USAID ASSIST Project

Applying Science to Strengthen and Improve Systems

Côte d’Ivoire Country Report FY17

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DISCLAIMER
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For more information on the work of the USAID ASSIST Project, please visit www.usaidassist.org or write assist-info@urc-chs.com.

Recommended citation

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<tr>
<td>AIBEF</td>
<td>Association Ivoirienne pour le Bien Etre Familial (Ivorian Association of Family Welfare)</td>
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<tr>
<td>AIDS</td>
<td>Acquired immunodeficiency syndrome</td>
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<td>ART</td>
<td>Antiretroviral therapy</td>
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<td>ASSIST</td>
<td>USAID Applying Science to Strengthen and Improve Systems Project</td>
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<tr>
<td>CAT</td>
<td>Centre Anti-Tuberculeux (Tuberculosis Treatment Center)</td>
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<td>CDC</td>
<td>U.S. Centers for Disease Control and Prevention</td>
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<tr>
<td>CHU</td>
<td>Centre Hospitalier Universitaire / University Teaching Hospital</td>
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<tr>
<td>CHR</td>
<td>Centre Hospitalier Regional (Regional Hospital Center)</td>
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<td>CSAS</td>
<td>Chef de Service de l’Action Sanitaire (Head of Public Health Service)</td>
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<td>CSU</td>
<td>Centre de Santé Urbain (Urban Health Center)</td>
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<td>DGS</td>
<td>Direction Generale de la Santé (General Health Directorate)</td>
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<td>DMH</td>
<td>Direction Medecine Hospitalière et de Proximité (Directorate of Hospital Medicine)</td>
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<td>EGPAF</td>
<td>Elizabeth Glaser Pediatric AIDS Foundation</td>
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<td>FANTA</td>
<td>USAID Food and Nutrition Technical Assistance Project</td>
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<td>FY</td>
<td>Fiscal year</td>
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<td>HAI</td>
<td>Health Alliance International</td>
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<td>HIV</td>
<td>Human immunodeficiency virus</td>
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<td>ICAP</td>
<td>International Center for AIDS Care and Treatment Programs</td>
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<td>IP</td>
<td>Implementing partner</td>
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<td>MOH</td>
<td>Ministry of Health (Ministère de la Santé et de l’Hygiène Publique)</td>
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<tr>
<td>NACS</td>
<td>Nutrition assessment, counseling, and support</td>
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<td>OVC</td>
<td>Orphans and vulnerable children</td>
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<tr>
<td>PCR</td>
<td>Polymerase chain reaction</td>
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<tr>
<td>PDSA</td>
<td>Plan-do-study-act</td>
</tr>
<tr>
<td>PEPFAR</td>
<td>U.S. President’s Emergency Plan for AIDS Relief</td>
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<td>PLHIV</td>
<td>People living with HIV</td>
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<tr>
<td>PMI</td>
<td>Protection Maternelle et Infantile (Maternal and Child Protection)</td>
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<td>PNN</td>
<td>Programme National de Nutrition (National Nutrition Program)</td>
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<td>PNLS</td>
<td>National HIV and AIDS Care and Treatment Program</td>
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<td>PNOEV</td>
<td>National Program for Orphans and Vulnerable Children</td>
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<td>PSHP</td>
<td>Private Sector Health Project</td>
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<td>Q</td>
<td>Quarter</td>
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<td>QI</td>
<td>Quality improvement</td>
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<tr>
<td>SEV-CI</td>
<td>Santé Espoir Vie Côte d’ivoire (Health Hope Life)</td>
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<td>TA</td>
<td>Technical assistance</td>
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<tr>
<td>URC</td>
<td>University Research Co., LLC</td>
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<td>USAID</td>
<td>United States Agency for International Development</td>
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1 Introduction

From 2013 to 2017, the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project, with PEPFAR funding, worked to build a quality improvement (QI) approach into the health system in Côte d’Ivoire. When ASSIST started, no infrastructure existed in the Ministry of Health and Public Hygiene (MOH) to orient or guide managers on quality improvement, or to manage QI in the health system.

Specifically, ASSIST worked to:

- Provide technical expertise to implementing partners (IPs) in the implementation of their HIV and AIDS improvement activities at PEPFAR-supported facilities and establish a QI system in the four University (teaching) hospitals; and

- Build the capacity of the General Health Directorate (DGS) within the newly established MOH QI unit [Directorate of Hospital Medicine (DMH)] to strengthen the capacity for improving care at the central level.

USAID’s instruction to ASSIST was to work above-site while the PEPFAR clinical partners provided direct support to health facilities. The role of ASSIST was to provide sufficient technical assistance (TA) to PEPFAR partners so that they could support health facilities in producing quality health services.

