MURIGA in Guinea: an experience of community health insurance focused on obstetric risks

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Abstract

Guinea is one of the poorest countries in the world, as is reflected in its health indicators (Eckert 2002). According to the Demographic and Health Survey III (DNS/Macro 2006), Guinea's maternal mortality ratio is 980 for 100,000 live births, and it has a neonatal mortality rate of 39 for 1,000 live births.

In 1997, the government of Guinea, in collaboration with UNICEF, set up a project to reduce maternal and neonatal mortality in the health district of Dabola. This project aimed both at improving the quality of services and at enhancing community involvement through the establishment of community health insurance schemes for safe motherhood (MURIGAs). Following an evaluation of this pilot project, the MURIGA approach was adopted as a national maternal mortality reduction strategy and has since been developed in 17 of Guinea's 33 health districts.

Today, members pay a contribution of between €0.9 and €1.8 per year, depending on the sub-prefecture, entitling them to access to care in the event of obstetric complications, including caesarean sections. The cost for a c-section in the event of a complication for non-members is €15 to €20, not including under-the-table payments and other possible indirect costs.

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Although the members and organisations supporting these MURIGAs are broadly satisfied with the system's outcomes, the management of their activities and level of community involvement still leave much room for improvement. Global coverage by the MURIGAs remains relatively low, with a median coverage of about 10% of the target population. And in spite of efforts to gradually broaden the range of benefits and target population, they are still highly selective.

Keywords: maternal mortality, emergency obstetric care, quality of care, community health insurance, Guinea.

Introduction

In spite of efforts to improve basic health services, maternal and neonatal mortality is still a serious problem in Guinea. According to the Demographic and Health Survey III (DNS/Macro 2006), the maternal mortality ratio was 980 per 100,000 live births, whereas in the 1999 DHS it stood at 528. For every 1,000 live births, 39 children die within 28 days of birth, and 91 die before their first birthday (DHS 2005). These indicators are an expression of the poverty situation in Guinea (Eckert 2002).

Until 1996, most of the activities implemented by the various health programmes focused on improving attendance to antenatal care and delivery in health centres and health posts at the expense of emergency obstetric care in the district hospitals. In the wake of the sub-regional workshop on Safe Motherhood held in Bingerville in 1995, and in collaboration with UNICEF, the government of Guinea launched in 1997 a project to reduce maternal and neonatal mortality in the health district of Dabola. The aim of this project, called EmNOC[7]/MURIGA, was to improve access to quality Essential and Emergency Obstetric Care, strengthen the capacity of the district team, mobilise the community and promote community health insurance schemes. The establishment of community health insurance schemes for safe motherhood, or MURIGAs (for **MU**tuelles pour la prise en charge des **RI**sques liés à la **G**rossesse et à l'**A**ccouchement), was part of this project.

As the EmNOC/MURIGA approach piloted in Dabola had produced

[7] Emergency Neonatal and Obstetric Care

satisfactory outcomes (Kourouma 2005), the annual review of the Expanded Programme on Immunisation/Primary Health Care/Essential Medicines (EPI/PHC/EM - 1998) recommended its extension to the rest of the country. A baseline study, financed by the World Bank, was then conducted. This study attempted to identify those socio-cultural and economic factors relevant to the establishment of a MURIGA. Its findings highlighted the main obstacles to obstetric referrals and revealed that 85% of people questioned were in favour of setting up a community health insurance. This study also recommended pre-conditions for the effective founding of these community health insurance schemes, including community awareness-raising, the setting up of management committees and improvements in the quality of care and services. In 2000, the Ministry for Health decided to extend the system of MURIGAs throughout the country. The institutional donors involved in health sector funding (UNFPA, UNICEF, WFP, WHO, GTZ, WB/PRSS and ADB/PRSS) agreed to and supported this decision (Soumaré 2004).

Access to health services for women, with the specific objective of reducing maternal and neonatal mortality, is the main strategic orientation in the UNDP's Health Sector Development Programme 2001-2010 (UNDP 2001- 2010), which clearly defines risk-sharing as a strategic response to reducing maternal and neo-natal mortality.

This chapter aims to describe the MURIGA development process and context, evaluate the management and outcomes of these MURIGAs in terms of utilisation of maternal health services, and present the different stakeholders' perceptions of the system. We will also discuss the potential and limits of this type of community health insurance.

Context

Guinea has enormous agro-pastoral, fishing, hydraulic and mining potential. Yet despite its inestimable natural wealth, the country poses a paradox. In 2005, according to the UNDP's socio-economic development indicators, it ranked it 156th out of 177 countries. Surveys carried out on household consumption show the scale of poverty: 49% of the population live below the poverty threshold and 13% below the extreme poverty threshold. Nevertheless, these proportions are simple averages that hide the reality of enormous disparities between areas, gender and access to goods and services,

especially social services (Ministry of Planning 2004). According to the results of the EIBEP (the integrated baseline poverty assessment survey in Guinea) carried out in 2002/2003, the population living below the poverty threshold was estimated to be 53.6% in 2005, compared to 50.1% in 2004 and 49.2% in 2002; this represents a 4.4% decline over 4 years (IMF, 2007). Poor economic performances, the acuity of its economic and social problems and budgetary problems are just some of the factors that have lead this country into poverty and one of the most serious economic crises in its history.

One in five women (21%) has no income-generating activity. The illiteracy rate amongst adults is 83.5% for women compared to 55% for men.

Table 1. Key indicators for women and child health, Guinea, DHS 2005

Indicators	
Women aged 15-19 already mothers or pregnant at the time of the survey	32 %
Primary school attendance rate in girls	40.8%
Prevalence of Female Genital Mutilation (15-49 years)	96%
Modern contraceptive prevalence	5.7%
Total fertility rate	5.7
HIV prevalence in women[8]	1.9%
Ante-natal care (ANC) coverage	82 %
Assisted deliveries (health facilities)	38 %
Post-natal care (PNC) coverage	59 %
Neonatal mortality rate	39 ‰
Maternal mortality ratio	980 /100,000 LB
Infant mortality rate	91‰
Under-five mortality	163‰

Source: Guinea 2005. Demographic and Health Survey

Guinea was one of the first countries to introduce primary health care based on the Bamako Initiative (BI). In 1988, the Ministry of Public Health, with the support of its main partners, notably UNICEF, WHO, the World Bank, and other bi- and multi-lateral cooperation bodies, implemented a national primary health care programme based on the BI. This programme revitalised

[8] National prevalence in men and women aged 15 - 49 is 1.5 %, with more women affected than men (1.9 % against 0.9 % in men).

and made functional approximately 382 health centres, improving the population's geographical accessibility to curative care (60% within 5km) and preventive care (90% within 5km) (DNS 2000). However, a large part of the population (40%), including women, is excluded from access to health services. This exclusion, particularly in rural areas, is linked to a problem of financial accessibility to healthcare services (Kourouma 2005).

