

**IMPACT OF THE POLITICAL CRISIS ON THE HEALTH SECTOR:
RESULTS OF A RAPID SURVEY OF URBAN AND RURAL HEALTH
CENTERS DURING THE MONTH OF JUNE 2002ⁱ**

Introduction

Due to a dispute on the outcome of presidential elections, Madagascar has been in the grip of a political crisis since the beginning of the year. General strikes and roadblocks have hit hard on the economy of Madagascar and therefore on the welfare of its people.

As primary data on the impact of this situation is scarce, the Ilo program, in collaboration with INSTAT and FOFIFA, organized a survey just before the roadblocks were lifted (during the month of June 2002) in 100 health centers in 3 provinces (Fianarantsoa, Mahajanga, and Antananarivo) in urban as well as rural areas. This policy brief discusses the impact of the crisis on the health sector.

The stratified sampling frame was set up in such a way to be as representative as possible of the situation in these provinces. Fivondronana were divided in six strata depending on the distance to the capital of the province (close, medium, far) and on the availability of a tarred road. In each strata, one fivondronana was selected for every province. In each fivondronana, four communes were selected randomly. The health center in every commune was visited. Retrospective questions were asked on the situation before the crisis and then compared to the current situation.

Table 1 illustrates the different type of health centers that were surveyed. They mostly include CSB2 (Centre de Santé de Base) (74% of the centers) and dispensaire privé (13% of the centers). 28% and 72% of the centers were located in urban and rural areas respectively.

Table 2: Staff in the health center

Average number per center	Before crisis			Jun-02		
	rural	urban	total	rural	urban	total
doctors	1.25	5.57	2.46	1.30	6.03	2.63
nurses	0.71	4.53	1.78	0.71	4.39	1.74
midwives	0.51	9.03	2.90	0.49	9.00	2.87
sanitary help	0.76	1.25	0.90	0.75	1.11	0.85
temporary employees	1.43	6.75	2.92	1.43	6.46	2.84
% of centers with reduced opening hours				3%	43%	14%
If yes, avg number of hours open	8.25	8.29	8.28	5.50	7.41	7.14

40 health centers were situated in the province of Antananarivo compared to 30 each in the province of Mahajanga and Fianarantsoa.

Table 1: Structure of the sample

	Number
CSB1	2
CSB2	74
CHD1	4
CHD2	1
CHU	2
Private hospital	3
Private dispensaire	13
Other	1
Antananarivo	40
Fianarantsoa	30
Mahajanga	30
Urban	28
Rural	72
Total	100

1. Impact on the supply side

1.1. Staff

a. No major change was noticed in the availability of staff compared to the period before the crisis.

Table 2 shows the evolution of staff in the health centers in the period before the political crisis started compared to June 2002. No major differences are noticed, in urban as well as rural areas. While there is some scattered evidence that staff was not able to get to the health centers where they were employed, this seems not to be an overall trend.

Table 3: Availability of medicines (in % of supply centers in the commune)

	Availability January 2002			Availability June 2002			If available, stock (no of months)		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Oral contraceptives	64%	78%	74%	64%	74%	71%	1.43	1.55	1.52
Condoms	64%	69%	68%	64%	67%	66%	1.89	1.90	1.90
Aspirine	86%	96%	93%	89%	65%	72%	2.63	1.26	1.64
Paracetamol	96%	97%	97%	93%	68%	75%	2.18	1.38	1.60
Solution de rehydratation orale	86%	93%	91%	86%	74%	77%	1.63	1.72	1.70
Antibiotique amoxiciline	89%	86%	87%	79%	58%	64%	1.78	1.05	1.25
Antibiotique cotrimoxazole	93%	96%	95%	96%	75%	81%	4.31	1.51	2.30
Antibiotique penicilline	96%	93%	94%	93%	65%	73%	2.04	1.35	1.55
Antibiotique doxycycline	93%	79%	83%	86%	57%	65%	2.92	2.00	2.26
Antibiotique tetracycline	93%	93%	93%	71%	75%	74%	1.83	1.52	1.61
Antipaludiques	96%	99%	98%	93%	74%	79%	2.59	1.51	1.82
Seringues	93%	86%	88%	89%	60%	68%	2.29	1.59	1.79
Vaccin BCG	75%	94%	89%	71%	68%	69%	1.54	1.17	1.27
Vaccin Polio	79%	97%	92%	79%	76%	77%	1.64	1.28	1.38
Vaccin DTCoq	79%	97%	92%	79%	77%	78%	1.68	1.31	1.41
Vaccin rougeole	79%	97%	92%	79%	76%	77%	1.61	1.25	1.35
Total	85%	91%	89%	82%	69%	73%	2.12	1.46	1.65

