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## FINAL REPORT

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# The Human Resources Collaborative: *Improving Maternal and Child Care in Niger*

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SEPTEMBER 2012

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This final report was prepared University Research Co., LLC (URC) for review by the United States Agency for International Development (USAID) and authored by Lauren Crigler (Initiatives Inc.), Maina Boucar (URC), Karimou Sani (URC), Sani Abdou (URC), Zakari Saley (URC), and Sabou Djibrina (URC). The human resources collaborative improvement project in Niger was carried out under the USAID Health Care Improvement Project, which is managed by URC and made possible by the generous support of the American people through USAID, with funding from the U.S. President's Emergency Plan for AIDS Relief (PEPFAR).



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# The Human Resources Collaborative: Improving Maternal and Child Care in Niger

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## DISCLAIMER

The views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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## Abbreviations

ANC	Antenatal Care
DH	District Hospital
DHMT	District Health Management Team
ENC	Essential Newborn Care
FP	Family Planning
HCI	USAID Health Care Improvement Project
HR	Human Resources
HRH	Human Resources for Health
HW	Health Worker
JD	Job Description
MMR	Maternal Mortality Rate
MNCH	Maternal, Newborn, and Child Health
MOPH	Ministry of Public Health
OHA	USAID Office of HIV/AIDS
PCC	Primary Care Center
PDSA	Plan-Do-Study-Act
PEPFAR	U.S. President’s Emergency Plan for AIDS Relief
PPH	Postpartum Hemorrhage
QI	Quality Improvement
R/C	Reward/Consequence
RHMT	Regional Health Management Team
URC	University Research Co., LLC
USAID	United States Agency for International Development
WHO	World Health Organization



## EXECUTIVE SUMMARY

Amid a worldwide health workforce crisis, health providers carry a burdensome workload, are inadequately paid, and often work in environments that preclude quality care giving. They become disengaged while the demand for health services grows and investments in health workforce development are flat or declining. Niger is one of 36 countries in sub-Saharan Africa experiencing a human resources crisis. It has one doctor per 35,000 population and one nurse or midwife per 5000. An impoverished, desert country, it has high rates of maternal and child mortality: more than 600 maternal deaths per 100,000.

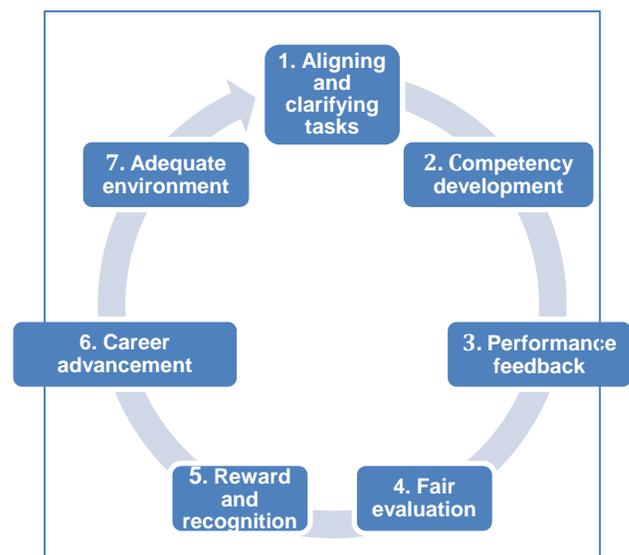
The U.S. Agency for International Development (USAID) is funding programs to implement its strategy for mothers and newborns. The strategy calls for the implementation of high-impact, cost-effective interventions during the child-bearing and postnatal periods. Among those programs is the USAID Health Care Improvement Project (HCI), managed by University Research Co., LLC (URC), which provides technical leadership and assistance for improving health care delivery and health workforce management to USAID-assisted countries. In addition to its emphasis on improving maternal and newborn care, USAID, through its Office of HIV/AIDS (OHA), is also concerned with expanding the evidence base for effective approaches to fortify human resources for health.

In 2009, Niger's Ministry of Public Health and its regional health management office in Tahoua requested assistance from HCI to implement a program to address the health workforce crisis. With too few staff and no prospects for additional staff, the Ministry sought to improve the management of human resources in selected facilities and management offices in Tahoua Region. The predecessor project to HCI had successfully implemented quality improvement (QI) interventions in the same region. The new project would build on that experience and the country's National Health Development Plan, which targets maternal/child health and human resources.

**Intervention:** HCI proposed applying the collaborative improvement approach to improve human resources management in Tahoua. HCI had adapted for use in developing countries the collaborative improvement approach successfully implemented in the U.S., Europe, and Canada. The approach features QI teams that work at their own facilities with QI experts from HCI and the national health ministry. The teams work with the experts to learn the evidence-based interventions that will improve health outcomes. For the HR collaborative, in addition to the facility/clinical teams, teams also formed comprising managers. These management teams supported the facility teams by strengthening supervision and management. What distinguished the Niger HR collaborative from others HCI had helped implement was that no clinical interventions were proposed, only HR interventions.

The Niger Human Resources (HR) Collaborative began with a baseline assessment in May 2009 and ended with an endline assessment in December 2011. To guide improvement work in human resources management, HCI supported teams to work through the steps of the Human Resources Performance Cycle. Teams began with having each staff person develop a job description with his/her supervisor and continue with articulating tasks, determining training needs, performance evaluation, etc. Participating facilities moved through these steps, monitoring and reporting their success in achieving them, with many nearly completing the cycle.

Throughout this process, health worker teams and their supervisors worked to implement the performance cycle within the context of the clinical



areas they had selected. Job descriptions were developed as they relate to the maternity goals, feedback was provided within the context of the performance in question, and data was collected monthly on how well they were doing against the clinical indicators on which they focused. Health workers and their supervisors collected the indicator data, and managers reviewed and spot-checked those data. Embedding such data collection – and its related analysis and dissemination – in quality improvement processes is a key feature of HCI's work, and it enabled the collaborative not only to adapt care processes at the point of delivery but also to show whether its impact was favorable and/or widespread.

**Results:** The clinical results proved exciting and compelling: All major indicators showed clear improvement, and in each case, a distinct shift occurred during the early to mid-point of implementation, signifying that the improvement was statistically significant, not accidental. Deliveries by qualified health workers rose from 27% to 45% and contraceptive prevalence from 9.6% to 36%; post-partum hemorrhage fell from 2% to 0.06%, and mortality in children under five from severe malaria dropped from 15% to 4% at the pediatrics hospital. To achieve these results, the teams made major changes in how health workers managed themselves and were supervised: They instituted feedback mechanisms, developed checklists to analyze skill gaps based on redesigned tasks and jobs, shared results with clients and other teams, and became engaged with the results. Managers improved supervision practices and began developing performance checklists, observing health workers, and reviewing results.

**Conclusions and Recommendations:** Overall both health workers and managers felt very positive about the human resources improvement work and that it had a positive impact on both working conditions and performance. Health workers felt that aligning their work with the Ministry's objectives was essential. Moustapha Boukary, Head of Tsernaoua Health Post, commented, "Before the HR Collaborative, we worked in unclear and cloudy conditions, but when we started aligning goals and objectives, we saw a clear direction."

This innovative approach offers countries a new way to address the many challenges they face in the health and HR sectors. The above-cited clinical results are unquestionable and promising for a much larger scale. The success of the Performance Cycle process – and the combination of HR management and QI – should be refined, adapted, and improved, so that HR professionals are not left to struggle with too few health workers, and health workers are not left without the HR processes common in developing countries.

The change package is documented and sufficiently flexible to be used in other regions in Niger and beyond. To implement this process again, either in Niger or elsewhere, the authors recommend that:

1. A management change package should be developed that could be tested at the same time as the facility-level package. A change package similar to that implemented in Tahoua could be developed for implementation in the Ministry departments and regional management offices.
2. Management and facility levels should work together on HR issues. Facility teams should test changes for their level, and management should scale solutions and revise policy.
3. Temporal relationships should be examined: What must be done stepwise and what can be done at once.
4. Some Performance Cycle sub-steps can be implemented by sites alone.

In summary, the approach of focusing on improving the performance of health workers by better managing the elements of their performance and helping them manage themselves can improve any program and should be a part of any clinical intervention. The process and change package could be simplified and adapted for different contexts. Niger's experience of having health workers become invested in outcomes, communities more aware of available services, and the process of work improved to better serve women and children should be replicated elsewhere.

# I. INTRODUCTION

## A. Background

Fifty-seven countries face human resources (HR) crises in health care service delivery: 36 of them – including Niger – are in sub-Saharan Africa (WHO 2006). The health worker shortage is a significant barrier to a wide range of public health goals, from universal access to health care to the health-related Millennium Development Goals (Joint Learning Initiative 2004; Dreesch et al. 2005). Despite a growing demand for health services, investments in health workforce development in many crisis countries have stagnated or declined (WHO 2006), resulting in a United Nations estimates that 3.5 million more health workers are needed by 2015 (UN 2010).

Many African health workers work in challenging environments, are inadequately compensated, and receive little recognition. Often-weak HR systems lack the capacity to manage human resources, leaving workers unable to meet their job requirements. They lose motivation, become disengaged, or vacate their posts altogether.

University Research Co., LLC (URC) is a private company that since 1965 has improved the quality of health care, social services, and health education worldwide. Having been committed to improving health care in Niger for many years, URC took up the challenge of disengaged human resources for health (HRH) in Niger, asking “Can we improve human resources by applying the collaborative improvement approach?” Managed by URC, the USAID Health Care Improvement Project (HCI) has been funded by the U.S. Agency for International Development (USAID) since 2008 to improve health care quality in USAID-assisted countries, including Niger, the site of the HCI and health ministry work reported here. Niger is an impoverished, desert country characterized by high rates of maternal and child mortality and an acute shortage of skilled health workers. Its maternal mortality rate (MMR) is more than 600 per 100,000 live births. It has approximately one doctor per 35,000 people and one nurse or midwife per 5000 (Africa Health Workforce Observatory, 2010 data), making it one of the worst countries for mothers and babies.

According to the situation analysis conducted prior to the start of the activity, and interviews held with the Health Director of the Region of Tahoua, human resource management systems were weak overall. For example, although job descriptions supposedly existed, few workers had seen them, they were very generic, and referred only to the overall role description of the kind of worker. They were also not considered as a working document that health workers or managers referred to. An annual performance evaluation was supposed to be done yearly, but was generally considered subjective and rarely implemented. Even supervisors avoided them, as they felt they unfairly judged workers. The process included a standard scoring sheet that was to be filled out and scored every other year; in reality, it was never done. Systematic training was equally problematic, as the regions had no dedicated budget for training activities. So although facilities were supposed to offer certain surgical services, the reality was that they lacked the trained personnel needed to perform those tasks (e.g., anesthetists). The career management process fell between three different ministries: the Ministry of Finance was responsible for financial raises and bonuses, the Public Service Administration manages the administrative aspect of career progression, such as promotion, retirement, and sanctions, and the Ministry of Health was responsible for the technical supervision and management of the workplace. This resulted in many promotions and assignments driven by political will and not technical merit, frustrating health workers and supervisors alike.

In addition, although the Ministry of Health had recently introduced incentives to motivate health workers in the most remote and difficult areas, this incentive plan was not implemented, and health workers were not aware of it.

The scarcity of a trained workforce made it a challenge to staff sites adequately and supervision was rare, giving staff a sense of isolation and tremendous burden – and a feeling that little importance was given to what they did as health workers. Motivation was low and, according to those interviewed, contributed to poor quality of services and low productivity.<sup>1</sup>

Amid these challenges, however, Niger does have its strengths. Its 2005–2010 National Health Development Plan sets aggressive goals to reduce gaps in maternal and child care and increase the number of workers who can deliver health care services. Believing that the way to reach these goals was to improve its HRH management, Niger’s Ministry of Public Health (MOPH) asked for assistance in strengthening its HR systems and processes at all health system levels, starting in the Tahoua Region, where the HRH crisis is most acute: 60% of Tahoua’s primary health care facilities have a single provider but deliver care to 80% of its population.

Following previous successes in the Tahoua Region using collaborative improvement approaches<sup>2</sup> to improve essential obstetric and newborn care, HCI proposed a similar approach to address HR issues and thereby improve maternal and child health (MCH). This approach is an innovative departure from HCI’s previous collaborative improvement and quality improvement (QI) applications. Those applications began with an evidence-based, clinical “change package” (intervention), for example, to introduce the active management of third stage of labor to reduce maternal mortality. The HR Collaborative would work upstream from the delivery of care, not revising clinical practice as a primary thrust but rather revising the way human resources are organized and engaging health workers in their own management.

Dr. Mallam Ekoye Saidou, Director of Health Services in the Tahoua Region, with MOPH support, recognized the potential of this approach and embraced HCI’s proposal. In turn and as a result of keen interest in developing and field-testing effective approaches for addressing Africa’s HR crisis, the USAID Office of HIV/AIDS (OHA) supported the proposal with funding from the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR).

## **B. HR Collaborative Goal and Objectives**

In October 2008, HCI and the Niger MOPH began work on the HR collaborative by conducting a rapid situational analysis of key HRH systems and a baseline assessment at selected sites to identify priority HRH challenges.

Key findings from the baseline reinforced the gaps identified during the rapid assessment in basic HR management systems, including the absence of job descriptions, lack of a performance appraisal system, lack of health worker awareness of incentives available in rural settings, and infrequent supervision.<sup>3</sup> These findings informed the Collaborative design and helped decision makers refine HR goals.

The MOPH and HCI set three main collaborative goals:

- Improve health worker performance through team-based performance management,
- Improve the quality of maternal, newborn, and child care, and
- Improve supervision and clinical coordination.

The first goal would be accomplished through implementation of the seven-step Performance Management Cycle. Each step has an improvement objective and measurement indicators.

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<sup>1</sup> Information collected during an interview with Dr. Mallam Ekoye Saidou, Director of Health Services in the Tahoua Region, and a rapid situation analysis prior to project commencement

<sup>2</sup> Information on HCI’s collaborative improvements is available at <http://www.hciproject.org/node/419/>.

<sup>3</sup> A report on the baseline assessment can be found at <http://www.hciproject.org/publications/assessment-human-resources-system-niger>.

The second goal focused on four clinical objectives linked to the National Health Development Plan:

- Increase rates of assisted deliveries,
- Reduce postpartum hemorrhage (PPH) rates and improve management of PPH,
- Increase family planning (FP) coverage in health facilities, and
- Improve treatment of severe malaria for children under five.

These objectives defined the clinical service areas the collaborative would address.

The third goal had two objectives:

- Increase the frequency and improve the quality of supervision visits, and
- Improve clinical coordination meetings between regional and district management teams.

The Tahoua HR Collaborative essentially sought to improve the quality of health care provided indirectly by management teams and directly by participating sites by applying improvement methods to human resources and thereby motivating health workers to perform better. The process required workers and managers to work together to implement a performance management process; as teams, they set objectives, developed skills, provided/received feedback, and developed criteria for performance evaluations and rewards and consequences.

## II. INTERVENTION

### A. Launching the Tahoua HR Collaborative

The collaborative was launched with an Expert Meeting in Niamey in April 2009, during which stakeholders from the MOPH, the Ministry of the Public Sector and Labor, Ministry of Finance, Ministry of Population and Social Affairs, Tahoua health managers, and representatives of Niger's seven labor unions reviewed MOPH national health priorities and findings from the baseline assessment. They also reviewed, discussed, and modified the draft change package.

Implementation of the first Performance Cycle step, "aligning and clarifying tasks," began at the first learning session, which was held in the city of Tahoua the week after the Expert Meeting. For each of the three main collaborative goals, stakeholders defined improvement objectives and key indicators to measure achievements. These are listed in section G. Measurement and Monitoring.

### B. Collaborative Sites

Stakeholders at the Expert Meeting agreed that although site-level teams could implement much of the change package, they would also need the support of management teams. Thus, 26 QI teams formed at the facility, district, and regional levels:

- Fifteen clinical teams formed at the regional hospital, the regional maternity center, all seven district hospitals, and six of the Region's 128 primary care centers (PCCs). (Figure 1 shows the districts and selected sites.) Teams were made up of staff involved in delivering maternal and newborn care, not all health workers in the facilities, as the priority indicators selected focused on maternal and newborn health.
- Eleven management teams formed to support the clinical teams. The management teams included three teams at the regional level and Tahoua's eight district management teams.

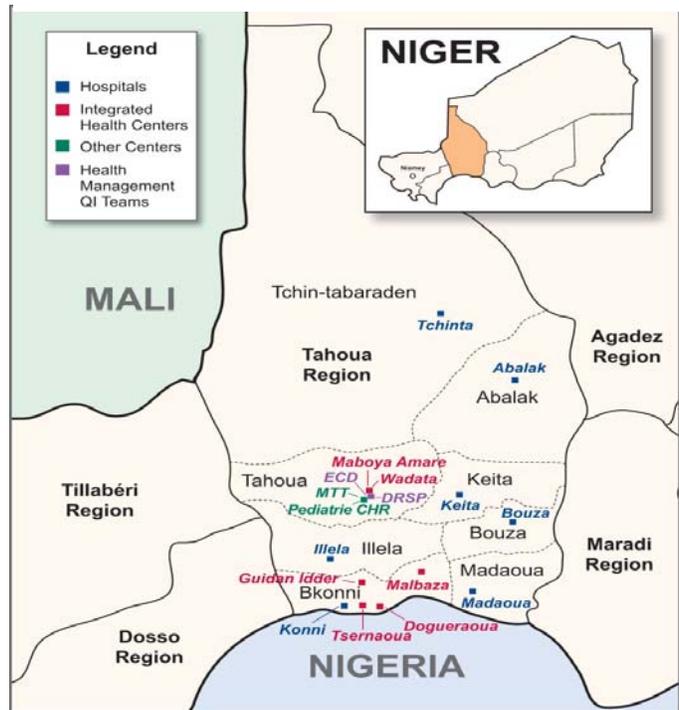
Table I shows the collaborative and control sites. Five sites in the neighboring regions of Maradi and Tillabéri served as control sites.

Site selection in Tahoua was based on two considerations:

1) Representation of the regional health system: It was important to select a “slice” of the regional health system with management and clinical (health facility) structures in order to include every aspect and level of the health system.

2) Experience in QI: Five of Tahoua’s nine hospitals had previously participated in an improvement collaborative; their participation would offer experience that would foster the collaborative’s implementation.

