

8. HEALTH SERVICE DELIVERY

8.1 Service Delivery Data for Health services

Table 8.1 Service Delivery Data and Trends

Indicator	%			
	1990	1995	2000	2002
Population with access to health services	62(89)	77		85(01)
Married women (15-49) using contraceptives	42(92)	50	49(97)	58.4
Pregnant women attended by trained personnel	37(91)	45(95)	56(97)	56
Deliveries attended by trained personnel	37	37	46(99)	-
Infants attended by trained personnel	-	62(92)	-	87.1
Infants immunized with BCG	96	93	97	98(03)
Infants immunized with DPT3	81	90	92	95(03)
Infants immunized with Hepatitis B3	-	-	-	92
Infants fully immunized (measles)	79	88	90	90(03)
Population with access to safe drinking water	54(91)	57	57.7(97)	89% urban 62% rural
Population with adequate excreta disposal facilities	63(92)	68	72(99)	70%

URBAN (percentages)	1990	1995	2000	2002
Population with access to health services	100	100	100	100
Married women (15-49) using contraceptives	-	-	54(97)	55.8
Pregnant women attended by trained personnel	7(91)	6(97)	88(99)	87.7
Deliveries attended by trained personnel	-	75(97)	75(99)	-
Infants attended by trained personnel	-	-	-	94.4
Infants immunized with BCG	-	94(93)	-	97.9
Infants immunized with DPT3 ^a	-	93(93)	-	96.6
Infants immunized with Hepatitis B3	-	-	-	-
Infants fully immunized (measles) ^a	-	87(93)	-	-

Population with access to safe drinking water	92(91)	97	100(99)	
Population with adequate excreta disposal facilities	96(92)	97	-	-

RURAL (percentages)	1990	1995	2000	2002
Population with access to health services	30(89)	50	-	65(01)
Married women (15-49) using contraceptives	-	-	44(97)	50.7
Pregnant women attended by trained personnel	19(91)	28(97)	40(99)	40.2
Deliveries attended by trained personnel ^a	-	27(97)	27(99)	-
Infants attended by trained personnel	-	-	-	80.9
Infants immunized with BCG	-	82(93)	-	94.6
Infants immunized with DPT3	-	73(93)	-	90.6
Infants immunized with Hepatitis B3	-	-	-	-
Infants fully immunized (measles)	-	77(93)	-	88.5
Population with access to safe drinking water	14(91)	20	46(99)	30
Population with adequate excreta disposal facilities	32(92)	39	-	-

Sources: USAID Population Assistance in Morocco

WHO/ UNICEF database

Eastern Mediterranean Regional Office Data base: reports from member countries

Office National de l'Eau Potable, 2

Ministère de la Santé : santé en chiffres 2003.

Access and coverage:

Access to primary health care:

The lack of access to health care for people in rural areas continues to be a major deficiency in the system. The data on coverage by the Basic Health Care Institutions in rural areas, evaluated by radius in kilometers, show that distances between the people and health centers are considerable. In 1996, nearly 31% of these people were located more than 10 kilometers from a health institution. Those in remote areas are supposed to be covered by a mobile system that was established to supplement coverage using the non-mobile method. However, mobile performance in terms of coverage and contribution to the supply of health coverage is low, to the point that it can be said that a high percentage of people in rural areas have only very little access to care (DPRF/MOH. 1999. "Stratégie Sectorielle de la Santé." Rabat.)[2].

Table 8.2 Basic health facilities

Health Facilities	Urban	Rural	Both
Local hospital	36	56	92
Urban health center	596	-	
Rural health center with child birth facility	-	302	
Rural health center	-	860	
Rural dispensary	-	644	
Total	632	1862	2458

Source: DHS/M/Ministry of Health, 2003.

These establishments of the RSSB are supported by support and intervention structures for the family planning (CRPF), specialized Centers for tuberculosis diagnosis (CDST) and for the epidemiology and environment hygiene Laboratories (LEHM).

Access to secondary care:

Furthermore, rural populations face even more difficulty accessing hospital care; they consume only one-fourth of nights spent in public hospitals. This situation is partially the result of the small development of General Public Clinic-type intermediary hospitals. The access issue is all the more acute in that the MOH is essentially the only care provider in rural areas. In fact, the gap between numbers of private consultation practices in urban and rural areas (1 practice per 95,418 inhabitants in rural areas versus 1 per 4,354 in urban areas) is the reason for a significant imbalance between the two areas in terms of overall medical services. This is in addition to the problem of access to drugs due to the fact that there are not enough pharmacies or drug depots in rural areas (1 depot per 46,000 habitants).

