

Effects of Collaborative Improvement on PMTCT and ART Indicators in Côte d'Ivoire: A Comparative Study

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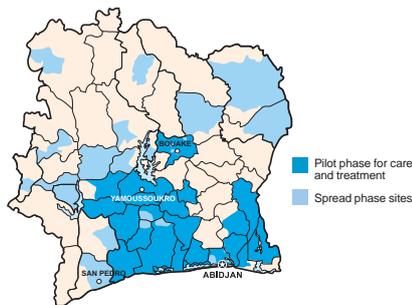
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Context

Côte d'Ivoire has a high HIV prevalence, with 4.7% of the population infected with the virus. Yet a national 2008 assessment of prevention of mother-to-child transmission (PMTCT) and anti-retroviral therapy (ART) services showed significant gaps in care quality in both public and private facilities.

To measure the effects of an improvement collaborative on these quality gaps, the USAID Health Care Improvement (HCI) Project in Côte d'Ivoire compared results achieved in demonstration sites with new sites that were going to join the collaborative.

Figure 1. Scale of the ART/PMTCT improvement work in Côte d'Ivoire



Problem

The 2008 national assessment indicated good adherence to standards of care during initial patient visits for pre-ART and ART care, but lower adherence in follow-up care. Some 66% of pre-ART and 45% of ART patients were lost to follow-up, and only 43% of exposed infants received prophylaxis. Sites varied widely with respect to existence of and practice associated with medical records, making continuity of care and appropriate follow-up difficult.

To improve this situation, an improvement collaborative was initiated in 2009 to improve care provision to HIV-positive women and others in care and treatment.

- The collaborative was carried out in 41 sites in 27 of Côte d'Ivoire's 83 districts.
- QI teams included physicians, nurses, midwives, social and community workers, biotechnologists, and pharmacists.
- 2008 baseline results were shared with participating sites and improvement objectives set for each area (PMTCT and ART) related to documentation and loss-to-follow-up.

The collaborative also brings together the involved sites to share experiences and lessons learned:

- At the collaborative's first learning session, teams learned about indicators and QI methods to address gaps and improve care.
- QI coaches visited within a month to help teams gather site-level baseline information, analyze their process, and discuss problems and improvements.
- Three more learning sessions and regular coaching helped to spread change ideas across teams.

Strategy for change

In a modified quasi-experimental design to investigate the effects of participating in a collaborative, 36 demonstration sites comprised the intervention group, and 42 similar sites in the soon-to-be-initiated expansion phase comprised the control group (shown in Figure 1).

The collaborative identified 8 key changes for PMTCT and 9 for ART that demonstration teams had tested and shared through learning sessions and coaching visits, including training in new HIV and AIDS forms, creating links between PMTCT and ART registers, and creative ways to find those lost to follow-up (shown in Table 1).

Effects of changes

- Intervention and control sites had similar levels of team collaboration and employee engagement, but intervention sites had significantly higher QI competency and QI activity implementation.
- Intervention sites showed significantly larger gains in 4 of the 5 indicators (particularly on documentation and loss to follow-up) than in control sites (some results are shown in Figure 2).
- Intervention sites were significantly more likely to have implemented changes to improve documentation and loss to follow-up (significant odds ratios varying from 1.66 to 4.88).
- We found some spill-over effect of innovation spread in control sites—some change ideas were also implemented in control sites in 2009 due to the introduction of improvements by PEPFAR implementing partners who had seen improvement in their sites participating in the collaborative and shared those ideas with other sites they worked with.

Measurement of improvement

- Data on key inputs, QI competency, QI activities, team collaboration, data availability, and key changes implemented were collected through interviews with key informants, staff and QI team members at both control and intervention sites.
- Data on the collaborative's 5 results indicators were compiled from all sites for January 2009—May 2010.



Groups work on changes during the first learning session held January 14-16, 2009

Figure 2. ART documentation in intervention sites compared to control sites

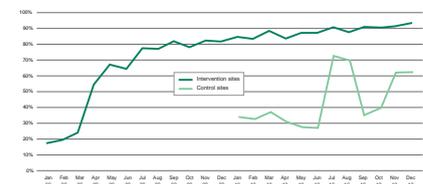


Table 1. Effective changes developed by teams participating in the ART/PMTCT Improvement Collaborative

Area of Changes	ART	PMTCT
Improving patient tracking and follow-up	<ul style="list-style-type: none"> • Calling patients or contacts about missed appointments and encouraging them to return to the clinic • Using NGOs to trace lost patients and bring them back to the clinic • Designating a staff member to be responsible for reviewing records for completeness each day 	<ul style="list-style-type: none"> • Tracking children for HIV testing during vaccinations • Regular meeting set up between the general hospital where women deliver and the PMTCT site to share patient lists and information to track HIV-positive women and the children born to them • Improving counseling of pregnant HIV-positive women about the importance of returning for HIV testing of the infant
Increasing availability and competence of health workers	<ul style="list-style-type: none"> • Involving the obstetrician-gynecologist (OB-GYN) in ART provision to HIV-infected pregnant women 	<ul style="list-style-type: none"> • Training and involving guards in patient orientation
Service organization and scheduling	<ul style="list-style-type: none"> • Recording appointments in two lists: one for the facility and one for the patient • Making appointments to provide drugs to patients and CD4 control on the same day 	<ul style="list-style-type: none"> • Regular meeting between OB-GYN and HIV service providers
Availability of supplies and equipment	<ul style="list-style-type: none"> • Created triage station • Provided thermometer to ensure patient's temperature taken at each visit 	<ul style="list-style-type: none"> • New room designated for PMTCT activities

Lessons learnt

- Collaborative improvement can motivate sites to make changes in the way they provide services and enable them to achieve better results in some clinical areas than sites not involved in QI.
- More is still to be learned about the effects of spill-over of ideas to new sites and how well they take up new ideas.

Message for others

Sites that participate in collaborative improvement appear to implement more changes and have better results than sites that do not participate. This learning contributed to reducing loss to follow-up and better patient care documentation—two important areas for improving outcomes for patients with HIV and AIDS.

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