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Scaling up Using Improvement Collaboratives

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The Four Basic principles of Quality Improvement/Quality Management

- **Understand client needs**
- **Understand the system and processes of care**
- **Teamwork**
- **Measure results**
- **No. 5....MAKE CHANGES**

Historical Background

- **Developed in 1998 by the Institute for Healthcare Improvement (IHI) of Boston and called the “Breakthrough Series”**
- **IHI saw it as an approach to more rapidly spread best practices to a large number of sites or throughout an organization**
- **The approach has been widely used in the USA, the UK, Australia, Canada and Europe**
- **The QA Project has led the use of the approach in developing countries (29 collaboratives in 13 countries since 1999)**

Definition of an Improvement Collaborative

An Improvement Collaborative is an organized network of a large number of sites (e.g. districts, facilities or communities) that work together for a limited period of time, usually 9 to 24 months, to rapidly achieve significant (often dramatic) improvements in a focused topic area through shared learning and intentional spread methods. The system, processes, quality and efficiency of care are to be improved.

Principles of Improvement Collaboratives

- **Network of participating organizations/sites involved in shared learning**
- **Quality Improvement (QI) team at each site**
- **Focused on one clinical/public health topic**
- **Work to find better ways to implement best practices and achieve better results**
- **Regular communication between sites**
- **Common key indicators reported and shared monthly**

Three Models are Used in Implementing Collaboratives

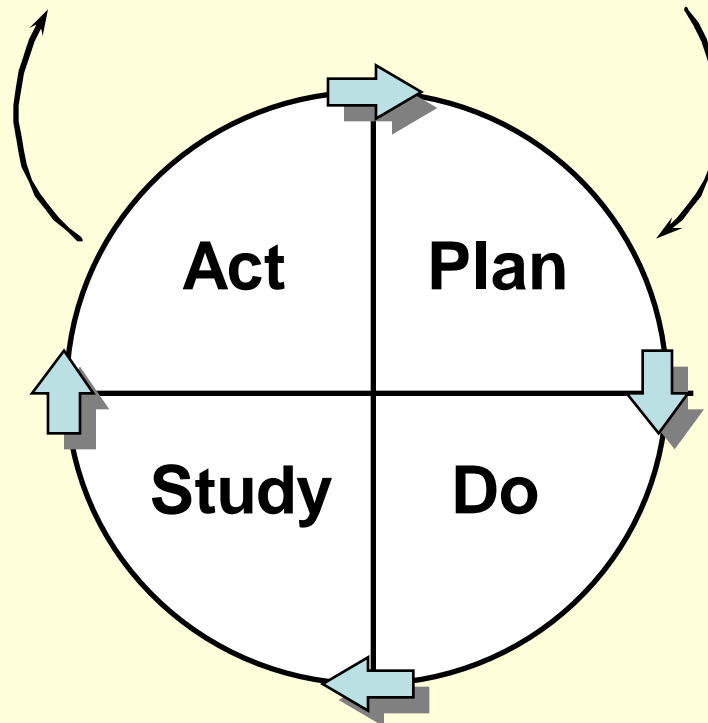
- **Improvement Model**
- **Care Model**
- **Collaborative Model**

Model for Improvement

What are we trying to accomplish?

How will we know that a change is an improvement?

