World Health Organization

African Partnerships for Patient Safety

Evaluation of a patient safety partnership programme

A briefing paper on the evaluation of African Partnerships for Patient Safety

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Executive summary

African Partnerships for Patient Safety (APPS) uses international health partnerships as a vehicle for improving patient safety and facilitating spread across the WHO African Region. This report summarizes the impact of APPS since its inception in 2008. The findings are based on analysis and interpretation of core programme evaluation data, telephone and face-to-face interviews, focus group work and team observations.

Programme theory of change	North-South hospital-to-hospital partnerships add value to conventional approaches to improve the safety of health care and facilitate improvement via shared learning and the opportunity to co-develop approaches and resources. Local, hospital activity drives action, supported in parallel by advocacy and engagement at the national and regional policy levels.
Benefits of the partnership approach	Partnerships create a pooled knowledge resource and facilitate understanding of patient safety, enabling a bidirectional flow of expertise and solutions. They enhance individual and institutional capacity and leadership development.
Impact on patient safety	The partnership approach directly impacts on knowledge, understanding and behaviour aiding development of patient safety skills and expertise through training and peer support. The approach positively influences small-scale infrastructure improvement, governance and advocacy, with some evidence of successful community engagement too.
Scale-up and spread	Partnerships act as vehicles for advocacy and the development of local leaders for patient safety and are beginning to influence policy-level action. Community engagement is a catalyst for spread.
Current challenges	Resource constraints and high employee turnover are challenges which impact on morale and motivation. Leadership capacity, teamwork and succession planning present a barrier to success, together with limitations to current communication channels. The existing case in support of benefits to northern partners is weak.
Critical actions for future success	Three broad recommendations are made to consolidate the gains described in this report and facilitate future success: 1. Build capacity for national patient safety policy and strategic planning to leverage action on patient safety at the WHO Regional level and across all ministries of health in the WHO African Region; 2. Create and scale up an active web-based network of patient safety partnerships to support technical improvement and facilitate the sustainability of existing partnerships; 3. Build on and strengthen existing stakeholder engagement and collaboration (e.g. THET, ESTHER, IAPO, PFPS and POPS) in support of capacity-building.

Introduction

African Partnerships for Patient Safety (APPS) is part of the WHO Service Delivery and Safety Department. Since the programme's inception in 2008, the number of partnerships has expanded from an initial six countries in the WHO African Region to 14, and is set to expand dramatically during 2014 and beyond to cover all countries in the African Regio. A large amount of qualitative and quantitative evaluation data has been collected since 2009, using the initial APPS Evaluation Framework and more recently a revised framework and a new, simpler and more targeted approach. In 2012, WHO commissioned an independent consultant to synthesize all of the evaluation data available from the six first wave partnerships and in addition undertake field visits to a sub-set of hospitals in Africa to explore more deeply the themes emerging from the synthesis. A comprehensive account of the synthesis and in-country evaluation is available (WHO APPS 2013).

Box 1: APPS - three core programme objectives

1. Improving patient safety in hospitals in the WHO African Region using a six-step cycle of partnership development, needs assessment, gap analysis, action planning, action and evaluation;
2. Using a hospital-to-hospital partnership approach to support improvement and leveraging existing North-South partnerships through close collaboration with international partnership-focused organizations;
3. Supporting the spread of improvement beyond the initial partnership hospitals through bespoke resources to facilitate spread, based on evidence from the quality improvement (QI) literature on scale-up in developing countries.

The programme theory of change

The underlying theory of change for the programme is that hospital-to-hospital partnerships, centered on local ownership and leadership, have a valuable potential to impact on patient safety over and above conventional approaches. The APPS Framework of Improvement, mandated by African ministries of health across and using a suite of improvement tools and resources – co-developed by its first-wave hospital partnerships – provides a robust mechanism for improvement that is replicable and scalable.

