

Question 2: What are effective and sustainable mechanisms or processes to integrate local, community, sub-national, national, and regional voices, priorities, and contributions into health system strengthening efforts?

Supervision, Performance Assessment, and Recognition Strategy (SPARS) - a multipronged intervention for strengthening medicines management

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HEALTH SYSTEMS STRENGTHENING ACCELERATOR

Context

A well-functioning pharmaceutical system—the primary outcomes of which are equitable and timely access to and appropriate and cost-effective use of safe, effective, and quality pharmaceutical products—is integral for achieving universal health coverage. Inappropriate medicine use can result in ineffective treatment, wasted healthcare resources, and patient harm and is, therefore, a critical health system inefficiency and a threat to universal health coverage.

In Nepal, where the government has a long-standing commitment to ensuring universal access to essential medicines, the health system faces various constraints that negatively affect pharmacy services and health outcomes. A lack of trained staff and wide variation in medicines management and procurement practices are major challenges at the sub-central level. MTaPS conducted an evaluation which found that government health facilities seldom implement good pharmacy practices (GPP)—global standards developed by the International Pharmaceutical Federation and the World Health Organization to improve the standards and practice of medicines distribution and use in community and hospital settings. The lack of adherence to GPP in Nepal has led to poor quantification, ordering, and stock and storage management practices at the facility level. More importantly, the inappropriate use of medicines resulting from poor prescribing and dispensing practices at facilities can negatively affect patient outcomes and increase health system costs.

To address the outlined challenges, Nepal's Ministry of Health and Population decided to pilot a supervision, performance assessment, and recognition strategy (SPARS), which is based on the theory that combining different interventions increases the likelihood of positive change. First implemented in Uganda in 2012, SPARS includes educational, managerial, regulatory, and financial interventions combined with performance assessment. The approach relies on government-employed health facility staff trained as medicines management supervisors (MMS) taking on the additional role of supervisors. Several studies have demonstrated that multipronged approaches such as SPARS and supportive supervision increase health workers' morale and performance in providing pharmaceutical services and managing medicines (1). The Ministry of Health and Population aims to use SPARS to build capacity, motivate health facility staff and supervisors, and improve medicines management and GPP in government health facilities through a holistic system-building approach.

1. Trap et al., The impact of supervision on stock management and adherence to treatment guidelines: a randomized controlled trial. Health Policy Plan. 2001;16(3):273–80.

Activity Description

SPARS incorporates regulatory and management techniques with supportive supervision, indicator-based performance evaluation, and recognition utilizing incentives for supervisors and health facility staff (Figure 1). The Department of Health Services in the Ministry of Health designated the Curative Service Division (CSD) as the focal contact unit for SPARS and required active involvement of the Management Division. In collaboration with CSD, MTaPS designed a pilot study to assess the impact of SPARS on medicines management in 300 government health facilities covering all levels of health care. The facilities are located in 57 municipalities across 12 randomly selected districts, which fall within three randomly selected provinces—Bagmati, Lumbini, and Madhesh (Figure 2). The period for the pilot is May 2022 to June 2023.