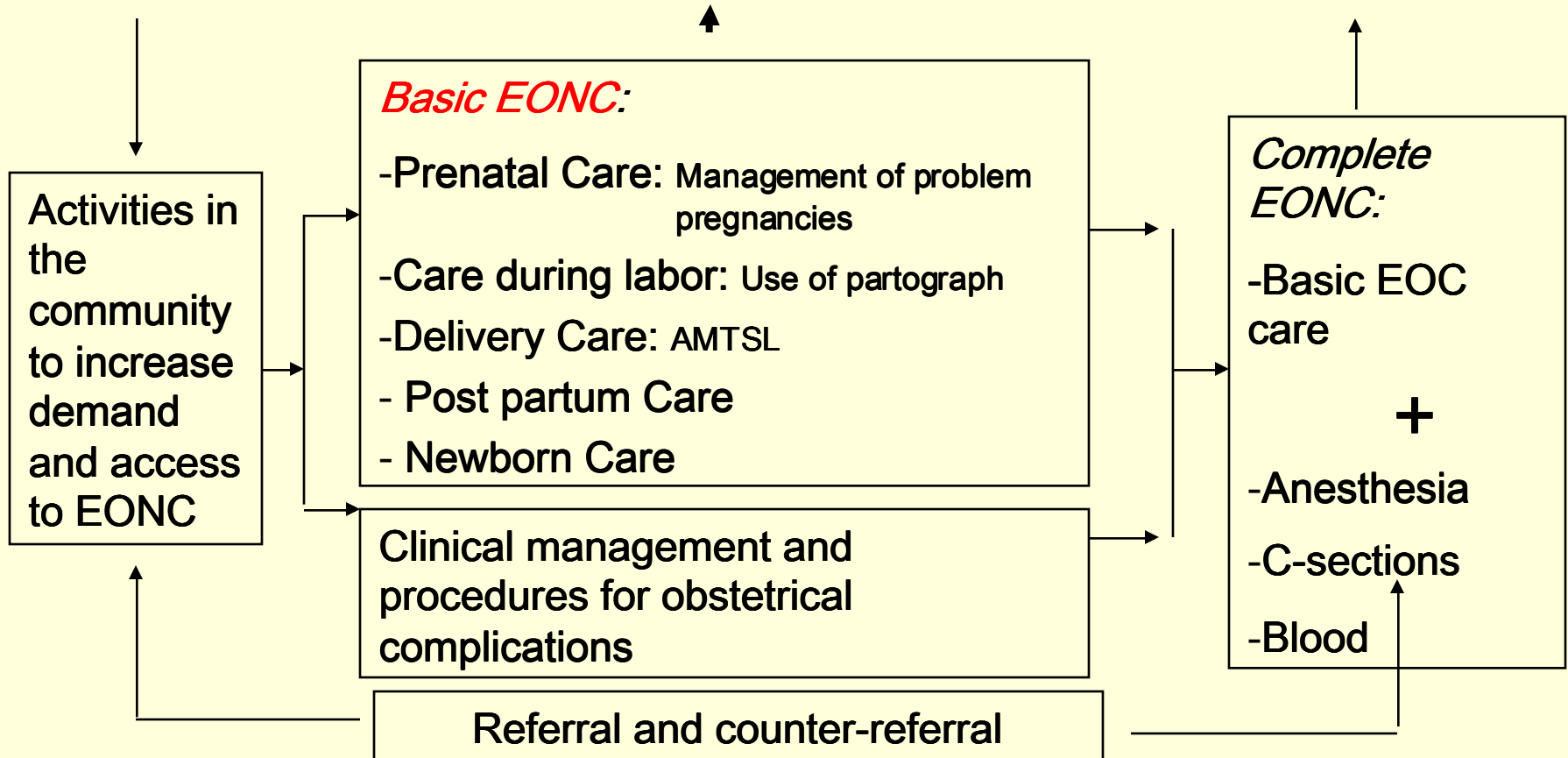
What change can we make that will result in improvement?