**Figure 1: Map of Tahoua Region and Sites**



**Table I: Collaborative and Control Sites**

Facility Type	Number of Sites	Number of Collaborative Sites	Control Sites		Tahoua Management Teams
			Maradi Region	Tillabéri Region	
Regional hospital	1	1	1	0	1 (Tahoua RHMT)
					1 (Regional Hospital Management Team)
Regional maternity	1	1	0	0	1
District hospital	7	7	2	2	1 (Tahoua DHMT)
					7 (district hospital management teams in the other seven districts in the region)
Primary care center	128	6	0	0	0

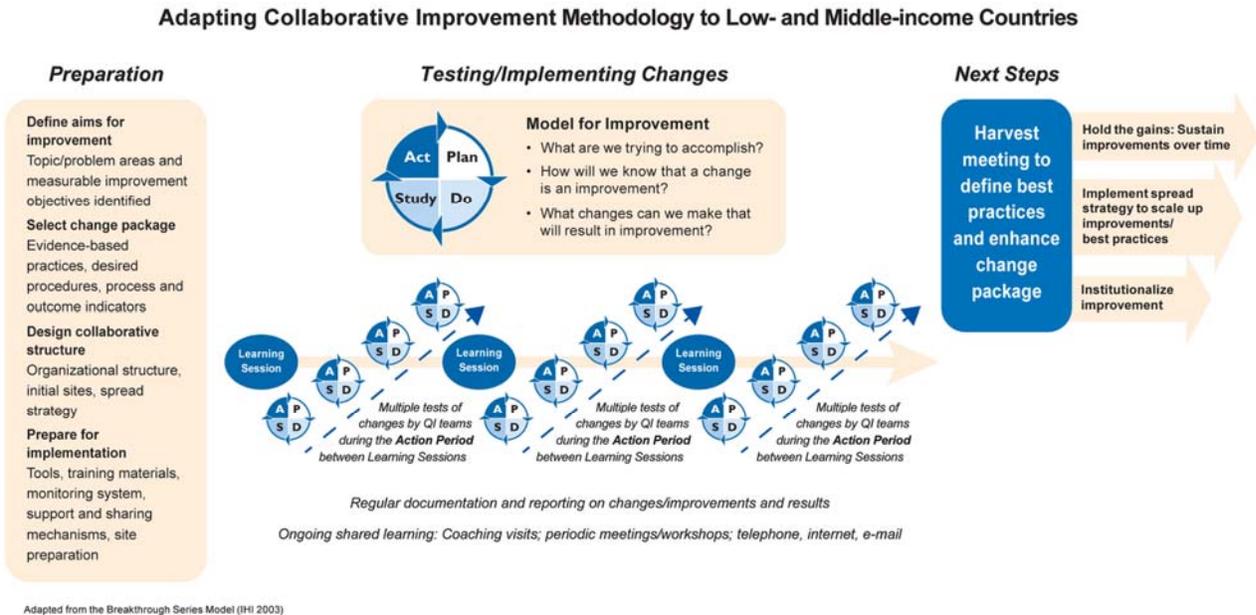
### C. The Collaborative Approach

In health care improvement work, facility teams made up of health care providers analyze their own processes of care, identify and test changes in the organization of care that could improve quality and efficiency, and use data to document the effects of their changes. As noted above, in collaborative improvement, these teams typically start with an evidence-based clinical intervention. They implement the intervention in their facility; test, monitor, and adjust changes to bring themselves closer to their goal; and exchange experiences with other facilities so that they learn from other facilities’ experiences.

Specifically, collaborative improvement combines the basic elements of QI (sharing best practices, training workers, using job aids, and supportive supervision) with modern improvement strategies (team work, focus on the client, process analysis, making changes, and monitoring results). It provides that all participating teams address the same objective(s) (e.g., improving MCH) so they can share their experiences with other participating facilities. Participating facility staff form QI teams that identify, test,

and measure the results of feasible solutions to basic problems staff routinely encounter. This work empowers them to improve their work processes, and the collaborative approach enables them to share what they have learned with other facilities. The health ministry can then expand successful innovations to other sites where the innovations would likely be successful. Figure 2 shows the collaborative improvement process, highlighting key stages and activities. Table 2 presents the key milestones reached by the collaborative during its approximately two and a half-year span.

**Figure 2: The Collaborative Improvement Process**



The collaborative process also calls for a change package (*implementation package* in Figure 2) that describes the set of changes that teams will implement to reach a stated collaborative objective. These changes are generally based on evidence-based practices and are intended to guide teams as they test ways to improve work processes. These tests are performed by conducting Plan-Do-Study-Act (PDSA) cycles. To determine whether the changes result in improvement or not, teams frequently measure key indicators that are linked to the expected effects of the changes introduced. For example, in an effort to increase FP coverage, a facility team might measure the number of women who deliver at a facility (X) and the number of women who delivered who accepted an FP method (Y). The formula  $(Y \div X) \times 100$ , measured over time, would indicate (but perhaps not demonstrate) whether the facility was increasing FP coverage in terms of the percentage of delivering women who accepted an FP method.

In sum, the collaborative approach provides that teams in each facility, with support in Niger’s case from management teams and coaches, change their processes and use data to determine whether the change was effective. If so, they institute the change; if not, they try another change until they identify one or more that is effective. They continue measuring indicators to ensure effectiveness. They also participate in meetings (“Learning Sessions” in the figure) with teams from other facilities and share their successes and insights so that those facilities might benefit from their experiences. MOPH officials also attended learning sessions to identify changes that might be tested in other facilities.

Engaging teams of providers in improving care not only improves the flow and organization of care but also helps foster a culture of quality that contributes to health worker motivation. That motivation increases when health workers work in teams guided by common goals; they share a feeling of safe competition, recognize the positive changes taking place, solve issues on their own, and take pride in showing the success of their work.

**Table 2: Milestones in the HR Collaborative, October 2008–January 2012**

<b>Phase: Team Activity</b>	<b>Date</b>	<b>Collaborative Activity</b>
Pre-phase 1: Teams had not yet begun their activities.	October 2008	Situation analysis of HR systems at the national, regional, and district levels
	March 2009	Baseline assessment of 20 sites in 3 regions
	April 2009	Expert meeting to agree on the approach, finalize the change package, and develop a timeline
Phase 1: Align Goals and Develop Job Descriptions (JDs) Step 1: Management and facility teams aligned goals from the central to the regional to the district to the facility levels. Facility teams, with management and HCI guidance, rationalized and shifted tasks and developed job descriptions aligned with the goals.	May 2009	First learning session introduced Step 1 of change package
	July 2009	Second learning session
	October 2009	Coaching visits
	December 2009	Third learning session introduced Step 2 of change package Some teams started on Steps 2 and 3 in late 2009.
Phase 2: Update JDs and Test Changes for Steps 2–4 Management and facility teams began work on Steps 2–4. They tested ways to assess skills and competencies, identify skill gaps, and close gaps. Some teams also tested ways to ensure health workers continued to improve their performance and solve problems. From this process, some teams began to develop performance evaluation criteria. However, most teams struggled – although some succeeded – without sufficiently clear guidance on how to measure competencies and what indicators to use.	January 2010	
	April 2010	Coaching visits
	June 2010	Fourth learning session (Conclude work on Step 1; focus on Steps 2 and 3; introduce Step 4)
	August 2010	National conference to present Collaborative strategies and results to MOPH officials
	September 2010	Coaching visits
	October 2010	Midline assessment
	December 2010	Coaches' meeting agreed on indicators, tools, and approaches for Steps 2–5 and shared the successes of early adopter teams.
Phase 3: Ramp up on Steps 2– 3 and begin Steps 4–6 With clearer guidance on Steps 2 and 3, teams moved quickly to accomplish them. However, they moved at different speeds, and only some teams developed evaluation criteria and an evaluation process and considered reward and consequence plans. The MOPH began to resolve issues related to promotion and career paths. JDs were continuously updated in response to turnover, task-shifting, etc.  Activities to begin the spread to other regions were initiated in June 2011.	January 2011	HR Collaborative recognized for excellence at Global Health Workforce Alliance meeting in Bangkok
	January 2011	Fifth and last learning session (Steps 4 and 5)
	May 2011	Coaching visits
	June 2011	Training on HR/QI for all Tahoua health workers (Spreading to entire facility)
	July 2011	Coaches' meeting
	July 2011	Launch meeting In Maradi Region
	August 2011	Launch meeting in Tilláberi Region
	September 2011	Launch meeting in Zinder Region
	September 2011	Coaching visits
	November 2011	Complete endline assessment
	December 2011	Conclude Collaborative
Institutionalization and Spread	January 2012	Training of trainers on the HR improvement process as implemented in Tahoua. Future training would spread lessons learned and the HR QI process to all facilities in Tahoua and to all clinical areas.

## D. Learning Sessions

As noted above, *learning sessions* bring together QI teams from participating facilities to share results and challenges, learn from one another, and receive training and technical feedback to support implementation of the change package. In Niger, HCI staff and coaches facilitated learning sessions that included not only QI team members, but also officials from the Ministries of Public Health and Public Works and union representatives.

At the first learning session, in May 2009, the MOPH Regional Director presented an overview of HR management issues revealed by the rapid analysis and baseline. The session also introduced key HR concepts, including performance and HR management, retention, and employee engagement. Also discussed were how collaboratives function, the QI process, and the HCI-proposed HR change package.

Five learning sessions were conducted during the collaborative. All 26 QI teams sharing lessons learned in achieving (trying to achieve) their common objectives and learning about change package objectives that were introduced serially. Most learning sessions also enabled coaches to discuss tools and approaches for team support during challenging implementation periods.

## E. Coaching

The coaching of facility and management QI teams 1) helps build MOPH and regional health management team (RHMT) capacity and 2) supports facility teams in their improvement efforts through site visits and remote support. These coaches worked with facility teams to help them solve problems and develop skills in QI and HR management; they also worked together to solve collaborative-wide issues, such as how to define an indicator, how to interpret HR guidance, and the development and improvement of tools for gathering data on the indicators. Coaching visits to sites and coaches' meetings (involving both coaches and facility team leaders) supported teams.

The collaborative availed two types of coaches:

**Internal coaches** participated in facility-based QI teams and included district health management team (DHMT) supervisors, chief nurses, and midwives. They were selected based on their availability, QI knowledge, and reliability. They conducted QI team meetings at least monthly.

**External coaches** were from HCI, the RHMT, the DHMT, and the district-level health managers' QI team. They were not directly involved in implementing improvement activities at facilities. They visited sites every six–nine weeks and provided support to strengthen documentation processes, build teams' skills, validate indicator data, and support teams in using the results from changes to inform further improvements. HCI staff coached MOPH, RHMT, and DHMT staff who served as external coaches.

To build sustainability and ownership, HCI also supported coaches' meetings during which coaches shared lessons, challenges, and constraints. These meetings offered the opportunity to provide training in QI and the collaborative approach, in HR concepts and other technical content. Coaches meetings were motivational for coaches and helped to reduce turnover, especially among members of the DHMTs. During the course of the HR Collaborative, four coaches' meetings took place.

## F. The HR Improvement Change Package

The change package was based on the seven steps in an HR management performance cycle (Box 1). The first six steps were derived from international HR best practices. The seventh was devised by health workers participating in the collaborative, who believed their work environments deterred their success as providers and thereby affected their motivation. The change package was drafted by HCI's workforce development experts and adapted to the Niger context by local experts and stakeholders. It was tested and updated throughout the collaborative based on the experience in applying each step during that test. The final change package, with change concepts, specific changes, and examples of tested changes, is in Appendix I.

## G. Measurement and Monitoring

Baseline and endline assessments were conducted to: 1) assess HR systems in the region from the perspectives of both management and health workers and 2) measure levels of health worker engagement and productivity in the region. The baseline assessment, conducted in March 2009, included 20 health facilities in three regions: Tahoua (14 sites), Maradi (3 sites), and Tilláberi (3 sites). The endline assessment, conducted in November 2011, included 20 health facilities: all 15 facilities in Tahoua plus three in Maradi and two in Tilláberi, which served as control sites. As described earlier, the baseline sample included two referral facilities, seven district hospitals, and six health centers. The endline included three RHMTs, 12 DHMTs and their district hospitals (DHs), two regional hospitals, a national maternity center, and six health centers.

A midline assessment was also conducted October 2010 so teams could learn how they were progressing toward their objectives their efforts. The number of sites was reduced, but still included all three regions: Tahoua (nine sites), Maradi (three sites), and Tilláberi (two sites). It focused on productivity, engagement, and client flow, as collaborative participants wanted to gauge progress in these areas. In addition, a client satisfaction survey was administered at that time.

Throughout the collaborative, data were collected monthly on clinical/facility indicators and quarterly on management (supervision and coordination) indicators. HCI had developed an Excel-based database and team journal template to help the facility teams collect, record, and analyze data on indicators, changes tested, and what changes yielded improvements. For each collaborative goal, stakeholders defined improvement objectives and key indicators to measure achievements. They also defined indicators for management teams to improve supervision and clinical coordination and for health worker

### Box 1: HR Performance Management Cycle

- 1. Align and Clarify Tasks:** Health workers have achievable workloads, clear expectations, and measurable objectives. Changes tested:
  - Articulating and aligning goals
  - Designing jobs with performance objectives
  - Establishing a process to review and update
- 2. Competency Development:** Health workers have the knowledge and skills to accomplish the required tasks. Changes tested:
  - Defining competencies according to expectations
  - Providing on-going coaching and training to maintain skills
  - Developing job aids to support performance
- 3. Performance Feedback:** Health workers receive frequent feedback on their performance according to defined expectations. Changes tested:
  - Providing opportunities for open discussion and feedback
  - Gather and share client feedback
  - Share and disseminate clinical performance data
- 4. Fair Evaluation:** Health workers are evaluated with clear and specific criteria based on their job descriptions. Changes tested:
  - Adhering to clinical norms
  - Comparing a worker's attitude and fulfillment of tasks and the job description
  - Respecting work hours
- 5. Reward and Consequence (R/C):** All workers are recognized and rewarded for good performance and/or provided with specific feedback on how expectations were not met. Changes tested:
  - Verbally recognizing good performance
  - Verbal notifying a worker of low performance and training to increase his/her capacity where performance is poor
  - Developing a system to gather feedback from clients
- 6. Career Advancement:** Offer all workers, regardless of level, opportunities to develop and grow in their careers. Ensure that workers understand what opportunities are available and what requirements must be met in order to progress. Changes tested:
  - Discussing with health workers what they'd like to achieve and developing individual performance plans with that objective in mind
  - Where promotion is not an option, finding alternative ways to help performer develop
- 7. Safe and Adequate Environment:** Ensure both emotional and physical safety conditions for health workers.
  - Providing support to health workers working in difficult/extreme situations or confidential concerns
  - Ensuring an environment that provides the basic needs in terms of materials, equipment, medicines, and supplies to allow health workers to achieve their objectives and carry out their required tasks

engagement, productivity, and client flow. The main clinical indicators were linked to the four above-cited MCH goals (Table 3).

**Table 3: Collaborative Goals, Improvement Objectives, Indicators, and Frequency of Measurement**

Collaborative Goal	Improvement Objective	Indicator	Frequency
1) Improve quality of MCH	Increase rates for assisted deliveries	Number of new antenatal care (ANC) patients enrolled % of skilled deliveries in facilities by qualified staff % compliance with essential newborn care (ENC) norms* % compliance with pre-eclampsia and eclampsia norms*	Monthly
	Reduce post-partum hemorrhage (PPH) rates and improve PPH management	PPH rate	Monthly
	Increase FP coverage in health facilities	Contraceptive prevalence Number of newly enrolled women for FP services	Monthly
	Improve treatment of severe malaria for children under five	% compliance with severe malaria case management norms*	Monthly
2) Improve supervision and clinical coordination	Strengthen clinical supervision from the RHMT to district hospitals (DHs) and from DHs to primary care centers	Increase completion rate of supervision by RHMT from 50% to 80% Increase number of districts with at least 80% of supervision trips completed	Quarterly
	Improve coordination meetings at the regional (RHMT and DHs) and DHMT levels	Improve the % of district coordination meetings held	Quarterly
3) Heighten engagement	Level of engagement of all health workers (HWs) measured on a 5-point Likert scale	% of HWs highly engaged (scale 4–5) % of HWs engaged (3–3.9) % of HWs actively disengaged below 3	Assessments
4) Increase productivity	Improve time use by health workers in terms of productive versus non-productive time	% of productive time % of unproductivity time % of time spent attending to clients % of time spend on administrative tasks	Assessments

\*Please note that these indicators were not tracked by all sites

The collaborative also defined indicators that would monitor progress in implementing the seven Performance Cycle steps (Table 4). (Note that the last two steps were not fully completed during the period of assistance.) The first of these indicators was measured monthly and was defined early on. Table 4 shows that indicators for Step 1 in the Performance Cycle were measured monthly throughout the collaborative; work on indicators for steps 2–5 began later; they were measured during the final three quarters of the collaborative's implementation.

**Table 4: Performance Cycle Steps, Indicators, and Frequency of Measurement**

Step	Indicator	Frequency
1. Align goals; develop and maintain job descriptions	% of HWs with clearly defined job descriptions (JDs) Execution rate of planned meetings to review performance objectives and update JDs	Monthly
2. Competency development	% of HWs with a clearly defined JD whose skill gaps have been analyzed % of HWs with a JD whose skill gaps have been analyzed and closed	Quarterly
3. Performance feedback	% of HWs who have received a feedback discussion	Quarterly
4. Fair evaluation	% of HWs with clearly defined performance evaluation criteria % of HWs who have been evaluated according to the criteria	Quarterly
5. Reward and consequence	% of facilities that have developed an R/C plan for HWs % of HWs who've been rewarded or sanctioned according to the R/C plan	Quarterly
6. Career path	% of HWs who are aware of career path and rewards, such as bonuses	Partially addressed
7. Adequate environment	% of HWs who say work environment is adequate	Not Implemented

## H. Implementing the Performance Cycle

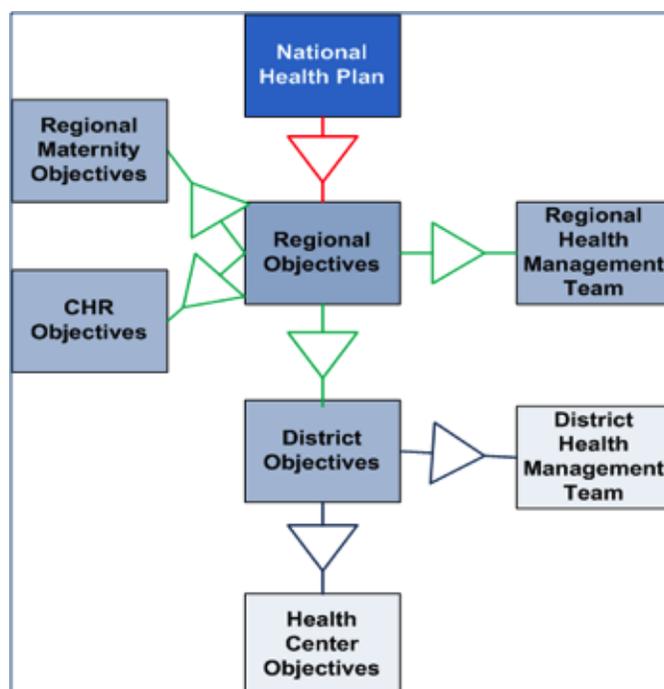
The change package based on the HR Performance Cycle provided the HR technical guidance that the teams applied. Since they were implementing a pilot, teams did not receive detailed instructions on how to accomplish the Performance Cycle steps; rather, they had to test different ways to accomplish each step, and some steps were more difficult than others.

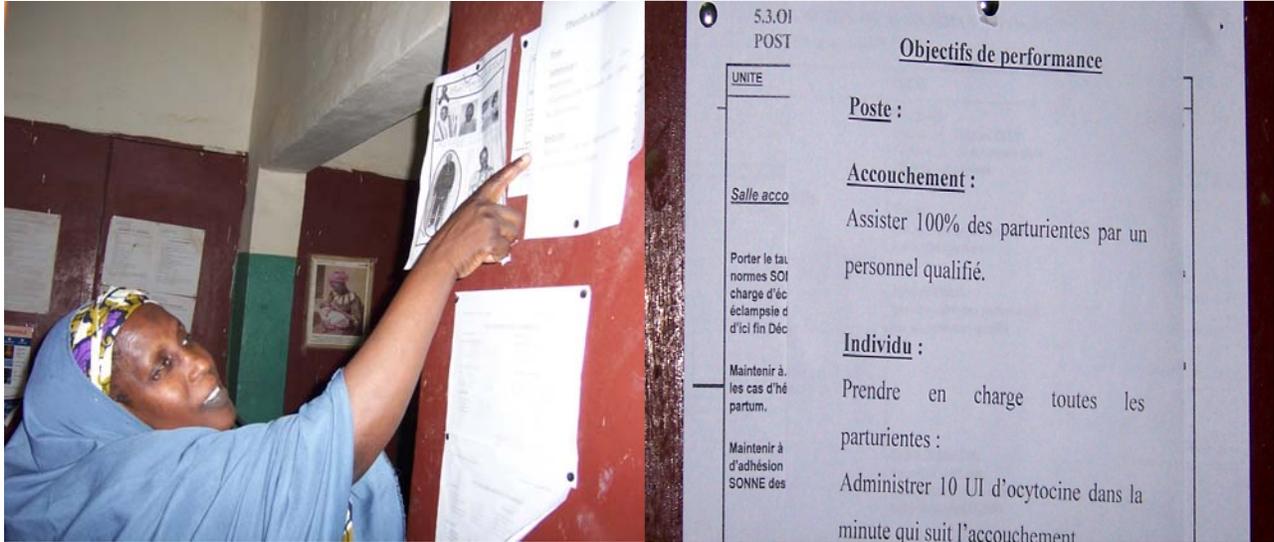
### Aligning Goals and Clarifying Tasks

The Performance Cycle's first step, perhaps the most complex, has facility-based teams of managers and health workers align health system goals from top to bottom: from the national level to the region, the region to the district, the district to the facility, and finally to the individual. This alignment process is challenging in even the most mature private sector organization (e.g., IBM and Honda). The goal is for everyone to understand the overall objectives (in this case, the MOPH's four MCH objectives) so that each worker understands what he/she must do to foster the achievement of the objectives.