8.2 Package of Services for Health Care

Package of minimum care exists and is well-defined for the primary level of healthcare: vaccinations of the child and the mother, treatment of diarrheal diseases and respiratory infections of the adult and the child, follow up of pregnancy and postpartum, prevention and treatment of the sexually communicable diseases, tuberculosis program etc. All these programs of primary health care are free of charge and is universally available in the urban and rural areas. The private sector participates in some of these health activities, but follow different protocols.

8.3 Primary Health Care

Infrastructure for Primary Health Care: Settings and models of provision

Basic health care establishments' network is the operational base for all the sanitary action. It constitutes the first frontline between the population and the health system. Through this network MOH has developed strategies for improving population coverage. We have 2458 basic establishments organized according to a model of recourse, which

are getting from the rural clinic to the local hospital. These establishments provide ambulatory care to urban and rural zones.

The basic healthcare network

- Healthcare centers provide basic care to mothers and children including birth assistance. Some centers, located in urban areas are also able to provide dental care.
- Welfare centers and clinics essentially serve rural areas and are attached to a healthcare center managed by state registered nurses. Patients are referred for medical examination if required.
- Local hospitals have a very small bed capacity which cannot be added to the national total due to the rudimentary nature of the healthcare provided. There are 56 local hospitals in Morocco, all located in rural districts.
- Ambulatory units are still very insufficient and the number of district nurses is falling. There are three modes of coverage: fixed (42% de la population), itinerancy (21%), and mobile (34%)

Human resources and their production

Their distribution is as follows:

- Physicians: 3259 either a national ratio: 1 physician for 6577 inhabitants (2000 - 10.738) that produce 13.646.874 medical consultations annually (of which 595.534 specialized)
- Paramedical: 9682 that produce 25.122.388 paramedical visits annually.

Production/productivity

In 2003, the basic health structures dispensed:

- Medical consultations 13,646,874; (0.47 consultations/inhabitant/ year)
- Paramedical consultations 25,122,388; (0.87 consultations/inhabitant/year)
- Childbirths 346,295 ; (50% of all child births)

Primary care delivery settings and principal providers of services;

Healthcare provision is widespread on the national territory since Alma - Ata declaration in 1978 and part of all development plans since 1981. Infrastructures extension toward rural zones, covering 67% of their population, while the rest live more than 10 Km from the nearest clinic or health center. The private sector is implemented exclusively in urban districts.

Private sector: range of services, trends

Private sector developed extensively during the 80's to 90's, consequent to the decline in the public investment during the same period, particularly in the big cities and especially toward ambulatory cares and high technology. There are medical offices of general medicine or specialty providing ambulatory care and private clinics providing general or specialized hospital care (cardiology, nephrology and haemodialysis, obstetrics)

Table 8.3: Private practitioners

Regions	General practitioners	Specialist practitioners	Total
Oued Eddahab	2	0	2
Laayoune Boujdour Sakia Lhamra	14	15	29
Guelmim Smara	19	0	19
Souss Massa Draa	207	182	389
Gharb Chrarda Bni Hssen	174	145	319
Chaouia Ourdigha	178	68	246
Marrakech Tensift El Haouz	208	178	386
Oriental	236	172	408
Grand Casablanca	1145	1283	2428
Rabat Salé Zemmour Zaeir	398	552	950
Doukkala Abda	162	103	265
Tadla Azilal	115	52	167
Méknès Tafilalet	150	144	294
Fès Boulemane	157	209	366
Taza Alhouceima Taounat	82	29	111
Tanger Tétouan	238	244	482
Total national	3485	3376	6861

Source: MOH- Santé en chiffres 2003

Referral systems and its performance

Referral system is not properly coded. A patient referred to an urban or rural health center can be examined and receive treatment there. When his health status requires specialized exams or care in hospital, he will be referred in the center of specialized diagnosis or to the local or provincial hospital near his place of residence. An information card is given upon referral. The patient is referred toward a regional or academic hospital structure if it is justified. The feedback on referral is given for follow-up. However, this referral chain with no coordination and the cards of link are neither consigned nor computerized. The patient can be missed while passing through the different levels, thus compromising care continuity.