In fiscal year (FY)16, PEPFAR defined three types of intervention districts in Côte d’Ivoire. These districts represented “scale-up for saturation”, “scale-up”, and “maintenance”. During the September 25, 2015 coordination meeting held at the Public Health National Institute (INSP), it was decided that ASSIST would support collaborative improvement in the “scale-up for saturation” districts. Thus, ASSIST aligned with PEPFAR’s directives the project’s approach to improving the quality of HIV and AIDS care and treatment services and implementing health systems strengthening activities.

In FY17, ASSIST continued to develop these activities and support the scale-up of effective practices that contribute to achieving the objectives of 90-90-90 to other sites. To do so, three priority areas of intervention were identified: (1) Improved quality of ART care and PMTCT services, (2) Health systems strengthening, and (3) Development of a strategic information system.

The project worked with 109 (out of 529) facilities in the country, providing technical assistance to implementing partners and 109 QI teams. The supported sites included: 10 sites supported by the Global Fund through the National HIV and AIDS Care and Treatment Program (PNLS); five private clinics supported by the USAID-funded Private Sector Health Project managed by Abt Associates; four University Hospitals (Centre Hospitalier Universitaire, CHU): University Hospital of Cocody, University Hospital of Treichville, University Hospital of Yopougon, and University Hospital of Bouake; and 90 public health facilities supported by six CDC/PEPFAR implementing partners (SEV-CI, ICAP, EGPAAF, Ariel Glaser Foundation, ACONDA, and HAI). Eleven of the 90 sites were also supported by FHI 360 (FANTA) for nutrition assessment, counseling, and support (NACS). ASSIST worked closely with FANTA to help the 11 sites apply QI to NACS. The 90 sites included 30 “extension” sites to which best practices developed in the initial 60 IP-supported sites that received QI support from ASSIST since 2014.
2. Program Overview

What did we try to accomplish? | At what scale?
---|---
1. Improve the quality of HIV and AIDS care and treatment services
- Improve timeliness, continuity, effectiveness, efficiency, and patient-centeredness of HIV and AIDS services and their consistency with clinical guidelines through the improvement collaborative approach
- Strengthen capacity of medical providers to provide safe, timely, continuous, effective, and efficient medical care
- Improve awareness on quality improvement experiences countrywide
- Strengthen the health information system to support development of evidence-based decisions on improvement quality of medical care
- Ensure equitable access to priority “best-buy” high-impact medical services in demonstration regions
- Provide TA in QI for FANTA-supported sites
- Establish QA/QI system in the four University Hospitals
- Health regions: 15 out of 20
- Districts: 30 out of 82
- 100 public health facilities (60+30 new IP sites+ 4 CHUs and 10 MOH-supported) in selected districts: 19% (100 out of 529) + 5 private clinics =109 health facilities
  - 11 out of the 90 IP-supported sites are working on NACS
  - 4 University Hospitals (District Abidjan South, East and North; and Bouake)
- Catchment population facilities/communities served: 15,745,741 out of 25,892,248 people in 30 intervention districts

2. Health systems strengthening
- Strengthen leadership, management, and planning of MOH quality improvement unit in coordinating quality improvement activity design and implementation
- Support development of national standard documents
- Central level MOH: DMH and PNLS
3 Key Activities, Accomplishments, and Results

Activity 1. Improve the quality of HIV and AIDS care and treatment services

BACKGROUND

ASSIST worked to improve health care services delivery to HIV-infected patients. The project provided technical assistance to the six PEPFAR IPs, two USAID technical partners, and the PNLS to improve their capacity to support sites in delivering high quality HIV and AIDS care and treatment services to people living with HIV (PLHIV).

KEY ACCOMPLISHMENTS AND RESULTS

Provide TA in QI for FANTA-supported sites

- **Organized a NACS learning session** (Oct 17-21, 2016). ASSIST in collaboration with FANTA and the National Nutrition Program (*Programme National de Nutrition, PNN*) organized a learning session for the 11 NACS QI teams in Yamoussoukro. During this session, the sites presented their results and the changes tested to improve the nutrition services for PLHIV.

- **Held a meeting with FANTA (FHI 360)** (Dec 21, 2016). ASSIST and FANTA organized a meeting to discuss the process of scaling up NACS activities to new sites and the preparation of the workshop to present the results of the QI nutrition services with the eight health districts.

- **Participated in a workshop on results of quality improvement processes in nutrition and HIV services** (Mar 6-10, 2017). The workshop was organized by PNN in collaboration with PNLS, *Programme National des Orphelins et Enfants Vulnerables du fait du VIH (PNOEV)* and the support of FHI 360 / FANTA in Yamoussoukro. During this workshop, results from applying QI approaches to nutritional care and support services were presented and discussed. Also, strategies for scaling up and sustaining the nutrition improvement work were discussed, such as integrating QI activities (coaching visits, learning sessions, etc.) into those carried out by the Regional Directorate of Health.