The value of international health partnerships

There is growing acknowledgement of the value that international health partnerships can bring to improvement programmes. Health partnerships have the potential to deliver more effective and efficient programs and present opportunities for bi-directional learning. However, partnership models involve significant time investment and consume resources that it could be argued might be better used on more direct improvement activity.
Patient safety has been described as a universally relevant, complex and

interdependent problem that affects health care. The expanding body of knowledge on safety and quality improvement (QI) suggests that programmes designed to address patient safety problems often pose unique challenges, including multi-faceted, complex interventions that evolve over time, the targeting of multiple persons (including patients, clinicians, teams and leaders), the use of various incentives and levers (social, economic, and work redesign) and teams with few resources for data collection. Because of these factors, it is often difficult to report methods and results (Goeschel et al 2012). The context into which an improvement is introduced is also central to and much overlooked (Shekelle et al 2011). In addition, national governmental, non-governmental and socio-political factors also play their part in influencing improvement. It is against this backdrop that this evaluation took place. This briefing paper presents a summary of the synthesis, field visits and conclusions, as well as some recommendations to take APPS forward.

Objectives of the evaluation

This two-stage evaluation seeks to synthesize evidence on the impact that APPS has had to date, as well as articulate opportunities for improvement. The intended audience of this evaluation briefing paper is ministries of health in the WHO African Region, WHO Country Offices and funders of patient safety improvement programmes.

The four objectives are summarized below:

Box 2: Evaluation objectives

1. To demonstrate evidence of impact;
2. To summarize barriers to patient safety improvement;
3. To determine opportunities for improvement;
4. To explore the contribution of a partnership approach to continuous improvement

In particular, this evaluation exercise attempted to address the impact, challenges and opportunities for improvement associated with participation in the APPS programme. It also explored how the partnerships function and the value they confer. A two-stage approach to evaluation was employed that sought to answer questions relating to context and process – both described as key influencers of outcome in relation to multi-faceted interventions (Pawson et al 1997).

Methodology

An analysis of peer-reviewed literature on mixed-method evaluation models for global health programmes was undertaken to inform the final evaluation methodology. Particular emphasis was placed on sourcing models used in contexts with limited resources. Realistic Evaluation (Pawson et al 1997) and Appreciative Inquiry (Watkins 2001) informed the final approach.

Evaluation was designed to answer four central questions (box 3).

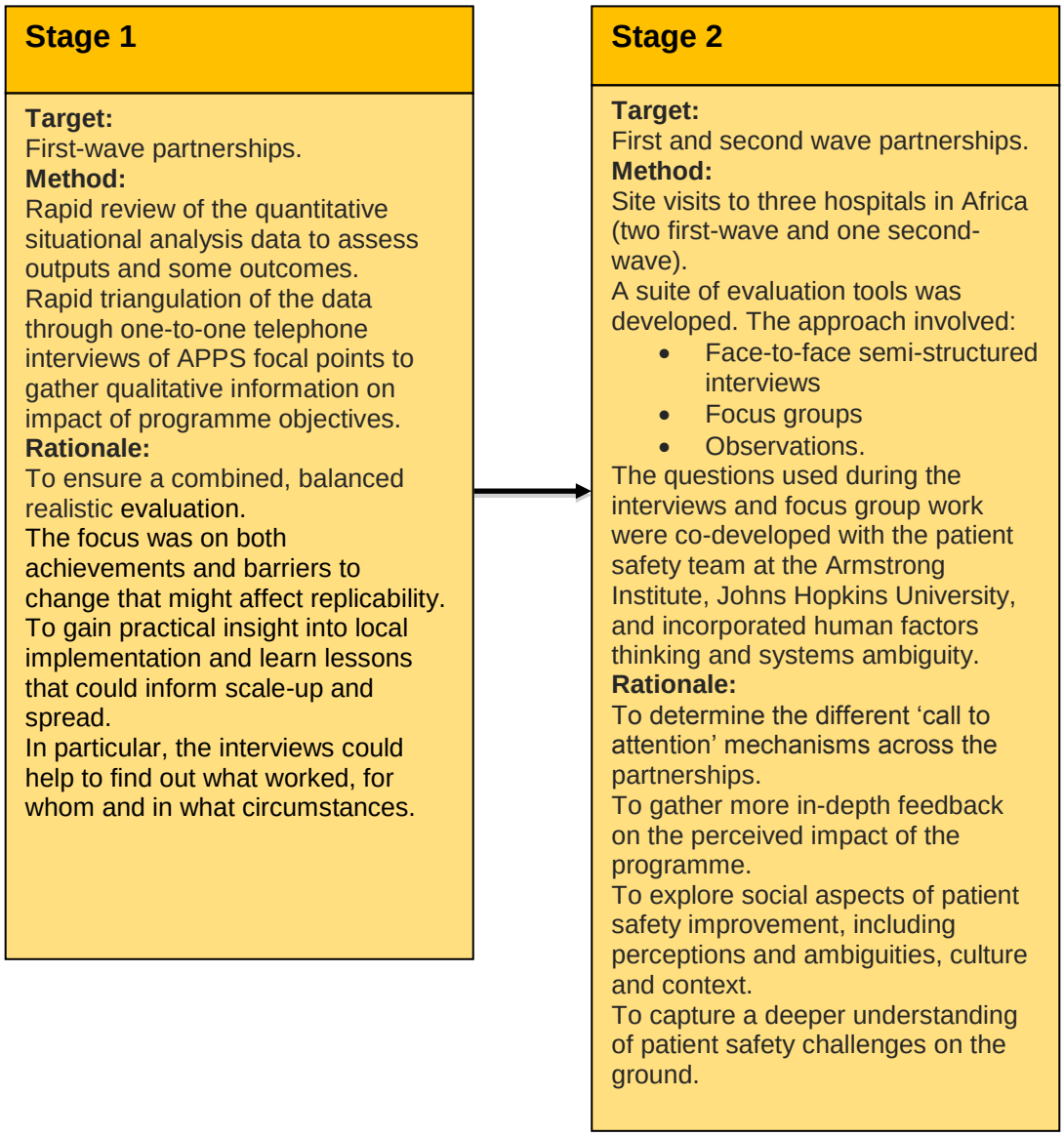
Box 3: The four questions underpinning evaluation

