Forty-three state-run medical schools admit 30,000 students per year but only 3500 receive their diploma after 6 years of studies. After passing a special examination, 480 of 2000 residents choose surgery and train during twelve 6-month rotations. Surgical research is organized through government agencies, individual units, or volunteer groups. In 1992, of 8,268,114 procedures, appendectomy represented 4.15%; hernia, 4.09%; varicose veins, 3.61%; and cholecystectomy, 1.82%. Appendectomy has decreased from 306,500 per year in 1980 (34% of all gastrointestinal surgical procedures) to 159,900 (15%) in 1996, whereas cholecystectomy has increased from 64,700 to 95,300. Emergency gastrointestinal procedures represented 15% of all surgical procedures in 1996, doubling in the last 4 years (essentially for labor and endoscopic procedures). Ambulatory procedures have increased 12-fold since 1980, essentially (75%) in private practice. About 27% of 160,000 appendectomies and 77% of 95,300 cholecystectomies were performed laparoscopically in 1997. One person of 4 in France has or has had cancer, mainly due to tobacco abuse. In 1993, 32,000 surgical procedures were performed for gastrointestinal cancer. Of 532,000 deaths (1992), about 150,000 were due to cancer, 10,000 to alcohol-related disease, and 22,000 to trauma. Transplantation in France increased from 3180 procedures in 1993 to 2807 in 1996, essentially lungs and heart and lungs. Between 60% and 100% of health expenditures are reimbursed by the government, the remaining being covered by private insurances. Approximately 60% of 4500 French surgeons are in private practice; 25% also have part-time hospital employment. Almost 40% of surgeons work full-time in hospitals.

The first medical school in France was founded in Montpellier in 1141. Prominent and well-known French surgeons include Ambroise Paré (1510-1590), a rustic barber who said that wounds should not be treated with cauterization (boiling oil) and started the era of clean dressings. When supplies ran low, he simply dressed wounds with clean cloths and minimal medication and was dumbfounded to find that soldiers treated this way were often pain free, afebrile, and resting comfortably the next morning ("I dressed him, God healed him."). He was also the first surgeon to ligate a bleeding vessel to control hemorrhage. There is some mystery about the origin of the French word débridement, so often used to describe the treatment of wounds. Its true origin is not clear, but some medical historians attribute it to Pierre Joseph Desault (1744-1795), chief surgeon during the French Revolution. The word was later popularized by Baron Dominique Jean Larrey (1766-1842), head surgeon during the Napoleonic campaigns. Reputed for his rapidity and skill, Larrey developed ambulance and transportation services be-
between the front and the hospital, described frostbite, and performed amputation for the prevention and the treatment of gangrene. Guillaume Dupuytren (1777-1835) was also a surgeon during the Napoleonic wars and described the disease that bears his name after observing the malady on the hand of his coachman. Eugène Koeberlé (1828-1919), a less well-known surgeon, devised the precursors of modern-day surgical hemostats. The visionary scientist Alexis Carrel (1873-1944) was born in Saint-Foy-lès-Lyon, immigrated to Canada and then to the United States, and then went on to become the promotor of modern vascular and transplantation surgery, receiving the Nobel Prize in 1912 for his work in suturing blood vessels and transplanting organs. One of his most significant innovations was the statement that “the union of the extremities [of vessels] is made by eversion of the edges, which are united not by their surface of section, but by their endothelial surfaces.” It was Carrel along with Henry Dakin who developed a (modern) method of treating wounds with antiseptic solutions.

The surgical system in France was greatly disturbed by the 2 world wars, and it was only after World War II that French surgery made its reappearance on the international scene: first successful treatment of lower limb arterial obliteration by venous graft by Jean Kunlin in 1949; first successful resection of the aortic bifurcation for thrombosis by Jacques Oudot in 1951; first successful replacement of an abdominal aortic aneurysm with a preserved (iliac) artery by Charles Dubost in 1951; description by Claude Couinaud of the anatomic segments of the liver in his thesis as early as 1952, thus opening the door to modern hepatic surgery and especially to controlled hepatic resection; first successful (right) hepatic lobectomy according to anatomic structures (controlled lobectomy) by Jean-Louis Lortat-Jacob in 1952; and the description of lower esophageal metaplasia under the name of “endobrachyoesophage.” Once again by Lortat-Jacob at the same time as Barrett (1957).