b. However, due to transport problems, 14% of the health centers adjusted (reduced) their opening hours, especially in urban areas.

While staff is still present, some health centers adjusted to the crisis through a change of opening hours (14% of the health centers). This was especially so in urban centers where 43% of the health centers reduced their opening hours. However, the overall period when the health center was open, was only reduced by 1 hour.

1.2. Medicines

a. The overall availability of medicines dropped from 89% before the crisis to 73% in June.

Table 3 shows how the availability of different medicines evolved since the start of the crisis. Overall (a simple average of the most frequently used type of medicines) availability of medicines declined from 89% to 73% between January 2002 and June 2002 (based on a retrospective question).

b. The availability of aspirins and the antibiotics amoxiciline and doxycycline have shown the biggest change between January 2002 and June 2002.

While aspirin was available in 93% of the communes in January 2002, its availability dropped to 72% overall in June 2002. This drop is seemingly caused by a drop in rural areas only as availability in urban areas was even higher in June than in January. Amoxyciline and doxycycline have shown similar drops, i.e. 23% (from 87% to 64%) and 18% (from 83% to 65%) respectively (Table 3).

more medicines available than the urban centers before the crisis, this situation was reversed in June. Rural centers have now clearly worse stocking rates.

Overall availability of medicines in rural centers dropped from 91% to 69% from January 2002 to June 2002 while overall availability of medicines dropped only from 85% to only 82% in urban centers. The availability of medicines drops the further the commune is from the capital of the province (-4% for the urban centers, -17% for the communes at close distance, -27% for the communes that are further away).

d. Even when medicines are available, stocks have gone down seriously. Where the medicine is still available, there is only a stock of 1.5 months left, on average.

Overall, health centers have little stock left. They dispose only of 1.6 months of stock. The rural areas (2.1 months) are doing slightly better than the urban areas (1.5 months).

1.3. Availability of services

a. There is little change noticed in the availability of electricity. However, only 50% of the health centers still have a functional fridge (compared to 72% in the period before the crisis)

The supply of electricity does not show a change due to the crisis. 36% of the health centers did not have electricity before the start of the political crisis (Table 4) and this number only increased slightly. More worrisome is the situation with fridges, used for the storage of medicines or vaccines. 72% of the health centers had a working fridge before the crisis started. This has now dropped to 50%. The

reason is lack of gas or fuel or lack of spare parts.

Table 4: Availability of services

	Before crisis	Jun-02
<i>Availability of electricity (%)</i>	64%	63%
<i>Use a fridge (%)</i>	72%	50%
<i>Reason for not using fridge</i>		
Lack of spare parts		19%
Lack of petrol or gas		46%
<i>Availability of services in the center (%)</i>		
Consultations curatives	88%	85%
prestations de laboratoire	17%	18%
Hospitalisation	36%	38%
grande chirurgie	6%	6%
petite chirurgie	67%	66%
accouchement normal	80%	77%
Cesariennes	6%	5%
soins prénataux	93%	91%
immunisation des enfants	92%	86%

b. There is little change noticed in the type of services offered by the health centers. However, services for immunization of children dropped by 6%.

Table 4 shows how the availability of services was affected by the crisis. Little change is noticed. Most hospitals are still offering the same services in June as in January. The biggest drop is seen for immunization of children, declining from 92% to 86% of the health centers.

1.4. Pricing of services

a. Prices of some medicines have gone up since the start of the crisis. This is especially the case in urban areas.