1. Is participation in APPS having an impact?
2. Are there any circumstances in which APPS works better?
3. What factors accelerate or impede improvement?
4. What might maximize the likelihood of future success?

The approach to this evaluation was based on the assumption that APPS is likely to work in some hospitals but might not be effective for all participating partnerships. The evaluation attempted to investigate both of these scenarios. The starting point of the evaluation focused on the type of hospital and its context by revisiting quantitative data obtained via the situational analysis. The approach then moved on to explore how APPS had influenced action and attempted to determine features of the different approaches taken at the facility level, to explore which worked best and in particular probed the beneficiaries of the approach. In addition, an attempt was made to explore in what circumstances APPS appears to be successful and focuses on the factors that appear to enhance success at the facility, as well as the individual level. The evaluation explored, through its layered approach, how APPS had been contextualized locally.

The two-stage approach enabled the collection of qualitative and quantitative data, stage two building on the information obtained in stage one. A summary of the methods is presented in figure 1. The evaluation covers the period from the inception of the programme in November 2009 to the end of December 2012.

Figure 1: The two-stage approach



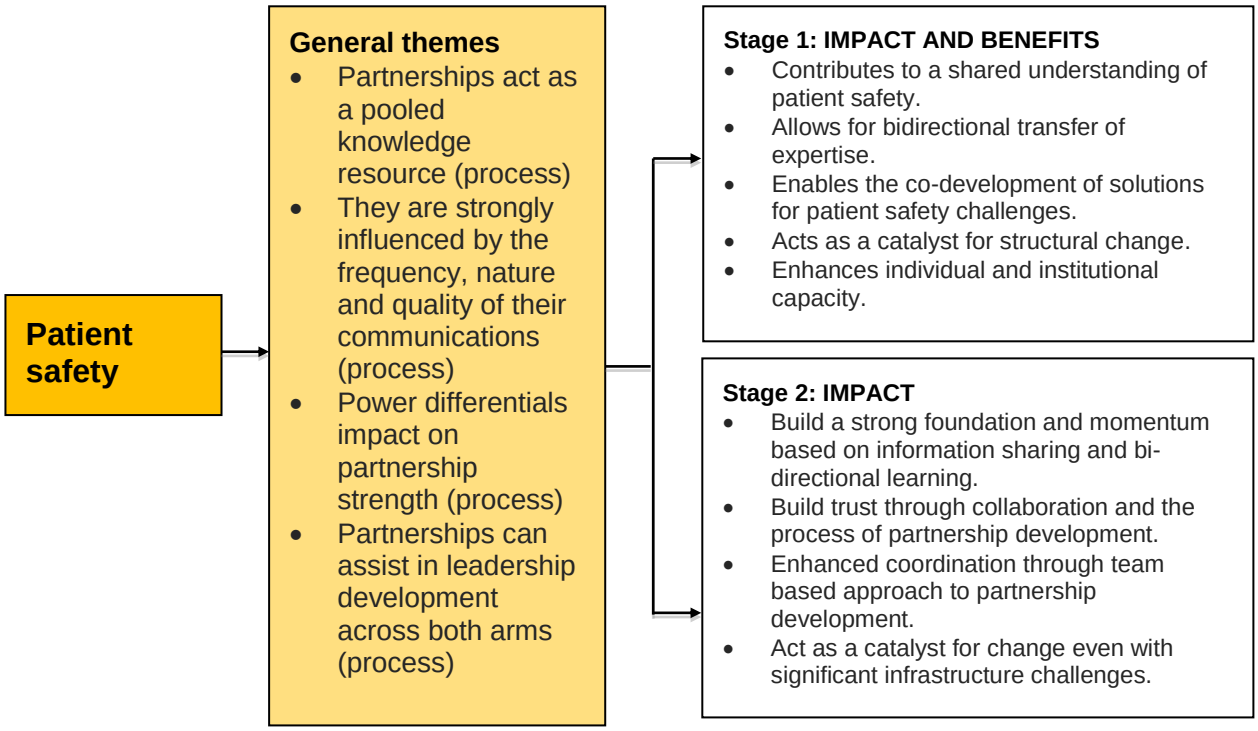
Findings

The evaluation focused on the time period up to the end of December 2012. It demonstrates that implementing patient safety improvements via a partnership model and using the APPS Approach has resulted in a positive impact across a range of indicators. In particular, the model has supported key stakeholders, including local leaders, to be agents of change and improvement. However, there has been great variability in the extent of the impact, with significant challenges hampering success. Whilst all partnership hospitals had management commitment, those sites with the strongest managerial commitment and active leadership appear to have had the most success in implementing improvements.

Patient safety partnerships

A thematic analysis of the results from both stage 1 and 2 is presented in figure 2.