Current enthusiasm for laparoscopic surgery is the result of the first cholecystectomy performed using laparoscopy by Philipe Mouret in 1987 and the first major publication on laparoscopic cholecystectomy by François Dubois in 1990.

Division of surgery into specialties occurred in 1950. This article focuses on general and gastrointestinal surgery in France.

DEMOGRAPHICS

France counts a little more than 62.7 million (58 million French citizens) inhabitants for a total surface of 551,602 km² (overall density, 114 persons per square kilometers). The French population lives on about 200,000 km² for a density of about 290 persons per square kilometers. The French account for 11.5% of the population of Europe and the area is the second largest (after Germany). In 1990, 80% of French people lived in urban areas (defined as >2000 inhabitants per “commune,” the smallest French territorial division). The density of population in metropolitan areas for all of France is just under 500 persons per square kilometer, and for Paris (population approximately 10 million for greater Paris, 2.2 million for the inner city), it is 3618 persons per square kilometers.

As in other countries, the aging population is a topic of interest. In 1994, 15% of the population was older than 65 years (≈40% men). By the year 2000, it is expected that the group of persons 60 to 64 years old will be stable, but that the percentage of the population 65 years or older will increase (relative to 1994) by nearly 16%. By the year 2025, these age groups will increase (relative to 1994) by 25% and 40%, respectively. The population subgroup older than 75 years should double by that time.

MEDICAL SCHOOLS AND SURGICAL TRAINING

There are 43 medical schools in France, all affiliated with the state-run universities to which they belong. They are staffed by about 3500 persons (for the entire country) who have been appointed “professor” by the Ministry of Education and they do their teaching in the region to which they belong. Since the change in law in 1958, all professors are bi-appartenant; ie, they are responsible for teaching but also have clinical activities. Their mission is actually triple, however, as they additionally have research activities. Although they are responsible for the teaching of medical students, there is no formal educational training for these physicians who instruct the students in medical school or in practice. Their courses and results are evaluated, however, and thus controlled. While most of the teaching is done by professors, who get part of their pay from the Ministry of Education, some of the practical training and teaching, especially in surgery, is done by nonuniversity surgeons in approved surgical centers in which the surgical trainees work. The program in surgery is the same all over France but the methods of teaching vary from one school to another.

Each medical school is headed by a dean, who is elected by the council of each university. The council is a representative body composed of professors, nonuniversity heads of service, chief residents, residents, students, and civil officers. The dean, with the help of several committees, directs the medical studies of the students in each faculty. The geographical distribution of medical schools is of course heavily dependent on the population and therefore they are found mainly in the larger cities.

MEDICAL STUDIES

As long as they have graduated from an official and qualified high school (lycée), the future medical students do not take any formal tests before attending medical school. About 30,000 students begin their premedical studies each year, usually at the university nearest their home. The selection is, however, very tough: the biggest decline in the student roster occurs between the first (truly premedical) and second (first year of medical school per se) years, as only 12% of the students get through this first selective year—meaning that about 3600 students will attend the second year (first year of medical school) and about 3500 will receive their diplomas at the end of their studies.
Students who get over this first hurdle usually go all the way to obtain their diploma (only about 100 will drop out between the second and sixth years of study). Medical students attend school continually throughout the first 2 years of training, the only practical training being a short hospital course during which they are taught the basics of nursing. For the remaining 4 years of training, they are required to come to the hospital with which they are affiliated every morning and to attend medical school in the afternoon and evenings. During this period, the students (called externes) are required to rotate on call approximately once a week. At the end of their sixth year of studies, students choose between becoming a general practitioner (requiring 2 years in the hospitals as a resident in general medicine) or continuing their training as a specialty resident, which requires passing a special examination called the Concours d'Internat. Before obtaining his or her medical diploma, the student is required to present a thesis at the end of his or her studies.

The total number of students is theoretically limited by a numerus clausus to limit the number of physicians and to keep medical costs down in France. The numerus clausus, however, does not apply to the number of specialists within the surgical profession, which may be a cause of imbalance in some of these disciplines. Although the rationale of this clause is to equate physician numbers with those in other European countries, foreign physicians qualified in their own countries outside the European Community can apply for French citizenship and then (although this is quite difficult) become qualified physicians in France. Not all of these physicians become surgeons, but the result is that the numerus clausus is not respected in the strict sense of the term. About 10% of medical students in France are not French citizens but follow the same courses and are integrated into the same medical schools. At the end of their studies, these foreign students have to pass a specific examination called the Attestation de Formation Spécialisée, which is recognized in other countries in Europe, the Middle East, and Africa. Foreign medical students can study in France and obtain a diploma called Diplôme Inter-universitaire. Future foreign residents can do their clinical work in approved units of hospitals, either as residents (2 years), or as chief residents for periods of 6 or 12 months.