The lack of supply in medicines is starting to show up through higher prices (Table 5). 9% of the medicines are reported to be sold for higher prices now compared to the situation before the crisis. The price effect is especially large in urban areas where 20% of the medicines are now being sold at higher prices. Higher prices are being asked in particular for the antibiotics. However, we have no data available on the magnitude of the price hike.

b. Prices for consultations have not gone up. In some cases, they went down.

Table 5 shows the prices for consultations before and during the crisis. Prices in urban and rural health centers have not increased. There is even a decrease noticed in some health centers which seemingly abolished the consultation fee during the crisis.

Table 5: Evolution of prices for services

	Urban	Rural	Total
<i>Percentage of supply centers where there is an increase in prices</i>			
Oral contraceptives	6%	9%	8%
Condoms	6%	2%	3%
Aspirine	24%	6%	13%
Paracetamol	23%	2%	9%
Solution de rehydratation orale	8%	2%	4%
Antibiotique amoxiciline	27%	10%	16%
Antibiotique cotrimoxazole	30%	9%	16%
Antibiotique penicilline	38%	11%	21%
Antibiotique doxycycline	29%	0%	11%
Antibiotique tetracycline	25%	4%	9%
Antipaludiques	31%	4%	13%
Seringues	24%	7%	13%
Vaccin BCG	10%	0%	3%
Vaccin Polio	9%	0%	3%
Vaccin DTCoq	9%	0%	3%
Vaccin rougeole	14%	0%	4%
Total	20%	4%	9%
<i>Consultation fee (Fmg)</i>			
Consultation w/o medicines before crisis	361	6805	2165
Consultation w/o medicines now	409	6716	2175
Consultation with medicines before crisis	1594	5375	2637
Consultation with simple medicines now	1519	5041	2491

2. Impact on the use of services

2.1. Number of visits

a. The number of visits to health centers dropped by 30%.

Table 6 shows the mean and the median of the number of visits to health centers in the period May/June this year and last year at the same period (given the high seasonality in the incidence of diseases and visits to health centers, comparability is only possible between same periods in the year). The mean dropped from 50 to 36 visits a week, i.e. a drop of 28%. The median shows a higher drop, i.e. by 40% (due to the influence of some health centers that saw a big increase in visits, probably due to substitution effects (from private to cheaper public facilities)).

b. The drop in the number of visits is highest in rural areas. This number decreased by 36% compared to 14% in urban areas.

The drop in the number of visits is highest in the rural areas (Table 6). The average number of visits decreases there from 42 to 27, i.e. a drop of 36% (the median shows a similar drop of 37%). In urban areas, the average number of visits drops from 69 to 59 visits.

Table 6: Evolution in the number of visits (per week)

	rural	urban	total
<i>May/June 01</i>			
Mean	42	69	50
median	30	66	35
<i>May/June 02</i>			
Mean	27	59	36
median	19	48	21
<i>Change (2002 compared to 2001)</i>			
mean %	64	86	72
median %	63	73	60
<i>Number of visits in % compared to last year (2001 = 100%)</i>			
consultations curatives	76	85	79
prestations de laboratoire	76	70	73
hospitalisation	57	87	62
grande chirurgie		98	85
petite chirurgie	71	95	78
accouchement normal	86	78	84
cesariennes	50	62	60
soins prénataux	91	90	91
immunisation des enfants	98	91	96

c. The drop in the number of visits depend on the type of service demanded. The biggest drop is seen in C-sections and hospitalization.

Compared to last year, the number of hospitalization dropped to 62% of its pre-crisis level. The number of C-sections is reduced to 60% of its pre-crisis level. Normal delivery was also reduced to 84% indicating that more women deliver outside the formal health care system.

Table 7: Reasons and alternatives

	rural	urban	total
<i>The most important reason for the decline in visits -%</i>			
Transport costs have increased	2	17	6
Lack of staff or medicines	22	-	17
People are not able anymore to pay fees	51	61	54
Other	24	22	23
<i>If reduction, what do the patients do that come here normally</i>			
They go to another center	13	47	20
They are not treated anymore/auto-medication	47	29	43
They go to traditional healers	31	6	25
Other	9	18	11

2.2. Reasons and alternatives as perceived by health staff

a. The major perceived reason for the drop in the number of visits to health centers is the increase in poverty.