Methods

This study started with a review of documents on the MURIGA experience. Most of these documents have not been published in scientific reviews and include official documents from the Guinean Ministry of Health and reports from health development partners in Guinea, notably those involved in supporting the maternal mortality reduction programme.

We then contacted various stakeholders (health system managers, care providers, international and national partners, etc.) to further clarify our information, particularly on the process. The most recent data (2006, 2007), which had not yet been published, was gathered by the UNICEF Conakry office, which is responsible for monitoring the MURIGAs and the National Program for Safe Motherhood.

The information sought concerned the geographic extent and the number of functional MURIGAs, the enrolment rate, the impact on utilisation of services, the quality of care, their financial and administrative management, access to care for the poorest, and finally the population and health staff's perception of the MURIGAs .

The absence and/or incoherency of data have been a major constraint in this study; we have only retained reliable and complete data.

Characteristics of the MURIGAs

THE MURIGAS' ORIGINS

The MURIGAs' origins lie in a successful pilot scheme with a solidarity fund in the district of Dabola in 1997. The hospital's Obstetrics and Gynaecology department had come up with the idea of introducing a credit system based on a solidarity fund into which the hospital's management team paid the equivalent of 10 referred patients' case-management costs. The idea was simple: the fund was used to pay referred patients' transportation and

hospital costs so as not to delay their access to care, and the families then settled their account with the Obstetrics-Gynaecology department. This was a success. In 1997, 192 women received care through this solidarity fund, out of 205 patients referred. Only 1% (two families) did not pay for their care, whereas in 1996, 33% of families left their costs unpaid. It was on the basis of these encouraging outcomes that the idea of organising the community into setting up their own fund was launched. As a result, community funds were set up in the sub-prefectures under the name of MURIGAs. The sections that follow describe the current characteristics of a MURIGA.

SERVICES COVERED

A MURIGA covers the costs of maternity-related services only:

Women's obstetric care costs

- ante-natal care (ANC) (including medicines)
- delivery
- obstetric complications (including hospital care and medicines)

Transportation costs in the event of referral to a higher-level health facility (either the ambulance fuel costs or payment of fees).

Priority is given to obstetric complications and the transportation of women referred to a referral facility, the costs of which are obligatorily covered by the MURIGA. Coverage of other benefits (ANC, normal delivery, curative consultations for children under five, family planning) and other types of costs (accompanying person + meals) are decided by the community and depend on the community's contributory capacity. As a result, benefits covered vary from one locality to another. This is how the MURIGA in Dabola and Mandiana gradually introduced the coverage of curative consultations for children from 0 to 5 years, and the MURIGA in Baté Nafadji (KanKan region) extended benefits covered to include curative consultations for children from 0 to 5 years and family planning.

The MURIGA pays 100% of the fees, except in Mandiana where the community decided on 80%. Here, the MURIGA has introduced a sort of co-payment which leaves 20% of fees to be paid by the beneficiary. To be entitled to the benefits offered by the MURIGA, members must be up-to-date with their subscriptions.

ENROLMENT PROCEDURES

The name given to this form of risk-sharing gives a clear indication of its main target group, being women of child-bearing age[9] who pay an annual subscription to avert potential problems related to complicated pregnancies and deliveries (Tambalou 2005). Joining a MURIGA is a free and voluntary decision, usually taken by the head of the household. There are three membership models. The first, and by far most popular model, is one whereby the household constitutes the membership unit: households thus subscribe to cover the maternity care of women of child-bearing age belonging to these households. In the second model, women of child-bearing age pay their own contribution. However, this model was discouraged and reduced to a minimum through intensive information and technical support following the supervision visits by the national safe motherhood programme (PNMSR). Indeed, with this model, the issue of risk-sharing is more likely to arise as the member's status and access to cover are for a limited duration only. A third model is one where a handful of localities ask the whole tax-eligible population to contribute towards the MURIGA (the sub-prefecture of Sinta, for example). The tax-eligible population is defined by the local authorities as including any person over 18 or 20 years of age (depending on the locality) who is not a civil servant. This model is much more difficult to monitor in light of the fiscal administration deficiencies seen in the majority of African countries.

In concrete terms, becoming a member of the MURIGA means purchasing a member's passbook which grants MURIGA member status. The amount is notified into the MURIGA's annual budget. The membership card is proof that the beneficiary is up-to-date with his/her contributions. It also serves to assure the service provider that the beneficiary in question fulfils the conditions for accessing benefits and guarantees that her costs will be covered in accordance with the defined terms. This membership card serves as the MURIGA's letter of indemnity with regards to the service provider. In principle, it reduces the delays in accessing care

[9] The target group of the first MURIGA to be set up was pregnant women only. After a few years of experimenting, the target group was extended to include women of child-bearing age, which helped broaden the membership base.

that result when such a letter is required[10].

In some localities, to obtain MURIGA membership status, the member has to pay non-refundable membership fees. A part of this amount is used to meet administrative costs, such as the purchasing of membership passbooks/files, and the rest is paid into a reserve fund to allow the organisation to cope with cash-flow problems and exceptional expenditure.

SUBSCRIPTION CALCULATION PROCEDURE

The rate and methods of payment vary from one locality to another and are decided by the community. The subscription is usually payable once a year, at a period when revenue in the community is at a peak. In rural areas, for example, households have the most revenue at harvest-time. The subscription recovery period often lasts two months.

In determining the rate of subscription, the MURIGA's founders base themselves on the annual cost of benefits and the organisation's running costs, mainly the cost of producing management tools. These two elements make up the MURIGA's annual budget.