Figure 2: Patient safety partnership findings



Patient safety improvements

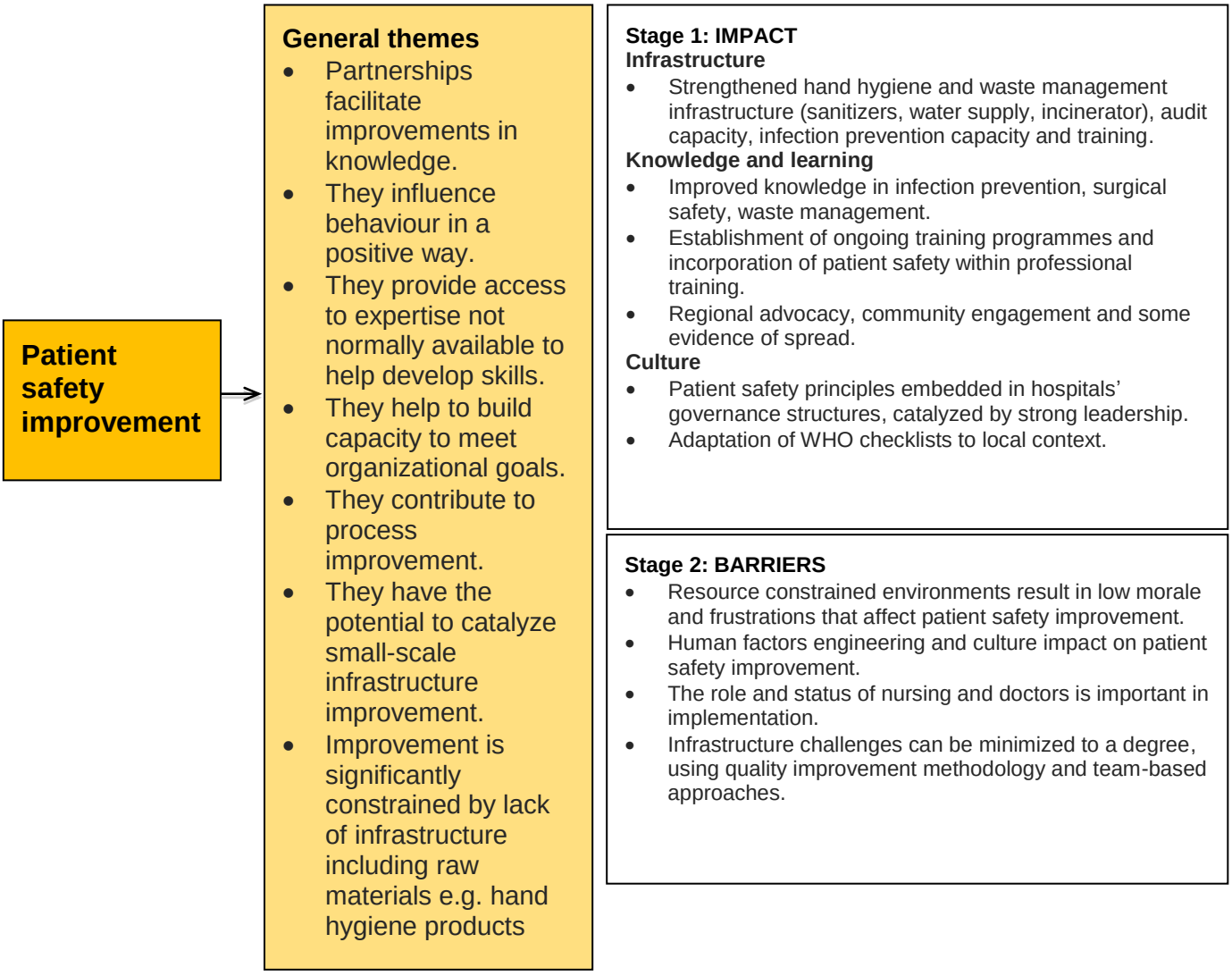
The situational analysis is a powerful data capture tool that generates over 100 pieces of data enabling, a hospital to track improvement over time. A synthesis of the baseline and repeat analysis across the first-wave hospitals showed some improvement in a number of key parameters (see table 1).

Table 1: Situational analysis synthesis

Situational analysis parameter	Partnership improvement at 1 year post-baseline
1. Leadership and coordination of infection prevention and control	All partners identified a lead (100% increase)
2. Antibiotic policy development	Two-thirds developed new policy
3. Surgical prophylaxis policy development	Just under half developed new policy
4. Mechanisms to record hospital harm and death from surgery	Three developed mechanisms where none previously existed
5. Record-keeping (antibiotic dispensing)	Three started programme of record keeping
6. Medication safety	One worked on this area and developed reporting systems for adverse drug reactions and medication errors
7. Training on hand hygiene compliance	All partners initiated training on hand hygiene improvement
8. Adequate supplies of alcohol-based handrub (ABHR)	Increase in number of partners recording adequate supply of ABHR
9. Community engagement	All developed mechanisms to engage patients and local communities on patient safety improvement

The figure below presents seven general themes emerging from the qualitative approach to data collection that took place during stage 1 and 2.

Figure 3: Patient safety improvement findings



What partners said about overcoming barriers

During stage 1 interviews, the challenges associated with technical improvements in patient safety were explored in detail. Partners were probed on how these barriers might be overcome. The challenges described here and the self-reported opportunities to mitigate these according to the APPS focal points, form a significant component of the recommendations of this evaluation briefing report.

