Case study

France

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Price setting and price regulation in health care: France

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Abstract

The French system encourages plurality in health care provision, which relies on a mix of public and private providers. This plurality, with a high share of private providers working under public insurance regulation, explains partly the relatively good results concerning waiting times and patient satisfaction. However, the high degree of autonomy and choice both for providers and patients together with primarily fee-for-service payments for health care providers requires careful regulation of prices and of the health care market to contain health expenditures and to tackle issues of care coordination, access and efficiency.

The level of remuneration of health professionals is partly the result of the power relations between the stakeholders. In a system where most health professionals are paid on a fee-for-service basis and where the social health insurance funds act as a single payer, the French experience shows that price regulation at the central level combined with macro-level expenditure controls is instrumental for steering health care providers. France has put in place successfully several mechanisms for controlling the fees for providers, services, medications, etc. at the national level. The regulation of prices for major health services and medications reduces financial burden of care for patients and allows improved access for the whole population. Private providers contracted with public payers under regulated fees contribute to easing the pressure on public resources and satisfying the increasing demand. However, the French experience also shows that concentrating only on provider fees, without questioning the quality or appropriateness of services, is not enough for cost containment in the longer term. Under fee-for-service, and activity-based payment in hospitals, providers tend to compensate for (potential) lost revenues by increasing the volume and intensity of their services.

Therefore, increasingly, the attention is turned on alternative modes of payment with development of value-based contracts and bundle payments to incentivize quality of care both in the ambulatory and hospital sector. In the hospital sector, there is also a growing tendency to use prices for encouraging treatments, which are considered as "better practice" or discouraging "low value care" rather than paying for any volume of activity.

1
Background on the French health system

Health status

France is a high-income country with relatively good health outcomes. Compared with other industrialized countries, France ranks high in terms of life expectancy both at birth and at advanced age. In particular, older persons remain in better health with one of the highest life expectancies at the age of 65 over among OECD countries (24 years for women and 19 years for men) (OECD, 2018a; 2018b). Cancer survival rates, which are often used as a more direct indicator of the performance of the health care system, are also high compared with most other European countries (Eurocare, 2014). At the same time, France suffers from a high rate of premature male deaths from accidents and unhealthy habits (smoking and alcoholism), and social and geographic inequalities in health remain substantial (Lang and Ulrich, 2017).

Health care financing

Health care is financed via a social insurance system where the coverage is effectively universal. Health-related costs are covered by a mixture of compulsory social health insurance (SHI) and private complementary health insurance (CHI) schemes. The benefit package is comprehensive, uniform, and of overall good quality. In addition, France has one of the lowest levels of out-of-pocket payments among OECD countries (OECD, 2017).

Enrollment in SHI depends on the employment status and is automatic for workers (covering their spouses and dependent children). Consumers cannot choose their scheme or insurer and cannot opt out. Since 2000, there is a state funded scheme, Universal Medical Coverage, for very-low income groups (*Couverture Maladie Universelle*, CMU). There are no competing health insurance markets for the core health coverage in France. There is however a very competitive private complementary insurance market with about 95% of the population owning private CHI. This is due to the fact that patients need to pay part of the cost for almost all services, including doctor consultations, hospital care and prescriptions. CHI is mostly used to cover the share of cost left to patients for services included in the public benefit basket.

Funding of the SHI comes mainly from income-based contributions of employers and employees, and increasingly by taxes on a broader range of income with additional revenues from earmarked taxes on tobacco, alcohol, pharmaceutical companies, etc.

Health care provisions

Health care provisions rely heavily on private providers. Ambulatory care is mainly provided by self-employed private health professionals including physicians (general practitioners [GPs] and specialists), nurses, dentists and medical auxiliaries, working in their own solo practice or in health/medical centres and hospital outpatient departments. More than half of all surgeries and one fourth of obstetric care are provided by private-for-profit hospitals that are contracted with and paid by the SHI fund.

