

The French Health Care System; What can We Learn?

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Abstract: All public systems look for the best organizational structure to funnel part of their national income into healthcare services. Appropriate policies may differ widely across country settings. Most healthcare systems fall under one of two broad categories, either Bismarck or Beveridge systems. There is no simple ideal model for the organization of health services, but most healthcare systems that follow the Beveridge healthcare model are poor performers. The Libyan Health system is a low responsive, inefficient and underperforming system that lacks goals and/or SMART. (Specific, Measurable, Achievable, Realistic, Time specific) objectives. A look at different organization models in the world would reinforce efforts to reorganize and improve the performance of the Libyan National Healthcare services. The French Health Care System (FHCS) ranked first according to the WHO and the European Health Consumer Powerhouse. The FHCS was described to have a technically efficient, generous healthcare system that provides the best overall health care. This makes the FHCS a practical model of organization having many of the essential aspects of a modern national health service. In this review, we describe the main features of the FHCS, current challenges and future trends with particular attention paid to aspects that could be of importance to the Libyan Healthcare System.

Key words: Health service, Health crises, Reform, French Health System, Libyan Health System.

Introduction

Although healthcare is not only medical-care, the part played by medical services is an essential determinant of overall health of a population. This part is estimated to be about 15% in developed countries. All public systems look for an organizational structure on how to channel 7-10% of the national income into healthcare services. Appropriate policies differ widely across country settings [1]. There is no simple formula or ideal model for the organization of health services. However, most healthcare systems fall under one of two broad categories (Table 1). Despite the expansion of medical knowledge and the use of increasingly sophisticated technology and training, healthcare systems in most countries of the world are considered to be in crisis as most of them are underperforming systems [2-4].

In spite of the apparent public health well-being in Libya, the Libyan health system is a low responsive, inefficient and underperforming system which lacks goals and/or SMART (Specific, Measurable, Achievable, Realistic, Time specific) objectives. Many of the improvements that occurred in the last few decades were due to public actions from outside the health sector rather than clear vision from within the healthcare system. These public measures include education particularly of females, food subsidy policies, and increasing purchasing power [5]. Lessons from better performing healthcare systems around the world are needed in our efforts to reorganize and improve our healthcare services.

In a WHO report evaluating healthcare systems of different nations (2000), the French health care system (FHCS) ranked first among 191 member countries surveyed. France was described as having a technically efficient and generous healthcare system that provides the best overall health care [6]. Aspects examined in this evaluation included universal coverage, equity, distribution of costs, responsiveness of healthcare

providers, patient satisfaction, patient and provider freedoms, and the health and longevity of the population [6]. According to the same report, the best health system in the Near and Middle-East region was Oman (8th position), while Saudi Arabia, United Arab Emirates, and Morocco were in the 26th, 27th and 29th positions respectively. Libya ranked at 87th position.

Table 1 Broad categories of current healthcare systems

<p>* The Bismarck healthcare system: A system based on social insurance where there are multitudes of insurance organizations that are independent of healthcare providers.</p> <p>* The Beveridge healthcare system: A system in which financing and provision are handled within one organizational system, i.e., financing bodies and providers are wholly or partially within one organization.</p>

Another credit to the FHCS came from the European Health Consumer Powerhouse. In their 2006 report, the FHCS ranked first among the EU Member States according to the Euro Health Consumer Index (EHCI). The EHCI rates the quality of the health care systems based on 27 indicators [7]. These include aspects as patient rights, information, waiting times for treatment, outcomes, generosity and pharmaceuticals [7]. In different EHCI reports, the top five countries fall within a narrow range. Top performing countries are those which have a long tradition of plurality in healthcare financing and provisions, i.e. with a consumer choice between different insurance providers, who in turn do not discriminate between providers who are private for-profit, non-profit or public. These countries have adopted a Bismarckian healthcare system. There is relatively a large gap of points of these countries to the first Beveridge country, which is in sixth place [7]. Although France performed relatively less well (third and fifth position) in later reports, very subtle

changes in single scores modify the internal order of the five top countries [7].

