

# ***Access and maternal mortality: the development of frameworks and measurement methodologies***

***World Bank Health Access  
Workshop  
June 18, 2008***



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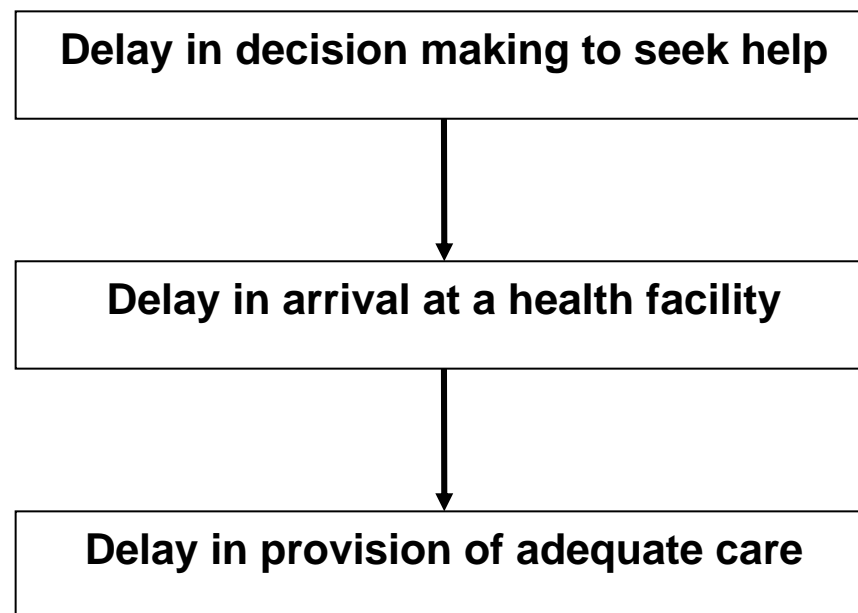
# Maternal Mortality, Gender and Mobility

- Mobility, power, and well being are connected.
- There is a need to better understand the differences between male and female travel patterns and their cultural roles.
- The impact of constrained mobility on bargaining also has its impact on what comes to be available as resource and service within local constraints.
- Devastating consequences for women's health exist on the African continent:
  - constraints on mobility
  - Constraints on resources for mobility and accessibility

# Transport's role in maternal health

- The majority of poor rural women give birth at home, partly due to the absence of transport.
- The financial and time cost of travelling to health facilities is high for rural poor women.
- **These women often possess low negotiating power within the HH, which may delay the decision to seek care.**
- If they seek care most women will walk which delays arrival at the point of care.
- Challenges of rural health facilities
  - large catchment areas,
  - trained staff, drugs, equipment ,
  - effective transport and communication referral systems
- Poor access may play a role in maternal deaths and conditions such as Fistula, but more research is needed to validate this.

# **Medical Model of 3 Delays for Maternal Mortality needs to be adapted**



(Source: Thaddeus and Maine, 1994; see <http://www.maternityworldwide.org/causes.html>)

# **Mobility influences health logistics and staff motivation**

- Transport's role in providing an adequate supply of medical supplies should be included in "The 3 Delays Model".
- Health logistics systems need to operate effectively in order to enable supply of drugs, medical supplies and blood, as well as facilitate motivated staff through them having the tools for the job