Historically, health care is organized around four principles delineated by law: confidentiality of medical information; freedom of practice for physicians; patient's free choice of provider; and office-based fee-for-service (FFS) practice in the ambulatory sector. Doctors are free to choose where and how they practice. Patients have free access to any physician or any facility with no limit on the frequency of visits. There is very little control of access to hospital and specialist care. While some of these principles have been challenged with recent reforms, there is still a high degree of independence and choice both for providers and patients.

Regulation and management

The regulation and management of the health care system is mainly divided between the state (parliament and government with several ministries) and the statutory health insurance funds. The state/government sets out sector-level expenditure targets, determines the levels of health care provision and training, regulates care quality, and defines priority areas for national programs. On the other hand, the statutory health insurance funds play the main role in defining the benefit baskets; regulating the prices of procedures, drugs, and devices, which will be reimbursed to patients; and defining the levels of copayment. Statutory health insurance oversees setting tariffs for health professionals in private practice via collective negotiations with professionals' unions.

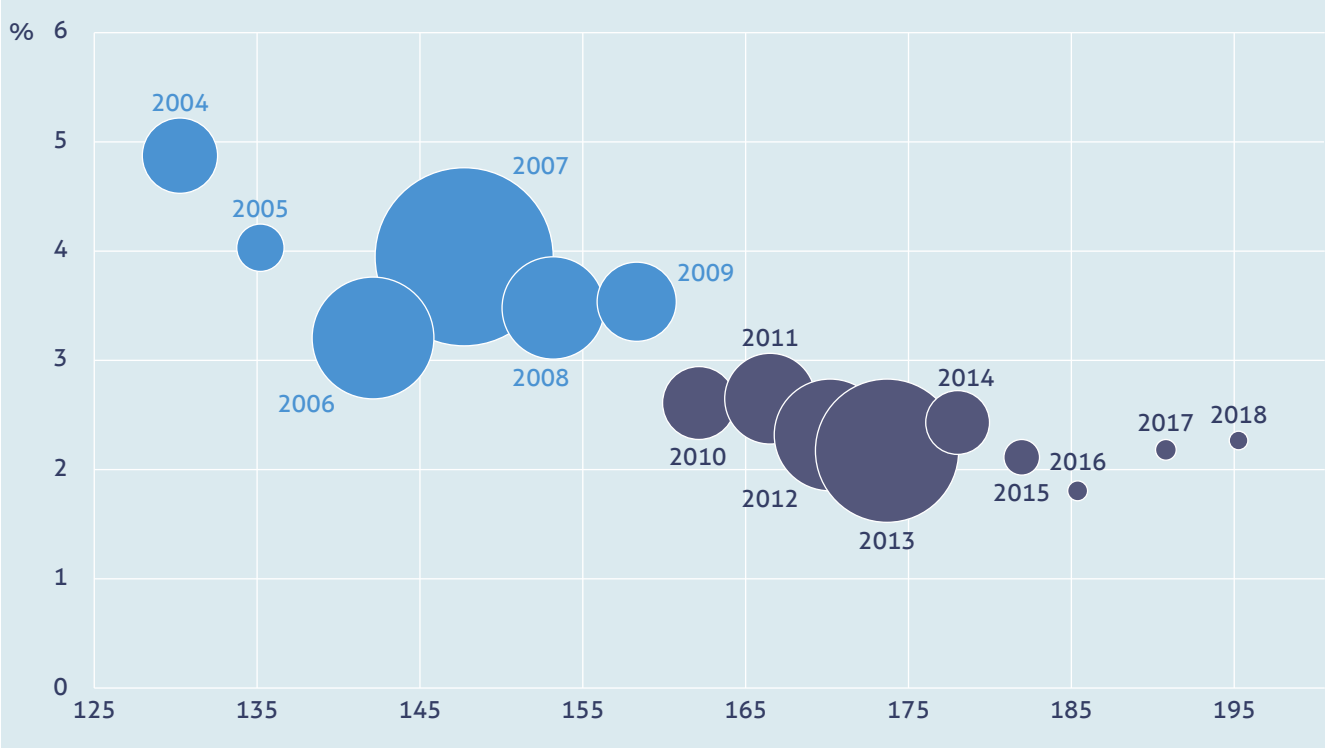
Macro-level cost containment

Health is the second largest area of public spending in France. Health care and other social security deficits have been a persistent problem over the course of the 2000s. The specification of an overall expenditure target for health care, known as the National Objective for Health Insurance Spending (*Objectif National de Dépenses d'Assurance Maladie*, ONDAM), has been a key aspect of the French strategy to control health spending. This involves setting an a priori global budget for health each year. Traditionally, the French government has not played a proactive role in controlling overall health care spending, with independently operated compulsory insurance funds responsible for managing their own spending. ONDAM marked a significant break from this tradition and represents the reassertion of the government's control of health care spending (Barroy et al., 2014).

ONDAM is specified in monetary terms as the total amount of health spending for the forthcoming calendar year and gives all stakeholders a precise objective in terms of spending. The monetary ONDAM target is used to signal the percentage of health spending growth that the government is willing to accept in any given year. ONDAM's overall target is split into three sub targets for the main health service providers: ambulatory care, hospitals, and medico-social facilities. The budgets for hospital and medico-social facilities are further divided into two envelopes, one for public and private non-profit hospitals and one for private for-profit ones.