From: Associates in
Process Improvement

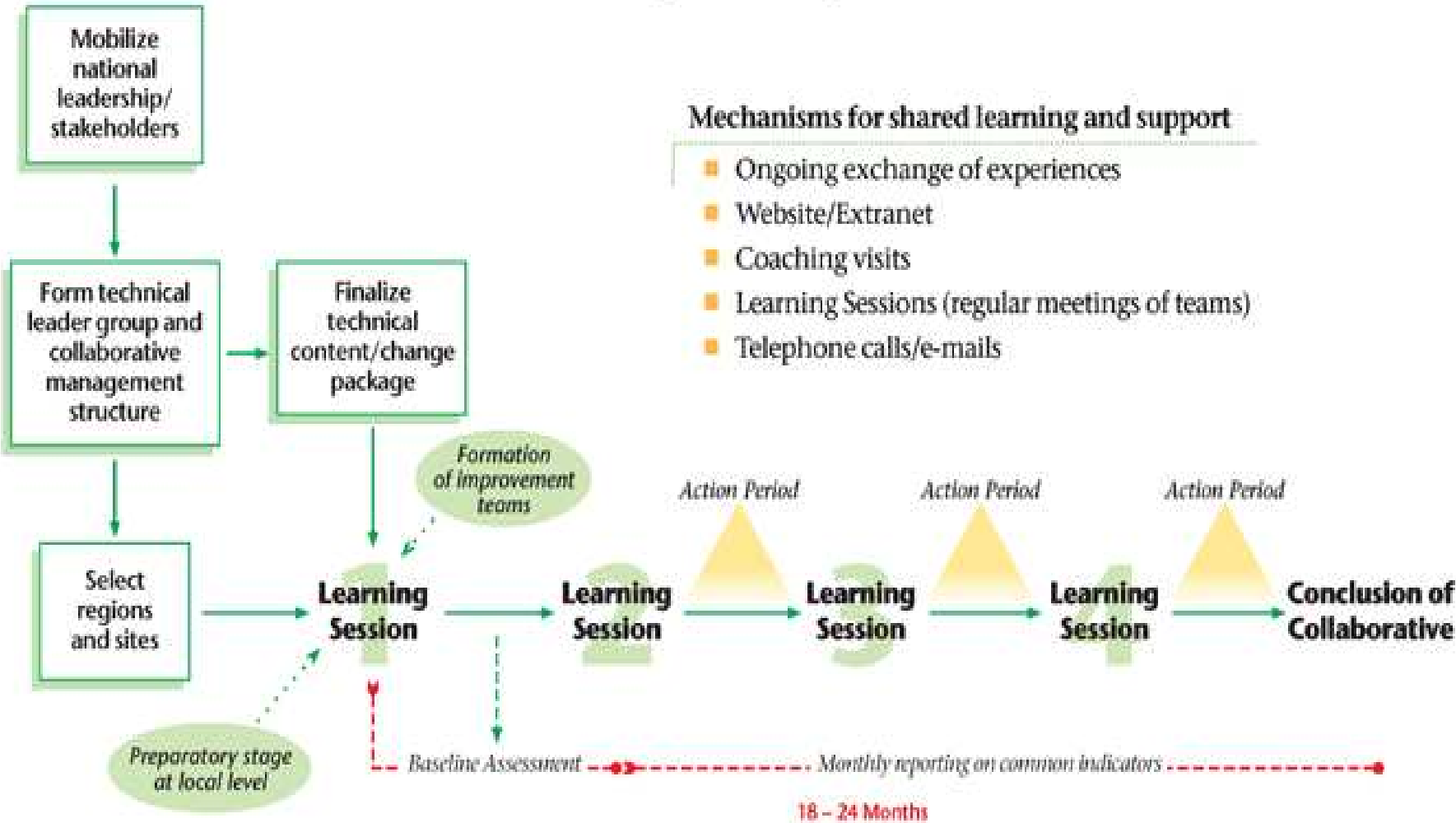
Care Model for Essential Obstetric and Newborn Care (EONC)

Adaptation of services to the cultural needs of patients and families



EONC continuous quality improvement teams

Improvement Collaborative Model as Adapted by QAP



Two Types of Collaboratives

- **Demonstration collaborative: 15-60 sites who work intensively for 9 to 24 months to adapt to their local situation a best model of care.**
- **Spread collaborative: 40 to 150 sites who work for 12 to 24 months to spread to their sites the best practices and solutions developed in the demonstration collaborative**

Case Example: Niger Essential Obstetric and Neonatal Care (EONC) Collaborative Jan 2006 to June 2007

Background:

- The EONC collaborative was able to be launched as a spread collaborative (i.e. at scale) because of a previous Pediatric Hospital Improvement (PHI) collaborative at the same sites
- The collaborative began with:
 - 2 of 3 national reference maternities
 - 4 of 5 regional hospital maternities
 - 19 of 36 District Hospital maternities