Canada, Libya and most of the healthcare systems in our part of the world follow the British system which has been a notoriously mediocre performer since the start of the EHCI. Libya ranked 87th in the WHO report [6], Canada places 23rd out of 30 in the latest edition of the EHCI. Canada spends more money to achieve worse results than any other country in the lowest quartile of the EHCI [7].

These achievements make the FHCS an interesting case and a practical model on how to organize many of the essential aspects of modern national health services that we have discussed in our previous works [5,8].

The FHCS

The state is the main actor of the health care sector. It plays a direct role in the funding and provision of health care and regulates the relations between funding institutions, health professionals and patients (Table 2).

Table 2 Responsibility of the State in the French National Health System

- * Planning health care (increasingly at the regional level)
- * General public health policy, including preventive healthcare, health watch, policies to combat diseases and tobacco, alcohol and drug addiction
- * Training healthcare providers (doctors, nurses, paramedical staff, etc.)
- * Appointing hospital doctors and hospital accreditation,
- * Setting hospital budgets (with the assistance of the health insurance scheme)
- * Participating in the funding of hospital modernization programs
- * Monitoring quality standards in hospitals
- * Drugs policy (authorization, pricing and monitoring),
- * Guidelines and supervision of health care and health prevention bodies, as well the system of health care supply as a whole

The population in France is considered to be in good health. French consumers are satisfied with their health care system [9,10]. They consult their doctors more often, are admitted to hospital more often, and purchase more prescription drugs.

The French had structured their system to be an ideal synthesis of solidarity and liberalism. Although the state imposes strong price control policies on the entire health sector, there is no public perception in France that health services are "rationed" to patients. The system lies between Britain's "nationalized" health service, where there is too much rationing, and the United States' "competitive" system, where too many people have no health insurance [10].

The FHCS is planned and organized in relation to the needs and expectations of the population. It has a strong commitment to a universal, obligatory, and solidarity method of health care delivery. There are many protective mechanisms built in so that cost sharing does not prevent people from receiving necessary care [11]. The system also provides a great deal of respect for patient's choice. It

ensures equitable geographical coverage and an efficient interaction between the different players, i.e. hospitals (public and private), private practitioners, medical auxiliaries, the pharmaceutical industry, etc. There are no waiting lists for elective procedures and patients need not seek pre-authorizations [12].

In line with the principle of social "solidarity", the coverage of basic health care is universal. Both citizens and non-citizen residents contribute according to their means and obtain services according to their needs [11]. Each person with social insurance benefits from a protection that he finances according to his resources against the risk and consequences of illness independently of his age or state of health [12]. In some instances, the statutory health insurance system provides 100% coverage, as in the case of perinatal care and costs related to industrial injury and long-term illnesses, where social security pays the whole cost of life-long essential medications as insulin. Some pharmacists use digital information systems to deduct sums reimbursed by social security. In the same manner, many are also linked to certain complementary insurance schemes.

To insure equity, patients are exempt from payment when (1) expenditures exceed approximately \$100, (2) hospital stays exceed 30 days, (3) patients suffer from serious, debilitating, or chronic illness, or (4) if income falls below a certain threshold, thereby qualifying them for free supplementary coverage or a complementary state-funded healthcare [13].

The FHCS provides a high level of resources and a higher volume of service provided which covers prescriptions of homeopathic products, thermal cures, nursing home care, cash benefits, and to a lesser extent, dental and vision care [11]. To assure access to health services, the national health insurance (NHI) in the FHCS covers fees for transport of patients to health care facilities. They cover private taxis for alternative interventions such as physiotherapy. For certain medical treatments such as non-routine dental care, contact lenses, non-standard lenses for glasses, certain laboratory and radiology tests, physiotherapy and speech therapy, and thermal and therapeutic treatments, one must obtain proper approval from social security. Medicines deemed to be 'ineffective' won't be reimbursed at all.

