

Appendix to Bottlenecks in the Functioning of the Supply Chain of Drugs

A.1. Schematic overview of the drug supply chain in Madagascar

See Figure 1.

A.2. Sampling of the budget tracking survey in the health and education sector of Madagascar

The results in this study are based on primary data collected in the first round of a nation-wide budget tracking survey at the end of 2006.¹ The stratified sample was set up in such a way to be representative at the national level. Madagascar counts 22 regions and 111 districts and at least one district was visited in each region. Two districts were selected in the six largest regions. Hence, 28 districts were visited in total. The selected districts were obtained through random selection, giving greater (less) weight to districts with more (less) public primary schools and health centers within the district. The education and health sector were given equal weight in the latter selection (World Bank, 2006). In each district, three communes were randomly selected.

Two types of health centers provide basic health care. In the selected communes all the public basic health centers of type 2 (CSB2) were visited. If public basic health centers of type 1 (CSB1) were present in the commune, one was visited based on random selection. Table 1 illustrates that in total 113 basic health centers were visited of which 65% are CBS2.

Table 1: Structure of the sample

Province	Nr. of CSB2	Nr. of CSB1
Antananarivo	16	7
Fianarantsoa	19	8
Toamasina	12	7
Mahajanga	13	11
Toliara	10	2
Antsiranana	4	4
Total	74	39

Source: Budget Tracking Survey, 2006

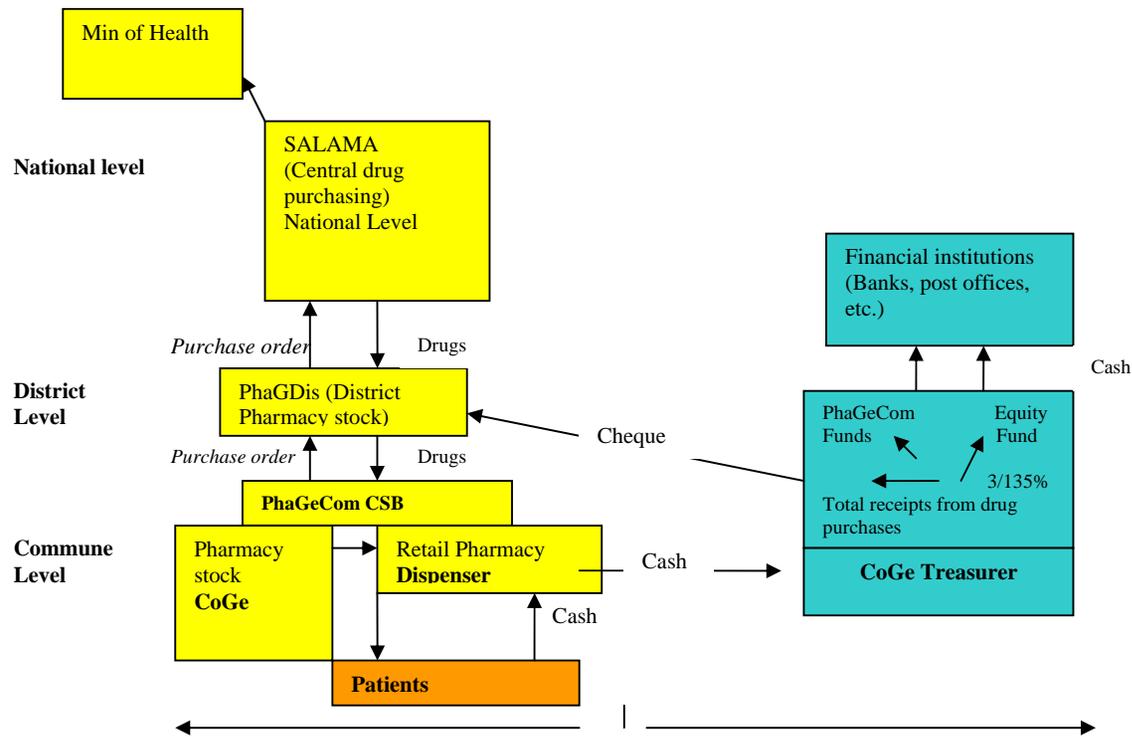
In order to accurately investigate the resource flows through the different decentralized facility levels, surveys were organized at PhaGDis and CSB level. At CSB level, the director was interviewed independently from the rest of the staff. To ensure compatibility, the surveys were organized at the same time.

A.3. Availability of drugs and leakages in the drug supply chain in greater detail

See Table 2.

¹ The survey was conducted in September/October/November

Figure 1: Circuit of drugs and money in the FANOME



Source: World Bank, 2006

Table 2: Availability of drugs in PhaGeCom/CBS and leakages in drug supply chain (in greater detail)

	Available Oct/Nov 2006	Not available due to delivery failure	Inventory shortage*	Inventory shortage Nr. of days		If available, price paid by patients	Leakage i.e. PhaGDis stated to have sent more than CSB reported as arrived – sum of last two deliveries
	(in % of CSB)	(in % of CSB)	(in % of CSB)	Mean	Median	(Median - in Ariary)	(in % of CSB who ordered product)
Acetylsalicylique acide 100mg – CP	25	9	9	71	75	8	6
Acetylsalicylique acide 500mg – CP	60	9	10	78	90	10	8
Chloroquine 150 mg – CP	89	6	6	63	90	25	13
Cotrimoxazole 100-20 mg – CP	37	16	17	72	90	20	9
Cotrimoxazole 200-40 mg/5 ml – SUSP BUV	34	25	31	72	90	1,175	20
Cotrimoxazole 400-80 mg – CP	94	3	4	45	45	33	15
Amoxicilline 250 mg – GEL	42	19	21	59	80	67	30
Amoxicilline 250 mg – 5 ML SUSP BUV	27	28	31	74	90	1,684	25
Amoxicilline 500 mg – GEL	83	10	15	43	35	115	16
Fer acide folique 200mg – 0,25mg – CP	83	8	13	45	47	8	14
Ibuprofene 200 mg – CP	72	16	18	64	85	17	26
Mébéndazole 100 mg – CP	79	7	8	67	81	19	10
Paracétamol 100 mg – CP	35	10	12	83	90	8	0
Paracétamol 500 mg – CP	92	5	7	45	30	11	17
Quinine 100 mg/ML injectable – AMP 1ML	18	14	15	74	90	483	8
Quinine 300 mg/ML injectable – AMP 2 ML	63	14	15	62	90	517	18
Retinol (Vitamine A) 60 mg/100 000 UI – CAPS	53	6	8	81	90	71	25
Retinol (Vitamine A) 60 mg/200 000 UI – CAPS	67	3	5	78	90	81	25
SRO (Sels de hydratation orale) sachet	68	18	20	73	90	216	12
Tetracycline 1% pommade OPHT–Tube 5g	57	24	27	69	85	470	22
Tetracycline 250 mg – CP	17	31	31	81	90	29	14

Source: Budget Tracking Survey, 2006; *Rupture de stock – now or during last 3 months