The annual cost of services is linked to health care and transportation costs. It is calculated by taking the following parameters into account:

- the expected number of pregnancies
- the expected number of obstetric complications[11]
- the expected number of caesarean sections
- the cost of care (c-sections, management of obstetric complications, and, depending on choice: ANC, normal delivery, etc.)[12]
- the cost of transporting patients from their locality to the referral facility (ambulance or public transport provided by the union of transport workers)[13].

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[10] Most conventional community health insurance organisations provide a letter of indemnity that the member has to fetch from the organisation's office before seeking treatment.

[11] The expected number of obstetric complications in a locality during the year is estimated at 15% of expected deliveries (UNICEF/ WHO/ UNFPA 1997). This rate is confirmed or adjusted during the feasibility study.

[12] Hospital tariffs for an obstetric complication (the bed charge in application in the country is GF 10,000 per obstetric complication, including c-sections and ectopic pregnancies). However, since the dislocation of the health system in 2002-2003, this tariff is calculated according to the real cost of services.

[13] The transportation tariff is calculated per km (250 GF/km in 2000 and 300 GF/km from 2002) (Kourouma 2005).

Members are then offered a choice of benefit packages (Table 2):

Table 2. Different insurance options

Benefits	Option 1	Option 2	Option 3	Option 4
Management of obstetric complications	X	X	X	X
Caesarean section	X	X	X	X
ANC		X	X	X
Normal delivery			X	X
Transportation	X	X	X	X
Meals				X

Option 1 is the basic insurance option, and is compulsory for all new MURIGAs. Annual running costs are also factored into the subscription calculation. They relate to the cost of producing management tools and administrative overheads. This cost is usually 10% of the total annual amount of subscriptions. The subscription rate is set for a one-year period. It is reached by dividing the MURIGA's total annual budget by the number of subscribers. The subscription unit is variable: individual, household, village, association or group, etc. The choice of option determines how the subscription rate is calculated (cf. formula in appendix 1).

The subscription rate per subscription unit varies according to the choice of option. Thus the annual subscription rate per household has gone up from GF 6,000 to12,000 in a number of MURIGAs (about €0.9 and €1.8 Euros)[14]. By contrast, in rural areas, there are MURIGAs which entitle members to benefits with an extremely low premium: between GF 300 and GF 600 (€0.05 to €0.1) This type of situation arises when communities have not received adequate support in determining the number of expected deliveries and complications, the related costs, and, from these, the amount of contribution to be paid.

GEOGRAPHIC ORGANISATION

One MURIGA covers an entire health district, which corresponds to a Prefecture in administrative terms. The MURIGAs are therefore organised

[14] 10,000 Guinean Francs = € 1.47 (http://www.xe.com, October 2008).

on the scale of a Prefecture, thus covering all its sub-prefectures, except in the Prefectures of Pita and Télimélé, where respectively 4/12 and 4/14 of their sub-prefectures are covered by MURIGAs. In practice, the MURIGA's main office is located in the administrative seat of the Rural Development Communities (RDC) and/or Urban Communes (UC). Branches are then set up at district or village level. Trusted members of the community are appointed as their locality's delegate to the MURIGA's decision-making and regulatory bodies (General Assembly, Board of Trustees, Executive Committee, etc.). The districts and neighbourhoods thus make up the MURIGA's sub-sections. All the districts/neighbourhoods in a RDC or UC are grouped together to form the MURIGA on this administrative scale.

Administrative and financial management

The structure of a MURIGA is similar to that of a conventional community health insurance organisation. At the start-up, a constitutive general assembly (CGA) brings together the system's beneficiaries and officially processes the creation of the MURIGA by making it an official entity. However, MURIGAs have no legal status and 'usual' community health insurances are registered as associations at the Ministry of Regional Administration and Decentralisation (Gautier 2005). Then, the GA usually meets once a year.

The MURIGA's internal organisation is governed by its articles of association and rules of procedure. These documents are intended to ensure the organisation is run democratically. The articles of association define the different bodies and their remit, whereas the rules of procedure specify the organisation's operating methods (service-provision, designated service providers, members' rights and obligations, etc.). The articles and rules of procedure determine the responsibilities of the MURIGA's management bodies, including the executive and regulatory committees. The executive committee carries out the day-to-day running of the MURIGA, including the management of enrolments, subscriptions, service-provision and any grants. The designated members of these bodies must have the full trust of the community and be school-educated or literate.

The MURIGA's funds, managed by its members (management committee made up of 5 to 10 members) are deposited at the mutual credit or rural credit bank, a local micro-credit bank with a branch in almost all the sub-prefectures. In the localities that do not have such a bank, the funds are kept by the MURIGA's treasurer. The Treasurer, along with the Chairperson

and General Secretary, carry out this management committee's main functions. A regulatory committee ensures that the MURIGA's activities conform to its articles and rules of procedure. It checks that its management procedures are properly complied with and monitors the book-keeping and transparency of financial transactions.

The prefectural health team, made up of the Prefectural Director of Health (PDH), the Director of Micro-projects (DMR) and the Prefectural Director for the Advancement of Women, assists with monitoring the running and management of the MURIGA.

The rural credit bank in which the MURIGA's funds are deposited, gives agricultural credit or other loans to community solidarity organisations, groups or associations for informal activities (trade, handicrafts, etc). Social pressure facilitates the reimbursement of credit granted to these organisations, which undertake to reimburse even in the event of a member's death.

Setting-up of a MURIGA

There are three stages to the setting-up of a MURIGA (at quarterly intervals) according to the approach adopted by the Health District Management teams in collaboration with the National Programme for Safe Motherhood (PNMSR) and UNICEF (Box 1): a social mobilisation and information phase, setting up the management committee, and then rollout.

Before the introduction of a community health insurance scheme, a feasibility study is generally required to determine the extent of beneficiaries' contributions to the scheme. With the MURIGA, only the first ones were preceded by such a study. Those that followed were established on the basis of a situational analysis, notably of the health situation, backed up by the experiences and outcomes of the first MURIGA. However, in a new *Technical Guide for the Establishment of Community Health Insurance for Safe Motherhood* drawn up in 2006, the PNSMR recommends that a feasibility study be conducted each time, and outlines the different stages to be followed.