Utilization: patterns and trends

In 2002, public health centers achieved 0.5 consultations per capita and per year. A big difference exists between the urban environment with 0.6 C/H/A and the rural one with 0.3 C/H/A. This disparity is in major part due to the problems of physical accessibility of the rural sanitary structures (more than 30% of the inhabitants of the farming zones live more than 10 Km of the nearest center of health) and to the inequality of physicians distribution between the urban (1 physicians for 8735 inhabitants) and the farming (1 physician for 10506 inhabitants).

The volume of the medical benefits achieved on the private sector is not documented. However, this sector that accounts for 50.7% (2002) of the physicians in Morocco, essentially providing curative care. There is 1 medical office for 67.921 inhabitants in rural versus 1 for 3.412 in urban).

8.4 Non personal services: Preventive/Promotive Care

There is an important expansion of basic infrastructure during the last two decades. The rate of electrification in rural zone surpassed 55 percent in 2002 (17 percent in 1996), access to drinking water in rural environment increased to 50 percent (14 percent in 1994) and 7, 719 kilometers of rural roads have been achieved. According to the Direction of the Studies and the Financial Forecasting of the Ministry of Finance and Privatization, provision of drinking water in urban environment, reached a branching rate of 89% in 2003, covering 5.2 million inhabitants, while access to the drinking water in rural areas reached 54% by the end of 2003.

Organization of preventive care services for individuals

At the present time, no individual program exists. No sanitary programs target the elderly people specifically.

Environmental health

The sanitary control of food commodities is under the responsibility of two departments: the Ministry of Health and the Ministry of Agriculture. Sanitary controls are performed at restaurant, places of sale of food products and slaughtering of livestock, as well as units of production.

Health education/promotion, and key current themes

Health education is one of most important promotional and preventive actions of the Health Ministry. Several programs of health education have been developed. Most of them concern the maternal and child health, contraception program and reproductive health, IST-AIDS prevention. Other programs are developed by other departments: it is about the road security campaign, food and environmental hygiene (domestic garbage).

Current key issues and concerns

For the past twenty years, MOH has focused on public health problems, common to the emergent countries of the Mediterranean area. Some programs are developed and applied in all basic health structures.

Public health policies lean on thirteen vertical programs. Some of them are listed below:

- The follow up pregnancy program which aims to decrease the maternal and infant mortality
- The family planning program promoting contraceptive use
- The tuberculosis program: diagnosis and treatment (particularly lung tuberculosis)
- The immunization program which aims to maximize the vaccination coverage,
- The Sexually Transmitted Infections prevention and treatment program
- The micronutrients deficiencies program,
- The malaria program with supervision of anopheles breeding places.

Planned changes

Currently, no measure is in progress.

8.5 Secondary/Tertiary Care

Table 8.4 Inpatient use and performance

	1996	2000	2003
Hospital Beds/1,000	0.95	0.89	0.83
Admissions/100	2.66	2.88	2.91
Average LOS (days)	7.0	5.7	5.0
Occupancy Rate (%)	59.1	54.0	56.9

Source: MOH, Santé en Chiffres 1997, 2000 & 2003

The hospital network

Third of the public hospitals (42), currently in service, was functional before the independence. Between 1912 and 1956, 117 hospitals were constructed with a capacity of 17.819 beds. It provides essentially phthisiologique (sanatoriums) and psychiatric cares. This evolution was maintained until 80'. During the period 1981 - 1995, that come after the subscription of Morocco to the strategy of the World organization of Health for the primary healthcares, stated in Ata Alma declaration in 1978, Morocco has developed strategies in favor of primary cares. During this period basic health structures and sanitary programs were launched. At the same time investments in the hospital network reduced distinctly.

Currently, Morocco has 124 public hospital establishments with a total capacity of 25000 beds and 269 private clinics (with 5000 to 6000 beds). The national bed capacity is estimated to be around 30.000 beds (1 bed for 1000 inhabitant).