Improve the quality of HIV and AIDS care and treatment services in public and private health care facilities

- **Held meetings with the Private Sector Health Project (PSHP) formerly SHOPS** (Oct 20 and Nov 2, 2016) to discuss quality improvement activities in the private sector and how to start QI activities in private clinics. During the meeting, improvement indicators that needed to be disaggregated by sex were discussed, along with gender-sensitive indicators. These indicators are:
  - % of ART client records with all items filled (disaggregated by sex)
  - % of clients diagnosed HIV-positive and enrolled in care (disaggregated by sex)
  - % of patients, alive, and on ART six months after treatment initiation (disaggregated by sex)
  - % of pregnant women tested and received HIV results

- **Conducted coaching visit of 90 PEPFAR IP-supported sites** (Oct - Nov 2016). ASSIST provided technical assistance to PEPFAR IPs (SEV-CI, ICAP, EGPAF, ARIEL, ACONDA, and HAI) and health districts during coaching visits. During these visits, coaches checked on the feedback from learning session give to other QI members, whether change ideas were being tested out, the functionality of QI teams, and the documentation and the quality of the data from the monthly evaluations.

- **Conducted coaching visits to 10 PNLS sites** (Nov 2016). ASSIST provided technical assistance to PNLS during the coaching visits in Sud Comœ. They checked on the functionality of QI teams, the documentation of change ideas, and indicators.
• **Participated in learning session of ARIEL GLASER extension sites** (Nov 22-25, 2016). ASSIST provided technical assistance to the ARIEL GLASER Foundation in a catch-up learning session of the five extension sites in Yamoussoukro. In total, 20 persons participated, including the facility staff, the IP’s QI focal points, and the head of the health district.

• **Conducted a learning session for 10 QI teams from Sud Comoé collaborative sites** (Feb 6-8, 2017). This session was organized by PNLS with the technical support from ASSIST. Twenty health workers from the sites participated, during which each site presented the results of the activities carried out. During the session, the level of implementation of the improvement action plans developed to implement the ideas for change identified in Nov 2016 were assessed.

• **Organized SEV-CI, ACONDA, HAI, and ARIEL collaborative learning sessions** (Mar 13-14 and Mar 27-28, 2017). Two learning sessions were organized by ASSIST in collaboration with PEPFAR IPs for 60 sites in the collaborative. The sessions registered 140 participants, including the District Health Chiefs (Chef de Service de l’Action Sanitaire, CSAS). The overall objective was to share the results of QI activities and ideas for change implemented at sites.

• **Held a coaching visit of the improvement collaboration in 20 pilot sites** (Aug 8-11, 2017). ASSIST provided technical assistance to IPs SEV-CI and HAI to hold coaching visits in their collaborative sites. During this visit, a second collaborative was initiated and the following activities were carried out:
  - Analyzed the root causes of problems
  - Trained participants to calculate indicators
  - Developed an improvement plan according to identified priority areas
  - Strengthened providers’ capacities to initiate ideas for change

**Results:**

• **Figure 1 shows improvement in the percentage of ART clients with all elements filled in in the records.** At the 60 pilot sites, there was improvement from 33% before engagement in QI to 92% after engagement (May 2015 - July 2017), and at the 30 extension sites from 25% (Mar 2016) to 84% (July 2017). The sites participating in QI activities were often overloaded with patients. At times, the health workers forgot to fill in parts of the medical record because of the heavy workload. Change ideas that were introduced to address this problem included: assigning a nurse to check medical records for completeness; returning those patients’ records that were incorrectly completed back to the doctors; and dividing recording tasks among the different providers involved in care.
Figure 1. Percentage of ART client records with all items filled, 90 IP-supported sites, 15 health regions, 30 districts (pilot sites: May 2015 – August 2017; extension sites: Mar 2016 – August 2017)
Figure 2 shows results for recently diagnosed HIV-positive clients enrolled in care at 90 sites supported by IPs. Enrollment at the 60 pilot sites increased from 68% (May 2015) to 97% (August 2017) and at the 30 extension sites increased from 75% before direct engagement at the site level (March 2016) to 99% in August 2017. The decrease in January 2017 can be explained by the state of social unrest in the country (military mutiny, strike in the public sector). Changes introduced and implemented included: enrolling newly tested HIV-positive clients in care on the same day, referring all clients who tested positive to the enrollment office with a referral document, and delegating the enrollment of clients who tested positive to nurses and midwives, as well as assigning new HIV-positive clients to the community counsellors who are part of care and treatment for PLHIV.