All residents have an electronic insurance card that resembles a credit-card. The card contains their social security number and covers all members of their family. Through these cards, people are linked to a computerized system containing all medical records and vital information such as the card-holder's blood type and allergies [11].

Financing of the FHCS

The FHCS is based on a single NHI fund, which is part of France's extensive social security system. Initially modeled after the German sickness fund fostered by Chancellor Bismarck, the FHCS had evolved into a blend of Bismarck and Beveridge, public and private, centralization and decentralization [10,11]. In contrast to Germany where numerous sickness funds are regional or tied to professions, all residents in France are automatically enrolled with an insurance fund based on

their occupational status. In addition, all residents can also subscribe to supplementary health insurance to cover other benefits not covered by NHI.

Health insurance is funded by contributions based on professional earnings (51.1%) and a tax levied on all income (including investment income) known as the General Social Contribution (34.6%). For professional earnings, the burden is shared by both employees and employers [14]. Remaining sources include special taxes on automobiles, tobacco, alcohol, and a specific tax on the pharmaceutical industry.

For several years health expenditure has been growing faster than gross domestic product (GDP). France's health expenditure in 2006 was 120.2 Milliard Euros, while the deficit was 6 Milliard Euros [13]. Official figures published in July, 2006, put French health care expenditure at 11.14% of GDP. This is third worldwide after USA and Switzerland (UK <8%, Canada <10%, Germany <11%, and US 14.6%) [10]. This figure represents a per capita health expenditure of €3,038. Health expenditure in 2008 is expected to be 313 Milliard Euros [13]. The health budget in Libya during the year 2000 was 500 Million Libyan Dinars (LD). This represented a per capita Health Expenditure of 121 LD, among which 45 LD were for medical supplies and drugs [15].

The payment system is dominated by solo-based, fee-for service private practice for ambulatory care and public hospitals for acute institutional care. Subscribing to health insurance is compulsory; one may not opt out. For ambulatory care, all health insurance plans operate on the traditional indemnity-model reimbursement for services rendered. The entire population thus has health insurance coverage, generally on a work-related basis. Till 2007, there were no gatekeepers to regulate access to specialists or hospitals. In fact, patients could choose what physician to see, while physicians had almost unfettered freedom to prescribe tests and treatments. Patients typically paid physicians directly at the time of service and were subsequently reimbursed [11]. The FHCS offers a great deal of tolerance for organizational diversity, whether complementary, competitive, or both. This tolerance justifies the coexistence of public and private hospitals and both office-based private practice and public ambulatory care [11]. Service chiefs in public hospitals have the right to use a small portion of their beds for private patients [11]. The tolerance justifies also the coexistence of multiple statutory health insurance plans, complementary private health insurance coverage, and significant cost sharing directly by patients.

Social security refunds 70% of the cost of an office visit to the treating physician and most specialists. Patients are required to participate in health expenditures, with the aim of fostering consumer responsibility toward the cost of health care. Unlike in the UK, both private and public practices are not free at the point of delivery in France. Even if subscribed to social security, when consulting a physician or specialist, one has to first pay the full tariff and would only be reimbursed after-ward in full or in part by the patient's complementary and /or private insurance company. The refund will be paid directly into the bank.

Health facilities in the FHCS

The current FHCS is a product of a long history of development of its health establishments. Paris's Hôtel-Dieu founded in 650 A.D. The Maison royale de Santé (currently Hôpital Saint-Louis) was the first hospital in the modern-day sense. It was founded in 1607 by Henri IV. It forms now part of the current assistance public hospitals in Paris (AP-HP), an important part of French teaching university hospitals (CHU). There are over 35 CHUs in France (12 in Paris). These CHUs are among the best hospitals not only in France but in the world. French hospitals have significantly contributed to modern medicine as Rene Laennec's invention of the stethoscope and Louis Pasteur whose work has saved millions of lives (Table 3).

France boasts a higher number of hospital beds in proportion to its population than most European and other countries (8.7 per 1,000 compared with 7.6 in Spain and Italy, 6.9 in the UK and 3.7 in Libya). One third of 3,000 health care establishments are public and the remainders are private.