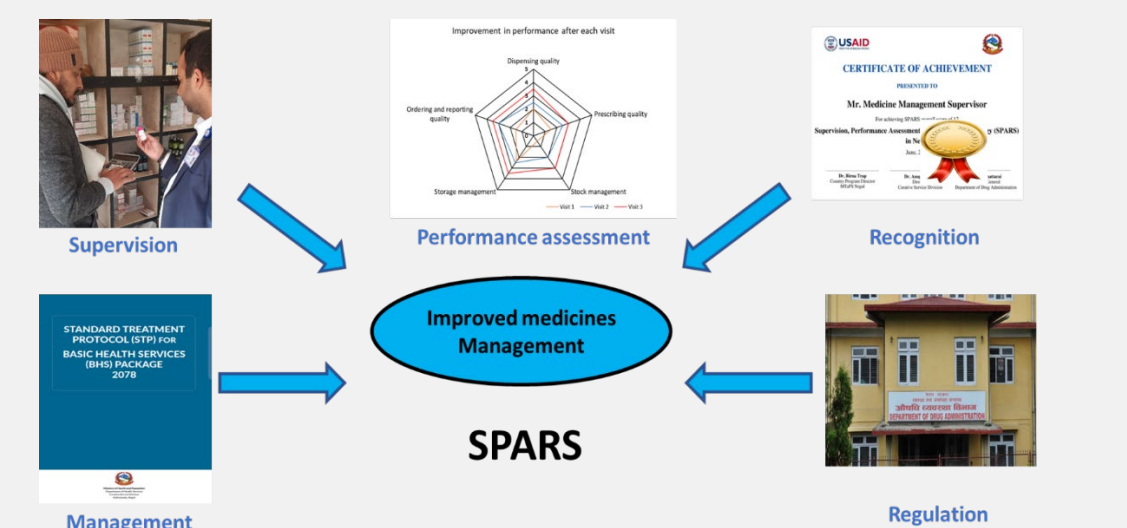


Figure 1. Multi-pronged SPARS approach to improve medicines management

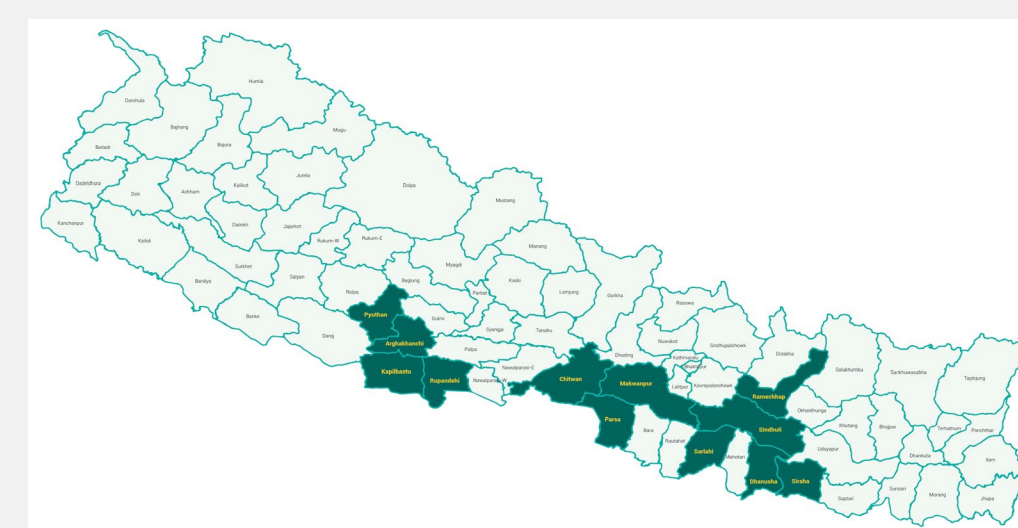


Figure 2. SPARS pilot districts

To implement SPARS, 60 local level health facility staff members from the districts (five per district) were nominated and trained as MMS in March 2022. They received orientation and training, enabling them to provide on-the-job training, coaching, and mentorship; communicate effectively; and conduct a standardized performance assessment using the electronic SPARS assessment tool. At their supervisory visits, the MMS collect data on 25 indicators classified into five domains (Figure 3). Each of the five domains has a maximum score of 5 and an overall SPARS score of 25. The number of indicators per domain varies, so the individual indicator's contribution to a domain score varies proportionally.

MMS purposely selected three to nine health facilities in their district based on how much time they had to implement SPARS alongside their other tasks. The MMS will eventually cover all public sector health facilities in their dedicated area. The MMS begin each of the facilities' monthly supervisory visits by assessing medicines management performance to identify areas that need targeted mentoring, supervision, and support in applying pharmaceutical management best practices. Province and district leadership selected the MMS carefully based on their management and communication skills and their interest in medicines management issues. Since MMS are government employees, they must ensure that this added role—for which they are not paid—will not compromise their core duties. While the MMS are government employees for whom the MMS role adds to their normal tasks, they do need material and financial support to implement the SPARS visits. Therefore, MTaPS supports the government by covering the cost of the supervisory visits, including transport and medicines management tools, and equipping the MMS with telephones and laptops.