Four levels of hospitals exist:

- 1 The "polycliniques de santé publique" (PSP) offer general medical and surgical care, and pediatric and obstetric care. There are currently 34 such hospitals with a total capacity of about 2,816 beds^{viii}.
- 2 Provincial hospitals (HGP & HSP) provide general and specialized care. There are 56 of them distributed in 56 different provinces and their total capacity is about 10,000 beds. An additional 14 specialized hospitals (psychiatric hospitals, leprosarium...).
- 3 Regional hospitals (16) (HGR & HSR) are concentrated in the main cities of Agadir, Marrakech, Méknès and Fez, Bénimellal and Oujda (6 regional hospitals with a capacity of 3,700 beds), and offer both basic care and specialized care (cardiology, third-degree burns). There are another 10 specialized regional hospitals with a capacity of 2,400 beds.
- 4 National hospitals (18) (HGN & HSN) are attached to the Centers Hospitaliers Universitaires (CHU – University Hospital Centers) in Rabat (9 hospitals) and Casablanca (3 hospitals). Two new CHU were established in Fès (3 hospitals) and Marrakech (3 hospitals).

These hospitals come under one of the following status:

- Autonomous establishments which have a full administrative and financial autonomy. They are administered by an administrative committee and a management committee.
- Their income comes from patients themselves or from state run medical insurance. CHUs come under this status.
- Establishments with SEGMAix status (state run but with autonomous management) have total autonomy on operational spending level but need to submit a provisional budget to the Ministry of Public Health every year at investment spending level.
- State- run establishments, which possess absolutely no autonomy.

Regional distribution of public hospitals beds shows a strong disparity between regions. Bed density varies from 4.13 beds for 10.000 inhabitants in the region of Taza-Alhoceima-Taounate to 18 beds for 10.000 inhabitants to the region of Laayoune-boujdour-Sakia Alhamra. Only 4 Regions (out of 16) have a density of over 9 beds for 10.000 inhabitants.

Ambulatory activities

- Emergencies

In 60% of the cases, the reason of consultation is not an emergency. In 2003, emergencies units received 3.162.929 patients (105 passages to the emergencies for 1000 inhabitants). According to the same source, half of the public hospitals receive more than 71 visits to the emergencies for 1000 inhabitants. About 80% of these visits are notified by SEGMA hospitals, 16% by university hospitals and 4% by the rest of public. In 2003, the number of the visits to the emergencies that required a hospitalization is estimated to be 195.165 (22.5%). The main reasons for visiting an emergency are the traumatic injuries, the respiratory difficulties and digestive problems.

- External specialized consultations

The support that hospitals provide to the basic health centers is in the form of specialized consultations in favor of the external patients, referred by this primary level. These consultations are performed within or outside hospital structures, which are under administrative and financial hospital tutelage, called poly-diagnoses centers (CDP). In 2003, CDP achieved 2.084.309 specialized consultations, against 1.921.722 in 2002, (69.5 consultation per 1000 inhabitant in 2003). 50% of the hospitals performed less than 23 external specialized consultations per 1000 inhabitants.

Hospitalizations

In 2003, the number of the admissions in the public hospitals reached 864.877 for 4.629.905 days of hospitalization. According to the epidemiological survey, public hospitals are less attractive, since between 40 and 60% users come from the 3 adjacent communities. In 2003, the intervening journey duration (DMS) was of 5.3 days. This DMS varies appreciably between the different categories of hospitals.

Specific activities

- Major surgical operations: 234.662 acts of major surgery have been achieved in 2003 in the 409 operation wings in the 90 public hospitals that practice the surgery. A ratio of 573 major interventions by operative room and per year. According to the epidemiological survey, half of the surgical interventions relate to the Caesareans, cholecystectomy, cures of hernias, cures of cataracts and appendectomies.

- The childbirths constitute 29% of hospital admissions. There are 86 maternity hospital units. In 2003, 252.471 childbirths have been conducted (39.45% of the expected births, valued to 640.000 in 2003).

Key issues and concerns in Secondary/Tertiary care

Demographic and epidemiological transitions are the major reason of an increased requirement for secondary and tertiary cares. The emergence of chronic diseases requiring expensive treatment put a burden on the public hospital network causing financial insufficiency. In fact, only 16.4% of the Moroccan population has a health insurance. No strategy of hospital care has been developed to reduce the costs of the care to an affordable level.

Health cares cost surveys in public hospitals revealed that the public financing assumes the most important part of the costs with 64% for the Ministry of health (wages and subsidies centralized) more 10% for the hospital (SEGMA budget excluding patients direct payment). The patients bear 20% of the costs of which 5% correspond to the direct payments to hospital and 15% supplementary charges correspond to medicines expenses. Finally, NGO' and cooperation contribute the remaining 6%. This survey shows on one hand an important degree of financial resources centralization and on the other hand, the important economic charge assumed by the patients.