Figure 2. Percentage of recently diagnosed HIV-positive clients enrolled in care, 90 IP-supported sites, 15 health regions, 30 districts (pilot sites: May 2015 – August 2017; extension sites: Mar 2016 – August 2017)
- **Figure 3 shows improvements in retention in care at 90 sites supported by IPs.** Retention in care of HIV-positive clients alive and on ART at the 60 pilot sites increased from 72% (May 2015) to 87% (August 2017), and at the 30 extension sites, from 73% before direct engagement at the site level (March 2016) to 83% in August 2017. Changes introduced included: referral of patients to HIV care and treatment services to facilities closer to their home; creating a list of expected patients at six months to issue appointments reminders; negotiating appointments with clients during their visit to the health center; systematically calling patients 48 hours before the date of the appointment; and following up with patients on their next appointment every day.

**Figure 3.** Percentage of HIV-positive clients alive and on ART, six months after starting treatment, 90 IP-supported sites, 15 health regions, 30 districts (pilot sites: May 2015 – August 2017; extension sites: Mar 2016 – August 2017)
Figure 4 shows results of HIV-exposed infants (6-8 weeks) who initiated Cotrimoxazole two months prior (May 2015 – August 2017) and had a dried blood spots for PCR test at 90 IP-supported sites, including 60 pilot sites (May 2015 to August 2017) and 30 extension sites (Mar 2016 to August 2017). Initiation on Cotrimoxazole increased gradually from 76% to 92%. The gradual increase can be explained by the many change ideas that were implemented such as: designating a midwife service committed to taking the Dried Blood Spot (DBS) during vaccination clinics; notifying HIV-positive mothers by phone one week prior to the six-week appointment to take the sample DBS and provide cotrimoxazole for their child; carrying out daily tracking of children coming to pediatric check-up (vaccination, healthy child weighing, nutritional counselling); taking the DBS sample daily; and coaching other providers on site on DBS collection.

Figure 4. Percentage of HIV-exposed infants between 6 and 8 weeks initiated on Cotrimoxazole two months prior to collection of dried blood spots, 90 IP-supported sites, 15 health regions, 30 districts (pilot sites: May 2015 – August 2017; extension sites: Mar 2016 – August 2017)
Establish QA/QI system in the four University Hospitals:

- **Conducted coaching visits to four CHUs** (Feb 28 - Mar 3, 2017). The DMH, in collaboration with IPs (ARIEL, ACONDA and HAI) and ASSIST, carried out coaching visits at the 4 CHUs (Yopougon, Treichville, Cocody, and Bouake). This visit made it possible to follow up the recommendations of the learning session, check the functionality of the QI teams, check on the identification and testing of ideas for change, review documentation journals, and check on the status of data collection.

- **Learning session for the 4 CHUs** (Mar 30-31 2017 and Jul 5-7, 2017). Two learning session brought together 28 participants from the gynecology, pediatrics, and quality departments of the four CHUs. During these sessions, emphasis was placed on analyzing the causes of problems, identifying ideas for change, the Plan, Do, Study, Act (PDSA) cycle, calculating indicators, and curve analysis and interpretation. All CHUs presented their results from March 2016 to June 2017. During the learning session, a new list of change ideas was elaborated by the participants.

- **Held a monthly meeting with CHU quality managers** (Aug 3 and 31, 2017). ASSIST provided technical assistance to DMH to organize two meetings with quality managers to assess the progress of activities at each CHU. All quality managers and the partners who supported them were present. During this meeting, the participants discussed the implementation of recommendations from the fourth learning session. At the end, the quality managers completed their work plans of QI activities for each CHU.

Results

- **Figure 5 shows results of pediatric client records with all items filled in for the four University Hospitals (CHUs)—Cocody, Treichville, Yopougon, and Bouake** (Mar 2016 – Aug 2017). We see a gap between male and female client records with all items filled, with a higher rate of record completion for girl patients. The gap increased after November 2016, and the team continued to monitor gender-sensitive change ideas to reduce the gap. Two changes implemented were: Task a midwife to fill the client record; and check systematically the files and display the items to be filled in the consultation rooms.

Figure 5. Percentage of client records with all items filled, 4 CHUs (Cocody, Treichville, Yopougon, and Bouake), Abidjan and Gbêke regions (Mar 2016 – Aug 2017)
Figure 6 shows results for HIV testing among pediatric inpatients in the four CHUs in Abidjan and Gbêke regions (Mar 2016 – Aug 2017). Since engagement in QI activities, no large variations in the results between girls and boys were found. The decrease in testing rates in January 2017 may be also explained by the state of social unrest in the country. Overall, the change ideas implemented yielded only most effect on HIV testing coverage among pediatric inpatients.