During their onsite assessment, MMS fill out the electronic indicator-based SPARS data collection tool using the laptop or mobile phone with which they are provided. Using the free KoboToolbox platform, MTaPS designed the SPARS data collection tool, which allows both on- and offline work, while the MMS transmits the facility data when convenient to a central server for further analysis. The facility also keeps a hard copy record of the SPARS assessments in a supervisory book. After finishing the assessment at each visit, the MMS creates a spider graph, as shown in Figure 4, with scores for each domain as a visual representation of the facility's performance. The spider graph is useful to identify areas needing supportive supervision and makes it easy for facility staff to track their progress. At each visit, the MMS goes over the findings with the facility in-charge and appropriate staff. MTaPS Technical Advisors check the quality of the uploaded SPARS assessment data and collaborate with CSD to prepare monthly reports and share them with MMS, municipalities, districts, provinces, and central-level stakeholders to show how the activity is affecting medicines management performance. After the first visit, facilities are provided with medicines management tools such as temperature log sheets, bin cards, cleaning log sheets, dispensing logbooks, dispensing envelopes, and job aids.

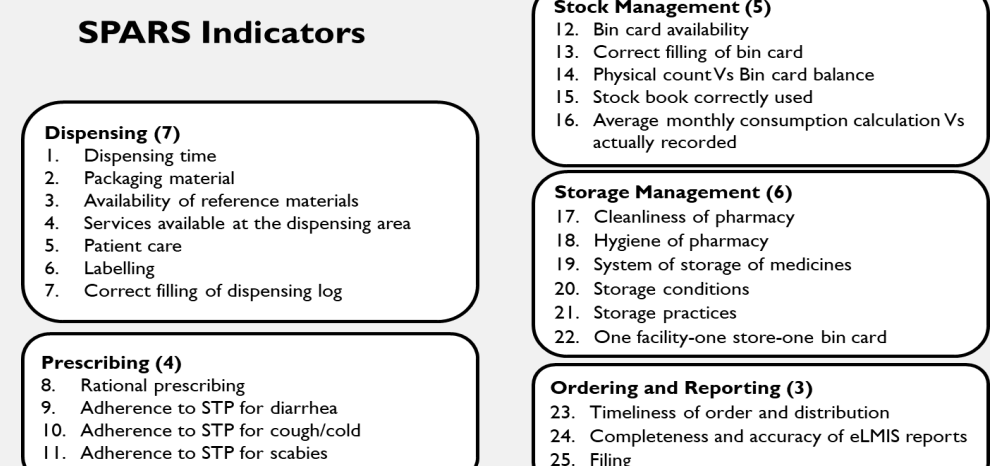


Figure 3. SPARS indicators by domain

Activity Impact

Introducing the SPARS concept and conducting the pilot study required extensive stakeholder consultation and coordination at multiple levels. MTaPS organized regular meetings and coordinated collaboration among the municipalities, districts, provinces, Management Division and CSD. Bi-weekly CSD meetings and bi-monthly meetings with Provincial Health Directorate and District Health Office representatives, municipalities' Health Section Chiefs, and MMS are held to resolve SPARS implementation challenges and present findings and progress. MTaPS also facilitated provincial coordination and collaboration meetings organized by CSD to present the baseline report and progress after each MMS visit. Stakeholders included the 57 municipality health section chiefs; the 12 district health office chiefs; and representatives from three Provincial Health Logistic Management Centers, three Provincial Health Directorates, and the Management Division. As a result, municipalities agreed to support the MMS' supervisory visits and address the gaps that MMS identify at the facilities, such as a lack of adequate storage, shelving, or refrigerators. The positive improvements observed in medicines management between baseline and the second visit helped establish stakeholders' commitment to the SPARS and continuing working towards improved medicines management, helping to achieve Nepal's universal health coverage goals.