Steps in Planning and Organization of a Collaborative

- **Organize a steering committee (usually national experts and MOH officials)**
- **Assure model of care standards/guidelines are agreed to. This may involve development, adaptation or revision by national experts.**
- **Train collaborative directors in how to implement a collaborative**
- **Choose key indicators to be monitored**
- **Plan schedule of learning sessions and action periods**
- **Select sites to participate**
- **Orient sites before first learning session**
- **In some cases, carry out a baseline assessment of key indicators**

Baseline data from 28 initial sites in Niger 2006

- **28,436 births**
- **537 maternal deaths**
- **2,386 stillbirths**
- **446 early neonatal deaths in facility**

- **Maternal Mortality Rate (MMR) 1888**
- **Stillbirth Rate (SBR) 84**
- **Perinatal Mortality Rate (PNMR) 92**

Niger case example: Starting at scale

- Engaged national and local leadership essential
- Clear action plan with 2-3 year time-line
- Local QI capacity vital
- Interventions need to be simple and introduced in phased, manageable chunks
- Importance of integrated “improvement package”: integrated tools and protocols for training, CQI, indicators monitoring, and supervision
- On-site technical and QI training engages all providers, supports site leaders, and in Niger has been more cost-effective than traditional approaches

Case example: Nuts and Bolts of Scaling Up in Niger

- **Scale up by consensus: national/regional leaders and earlier phase “champions” key (advocacy)**
- **Clearly defined model to be scaled up: “What do we want to spread?”**
- **Defined “best practices” to be scaled up**
- **Common improvement objectives, indicators and tools (training, monitoring, supervision)**
- **Agreed Time-line with Action Plan**
- **Regional Collaborative management team (public sector MOH admin/clinician staff) directs regional activities (collaborative planning, training, supervision, monitoring) with TA from national experts and QAP staff**
- **“Internal” on-site Coach trained at each site**

Case example: In Niger the collaborative was divided into technical phases

Phase 1 Facility: AMTSL, ENC, infection prevention, BCC

Phase 2 Facility: Focused ANC, partogram, newborn resuscitation, infection treatment (mother/newborn)

Phases 3-4 Facility: Eclampsia, LBW newborn, management of PPH

Learning Sessions (LS)

- **Two representatives from each site, who later brief their other team members, gather at LS location**
- **Review of improvement model, data collection methods, etc.**
- **Technical updates**
- **Each site presents the changes they made and the results achieved**
- **Site representatives develop their plan for the next action period**

Niger: Site representatives at a Learning Session



Action Periods

- **Regular meetings of site teams (usually weekly)**
- **Identify and test changes in site care system or processes that may lead to improvements**
- **Site teams self assess and monitor results e.g. through chart audits (all or samples), register tallies, observation, interviews.**
- **Collaborative coaches (project staff, district or regional supervisors or technical experts) visit sites, usually once a month to review teamwork, changes made, collect data, help solve problems**

Regional and District Capacity Building

- **If possible, regional and district staff are trained in collaborative implementation, attend learning sessions and carry out a part or all of the action period coaching**
- **This promotes later sustainability of continuous quality improvement after the collaborative ends**

National conference

- **Site teams present results of their collaborative work**
- **Planning for further scale up takes place**

Results of first 18 months resented at National Learning Session in July 2007 attended by site reps and national authorities