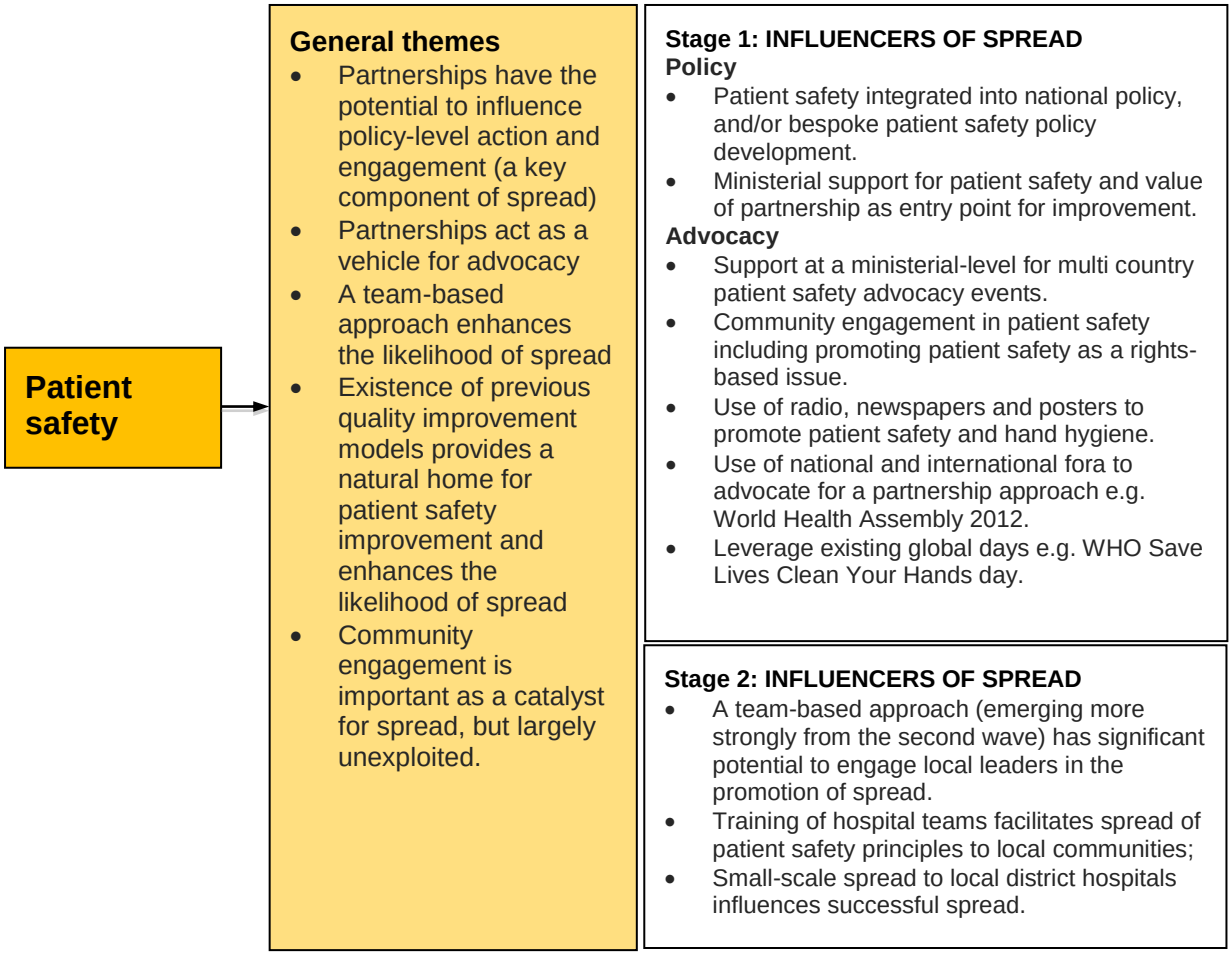
Table 2: Self-reported challenges and mitigations in implementing patient safety using APPS

	Challenges	Opportunities
Infrastructure	• Weak infrastructure negatively impacts on improving patient safety systems	• Further clarify infrastructure requirements for patient safety • Build engineering capacity
Leadership and teamwork	• Establishing strong patient safety teams • Succession planning and shared leadership beyond APPS focal point • Organizational hierarchies	• Build stronger patient safety teams with clearly defined roles and responsibilities • Establish clear channels of communication
Community engagement and advocacy	• Full potential of community engagement not realized	• Build stronger engagement mechanisms • Leverage local media outlets
Knowledge and learning	• Limited health-care worker training • High workforce turnover limits impact of training • Low motivation • Limitations in technical capacity e.g. laboratory workers, surveillance experts	• Build stronger training capacity • Simplify available resources to address upstream determinants
Partnership-based approach	• Communication including language, role clarity, feedback and IT limitations • Low political buy-in • Cultural and power imbalance/lack of trust • Low levels of patient safety leadership and institutional engagement • Funding constraints • Lack of integration of patient safety activities • Lack of convincing argument for benefits to northern partners	• Strengthen communication channels through greater use of technology and social media • Strengthen bi-directional information and expertise exchange through regular visits • Advocate for political support • Enhance partnership coordination • Build capacity for fundraising • Build local capacity for patient safety improvement • Integrate patient safety interventions • Nurture trust and cultural awareness • Strengthen patient safety leadership • Strengthen marketing and advocacy • Increase training • Facilitate exchange of equipment • Further develop south-north flow of learning and innovation

