Operationalizing Knowledge Management in Global Health Programs

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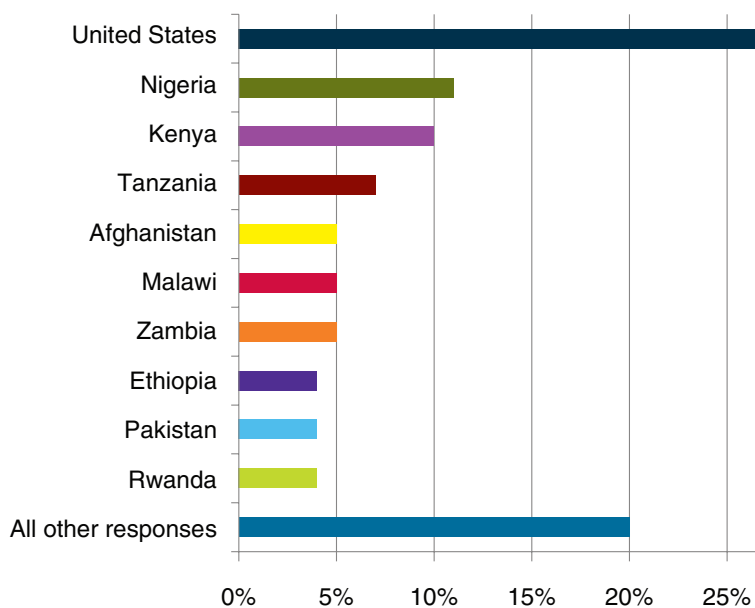*Photo by Paul Butler, former Facebook intern, reprinted with permission from Facebook*

Can on-line knowledge management interventions reach a global audience?
Consider this visualization of Facebook friends showing linkages worldwide.

Background

- **Many global health programs involve multiple partners and stakeholders located worldwide, making it challenging to create, capture, and share information and knowledge among implementers.**
- **Increasing uptake of high-impact global health practices entails similar challenges with engaging worldwide partners and stakeholders.**
- **Knowledge management approaches support effective program implementation and engagement with global audiences through processes for collaboration and dialogue, dissemination, and learning.**
- **Social networking analysis and macrocognitive concepts help explain effectiveness of knowledge management approaches.**

Global Health Professionals in Developing Countries Are Interested in Accessing Knowledge On-line: Survey

Countries Choosing On-line Resources as in Their Top Three Information Sources (n=172)

Country	Percentage
United States	~26%
Nigeria	~11%
Kenya	~10%
Tanzania	~7%
Afghanistan	~5%
Malawi	~5%
Zambia	~5%
Ethiopia	~4%
Pakistan	~4%
Rwanda	~4%
All other responses	~20%

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Collaboration and Knowledge Exchange: African Regional Meeting on Postpartum Hemorrhage, Pre-Eclampsia and Eclampsia*
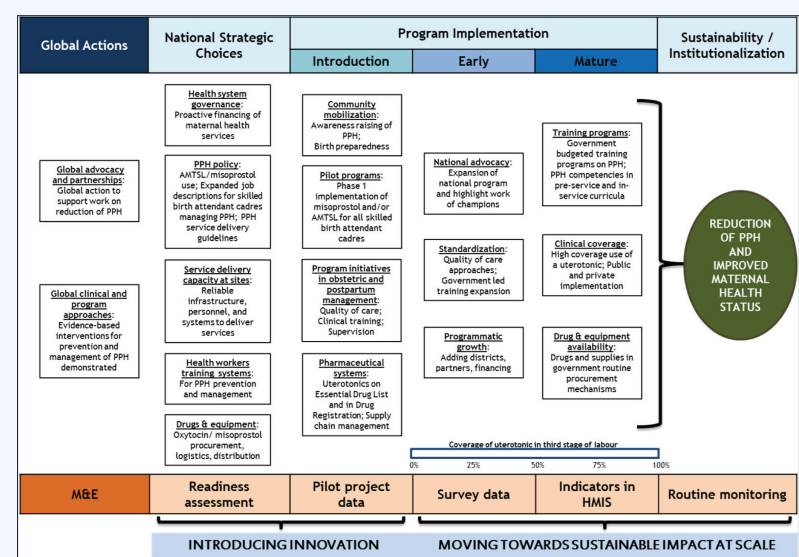
About the Meeting

- **Meeting entitled, "Interventions for Impact in Essential Obstetric and Newborn Care"**
- **Held February 21–25, 2011, in Addis Ababa, Ethiopia**
- **300 participants representing 36 countries**
- **Policy leaders, clinicians, program managers**
- **Format provides a team collaboration environment with knowledge exchange and consensus building**

Meeting Format as Team Collaboration

- **Countries sent teams of representatives**
- **Each participant received technical updates**
- **Each team was asked to review their national situation in relation to PPH and PE/E before the meeting and summarize it on a conceptual map—a pathway to scaling up implementation of critical interventions**
- **Teams reviewed each other's pathways via a poster session and gave feedback**
- **Teams developed action plans**
- **Follow-up planned to help implementation of action plans and provide ongoing program support**

Pathway to Implementation of Postpartum Hemorrhage Prevention and Management Scale

Meeting Format Compared to Macrocognition/Team Collaboration Theory

- **Research suggests that teams go through four stages of collaboration (Letsky et al. 2008)**
- **Addis meeting format supported team development**

Macrocognition/Team Stage	Addis Meeting Feature
Knowledge Construction (individual knowledge building)	Technical Updates
Collaborative Team Problem Solving	Group review of scale-up pathways/posters
Team Consensus	Development of action plans
Evaluation and Revision	Plans for follow-up on action plans and program support

Supporting Programs for Postpartum Family Planning (PPFP)

What Is the Programmatic Need?