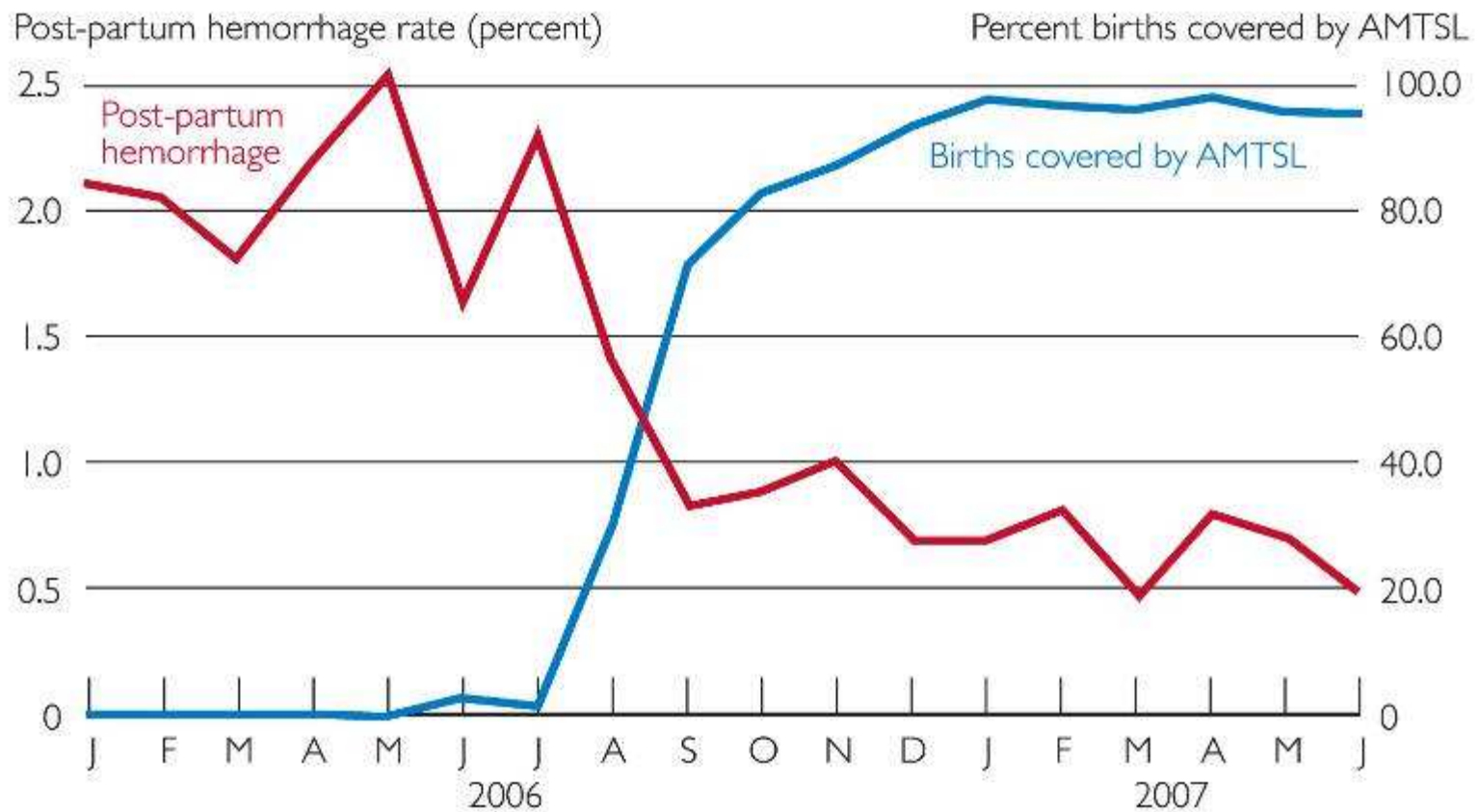
**Table I. Niger: EONC Collaborative Phase I Results in 25 Original Sites:
Jan. 2006 – June 2007**

Indicator	Jan 2006 (Baseline)	Dec 07	Mar 07	June 07
% births AMTSL applied	0%	95%	96%	96%
% births immediate BF	23%	89%	97%	93.6%
% compliance ENC standards (composite)	17%	78%	94%	95.6%
% compliance AMTSL standards (composite)	25%	97%	96%	98.8%
PPH rate (# PPH/ # births / month)	2.1%	0.7%	0.5%	0.5%