Constituting a MURIGA involves the drafting of a number of statutory documents (agreements with health care providers, articles of association, rules of procedure, etc.) and the setting up of boards and committees. The MURIGA, as a community solidarity organisation, draws up agreements

with its care providers. These agreements essentially cover tariffs, invoicing and payment procedures. In order to ensure a regular and permanent referral service between the health centre and the prefectural hospital, the MURIGA also signs contracts with drivers (transport workers' unions or private individuals), as the ambulance may break down or be in use elsewhere. This agreement prevents one of the heaviest costs from weighing on the household. The cost of transportation for evacuating an obstetric emergency is GF 80,000 minimum, or about €12, which represents about 5 months' revenue for a household. A single evacuation can thus cause catastrophic expenditure for the household concerned (Kourouma 2005).

With regards to transparency, general information on the organisation of the system on tariffs for transportation and care, as well as on the care package covered by the MURIGA, is put up in the health centres, the offices of the Rural Development Communities (CRD) and the offices of the transport workers' unions.

Box 1. Establishment of a MURIGA in three phases

Phase 1. Social mobilisation, information and awareness-raising activities

The themes covered in the awareness-raising are :

- the objectives of the safe motherhood project
- the role of the community
- operating and enrolment procedures

Phase 2. Setting up a management committee for the MURIGA and start of enrolments

- description of the composition and role of the members
- nomination of the MURIGA committee members
- establishment of a partnership agreement with the hospital for essential and emergency obstetric care (tariffs, invoicing, payment method)
- establishment of a partnership agreement with the transport workers' union for the transportation of pregnant women (tariffs, payment method)
- start of enrolments

Phase 3. MURIGA rollout and launch of activities

- verification of the amount of funds collected (start-up once 50% of expected subscriptions received)
- launching of activities on average three months after the start of the establishment process.

Source: Soumaré 2004

At the end of the month, each of the three organisations (prefectural referral hospital, health centre and union office) issues the MURIGA with an invoice. Once checked, the MURIGA authorises the rural credit bank to pay these invoices.

Monitoring and evaluation system

The supervision and monitoring of the MURIGA is carried out jointly by the health district's management team, the National Programme for Safe Motherhood, and the NGOs and partners involved in the process. Monitoring is conducted at the same time as the supervision of maternal and neonatal mortality reduction activities, twice a year at the central level, every three months at the regional level and every month at the prefectural level. The information gathered is organised into three categories: data relative to the MURIGA's administrative and financial management, data relative to the coverage of obstetrical needs and data for measuring the impact of the MURIGA on hospital utilisation (proportion of MURIGA members among patients receiving hospital treatment for obstetric complications). However, the compilation of this data poses serious exploitation problems.

In 2001, 2002 and 2004, evaluations of the different MURIGAs were carried out to assess progress, improve the system and ensure sustainability. These evaluations highlighted initial successes and the considerable demand among pregnant women and their families for this type of financial self-help mechanism, but they also brought to light the difficulties and constraints created by the operating methods of these community health insurance organisations. These evaluations, especially the 2004 exercise, helped speed up reflection into methodology for extending this approach to other health districts (Soumaré 2004).

The Ministry of Health used their recommendations in defining its key strategic orientations for the development, promotion and sustainability of MURIGAs in the Republic of Guinea. One of the main outputs is the *Technical Guide for the Establishment of Community Health Insurance for Safe Motherhood* (2006), which provides a technical response to the establishment of MURIGAs.

Stakeholders' role

A number of stakeholders are involved in the development of MURIGAs, among them health sector development partners. Their support focuses mainly on technical, financial and institutional aspects (Ndiaye 2006).

The Ministry of Health, via the National Programme for Safe Motherhood (PNMSR), is the main initiator of these MURIGAs. The PNMSR is the overarching structure that organises strategy, leads advocacy action and acts as a guarantor with partners. Organisational aspects of the development process are managed by the health district management team with the support of the development partners and administrative authorities (Director of Micro-projects, Director of Social Affairs and the Advancement of Women, sub-prefects and mayors). This last group provides technical assistance rather than financial or material support. It also helps provide information and awareness-raising[15], in partnership with local leaders, with regard to the scale of poverty-related maternal mortality and the need to implement a solidarity and self-help mechanism to deal with it.

The availability of quality health services in an environment close to the target population is one of the pre-conditions for establishing a MURIGA. Assisting the communities to become financially self-supporting means that adequate care is in place for this community. This implies the availability of trained health staff, wheeled equipment/material (medically-equipped ambulance, motorbike and supervision vehicle), medico-technical equipment and material (including autonomous mobile communication relays), management tools for the health centres and hospital maternity units, drugs and consumables. The financial support needed to satisfy the pre-conditions for setting up MURIGAs has come from bi-lateral and multi-lateral cooperation.

The first MURIGAs were set up by UNICEF. The German Technical Cooperation (GTZ), as part of a partnership agreement, supported the implementation of the pilot project in Dabola. The World Bank's Population and Reproductive Health Project (PRHP), the UNFPA, the

[15] Some bodies such as the WHO contribute from time to time by carrying out awareness-raising or prevention activities such as the distribution of impregnated mosquito nets (Afro 2005).

African Development Bank (ADB) and the American bilateral technical aid agency (USAID), through projects and NGOs (PRISM, Save the Children and Adventist Development of Rural Areas - ADRA), joined UNICEF in providing financial and technical support for setting up the MURIGAs. The PRHP, which also supported their establishment, allocated them a grant equal to 75% of their total subscriptions. National NGOs (Mother and Child Association, Association for the Defence of Women's Rights in Guinea, Guinean National Coalition for the Rights and Citizenship of Women, Guinean Peace and Development Corps and the Association for the Sustainable Development Of Women), and DYNAM in particular, provided considerable expertise and technical support to the process.

Table 3 below summarises the role played by the different partners in the MURIGAs' development, and Table 4 gives the area and year of their intervention.