Patient safety spread

Five broad themes emerged from the evaluation of spread.

Figure 4: Patient safety spread findings



The analysis further reveals a number of innovations that have yet to be fully exploited for the benefit of patient safety strengthening in Africa and beyond, including south-south collaboration and diffusion of innovation (related to the manufacture of hand sanitizers), use of novel raw materials for the production of hand sanitizers (e.g. bananas in Uganda) and leveraging industry in the north to address deficits in supplies associated with manufacture of hand sanitizers.

Benefits to northern partners was not a central objective of this evaluation, however, during the telephone interviews in stage 1 attempt was made to probe this question and a number of benefits were logged including exposure to tropical medicine that builds knowledge, skills and capacity that might be transferable in the north.

Case Study Learning

Case studies provide essential learning for patient safety improvement and the full evaluation report (WHO APPS 2013) highlights nine case study reports describing the challenges and achievements to date. Table 3 summarizes the case study findings.

Table 3: Summary of case study findings

	Challenges/achievements
Structural	Challenge: • Lack of sustainable approaches to ABHR production • Lack of running water and basic infection prevention equipment • Pharmaceutical waste disposal Achievement: • Approaches in medication safety
Human resources	Challenge: • Lack of consistent hand hygiene and safe surgery trainings • Maintaining compliance with WHO Surgical Safet Checklist
Leadership	Achievement: • Nursing leaders committed to patient safety
Community/patient engagement	Achievement: • Health education of patient attendants • Measuring patient satisfaction

Implications

As figure 3 highlights, improvements in patient safety are being realized, and based on feedback from APPS focal points, the partnership approach is thought to be having a direct impact on patient safety. From this evaluation information, it does appear that APPS has specifically contributed to the strengthening of patient safety across a number of parameters, including the development of local patient safety advocates and leaders – crucial to the successful implementation of any improvement. Participation in APPS is therefore resulting in a number of concrete outputs related to training capacity and small-scale infrastructure strengthening as well as increased awareness both within partnership hospitals and in some cases across local communities.

There is some evidence of impact on short-term outcomes, including changes to local culture, increased knowledge of patient safety, enhanced problem-solving skills and engagement with ministries of health, that is resulting in tangible actions at the national level to support local improvement work. Also beginning to emerge, is the positive impact that participation is having on northern partners, although this has not been the main focus of this evaluation. In terms of medium to longer-term impact, this analysis does not

support evidence for this, but will contribute to the ongoing need to explore and catalogue evidence of this where it is available.

Stage 2 evaluation revealed how APPS cannot be viewed in a vacuum and must take account of the structural and human resource challenges in partnership hospitals. However, these challenges are not preventing progress at a number of levels, particularly community engagement. Culture-specific barriers to improvement are common across all partnerships.

Sustainability of the improvements emerged as a concern of those interviewed, with leadership emerging as very important in all of the hospitals studied - strong leadership engagement in the second wave partner hospital illustrating that this has a positive impact on patient safety progress, as well as adapting a team-based approach. Existence of prior quality improvement initiatives impacted positively on this hospital also.

In spite of the challenges and barriers, the partnership approach does appear to add value, in motivating teams in Africa to engage with northern partners on small-scale changes, particularly those centered on training and knowledge expansion. The value of patient safety as an overall component of patient care was highlighted through all of the focus group work.

The response to and impact of observational audit of compliance with hand hygiene and the Surgical Safety Checklist extended beyond the immediate narrow target area, with views emerging that these audits could have value in providing a window on broader patient safety improvement.

What make APPS work?