Training to become a surgeon (as for other specialties) is accomplished in the following manner. As stated earlier, future specialists are required to pass a special competitive entrance examination called the Internat in their sixth year of studies. When this examination is passed, the medical student has the title of Interne des Hôpitaux, the equivalent of “resident” in the United States. At present, the examination is organized in 2 geographically distinct areas (North and South). Each student can take this special examination in each geographical area twice. Of 5000 students who take this examination each year, about 2000 are appointed resident. According to his or her rank in the entrance examination, the residents can choose among 6 categories of specialization: medical specialties, surgical specialties, biology, psychiatry, public health, and occupational medicine. About 430 students (8.6%) choose surgical specialties per year. Once again according to rank and specialty, the newly appointed resident then chooses the city (according to whether the examination was passed in the North or the South) in which he or she wants to continue to train. The first part of surgical training is called the Diplôme d'Études Spécialisées. All future specialists in surgery are required to do six 6-month rotations, at least 2 in visceral and 2 in orthopedic surgery. This part of training is also called the “common trunk." The hospital units in which they work are chosen once again according to rank. During this 3-year period, the resident follows theoretical courses provided by the faculty and has hospital ward responsibilities, is on 24-hour call duty, and assists in operating room procedures. Next comes the Diplôme d'Études Spécialisées Complémentaire, another series of 6-month rotation periods that last for a total of 3 years (2 as an interne and 1 as a chef-de-clinique), where the apprentice surgeon is in his or her area of specialization, for instance, digestive or gastrointestinal tract, orthopedic, vascular, or other surgery. At the end of the first 3-year period, the student obtains his or her diploma in general surgery, as long as at least 4 rotations were either in general, gastrointestinal tract, or orthopedic surgery. At the end of the 6-year period, the surgeon has to present a “memoir." All along these 6 years are courses provided once a month concerning theoretical and practical aspects of surgery. The essential formal operative training, however, is taught in the hospitals. Other training courses are sometimes affiliated with national meetings. Human cadaver dissection, whenever available, is highly recommended. For laparoscopic training, several university-associated training programs called university diplomas are available with hands-on training with pigs.

After the initial 5 years of training, the interne becomes a chief resident (chef-de-clinique) for a minimum of 2 years. It is during the first 5-year period that the interne asks a head of the department in surgery in one of the university hospitals for a position as chief resident in that department. Usually, the unit chosen is one of the 6-month rotations that he or she has participated in, but sometimes it can be another, usually recommended by one of the chiefs of service during the first period of training. This appointment is bi-appartenant; in addition to being paid by the Ministry of Health for clinical practice, the chief resident is also paid by the Ministry of Education and consequently has teaching responsibilities, along with the professors, in medical school. Once the surgeon has fulfilled the 2-year term, he or she gets the title of Ancien Chef de Clinique Assistant des Hôpitaux.

At this time, the chief resident has to decide to either go into private practice or continue with a hospital (eventually academic) career. If so, he or she can either continue as a chief resident in a university unit or apply for a full-time job as Praticien Hospitalier, a staff physician appointed to a specific clinical job in a specific hospital. This is accomplished through another competitive examination. The staff physician is mono-appartenant, and while no longer officially paid as a teacher, continues to instruct students coming to his or her particular unit. If the resident wishes to continue in the hospital system or pursue an academic career, he or
she has to obtain a Diplôme d’Etudes Approfondies (Diploma of Advanced Studies) during this same training period, or during the 2 years following the initial training period. The Diploma of Advanced Studies is an intensive learning period, the major topic of interest varying from basic sciences or medical statistics to laboratory or clinical research. At some time in his or her career, if the chief resident or the Praticien Hospitalier wants to become a professor, he or she has to pass the Habilitation à Diriger des Recherches, the equivalent to an American PhD. The chief resident then formalizes this request through several university commissions that examine his or her credentials (operative activity, publications, research projects accomplished or underway, and teaching positions filled) and then decides whether the candidate is worthy of the appointment. This puts the candidate on a list and then he or she becomes a professor if the job is vacant.