Table 3. Stakeholders' role in the development of the MURIGA

Stakeholders	Role
Ministry of Health and its decentralised services (PNMSR, Districts)	Decision to create a MURIGA Establishment of the MURIGA
Local authorities	Technical support to the establishment process Participation in community mobilisation
First-line stakeholders (care providers, transporters, banks)	Compliance with the agreements binding them to the MURIGA
Families, pregnant women	Contributors (subscription) Beneficiaries
International agencies (UNICEF, UNFPA, SCF etc.)	Availability of quality services (training staff in Essential and Emergency Obstetric Care, contribution of medical and communications equipment) Methodological support Monitoring and evaluation
National NGOs, DYNAM, PRISM	Support to the development process Monitoring and evaluation Extension of the package to other health problems (children under 5, etc.)

Table 4. Partner institutions' interventions in the prefectures covered by the MURIGA

Prefectures	MURIGA set-up date	Partner institution
Dabola	1996	
Boffa	1999	
Kouroussa	2001	
Kissidougou	2002	UNICEF
Forécariah	2003	
Kindia	2006-2007	
Dinguiraye (*)	2007-2008	
Faranah (*)	2008-2009	
Mali (*)	2008-2009	
Mandiana	2000-2002	WB (PRHP)
Siguiri		WHO
Beyla		
Lola		
Kérouané (*)	2003	USAID (PRISM,SAVE THE CHILDREN, ADRA)
Koubia (*)	2007-2008	
Lelouma (*)		WB (PRSS)
Mali (*)		
Dalaba (*)		
Gueckedou (*)		
Gaoual	2003	
Koundara		ADB
Tougué		UNICEF
Boké	2007 -2011	
Lélouma		UNFPA
Pita (*)		
Télémélé(*)		

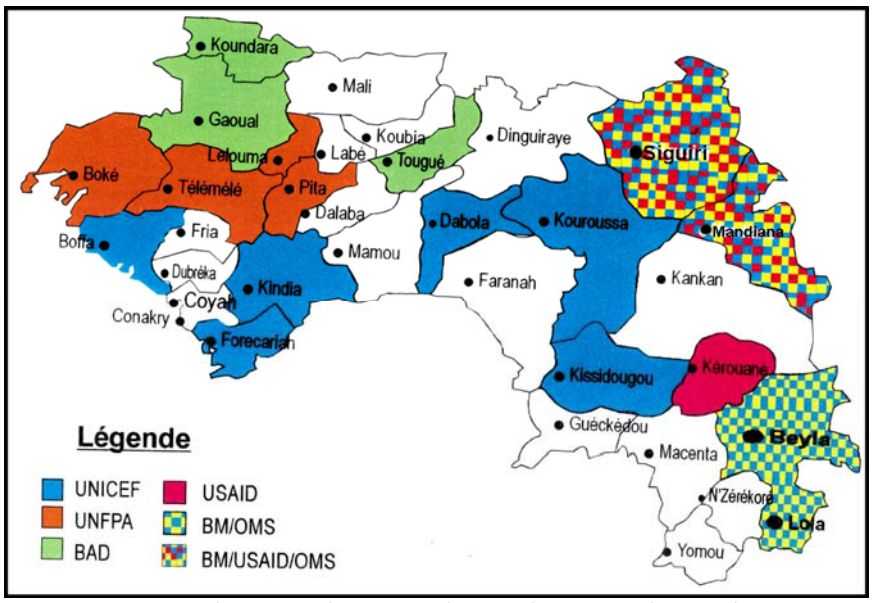
Source : PNMSR 2007
* Currently being set up

Results

MURIGA'S COVERAGE

To date, 17 of the country's 33 health districts are covered by MURIGAs (Table 4), although some of them are not yet fully functional. The map below shows their geographical distribution (by district).

Map 1. Geographical coverage (PMSR 2007)



Key: BAD=ADB, BM/OMS=WB/WHO, BM/USAID/OMS= WB/USAID/WHO

However, within any given prefecture, the enrolment rate varies from one locality to another, ranging from a few percent to more than half of pregnant woman. The median coverage is 10%. In the period 2000-2006, 15% of pregnant women living in areas with operational MURIGAs received care through the system (Table 5).

Table 5. Number of women who benefited from the MURIGAs compared with the expected number of pregnancies in the different prefectures covered (2000-2006)

Years	Expected number of pregnancies	Number of pregnant women covered by MURIGAs	Percentage %
2000	70,115	11,016	16
2002	92,959	18,977	20
2004	149,706	16,493	11
2006	165,944	26,144	16
Total	478,724	72,630	15

SERVICE UTILISATION

The process indicators chosen for monitoring the system are given in table 6. These are outcomes for the period from 2000 to 2006. They are drawn from the monitoring exercises conducted every six months by the district's team, as well as from the MURIGAs' management records and the various supervision reports produced by the PNMSR and other partners. The results show that in the areas covered by MURIGAs, ANC coverage increased from 55% to 79%, whereas the assisted delivery proportion stayed generally low, edging up from 17% to 22%.

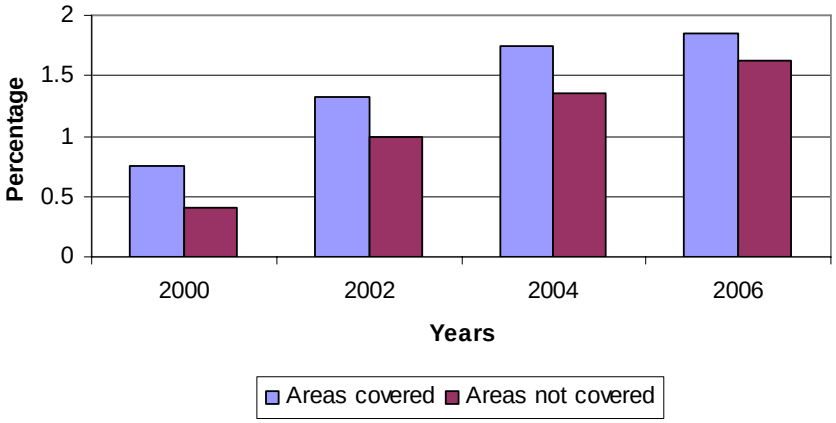
Table 6. Trends in indicators at the prefectural level[16] (2000-2006)

Indicators	**Year**			
	2000	2002	2004	2006
Effective ANC coverage	55%	65%	73%	79%
Assisted delivery rate	17%	20%	20%	22%
Referral rate	5%	10%	12%	15%
C-section rate	0.75%	1.32%	1.75%	1.85%

With regard to the rate of referral from health centres to prefectural hospitals and the c-section rate, there was a gradual increase between 2000 and 2006. Although the c-section rate also rose in areas without cover, it is still lower than the rate in areas covered by MURIGAs (Figure 1).

