NIGER: QUALITY IMPROVEMENT FOR MATERNAL-NEWBORN HEALTH SERVICES

ESSENTIAL OBSTETRIC AND NEWBORN CARE COLLABORATIVE

BACKGROUND
On average a Nigerien woman faces a 1 in 7 risk of dying from pregnancy complications over the course of her lifetime, one of the highest maternal mortality risks in the world. Post-partum hemorrhage (PPH) is the leading cause of maternal mortality in Niger followed by sepsis and eclampsia. For every maternal complication, there is a high rate of newborn death and morbidity. In 2006, USAID’s Quality Assurance Project launched the Essential Obstetric and Newborn Care (EONC) Collaborative in Niger to improve quality of maternal and newborn care services according to evidence-based best practices.

The collaborative is being implemented in phases. In its first phase (2006-2007), the EONC Collaborative introduced basic infection prevention, Active Management of the Third Stage of Labor (AMTSL), and Essential Newborn Care (ENC), high-impact intervention packages that have been demonstrated to reduce post-partum hemorrhage and newborn mortality but have been historically absent in Nigerien MOH health services.

AMTSL is an immediate post-partum package of three interventions demonstrated to reduce PPH by over 60%; administration of a uterotonic agent (e.g., Oxytocin injection), controlled cord traction, and uterine massage after delivery of the placenta. ENC is a low-cost package of post-partum newborn care interventions demonstrated to reduce newborn mortality, including immediate assessment and drying of newborn, thermal control (including skin to skin contact and delayed bathing), breastfeeding within one hour of delivery, routine umbilical and eye care, routine vaccination coverage, and post-partum surveillance and counseling of mother and newborn.

COVERAGE
Originally launched in 28 Ministry of Health (MOH) reference maternities, or 76% of reference maternities in 7 of Niger’s 8 regions, the collaborative expanded in February 2007 to include an additional 11 primary care maternities, for current coverage of 39 MOH maternity care facilities in 64% of Niger’s districts. In 2007, the EONC Collaborative covered 45,760 births in the 39 maternities, representing 32% of public facility births nationwide.

STRATEGIES FOR IMPROVEMENT
The Improvement Collaborative approach integrates many of the basic elements of traditional health programming (standards, training, job aids, inputs) with classic QI elements (team work, process examination, monitoring of results, client satisfaction), into a dynamic shared learning system in which multiple teams from different sites work together intensively to share and rapidly scale up strategies for improving quality and efficiency of health services in a targeted technical area. The approach empowers local participants as part of QI teams to identify, test, and measure realistic solutions to deliver high-impact interventions that can in turn be shared with fellow collaborative participants and MOH officials for scale-up.

The EONC Collaborative is partially decentralized to the regional level, with day-to-day activities conducted and managed by regional MOH officials with technical support from USAID Health Care Improvement (HCI) Project staff. All regions share common improvement objectives, tools and indicators. A Technical Advisory Group (TAG) of national and regional MOH experts and partners guides all collaborative planning and activities.

Local health care providers who are the true “local experts” develop action plans to test and implement changes at their local level to achieve collaborative goals. Local teams receive regular on-site training that integrates technical and QI skills so that participants learn to problem-solve to reduce obstacles to implementing new standards in their local settings. Bimonthly supervision visits by regional MOH “external coaches” with technical support from HCI staff provide ongoing reinforcement to individual site teams. Best practices and results are shared with colleagues and MOH officials at regional and national planning meetings. Midwives at regional learning session
during quarterly “Learning Sessions” and disseminated to all participants country-wide. Since local actors themselves develop local solutions, their ownership of innovative solutions is higher; increasing the likelihood of sustainability and spread to other sites.

At the individual site level, many local innovations have been tested and implemented to improve routine delivery of quality AMTSL and ENC services. These include:

- Instituting 24-hour call schedules to ensure a skilled birth attendant is present at all births during night and weekend hours.
- Placement of coolers in delivery areas with pre-filled syringes of oxytocin maintained at the required cold temperature during frequent power outages.
- Introduction of a local “AMTSL/ENC” stamp into the national birth medical record helps remind providers to provide, record and monitor AMTSL and ENC services (current birth record does not include AMTSL/ENC standards)

During quarterly regional Learning Sessions, local midwives and doctors from different sites share best changes for rapidly integrating AMTSL, ENC, and improved infection prevention practices into routine delivery care. Ongoing training reinforced by on-site supervision is central to regional activities, using standard provider job aids and a training curriculum developed in consultation with the expert group. Training is conducted on-site as part of a “whole-site model” in which all maternal health providers are trained in unison by regional trainers, promoting strong local team functioning essential for effective QI work.

**RESULTS TO DATE**

Table I summarizes EONC collaborative results in its first two years of implementation. Compliance with AMTSL and ENC standards has improved from 0% and 17% at baseline, respectively, to 98% and 96% in targeted facilities as of December 2007. The incidence of post-partum hemorrhage in participating facilities has decreased from 2.1% of births to 0.4% (Figure 1), a dramatic drop in this life-threatening condition. The reduction in PPH rates has been a powerful local motivator for sustaining systematic AMTSL practice in the face of the huge challenges posed by sudden post-partum hemorrhage.

**FUTURE DIRECTIONS**

In close collaboration with the MOH, the EONC Collaborative will continue to scale up phase 1 in 2008-2009 and will improve community-to-facility linkages through integrated district-level birth preparedness/complication readiness and referral interventions at community and facility levels. In phase 2, the collaborative will introduce systematic anti-malarial Intermittent Preventive Therapy (IPTp) during antenatal care and a phased complications care improvement intervention targeting pre-eclampsia/eclampsia and maternal and newborn sepsis.

**Table 1. Niger: EONC Collaborative Phase 1 Results, January 2006–December 2007**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Dec 2005 (Baseline)</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>% births AMTSL applied</td>
<td>0%</td>
<td>34%</td>
<td>98%</td>
</tr>
<tr>
<td>% births immediate breastfeeding</td>
<td>23%</td>
<td>44%</td>
<td>98%</td>
</tr>
<tr>
<td>% compliance ENC standards (composite)</td>
<td>17%</td>
<td>35%</td>
<td>96%</td>
</tr>
<tr>
<td>% compliance AMTSL standards (composite)</td>
<td>27%</td>
<td>51%</td>
<td>98%</td>
</tr>
<tr>
<td>PPH rate (# PPH/ # births / month)</td>
<td>2.1%</td>
<td>1.6%</td>
<td>0.4%</td>
</tr>
</tbody>
</table>

Total # births: 28,937 (28 ref. facilities) 45,760 (39 ref. & primary facilities)

**Figure 1. AMTSL coverage and post-partum hemorrhage rates in targeted facilities, January 2006–December 2007**

Total number of births 2006: 28,937 (28 sites); 2007: 45,760 (39 sites), 32% of national annual public facility births

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The contractor team for the USAID Health Care Improvement Project includes URC (prime contractor), EnCOMPASS LLC, Family Health International, Initiatives Inc., Johns Hopkins University Center for Communication Programs, and Management Systems International. For more information on HCI’s work in Niger, please contact Dr. Kathleen Hill at khill@urc-chs.com. For more information on the work of the USAID Health Care Improvement Project, please visit www.hciproject.org.