Figure 3 illustrates the alignment process. The objectives of the national health plan are aligned first with the regional objectives, which include all regional level facilities (maternity and regional hospitals) and the RHMT. These objectives are then rolled down to each district,

**Figure 3: Process for Aligning Objectives**

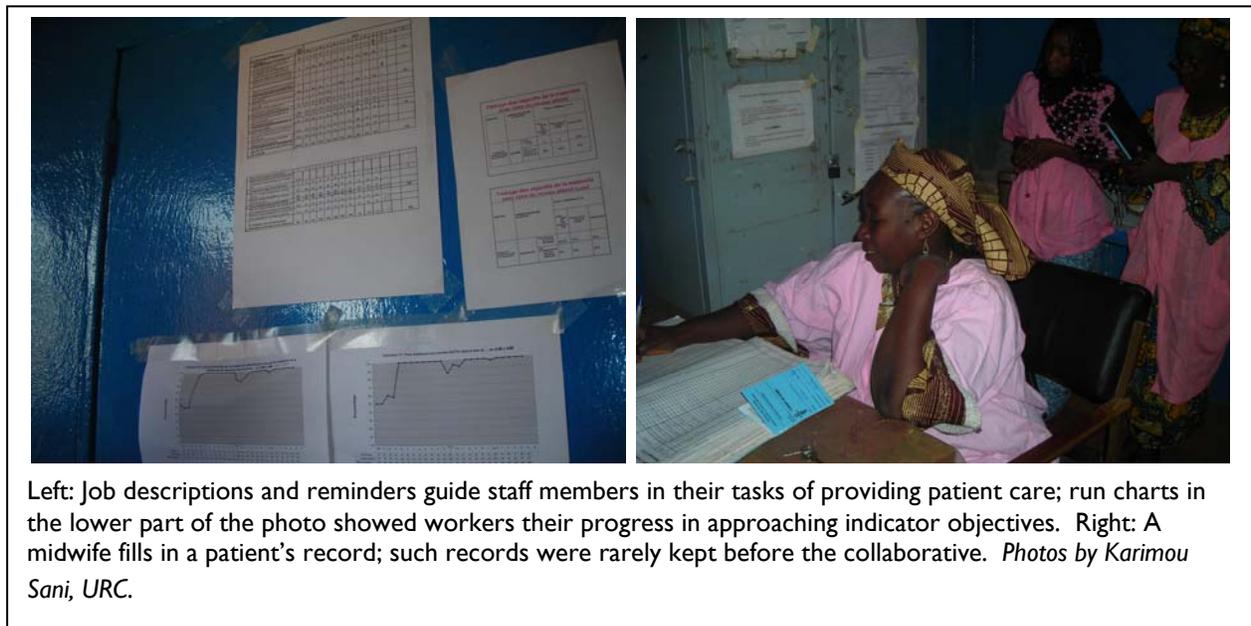




This nurse/midwife points to performance objectives (“Objectifs de performance” in the insert), which starts with the objective of ensuring that all deliveries (“Accouchement”) are assisted by qualified personnel. This is followed by a description of her individual (“Individu”) tasks.

which includes all district hospitals and the DHMT. Finally, the health centers’ objectives are developed. This first phase of alignment allows for the development of individual objectives and job descriptions that are meaningful to health workers and managers working to achieve their goals. To keep job descriptions current, management teams and health workers reviewed and revised them periodically.

Having a written, detailed job description to guide objectives and set goals has helped health workers focus on the tasks in their job descriptions. Interviews with workers and managers indicated better understanding and organization and a more satisfied workforce. “With the definition of tasks, the tasks are clear,” said Ibrahim Maikaka of the Tassigui Maternity Hospital of the collaborative’s effects and his impression of its beginning stages. “We do the work better,” he noted, and “I feel more useful.”

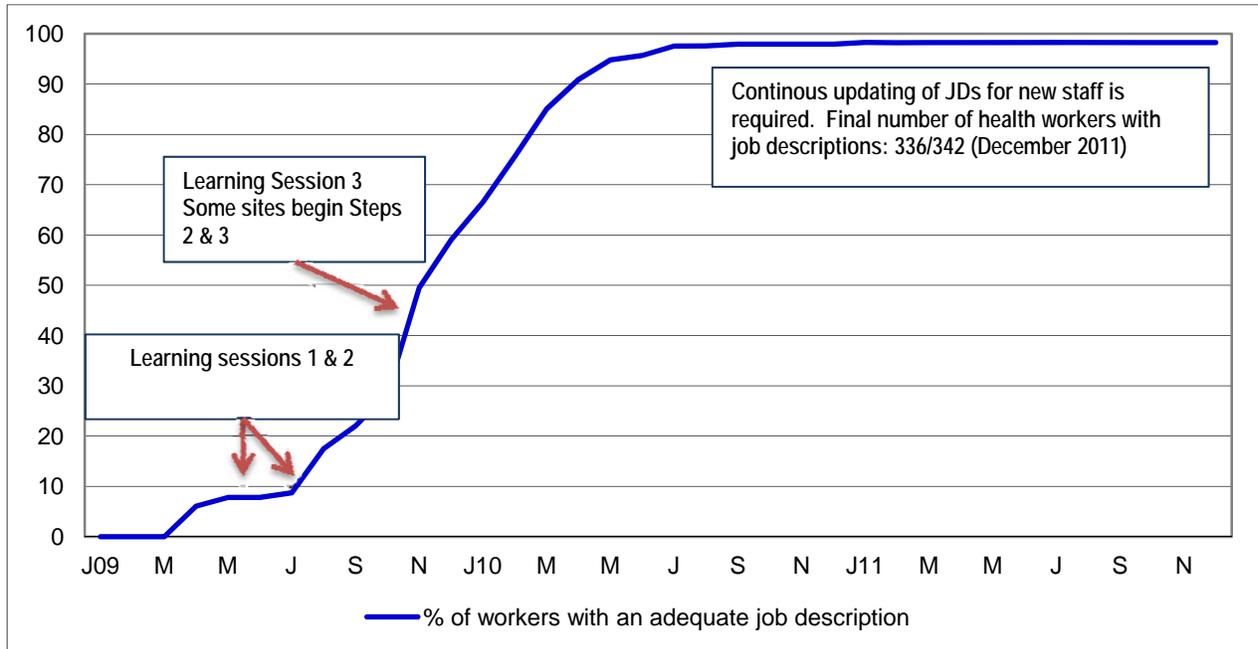


Left: Job descriptions and reminders guide staff members in their tasks of providing patient care; run charts in the lower part of the photo showed workers their progress in approaching indicator objectives. Right: A midwife fills in a patient’s record; such records were rarely kept before the collaborative. Photos by Karimou Sani, URC.

Successfully and thoroughly completing Step 1 would facilitate all the other steps. All health workers in the hospital maternity wards, for example, had clearly aligned goals and specific tasks, and teams could begin to focus on what capacities and key skills they needed to complete each position’s tasks.<sup>4</sup>

Figure 4 is a time series chart showing progress in developing job descriptions for health workers. Notations state that learning sessions were held in May, July, and December 2009 and that participants updated the process (through regular performance objective meetings with supervisors and teams) until November 2011. The figure also shows that by June 2010, nearly all health workers had new job descriptions (98%).

**Figure 4: Percentage of Health Workers with Job Descriptions, Collaborative Sites, 2009–2011**



### Competency Development

Facility and management teams moved on to Step 2 when they were ready to do so and the support they needed became available, some in late 2009, and others in early 2010. This step ensures that all workers with clear job descriptions, who have reviewed their job descriptions with supervisors, have the skills and competencies they need to perform their tasks. It begins with an analysis of what skills and competencies are needed to perform the tasks listed. Once needs are identified, supervisors and health workers determined what training, coaching, or other interventions were necessary to ensure that health personnel had the competencies they needed.

To identify skill gaps, QI teams assessed recent trainings that health workers had attended, conducted peer observations and demonstrations to assess an individual skill level in certain procedures (e.g., correctly completing a partogram), and conducted chart reviews to determine what procedures were being followed and their level of accuracy. To help close skill gaps, the teams posted on facility walls standards of care for the management of eclampsia (a dangerous complication of pregnancy) and essential newborn care at birth, developed job aids, and conducted onsite trainings.

<sup>4</sup> A report on the Niger HR collaborative’s implementation of Step 1, “Aligning and Clarifying Health Worker Tasks to Improve Maternal Care in Niger” is available at <http://www.hciproject.org/publications/aligning-and-clarifying-health-worker-tasks-improve-maternal-care-niger>.

The collaborative took an approach to building competency that differs from that of many continuing education programs for workers in developing countries. Often, a training or workshop is organized on a topic that managers or external implementers believe is needed, and health workers are assigned to attend. The collaborative targeted individual skill gaps based on each

### **Box 2: Examples of Capacity Building**

Keita District Hospital's QI team gave forms to health workers asking which skills they thought they could not perform. Responses in hand, the team organized supervision visits that included observations of skills performance. Next, the team compared the self-assessments with the supervisors' assessments. Finally, the workers and supervisors met to discuss results and later arranged to fill the skills gaps. Examples of skills that nurses and midwives needed to improve included extraction by suction, completing the (new) partogram, episiotomy, protecting the perineum during delivery, and clearing the baby's shoulder during delivery.

In the maternity unit at Illela District Hospital, the team realized that midwives could not correctly complete the partogram due a lack of understanding. The medical officer trained two midwives to perform this task, and of the 27 deliveries that followed, seven were attended by those two midwives. They had correctly completed five partograms for those deliveries, indicating both progress and a need for more attention, a feature of the next step.

individual's newly articulated tasks and an assessment of his/her ability to perform them. This approach was believed more effective than sending workers to training based on guesswork or other factors. Under Step 2, facilities developed a competency checklist based on individual tasks and used it to assess each worker's skills in performing those tasks. Once gaps were identified, they were prioritized and analyzed. After health workers received coaching, training, or hands-on instruction based on that analysis, their skills were reassessed. Box 2 gives examples of efforts undertaken under Step 2, while Figure 5 shows results for two indicators: the percentage of health workers with competency gaps analyzed, and the percentage of health workers with the gaps filled. As the indicators for Step 2 have as a precondition that the health workers must have: (1) an updated job description and (2) reviewed it with their supervisors, the number of health workers who underwent this process in June–July 2011 was less than the entire number of staff with job descriptions shown in Figure 4. The assessment of HR activities took place in June and July, at which point the number of health workers with job descriptions was 345. In addition, management teams, although with new job descriptions, did not implement the next several steps for themselves, instead focusing on facility health workers. Facility teams that continued to work on Steps 2–5 totaled 18 of the 26 sites.

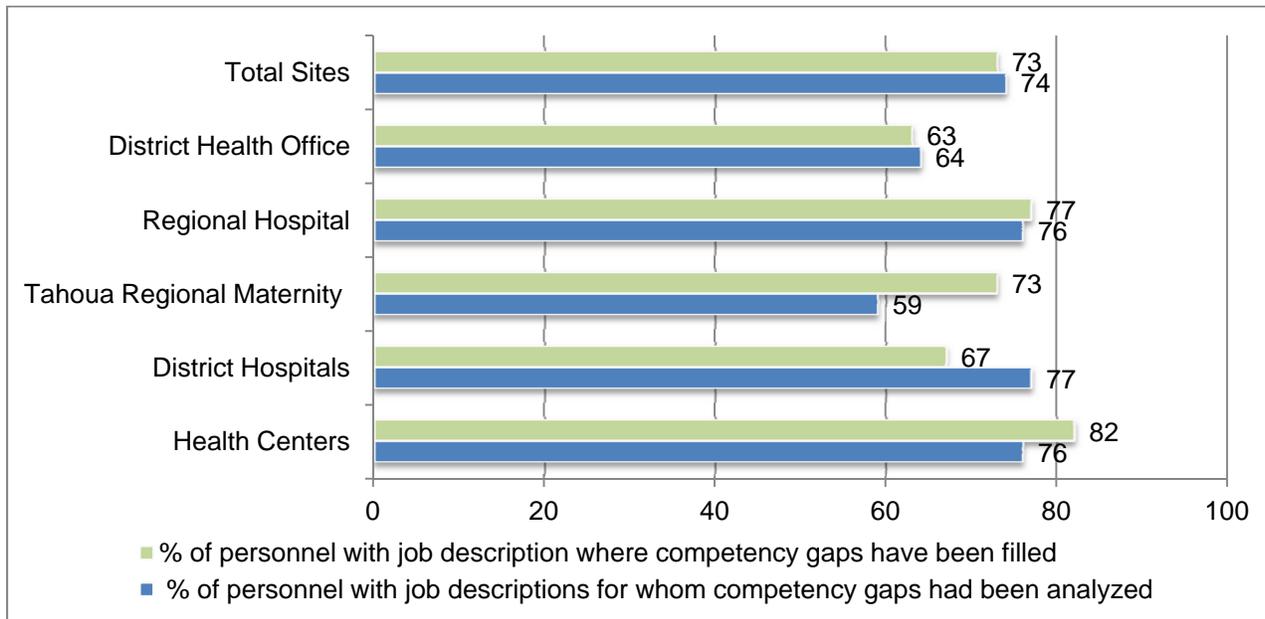
The number of workers to participate in Step 2 was 237, of whom 73% had skill gaps analyzed and filled.

### **Performance Feedback**

Once health workers have clear performance objectives and are focusing on developing skills, they need feedback from their team to let them know whether their performance is improving. The third step in the Performance Cycle ensures that workers receive frequent feedback on their performance and that that feedback is based on the previously articulated expectations. The teams proposed (in very late 2009 or early 2010, depending on a facility's rate of progress through the steps) three strategies to accomplish this goal: create an open environment for discussion and feedback for health workers, share client feedback and encourage suggestions during meetings, and share and disseminate clinical performance data.

Changes to foster open feedback were tested at both the facility and managerial levels. Proposed facility changes included monthly meetings to provide feedback on training for each worker with his/her coach or his/her coach and co-workers, internal meetings to discuss performance with all maternity unit workers, staff meetings to improve communication with patients (confidence building, explanation of care practices), evaluation by coaches post-training, and monthly meetings with other hospital units and the management team.

**Figure 5: Step 2, by Type of Collaborative Site, June 2011 (n=237)**



Changes tested at the managerial level included better use of quarterly coordination meetings, having quarterly meetings to analyze performance indicators, and discussing the possible causes of poor performance at management meetings.

Feedback comes from various sources, including, importantly, clients. The second strategy implemented during this step was to gather and share **client feedback** through suggestion boxes, customer satisfaction surveys, and meetings with community members and clients. Some facilities also measured client wait times by adapting the tools for doing so from the baseline assessment. Feedback was shared with the larger facility teams during staff meetings.

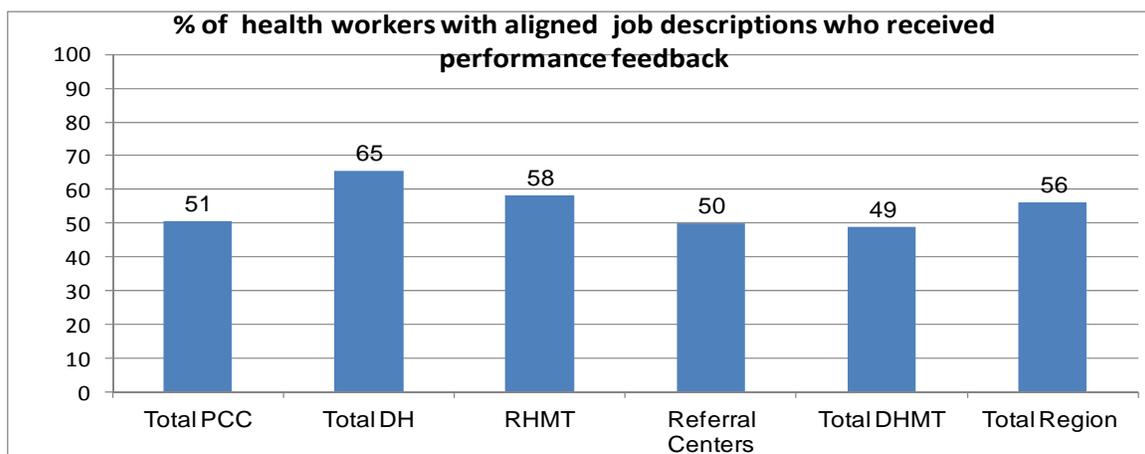
The final strategy facilities used to increase feedback was to share **clinical**

**performance data** through written quarterly reports and by posting clinical indicators and charts in public places for other departments, clients, and communities to see. Figure 6 shows the percentage of health workers (with aligned and clarified job descriptions for which skill assessments were completed) who had feedback conversations with supervisors or QI team leaders regarding their performance. Criteria for this indicator included identifying opportunities to provide feedback, observing health worker performance, identifying points (good and bad) that warrant a feedback discussion, providing feedback after each observation, and analyzing the results of the feedback.



Management and staff meet to share information and collaboratively make decisions. Many MOPH staff in Tahoua had never previously attended meetings.

**Figure 6: Percentage of Health Workers Who Received Feedback Discussions, by Facility and Team, Collaborative Sites, June–July 2011 (n= 237)**



### Fair Evaluation

While most sites implemented Steps 2 and 3 with little difficulty, Steps 4–6 were more challenging, in part because they required more involvement from the MOPH. Step 4 ensures that workers are evaluated fairly, with clear and specific evaluation criteria that are based on expectations articulated in advance.

As mentioned earlier, formal evaluations were not carried out in the region. The introduction of this step was considered very important, and the design of the process was discussed at length by the Regional Management Team and coaches guiding the work. They agreed that evaluations were to be done through a combination of direct observation of the health workers' performance, a review of attendance and other administrative records, and analysis of charts and documents (partographs, client registration cards, FP cards, client records) (Box 3). Evaluators were external health workers, supervisors, or colleagues, and the evaluation period was quarterly or semi-annual, depending on the health worker's level.

As no performance evaluation criteria existed in Niger prior to this work, management teams and coaches met to develop and agree on criteria (see Box 3), and to agree on the process of evaluation. Evaluation plans and the evaluation criteria were then shared with health workers before the evaluation period began. Health workers were informed in advance that their supervisor would evaluate them, and each met with his/her supervisor to be evaluated. The supervisor and health worker discussed the results of the evaluation, with both mindful of the objective of overall improved performance. This step concluded with a worker-supervisor discussion on how to move forward to improve the worker's performance.