[16] The prefectures in question are, in 2000: Dabola, Boffa, Mandiana, Siguiri, Beyla and Lola (N=6 prefectures); in 2002: Dabola, Boffa, Mandiana, Siguiri, Beyla, Lola and Kouroussa (N=7 prefectures); in 2004: Dabola, Boffa, Mandiana, Siguiri, Beyla, Lola, Kouroussa, Kissidougou, Forecariah and Kérouané (N=10 prefectures); and in 2006: Dabola, Boffa, Mandiana, Siguiri, Beyla, Lola, Kouroussa, Kissidougou, Forecariah, Kérouané, Boké, Pita and Télimélé (N=13 prefectures).

Figure 1. Evolution of the caesarean sections rate in the areas covered as compared with not covered areas from 2000 to 2006.



QUALITY OF CARE

Setting up a MURIGA produces subsidiary effects. The different national and international partners supporting the process commit to ensuring the availability of quality care: training for health staff, strengthening of technical support and improvements to communications and transport conditions, all of which contribute towards improving the quality of services provided.

However, intentions to improve the quality of care and establish the right preconditions for setting up a MURIGA are not always confirmed in reality. Hence, for several years normal deliveries in Dabola and Forécariah took place at the prefectural hospital rather than at the health centre, due respectively to a lack of staff and a lack of space. In Forécariah, the health centre adjoined the prefectural hospital, so the authorities did not see the need for deliveries at the health centre. This situation caused additional expense for the MURIGA (a normal delivery costs GF 1000 in the health centre compared to GF 6000 at the prefectural hospital). In Dabola, this situation still increased geographical and cultural barriers for the women, as in 2004, 80% of women in this locality chose to give birth at home with a traditional midwife rather than at the hospital. This situation in Dabola and Forécariah continued until 2007; today deliveries are possible at the health centre.

ACCESS FOR THE POOREST

In Guinea, 15% of the population is indigent (Condé 2004). In principle, the financial burden for the MURIGA in any given locality falls on those households capable of paying. Costs for women from indigent households, identified as such by the local population, should automatically be covered by the contributions of others. However, in the evaluation conducted in 2004, of the 12 MURIGAs surveyed, none of them had provided access to the system for impoverished women because of difficulties in defining criteria (Soumaré 2004). The managers interviewed reported cases of enrolment of indigent women in Dabola and Konindou but there is no information on the percentage this represents. Furthermore, an indigence fund has been set up with resources from the "Heavily Indebted Poor Countries Initiative" (HIPCI). In order to keep management simple, these funds are paid directly to each hospital on the basis of population covered rather than the level of poverty of the district. They are intended exclusively for the payment of patients' hospital costs. No example of the utilisation of these funds by the MURIGAs has been reported.

ADMINISTRATIVE AND FINANCIAL MANAGEMENT

In conducting this survey, we have been faced with a problem of insufficient or incoherent data. There is considerable variance between what should be gathered on a regular basis by the MURIGAs' management bodies, and what is actually gathered. In many cases, the operating standards of these bodies remain poor. Low school attendance and literacy rates are obstacles to management and, to a certain extent, to the community's appropriation of the MURIGAs. In the 2004 study, only one MURIGA had received any management training.

With regards to administrative management, in some cases the management tools designed for conventional community health insurance organisations are not suited to the MURIGAs' specificity. In others, forms are not filled correctly. General Assemblies are rarely organised and delegates' mandates are not renewed at the intervals specified in the rules of procedure. The managers are not all informed of their roles and complain of a lack of training for carrying out the functions devolved to them. The fact that the MURIGA does not have its own head office reduces participation by the managing members. They tend to use government premises and very

often those of the health facilities.

As for financial management, the evaluation carried out in 2004 revealed that only half of the MURIGAs had produced a balance sheet and income statement at the end of each financial year (Soumaré 2004). It is therefore very difficult to obtain data on their financial viability. In 2003, in the health district of Dabola, expenditure in 5 sub-prefectures out of 9 exceeded the amount of subscriptions recovered (Kourouma 2005). In most cases, these deficits were made up by the Rural Development Communities (CRD). If all the receipts had been pooled, the burden share would have only amounted to 70% of the amount of subscriptions recovered.

Table 7. Percentage of expenditure per sub-prefecture in relation to total subscriptions recovered

Sub-prefecture	2000	2001	2002	2003
Banko	41%	45%	46%	39%
Konindou	56%	52%	105%	111%
Konso	91%	88%	93%	104%
Kankama	94%	61%	43%	102%
Bassikrima	91%	83%	87%	15%
Dogomet	60%	40%	44%	49%
Arfamoussaya	73%	50%	71%	102%
Kindoye	75%	84%	104%	109%
Dabola Centre	77%	24%	39%	16%
Total	**72%**	**53%**	**64%**	**72%**

Source: Kourouma (2005)

The implementation of agreements with health facilities is also unsatisfactory. In the 2004 survey, 8 MURIGAs out of 12 claimed to have signed agreements, but not one document was found (Soumaré 2004). This absence or non-availability of written agreements opens the way to non-compliance with payment procedures. Service providers often provide services to patients who are not up-to-date with their subscriptions. Sometimes service providers also ask for payment in advance. Such practices jeopardise the system's viability. The shortage of medicines in the health facilities also remains a problem. Major breaks in the supplies of medicine stocks are the result of the depreciation of the currency and the lack of performance on the part of supply structures (IMF 2007). Medicines included in the benefits package are often out of stock and MURIGA then

have to buy them out of their own funds (DYNAM 2004). There is a similar lack of rigour surrounding agreements with the transport workers' union: none of the MURIGAs surveyed in 2004 had a signed agreement with this body. There were only verbal contracts that could be broken unilaterally at any time (Soumaré 2004).

