OR to Policy or

What's the point of all those pretty graphs and charts?

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Planning OR to influence Policy

- "Buy-in" vs. Technical assistance vs. cooperation
- Whose priorities? Who defines the problems?
- Centers of Excellence
- Recognition of resource and HR constraints
- Whose policy?
- Identifying the policy bottlenecks



What are the constraints?

- "Political Will"—what is it?
- Resource constraints
 - Where do they come from?
 - Local logistics
 - National trade offs
 - Donor priorities
 - SAPs, wage bill caps
- Process constraints—budget planning, procurement systems.



Levels of involvement

Ministry of Health	National priorities, equity between provinces, budget process, procurement systems	
Local Health Authority	Management burden, procurement systems, infrastructure requirements, local priorities	
Health Unit	Human resources, supervision capacity, working conditions and satisfaction, material resources	
Community	Awareness, acceptability, affordability, access (CBPR)	





OR is a problem-solving tool



HARRY BELIEVED IN HAVING THE RIGHT TOOL FOR THE WRONG JOB

- Is it the "right job"?
- Is it the right tool?
- Does everyone know how the tool works?
- Are there resources to run the tool?
- Does it make the job easier?



Evaluation of Impact of Traditional Birth Attendants in Rural Mozambique (1)

- The MOH had established a TBA program whose goals were to reduce maternal and infant mortality and to improve utilization of primary health care
- Over 8 years, an NGO program had trained >300 TBAs who were supported by quarterly supervision, basic equipment, and annual refresher courses
- Post training and supervision surveys showed that TBAs had improved their knowledge of obstetric emergencies and skills in how to manage them
- An evaluation was planned to assess whether the program had met its initial goals

Evaluation of Impact of Traditional Birth Attendants in Rural Mozambique (2)

- A retrospective cohort study was designed to compare maternal and newborn outcomes in 40 communities where TBAs had been trained and had at least 3 years of experience - compared to 40 communities where TBAs had not yet been trained.
- Respondents were queried on utilization of TBA or health facility services for pregnancy and childbirth, outcome of pregnancy for mother and child, and utilization of other primary health care services

Evaluation of Impact of Traditional Birth Attendants in Rural Mozambique (3)

- Results showed that only 30% of these pregnant women (who lived close to trained TBAs) utilized theTBAs. More women (40%) managed to deliver at health facilities
- Most women (~70%) preferred health facility midwives for their next birth; however, most users of trained TBAs preferred TBAs for their next birth
- Utilizers and non utilizers of trained TBAs (including utilizers of health facilities) had similar (not statistically significant) mortality rates
- Policy eventually shifted over time away from TBA support and towards health facility support

TBA OR to Policy

- Key decision-maker rejected it because of her investment in the program and donor support
- Findings not adopted or integrated until there was a change in staff at the MOH level.

SAGA OF THE SYPHILIS PROGRAM IN CENTRAL MOZAMBIQUE

- 1978: Universal antenatal syphilis screening made national policy; sporadic & uneven screening
- 1993: Prenatal Syphilis Screening Feasibility Study (HAI)
 - 9 health facilities, Registry book at each facility, HAI reinforced RPR tests and paid MCH nurses, Increased RPR screening from <5% to 80%)
 - Advocacy: Presentations (province level, national health conference, Minister of Health - Council of National Directors); article and editorial in national medical/health journal; multiple informal meetings with MOH, UN, Bilaterals
- 1995: Syphilis screening made a key element in national 5year plan
 - Increased total screening rate of pregnant women to 50-60% in health facilities with laboratories

Syphilis testing by month in Central Mozambique



EVOLUTION OF THE SYPHILIS PROGRAM IN CENTRAL MOZAMBIQUE

- 1996: Provincial Medical Directors at the central region adopted prenatal syphilis screening as a priority and program registries as a norm
- 1997: Syphilis screening extended to all districts in Manica province
- 1998: Syphilis screening extended to all districts in Sofala province
 - Percentage of ANC attendees tested increased to 80% at the health facilities doing syphilis screening
 - Over 50,000 women tested annually, 45% under 24 weeks of pregnancy
 - Over 7,000 syphilis positive women identified per year (~70% treated)
- 1999: Sustained results with no donor input

EVOLUTION OF THE SYPHILIS PROGRAM IN CENTRAL MOZAMBIQUE

- 2000: Free treatment for pregnant women as a national norm & treatments administered by the MCH nurse
 - Treatment rate increased to 90%
- 2003: Introduction of rapid treponemal Immunochromatographic strip test (HAI)
 - 34 health facilities with laboratory and 132 with out laboratory screening for syphilis
 - Percentage of ANC attendees tested increased to 93% at the health facilities doing syphilis screening
 - Over 80,000 women tested annually, 50% under 24 weeks of pregnancy
 - Over 8,000 syphilis positive women identified per year (96% treated)