In 51% of the health centers that noticed a drop in the number of visits, the center staff related this to the increase of poverty and the inability of people to pay the fees (Table 7). Only in

18% of the cases did they explain the drop by a lack of staff or medicines. In urban areas, 17% of the health centers relate this to problems with transport.

b. In case of illness, patients who no longer come to health centers either do not seek formal services at all or visit traditional healers.

The people in charge of the health estimate that, if there is a drop in the number of visits in their center, their normal patients do not receive any treatment at all anymore (43% of the answers). 25% say that they go to traditional healers (Table 7). This is especially the case for rural areas. Only 20% say that their patients are able to go to other health centers. It is only in urban centers that they seem to have this substitution possibility.

2.3. Impact on the poor

a. The drop in the number of visits is higher for the poorer part of the population, in urban as well as rural areas. Their perceived number of visits is down by 35%.

Due to the drop of economic activity, the poorer part of the population is more likely not be able to pay for health services anymore (Glick et al., 2001; INSTAT, 2002) and shift away from formal health services. This also seems to be the effect of the political crisis, as illustrated by the numbers in Table 8 (based on the perceptions of the persons in charge of the health center). The mean and median of the drop in visits of the poorer part of the population indicates that their perceived number of visits is down by 35%. This drop in the number of visits is higher in rural areas. The richer part of the population suffers less from the political crisis (although there is also a dramatic drop in the use of the services that they use, such as C-sections and hospitalizations).

b. Poverty rates increased dramatically due to the political crisis. It is estimated in rural areas that around half of the drop in number of visits is explained by higher poverty (drop in demand).

In the commune survey where the health center was located, a subjective question, during a focus group interview, was asked on the percentage of the population that was completely unable to pay for health services and the percentage that had problems to pay for these costs. The former category increased from 13% to 18% from last year to this year (using retrospective questions). The latter showed an increase from 27% to 38% (Table 8).

A panel data regression was then done to estimate the influence of the change of these two categories on the number of visits to the health center. The results show that a 1% increase of the destitute part of the population reduces the number of visits to the health center by 0.8 per week. This compares to a reduction by 0.3 visits for a 1% increase in the part of the population that has financial problems. Using these coefficients, the actual increase of these poorer parts of the population, and the average drop in visits in health centers, it is estimated that half of the drop in the number of visits in rural areas is caused by a decline in income due to the political crisis.

Table 8: Impact on the poor

Evolution of the number of visits (consultation curative) (with respect to the level of May/June 2001: 100% = no change)			
	rural	urban	total
<i>The poorest</i>			
Mean	63	68	65
median	60	80	65
<i>The richest</i>			
Mean	68	74	70
median	100	100	100
	June June 01 02		
<i>Proportion of the population (estimate focus group) - %</i>			
Unable to pay for medical costs		13.1	18.6
Problems to pay for medical costs		27.0	38.0

Conclusions

As the country is recovering from the political crisis, the recommendations to improve the functioning of the health sector are straightforward.

a. Interventions on the supply side. As the transport sector starts functioning again, the supply side of health care services can clearly be improved again. This includes improvement of the stocks of medicines, the provision of gas and fuel for fridges and the like. Given the lack of government resources due to their drop in income, it is necessary that emergency help through donors is provided.

b. Interventions on the demand side. However, an improvement of the supply side only will not allow the improvement of the health status of the population. As it is estimated that average incomes have dropped by 50% (policy brief no 3), a significant part of the population lacks the means to pay for health services. A temporary revision of the cost recovery policy might be necessary, especially for the poorer part of the population.

At this point it is difficult to predict how quickly the health sector can recover from the impact of the political crisis and how income of households will evolve in the coming months. Also, we want to know the long term effects of the crisis related decline in care, due to lack of care for mothers, infants and children, especially because of fewer immunizations or prenatal care. Further close monitoring is therefore warranted.

References

Glick, P., Razafindravonona, J., Randretsa, I., Services d'éducation et de santé à Madagascar: l'utilisation et les déterminants de la demande, INSTAT, 2000

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