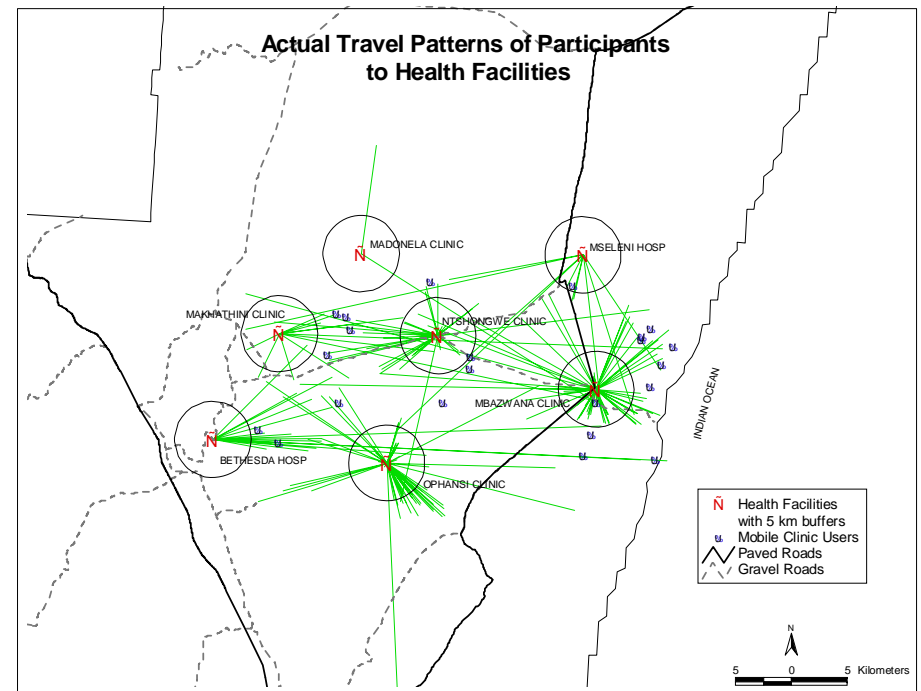
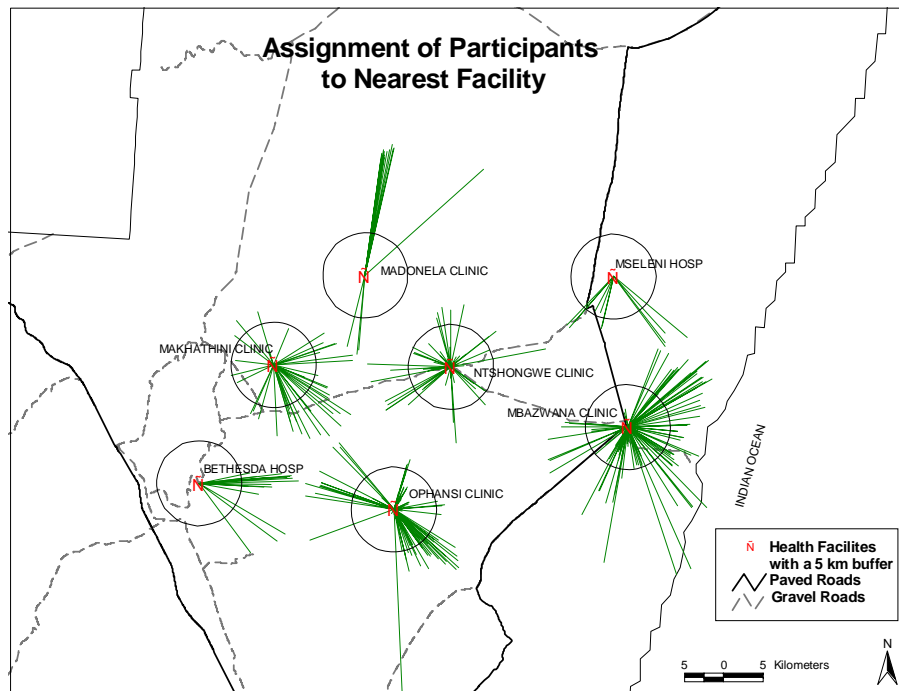
# Mobility, communication and organisation interaction in emergency journeys

- The 3 delays model also needs to incorporate the role of communication in **facilitating emergency travel**.
- There are further delays inherent in people not knowing that an emergency journey needs to be made.
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- The transport lessons around the reduction of maternal mortality in Africa clearly involve communication and organisation issues as well:
  - fast information links can save lives,
  - rendering services locally can reduce the need for mobility, and
  - operating hostels for those at risk can temporarily reduce distance within critical windows of care.



# GIS & Healthcare (HC) Destination Choice

- Where are patients going & why?
  - Focus groups
  - Use of the nearest facility?
- How well does the location of HC facilities meet the needs of HC seekers?
  - Identify roads, kombi taxi routes connecting homes with HC facilities
- GIS Tool Kit
  - Home locations, HC facility locations, buffered routes, hm/destination connector routine

# GIS to analyze Healthcare Utilization in Rural SA



# Log-Odds PC\_LEVEL Results

	High Level	Nearest (OR=2.77)
	Low Level	Advice (OR=2.04)
	Average Level	Nearest (OR=3.35)
	Low Level	Fetching H2O (1/OR=2.53)

# Solutions

- There is a need for web databases which provide consolidated information on the relationship between gender, transport, and maternal mortality. Best practices need to be shared so that we achieve the MDG of reduced maternal mortality in Africa.
- A start has been made and will be developed by gTKP:  
<http://www.people.cornell.edu/pages/mg294/maternalmortality.html>
- Develop better ways of collecting data that presents a holistic view of the connections between healthcare & transport

# A space for action

- There is a need for:
  - more accurate measurements: the role of mobility in maternal mortality, applying accessibility planning, and integrating mixed methods in GIS
  - more high-quality social science research to understand the interaction between mobility, gender, maternal health, and distance.
- Even though there exists a policy goal to dramatically reduce maternal mortality in Africa, progress is slow.
- Literature on concrete measures for bringing about this goal and the operational activities of development agencies in pursuit of this goal are thin on the ground.
- More “on the ground” studies must recognize the link between transport and maternal mortality to effectively bring about change.