#### Box 3: Performance Evaluation Criteria

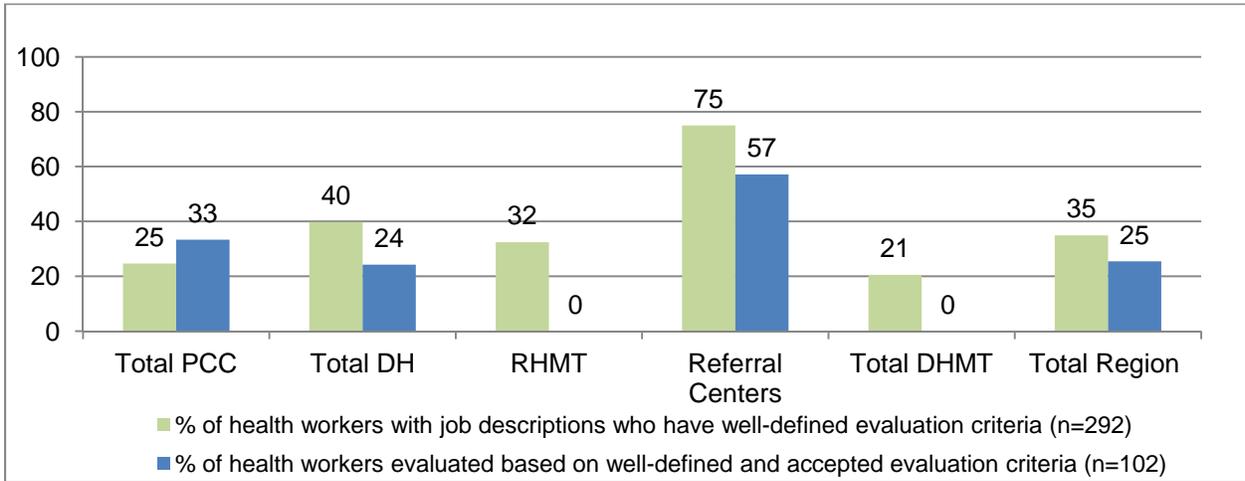
For each health worker, three areas of performance evaluation criteria were identified:

- Completion of the tasks (now articulated in job descriptions) related to the processes of care (e.g., ANC, delivery, FP) the health worker was responsible for;
- Meeting the performance objectives defined in Step 1; and
- Respecting administrative regulations.

Each area was graded according to specific criteria related to the importance of the activity. Health workers received a cumulative score and a resulting ranking.

The collaborative tracked several indicators for performance evaluation. Figure 7 shows two: the completion rate, that is, the percentage of health workers with clearly defined performance criteria and the percentage of health workers evaluated against those criteria.

**Figure 7: Health Workers with Defined Evaluation Criteria and Those Evaluated Based on Those Criteria, Collaborative Sites, June–July 2011**

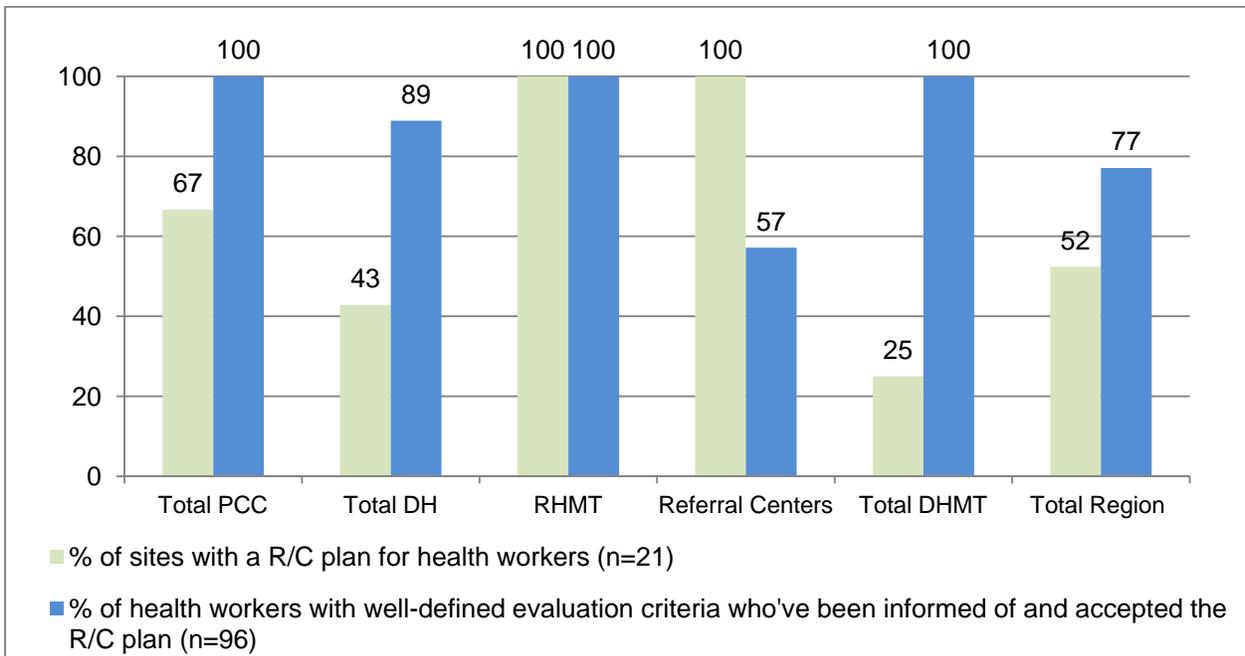


**Reward and Consequence**

Performance evaluations are more effective when followed by an appropriate reward or consequence. The teams used the evaluation criteria developed as part of Step 4 to determine which health workers, including themselves, should be rewarded or reprimanded to improve performance. This step required clearly communicating the plan to all health workers and asking them to accept it. This step was broken into three substeps: develop an reward/consequence (R/C) plan, communicate it to all relevant staff, and test different rewards and consequences and determine which ones most effectively induce better performance.

As the collaborative neared completion, all sites had begun to develop an reward and consequence plan, but not all had completed this step before the October 2011 closure date. Figure 8 shows the progress the teams made in implementing Step 5.

**Figure 8: Sites with Reward/Consequence Plans and Health Workers Informed, Collaborative Sites, June–July 2011**



Rewards and consequences require that workers be recognized and rewarded for performing well; but if health workers fail to meet expectations, they need clear and specific feedback on ways to improve and sanctions if poor performance is a serious issue.

For teams to fairly reward or sanction health workers, they agreed on specific criteria through discussions with various stakeholders, including health workers (during staff meetings), supervisors, managers, and MOPH authorities. Eligibility criteria for each kind of reward or consequence were agreed to.

### **Career Advancement**

This step provides that all workers have opportunities to develop and grow in their careers. It requires that workers understand what opportunities are available and what requirements must be met to progress. The collaborative tested three changes during this step: discuss with health workers what they would like to achieve; develop individual performance plans with each one's goal in mind; and where promotion is not an option, find alternative ways to help the worker develop.

The baseline and process that followed made clear that health workers were unaware of any career path and generally unaware of whom to go to discuss advancement possibilities. Although the teams had not completed this step when the collaborative ended, they had developed their annual action plans that called for moving this forward. The change package states, "All health workers, regardless of level, have the opportunity to grow and evolve in their careers. They should also understand what opportunities are available to them and what conditions they need to meet in order to advance." Suggested changes included talking with health workers about what they want to achieve and what their goals are; when promotion is not an option, finding other ways to help the worker develop and grow; and developing and sharing a way to document and track a worker's career progression.

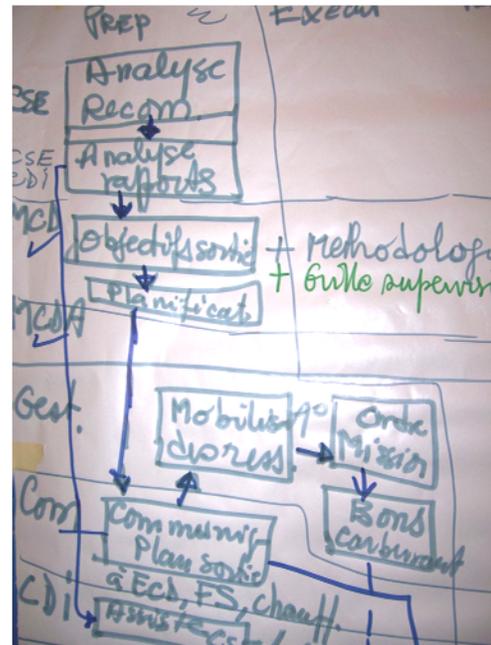
To launch implementation of this step, the MOPH asked all Tahoua health workers to describe through official means, either personally or in writing, the problems they had had with promotion, reclassification, tenure, regulation of transportation costs, the family allowance, retirement, participation in the national social security fund, etc. The RHMT developed a summary of these problems, and an official team worked 14 days to analyze and resolve the complaints. This team conducted sessions at the Ministries of Public Health, Public Service, and Finance. Several cases of irregularity were settled and their causes diagnosed. It was clear that the system lacked explicit standards for career development for any type personnel. Unfortunately, the system is too centralized for resolution at the facility and management levels and needed central level resolution. However, the work of the collaborative clarified this gap and brought the issue to the MOPH's attention. The MOPH is currently addressing this policy and system issue.

### **Adequate Environment**

The final step in the Performance Cycle ensures that health workers work in a safe, secure, and appropriate environment. Unfortunately, teams did not formally reach this final step during the implementation of the collaborative. However, as teams made changes to processes and services during all of the other steps, many changes were made to the service environment that addressed safety, cleanliness, supplies, and the overall adequacy of the workplace. For future activities, this work should be done throughout the implementation period.

## **I. Management Interventions**

While the facility-based teams worked along the Performance Cycle and clinical indicators improved, the management teams tested ways to improve the supervision of facilities and coordination of services. They implemented measures to improve productivity and time utilization, targeted supervision content to address the facilities' clinical and administrative challenges, and worked with facility teams to implement Performance Cycle steps.



The DHMT works with the HCI coach to redesign the supervision process, drawn on the flip chart sheet at the back of the room (left). The sheet (right) shows the complex pre-collaborative supervision process, which rendered organizing a supervision visit nearly impossible.

Table 5 shows the two indicators management teams tracked quarterly. It covers all of the first two years of the collaborative and the first eight months of 2011 as the collaborative ended in September. The trend shows strong improvement.

**Table 5: Coordination Meetings and Supervision Visits, 2009–2011**

Management Indicator	2009	2010	2011 (January–September)
Completed 1 coordination meeting per quarter	0%	56%	40.6%
Completed supervision visits			
District hospitals	50% (1/2)	50% (1/2)	100% (2/2)
Primary care centers	25% (8/32)	65.62% (21/32)	46.87% (15/32)

### III. RESULTS

The collaborative monitored both clinical indicators – which related to the four MOPH goals, such as reducing the PPH rate – and five indicators related to the Performance Cycle’s seven steps. The results show that addressing HR issues leads to better clinical outcomes. Interestingly, advances in clinical indicators outpaced those related to the cycle, even though only HR interventions (and no clinical interventions) were introduced. This section presents collaborative results in two sections: A) HR process results of implementing the cycle and selected results in workforce productivity and engagement and B) results for clinical indicators.

## A. HR Results

### Job descriptions

At baseline, no health workers in Tahoua reported having a job description (Table 6); by the collaborative's end, 67% of all health workers said they did and could produce it. (Of health workers involved in the collaborative, 98% had job descriptions; the endline assessment sampled all health workers rather than just those involved in maternal and child health, generating the 67% figure.)

**Table 6: Existence and Use of Job Descriptions, Three Regions, 2009 and 2011**

	March 2009	October 2011
<b>Tahoua</b>	<b>Health Workers</b>	<b>Health Workers</b>
Has a job description	0/36 (0%)	20/30 (67%)
Refers to job descriptions	No data	20/20 (100%)
Tasks are clear	27/36 (75%)	27/30 (90%)
<b>Tilláberi</b>		
Has a job description	1/5 (20%)	0/5 (0%)
Refers to job descriptions	No data	No data
Tasks are clear	5/5 (100%)	4/5 (80%)
<b>Maradi</b>		
Has a job description	3/12 (25%)	2/12 (17%)
Refers to job descriptions	No data	2/2 (100%)
Tasks are clear	11/12 (92%)	9/12 (75%)

Table 6 also shows the existence and use of job descriptions in the control regions (Tilláberi and Maradi), where little change was seen between the start and end of the collaborative.

### Performance Evaluation and Reward and Consequence

During both assessments, health workers and managers were asked whether a formal evaluation system was in place. This comes toward the end of the cycle, and not all sites had reached this point before the endline assessment. Still, the 2011 data show a marked improvement in Tahoua (Table 7), although only 23% of health workers and 52% of site-level managers stated that a performance evaluation system with specific evaluation criteria existed.

**Table 7: Knowledge of HR Evaluation System or Criteria, Three Regions, March 2009 and October 2011**

Evaluation System or Criteria Exist	2009		2011	
	Evaluation System	Evaluation Criteria	Evaluation System	Evaluation Criteria
<b>Tahoua</b>				
Health workers	0/36 (0%)	NA	7/30 (23%)	7/30 (23%)
Managers	1/52 (1%)	NA	24/46 (52%)	24/46 (52%)
<b>Tilláberi</b>				
Health workers	0/5 (0%)	NA	3/5 (60%)	3/5 (60%)
Managers	2/14 (14%)	NA	1/8 (12%)	2/8 (25%)
<b>Maradi</b>				
Health workers	3/12 (25%)	NA	0/12 (0%)	0/12 (0%)
Managers	2/20 (10%)	NA	0/15 (0%)	0/15 (0%)

Note: "NA" indicates that the baseline assessment did not ask workers and managers whether they knew of evaluation criteria.

Asked if they were aware of a bonus system, 25% answered affirmatively at baseline and 36% did so at endline. Likewise, when asked if they were aware of sanctions for poor performance, 34% said yes at baseline, and 64% did at endline.

### Supervision

When health workers were asked at baseline whether they had received a supervision visit during the previous six months, only 47% had, and of that number, only 44% had had more than one such visit. Endline results show a marked improvement in both the percentage of health workers reporting at least one visit (63%) and those having more than one (58%).

### Health Worker Productivity

To assess productivity during a regular work day, both the baseline and endline assessments observed 33 health workers in six facilities for 10 minutes every 30 minutes for one day (Table 8). In both 2009 and 2011, five sites were selected in Tahoua, and one site in the control region of Maradi. Productive time included time spent in direct contact with hospitalized patients; direct contact with ambulatory patients; indirect patient care, including preparing to meet patients, updating charts, and consultations with colleagues on patient care; management tasks, such as meetings and routine maintenance; and off-site activities, such as trainings or home visits. Non-productive time included time spent waiting for patients without doing productive work; conversations with other health workers unrelated to patient care; eating; socializing; recreation; personal errands; and absence.

**Table 8: Time Use by Cadre in 2009 and 2011**

Cadre	March 2009 Sites: Tahoua (5) and Maradi (1)			October 2011 Tahoua (5) and Maradi (1)		
	n = 33	Median of Productive Time	Range of Productive Time	n = 33	Median of Productive Time	Range of Productive Time
Doctors	5	78%	66–79%	5	64%	52–71%
Nurses	11	44%	17–67%	8	44%	26–86%
Midwives	7	63%	17–90%	8	46%	15–89%
Technicians	3	55%	44–67%	8	45%	2–86%
Social workers	3	29%	12–33%	1	35%	35%
Auxiliary staff	4	19%	5–39%	3	20%	15–60%

Note: Auxiliary staff are guards, janitors, etc.

Results in this table show that overall productivity actually declined for three cadres from 2009 to 2011. Although it is difficult to explain these results, it could be due to the fact only one day was observed for each health worker, and tasks differed by week day. In addition, the sample of health workers identified was not limited to health workers that had participated in the collaborative, but rather any health worker present that day. Had other days been included for observed, the findings might have been different.

Although the findings shown in Table 8 are not impressive when productivity is viewed aggregated, the picture changes when the health worker activities are examined. Table 9 show that in Tahoua, 40% of health workers' time was spent on either direct or indirect care, whereas in the control sites, workers spent only 11% of their (combined) time on care. Similarly, the time spent in Tahoua on breaks or in social visits was 0%, and 15% was logged as absent. In the control sites, these percentages total 55%. Table 10 disaggregates the Tahoua productivity results by type of health worker.

**Table 9: Time Use by Activity, Tahoua and Control, October 2011**

Activities	Tahoua				Maradi
	All Facilities	District Hospital	PCC	Maternity Hospital	
n =	27	12	6	9	6
Direct Care	30%	42%	23%	20%	5%
Indirect Care	10%	14%	10%	10%	6%
Break	0%	0%	9%	0%	9%
Social visits	0%	1%	0%	0%	19%
Absence	15%	21%	15%	15%	27%

Note: Some activity categories were removed for this table; full tables are in Appendix 2.

**Table 10: Time Use, Tahoua, by Activity and Cadre, October 2011**

Activities	Doctor	Midwife	Nurse	Tech	Social	Auxil
n =	4	7	6	6	1	3
Direct patient care	55%	28%	33%	25%	5%	4%
Indirect patient care	5%	19%	15%	26%	30%	23%
Working off-site	0%	0%	0.2%	0.5%	0%	0%
Meetings and administration	0%	0.4%	0.2%	0%	0%	0%
Training	0%	0%	0%	0%	0%	0%
Cleaning/preparation	0.8%	1%	1%	0.5%	0%	7%
Waiting for patient(s)	12%	11%	12%	10%	15%	32%
Breaks	2%	3%	6%	3%	5%	1%
Socializing	1.7%	0.8%	0%	2.8%	30%	4%
Absence	18%	26%	22%	24%	15%	32%
Other	3%	7%	4%	5%	0%	6%

Notes: “Tech” stands for technician; “visiting” usually relates to chatting with colleagues or others; and “absence” is any absence from work. Other indicates an activity that could not be logged because data collectors could not determine what the health worker was doing. If percentages do not total 100, some observations were missed.

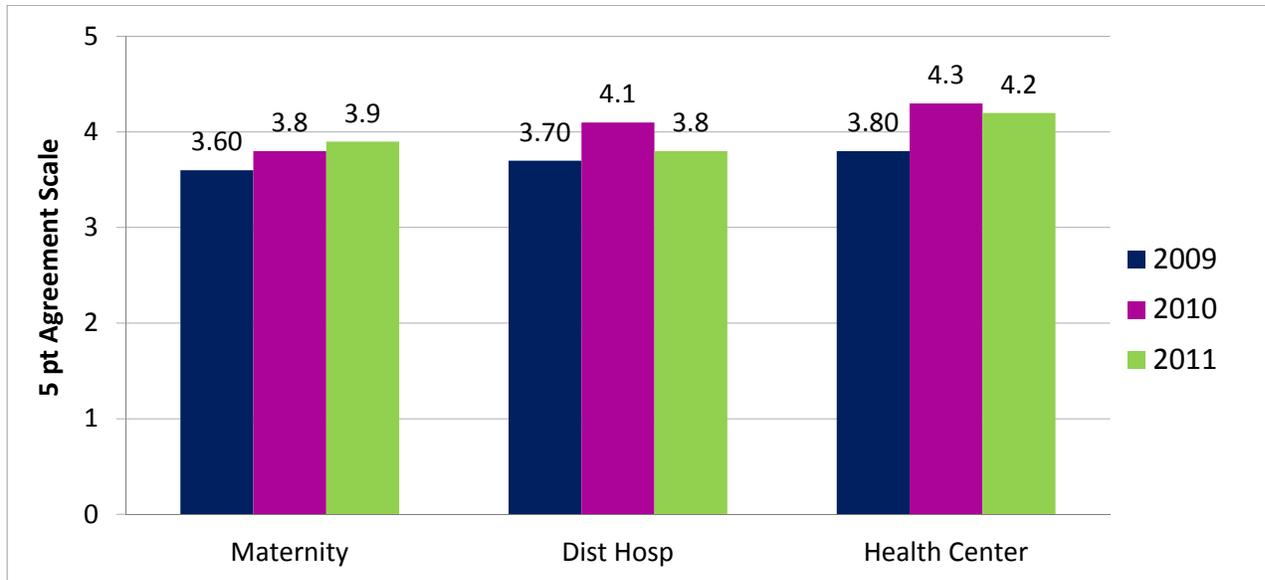
### Health Worker Engagement

Health worker engagement is “the extent to which people enjoy and believe in what they do and feel valued for doing it”. In the health care industry specifically, research by the Gallup and other organizations of health care workers in developed countries has shown that increased engagement among nurses resulted in increased patient satisfaction, nurse retention, and morale; lowered complications; and improved clinical measures (Harter, Schmidt, and Hayes, 2002). The assessments measured health worker engagement by applying a confidential survey with questions related to six key areas: belief in their work and organization, belief in their ability to succeed, relations with colleagues and supervisor, opportunities for professional advancement, support and recognition, and influence in decision making. All types of workers in a facility were asked to participate, including non-clinical workers such as gardeners and cleaners. Two versions of the tool were developed and tested: one for literate workers, and one for non-literate workers. Facilitators read the 16 items in French and local languages to each group, and participants could ask questions to heighten understanding of unfamiliar concepts. After discussion, participants completed the survey independently, rating their level of agreement with the statements on a five-point scale. Illiterate workers used pictures of ladders and circled different rungs to show their level of agreement.