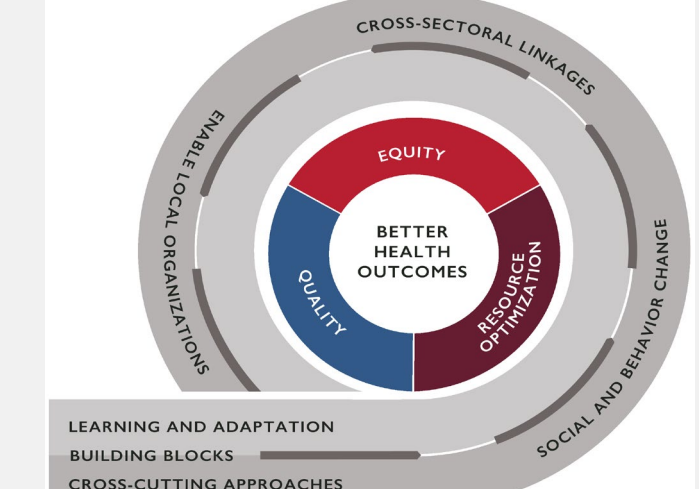
The SPARS intervention, while focused primarily on improving medicines management in government health facilities, implemented a systems strengthening approach incorporating:

- Human resource** capacity building through supportive supervision and data use.
- Health financing.** The improved accuracy in quantification, procurement processes, and planning ultimately contribute to more efficient health systems resource allocation and use.
- Information systems.** The SPARS assessment toolbox has improved the collection, reliability and reproducibility of facility-level data and their use for decision making in the management of medicines in the health system.
- Regulations, policies and procedures.** As part of the intervention, the Nepal Drug Act, the National Medicines Policy, and the Code on Sale and Distribution, which annexes GPP guidelines, were updated and await government approval.

On a pathway toward sustainability, the SPARS methodology is well developed and ready for hand over to the Ministry of Health and Population—almost as a turnkey program. MTaPS developed standard operating procedures that describe all processes and activities, including training MMS, planning and making SPARS visits, introducing SPARS to the facilities, and performing assessments and reporting the results. The implementation package includes all training materials and templates for all practices, meetings, and reports. MTaPS trained the CSD to use the open-source KoboToolbox, which was used to develop the electronic SPARS data collection tool, and will transfer the database to CSD at the end of the pilot study to use if there is a national SPARS rollout. Finally, successful and sustainable SPARS implementation requires political and health leadership commitment at all levels, but particularly in municipalities, with full involvement from concept development to pilot to potential national rollout. There is no estimate of the cost to implement SPARS as a national strategy. A study is underway to evaluate the cost-effectiveness of SPARS rollout, as was done in Uganda, where SPARS is now a well-integrated national strategy.



Provincial SPARS coordination meeting in Lumbini Province on February 26, 2023. Photo credit: USAID MTaPS Nepal



Evidence

By the end of May 2023, MMS had visited 280 health facilities in three of seven provinces to establish a baseline for how well the facilities were managing medicines and found poor medicine management scores. For example, the domain scores ranged from 0.5 in stock management to 1.9 in storage management out of a maximum of 5 in each domain (Figure 4). The average SPARS baseline score across the 280 facilities was 8.4 (33.6%) out of 25. The low baseline scores demonstrated the country's great need to strengthen medicines management. By the second visit, the baseline score improved by 4.5 points for an overall mean score of 8.4 to 12.9 (51.6%), documenting a significant improvement in medicines management and pharmacy practices.

In Uganda, where SPARS was first piloted and implemented, the overall SPARS score across 1,384 public and private nonprofit facilities improved by 2.3 points (22.3%) per visit from a mean baseline score of 10.3 to 17.6 at the fifth visit during the first year of implementation. Figure 5 shows the average change in domain scores between the first three visits. Without sound, transparent medicines management that enables their affordable access and appropriate use, low-income countries such as Nepal will not be able to achieve their universal health coverage goals, and people will lose the trust in the government's health care provision.