The results presented here appear to suggest that at the very least, APPS has had some impact on each of the three APPS objectives. It is apparent that APPS worksbest where there have been a strong local leader(s) who have galvanized teams around patient safety. Also the partnership model has the potential to assist in leadership development. Furthermore, the model can act as a catalyst for structural change and stimulate the co-development of solutions for various patient safety challenges. The involvement of patients and civil society groups appears to have great potential to enhance and sustain improvement. The culture of institutions, the infrastructures and human resources all impact on the behaviour of health-care workers and this is common across the north and south. Stage two was novel in its focus on human factors and systems ambiguity and its impact on implementation that provides a basis for further novel exploratory work in a developing country context. However, status and power differences of different groups of staff impact on implementation.

Limitations

The challenge in partnership programmes is that diversity across projects and partner activities increases the complexity of information-gathering. The challenge of evaluating any partnership model is the multiple dimensions of the partnership and the many interventions and actions that can make it difficult to target feasible measures to evaluate. The findings, implications and recommendations presented here provide a small snapshot of progress and are based on analysis, interviews and observations at the APPS hospital level and may not be representative of the state of patient safety beyond these hospitals. Further, the findings summarized here are from the initial phase of evaluation. A further evaluation is expected early in 2014.

Stage 1 analysis targeted only the APPS focal points and therefore does not fully represent the depth or breadth of views across an entire partnership.

Stage 2 analysis included limited exploration of the cultural and contextual factors likely to impact on patient safety. Neither stage targeted national actors such as ministries of health and WHO country offices, nor civil society.

Recommendations

The recommendations, based on the evaluation results, are focused at three levels; policy, partnership (including WHO and current and future partners) and stakeholder, with clear overlap and interconnectivity across the levels. The recommendations are summarized in Figure 5.

Figure 5: Recommendations

Policy	Partnership	Stakeholder
1. Build capacity for national patient safety policy and strategic planning to leverage action on patient safety at the WHO Regional level. 2. Disseminate the findings from this evaluation briefing to ministries of health in Africa as well as key organizations involved in APPS. 3. Use the evaluation briefing to support advocacy efforts for the partnership-based approach as a powerful vehicle to improve patient safety and quality of care.	1. Build a strong patient safety partnership network, using WHO/SDS (Patient Safety) web-based mechanisms. 2. Use the patient safety partnership network to deliver training and education (e.g. webinars, addressing the knowledge gaps highlighted in the evaluation). 3. Use the network to further promote south-south collaboration. 4. Review and simplify APPS resources. 5. Consider broadening the pool of technical expertise available to support and advise the programme, e.g. engineers, behaviourists, anthropologists. 6. Empower partners to undertake resource mobilization to address infrastructure constraints. 7. Undertake an APPS-Private Organization's for Patient Safety collaborative project to address current lack of ABHR supplies. 8. Strengthen sharing between partnerships e.g. using APPS web platform and other media. 9. Synthesize information on key benefits accrued by "northern" partners participating in APPS.	1. Continue collaboration and advocacy with partnership focused organizations e.g. Tropical Health Education Trust (THET), ESTHER and others to promote the importance of funding future improvement work that builds on and consolidates APPS. 2. Work with THET-Engineers without borders collaboration to address issues around maintenance and repair of patient safety related equipment. 3. Strengthen patient and community engagement through active collaboration with relevant organizations.

Conclusion

APPS is making steady progress towards achieving its objectives across all partnership hospitals. Taking account of the limitations associated with evaluating partnership programmes, it is likely that the data obtained and the conclusions that can be drawn will not address all issues of relevance. However, this paper has shown how an evaluation is trying to address some of these challenges to improve the APPS approach moving forward.

A central element of evaluating the success of partnership programmes is to determine the effectiveness of the partnership itself and this report suggests that there are benefits associated with a partnership approach that support patient safety improvement, and that these benefits have yet to be fully exploited. The long-term success of using a partnership approach to improve and spread patient safety will be influenced by the findings and the response to the evaluation described here.

This evaluation has demonstrated that partnerships are one part of the solution to the problem of patient safety, but they are not without their own challenges and they take time and commitment to develop. This evaluation goes some way to demonstrating that partnerships add value to patient safety improvement across a number of levels of the health system. Further evaluation will build on the findings presented here and help in the development of a body of knowledge on this subject.

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