

Planning for the 2013 Purchase of Medicines and Medical Supplies in the Dominican Republic

Unidad Nacional de Gestión de Medicamentos
Dirección de Desarrollo y Fortalecimiento de los Servicios Regionales de Salud
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Systems for Improved Access to Pharmaceuticals and Services
Center for Pharmaceutical Management
Management Sciences for Health
4301 North Fairfax Drive, Suite 400
Arlington, VA 22203 USA
Telephone: 703.524.6575
Facsimile: 703.524.7898
E-mail: siaps@msh.org
Website: www.siapsprogram.org

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ACRONYMS AND ABBREVIATIONS

CEAS	Centros Especializados de Atención en Salud (Specialized Centers for Health Care)
DOP	Dominican pesos
PROMESE-CAL	Programa de Medicamentos Esenciales y Central de Apoyo Logístico (Program for Essential Medicines and Central Logistics Support)
SRS	Servicios Regionales de Salud (Regional Health Services)
UNGM	Unidad Nacional de Gestión de Medicamentos (National Unit for Medicines Management)

INTRODUCTION

Planning for the procurement of medicines and supplies for 2013 was developed during national workshops held in July 2012, using information contributed by the Regional Health Services (Servicios Regionales de Salud; SRS) and by a representation of 16 national Centros Especializados de Atención en Salud (CEAS; Specialized Centers for Health Care) (table 1).

Table 1. Regional Services and CEAS (Hospitals) Participating in the Planning Workshops

Regional Services 0, 1, 2, 3, 4, 5, 6, 7, 8	Cabral y Báez Hospital
Aybar Hospital	Jaime Mota Hospital
Robert Read Cabral Hospital	Alejandro Cabral Hospital
San Lorenzo de los Minas Hospital	Arturo Grullón Hospital
La Altagracia Hospital	San Vicente de Paul Hospital
Darío Contreras Hospital	Francisco Gonzalvo Hospital
Moscoso Puello Hospital	Juan Pablo Pina Hospital
Morillo King Hospital	19 de Marzo Hospital (Taiwan)
Antonio Musa Hospital	

Historical consumption methodology, as described in the *Manual de Estimación y Programación de Medicamentos e Insumos Sanitarios del SUGEMI*, was used for the institutions that participated in the workshops. For the CEASs that did not participate, the same quantities were used that the Program for Essential Medications and Central Logistics Support (Programa de Medicamentos Esenciales y Central de Apoyo Logístico; PROMESE-CAL) provided them with during 2011, with a growth rate of 25 percent.

It was established that PROMESE-CAL would acquire those products of greater consumption (categories A and B under an ABC analysis) and those of lesser consumption (category C) that are needed at the first level of attention. The remaining products will have to be acquired in a decentralized manner.

RESULTS

The 25 participating agencies in the planning exercise represented 88 percent of the programmed units and 84 percent in programmed values for 2013. The planning included a total of 808 products/items of which 407 are medicines and 398 are medical supplies.

The units programmed for 2013 show a reduction of 24 percent compared with the units required in 2012.

The cost of these requirements for 2013 would be 3,672,131,737 Dominican pesos (DOP), using the prices of private vendors as reported by each of the participating institutions and the PROMESE-CAL prices for those that did not participate. The cost, using only the PROMESE¹ prices, would be DOP 1,379,123,221. If all products were to be procured using a yearly consolidated purchase through PROMESE-CAL, the estimated savings would be DOP 2,293,008,516; this represents a cost reduction of 62.44 percent.

At the time of planning, 32 percent of the *programmable* products were out of stock (zero inventory). The shortage was 28 percent for medicines and 32 percent for medical supplies and laboratory reagents. There were significant variations between the SRSs and hospitals, as can be seen in table 2.

¹ Prices provided by the UNGM.