The engagement survey was implemented by HCI three times: at baseline in 2009, with 185 literate workers and 84 illiterate workers; in 2010, with 136 literate workers and 51 illiterate workers; and finally in 2011, with 185 literate and 84 illiterate workers participating.

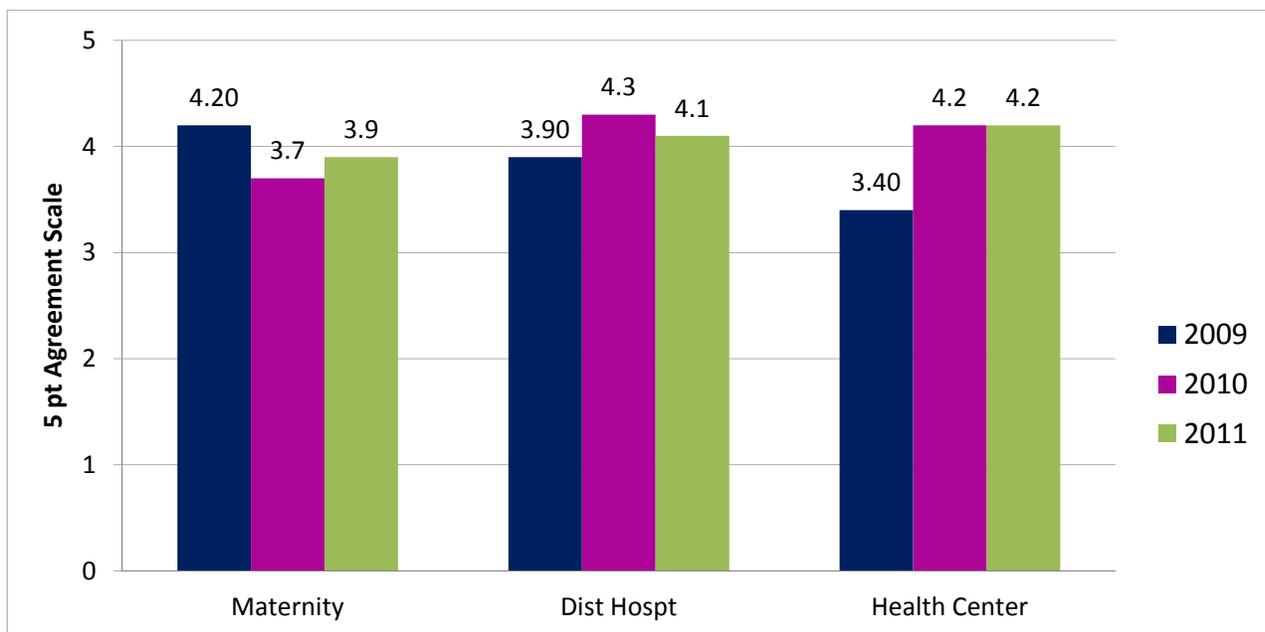
The survey results (Figures 9 and 10) show modest changes in overall engagement, with primary care centers and illiterate workers showing the most increase in engagement.

**Figure 9: Health Worker Engagement of Literate Workers, Collaborative Sites in Tahoua, 2009, 2010, and 2011**



Note: Employee engagement was measured on a five-point scale. A score of 3 is considered to be “minimally engaged” and above 4 “engaged.” Anything below 3 is considered “disengaged.”

**Figure 10: Health Worker Engagement of Illiterate Workers, Collaborative Sites in Tahoua, 2009, 2010, and 2011**



When items were analyzed individually, some changes stood out between Tahoua and the control sites. For example, health workers in Tahoua rated the statement “At work, my opinions matter,” 4 (literate) and 4.2 (illiterate). In control sites, both groups rated it 3.7. Tahoua respondents rated the statement “My supervisor or someone at work gives me feedback on my work” 3.7 (literate) and 4.2 (illiterate);

control sites gave it 3.5 and 3.9, respectively. Finally, both groups in Tahoua rated the statement “I have enough opportunities at work to grow and develop at” 3.7, whereas in control regions, health workers rated it 3.5 (literate) and 2.3 (illiterate). Complete engagement scores are in Appendix 3.

## B. Clinical Results

Results in all clinical indicators show a clear and statistical improvement in the quality of care. The tracked clinical indicators linked to MOPH objectives. Only facility QI teams that were worked directly on an indicator tracked it. For example, only the pediatric hospital tracked the indicator for under-five mortality from severe malaria.

Teams used Excel to record their indicator data each month, and Excel enabled them to present the data in time series charts. Supervisors and facility managers validated the data through chart reviews and spot checks. Table 11 summarizes the overall improvements in these indicators; time series charts appear below in Figures 11-15.

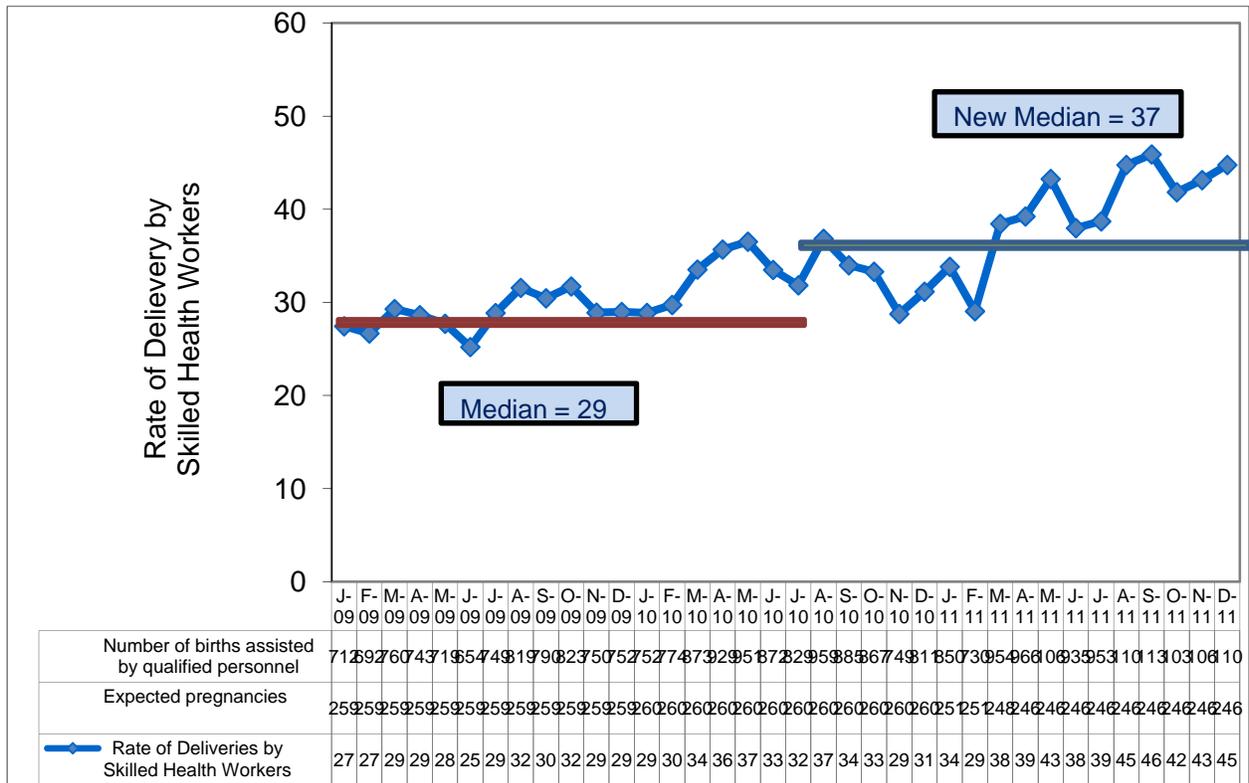
**Table 11: Improvement in Clinical Indicators, 2009–2011**

Indicator	Numerator/Denominator	2009	2011
Deliveries by skilled health workers	Percentage of births that took place with the assistance of a qualified HW/Number of deliveries	27%	45.0%
Contraceptive prevalence	Number of women accepting FP/Number of women of reproductive age in catchment area	9.6%	36.0%
PPH	Number of hemorrhages during delivery/Number of vaginal deliveries	2.0%	0.06%
Under five mortality from severe malaria	Number of deaths due to severe malaria/Number of severe malaria cases in children <5	15.0%	4.0%

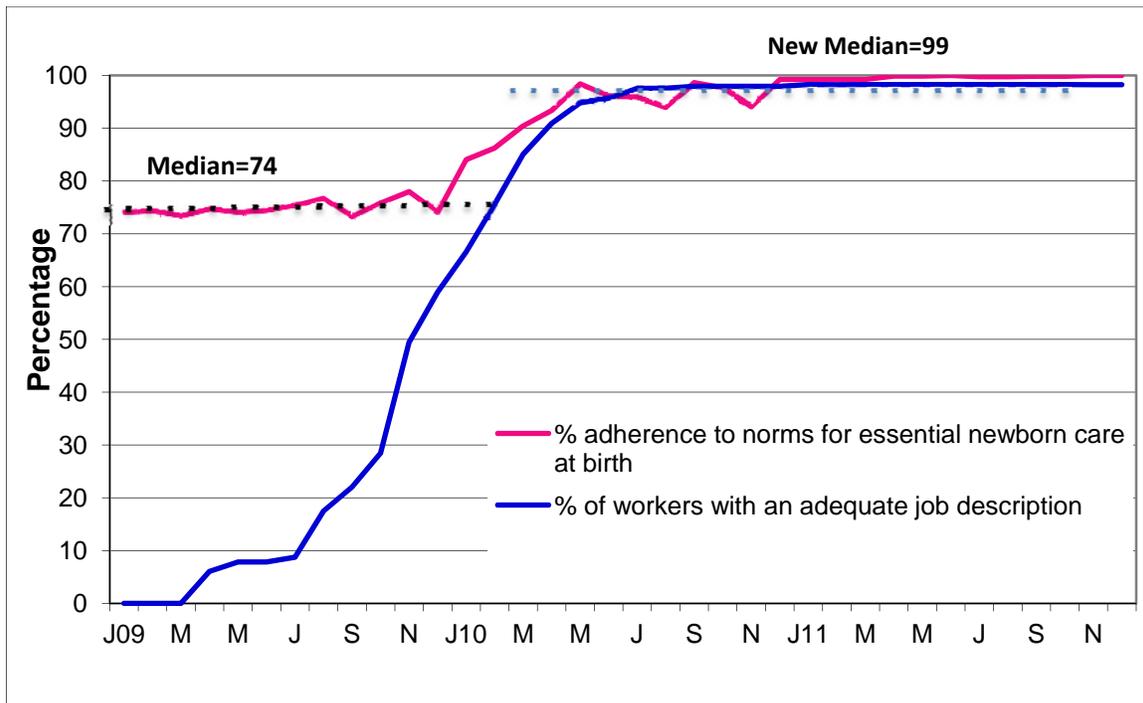
Rates of deliveries assisted by a qualified health worker rose from 27% before the collaborative to 45% at the end (Figure 11). This indicator was tracked by 14 health facilities: the regional maternity hospital, seven district hospitals, and six health centers. The figure shows a shift in the median, a pattern that indicates that the outcome measure moved to a different level and has a 95% likelihood that the improvement is statistically significant and not due to chance or some other anomaly. In QI work, this pattern is what we hope to achieve when we make changes in the process of how we work. In this case, the shift occurred during the second quarter of 2010, when the median moved from 29%. Once the shift occurs, a new median is calculated from which to gauge further improvement. The new median, as shown, was 37%.

Other indicators facilities tracked included adherence with essential newborn care (ENC) norms and adherence with pre-eclampsia and eclampsia norms. Results for adherence to ENC norms are shown in Figure 12 and compared with proportion of health workers with clarified tasks and job descriptions, to show the dramatic affect the collaborative had on adherence to essential newborn care norms. The figure shows that about 75% of those norms were followed by health workers in the 15 collaborative facilities from before the collaborative to December 2009. In January 2010, a shift occurred in adherence to the norms (the same period in which the shift in qualified assisted deliveries began). During this period, health workers were developing JDs, clarifying tasks, and refocusing efforts to streamline the workflow to improve services. By the time most workers had JDs, adherence improved to nearly 100%, a level that was maintained throughout the collaborative. The sustained high performance, most likely fostered by the supportive elements of Steps 2 and 3 (assessing and developing competencies and frequent feedback on performance), illustrates the importance of JDs, clear tasks, and subsequent reinforcement of the objective (adherence to the norms) with the work of building capacity and providing feedback to health workers as they do their jobs.

**Figure 11: Deliveries Assisted by a Qualified Health Worker, HR Collaborative Sites, 2009–2011**

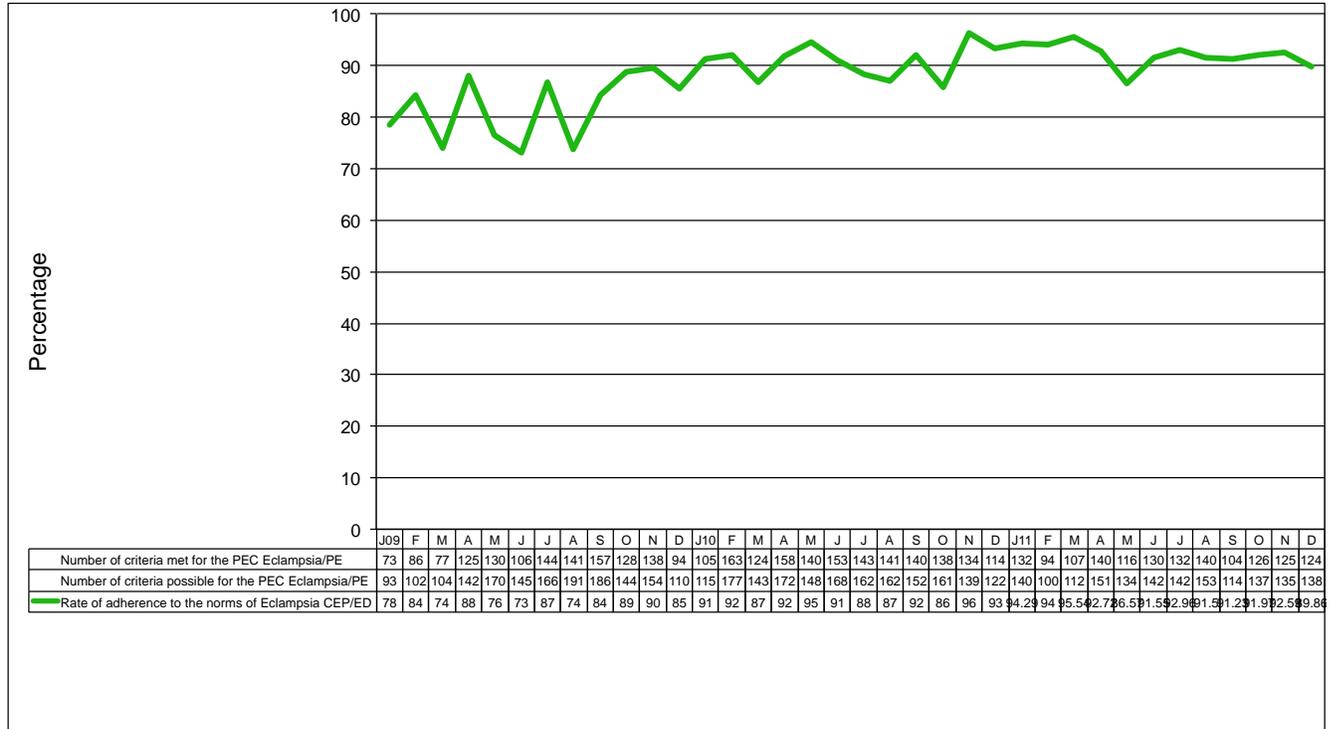


**Figure 12: Adherence to ENC Norms and Existence of Adequate Job Descriptions, January 2009–November 2011**



Adherence with pre-eclampsia and eclampsia norms is only relevant to health centers, district hospitals, and the maternity sites and is presented in Figure 13. At the start of the collaborative, total adherence averaged about 80% and during the last year averaged 90% adherence among participating sites.

**Figure 13: Adherence to Pre-Eclampsia and Eclampsia Norms, Selected Collaborative Sites, January 2009–November 2011**



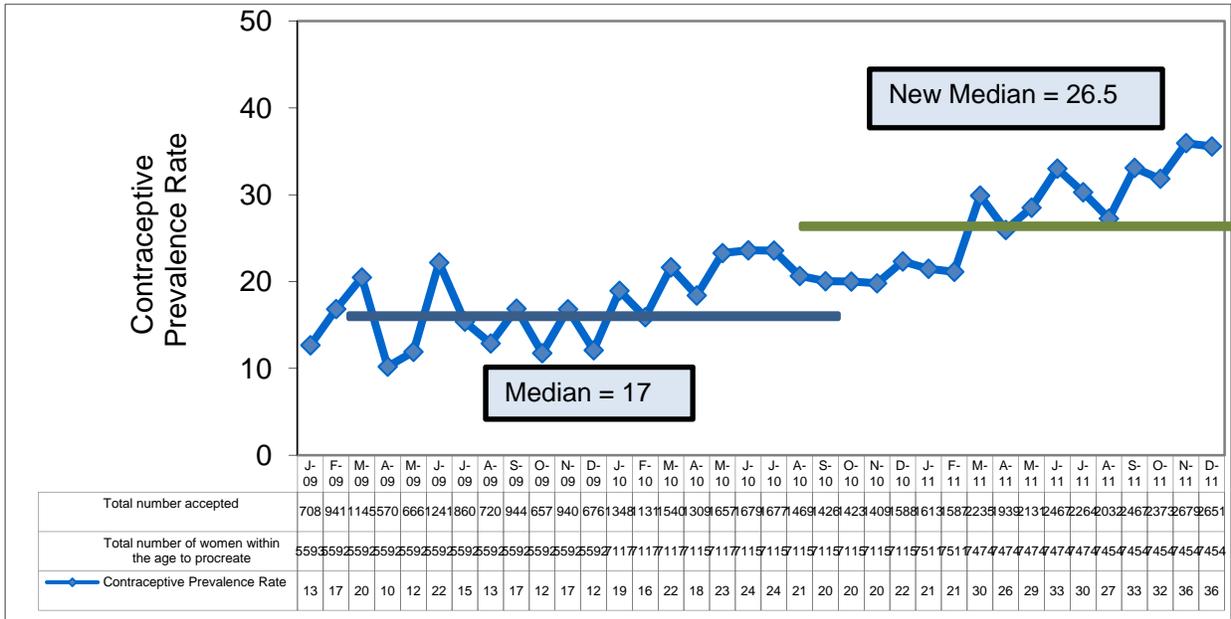
The collaborative identified two indicators to monitor changes in FP coverage: contraceptive prevalence and the number of women newly enrolled in FP services. The former (defined in Table 11) was monitored from the outset. The second indicator, newly enrolled women in FP, was tracked beginning in January 2010.

All six health centers and both district hospitals tracked this indicator, redoubling their FP efforts in January 2010, when one of the changes implemented at sites was to explicitly assign health workers the task of focusing on family planning and keeping a separate log of new FP users. Other changes made at sites included setting clear objectives for all staff, conducting weekly FP data analysis to ensure contraceptive pills were available, and developing specific performance criteria and feedback based on data gathered.

