policy and decision-making. Early findings from the research illustrated how the package of payment reforms had combined with a new policy of zero mark-up on drugs to influence how providers prescribe and admit patients, and how they charge patients for services, leading to unpredictable patient care outcomes. The team worked with local officials to explore policies that might mitigate these unanticipated and negative consequences of reform.

▲ FHS India Photovoice participants meet with the local self-government (panchayat) to discuss health issues highlighted through the Photovoice process.

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Engaging policy and community stakeholders through multi-faceted interventions in order to increase skilled delivery in rural Uganda

The Makerere University's School of Public Health-led intervention provided a package of complementary interventions to strengthen the health system in rural Uganda and support increased facility deliveries. To implement this intervention, the research team engaged national, district, and community members through participatory action research techniques. The research team provided mentorship and supportive supervision. The facilities and health workers who worked were thereafter motivated through recognition of best performing health workers and health facilities. FHS Uganda has moved from providing vouchers to pay for transport to health facilities, to getting people to save for facility-based deliveries, which may provide a basis for future health insurance schemes. FHS started off mentoring in only two facilities per district and then moved to four and is continuing to cover the district slowly, while learning from prior mistakes. The team used a multi-faceted approach that involved creating awareness, improving financial access and improving quality of maternal and child health care, and this yielded positive results. For example, by the end of the project, women in the intervention areas were 15% more likely to attend 4 ante-natal care visits, an important improvement from the baseline of 9%. Furthermore, facility-based deliveries increased from 66% to 72% in the intervention area, while actually going down a couple of points, from 65% to 63% in control areas. As far as possible, the Uganda team sought to build on existing resources and structures. So, for example, initially the team mainly drew upon nurse mentors from Kampala and Soroti districts to support the development of district mentors in the FHS districts. However, later it was realized that it would have been better to use regional mentors, as they could have continued to support the facilities in the focal districts. FHS is now seeking to equip facility managers to become supervisors and mentors because district officials are often unable to mentor and supervise due to lack of transport to get to the facilities.

Learning from negative results: While success often delivers learning, the failures that FHS has experienced are also very informative. For example, in Bangladesh, the research team partnered with a private telecommunications firm to implement a telemedicine initiative. The initiative aimed to improve the capacity of informal healthcare providers to adhere to treatment guidelines in rural Bangladesh, by linking them with trained providers. However, the team underestimated the trust necessary for telemedicine to work – patients were uncomfortable with not seeing the doctor in person. Furthermore, the partnership with the telecommunications firm was not successful. The research team re-evaluated the context, as well as new evidence on the population's readiness to adopt mHealth technologies and village doctors' experiences with, and perceptions of, the telemedicine intervention. Based upon this, the team decided to set up its own telemedicine centre at the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,b), and is also experimenting with the use of video conferencing to bring patients and providers closer together.

Feeding back knowledge into the system: In India, FHS facilitated the formation of a learning platform on child health in the Sundarbans area of West Bengal, comprised of a variety of health system actors. The Indian research team emphasized the importance of engaging directly with the community, using a two-pronged approach. First, it focused on empowering women to use participatory action research tools, such as Photovoice, to document and discuss the challenges they faced in accessing health services. The research team then facilitated face-to-face meetings with local officials where the women shared their findings. Simultaneously, the research team sought to build the capacity of local NGOs to interpret and apply findings from the evidence collected. This approach of engaging multiple stakeholders – decision-makers, end users and knowledge brokers – in a sharing and learning platform helped increase the likelihood of local investment in, demand for and use of health services.

At the root of a "learning by doing" approach is a recognition that research teams and implementing partners need to continuously update expectations and assumptions about a policy or program. Structured processes that can capture and synthesize these expectations from the perspectives of multiple actors can be very beneficial. The FHS research teams have employed multiple tools to assist in this process, including theories of change, participatory impact pathways analysis, the most significant change technique and social mapping.

With all of the interventions that FHS has directly supported, there have been significant shifts in strategy that have reflected new learning or emerging realities. As the Bangladesh and China examples above indicate, programmatic and policy strategies had to adapt when it was learned that people really needed to see an image of their health care provider in order to trust them, or when the unanticipated and negative consequences of provider payment reform in China were identified. Policy makers, funders and implementing teams need to be open to such flexibility and adaptation.

A "learning-by-doing" approach requires research teams to develop new competencies and adopt roles that they may be unaccustomed to. For example, FHS

> **"** Learning should happen from success, as well as failure. **"**

policy influence and research uptake managers have been integral members of country research teams, continuously striving to bridge the gap between policy and community actors, between researchers and implementers. These staff have continuously supported the engagement and briefing of relevant stakeholders about interventions and policy actions. The role of researchers may also need to evolve going beyond traditional publication of journal articles. Research cannot drive policy change unless researchers engage policy and community actors, and leverage and mobilize community capabilities. Researchers may have a particularly important advocacy role to play, for example providing evidence about how new programs affect women, or the vulnerable.

Conclusions

Based on their collective experience, the FHS teams found that:

- Learning should happen from success, as well as failure. Learning processes should run simultaneous with policy changes.
- Flexibility in research design allows implementers to be sensitive to local realities and to modify plans to suit the situation, as well as to be responsive to policy priorities.
- Flexibility in the design of policies also allows decision-makers to be able to use emerging evidence in the on-going implementation of policies.
- The inclusion of multiple stakeholder perspectives, through purposeful stakeholder engagement, as well as identification of the barriers that they face and resources they possess, is important and can lead to improvements in service delivery outcomes.
- Long-term engagement allows for higher order learning and for new interventions to grow and become embedded within existing structures, promoting sustainability.
- Researchers can play an important role by engaging with other system actors. Further support to strengthening research skills for adequate engagement and advocacy is necessary.
- Researchers act as change agents and facilitate the "learning-by-doing" process. The development of learning platforms that incorporate multiple perspectives through innovative research techniques can bridge the evidence-to-practice gap and can ensure that the research reflects both policy and community priorities.

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Tools and approaches

Most Significant Change Technique, Accessible at: http://betterevaluation.org/resources/guide/most_significant_change_technique

Photovoice, Accessible at: http://betterevaluation.org/resources/website/PhotoVoice

Theory of Change, Accessible at: http://betterevaluation.org/resources/guide/theory_of_change

Participatory Impact Pathways Analysis, Accessible at: http://betterevaluation.org/resources/guides/impact_pathways

Social Mapping, Accessible at: http://betterevaluation.org/evaluation-options/socialmapping

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