There are approximately 56 professors in gastrointestinal tract surgery and 112 in general surgery in France at present. All hospital staff members are appointed to a specific position in a specific hospital. When positions are left vacant, they are usually filled by younger surgeons. Once appointed to a specific position, there is very little mobility between positions of the same rank: the surgeon usually stays in the same hospital for his or her entire career.

Retirement from hospital positions is required when one reaches the age of 65 years. On request, and according to the number of young children the surgeon has to support, an academic surgeon can stay on the staff for 1, 2, or 3 more years.

**RESEARCH DEVELOPMENTS**

Surgical and animal research is conducted in individual laboratories or in specific organizations. The former is possible when research grants from the Institut National Scientifique d’Etudes et de Recherche Médicales (National Scientific Institute for Medical Studies and Research), or the Centre National de Recherche Scientifique (National Center for Scientific Research) are available. These funds are distributed after approval once the grants have been established. European funds for research are also available through the European Community. Scientific grants and prizes are available through the major scientific societies.

While there are no formal, national, clinical research organizations, the latter is conducted in individual units or through organizations such as the French Associations for Surgical Research, founded in 1977, composed of 4 informal groups of volunteer surgeons who conduct large, multicenter controlled trials. The first of these was the Association de Recherche en Chirurgie (Association for Surgical Research), the second was the Association Universitaire de Recherche en Chirurgie (University Association for Surgical Research), the third was the Association de Chirurgiens de l’Assistance Publique pour les Evaluations Médicales (Association of Surgeons of the Public Assistance for Medical Evaluation). The latest of these research groups is the Association de Recherche en Chirurgie de l’Île de France (Association for Research in Surgery in l’Île de France). These groups of surgeons have conducted more than 100 studies, most of which are randomized controlled trials. Most of these studies have been published in major surgery journals in the last 15 years.

The French research groups have annual scientific reunions during which the major recently finished projects are presented. They also have forums in 3 other surgical or gastrointestinal tract specialty meetings elsewhere.

**SURGICAL SOCIETIES**

The Association Française de Chirurgie is a national association of surgeons, including all fields of general, gastrointestinal tract, urologic, gynecologic, and vascular surgery, founded nearly 100 years ago. It numbers approximately 3000 members and meets annually, usually in Paris in the autumn. One or 2 postuniversity courses are organized during the meeting.

The Société Française de Chirurgie Digestive (French Society for Digestive Surgery) is a smaller group (=700 members), including only those surgeons involved in gastrointestinal tract surgery. They have 1 major meeting per year and 2 forums in other meetings, including the AFC and the Société Nationale Française de Gastroentérologie (French National Society of Gastroenterology [SNFGE]), a mixed medical and surgical society that meets annually.

The Fondation Française de Cancérologie Digestive (French Foundation for Digestive Cancerology) has several hundred members, both cancerologists and surgeons, meets annually, and conducts large multicenter trials in gastrointestinal tract cancer.

The Académie de Chirurgie (French Surgical Academy) is a very old institution (created in Paris under the name Académie Royale de Chirurgie in 1743) that has 3 meetings per month in Paris. The papers presented are published in French in the review Chirurgie.

The Collège de Chirurgie Générale, Viscérale, et Digestive (College of General, Visceral [gynecology and endocrine], and Gastrointestinal Surgeons) is a group that was originally created to coordinate postuniversity education. The college meets annually as a general assembly at the national meeting, and the committees work separately to ensure continuing education for residents and surgeons alike, occasionally with hands-on training. Foreign surgeons can ask to become fellows of this college.

The Association de Chirurgie Hépatobiliaire et Transplantation (Association of Hepatobiliary and Transplantation Surgery) and the Société de Coloproctologie (Society of Coloproctology [mixed physicians and surgeons]) have been created to stimulate and promote these subspecialities.

**SURGICAL JOURNALS**

There are 4 French-language surgical journals published in France: Chirurgie, the official organ of the Académie de Chirurgie; Journal de Chirurgie, which is a postgraduate organ for surgeons; and Annales de Chirurgie and Le Lyon Chirurgical, 2 classic journals with original papers and case reports.
DISEASES AND THEIR EFFECT
ON SURGERY IN FRANCE

The increase in the number of surgical procedures performed per year in France has more or less paralleled the increase in population throughout the last 20 years.