Again, a clear shift occurred (Figure 14). In January 2010 the median of 17% shifted to a medium of 26.5%; the high point, 36%, was reached by the end of 2011. New FP users doubled: between the months of January 2010 and Sept 2011, with 420 new women enrolled in FP services. (The contraceptive prevalence rate in Niger and Tahoua averages 11%–13%.)

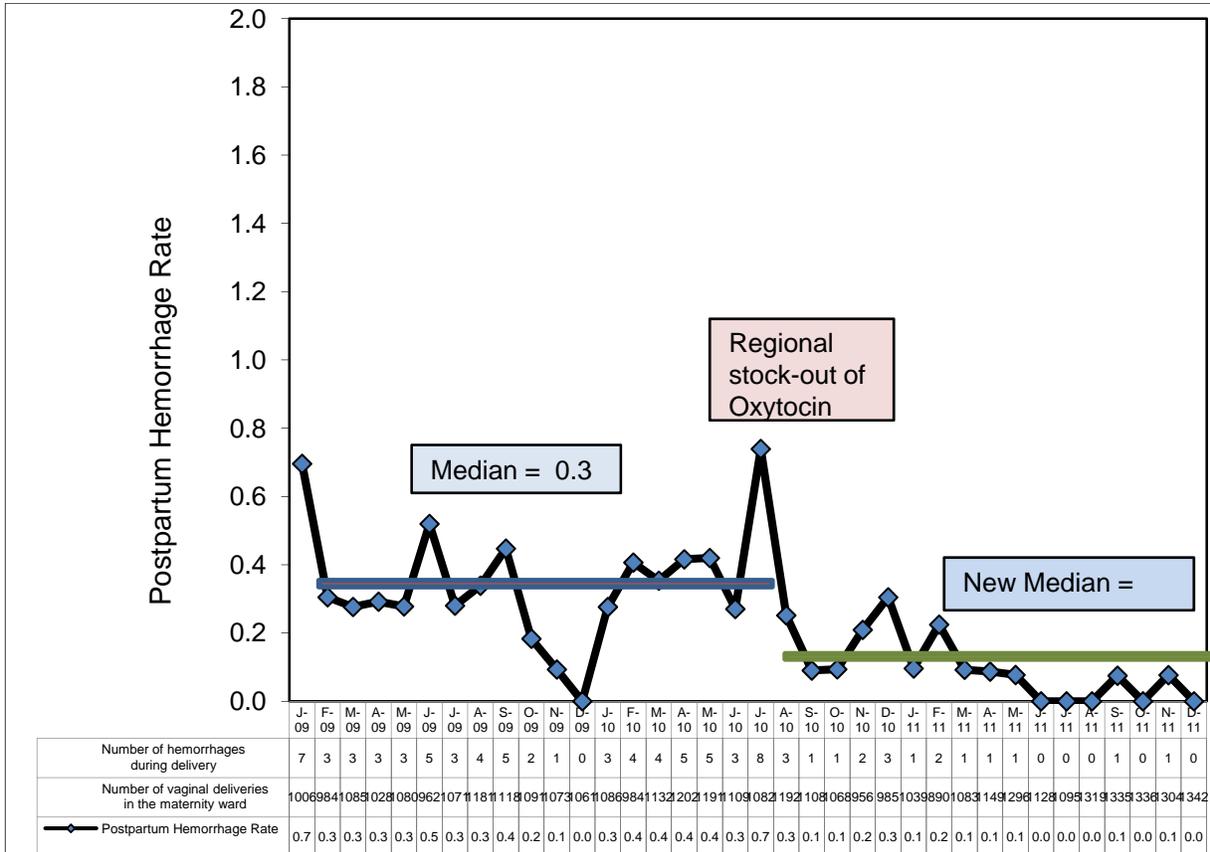
Other changes made at the primary care centers included setting clear objectives for all staff, creating a new FP position, conducting weekly FP data analysis to ensure contraceptive pills would be available, and developing specific performance criteria and feedback based on data gathered at the facility.

**Figure 14: Contraceptive Prevalence Rate, All Collaborative Sites, 2009–2011**



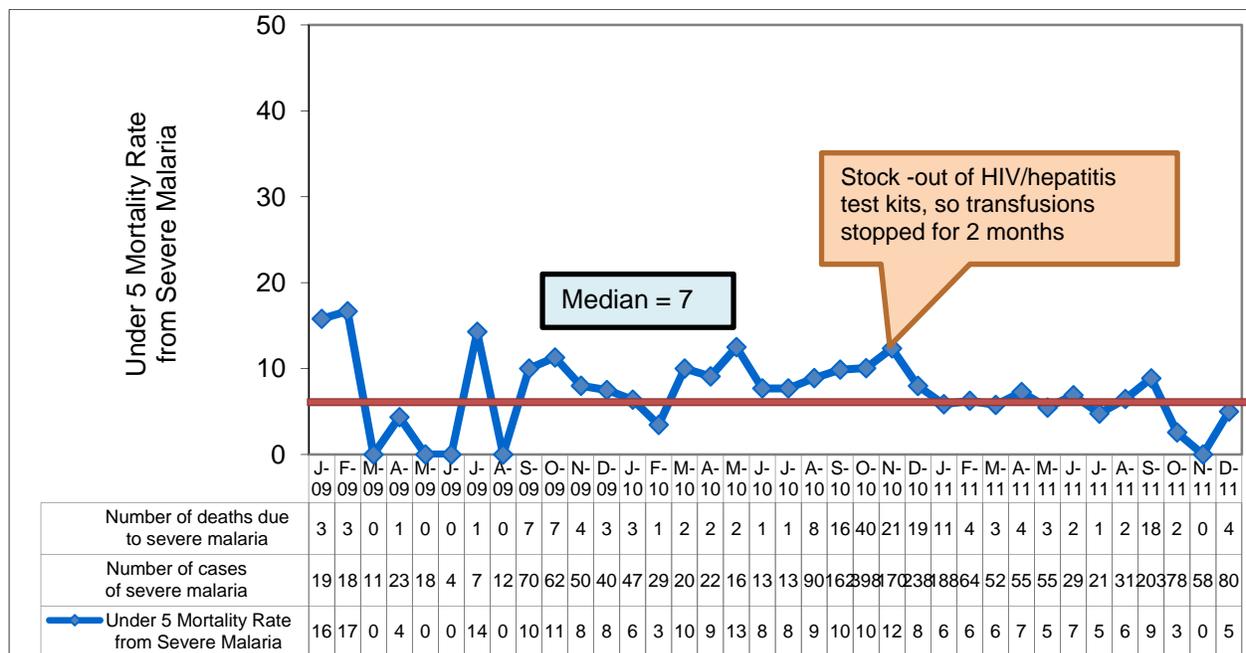
The postpartum hemorrhage rate across all participating sites fell during the collaborative (Figure 15) and remained below 0.1%, the national PPH goal, between March 2011 and December 2011. The July 2010 spike was due to a regional stock-out of Oxytocin, which is used to prevent PPH.

**Figure 15: PPH Rate, Collaborative Sites, 2009–2011**



The final clinical indicator, treatment of severe malaria in children under five, applied only to the Tahoua Regional Hospital's Pediatrics unit, which did not join the collaborative until August 2009. Before that, the indicator was very unstable: Few client charts were kept, and none was properly completed. The unit completed task alignment in September 2009 and set its indicator target for under-five malaria mortality at below 15%. During the first year of the pediatrics unit's tracking of the indicator (October 2009 to October 2010), a QI team in the unit developed new malaria management processes, which provided that each patient had a completed file and a clear patient pathway. Also, health workers developed clear job descriptions. An October 2010 stock-out of HIV/Hepatitis test kits caused a two-month cessation of transfusions. From then on (December 2010 to November 2011), health workers had clear tasks, processes were clear, and many changes for improvement were tested. Figure 16 shows that during that period the case fatality rate fell and leveled out. The indicator target for 2011 was below 10%; at the end of the collaborative, it was below 5%.

**Figure 16: Mortality from Severe Malaria Among Children Under Five Years, Collaborative Sites, 2009-2011**



### C. Views of Health Workers and QI Teams

The midline assessment interviewed health workers and RHMT members to gain their perceptions of the HR collaborative, specifically the impact that Objectives 1–3 had had on their work.

When asked about what activity they thought had an impact on performance at their site, health workers cited the development of clear job descriptions with rationalized tasks and the monitoring of clinical and HR indicators. RHMT members noted that the development of clear job descriptions with rationalized tasks had had a very positive impact on participating sites' performance. When health workers were asked to name one of the biggest successes of their QI teams, they cited the knowledge of each member's tasks and objectives as well as the spirit of teamwork engendered by QI activities.

Health workers and RHMT members were asked what aspects of the HR system still needed improvement. The workers noted that continuous training, motivation, work conditions, and staff turnover still needed improvement. RHMT members cited the need for ways to motivate workers, more materials and resources, lighter workloads, and better coaching.

Overall both health workers and RHMT members felt very positively about the changes achieved through the collaborative and that it had had a positive impact on both working conditions and performance. Both groups felt that Objective 1 was the most influential in helping sites to improve performance. Moustapha Boukary, Head of Tsernaoua Health Post, said, “Before the HR Collaborative, we worked in unclear and cloudy conditions, but when we started aligning goals and objectives, we saw a clear direction.”

During the endline assessment, health workers and managers were asked for their perspectives on the human resources improvement intervention. Asked what the most exceptional achievement had been for them, health center staff cited the reorganization of the work, better care for patients, a way to solve problems, a more balanced workload, and improved attitude among all health workers to achieve results. When asked which step(s) of the process was most critical, nearly all indicated the first but also several others, including competency development, evaluation criteria, and rewards/consequences. Among the greatest challenges, they cited too little coaching, turnover, stock-outs, and the absence of key people during QI meetings. They all asked that their sites continue the work they had begun and that coaching support continue.

All 20 managers reported having similar views. A large majority said that the alignment of goals and the organization of work had increased productivity and efficiency. Several also stated that skill development and evaluation criteria had been critical. As remaining challenges, they cited too little coaching, turnover, and the disengagement of certain managers.

#### **D. Institutionalization and Spread**

A national level meeting was held in Niamey in August 2010 to discuss the results to date of the HR collaborative and how to institutionalize the process and spread it at national level. Over 150 participants from the MOPH attended the meeting. Four QI teams from each level of the system—primary care center team, district hospital team, district health management team, and regional health management team—presented their results and achievements for Objectives 1-3. The results were so impressive that strategies were discussed for how to implement this process on a national scale. At the meeting, the MOPH signaled its intention to integrate this approach to strengthening human resources management into its national health plan for 2010-2015.

In June of 2011, the MOPH conducted a training workshop for all of Tahoua’s health workers in the HR/QI approach in order to first complete the spread within all health facilities of the region. In July, August, and September of 2011, successive launch meetings were held in the regions of Maradi, Tillaberi, and Zinder to begin the HR/QI work. HCI coaches participated in these meetings along with Tahoua representatives and selected QI team leaders.

Beginning in July 2011, both Maradi and Tillaberi began to officially implement the performance management improvement process, although it had become clear that activities at the site level had already begun to develop job descriptions. Maradi had made their own financing available and asked for technical assistance from the HCI coaches to help them with the process.

In January 2012, the MOPH held a Training of Trainers workshop to train all of the health directors and human resources managers in the eight districts of the Tahoua region how to implement the performance management process fully across the region. The training was co-facilitated by the Director General and his deputy, with assistance from HCI field staff. The trainer’s guide and materials were developed with support from HCI common agenda funds.

Implemented in each of the eight health districts within the Tahoua region (Illela, Konni, Madaoua, Bouza, Keita, Tahoua, and Tchintabraden Abalak), a full day in each district was dedicated to introducing and spreading this approach to all clinical directors and heads of facilities, in addition to other clinical and administrative staff. Each workshop had at least 20 participants. Tahoua regional, district, and facility staff

that participated in the HR collaborative served as trainers for other sites and shared the experiences they gained during the implementation of the collaborative.

The objectives of the district-level workshops were:

1. To introduce the concepts of quality improvement and the collaborative improvement process
2. To review the achievements, constraints, and opportunities associated with HR performance management
3. To introduce some of the concepts important to HR performance management (engagement, productivity, retention)
4. To present the evaluation results from the HR collaborative
5. To review the improvement objectives and the HR change package from the Tahoua region
6. To share the structure and associated activities carried out to support implementation of the HR performance management cycle
7. To present the implemented changes and results from the application of the HR performance management cycle
8. To plan the implementation of HR performance improvement activities in the district

By sharing experiences related to the implementation of the HR collaborative in Tahoua, participants acquired additional knowledge about collaborative improvement and the objectives of the HR performance management improvement process. While individuals were enthusiastic about the process, it was acknowledged that human resource and facility managers must also be involved.

In addition, a special recognition was awarded to Ms. Lauren Crigler for her contribution to the health sector and to human resources for health in Niger, for introducing this new approach to human resources in the country. The award was signed by the Director General of the Ministry of Health and is felt to be an enormous honor.

#### IV. DISCUSSION

Our most striking finding from the Niger HR collaborative is that teams of facility workers and managers worked together to improve their performance management processes and thereby significantly improved their performance, leading directly to better health care. The QI process – with its focus on the health care team, the frequent measurement of indicators, and small tests of change – enabled facility health workers (and gardeners, chauffeurs, etc.) to adapt international best practices in performance management to improve their work situations and the quality of care. But these improvements did not come quickly or easily, and teams were challenged with discovering ways to implement ideas and test changes that had never before been tested in their environment.

Knowing in advance that there would be challenges to implementing this first HR collaborative, HCI selected Niger for this innovative approach to improving human resources for the following key reasons:

- 1) There was a clear need to improve the HR systems in Niger, described by the Regional Director in Tahoua (Dr. Seidou Ekoye, currently Secretary General of the MOPH) who originally requested the assistance in this area.
- 2) URC, through the QAP and HCI projects, has invested many years in building capacity in quality improvement in Niger, and in Tahoua specifically. Although only five of the sites had participated in earlier collaboratives, the MOPH, coaching staff, and QI team leads were well-versed in the collaborative methodology.
- 3) The HCI regional team in Niger is extremely strong and contains several experts in QI and evaluation. The content knowledge the team needed to acquire was in human resources, and this expertise was provided by headquarters, which drafted the original change package.

- 4) Dr. Ekoye was extremely enthusiastic and an invaluable leader and champion throughout the process. During the second year of the collaborative, he was shifted to the central level and became the Secretary General for the MOPH and was therefore instrumental in supporting the institutionalization of the process in Niger.

In Niger, as with many developing countries, HR management was viewed as the responsibility of the MOPH and other relatively scarce, trained HR managers. Most of the HR systems were non-functioning: health workers were hired and deployed in a scattered manner, over-staffing urban centers and under-staffing rural centers. Job descriptions and performance evaluations were relatively unknown and very generic, leading to mistrust and lackluster performance among health workers. Supervision visits were rare, and rarely focused on the clinical priorities of the facility and the region. The MOPH had made an attempt to provide bonuses to health workers in difficult environments but had failed to communicate and implement the bonus plan. Health workers had no knowledge of what a career path should be or where they were in theirs. And finally, health workers and managers alike did not consider these systems to be anything they themselves could affect, change, or improve – rather they had to wait for the MOPH HR department to do. The collaborative's democratization of HR processes had everyone involved participate in determining what their job should be; how they worked best; what they needed to learn and who could teach them; and, ultimately, what needed to be done to improve care.

The change package provided guidance but no specific solutions to the challenges; no step-by-step strategy was available on how to align goals from the national to the individual level or how to determine what skills health workers needed. Each of these steps required long discussion and debate by coaches and teams. Together they figured out the indicators and tools for sites to test before they moved forward on any indicator. The slow, careful development and testing process for each step required a great deal of time, but the end result was not only improvement in the clinical indicators but also, we expect, a lasting change rooted in a better HR foundation. The final change package (Appendix I) describes what teams can undertake to implement this kind of process, providing examples of indicators, steps, and changes the teams used.

Step 1 was the most difficult for workers and managers and required nine months to complete. However, it enabled implementation of subsequent steps and reaped substantial initial results that created enthusiasm in Tahoua and the MOPH. Presenting these positive initial results at a national level meeting started the policy dialogue that led to adopting the process nation-wide. One might believe that it alone would suffice; however, completing Steps 2 and 3 showed that what was established in Step 1 was supported and strengthened by the subsequent steps. These later steps clarified tasks, built the right skills, and provided feedback for continuous improvement.

Step 4, Performance Evaluation, required more support from regional and central level management, but also began to concretely connect the purpose of the work for health workers. In a country where no performance evaluation was implemented because both health workers and supervisors considered it biased, the ability to contribute to the conversation of developing distinct evaluation criteria became very meaningful to health workers and supervisors. Most teams succeeded in developing evaluation criteria, and the collaborative as a whole, in conjunction with central management, agreed on both general criteria for behavior as well as specific performance criteria. However, only 25% of participating health workers had actually been appraised using the criteria before the collaborative's conclusion. Likewise, Step 5, Reward and Consequence, required MOPH support, and although most sites developed a rewards and consequences plan, few had time to actually implement it.

Career Path (Step 6) fell squarely on the shoulders of the MOPH and was not fully implemented, although it was discussed and debated. Still, because of its inclusion in the change package, managers and the MOPH became aware that health workers did not know what kinds of career opportunities existed; did not know that there were bonuses offered for difficult environments; and, worse, did not know to whom to go for answers to questions or to address complaints. Step 7, Adequate

Environment, was not addressed as part of the collaborative, but interviews with health workers during the endline assessment showed that they felt their environment had improved. Given the same circumstances, we would recommend implementing this step throughout the collaborative period.

The control samples for the baseline, midline, and endline assessments were too small to support major conclusions on the differences between the two samples. Also, it was clear that after July 2010, when the initial results were shared at a national meeting, the control regions began to implement the process on their own. Therefore, it is likely that the control sample was affected. However, the dramatic improvements in the intervention sample in nearly all clinical indicators, many with a major shift in improvement occurring mid-way through the collaborative activities, is evidence that improvements occurred due to the collaborative work and not some other event. Also, while some results appear inconsistent—for example, the discrepancy between the collaborative results (98%) and the end line results (67%) in terms of proportion of health workers with a job description—they can be explained as evaluation samples were drawn from the entire facilities (i.e., all personnel working at the hospital) rather than personnel in the maternity unit and the antenatal care units who'd been involved in the work of the collaborative.

At the outset of the activity, the HCI team and the MOPH believed that productivity would improve if this work was successful, and that health workers would be more motivated. This proved to be the case, although the tools and methods used to measure the facility-level changes could not fully capture how much more motivated and productive teams were. Facility managers, QI team coaches, and health workers all claimed that the process motivated everyone involved and that teams worked smarter, not longer. Note (Table 10) that the higher level cadres spent less time on direct patient care while the lower level ones increased direct patient and indirect patient care.

The nature of the performance cycle requires that most indicators reflect individual health workers and not numbers of sites or categories of health worker. For example, job descriptions were developed for each individual specifically; competency assessments were performed person by person. This ensured that during this pilot, the process, tools, and comprehension were thorough and appropriate. These steps in the performance cycle were, however, highly labor intensive. Still, now that they have been developed, the processes can now be transferred to other regions and countries and adapted as appropriate, to work in a simpler, more efficient manner. The Niger HR change package can serve as a basis for future work in any health care setting.

While involving both management and facility-level teams, the facility teams did most of the work. The performance cycle change package was not initially designed for managerial improvements, so the emphasis was on what teams could accomplish in their own environments. This work may have advanced more quickly with two complementary efforts: a facility-based team to implement Steps 1–3 with management support and a management-level team simultaneously implementing Steps 4–6. In addition, Step 6, Career Advancement, requires the participation and collaboration of other ministries; while the collaborative launched with their participation, that linkage was not sufficiently solidified during the collaborative to initiate the motivational forces these ministries could bring to bear. Step 7, which consisted of improving the physical environment for health workers, should be integrated throughout the other steps, as this experience demonstrated.