Figure 6. Percentage of inpatient children (0-10 years) tested for HIV, 4 CHUs (Cocody, Treichville, Yopougon, and Bouake (Mar 2016 – Aug 2017)

![Graph showing percentage of inpatient children tested for HIV between March 2016 and August 2017.](image_url)
Figure 7 shows the percentage of pediatric inpatients tested for HIV at Cocody CHU vs. the average percentage across all four CHUs (Mar 2016 - Aug 2017). The dark blue line shows results of pediatric inpatients tested for HIV from all four teaching hospitals (CHUs), increasing gradually from 50% (March 2016) to 60% (Aug 2017). The light blue line shows the results of inpatients tested for HIV at Cocody, increasing from 10% (March 2016) to 99% (Aug 2017). Change ideas implemented in Cocody included: screening each child during the first contact with the doctor and note whether the provider-initiated HIV testing and counseling (PITC) is negative or positive on the cover of the patients record; community advisors reminded the physicians to screen, after having selected the folders of tested inpatient children. This change idea ensured the optimization of HIV testing for children inpatient in the pediatric department.

Figure 7: Percentage of pediatric inpatients (ages 0-10) tested for HIV, Cocody CHU vs 4 CHUs (Mar 2016- Aug 2017)
Strengthen the health information system to support development of evidence-based decisions for the improvement of the quality of medical care

- **Collected data for validation of 25% of indicators** (Dec 2016). ASSIST proceeded to collect data for the validation of 25% of reported indicators from 12 sites supported by PEPFAR implementing partners. The five indicators are:
  - % of ART client records with all items filled
  - % of clients diagnosed HIV-positive and enrolled in care
  - % of patients, alive and on ART six months after treatment initiation
  - % of children aged 6 and 8 weeks born to HIV-positive mothers who initiated Cotrimoxazole two months prior to collection of dried blood spot
  - % of children tested HIV-positive who receive ART treatment

- **Provided capacity building on indicators for the Abidjan sites, which are registered in the collaborative** (Feb 14-16, 2017). Data clerks (46) from four PEPFAR implementing partners (ARIEL, ICAP, EGPAF, and ACOND) were trained on the calculation of improvement indicators at the ASSIST Cote d’Ivoire office. The session focused on indicators to be collected monthly, data analysis, interpretation of time series charts, and mechanisms for data sharing.

**Improve timeliness, continuity, effectiveness, efficiency, and patient-centeredness of HIV and AIDS services and their consistency with clinical guidelines through the improvement collaborative approach**

- **Training of coaches and champions to disseminate good practices in districts supported by ICAP** (Sept 11-12, 2017). ASSIST provided technical assistance to ICAP for training extension agents to disseminate the best practices of the collaborative. There were 14 participants from Adzope, Divo, Agboville, Cocody-Bingerville, and Abobo Est districts. They were instructed on the following:
  - Collaborative improvement
  - Extension strategy
  - Improvement teams
  - Data collection and analysis
  - Change package for improvement of ART and PMTCT services
  - Planning for testing of changes
  - Coaching of improvement teams
  - Roles of agents
  - Organization of a performance evaluation meeting

PEPFAR IP extension agents (coaches and champions) will disseminate good practices in selected IP-supported sites.

- **Held a brainstorming workshop** (Jan 23, 2017). ASSIST participated in a reflection workshop organized by the US Embassy on innovative approaches to encourage the use of health services by men in Côte d’Ivoire.

- **Held a brainstorming workshop on collaborative extension with CDC/PEPFAR implementing partners** (Feb 8-10, 2017). This took place with PEPFAR implementing partners, *Programme National de Nutrition* (PNN), DMH, FHI 360, PNLS, and USAID ASSIST. Participants discussed the implementation framework for collaborative outreach activities, validated the outreach strategy, identified the specific roles and responsibilities of stakeholders, developed an implementation plan and a timeline, and discussed which extension sites to choose.

- **Held a meeting with IP quality focal points** (July 13; Aug 2; Aug 30, 2017). Three coordination meetings were organized at the ASSIST Côte d’Ivoire office with the IP quality focal points. During these meetings, the overall results of the collaborative were presented. Points discussed:
Presented the dissemination strategy of good practices from the collaborative. Each partner was asked to identify within the districts and sites the champions and coaches to assist the new sites in the dissemination of good practices.

Identified new priority areas and indicators for Phase II of the collaborative: Due to the objectives of PEPFAR and the gaps observed in the 90-90-90 data analysis, three new improvement objectives and four indicators were identified to start Phase II of the collaborative (Table 1). The limitation on new funding that ASSIST could accept if the project were extended into FY18 meant that ASSIST would not be able to support the planned Phase II of the collaborative improvement work.