Table 2. Stock-Outs of Medicines and Medical Supplies at the Time of Planning

Establishments	Percentage of stock-outs		Total stock-out percentage during the 2012 exercise
	Medicines	Medical supplies and diagnostic materials	
SRS 0	20	0	20
SRS 1	86	0	86
SRS 2	0	0	0
SRS 3	19	38	21
SRS 4	21	48	25
SRS 5	33	35	33
SRS 6	46	40	46
SRS 7	33	25	33
SRS 8	20	21	20
Robert Read Cabral Hospital	50	100	78
La Altagracia Hospital	16	64	48
Darío Contreras Hospital	16	94	59
Moscoso Puello Hospital	13	6	10
Morillo King Hospital	39	7	25
Antonio Musa Hospital	59	44	52
Jaime Mota Hospital	36	44	41
Alejandro Cabral Hospital	34	29	31
San Vicente de Paul Hospital	22	26	24
Francisco Gonzalvo Hospital	68	63	66
19 de Marzo Hospital (Taiwan)	11	21	16
Mean	28	32	32

To determine which products to acquire using a centralized system through PROMESE-CAL and those to purchase in a decentralized manner by CEAS and SRS, a descending order was used based on the procurement cost (ABC analysis). In table 3 it can be seen that 50 items consume 10 percent of the estimated procurement cost. With few exceptions, items of highest consumption and aggregated cost will be acquired through PROMESE-CAL.

Table 3. ABC Analysis of Medicines and Supplies Planned for Purchase in 2013 (Sample of 50 Items)

#	Product Name	Final Requirement for 2013	Value of 2103 Requirement (DOP)	Percentage of the Total Requirement	Cumulative Percentage	Vendor
1	Surgical Glove No. 7½	1,784,961	16,903,581	1.226	1.226	PROMESE
2	Syringe 10 ml 21 × 1½"	7,200,000	14,328,000	1.039	2.265	PROMESE
3	Syringe 5 ml 21 × 1½"	10,200,000	13,668,000	0.991	3.256	PROMESE
4	Surgical Glove No. 8	1,381,755	13,085,220	0.949	4.204	PROMESE
5	Syringe 3 ml 21 × 1½"	8,940,000	11,800,800	0.856	5.060	PROMESE
6	IV tube	1,391,227	8,305,625	0.602	5.662	PROMESE
7	Cephalexin 500 mg	3,115,700	4,891,649	0.355	6.017	PROMESE
8	Amoxicillin 500 mg	4,219,684	3,797,716	0.275	6.292	PROMESE
9	Ampicillin (anhydrous) 500 mg	4,069,962	3,622,266	0.263	6.555	PROMESE
10	Sodium Diclofenac 25 mg	3,247,089	3,506,856	0.254	6.809	PROMESE
11	N-butyl-hyoscine bromide 10 mg	1,771,704	2,799,292	0.203	7.012	PROMESE
12	Ferrous sulfate + folic acid 300 mg + 5 mg	2,776,901	2,638,056	0.191	7.204	PROMESE
13	Ciprofloxacin 500 mg	2,695,521	2,587,700	0.188	7.391	PROMESE
14	Sulfamethoxazole + trimethoprim (co-trimoxazole) forte 800 mg + 160 mg	2,902,568	2,351,080	0.170	7.562	PROMESE
15	Water for injection	1,436,020	1,967,347	0.143	7.704	PROMESE
16	Furosemide 40 mg	4,085,176	1,960,884	0.142	7.847	PROMESE
17	Metformin 850 mg	5,021,794	1,958,499,66	0.142	7.989	PROMESE
18	Ranitidine 150 mg	3,462,906	1,904,598,30	0.138	8.127	PROMESE
19	Water for injection	1,590,198	1,860,532	0.135	8.262	PROMESE
20	Vitamins and minerals	2,440,068	1,732,448	0.126	8.387	PROMESE
21	Atenolol 100 mg	8,794,105	1,670,880	0.121	8.508	PROMESE
22	Ibuprophen 600 mg	3,598,303	1,619,236	0.117	8.626	PROMESE
23	Calcium carbonate + Vitamin D 3,600 mg + 400 IU	3,730,029	1,417,411	0.103	8.729	PROMESE