A national inquiry of surgical activity was conducted in 1992 by the Sécurité Sociale and published in 1995. For the whole year of 1992, 8,268,114 surgical operations were performed in 2,960 different centers in France. The overall incidence of operations (all categories of surgery) was 1,400 per 10,000 inhabitants. In 1992, appendectomy represented 4.15% of all operations performed in that year; hernia, 4.09%; varicose veins, 3.61%; laparoscopy, 2.65%; and cholecystectomy, 1.82%. Of the 211,145 appendectomies performed in 1992 (incidence of 36 per 10,000 inhabitants), 31% were performed in public establishments and 69% were performed in private institutions.

According to the 1996 inquiry of the Société Française d’Anesthésie et de Réanimation (French Society of Anesthesia and Intensive Care), performed according to a sampling procedure and published in 1997, there were a total of 7,937,000 (±387,000) anesthesiology procedures performed in France. This represents an increase of 120% relative to the inquiry published in 1980 (3,600,000 ± 240,000). Of these, approximately 15% were for gastrointestinal tract procedures.

In relation to the total population, 13.5% of the inhabitants of France underwent anesthesia in that year. Of these, 55% were women. As can be expected, the age of patients undergoing operations in France has changed throughout the years. Patients 54 years and older represented 39% of all operations in 1996 but 26% in the 1980s. The same is true for severity; according to the American Society for Anesthesiology score, the proportion of patients in group 3 and higher has risen from 6% to 12% between 1980 and 1996.

Geographically, 16% of all anesthesiology procedures performed were in university hospitals, 20% in general hospitals, 6% in non-profit-making hospitals, and 58% in private clinics. While surgical activity has increased in all categories of hospitals, the proportion of operations performed in private institutions increased the most (8%).

Orthopedics is the leading category of surgery performed in France (25%). The number of ophthalmologic procedures has increased four-fold since the 1980s, with 443,000 operations (7.5% of all surgical procedures) performed in 1996. The number of cataracts operated on in France increased by 626% during this period. Gastrointestinal tract surgical activity has remained fairly stable throughout the years (a little <900,000 operations in 1996), but the distribution of different types of operations has changed radically. Whereas 306,500 appendectomies were performed in 1980, representing nearly 33% of all gastrointestinal tract surgery, in 1996 there were 159,900 appendectomies (2.7% of all operations and about 15% of all gastrointestinal tract operations). This probably attests to better information as to the proper assessment of the diagnostic dilemma represented by choosing between operating without finding appendiceal disease and not operating but risking a perforated appendix. The number of cholecystectomies has increased from 64,700 in 1980 to 95,300 in 1996—certainly, as in other countries, more related to the enthusiasm for laparoscopic techniques rather than a change in disease patterns.

Anesthesia performed in emergency situations represented approximately 15% of all procedures performed in 1996, nearly twice the number in 1982. The reason is probably to be found in the increasing number of anesthesiology procedures for labor (epidural anesthesia) and endoscopy (neuroleptanasesthesia). Excluding obstetrics, orthopedics represented 43% of the emergency procedures; gastrointestinal tract surgery was responsible for 24%.

Ambulatory procedures (38% of which were endoscopic procedures) were performed in 2,013,800 instances in 1996, 12 times as many as in 1980 and mostly (75%) in private practice. For the total number of private clinics, ambulatory surgery represents nearly one third of their activity. A little less than one fifth of surgical procedures are performed on an outpatient basis.

The frequency of laparoscopic procedures has increased enormously in the last few years. Of the nearly 160,000 appendectomies performed in 1996 in France, 43,200 (27%) were performed laparoscopically. Of the 95,300 cholecystectomies in 1996, 73,400 (77%) were performed laparoscopically.

Cancer is one of the leading causes of disease and mortality in France, as 1 of 4 persons has or has had cancer during their lifetime. Tobacco has been incriminated as a contributing factor in 95% of the patients with bronchopulmonary cancers, 85% of the patients with cancer of the larynx, 65% of the patients with oral cancer, and 40% of the patients with bladder cancer. There are some 33,000, 9,000, and 6,000 new cases of colorectal, stomach, and pancreatic cancer, respectively, discovered in France each year. The distribution of new cases of cancer was as follows: esophagus, 8.6%; stomach, 17.0%; small intestine, 1.0%; colon, 25.8%; rectum, 21.7%; gallbladder and biliary tract, 6.0%; liver, 6.4%; and pancreas, 10.9% (2.6% miscellaneous or not given). The percentages of cancer operated on in these same categories in 1993 were: esophagus, 9.0%; stomach, 19.3%; small intestine, 0.9%; colon, 40.4%; rectum, 18.6%; gallbladder and biliary tract, 1.9%; liver, 1.5%; and pancreas, 5.6% (2.8% miscellaneous or not given). In 1993, 32,000 surgical operations were performed for gastrointestinal tract cancer, 40% being for colonic carcinoma and 3.4% for carcinoma of the liver and biliary tract.