Table 1: Domain, improvement objectives, and indicators of the proposed Phase II of the collaborative

<table>
<thead>
<tr>
<th>Domain</th>
<th>Improvement objectives</th>
<th>Indicators</th>
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<tbody>
<tr>
<td>Testing</td>
<td>Increase the percentage of clients tested HIV positive from 2.8% to 90% by June 2018</td>
<td>Percentage of clients who tested HIV-positive</td>
</tr>
<tr>
<td></td>
<td>Increase the percentage of men tested for HIV from 24% to 90% by June 2018</td>
<td>Percentage of men who were tested for HIV</td>
</tr>
<tr>
<td>Viral load</td>
<td>Increase the percentage of ARV patients with a viral load below 1000 copies/ml from 78% to 90% by June 2018</td>
<td>Percentage of patients who received ARV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percentage of patients with viral load suppressed</td>
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Project ECHO

Conducted an ECHO test run with the teaching hospitals on the HIV Pediatric E-collaborative (Jun 7 and 29, 2017). Project ECHO (Extension for Community Health Outcomes) is a guided practice model developed by the University of New Mexico to increase capacity building in best-practice specialty care while increasing access to care and reducing health disparities. Project ECHO leverages videoconferencing through the Zoom platform to conduct virtual teleECHO clinics with providers. By conducting clinics virtually, experts are able to regularly connect with and support providers in need of guidance.

In Côte d’Ivoire, the ECHO model was introduced to address the issue of lack of QI skill of health providers to address care and treatment of HIV for children in teaching hospitals. This would allow for increased communication and knowledge sharing across the four teaching hospitals that ASSIST supported and create a peer QI network. Through the teleconferencing platform and teleclinic model of ECHO, ASSIST sought to virtually connect with these pediatrics units to provide technical assistance on a regular, continuous, real-time basis and be more responsive to their needs.

During the last quarter of FY17, ASSIST supported two successful test runs with the four CHUs. Due to the closure of ASSIST in Côte d’Ivoire in September 2017, the planned ECHO activity with the four CHUs was suspended.

SPREAD OF IMPROVEMENT

For the demonstration phase (Oct 2015 - Jun 2016), 75 health facilities participated in collaborative improvement activities. During the spread phase (Jul - Sept 2016) 30 additional sites participated (five per IP). In total, ASSIST staff provided technical assistance to 105 sites supported by PEPFAR IPs.

After this phase, ASSIST in collaboration with the PEPFAR IPs drafted the document of strategies for
dissemination entitled: « Stratégies de dissémination des bonnes pratiques du collaboratif d’amélioration de la qualité des soins et services offerts au PVVIH en Côte d’Ivoire ». This draft document was distributed to the PEPFAR IPs to encourage them to adopt the strategies defined for introduction of best practices in supported sites.

**Activity 2. Health systems strengthening**

**BACKGROUND**

ASSIST provided support to the MOH to build a QI approach within the current health system. During a policy meeting held in February 2014, it became clear that there was little engagement on QI in health care settings in the country. There was no infrastructure to lead the QI process and develop the QI system in order to integrate it to the national health system. In November 2014, the former QI department, Service de la Promotion de l’Assurance Qualité en Santé, dissolved after being operational for five years. In February 2015, a new MOH department, the Directorate of Hospital Medicine (Direction Medicine Hospitalière), was put in charge of QI with new leaders and a new organizational structure. During 2015-2017, ASSIST organized several workshops and meetings with the MOH to draft the policy and strategy documents for quality improvement. These documents were finalized and validated by all the stakeholders. ASSIST then printed them for distribution.

**KEY ACCOMPLISHMENTS AND RESULTS**

**Capacity building workshops on quality improvement**

- **Hosted and participated in the ASSIST Francophone regional countries meeting Abidjan, Côte d’Ivoire** (Oct 3-7, 2016). Participants included ASSIST headquarters’ staff as well as staff from Burundi, Côte d’Ivoire, Mali, and Niger. The goal of the meeting was to bring together ASSIST Francophone country Chiefs of Party and key technical advisors to share their experiences and to contribute to discussions on new directions on applied science of improvement and related health system strengthening in developing countries.

**Developed National QI Strategy and Policy**

The strategic plan provides the MOH with a national plan for implementing quality improvement in health and patient safety and provides the framework for implementing the national health care quality policy developed with ASSIST support in 2016. The national strategic plan has 17 strategic areas, including governance, leadership, management, and research, and builds on existing national policy documents. It also addresses quality improvement, public health, and health security.

- **Held a workshop on the quality improvement strategic plan**
  - The third brainstorming workshop of the national quality improvement strategy was jointly organized by the DMH and ASSIST (Oct 26-28, 2016). Technical assistance was provided to participants on QI inputs, outputs, activities, budget, and indicators. In addition, the participants worked on the logical framework of the strategy, the framework of action, and financial plan.
  - The DMH organized, with the technical assistance of ASSIST, the workshop to develop the national strategy for improving the quality of health care and services (Dec 5-10, 2016). It
included the budget, the monitoring and evaluation plan, and the national strategic plan, *Plan stratégique nationale d'amélioration de la qualité, l'hygiène et la sécurité.*

- **Validation of the national strategic plan for improving quality, hygiene, and safety** (Mar 23, 2017). The DMH, with the technical support of ASSIST, organized a workshop to validate the National Strategic Plan for improving quality, hygiene, and safety with 131 participants. At the end of this workshop, the document was validated considering comments and suggestions.