Results

#	Product Name	Final Requirement for 2013	Value of 2103 Requirement (DOP)	Percentage of the Total Requirement	Cumulative Percentage	Vendor
24	Omeprazole 20 mg	3,499,008	1,399,603	0.101	8.830	PROMESE
25	Vitamin E (tocopherol) 400 IU	1,361,902	1,252,950	0.091	8.921	PROMESE
26	Acetaminophen (paracetamol) 500 mg	8,573,548	1,200,297	0.087	9.008	PROMESE
27	Lisinopril 10 mg	2,766,023	1,189,390	0.086	9.094	PROMESE
28	Mefenamic acid 500 mg	2,957,004	1,005,381	0.073	9.167	PROMESE
29	Enalapril 20 mg	6,944,810	972,2730	0.070	9.238	PROMESE
30	Hydrochlorothiazide 25 mg	1,695,683	949,582	0.069	9.306	UD
31	Amlodipine 10 mg	3,397,619	917,357	0.067	9.373	PROMESE
32	Carbamazepine 200 mg	1,477,116	856,727	0.062	9.435	PROMESE
33	Simvastatine 20 mg	1,436,546	790,100	0.057	9.492	PROMESE
34	Metronidazol 500 mg	2,014,405	785,618	0.057	9.549	PROMESE
35	B Complex (vit. B1+B2+B6+B12+ nic.)15 mg + 1 mg + 2.6 mg + 2 mcg + 10 mg	4,192,177	754,592	0,055	9.604	PROMESE
36	Losartan 50 mg	1,885,404	735,308	0,053	9.657	PROMESE
37	Enalapril 10 mg	6,250,114	687,513	0,050	9.707	PROMESE
38	Dimenhydrinate 50 mg	2,069,064	682,791	0,050	9.757	PROMESE
39	Ferrous sulfate 300 mg	4,814,958	674,094	0,049	9.806	PROMESE
40	Glibenclamide 5 mg	5,797,297	637,703	0,046	9.852	PROMESE
41	Sodium Diclofenac 50 mg	5,757,664	633,343	0,046	9.898	PROMESE
42	Vitamin A + D 3,000 IU + 300 IU	2,367,096	544,432	0,039	9.937	PROMESE
43	Loratadine 10 mg	1,809,026	524,618	0,038	9.975	PROMESE
44	Folic acid 5 mg	6,119,972	489,598	0,036	10.011	PROMESE
45	Hydrochlorothiazide 50 mg	2,989,296	448,394	0,033	10.043	PROMESE
46	Aspirin 81 mg	3,897,876	428,766	0,031	10.074	PROMESE
47	Nifedipine 20 mg	3,408,729	374,960	0,027	10.102	PROMESE
48	Amlodipine 5 mg	1,678,456	352,476	0,026	10.127	PROMESE
49	Nifedipine 10 mg	2,842,532	284,253	0,021	10.148	PROMESE
50	Atenolol 50 mg	1,884,230	263,792	0,019	10.167	PROMESE

Table 3 shows the spread of the planned purchase on low-consumption products and the need to undertake studies on the use of medicines and technology for some products whose forecast consumption does not—in principle—seem compatible with national and international protocols for diagnosis and clinical treatment.

Based on the ABC analysis, the PROMESE-CAL product catalogue, and the budgetary estimates for 2013,² it was established that PROMESE-CAL would acquire 59 percent of the required items (287 medicines and 191 medical supplies at a cost of DOP 943,383,129 (68 percent of the total estimated cost). In contrast, 41 percent of the items must be purchased using a decentralized system (123 medicines and 207 medical supplies) at a cost of DOP 435,740,090 (32 percent of the total estimated cost). See table 4.

Table 4. Valued Requirements for the Purchase of Medicines and Supplies in 2013 (DOP)

Line items	Valued required according to national planning (at PROMESE prices)	Value required from PROMESE-CAL	Value required from other vendors (decentralized purchase)	Percentage of the budget required from PROMESE	Percentage of the budget from other vendors (decentralized purchase)
Medicines	873,552,486	535,976,378	337,576,108	61	39
Laboratory supplies and materials	505,570,733	407,406,751	98,163,982	81	19
Total	1,379,123,219	943,383,129	435,740,090	68	32

The results of the planning exercise for the 2013 purchase and the databases that support them were forwarded to the Administrative Directorate of the Ministry of Health and to POMESE-CAL in September 2012.

Additional information on the methodology and the results can be requested from—

Lic. Yoleyda Marte
Dirección de Fortalecimiento de los Servicios Regionales de Salud
Unidad Nacional de Gestión de Suministro de Medicamentos
E-mail: yoleydamarteg@hotmail.com
Telephone: 829 745 7719

² According to the Ministry of Health Planning Office, the budget for medicine procurement for 2013 is DOP 1,038,130,276.