Alcoholism is one of the leading causes of morbidity and mortality in France. Although once the leading country in consumption of alcohol (probably because of the tradition of drinking wine with meals), France now ranks second or third (according to the years and the agency conducting the survey) in Europe, behind either Italy and/or Portugal. Of a total 532,000 deaths per year (1992 statistics), more than 87,500 persons died of alcoholic cirrhosis and another 2,600 of alcohol-related mental disorders. In comparison, there were approximately 22,000 deaths per year due to trauma, 8,700 being motor vehicle crashes. France is not a violent country, as only 600 deaths per year can be attributed to homicide. About 150,000 deaths per year were due to cancer, 24,000 be-
ing bronchopulmonary, 11,000 of the breast, 6,400 in the female reproductive organs, and 5,400 head and neck carcinomas.

In 1992, the cause of death according to the gastrointestinal tract organ involved was: esophagus, 12.2%; stomach, 18.7%; small intestine, 0.5%; colon, 23.5%; rectum, 10.5%; gallbladder and biliary tract, 3.9%; liver, 9.8%; and pancreas, 11.0% (miscellaneous or not given, 9.9%).

Transplantation in France is quite active but has leveled off in the last few years because of the universal problem of donor shortage. In 1993, there were 3,180 transplantations performed, including 1,781 kidney, 662 liver, 526 heart, and 113 lung transplants. There were 2,807 transplantations performed in 1996. Of these, there were 1,638 kidney, 626 liver, 397 heart, 69 lung, 27 heart and lung, and 48 pancreas/kidney transplantations. The waiting list for organ transplantation (established December 31, 1993) was 4,565 patients waiting for kidneys, 426 for hearts, 384 for livers, 118 for lungs, and 89 for hearts and lungs. In 1996, the numbers were 2,286 for kidneys, 752 for livers, 550 for hearts, 69 for hearts and lungs (>4-fold increase), 128 for lungs (>10-fold increase), and no figures available for pancreas. In 1996, the mean delay between the decision to transplant and the actual transplantation was 24 months for kidney transplantations in adults and 11 months in children, ranging from between 7.7 and 9.4 months for heart and between 5 and 9 months for the liver.

The actuarial survival rates in 1996 for heart transplantation was 73% at 1 year, 68% at 3 years; for lung transplantation, 50% at 1 year; for heart and lung transplantation, 55% at 1 year; for liver transplantation, 77.5% at 1 year and 73.7% at 3 years; and for kidney transplantation, 87% at 1 year and 79% at 3 years. The present costs for transplantation are estimated to be approximately 50,000 French francs (FF) for multiple organ retrieval, 250,000 FF for kidney transplantation, between 200,000 and 500,000 FF for heart or heart and lung transplantation, and 600,000 FF for liver transplantation.

The Etablissement Français des Greffes (National Agency for Transplantation) was created in 1994 to regulate organ and tissue transplantation.

**REIMBURSEMENT OF HEALTH CARE**

Although reimbursement agencies were created as early as 1813 for work-related accidents, the present-day reimbursement agency for the French health care system was started in 1930, named the Sécurité Sociale in 1945 after the passage of the Social Security Act in the United States 10 years earlier. In France, the Sécurité Sociale is the government-run agency that reimburses the population for health care. Whereas in 1958 only 58% of the population was covered, all citizens of France have been covered by this insurance since 1978. The rate of reimbursement varies from 60% to 100% according to the operation performed and whether the patient is operated on in public or private practice. In public practice, most minor and all major operations are fully reimbursed. In private practice, reimbursement depends on the price the surgeon asks for; the remaining costs are reimbursed by private insurances. Hospitalization costs are reimbursed between 80% and 100%. The patient has to pay the difference, usually with private insurance. The Sécurité Sociale is not an insurance system in the strict sense of the term; ie, the money is not capitalized (no investment and no interest). Funding for this system is provided by all employees, a proportional sum being withdrawn from their salaries every month and automatically distributed to the agency. This means that the working population provides funds for care not only of the working population but also of the nonworking population, and partly explains why this system has been in the red for many years (~50 billion FF per year). The enormous debts incurred are covered by mandatory contributions, paid by workers and employers, and taxes, paid by all citizens. Providing reasons for this negative balance has been one of the most popular banners for political forums in the last decade. In a newspaper article in 1991, Jean Defontaine stated that 33% of the budget of the Sécurité Sociale was spent on alcoholism (alcoholic patients occupied 45% of general medicine beds); 20% of work-related accidents and 30% of traffic accidents can be attributed to alcoholism. Forty-five percent of the budget is used for health care of elderly persons, who represent 15% of the population. Nearly 50% of medication costs (reimbursed by the Sécurité Sociale) is for antidepressant drugs.