## 4 Improvement in Key Indicators

### Table 2: Improvement indicators for the 60 original PEPFAR IP-supported sites

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Improve quality of HIV care and treatment services in Cote d'Ivoire</td>
<td>% of ART client records with all items filled</td>
<td>33% (57/60 sites)</td>
<td>39% (55/60 sites)</td>
<td>45% (56/60 sites)</td>
<td>67% (54/60 sites)</td>
<td>80% (58/60 sites)</td>
<td>84% (59/60 sites)</td>
<td>91% (52/60 sites)</td>
<td>88% (55/60 sites)</td>
<td>94% (40/60 sites)</td>
</tr>
<tr>
<td></td>
<td>% of clients diagnosed HIV-positive and enrolled in care</td>
<td>68% (57/60 sites)</td>
<td>74% (55/60 sites)</td>
<td>72% (56/60 sites)</td>
<td>86% (55/60 sites)</td>
<td>85% (57/60 sites)</td>
<td>92% (58/60 sites)</td>
<td>96% (52/60 sites)</td>
<td>91% (54/60 sites)</td>
<td>99% (40/60 sites)</td>
</tr>
<tr>
<td></td>
<td>% of patients, alive and on ART 6 months after treatment initiation</td>
<td>72% (59/60 sites)</td>
<td>71% (59/60 sites)</td>
<td>71% (58/60 sites)</td>
<td>81% (54/60 sites)</td>
<td>82% (59/60 sites)</td>
<td>88% (58/60 sites)</td>
<td>91% (52/60 sites)</td>
<td>87% (54/60 sites)</td>
<td>87% (40/60 sites)</td>
</tr>
<tr>
<td></td>
<td>% of children aged 6 and 8 weeks born to HIV-positive mothers who initiated Cotrimoxazole two months prior to collection of DBS</td>
<td>73% (51/54 sites)</td>
<td>72% (49/54 sites)</td>
<td>81% (50/54 sites)</td>
<td>89% (49/54 sites)</td>
<td>89% (52/54 sites)</td>
<td>95% (54/54 sites)</td>
<td>100% (45/54 sites)</td>
<td>98% (48/54 sites)</td>
<td>97% (36/54 sites)</td>
</tr>
</tbody>
</table>

* 5 sites did not implement QI activities (CAT Daloa, CAT San Pedro, CAT Adjamé, Espace Confiance, and Centre Plus, CHR Korhogo)

### Table 3: Improvement indicators for the 30 scale-up PEPFAR IP-supported sites

<table>
<thead>
<tr>
<th>Activity</th>
<th>Indicators</th>
<th>March 2016 (Baseline)</th>
<th>June 2016 (Baseline)</th>
<th>Sept 2016 (Baseline)</th>
<th>Dec 2016</th>
<th>Feb 2017</th>
<th>August 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve quality of HIV care and treatment services in Cote d'Ivoire</td>
<td>% of ART client records with all items filled</td>
<td>26% (11/30 sites)</td>
<td>38% (20/30 sites)</td>
<td>43% (23/30 sites)</td>
<td>62% (26/30 sites)</td>
<td>73% (26/30 sites)</td>
<td>94% (19/30 sites)</td>
</tr>
<tr>
<td></td>
<td>% of clients diagnosed HIV-positive and enrolled in care</td>
<td>75% (14/30 sites)</td>
<td>86% (20/30 sites)</td>
<td>84% (21/30 sites)</td>
<td>85% (26/30 sites)</td>
<td>88% (26/30 sites)</td>
<td>97% (19/30 sites)</td>
</tr>
<tr>
<td></td>
<td>% of patients alive and on ART 6 months after treatment initiation</td>
<td>72% (14/30 sites)</td>
<td>78% (20/30 sites)</td>
<td>80% (21/30 sites)</td>
<td>86% (26/30 sites)</td>
<td>89% (26/30 sites)</td>
<td>83% (19/30 sites)</td>
</tr>
<tr>
<td></td>
<td>% of children aged 6 and 8 weeks born to HIV-positive mothers who initiated Cotrimoxazole two months prior to collection of DBS</td>
<td>75% (12/30 sites)</td>
<td>79% (18/30 sites)</td>
<td>79% (19/30 sites)</td>
<td>91% (24/30 sites)</td>
<td>96% (24/30 sites)</td>
<td>92% (19/30 sites)</td>
</tr>
</tbody>
</table>
Table 4: Improvement indicators for 4 CHUs