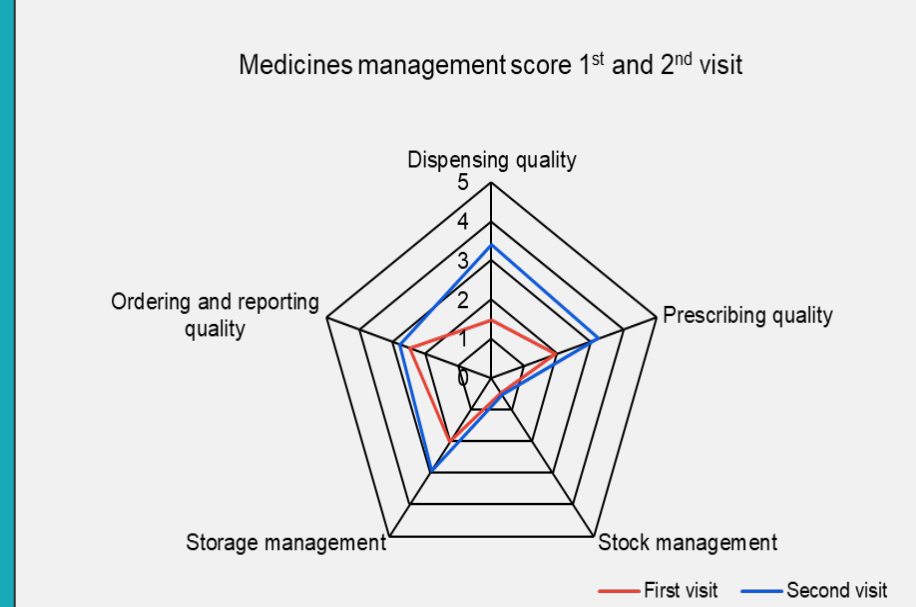


Figure 4. Mean domain scores for the first and second visit during SPARS implementation in Nepal

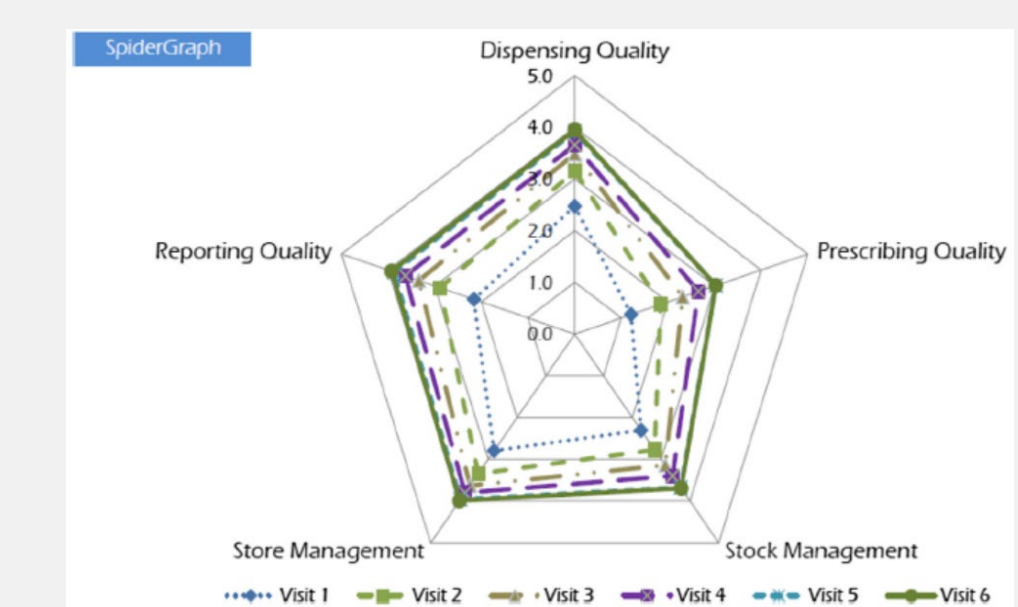


Figure 5. Mean domain scores for the first through sixth visit during SPARS implementation in Uganda

"Our system for stock management has improved. We update bin cards regularly and carry out a physical count every month, which we never used to do regularly in the past. Nowadays, ordering and reporting of medicines are done according to the LIMS system with accurate and timely documentation."