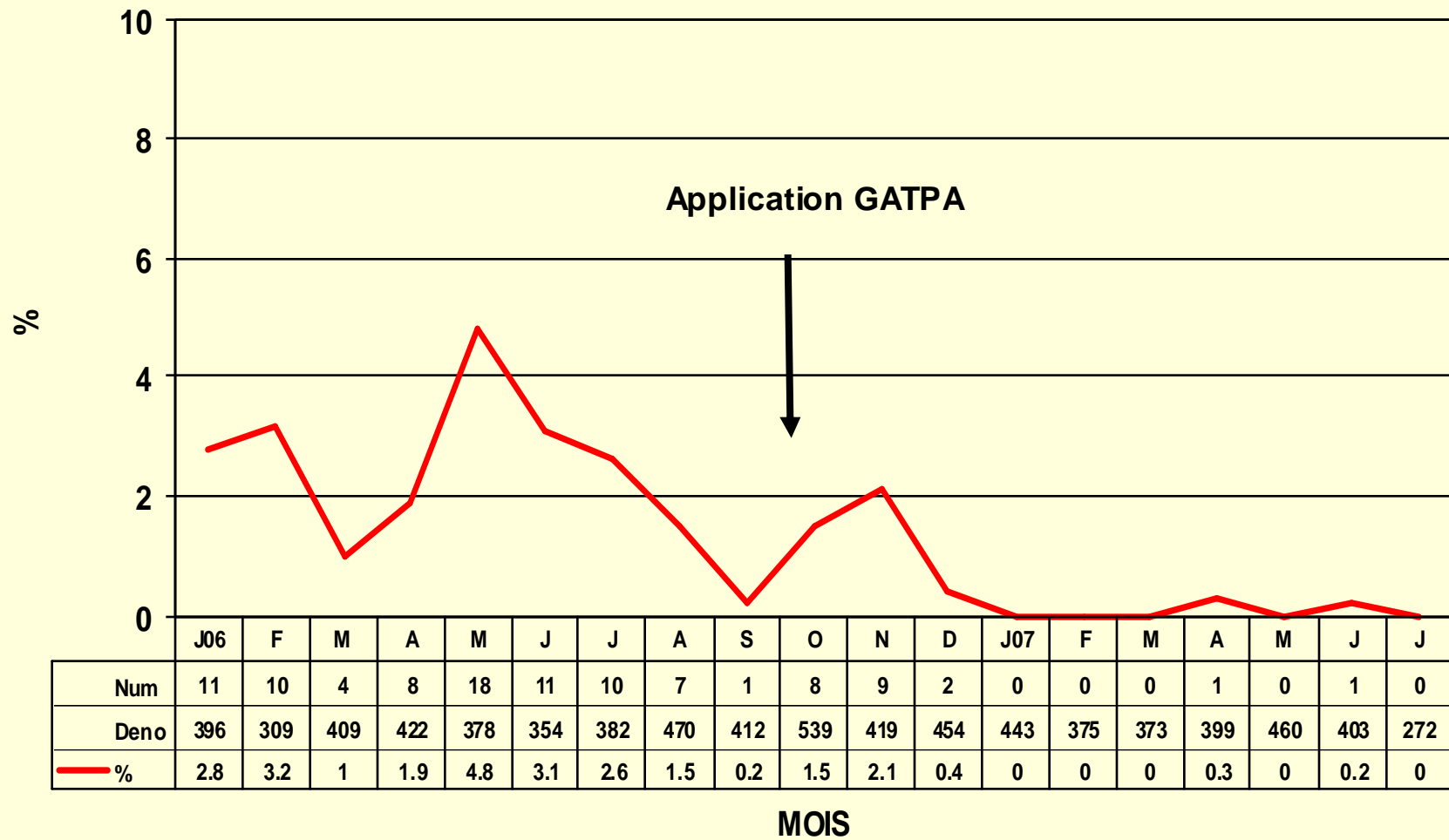
Average Monthly births = 2,173 (25 facilities)

Results of first 18 months resented at National Learning Session in July 2007 attended by site reps and national authorities

Figure I. AMTSL coverage and post-partum hemorrhage rates in targeted facilities, Jan 2006- June 2007 *Average # monthly births: 2,173 (25 sites)*