Fees for public medical consultation are preset by the government. The average rate in the last 2 years is 110 FF (=US$18) for consultation in general medicine, and 150 FF (=US$25) for a specialist.

**HOSPITAL FACILITIES, SURGICAL MANPOWER, AND GEOGRAPHIC DISTRIBUTION OF HEALTH CARE**

The hospital system in France is composed of public and private (clinic) facilities. In 1993, there were 1,057 public hospitals with a total of 478,751 beds, 35,000 being nursing homes or long-term care facilities (including psychiatric facilities). Surgery (all types) accounted for 71,302 of these. Private institutions counted for 27,722 for a total of 195,000 beds, about 80,000 of which were for nursing homes or long-term care facilities (including psychiatric facilities). Surgery accounted for 72,710.

In 1992, public health facilities provided a little less than 100 million total days of hospitalization. A total of 7,731,000 persons were hospitalized in 1992, 2,350,000 for surgery-related reasons. In private practice, there were 56 million total days of hospitalization, but the number that were surgery related was unknown. There are 549 public hospitals and 1,056 private clinics in which surgery is performed.

Of more than 1 million people working in public healthcare, nearly 85,000 are physicians or biologists, 600,000 are involved in nursing and education, and 290,000 hold administrative jobs. In the private sector, there are approximately 290,000 physicians and biologists and nearly 250,000 involved in nursing and education. Approximately 60% of the approximately 4,500 French surgeons are in private practice, of which one fourth (15% of all surgeons) also have part-time jobs in...
hospitals. Nearly 40% of surgeons are full-time surgeons in the hospitals.

Full-time surgeons working in public hospitals have the right to hold a private practice within the hospital. Care provided to these patients is done during normal working hours. Each hospital surgeon with a private practice can have a maximum of 2 half-days of consultation, and can hospitalized between 2 and 4 patients at the same time as long as the number does not exceed 8% of the total number of beds in the unit. The surgeons can either ask for the same fees as those normally reimbursed by the Securite Sociale to the patients in hospitals or ask for more. The patient has to provide the difference; however, most of the population has personal insurance that reimburses the difference.

The Ordre des Medecins, a national association of physicians, was created in 1940. The goal was to litigate and apply the rules of the Deontology Code. This association currently delivers the permission to operate and also delivers certification for certain specialties. This association serves as one of the forums for medicolegal problems and has a large role in determining the responsibility of physicians when patients have made legal complaints concerning health care. Many politicians have tried to abolish this association, basing their arguments on the fact that it was created under an “illegal” government. Certainly, many surgeons believe that the College of General, Visceral, and Gastrointestinal Surgeons, rather than the Ordre, should be certifying surgeons and the specialties thereof.

The Agence Nationale pour l’Evaluation de Soins (National Agency for the Evaluation of Health Care) was created in October 1997 under the auspices of the Ministry of Health. The agency includes 120 employees, some, but not all, belonging to the medical profession, whose goal is to evaluate the way health care is provided in France. This agency will supervise the accreditation of public and private health care institutions.

**FUTURE**

Efforts are being made to drastically reduce the number of short-term (“acute”) beds in France. Neighboring institutions (private and public) are being asked to reduce costs through a better distribution of medical personnel and heavy equipment, thus avoiding double functions in a small geographical area. Hospitals will soon be accredited (ie, judged to provide quality care, checking if their human resources and technical equipment are in accordance with their goals). One possible incentive would be to determine the level of government funding according to the level and quality of health care provided. Postuniversity training has to be improved. Many efforts are being made in this direction. There are postgraduate courses at national meetings, those run by the College of General, Visceral, and Gastrointestinal Surgeons, as well as individual courses provided by local and university hospital groups.

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**REFERENCES**