There are three categories of hospitals in France. These include hospital centers or short-stay hospitals (hôpital de court séjour), medium stay centers (centre de moyen séjour) and long term treatment centers (centre et unité de long séjour). Hospital centers include general hospitals, the AP-HP, specialist hospitals and regional centers (centre hospitalier régional/CHR or centre hospitalier universitaire/CHU when associated with a university). Medium stay hospitals contain facilities for convalescence, occupational and physical therapy, and recuperative treatment for drug and alcohol abuse and mental illness. Long-term treatment centers are for those who are unable to care for themselves without assistance and include psychiatric hospitals, nursing homes for the aged and hospitals for children. Private health care institutions include non-profit establishments as the Red Cross hospitals and for-profit establishments (private clinics). Other health facilities include mother and child welfare services (PMI, services de protection maternelle et infantile) that are set up by the departments to provide regular check-ups for pregnant women and infants.

The French public hospitals are legally autonomous and manage their own budget. Their activities are neither industrial nor commercial and they may be municipal, departmental, interdepartmental or national in status. They do not differ in quality, price or waiting time from private hospitals. France's private sector is the largest in Europe and is accessible to all insured patients.

Proprietary hospitals are reimbursed on a negotiated per diem basis (with supplementary fees for specific services) and public hospitals (including private non-profit hospitals working in partnership with them) are paid on the basis of annual global budgets negotiated every year between hospitals, regional agencies, and the Ministry of Health. Private hospitals and clinics that are "non-contractual" may also have an agreement with social security. Both public and private hospitals will henceforth be funded through diagnosis-related payments, which are progressively being put in place. Private practitioners are remunerated on a fee-for-service basis and are allowed to combine private practice with salaried work. Many

physicians work in private practice and also have the opportunity to work part-time in public hospitals.

A number of agencies are set up to improve health safety and prevention, exercising some of the responsibilities of the state (Table 4). The "Agence

Table 3 Major land-marks of contribution by French hospitals in modern medicine [17]

Discovery / Invention	Year	Name of Hospital
The Stethoscope	1816	Hôpital Necker-Enfants-malades
Discovery of HLA	1958	Hôpital Saint-Louis
Discovery of Trisomy 21	1958	Hôpital Armand-Trousseau
Transplantation of kidney from a living donor	1959	Hôpital Necker-Enfants-malades
Remission of leukemia by exsanguinous-transfusion	1965	Hôpital Saint-Louis
First cardiac transplantation in Europe	1968	Hôpital Pitié-Salpêtrière
Bone-marrow transplantation under sterile closed chamber	1969	Hôpital Necker - Enfants-malades
Implantation of valvular aortic bioprothesis	1969	Hôpital Broussais
Total hip replacement without cement	1970	Hôpital Raymond-Poincaré
Auto-graft of bone-marrow transplantation	1977	Hôpital Saint-Antoine
Biochemistry of steroid hormones and development of contraceptives	1980	Hôpital Bécclère
First transplantation of liver from an adult to a child	1981	Hôpital Paul-Brousse
First In-vitro fertilization in France	1982	Hôpital Antoine-Bécclère
Identification of genes of rare diseases	1995	Hôpital Necker - Enfants-malades
First successful hand transplantation	1998	Hôpital Édouard Herriot, Lyon
Treatment of immune deficiency by genetic therapy	1999	Hôpital Necker - Enfants-malades
Second world implantation of autonomous definitive artificial heart	2000	Hôpital Pitié-Salpêtrière
The world's first double hand transplant	2000	Hôpital Édouard Herriot, Lyon
First face transplantation	2005	Hôpital Édouard Herriot, Lyon

National d'Accréditation et d'Évaluation en Santé" has a responsibility to promote health care evaluation, to prepare hospital accreditation procedures, and to establish medical practice guidelines. It also sets up regional hospital agencies with authority to coordinate public and private hospitals and allocate their budgets.