STAKEHOLDERS' PERCEPTION

In spite of the constraints and difficulties, the MURIGA experience seems to have been deemed satisfactory by the beneficiaries and also by the other stakeholders, particularly with regard to the services offered. This feedback is taken from the personal accounts gathered during the evaluation of the MURIGAs commissioned by UNICEF in December 2004.

On the whole, the beneficiaries express satisfaction with the improvements in their care-management since the introduction of the MURIGAs, notably in terms of reception and care. The MURIGAs have reduced their feeling of insecurity by guaranteeing access to quality essential emergency obstetric care. They have provided financial relief to beneficiaries' families, and thus a chance to save money, as is illustrated in this account by a beneficiary in Moussayah:

"The MURIGAs have brought us good health by helping us to organise ourselves so that together we can save the women of our community who are members. Because before, when the need arose, it wasn't easy for the parents, husbands and brothers to meet the costs. But with the MURIGAs, you are transported and cared for without your family suffering";

or in this one from Fermessadou ;

"*If I'm still alive today, it's thanks to the MURIGA, because I was in a coma when the ambulance took me from here to Kissidougou for treatment and a caesarean section, and I didn't pay anything. The GF 500 insures you for your transport and care".*

On the whole, health facility managers consider that the MURIGAs have permitted improvements to service utilisation, an increase in resources and better quality services (even the setting up of new services). Indeed, by providing them with access to ambulances, communications material, equipment and other supplies, as well as training for health staff and traditional birth attendants, the MURIGAs have made a significant contribution towards the satisfactory running of these health facilities.

Other health managers, however, feel that the MURIGAs have made no real contribution. Enrolment levels are still relatively low - with a median coverage of about 10% -, and drugs shortages, the absence of management tools, the lack of motivation amongst MURIGA managers, their lack of training or poor level of education, as well as insufficient awareness-raising and a lack of continuing follow-up are all factors affecting the system's performance.

Opinion leaders see them as a real mechanism for relieving the suffering caused to households by health problems. One elected representative explained as follows:

" *When we have a neighbourhood meeting, it's my duty to remind people to continue raising awareness among women, in the mosques and at meetings, so that the women join the MURIGA, because you never know, better safe than sorry. All anyone wants is for every pregnant woman to give birth normally, but you never know. So we need to inform women so they join the MURIGA".*

However, although the women themselves generally recognise the usefulness and relevance of the MURIGAs, some of them regret the fact that this form of solidarity is "one-way". There is no prospect of health cover after the birth, either for the baby, the mother, or for any other members of the family when they fall ill (DYNAM 2004-2005). Furthermore, although the initiative is well-received by opinion leaders (religious and community leaders), the organisations' management methods do not always follow the democratic rules defined in the establishment process. Consequently, a number of women complain that the decision-making bodies are not renewed and that women are under-represented (Soumaré 2004).

It also appears that in some places the system's success is largely dependant on individual health managers, as this account by the transport workers' union shows:

"We were entirely satisfied when Dr K. was in charge because, with him, all sides kept to the agreements. We had no complaints from the transport workers about their fuel costs not being paid. Once the driver had dropped off a woman with obstetric complications, he was immediately reimbursed the cost of his petrol. But now we are having problems getting drivers' fuel costs reimbursed. We' re having to pay them out of our own pockets".

Discussion

LOW ENROLMENT RATE

In 2000, with the support of UNICEF, the government of Guinea decided to extend the Dabola pilot project throughout the country. Today 17 of the 33 prefectures are covered and the extension is continuing. However, the penetration rate in these prefectures remains low, with a median of 10%. A number of reasons may lie behind this.

The first is the *contribution method.* The subscription unit chosen can have an impact on social dynamics. If, for example, the subscription unit is the household or the village population, the heads of families may not feel concerned. Social tensions may even arise from the fact that only a small proportion of the population benefits from the services, as MURIGAs only cater for pregnant women.

The second is the *quality of care.* In spite of government policy and the support of institutional donors, Essential Obstetric Care is still not available in all the health centres, which means women have to give birth at the prefectural hospital for normal deliveries or pay for medicines in a private chemist's because the hospital pharmacy is out of stock. The low MURIGA enrolment rate seems to be linked to the low utilisation rate of health centres. This rate is approximately 0.10 - 0.15 new cases per inhabitant per year. If people do not see the point of going to the health centre when they are ill, it is clear that a community health insurance scheme built around this centre will find it difficult to convince its target population of the benefits to be had from enrolling in it. And yet the system of risk-sharing is not in itself sufficient incentive for improving the quality of care (Waelkens & Criel 2004, Criel *et al.* 2005). Other measures relative to human resources management at the health system's central and first-line level also need to be put in place (career planning, staff availability and mobility, training, etc.).
A third explanation is the MURIGAs' *top-down approach.*

The MURIGAs have been set up strategically to tackle problems specific to maternal and neonatal mortality. For this reason, the objectives, coverage characteristics (targets and benefits), and methods of contribution and community participation differ from conventional community health insurance schemes (Table 8). Conventional schemes' technical and social construction is broader and more comprehensive.

The various evaluations carried out so far highlight the low level of community involvement in the process. The decision to set up a new MURIGA is taken by the Ministry of Health with the support of an international agency. The families are considered as beneficiaries but have almost no involvement in the implementation process. The main reason for non-enrolment, according to the non-member women questioned, is a lack of information about this system. Most families do not know the MURIGA's executive committee members. It is significant that few of these committee members are actually elected; most of them are nominated by the prefecture's administrative authorities (Soumaré 2004). All this makes for poor appropriation of the MURIGA by the community.

Table 8. Conceptual comparison of MURIGA and conventional community health insurances

	MURIGA	Conventional Community Health Insurances
Objective	Specific: to reduce maternal and neonatal mortality through improved access to maternal and neonatal care.	Broad: to improve access to care for the population in general
Package of benefits covered	Selective: women and children Specific and relatively rare occurrence of risk (pregnancy)[17]	Extended: the whole population Variable risks: small and large, rare and less rare occurrence
Enrolment	Voluntary: per at-risk individual, per tax-eligible individual[18] or per household	Voluntary: per individual or per household
Establishment	"Top-down" establishment process. High level of involvement by the health ministry and health sector development partners.	Needs and characteristics defined by the population (high-level of appropriation and "ownership")
Management	High-level of involvement by health and social authorities, co-management (community and health administration)	High-level of social participation, community-based management

A fourth explanation is the *subscription rate*, which is also put forward by non-

[17] 15% of pregnancies encounter complications and 5% are caesarean sections (UNICEF/WHO/UNFPA 1997).