**% d'hémorragie de la délivrance intervenue dans les maternités dans la région de
Dosso de jan. 06 à juil. 07**

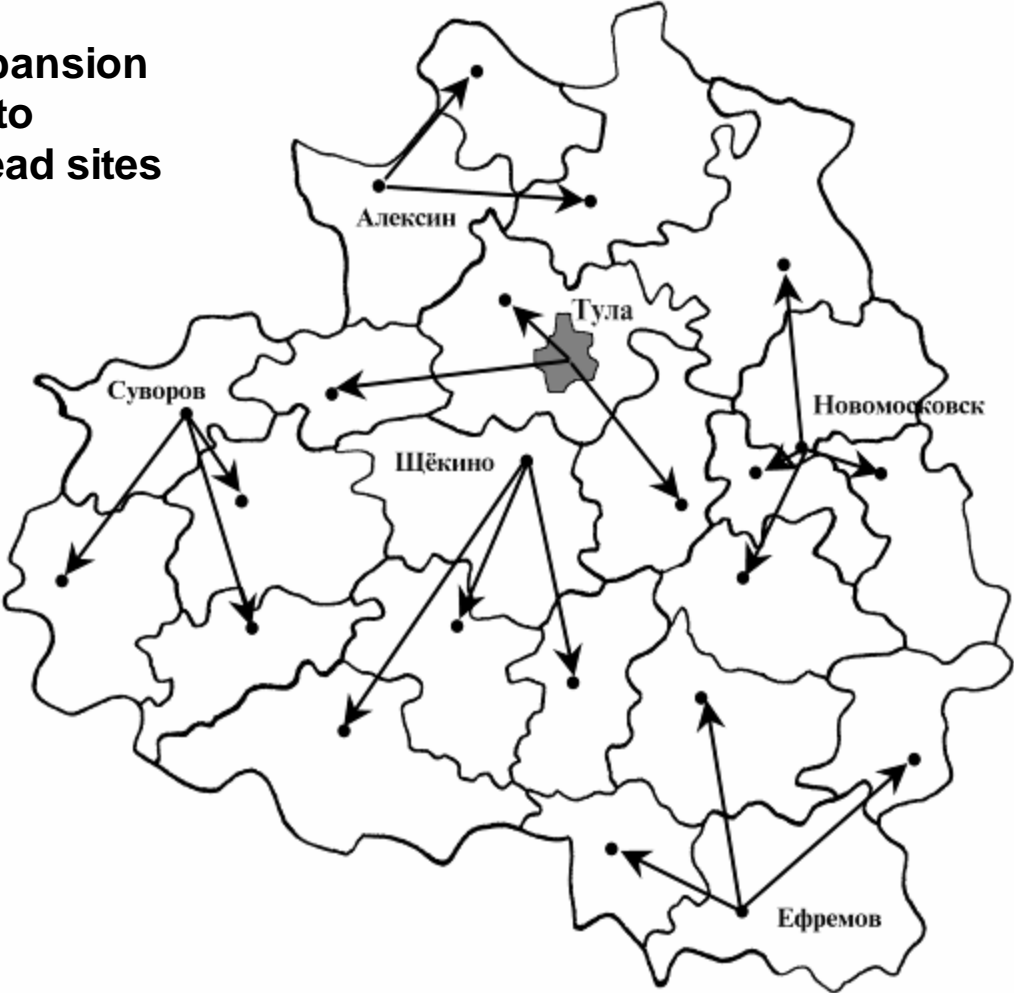


Case example: Further Niger Scale Up Plans

- **Further scale up plans to cover entire country**
- **Group 1 (now 39 sites)->phase 2**
- **Group 2 (new sites)-> Phase 1**
- **Group 3 Remaining Community Health Centers**
- **Group 2->Phase 2**
- **Community program**
- **Group 1, 2, 3 -> Phase 3 & 4**

Case example: Russia - Organization of Tula Oblast Intentional Spread Collaborative after Demonstration Collaborative

Arrows show expansion from initial sites to neighboring spread sites



Tver, Russia Case Fatality Outcomes during the Collaborative

Case Fatality for Infants with Respiratory Disorders in the First Week of Life