Table 4 Structures set up to improve health safety and prevention as part of the responsibilities of the state in the French national health system

* National Biomedicine Agency (ABM)
* French Food Safety Agency (AFFSA),
* French Health Products Safety Agency (AFSSAPS),
* French Environmental Health Safety Agency (AFSSE),
* National School of Public Health (ENSP),
* French Blood Institute (EFS),
* French National Health Authority (HAS),
* National Institute for Health Education and Prevention (INPES),
* Health Surveillance Institute (InVS, CDC equivalent),
* French Nuclear Protection and Safety Institute (IRSN).

Public health and surveillance in the FHCS.

Six percent (€10.5 billion) of health expenditure was devoted to prevention in 2002. Half of this was earmarked for disease prevention, one-quarter for screening and testing, and one quarter to cover risk factors. Currently, the main strategic public health priorities include cancer, the environment, some rare diseases such as Alzheimer's, violence, abuse, risky behaviour, addictive behaviour, chronic illnesses, and quality of life. Based on current expertise and resources, these strategic plans are broken down into 100 achievable targets. These are in line with management by objectives and Risk management approaches.

The French Institute for Public Health Surveillance (Institut de Veille Sanitaire, InVS) is a national organisation responsible for surveillance and alert in all domains of public health. This is comparable to Centre of Disease Control in Atlanta-USA (CDC). The InVs is supported by national public health network of public and private partners. Its main objectives are surveillance, alert, and prevention. It participates in the collection and analysis of population health data for epidemiological purposes. These include information about health risks, their determinants, and trends. It prospectively detects sudden and/or gradual changes in risk factors that might modify or alter the health of the population, or certain groups at risk. It alerts the Health Ministry of any threat to the health of population whether infectious, environmental, occupational hazards and/or chronic diseases and injuries.

Resources in the FHCS.

Resources in health include human (HR) and financial (FR) resources. HR include medical professions (general practitioners, specialists, dental surgeons, pharmacists etc.), and the paramedical professions (nurses, nursing auxiliaries, physiotherapists, laboratory technicians, X-ray operators, etc.). Nurses, nursing auxiliaries, clerical and technical staff account for about three-quarters of all health sector staff. There are around three doctors per 1,000 persons in France (compared with 1.2 in Libya, 1.7 in the U.K., 4.4 in Spain and 5.9 in Italy). Forty seven

percent of all health sector jobs work in the public hospitals. Staff employed in public hospitals have a special status as state hospitals employees. University hospital doctors have dual status as civil servants due to their teaching and research responsibilities, and state hospital sector employees due to their medical work. Numerous clauses system fixes the number of medical and dental students to be admitted to medical schools each year (5,700 medical students in 2004). However, some disciplines face important shortages and are unable to recruit students. There are also wide disparities in the geographical distribution of doctors.

A dictate from the code of public health obligates health professionals to attend a minimum number of continuous education hours. These are mandatory and are paid by the establishment and considered part of the work days.

France is one of the world's largest consumers of drugs and it is the biggest in Europe. Prescription drug purchases account for a larger proportion of outpatient health care consumption than its equivalent in Libya [15]. France is also Europe's largest consumer of sleeping pills, tranquilizers and anti-depressants. The production and distribution of medicines is regulated by government. Prices and reimbursement rates are determined by departmental orders. Although pharmacies are private undertakings, they must comply with government demographic norms which determine where they may operate [15].

Current challenges for the FHCS.

Like all healthcare systems, the FHCS confronts ongoing problems. The FHCS has reasonably good outcomes and/or good quality and is in the top of international health systems in its generosity.