[18] This refers to the membership of a village or a sub-prefecture. The amount necessary for the village is calculated and divided by the number of tax-eligible people in this village.

member women as a reason for not enrolling. In theory, and according to the guidelines and orientations of their promoters, the MURIGA should cover costs on behalf of women who do not have the financial capacity to contribute. However, it has not been possible to find any data in the different reports on exemptions for poor patients. There is no data to show that MURIGAs have improved access to services for the poorest.

MANAGEMENT CAPACITY

This is still one of the system's main challenges. It may be commendable to have produced technical guidelines outlining each stage in the constitution of a MURIGA, but poor management by the different managing bodies remains a serious problem. The different procedures and tools are rarely complied with or used, making monitoring and evaluation very difficult. This is certainly the most urgent issue to be resolved and a responsibility to be assumed by the supporting bodies (Ministry of Health, local authorities and international organisations) before extending the MURIGA's services.

The current system of organisation does not allow for the payment of a membership fee or administrative costs, restricting receipts to subscriptions for health care only. The viability of the MURIGAs will therefore depend on their capacity to mobilise volunteers and additional resources for the administrative side of operations. This limit to the community health insurance system in Africa is acknowledged by a number of authors. Volunteer managers are often ill-prepared to mobilise resources and keep balanced and reliable books (Huber *et al.* 2005).

FINANCIAL VIABILITY

When writing this chapter, it became apparent that the MURIGAs' accounting data was very difficult to obtain and had not been compiled at the central level. Some Rural Development Communities systematically make up any deficits. Some institutional donors subsidise the MURIGAs for the equivalent of 75% of received subscriptions. Certain MURIGAs did not receive sufficient assistance with calculating their subscription rates and have ridiculously low subscriptions, leading them into deficit. This raises the question of whether dividing the organisations up at sub-prefecture level does not somehow weaken the MURIGAs, which can rapidly find themselves with cash-flow difficulties if they have a number of heavy cases to deal with in any one financial year, whereas the current trend is towards the

"pooling" of community health insurances for a better risk spread and application of solidarity over a larger group of subscribers.

EXTENSION OF SERVICES

A number of people are in favour of broadening services, which would make the MURIGAs more acceptable to men and thus lead to better coverage. The MURIGAs in Kissidougou, Mandiana and Diabola have already incorporated access to children into their package and in 2006 provided access to care for 418 children, whatever their pathology. NGOs already active in the community health insurance field, such as DYNAM and the PRISM project with its Mutual Health Organisation Project in High Guinea, have been the driving force behind this movement to extend services. However, expansion will not solve the problem of the already unsure and unsound management of certain MURIGAs. Strengthening the management capacities of the MURIGAs' executive committees and improving the quality of health services are mandatory preconditions for any plan to extend the services covered.

Conclusion

Although we cannot claim with any certainty that the improvement in indicators such as referrals and caesarean sections is exclusively due to the MURIGAs, this system can be an interesting mechanism for the regular and integral case-management of obstetric emergencies. However, the system is still a long way from covering the whole country and population. Seventeen of the 33 prefectures have MURIGAs and the enrolment rate in these prefectures is only about 10%. There is also a clear lack of involvement by the community in the running of what was intended to be a community participation mechanism. In some districts, the management is carried out by the care provider directly. In others, the men involve themselves because the women wouldn't have the necessary skills (the literacy rate among women in rural areas is very low). It would be interesting to study self-management modalities and look at how to strengthen community stakeholder capacity (Ndiaye *et al.* 2005).

For the stakeholders in community health insurance in Guinea, extending the mandate of the MURIGAs, or at least incorporating them into bigger schemes, is both necessary and desirable, all the more so as this has

been one of the objectives from the outset. However, the population's low contributory capacity caused by poverty could be a curb to this extension. At present, although there is a trend towards broadening benefits and target populations, the MURIGAs remain a specific and selective formula. However, in spite of the imperfections identified in the MURIGA risk-sharing approach, the satisfaction expressed by the different stakeholders involved in their development (beneficiaries, authorities, elected representatives and health workers) and the spontaneous demand among non-members, are considerable assets for any future improvement and extension of the approach. As part of improving mobilisation and the rational use of financial resources, there has been (i) a revision of the national drug policy which aims to formulate a new supply strategy for medicines and define a price policy; (ii) the signing of a credit agreement with the World Bank on 29th September 2005 regarding financial support for the National Support Plan for Health Development (APNDS) whose goal is to reduce maternal and infant mortality in 18 prefectures (Koundara, Gaoual, Dinguiraye, Dabola, Kissidougou, Kérouané, Mandiana, Siguiri, Kouroussa, Télimélé, Tougué, Mali, Koubia, Lélouma, Pita, Dalaba, Guéckédou, Beyla) and; (iii) reflection with the World Bank on developing a health financing policy to put in place risk sharing mechanisms (IMF 2007).

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Appendix 1

CALCULATION METHOD FOR SUBSCRIPTION RATES ACCORDING TO CHOSEN OPTION

X : expected number of deliveries in the CRD/CU ; Y : expected number of obstetric complications ; Z : expected number of caesarean sections ; TC : transport costs ; BC : health benefit costs ; SU : number of subscribing units :

- Option 1 = (Managment of obstetric complications tariff x Y) + (Caesarean section tariff x Z) + TC) x 10%/SU
- Option 2 = (Managment of obstetric complications tariff x Y) + (Caesarean section tariff x Z) + (ANC tariff x X) + TC) X 10%/SU
- Option 3 = (Managment of obstetric complications x Y) + (Caesarean section tariff x Z) + (ANC tariff x X) + (Normal delivery tariff x X) + TC) x 10%/SU
- Option 4 = (Managment of obstetric complications x Y) + (Caesarean section tariff x Z) + (ANC tariff x X) + (Normal delivery tariff x X) = (Cost of accompanying person (transport or transport + meals) + TC) X 10%/SU