<table>
<thead>
<tr>
<th>Activity</th>
<th>Indicators</th>
<th>March 2016 (Baseline)</th>
<th>April 2016 (Baseline)</th>
<th>May 2016 (Baseline)</th>
<th>June 2016 (Baseline)</th>
<th>July 2016 (Baseline)</th>
<th>August 2016 (Baseline)</th>
<th>Nov 2016</th>
<th>Feb 2017</th>
<th>Aug 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve quality of HIV care and treatment services in Côte d’Ivoire</td>
<td>% of ART client records with all items filled</td>
<td>38% (4/4 sites)</td>
<td>26% (4/4 sites)</td>
<td>48% (4/4 sites)</td>
<td>52% (4/4 sites)</td>
<td>50% (4/4 sites)</td>
<td>52% (4/4 sites)</td>
<td>55% (4/4 sites)</td>
<td>68% (4/4 sites)</td>
<td>98% (3/4 sites)</td>
</tr>
<tr>
<td></td>
<td>% of pediatric inpatients tested for HIV</td>
<td>42% (4/4 sites)</td>
<td>29% (4/4 sites)</td>
<td>27% (4/4 sites)</td>
<td>45% (4/4 sites)</td>
<td>43% (4/4 sites)</td>
<td>50% (4/4 sites)</td>
<td>74% (4/4 sites)</td>
<td>66% (4/4 sites)</td>
<td>62% (3/4 sites)</td>
</tr>
<tr>
<td></td>
<td>% of children tested HIV-positive who were put on ART</td>
<td>100% (4/4 sites)</td>
<td>78% (3/4 sites)</td>
<td>90% (4/4 sites)</td>
<td>100% (3/4 sites)</td>
<td>25% (2/4 sites)</td>
<td>93% (4/4 sites)</td>
<td>71% (4/4 sites)</td>
<td>63% (4/4 sites)</td>
<td>100% (3/4 sites)</td>
</tr>
</tbody>
</table>

5 Sustainability and Institutionalization
Throughout this year, USAID ASSIST has continued to work to build and strengthen the QI capacity of two key MOH units: DMH and PNLS. With ASSIST’s mentorship, these units gained hands-on experience in co-facilitating and supporting QI work with IPs. In addition, to promote sustainability and institutionalization, ASSIST helped create a critical mass of health providers who are competent in using QI concepts at the health facility level; developed a network of QI experts to allow experience and best practice sharing; and promoted transfer of QI competencies to PEPFAR IPs and health facility staff.

At the national level, ASSIST provided technical assistance to the MOH to develop a policy – Politique Nationale d’Amélioration de la Qualité des Soins et des Services – and a strategic plan to improve the quality of health care in Côte d’Ivoire – Plan Stratégique Nationale d’Amélioration de la Qualité, l’Hygiène et la Sécurité. At the central level, ASSIST worked closely with the unit in charge of quality, the HIV program, the nutrition program, and the unit in charge of health information to define national priorities about QI and integrate the performance indicators in the routine data management system. At the regional and district levels, ASSIST provided technical assistance to the regional and district managers to coordinate improvement activities in their respective regions/districts. At the health facility level, ASSIST provided technical assistance to facility management units for the development of improvement teams per the guidelines of health activities in Côte d’Ivoire.

In addition, through the test runs of Project ECHO in Côte d’Ivoire, ASSIST facilitated increased communication and knowledge sharing across the four teaching hospitals that ASSIST supported. ASSIST virtually connected these pediatric units to form a collaborative and share learning.

6 Knowledge Management Products and Activities
- Created a QI Facebook group: https://www.facebook.com/groups/1918456188377821
• Drafted a case study on the implementation of the quality improvement collaborative in the 60 pilot sites in CI (French).

7 Gender Integration

• ASSIST, in collaboration with the PEPFAR IPs, retrospectively collected data from May 2015 to Nov 2016 by sex in 90 sites in the collaborative. The sites benefited from analyzing the sex-disaggregated data because it allowed for the identification of gaps in care and adapting change ideas to improve the care and health services for both male and female patient. Analysis of these sex-disaggregated data identified some small gaps in care between males and females, most of which have closed. Remaining gaps may be due to small denominators creating volatility in percentages.

• At the ASSIST Francophone Regional Meeting in October, staff discussed what gender integration is, why it is important, and using sex-disaggregated data to identify, monitor, and address gaps in care. This led to the retrospective collection of sex-disaggregated data and discussing sex-disaggregated data and gender integration with implementing partners.

• Some pilot sites in Activity 1 (HIV care and treatment) did not collect data by sex (around 15 sites), though the 30 extension sites did collect data by sex. Since September 2016, all sites started collecting and reporting sex-disaggregated data for HIV care and treatment. We expect that they will continue to collect sex-disaggregated data after the closure of ASSIST.

• In September 2017, ASSIST in collaboration with FHI 360, developed the data collection tools for dissemination of best practices. These tools integrated sex desegregation. The PEPFAR IP-supported sites will use the tools for collecting data to measure the improvement of activities.