In spite of its success, the FHCS is an expensive national health system. At \$3,500 per capita, it is one of the most costly in Europe yet its health professionals are amongst the worst paid. Its real challenge is how to bring costs under control without jeopardizing aspects that make the system so popular, such as quality of care, freedom of choice, and equality of access. These include how to be more evidence-based, more cost-effective, efficient, and more quality-oriented. Solutions should be sought as to how to obtain new funds from those able to pay, how to move health insurance financing away from payroll and wage levies since this hampers employers' willingness to hire; and how to create a governing council of the health insurance funds with more authority and responsibility. Measures such as shared, computerized medical records for each patient, and instituting care teams for patients with chronic illnesses should lead to better coordination of care with less duplication of services. Other measures that are being implemented are developing and enforcing more practice guidelines, creating a sense of responsibility in both groups of professionals and patients, more attention paid to prevention, decreasing hospitalization rates, decreasing costs of medical prescriptions, using more generic medications and negotiating lower prices for medications and other health products [16].

The FHCS is described as being slightly authoritarian according to EHCI. Other weak points are related to methods for introducing new drugs to the market with regard to reimbursement, and providing more general information to the patients. The FHCS needs to give more power to its users [7]. The FHCS is also closed to foreign human resources inspite of local needs.

A series of measures were taken in the last decade to modernize health care and decrease the ever rising costs in health expenditure. A reform in the health insurance system passed in 2004, introduced a "patient pathways" system. The "Hospital-Plan 2007" and its extension "Hospital-Plan 2012" are other tools that are expected to promote modernization of the hospital sector (with the introduction of public-private cross subsidies) and the widespread use of diagnosis-related payments. This is expected to allow for an increased comparison of volumes of activity and greater transparency of public and private sector costs. Earnings hopefully would be issued based on hospital activities that determine the expenditure and not the inverse.

Hospitals are also strongly encouraged to gain more autonomy through local governance that involves establishment of a cluster-based organization in order to foster synergies and economies of scale and ensure a comprehensive continuum of care for patients. The plans were extended to form focus groups and activities that are based on economical reasons. Examples include grouping different medical disciplines such as cardiology, nephrology, oncology, pediatrics, etc together. These shared interest groups are allotted management departments (personnel, investment, contracting of objectives). Hospitals are free to choose their focus groups. Recently, based on a senate report, the French president announced 16 other measures in 2008 to make public hospitals more efficient and better managed. The plan included measures to further increase the power of hospital directors and gives public hospitals a real chance to compete with private clinics. Currently public hospitals have to wait two years to acquire new equipment while private clinics wait for only six months. The measures aim to reorganize the geographical map too so that they would be more responsive to the health needs of a certain territory and be able to make rational management and dispensing decisions. Measures promised financial aid for public establishments that agree to form a joint-community of hospitals. Hospital establishments in a certain territory are incited to put their resources together. Hospitals in a geographic area should coordinate together forming a hospital of reference and essential basic services and cooperation with local hospitals. This will be done on a voluntary basis. Meanwhile, physicians's payment would be based on actions and results. This reform model has been previously applied in the university setting. Private clinics would be invited to accept emergencies, to have continuous services, and accept the most underprivileged patients, in order to also be eligible for financial support from the state. These measures are criticized as having potential risks. They would increase local monopolies in small and medium size cities. In addition, decreasing concurrence would not allow for a decrease of fees.

FHCS plans to completely change the profile of its future health services. New generations of hospitals using state of the art technology are being planned. Cutting edge equipment would be used in research for cancer, genetic diseases, geriatric illnesses such as Alzheimer's and Parkinsonism. In these hospitals, private partners are called to participate in modernization efforts under the principle of PPP which stands for Public-Private-Partnership. These are contracts where a private operator takes the responsibility of investing in a public establishment in exchange for a lease or franchise of 20 to 30 years.

Conclusions

Wealth alone does not ensure success. The U.S. and Canada health systems spend a higher portion of GDP, but rank very low in the WHO report and EHCI respectively. The FHCS, which is a leader in most international evaluations, has been successful in insuring universal coverage while maintaining a sustainable pluralistic delivery system that limits perceptions of health care rationing and restrictions on patient choice, with public-private partnership. Reforms in FHCS were accomplished in incremental stages in 1928, with big extensions in 1945, 1961, 1966, 1978, 2000, 2007, and lately in 2008. The result has been excellent as shown by patient satisfaction scores, high volume output and general wellbeing of the population.

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