—Store in-charge, Meghauri Health Post, Chitwan, Nepal.

Source: Trap et al. (2016), Article 1: supervision, performance assessment, and recognition strategy (SPARS) – a multipronged intervention strategy for strengthening medicines management in Uganda: method presentation and facility performance as baseline. Journal of Pharmaceutical Policy and Practice, 9(1):1–15.

Facilitators



Santosh Kumar Sah, an MMS from Parsa District, mentoring the pharmacy staff on the correct method for filling a dispensing envelope at Hhodddada Health Post, Dholbini Municipality, March 2023. Photo credit: Arman Ansari

- All three tiers of government—federal, provincial, and local level—have supported the implementation of SPARS from the inception of the idea to execution. There was strong political commitment from the Ministry of Health and Population which cascaded down to the directors from the divisions, provinces, districts, and municipalities.
- Managed by the CSD with support from the provinces, districts, and municipalities, SPARS' introduction in Nepal, including its implementation and stakeholder coordination framework, has so far shown to be an appropriate way to engage health facilities on medicines management and good pharmacy practices.
- MTaPS supports the government by covering the cost of the supervisory visits, including transport and medicines management tools, and equipping the MMS with telephones and laptops.

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Challenges

- Nepal's decentralized health care system and services to local level and roles and responsibilities of the different tiers of government have changed and it is challenging to ensure uninterrupted supplies of medical commodities due to poor coordination, skills and experience among the different tiers.
- There is a lack of adequately trained and skilled personnel (mainly pharmacists) to manage medicines and SPARS implementation at the district, facility and municipal administrative levels. In addition, insufficient resources to improve premises, especially storage areas, threatens the scalability of the intervention.
- MMS are public employees who are doing the SPARS implementation in addition to their regular job. It can be a challenge for them to effectively manage their time so they can perform to their full potential without compromising their regular job or the SPARS implementation.
- Nepal's geography (hilly, terai and mountainous regions) and location of some health facilities in very rural areas have proven a constraint for supervisory visits and data collection. MMS have to arrange overnight stays, which has both time and cost implications.
- There is some resistance to change among health facility staff who think that the SPARS intervention is additional workload rather than their routine work.
- Insufficient time has elapsed since the start of the pilot, which makes it difficult to assess the longer-term impact.

To help address some of these challenges, MTaPS has worked with the CSD and MMS to enforce regular supportive supervision encouraging equal participation from health facility staff. Examples of support include the introduction and placement of bin cards, filling of at least five of those medicine bin cards together, and ordering and reporting in logistic management information system. These activities help to demonstrate to the facility staff that the interventions are part of their routine work and will help improve their work processes.

Lessons Learned

- Success of the SPARS pilot study relied heavily on the MMS' knowledge, motivation, and skills in coaching and mentoring, communication, and conducting a standardized performance assessment using the SPARS assessment tool. Therefore, it is important to select MMS based on their interest in the district's medicine management issues, motivation for mentoring, and their communication skills.
- MTaPS worked with country stakeholders to customize SPARS for the Nepalese context. Effective engagement of the government's three tiers—federal, provincial, and local—in developing and executing the SPARS concept is critical for the sustainability of the strategy.
- The CSD needed to plan, manage, and lead the SPARS pilot study so that they fully understand the strategy, including the tools and reporting process, and take ownership; moreover, as the SPARS focal point, CSD should organize and lead the coordination meetings.
- For SPARS to move from the pilot stage to institutionalization, the concept will require financial and political support in the coming five years, and expansion not only in geographic reach but also in technical scope as Uganda proved successfully.



Pharmacy staff dispenses medicines and fills dispensing log at Palung Primary Health Center, February 2023. Photo credit: Birna Trap