Another key issue is autonomy of the public hospitals. The hospital reform launched since 2001, aims the preparation of the public hospitals in order to make them autonomous.

Reforms introduced over last 10 years, and effects

The hospital reform constitutes the main component of the health sector reform in Morocco. Initiated since January 2001, its general objective is to improve hospital healthcare quality through the modernization of the infrastructures and strengthening of management.

Hospital reform is launched in 14 public hospital centers. It aims to:

- Increase hospitals efficiency: this objective will be reached by strengthening their strategic planning capacities and introducing new instruments and procedures of management and organization: human resources management, information management, costs control etc.
- Improve cares quality (in 5 pilot hospitals) applying a normative setting for the modernization buildings and facilities modernizations and while instituting some mechanisms of to the internal and external quality assessment.

8.6 Long-Term Care

Currently, long-term care is not considered yet as strategy issue. Hospital and ambulatory cares especially dedicated to this type of cares do not exist. Studies achieved on health insurance reform has drawn up lists of long duration diseases (ALD) and of costly care diseases (ALC), that will be taken in charge by the regimes of the obligatory health insurance (AMO) and of the medical aid.

8.7 Pharmaceuticals

The private pharmaceutical sector dominates medicine production, import distribution process.

Medicine consumption:

Users directly pay major cost of medicine consumption. Some medicines are handed out for free in public health centers and dispensaries (tuberculosis program, malaria program, contraception program etc...) but represent less than 4% of the global consumption. Consumption levels per capita are meager in comparison with Algeria and Tunisia. The national health accounts 1997/98 shows that average cost of a prescription is 146.25 DH (160 DH for the private sector) ranging from 40 to 1200 DH. This financial burden seems to be unreachable for low incomes people (estimated to 5 – 11 million inhabitants). Between the population of the poorest deciles and the one of the richest deciles, the consumption of medicines varies from 1 to 10.

Inequalities of incomes conjugated with disparities in the geographical access to the care establishments of cares and pharmacies (25 000 inhabitants by pharmacy in rural zones) culminate into important regional and social disparities. Distribution, although in expansion, is concentrated very strongly in the urbanized zones, where the medicine demand is the most important. About 82 dirham (DH) in rural zones, the medicines consumption surpasses 216 DH in urban environment.

Medicine production:

Local pharmaceutical production caters for 80% of solvent demand. Regrouping 26 enterprises, the pharmaceutical industry is controlled by ten laboratories, some to foreign funds, which achieve close to 80% of the production. The Moroccan industry of medicine is especially an industry of formulation and conditioning. The activity of the enterprises depends on the import of active materials (close to 100%), and of conditioning articles (close to 50%). Its production specially constitutes of original specialties, the generic occupying 20% of medicines sales. It is necessary to underline that in mid 80's this industry began export to some European, Arabian and African countries. However these exports remain at modest level.

Organizational and authorized plan

A Pharmacists Order organizes the conduct of the profession and associates the professionals to the development and to the implementation of the pharmaceutical policies. Only graduate pharmacists can exercise pharmaceutical activities. Half of the capital (51%) of the pharmaceutical societies must be held by one or several pharmacists.

Essential drugs list: by level of care

(See annex)

Regulatory Authority: Systems for Registration, Licensing, Surveillance, quality control, pricing

The state-controlled authority is shared between the Government's General Secretary (pharmaceutical establishment authorization), the Direction of the Medicine and the Pharmacy of the Health Ministry (pharmaceutical sales authorizations and price fixation), and the national laboratory for medicines quality control.

Pharmaceutical regulation is adequately applied: there is no clandestine trade of medicines, nor merchandising of non authorized medicines; and the regulation of the prices is respected: the prices are the same in the whole kingdom. Supervision is done by professionals (order, union of the pharmacists, industrial association) and by medicine department of the Ministry of Health.

8.8 Technology

Health care technology in Moroccan public hospitals is characterized by relatively old equipments.

In 2003, technology equipment in public hospitals was as follows:

- 598 imagery devices, from the simplest (standard radio) to the most sophisticated as the scanner and the IRM. 72% of these devices are in use in SEGMA hospitals.
- Since 1996 and until 2003, there was purchase of a 237 automatons of coagulation, of biochemistry, sensors of haematology and spectrophotometers, of which 70% are in use in 58 SEGMA hospitals and 16% in "Régie" hospitals.