- Evidence shows that averting unplanned/unwanted pregnancies and using healthy birth spacing saves lives of mothers and children (Campbell and Graham 2006; Cleland et al. 2006)
- Review of literature revealed a lack of consistency in PPFP programmatic approaches (ACCESS-FP 2006)

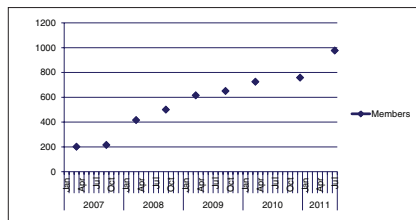## Knowledge Management Intervention: Group Analysis

- Hold a face-to-face, technical consultation with 40 experts and leaders in reproductive health and maternal, neonatal and child health from more than 23 global organizations (2006).

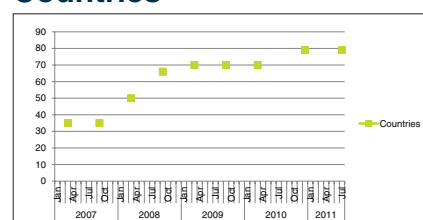## Knowledge Management Intervention: Community of Practice

- Form a PPFP Community of Practice (CoP) for continuing support and dialogue. Communicate through annual, face-to-face meetings, and on-line (2006).

> The PPFP Community of Practice on-line membership grew from 200 members in 35 countries (2007) to 976 members in 79 countries (2011) during the course of seven forums.

Members

Countries

Why the Growth in Membership? Some ideas…

- According to an evaluation of IBP forums in 2008, 42% of participants forward postings to other people (word-of-mouth effect)
- WHO and USAID (highly central "brokers" of knowledge) lead the IBP initiative, with over 30 member organizations, which provides a dense social network with ties to "get the word out" (Nelson and Hsu 2006)
- Forum participation may be desirable as a way of assessing "information soundness" of published findings through dialogue with colleagues (Williamson et al. 1989)

Knowledge Management Intervention: On-line Collaboration

- Create an on-line collaboration area for the CoP housed in the large Implementing Best Practices (IBP) Initiative Knowledge Gateway (2006).

Knowledge Management Intervention: E-mail Forums

- Hold a series of on-line global forums via e-mail with guest expert "speakers" and archives in the CoP collaboration area (2007–2011).

Global On-line Forums on PPFP

Format of forums:

- 2-week, moderated discussion via e-mail
- Daily digests
- 5–10 global health experts per forum post "mini-lectures" with discussion questions
- Web-based archives
- Attachments for further reading
- Focus on practical experience, lessons learned, evidence-based practices

Between Three and Eleven Developing Countries Post Messages Each Forum

Forum Title	Date	Countries Posting Messages
Integrated Service Delivery of Immunization and Family Planning	July 2011	Bangladesh, Democratic Republic of Congo, Kenya, India, Mali, Nigeria, Tanzania, Vietnam
Maternal, Infant, and Young Child Nutrition and Family Planning Integration	February 2011	Afghanistan, India, Malawi
On-line Forum on the "Guide to Developing Family Planning Messages for Women in the First Year Postpartum"	June 2010	India, Kenya, Nepal, Nigeria
Lactational Amenorrhea Method (LAM) and the Transition to Other Modern Methods	January–February 2010	Afghanistan, Albania, Bangladesh, Cameroon, Côte d'Ivoire, Ghana, Guinea, Madagascar, Mexico, Nigeria
Postpartum Intrauterine Contraceptive Devices (PPIUCD)	October 2009	Cameroon, Côte d'Ivoire, Ghana, India, Kenya, Pakistan, Uganda, Zambia
Strategies for Community-Based PPFP	March 2009	Bangladesh, Egypt, Ethiopia, Guinea, India, Kenya, Niger, Nigeria, Rwanda, Uganda, Zambia
PPFP Contraceptive Technology	September 2008	Cambodia, Democratic Republic of Congo, Georgia, Guatemala, Kenya, Malawi, Pakistan, Uganda
Key Messages for PPFP	April 2008	Bangladesh, Democratic Republic of Congo, Egypt, Guatemala, India, Kenya, Mexico
Healthy Timing and Spacing of Pregnancy	November–December 2007	Democratic Republic of Congo, Egypt, India, Jordan, Kenya, Philippines

Knowledge Management Intervention: Synthesize Knowledge for Use

- Create an electronic toolkit to provide a comprehensive collection of best practices and evidence-based tools and documents on postpartum family planning to assist policymakers, program managers, trainers, and service providers.

Postpartum Family Planning e-Toolkit

- From 2010–2011, the PPFP e-Toolkit received over 3,000 visits from 122 countries
- Information is presented in the following categories (new categories in progress):
    - LAM
    - PPIUCD
    - DHS Reanalyses
    - Monitoring, Evaluation and Research
    - PPFP Technical Meetings
    - PPFP Message Guide
    - Facility Trainings
    - Community Trainings
    - Country Materials
    - Behavior Change Communication Tools
    - Reports
    - Technical Briefs
    - Posters and Presentations

- Includes materials from Afghanistan, Albania, Bangladesh, Haiti, India, Kenya, Nigeria, and Tanzania
- The e-Toolkit skeleton is a template that has been used to create 36 toolkits from 70 organizations on global health topics

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Conclusion

Applying a combination of knowledge management approaches that support creation, exchange, and use of tacit ("know how") and explicit ("documented") knowledge contributes to improved global health programs.