ANTENATAL SYPHILIS RAPID TEST OR

- HAI and MOH Mozambique carried out project: "<u>Introduction</u> <u>and assessment of the Rapid Diagnostic Test for Syphilis in</u> <u>prenatal care clinics of rural Mozambique</u>" (Gates Foundation Funded)
- Field assessment of treponemal immunochromatographic strip tests (ICS) in health facilities
- Rollout started during the second quarter of 2003
- Progressive inclusion of all health facilities
 - Facilities with laboratories used ICS for 3 months and returned to RPR
 - Facilities without laboratories used ICS only
- For all health facilities
 - Three day training for nurses and lab technicians
 - Intensive supervision

EVOLUTION OF THE SYPHILIS SCREENING PROGRAM IN CENTRAL MOZAMBIQUE, THE MANICA & SOFALA EXPERIENCE, 1998-2004



HEALTH PERSONNEL SATISFACTION STUDY

- Clearly showed preference of laboratory technicians and MCH nurses for the ICS
 - "Takes less time to perform"
 - "Can be used in health facilities without laboratory"
 - "Is easy to read"
 - "Don't require much blood"
 - "Reduces the waiting time of the mothers"
 - "The result is more precise"

COST-EFFECTIVENESS OF THE SYPHILIS SCREENING PROGRAM; AVERAGE COSTS US\$ (2003)

	Clinics with	Clinics without
	laboratories	laboratories
RPR women screened	\$0.85	
RPR positive women screened and treated	\$12.25	
RPR active cases screened and treated	\$13.19	
ICS women screened	\$0.98	\$0.96
ICS positive women screened and treated	\$13.45	\$14.76
ICS active cases screened and treated	\$13.90	\$15.26

EVOLUTION OF THE SYPHILIS SCREENING PROGRAM IN CENTRAL MOZAMBIQUE: SYPHILIS PREVELENCE, 1998-2004



CURRENT IMPACT OF THE SYPHILIS-SCREENING PROGRAM IN CENTRAL MOZAMBIQUE

- Prevention of up to:
 - 2000 perinatal deaths/yr
 - 2500 stillbirths/yr
 - 1600 spontaneous abortions/yr
 - 1200 congenital syphilis cases/yr
 - 1000 preterm deliveries/yr
- Decline of the syphilis prevalence
- Treatment of 50% of the partners by MCH nurses (others & multiple contacts??)
- Potential reduction in the transmission of HIV
- Strengthening of the prenatal care program (training and follow-up)

KEY DETERMINANTS OF PROGRAM SUCCESS

Advocacy

- Close partnership with MOH
- Frequent program monitoring and evaluation at the district and provincial levels and operations research
- Training of nurses, lab technicians and supervisors
- Intensive follow-up for all MCH nurses involved in prenatal syphilis screening

LIMITATIONS/DIFFICULTIES

- Personnel shortage (insufficient numbers, training and management problems)
- Late prenatal attendance
- Stockouts of program supplies affect performance
- Laboratory quality
- Partner treatment & monitoring
- Monitoring & development of national targets for syphilis screening
- Parallel activities and information systems at the ANC generate inequalities in quality of care (vertical programs: STI, HIV, malaria)

CHALLENGES

- Overcome personnel shortage issues including system organization
- Integration of vertical programs into a comprehensive ANC program
 - Development of appropriate national monitory and evaluation tools, including development of operations research capacities to help improve the system
- Sustainable and effective supervision
 - Systematic quality control (laboratory procedures and ANC)
- Community work to:
 - Understand concepts of pregnancy
 - Improve follow-up of sexual contacts/partners
 - Adapt health services offered
 - Link the health services with the community

Proportion of Pregnant Women Screened for Syphilis in 1st ANC visit per Province, Mozambique, 2006 (Source MOH HIS - STI program)



Policy and PDSA

- Defining the problem jointly (plan)
- Interventions that make sense in the context (do)
- Involve local researchers health workers and community to build local capacity with research (study)
- Cooperative action to address policy of constraints (act)





Funding for OR

• Research-directed funding

- Government:
 - USAID/PEPFAR TE, now TASCIIIB
 - CDC (ASPH partnerships– i.e. UW-malaria)
 - NIH?
- Foundations:
 - Doris Duke Foundation (Operations Research for AIDS Care and Treatment in Africa – ORACTA)
 - 20 2-year grants awarded, \$100,000/year
 - Gates Foundation? (technology implementation of syphilis screening in pregnancy)
- Program-directed funding
 - Multilaterals: WHO (Global Fund), World Bank (TAP)
 - Ministries of Heath

