Promoting Improvements in Maternal Mortality in Nigeria: Examples from a Donor’s Toolkit to Promote Change

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Founded in 1978

Grant programs for the U.S. and global (international: human rights, conservation, peace and security, girls’ education, health)
Population & Reproductive Health Program

- Thematic priorities of the last decade: Maternal Health and Young People’s Sexual and Reproductive Health

- Focus countries: India, Mexico, and Nigeria (with offices and local staff in each country)
Maternal Health

- Globally, annual number of maternal deaths has dropped from over 500,000 to 287,000 in 2010.

- Main causes of death include hemorrhage, eclampsia, sepsis (infection), unsafe abortion, obstructed labor
What’s in a Donor’s Toolkit?

- Staff members: their wisdom, contacts, influence

- Grants for global or multi-country efforts, e.g.:
  - Expert meetings; “calls to action;” training materials; publications

- Grants for national efforts in a given country, e.g.:
  - Pilot phase/proof of concept work on in-service interventions (in hospitals and primary care centers)
  - Support change in pre-service training schools
  - Advocacy within the country for policy change
  - Study tours for experts from elsewhere
Background on Eclampsia

- Pregnancy-induced hypertension: can occur during the later stages of pregnancy and involves high blood pressure and seizures/convulsions; may be followed by a coma

- There are an estimated 50,000 maternal deaths each year due to pre-eclampsia and eclampsia

- Rigorous multi-country “Magpie” Trial found magnesium sulfate (MgSO4) to be the treatment of choice

- Magnesium sulfate is administered by intravenous (IV) or intramuscular (IM) routes; larger ‘loading dose’ first, then steady flow of the drug at lower dosage
Eclampsia in Nigeria

- Over time, Nigeria has gone from a situation of almost no magnesium sulfate (MgSO\textsubscript{4}) drug available in the whole country, through stage of pilot projects showing the drug’s effectiveness, to start of federal government embrace and scale-up of use of magnesium sulfate.
The Story Begins

Overhearing a conversation between two Nigerian doctors in 2005 during a side meeting in Kano, Nigeria started MacArthur Foundation down this road.
The First Idea—
A Path Not Followed

- Increase capacity of one university hospital’s laboratory to manufacture magnesium sulfate? Not the ideal solution.

- Rather, seek source for steady supply of high-quality MgSO$_4$ to be brought into Nigeria.
Global Grant Helps Promote National-Level Progress

- Funding given to U.S.-based NGO EngenderHealth for an expert meeting on eclampsia - held June 2007 at University of Oxford, UK
- Resulted in a “Call to Action”
- Nigeria “country team” meetings there identified a drug importer to bring a reliable supply of magnesium sulfate into the country —MacArthur country director a major actor behind the scenes.
Beyond the Product Alone—Training!

- Funding for development of a self-learning module on eclampsia/magnesium sulfate.
- English and Spanish – CDs and online access
- Advanced level (for MDs) and basic level

http://www.gfmer.ch/SRH-Course-2010/pre-eclampsia-University-of-Oxford/index.htm
Introducing MgSO₄: Pilot Phase in One State in Nigeria

- Funding for Population Council to work in Kano State, starting in 2008.
- Master trainers, protocols prepared and used in ten government hospitals
- 65% decline in eclampsia deaths: the percentage of maternal deaths due to eclampsia fell from 47 percent in 2007 (pre-intervention) to 16 percent in 2008 (post-intervention) in the target facilities
- Based on results, Kano state government scaled up intervention to all 26 of its hospitals
Other Actors, Other States

- Support to Nigeria’s OB-GYN Society (SOGON) for work in six states

- Key goal: get acceptance of important group of health professionals for MgSO₄ - rather than other drugs used at the time (before Magpie Trial)

- Introduced MgSO₄ in one hospital in each of 6 states

- Results: Case Fatality Rate dropped from 15.1% to 3.2% (p< 0.001) – and MgSO₄ gained greater legitimacy with the OB-GYN community
Advocacy Within Nigeria

- Population Council staff and Kano Ministry of Health presented results to National Council on Health

- Interest generated in other states, and in Federal Ministry of Health

- “Task shifting” success: government approved administration of initial “loading dose” by community health workers at primary level
Federal Ministry of Health

- MacArthur grant to “prime the pump” – for first purchase of the drug ($200,000) and initial training in 12 states.

- Used Population Council trainers and protocols available thanks to Kano pilot phase.

- Positive results leading to scale-up: $2 million of MgSO4 (900,000 doses) purchased with Ministry’s own funds; all 36 states now included in roll-out.

- But only some facilities in each state trained so far; full commitment not guaranteed; state level work needed.
NGO-Government Partnership Continues: Pre-Service Training

- Population Council working with Federal Ministry of Health to sustain progress on treatment of eclampsia:
  - Developing and testing a national curriculum for the pre-service training of nurses/midwives in all 171 schools in the country
  - Planning to incorporate MgSO4 into curriculum of 70 pre-service training schools for community health extension workers
NGO-Government Partnership Continues: Work on Prevention

- Population Council now focusing on task of identifying “pre-eclampsia” cases
- Creating job aids, carrying out trainings to enable medical personnel to identify and manage ‘imminent’ cases of eclampsia during antenatal care visits
- Kano state again the pilot phase setting
“Study Tours” to Share Success

- MacArthur funds supported a ‘best practices in maternal health’ study tour for selected participants from Mali, Burundi, Ghana, DRC
- Theme: How to change health systems using discrete medical interventions?
- Visit included seeing work on MgSO\textsubscript{4} in Kano
Multiple Types of Projects in a Donor’s Toolkit (1)

- Field visits and listening to problems on the ground
- Country-based staff with local knowledge, contacts, and respect
- Convenings to connect experts/actors, and to raise awareness on issues
- Educational materials (for different levels)
- Efforts to gain legitimacy from potential opponents
Multiple Types of Projects in a Donor’s Toolkit (2)

- Pilot/model projects for local proof of concept of implementation, through support for NGOs
- NGO-government collaboration to share results of pilot phase, promote task-shifting
- Support for government implementation at scale, with ongoing NGO technical assistance
- Add systematic pre-service training to schools
- Study tours for experts from other countries
Thank you!