## V. CONCLUSIONS AND RECOMMENDATIONS

The Niger HR collaborative was an innovative and ambitious approach to improve the performance and quality of maternal/child care in one of Africa's poorest countries. With only one doctor per 35,000 people and one nurse or midwife per 5000, women and children die often and unnecessarily. The scarcity of health professionals will challenge Niger for years to come. However, the HR collaborative experience gave Niger a new way to think about this problem: It yielded evidence that there are many HR problems that teams can solve themselves with managers' help.

This approach offers countries a new way to address the many challenges they face in the health and HR sectors. The clinical results are clear: Skilled deliveries and contraceptive prevalence more than tripled; PPH fell to almost 0; and children are far less likely to die from severe malaria in Tahoua's pediatric hospital. The success of this HR collaborative in Niger leads the authors to believe that the combination of HR management and QI should be refined, improved, and applied in other countries.

Key lessons learned, according to the MOPH, include that through this work they could achieve multiple results from one effort – motivating and growing interest in HR and improving clinical results at the same time. This has helped them create a new vision of HR that is more than counting how many health workers are deployed in which regions – it includes supporting the performance of the health workers already in situ. Supervisors came to understand health worker tasks and at the same time saw the link between health workers' performance, engagement, and clinical results. This work also provided the MOPH with a better idea of efficient workload and adequate staffing – and what task shifting can do. Teams learned to better use what was available, balancing what was possible and not possible to shift simple tasks, making even auxiliary staff more productive.

Also critical to the success of this work is that the MOPH recognized its importance before it began and continues, at this writing, to believe in its potential. Ministry officials report enormous added value from having everyone understand how much power HR performance management can contribute to clinical goals and that performance management is more than generic job descriptions and yearly evaluations. In June 2011, the achievements of the HR collaborative were presented to the incoming Minister of Health during a visit to Tahoua. This work was showcased as a “Best Project” in the region. The Ministry awarded a plaque to an HCI QI Advisor at the close of the collaborative to formally recognize its achievements. The Ministry has integrated the performance management process, indicators, and objectives into its five-year health monitoring plans and supervision visits. The MOPH has also begun to train health professionals in the region in the HR performance management approach and particularly on how coaching must flow from the central level to the region and from the region to the districts.

The RHMT has assumed early ownership of the approach. HCI coaches were used as trainers in the capacity building activity. The regions of Maradi, Tilláberi, and Zinder have begun to implement the performance cycle and have all held their first several learning sessions.

The change package – tested, adapted, and revised – is a living document that other regions in Niger and other countries can apply to improve the performance of health workers in many situations. As with any pilot, there are many lessons learned and recommendations for the future application of this process. Specific recommendations include:

1. A management change package should be developed that could be tested at the same time as the facility-level package. A change package similar to that implemented in Tahoua could be developed for implementation in central Ministry departments and regional management offices.
2. Management and facility levels should work together on HR issues. Facility teams should test changes for their level, and management should scale solutions and revise policy.
3. Temporal relationships should be examined: What must be done stepwise and what can be done at once.

Focusing on improving the performance of health workers by helping them improve their individual and team-based management was shown in Niger to strengthen the overall health program. The change package content and process can be simplified with knowledge gained through the Niger experience. The greatest achievements with the intervention in Tahoua were that health workers became invested in outcomes, clients became more engaged in the services offered, and the process of work improved to better serve women and children.

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## APPENDICES

### Appendix 1: Human Resources Performance Improvement Change Package – Tahoua Region, Niger

Change Concept	Specific Changes	Examples and ideas to implement the changes	Indicators
<b>PERFORMANCE CYCLE STEP #1:</b> Ensure that all workers have a feasible workload with clear expectations and measurable objectives that are in accordance with the organizational goals and health needs of the community. Establish a consistent review process to ensure this step is periodically reinforced.			
<p><b>CLARIFY EXPECTATIONS AND SET OBJECTIVES</b></p> <p><b>Operational Definition</b> The health worker (HW) and the organization (or team, supervisor) agree on exactly what is to be achieved to be successful. These expectations are reviewed and updated on a quarterly basis.</p> <p><b>Best Practices</b> HW participates in the process of articulating expectations and providing feedback.</p> <ul style="list-style-type: none"> <li>▪ A cyclical process is developed for frequent updates, changes and feedback.</li> <li>▪ The basis for capacity development, evaluation and career advancement is established.</li> </ul> <p><b>Lessons Learned</b></p> <ol style="list-style-type: none"> <li>I. It is important to engage</li> </ol>	<p><b>Phase 1: Formulate the objectives of each organization at all levels of health care delivery</b> To begin, management teams must work together to articulate and agree upon:</p> <ul style="list-style-type: none"> <li>▪ The goals of the MOPH and Region and specific goals related to each district</li> <li>▪ Specific and measurable goals for each facility relative to the District, Region and MOH goals</li> <li>▪ Specific services to contribute to facility goals</li> </ul> <p><b>Phase 2: Define clear performance targets for each task</b> Once objectives are clear, analyze tasks and set performance targets. Specific steps include:</p> <ul style="list-style-type: none"> <li>▪ List all jobs in the service areas selected for intervention</li> <li>▪ Describe the functions of each position and profiles of different cadres (e.g., nurse, physician, nursing aid, etc.)</li> <li>▪ Set performance targets for the whole service, jobs within each service, and each health worker for each position</li> <li>▪ List all the tasks currently performed by each health worker for each position</li> <li>▪ Analyze tasks to determine consistency</li> </ul>	<ul style="list-style-type: none"> <li>▪ Interview MOPH personnel and members of regional and district health management teams to gather information about the goals of each group according to MOH priorities</li> <li>▪ Facility directors and staff meet to discuss health requirements or gaps within each facility's catchment area to identify local health priorities and needs</li> <li>▪ Communicate (disseminate, post, and hold periodic meetings) the goals of the central MOPH, regional and district offices, and health facilities to health workers and clients. Discuss how these goals contribute to national goals</li> </ul> <ul style="list-style-type: none"> <li>▪ Each level (region, district, facility) identifies and describes its existing/planned roles and presents them to the QI team and coach for feedback</li> <li>▪ Two HWs with the same duties (e.g., two nurses) write out what they think are the objectives of their daily jobs and present results to the rest of the team or supervisor for feedback. Run PDSA to determine if objectives are consistent. Redesign if needed.</li> <li>▪ QI team interviews HWs to determine existing roles and compares them to needs identified to meet MOPH goals. In sites with many people, sample by cadre.</li> <li>▪ Examine current processes, roles and tasks using the Cross-Functional Flow Chart and</li> </ul>	<p>Specific, measurable performance objectives reviewed periodically</p> <ul style="list-style-type: none"> <li>▪ % of HWs with specific and clearly defined job descriptions</li> <li>▪ Rate of performance, objective review and planning meetings held</li> </ul>

Change Concept	Specific Changes	Examples and ideas to implement the changes	Indicators
<p>workers at all levels (doctors, nurses, midwives, drivers, cleaners, etc.) to make everyone feel part of a team.</p> <p>2. A new initiative, such as the Niger HR Collaborative, can take time for workers to understand, value, and feel engaged in, thus patience and flexibility were important when carrying out and implementing this new concept.</p>	<p>across health worker allocation, performance objective, specific objective, and cadre profile</p> <ul style="list-style-type: none"> <li>▪ Amend and compile the final list of tasks expected by the job and individual</li> <li>▪ Analyze the workload per health worker to determine if it is feasible (analyze the relationship between the time necessary to perform the tasks and the time available)</li> <li>▪ Develop job descriptions based on this final analysis and verification</li> </ul> <p><b>Phase 3: Develop a systematic process to review goals</b></p> <ul style="list-style-type: none"> <li>▪ In order to keep job descriptions current, management teams and health workers review and revise job descriptions periodically</li> </ul>	<p>Matrix. Implement tools with current tasks in a particular activity. Analyze to see if tasks can be streamlined and improved to achieve objective. Redesign tasks and test in a PDSA cycle.</p> <ul style="list-style-type: none"> <li>▪ Two people in each team record all tasks each day. Identify redundancy and wasted time. Eliminate unnecessary tasks. Run PDSA to test.</li> </ul> <ul style="list-style-type: none"> <li>▪ Hold a weekly team meeting to discuss objectives, provide feedback, and problem solve. Record results.</li> <li>▪ Two HWs (peers) meet weekly to discuss objectives, coaching/feedback, and problem-solve. Record results.</li> </ul>	
<p><b>PERFORMANCE CYCLE STEP #2:</b> Ensure that workers have the knowledge and skills to accomplish required tasks as specified in job requirements, are able to build new skills on the job for future tasks, and have the materials and performance support to maintain and improve skill levels.</p>			
<p><b>CAPACITY DEVELOPMENT</b>  <b>Operational Definition</b>            Build skills for worker to accomplish his/her task and to perform new tasks.</p> <p><b>Best Practices</b></p> <ul style="list-style-type: none"> <li>▪ Evaluate whether the HW has the skills and knowledge needed to perform the proposed job</li> <li>▪ Provide mechanisms for the worker to develop the required skills</li> </ul> <p><b>Lessons learned</b></p>	<p><b>Phase 1: Identify the skills and knowledge needed for successful HW performance of expected tasks (redesigned)</b></p> <p>Once the performance objectives are established and the tasks are validated under PC Step #1, the teams must ensure that all HWs have mastered the tasks assigned to them. However, all HWs do not have the same capabilities, experiences, skills and competence. To address this, supervisors must determine the areas in which each HW needs support and develop ways and means to strengthen their skills.</p> <p>The teams should regularly establish ways to determine their peers' opportunities for growth and improvement.</p>	<ul style="list-style-type: none"> <li>▪ Observation during service supervision of care units: Supervisors should record gaps observed during daily activities.</li> <li>▪ Management meetings to identify the main aspects of low-tech during activities: During a team meeting, people discuss gestures and acts in which HWs do not feel comfortable, whatever the technical area (supervision, delivery practice, ANC, FP, etc.)</li> <li>▪ Observation between an active colleague to identify deficiencies / bad practices: A HW is observed by his or her colleague. The latter notes the poorly executed actions. Following the observation, colleagues exchange feedback.</li> <li>▪ Observation by a supervisor: A supervisor or HW, preferably one with experience, is sent as a representative to observe the HWs one-</li> </ul>	<ul style="list-style-type: none"> <li>▪ % of HWs with clearly defined JDs whose skill gaps have been analyzed</li> </ul>

Change Concept	Specific Changes	Examples and ideas to implement the changes	Indicators
<p>1. A clear definition of tasks is needed to implement Improvement Step #2</p> <p>2. Use all the exploratory methods to identify competency gaps</p> <p>3. Practices should be based on on-the-job training</p> <p>4. Low-cost training in an open and sustainable atmosphere is effective</p> <p>5. There are various ways of reinforcing competency</p>		<p>by-one in their activities to identify the HWs' low-tech areas. (Assistants observed by health professionals)</p> <ul style="list-style-type: none"> <li>▪ Discussions during staff meetings: Chart review and other behaviors performed during staff meetings should focus on challenges</li> <li>▪ Asking HWs about the training they received: Due to the lack of records available on each HW, the teams collect information as provided by each HW</li> <li>▪ Literature review: Literature is analyzed to determine the gaps</li> <li>▪ Request for training needs: HWs are explicitly asked about tasks they find difficult</li> <li>▪ Observations during activities: HWs familiar with the approach request capacity building for certain activities</li> <li>▪ HWs' self evaluation: HWs rate their level of competence in performing a task</li> </ul>	
	<p><b>Phase 2: Define specific skills and competencies required for each task/activity</b></p> <p>Once individual shortcomings are identified, the shortcomings of all the HWs of the site are synthesized.</p>	<ul style="list-style-type: none"> <li>▪ Particular issues are discussed as a team and conflicting interpretations are resolved by the team or through expert consultations.</li> <li>▪ Shortcomings are classed by category and frequency.</li> </ul>	
	<p><b>Phase 3: Identify areas of expertise to be reinforced for the whole site</b></p>	<ul style="list-style-type: none"> <li>▪ Areas of competence building are prioritized based on structure and available resources.</li> </ul>	
	<p><b>Phase 4: Provide on-the-job training and support to reinforce techniques</b></p> <p>Once areas of reinforcement are identified, synthesized and prioritized, the teams proceed to reinforce their competence.</p>	<p>The teams may use several strategies to support their knowledge:</p> <ul style="list-style-type: none"> <li>▪ Discussion between colleagues or during EAQ meetings to reinforce best practices regarding an effective technique or action</li> <li>▪ Briefing of other HWs by a peer (experienced) or supervisor on the area of concern</li> <li>▪ Practical demonstration by a peer, a supervisor, or among HWs themselves</li> </ul>	<ul style="list-style-type: none"> <li>▪ % of HWs with a JD whose skill gaps have been analyzed and closed</li> </ul>

Change Concept	Specific Changes	Examples and ideas to implement the changes	Indicators
		<ul style="list-style-type: none"> <li>▪ On-site formal trainings</li> <li>▪ On-the-job training for HWs</li> <li>▪ Appeal to an on-site expert to train HWs</li> <li>▪ Consult with external experts for further training on techniques and advisement on case management protocols</li> <li>▪ Design training modules to reinforce specific lessons</li> <li>▪ Collect and set up equipment and tools needed for trainings</li> <li>▪ Theoretical presentations</li> <li>▪ Practical exercises</li> <li>▪ Practical trainings</li> <li>▪ Supervision of HWs</li> <li>▪ Prepare guidelines detailing how to execute specific techniques or implement protocols</li> </ul>	
	<p><b>Phase 5: Use job aids and equipment to support performance and learning</b></p>	<ul style="list-style-type: none"> <li>▪ Record an inventory of existing job aids</li> <li>▪ According to the areas of competence to be reinforced, trainers and/or teams create modules and training guides. Some pages from these guides are then removed and displayed in workstations as job aids</li> </ul>	
<p><b>PERFORMANCE CYCLE STEP # 3:</b> Ensure that workers receive frequent feedback on their performance according to defined expectations, and are able to discuss issues and challenges in an open and supportive environment.</p>			
<p><b>FEEDBACK AND PERFORMANCE SUPPORT</b></p> <p><b>Operational Definition</b> Provide and receive feedback regarding performance, agreed upon expectations, possible difficulties and obstacles, and skill development. Include options for HWs to address</p>	<p><b>Phase I: Establish an open discussion framework with the HWs on their performance</b></p> <ul style="list-style-type: none"> <li>▪ Establish a democratic discussion forum</li> <li>▪ Hold regular discussions on the performance of each HW</li> <li>▪ Hold everyone responsible for performance</li> <li>▪ Share accountability in the progress and overall performance of the site</li> <li>▪ Encourage HWs to engage in open</li> </ul>	<p>The Clinical Level:</p> <ul style="list-style-type: none"> <li>▪ Monthly meeting with HWs, supervisors/coaches and staff on feedback from trainings: Hold regular meetings, particularly each time a HW returns from an offsite training or seminar. The HWs that attend the training debrief others on information gathered at the event.</li> <li>▪ Team-specific meetings: In addition to regular staff-wide meetings, a series of team-specific meetings with specific topics of discussion</li> </ul>	<ul style="list-style-type: none"> <li>▪ % of HWs who have received feedback on performance</li> </ul>

Change Concept	Specific Changes	Examples and ideas to implement the changes	Indicators
<p>confidential matters.</p> <p><b>Best Practice/Lessons Learned</b></p> <ul style="list-style-type: none"> <li>▪ Worker must be convinced that the open exchange is safe and its objective is to improve performance.</li> <li>▪ There must be an ongoing and frequent exchange between HW and supervisor/team/community</li> <li>▪ Development feedback must be relevant and should be given as soon as possible. Specific examples illustrating areas of strong and weak performance are needed.</li> </ul>	<p>discussions</p>	<p>should be established. Agenda items should include discussion of workload and other relevant matters specific to HWs.</p> <ul style="list-style-type: none"> <li>▪ Morning staff meetings: Morning staff meetings should be held to provide a forum to discuss pertinent issues, such as challenges, opportunities, and progress made towards site goals.</li> <li>▪ Staff meetings to improve communication with patients: Staff meetings are held to discuss provider-patient communication at all points of service delivery to increase patient confidence.</li> <li>▪ Post-training evaluation per supervisor: Routine assessment of HW training and performance by supervisors</li> <li>▪ Monthly meeting with DH and management committee</li> </ul> <p>The Managerial Level:</p> <ul style="list-style-type: none"> <li>▪ Quarterly coordination meetings: Quarterly meetings with unit leaders, technical and financial partners, management committee, locally elected representatives, unions, etc. to discuss performance and progress toward meeting program indicators</li> <li>▪ Quarterly performance indicator analysis meeting: Quarterly health review and supervision meeting</li> <li>▪ Supervision of all divisions (district hospitals (DH), primary care center (PCC), reference hospitals) and supervision of vertical programs</li> <li>▪ Regional/district health management team meeting to discuss possible reasons for areas of weak performance</li> <li>▪ Focal point appointments for health center and unit</li> </ul>	

Change Concept	Specific Changes	Examples and ideas to implement the changes	Indicators
	<b>Phase 2 : Share client feedback</b>	<p>In order to assess customers' degree of satisfaction, the QIT may use several strategies:</p> <ul style="list-style-type: none"> <li>▪ DH meeting to discuss provider-client themes and community perceptions of issues including site reception, cleanliness, ethics and deontology, etc.</li> <li>▪ Coordination meeting to allow community representatives (management committees, local representatives) to express comments and concerns to service providers</li> <li>▪ Suggestion boxes in which anyone may anonymously address an issue</li> <li>▪ Customer satisfaction surveys/questionnaires designed by teams and administered to a sample of customers by someone outside the care structure/unit. Survey boxes are regularly analyzed and results are shared with staff during meetings</li> <li>▪ Meeting with community representatives (including some customers) to discuss survey results</li> <li>▪ Survey of client waiting time</li> </ul>	
	<b>Phase 3 : Share facility and service data</b>	<p>To ensure visibility of progress made by QIT and to stimulate healthy competition between teams, the following strategies may be used:</p> <ul style="list-style-type: none"> <li>▪ Quarterly written feedback to PCC regarding indicators and performance during supervision</li> <li>▪ Set up a roadmap and post facility results</li> <li>▪ Publicly display site data/figures</li> <li>▪ Share facility data during coordination meetings, peer to peer reviews, and supervision meetings</li> <li>▪ Share maternity results during meetings with other DH units</li> </ul>	

Change Concept	Specific Changes	Examples and ideas to implement the changes	Indicators
<b>PERFORMANCE CYCLE STEP #4:</b> Ensure workers are assessed fairly, with clear and specific evaluation criteria based on defined and agreed upon expectations. Evaluation must be preceded by expectation-setting and feedback and followed with a systematic reward or consequence proportional to the achievement.			
<p><b>FAIR EVALUATION</b>  <b>Operational Definition</b>            Evaluation provides an assessment of work during a specific period. Evaluation can be individual or team-based.</p> <p><b>Best Practice</b>            Evaluation should be transparent, consistent and based on agreed upon criteria discussed during Implementation Step #3. In order to be meaningful, a merit-based process for reward and/or consequence should be established, as it is important to understand the value of evaluations.</p> <p><b>Lessons Learned</b></p> <ul style="list-style-type: none"> <li>▪ The worker’s evaluation requires an observation sheet with defined criteria listed</li> <li>▪ The evaluation may be performed jointly</li> <li>▪ Improve worker practices through feedback and respect of the observed process steps</li> <li>▪ Complacency grading (if a</li> </ul>	<p><b>Design workers’ evaluation process</b></p> <ul style="list-style-type: none"> <li>▪ Design evaluation criteria that will be used to assess worker performance</li> <li>▪ Define the evaluation process</li> <li>▪ Identify the evaluators</li> <li>▪ Determine the evaluation period</li> </ul> <p><b>Share evaluation process with all workers</b></p>	<ul style="list-style-type: none"> <li>▪ Evaluation criteria includes three major elements:               <ul style="list-style-type: none"> <li>– Conducting the tasks in the process being evaluated (delivery, ANC, FP, etc.)</li> <li>– Performance against the performance objectives (identified during critical tasks alignment / Step 1)</li> <li>– Adherence to administrative regulations</li> </ul>               Each HW is graded based on performance in the three elements listed above. Each element includes separate criteria and a grade is awarded according to importance of the activity. At the end of the evaluation, agents are ranked based on overall grade.             </li> <li>▪ Evaluation process: Evaluation can be made either through direct observation of the HW (by respecting the various stages of the activity process), by investigation (diligence in work) and by analyzing documents during a very specific period (partographs, ANC sheets, FP sheets, record books, etc.). The overall success depends on the good will of the HW, the management and the partnership. Evaluators can be external HWs, supervisors, or colleagues, depending on the performance area, the process and local competence.</li> <li>▪ Evaluation period: The evaluation period varies according to teams (managerial or clinical). It can be quarterly or biannual, or sometimes annual according to the level.</li> </ul> <p>Once the evaluation plan has been designed and adopted, it should be disseminated to all applicable parties.</p>	<ul style="list-style-type: none"> <li>▪ % of HWs with clearly defined performance evaluation criteria</li> <li>▪ % of HWs who have been evaluated according to the criteria</li> </ul>

Change Concept	Specific Changes	Examples and ideas to implement the changes	Indicators
<p>boss or friend is evaluated)</p> <ul style="list-style-type: none"> <li>Requires the creation of an evaluation tool</li> <li>Implementation Steps #1-3 are necessary to achieve Implementation Step #4 (realignment of tasks, identification of areas of competence to be reinforced, competence building, feedback...)</li> </ul>	<p><b>Monitor the recommendations from the evaluation</b></p>	<ul style="list-style-type: none"> <li>At the end of the evaluation, the HWs are informed about the results of their performance. Those with the greatest need for improvement are notified and next steps are taken in order to improve performance.</li> </ul>	
<p><b>PERFORMANCE CYCLE STEP #5:</b> Ensure that workers are recognized and rewarded for good performance, and/or provided with specific feedback on how expectations were not met. Consequences for poor performance should be clearly articulated and understood by the team, supervisor, worker, and community from the outset.</p>			
<p><b>REWARD AND CONSEQUENCE</b></p> <p><b>Operational Definition</b> Employees should expect to be positively or negatively rewarded for stellar and/or poor performance.</p> <p><b>Best Practice/Lessons Learned</b></p> <ul style="list-style-type: none"> <li>Performance-based reward should be tied to specific achievement or performance. The reward can manifest itself in the form of recognition, monetary incentives, or eligibility for new challenges.</li> <li>Consequences should be clearly articulated and understood by the team,</li> </ul>	<p><b>Plan rewards and consequences in advance to</b> avoid misinterpretation of rewards and consequences. Give motivating bonuses to HWs. (For example, if a nurse does a good job and the reward is additional work, this may demotivate the worker)</p> <p>Clearly announce rewards and consequences for strong and weak performance to each agent when specific objectives are established (Step #1)</p> <p><b>Generously reward positive performance</b> with praises and testimonies of satisfaction. Link good performance to specific results and promotion if possible</p>	<p>Designing the reward/consequence plan for HWs (R/C)</p> <ul style="list-style-type: none"> <li>Define the different types of rewards and consequences a HW can receive according to how he/she performs. Eligibility criteria must be defined according to each type of reward. Identify the process and frequency of providing a reward or consequence.</li> </ul> <p>Send R/C plan to all agents</p> <ul style="list-style-type: none"> <li>Prior to publishing the R/C plan, inform each HW about its content and principles</li> </ul> <ul style="list-style-type: none"> <li>Each HW is graded based on evaluation results. Compare grades with the reward grid to determine score range. Lastly, follow up with the agent based on the R/C plan.</li> </ul>	<ul style="list-style-type: none"> <li>% of facilities that have developed a reward and consequence plan for health workers</li> <li>% of HWs who have been rewarded or penalized according to R/C plan</li> </ul>

Change Concept	Specific Changes	Examples and ideas to implement the changes	Indicators
<p>supervisor, performer and community from the outset if possible.</p> <ul style="list-style-type: none"> <li>▪ Consequences may include loss of incentives (income), poor performance ratings, lower appraisal ratings, and negative recognition.</li> </ul>			
<p><b>PERFORMANCE CYCLE STEP #6:</b> Offer all workers, regardless of level, opportunities to develop and grow in their careers. Ensure that workers understand what opportunities are available and what requirements must be met in order to progress professionally.</p>			
<p><b>PROFESSIONAL ADVANCEMENT Operational Definition</b> Next steps in career or in profession – can include deeper development of skill rather than promotion, or changing job expectations to include more of the kind of work the agent wishes to perform.</p> <p><b>Best Practice/Lessons Learned</b> Professional advancement should highlight strengths and develop weaknesses – promoting people without preparing them for the advancement creates bad performance. Ensure that training is provided in new areas (i.e. management skills).</p>	<p>A. Discuss individual performance plans with health workers to understand each worker’s long-term professional goals</p> <p>B. When promotion is not an option, seek other ways to help the agent to develop</p> <p>C. Set up a mechanism for documenting and tracking the professional goals of each agent (HR information system)</p>	<p>(Note: Teams did not fully complete this step. Activities below relate to Specific Change C [Establish a mechanism for documenting and tracking agent careers; HR information system] in the change package.)</p> <ul style="list-style-type: none"> <li>▪ As part of implementing this step, all HWs in the Tahoua region were asked to send in writing their issues relating to promotion, irregularity of incidence, tenure, regulation of transport costs, National Social Security Fund (CNSS) registration, family allowance, retirement, etc. to the DRSP</li> <li>▪ A summary of these issues was compiled and union representatives were involved in a 14-day mission to investigate the status of HW complaints with Ministry officials. The Head of Human Resources Management Service of the DRSP met with representatives from the Ministry of Public Health, the Ministry of Public Service and the Ministry of Economy and Finance. Several situations of irregularity were addressed and causes were determined.</li> <li>▪ The following results were noted: <ul style="list-style-type: none"> <li>– Contractual health workers were registered with the Social Security National Fund</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ % of HWs who are aware of career path and rewards such as bonuses offered</li> </ul>

Change Concept	Specific Changes	Examples and ideas to implement the changes	Indicators
		<ul style="list-style-type: none"> <li>- HWs' failure to automatically advance was often because grades did not reach the Ministry in a timely manner</li> <li>- Several request files were introduced</li> <li>- Adjustments of some cases are still pending in the administration pipeline</li> <li>▪ Workers whose cases required follow up were contacted and asked to provide additional documents for their missing files. Those in charge of units were instructed to grade the agents and send the grades to the DRSP within a specified timeframe to avoid delays at the Ministry.</li> <li>▪ Concurrently, a health worker census mission in the region traveled to all the districts to identify workers and follow up with those whose files were incomplete. The missing information was then sent to the respective departments in the Ministry.</li> <li>▪ Finally, a track record was sent to the DRSP to assist with better planning the retraining / training of agents.</li> </ul>	
<b>PERFORMANCE CYCLE STEP #7:</b> Ensure that every health worker operates in a safe and adequate environment. NOTE: THIS STEP WAS NOT IMPLEMENTED DURING THIS COLLABORATIVE.			
<p><b>SAFE AND ADEQUATE ENVIRONMENT</b>  <b>Operational Definition</b>            A safe environment refers to both the physical and emotional safety of workers.</p> <ul style="list-style-type: none"> <li>▪ Physical safety includes protection from violence, infection prevention, and prevention of possible harassment on the job.</li> <li>▪ Emotional security includes</li> </ul>	<ul style="list-style-type: none"> <li>▪ Ensure both emotional and physical safety conditions for health workers</li> <li>▪ Provide support to providers dealing with difficult/extreme situations or confidential concerns</li> <li>▪ Ensure an environment that provides the basic needs in terms of materials, equipment, medicine and supplies to allow health workers to achieve their objectives and perform their required tasks</li> <li>▪ Provide support for health workers who face difficult/extreme situations or</li> </ul>	<ul style="list-style-type: none"> <li>▪ Ensure that open discussions allow health workers to freely talk about security concerns at work, especially as they relate to their role and tasks</li> <li>▪ Connect security requirements with the expectations placed on both individuals and teams. (e.g., working night shifts; working in infectious diseases)</li> <li>▪ Periodically evaluate the security conditions using observable and measurable indicators for teams and individuals</li> <li>▪ Periodically evaluate the availability and</li> </ul>	<ul style="list-style-type: none"> <li>▪ % of HWs who state work environment is adequate</li> </ul>

Change Concept	Specific Changes	Examples and ideas to implement the changes	Indicators
<p>support to health workers who deal with the heavy burden of caring for gravely sick patients and/or work far from their homes and families.</p> <p><b>Best Practice/Lessons Learned</b></p> <ul style="list-style-type: none"> <li>▪ Workers need to feel safe from physical harm, including infection and violence</li> <li>▪ Workers need to feel safe discussing challenges and confidential matters</li> <li>▪ Work environment should provide essential tools, supplies and equipment necessary to carry out expected tasks</li> </ul>	<p>confidential problems</p>	<p>working order of supplies needed to perform well in a safe environment (e.g., gloves, needle boxes, medicines, supplies)</p> <ul style="list-style-type: none"> <li>▪ Offer support/peer groups for providers facing challenges (i.e. HIV infection, heavy client burdens, new task assignments). Ask HWs to complete confidential slips of paper allowing them to identify areas where help is needed. If common suggestions or issues arise, work with district teams or facility to hold an afternoon tea session and invite HWs to discuss the issue. Ask for external participation (from another facility) if useful</li> <li>▪ Provide education and counseling on infection prevention, gender-based violence, or other confidential concerns through a support line, literature, identified counselor, etc.</li> <li>▪ Support problem solving through different mechanisms adapted to the field context</li> </ul>	

## Appendix 2: Productivity Results

**Table A-1: Productivity of Staff Observed During the Baseline Assessment (March 2009) and the Final Assessment (October 2011)**

Cadre	Baseline (2009)			Final (2011)		
	N=33	Median (% productivity)	Range (% productivity)	N=33	Median (% productivity)	Range (% productivity)
Doctors	5	78	66-79	5	64	52-71
Nurses	11	44	17-67	8	44	26-86
Midwives	7	63	17-90	8	46	15-89
Technicians	3	55	44-67	8	45	2-86
Social workers	3	29	12-33	1	35	35
Auxiliary staff	4	19	5-39	3	20	15-60

**Table A-2: Productivity of All Staff Observed During the Final Assessment, October 2011**

Cadre	N=33	Median (% productivity)	Range (% productivity)
Doctors	5	64	52-71
Nurses	8	44	26-86
Midwives	8	46	15-89
Technicians	8	45	2-86
Social workers	1	35	35
Auxiliary staff	3	20	15-60
Total	33	50	2-89

**Table A-3: Time Use of Staff (%) Observed During the Final Assessment by Activity, October 2011**

Activity	Tahoua (%)	Maradi+ Tillaberi (%)	HD Tahoua (%)	CSI Tahoua (%)	MTT (%)	Total Median%
<b>n =</b>	<b>27</b>	<b>6</b>	<b>12</b>	<b>6</b>	<b>9</b>	<b>33</b>
1. Direct patient care	30	5	42	23	20	28
2. Indirect patient care	10	6	14	10	10	10
3. Work off-site	0	0	0	0	0	0
4. Meetings and administration	0	0	0	0	0	0
5. Training	0	0	0	0	0	0
6. Cleaning/preparation	0	0	0	3	0	0
7. Waiting for patients	13	1	4	10	29	13
8. Breaks	0	9	0	9	0	5
9. Socializing	0	19	1	0	0	0
10. Absence	15	27	21	15	15	20
11. Other	3	0	3	5	0	0

**Table A-4: Time Use of Staff (%) Observed During the Final Assessment by Activity and Cadre, October 2011**

Activity	Doctor	Midwife	Nurse	Tech	Social	Auxil
<b>n =</b>	<b>5</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>1</b>	<b>3</b>
1. Direct patient care	49	25	29	19	5	4
2. Indirect patient care	3	21	15	21	30	23
3. Work off-site	0	0	0	0.3	0	0
4. Meetings and administration	8	0.3	1.8	0	0	0
5. Training	0	0	0	0	0	0
6. Cleaning/preparation	0.6	1	0.9	0.3	0	7
7. Waiting for patients	9	10	11	9	15	32
8. Breaks	3	5	7	5	5	1
9. Socializing	6	2	5	7	30	2
10. Absence	15	26	23	32	15	24
11. Other	2	6	4	3.8	0	7

## Appendix 3: Health Worker Engagement Results

**Table A-5: Employee Engagement Score by Facility Type Based on Literacy, 2011**

Facility Type	Literate	Illiterate
Regional Hospital (Maradi)	3.7	4.0
Health Centers (Tahoua)	4.2	4.2
District Hospitals (3 regions)	3.8	4.1
Regional Hospital (Tahoua)	3.9	3.9
Total	3.9	4.1

**Table A-6: Employee Engagement Score by Region Based on Literacy, 2011**

Region	Literate	Illiterate
Tahoua Region	3.9 (n=90)	3.8 (n=43)
Maradi & Tillaberi Regions	3.8 (n=46)	4.1 (n=30)

**Table A-7: Employee Engagement Score by Facility Type Based on Literacy, 2009 and 2011**

Facility Type	Literate		Illiterate	
	2009	2011	2009	2011
Regional Hospital (Maradi)	3.7	3.7	4.1	4.0
Health Centers (Tahoua)	3.8	4.2	3.4	4.2
District Hospitals (3 regions)	3.7	3.8	3.9	4.1
Regional Hospital (Tahoua)	3.6	3.9	4.2	3.9

**Table A-8: Employee Engagement Scores Based on Survey Questions, 2011**

<b>Assessment of employee engagement</b>	<b>Literate (n=138)</b>	<b>Illiterate (n=73)</b>	<b>Total (n=211)</b>
1. I believe that my duties as a health worker are important	4.7	4.8	4.7
2. I know what is expected of me at work (defined objectives)	4.5	4.7	4.6
3. I feel respected at work	4.2	4.6	4.4
4. I have all the equipment and tools I need to perform well at work	<b>3.1</b>	<b>3.5</b>	<b>3.2</b>
5. My supervisor or someone else at work cares about my wellbeing	<b>3.7</b>	4.6	4.0
6. When I am having problems at work, I am able to resolve them with the help of others	4.4	4.4	4.4
7. I have a close friend at work with whom I share my thoughts or problems	4.0	4.3	4.1
8. My opinions seem to be considered at work	<b>3.9</b>	4.0	4.0
9. My supervisor or someone at work gives me feedback on my job performance	<b>3.7</b>	4.1	<b>3.8</b>
10. I have enough opportunities for professional growth and development at work	<b>3.6</b>	<b>3.1</b>	<b>3.4</b>
11. There is someone at work that supports my professional development	<b>3.7</b>	<b>3.9</b>	<b>3.8</b>
12. In the past seven days, I received recognition or was awarded for performing well	<b>2.4</b>	<b>2.4</b>	<b>2.4</b>
13. I think that I am evaluated based on the quality of my work	<b>3.5</b>	<b>3.7</b>	<b>3.6</b>
14. My colleagues listen carefully to my ideas and opinions	4.1	4.1	4.1
15. I can make important decisions about how I do my work	4.1	4.2	4.2
16. I am happy to be working at this health facility	4.0	4.5	4.2

**Table A-9: Employee Engagement Scores Based on Survey Questions, By Region, 2011**

Assessment of employee engagement	Literate		Illiterate	
	Tahoua (n=90)	Maradi + Tillaberi (n=46)	Tahoua (n=43)	Maradi + Tillaberi (n=30)
1. I believe that my duties as a health worker are important	4.7	4.6	4.7	4.8
2. I know what is expected of me at work (defined objectives)	4.5	4.4	4.7	4.7
3. I feel respected at work	4.3	4.1	4.5	4.8
4. I have all the equipment and tools I need to perform well at my job	<b>3.0</b>	<b>3.2</b>	<b>3.1</b>	4.0
5. My supervisor or someone else at work cares about my wellbeing	<b>3.8</b>	<b>3.5</b>	4.5	4.7
6. When I am having problems at work, I am able to resolve them with the help of others	4.5	4.3	4.4	4.4
7. I have a close friend at work with whom I share my thoughts or problems	4.0	4.0	4.2	4.6
8. My opinions seem to be considered at work	4.0	<b>3.7</b>	4.2	<b>3.7</b>
9. My supervisor or someone at work gives me feedback on my job performance	<b>3.7</b>	<b>3.5</b>	4.2	3.9
10. I have enough opportunities for professional growth and development at work	<b>3.7</b>	<b>3.5</b>	<b>3.7</b>	<b>2.3</b>
11. There is someone at work that supports my professional development	<b>3.6</b>	<b>3.8</b>	<b>3.8</b>	4.1
12. In the past seven days, I received recognition or was awarded for performing well	<b>2.5</b>	<b>2.3</b>	<b>2.9</b>	<b>1.7</b>
13. I think that I am evaluated based on the quality of my work	<b>3.5</b>	<b>3.4</b>	4.3	<b>3.0</b>
14. My colleagues listen carefully to my ideas and opinions	4.1	4.1	4.0	4.3
15. I can make important decisions about how I do my work	4.1	4.1	4.0	4.6
16. I am happy to be working at this health facility	4.1	3.9	4.7	4.3

**Table A-10: Health Worker Responses Related to the Drivers of Employee Engagement, March 2009 and October 2011**

<b>Topics</b>	<b>Health Worker Responses</b>	<b>2009 (n=53)</b>	<b>2011 (n=47)</b>
Expectations	Have clear tasks for which they are responsible	81%	85%
	Have a written job description	8%	46%
	Have a copy of their job description	0%	100%
Training	Participated in at least one training workshop the previous year	77%	79%
	Did not know how participants were selected	55%	
	Thought training participants were selected according to needs	19%	
	Main topics of training: family planning, immunizations), prevention of mother-to-child transmission of HIV, reproductive health, and essential obstetric and newborn care	Yes	Yes
Supervision	During the last six months, received at least one supervisory visit	47%	63%
	Of these, how many received no more than one supervision visit?	- 56%	- 42%
	Of these, how many received more than one supervision visit during the period?	- 44%	- 58%
	Topics covered during supervision: discuss problems workers might have, review records, and sometimes provide feedback on performance Updates regarding technical questions, direct observation of the health worker, and updates about administrative questions were not covered often during supervisory visits		
Work environment	Thinks the space they work in is inadequate	56%	25%
	Level of comfort for personnel is insufficient	48%	25%
	Lack equipment	47%	37%
	Drugs are insufficient	40%	25%
Evaluation	Thinks a formal system of performance evaluation exists	6%	21%
Bonuses and non-financial compensation	Aware of a bonus system	25%	36%
	Had ever received a bonus	13%	-
	Aware that sanctions exist for poor performance	34%	64%
	Cited verbal recognition as a form of non-financial compensation	61%	33%
	Cited training as a form of non-financial compensation	19%	29%
	Cited written recognition as a form of non-financial compensation	10%	7%
	Cited verbal recognition as a form of non-financial compensation by clients	59%	67%
Cited food as a form of non-financial compensation by clients	11%	-	
Retention	Intend to stay in their current post: Reasons motivating them to stay:	68%	70%
	- Possibility to be with their spouse	33%	93%
	- Schools	14%	75%
	- Proximity to home	14%	80%
	- Living conditions	14%	100%
	- Remaining in their hometown	11%	85%
	- Other	14%	100%
	Conditions that might increase their motivation to stay in their position:		
	- Possibility of receiving training	40%	84%
	- Better living conditions	26%	73%
- Additional money	21%	43%	



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