Initially set as objectives, ONDAM targets became binding over time with a dedicated committee following the evolution of health expenditures toward more responsibility and powers for the health insurance funds contain costs. Despite the initial uncertainty of its influence, the budgetary processes ushered in by ONDAM appear to achieve better containment of health expenditures as well as better working relations between stakeholders. The growth rate of health expenditures has been decreasing for a decade, and ONDAM targets have been successfully met since 2010 (Figure 1).

Figure 1
Evolution of health expenditure growth against ONDAM targets



Source: CCSS, 2018. Note: The abscissa shows expenditure in billions of euro and the ordinate shows growth rate. The size of each bubble represents the extent of the deficit (in light blue) or surplus (in dark blue) with respect to the ONDAM target voted in the parliament. In 2018, total expenditure of health insurance funds was €195.2 billion, representing a constant growth rate of 2.3%, which is slightly under the set target. In comparison, the ONDAM target was 4% in 2004, while the actual growth rate observed was 4.9%.

2
Price setting for ambulatory services

Health professionals working in the ambulatory sector and those working in private hospitals contract with the health insurance fund and are paid on a FFS basis. The prices of the services (consultations and procedures) provided by these professionals are set at the national level by the SHI fund.

Setting fees for primary care and outpatient specialist services

Primary care and outpatient specialist services are mostly funded on a negotiated FFS basis. However, recent initiatives from the SHI fund have tweaked the funding by introducing a pay-for-performance (P4P) scheme that is completed by structural bundled payments. The fees are set through formal negotiations between the union of statutory health insurance funds (UNCAM), the government, the union of complementary health insurance schemes (UNOCAM) and unions of health professionals, which led to a national collective agreement (*convention nationale*), a contract that aims to regulate the expenditure and activity of the ambulatory sector. These negotiations have been national since the 1970s and lead to uniform fees corresponding to official tariffs for reimbursement by SHI (Régereau, 2005). UNCAM first provides a proposal which takes into account financial constraints set by the sub-target of ONDAM for the ambulatory sector. The proposal sets the principles and modalities for respecting the expenditure target (notably, modification of tariffs or fees for services) as well as a range of measures for incentivizing better medical practice to achieve the priorities set by the SHI fund (such as better geographical and financial access to care, improving care coordination, health prevention and promotion and quality of care) (*Union nationale des caisses d'assurance maladie* et al., 2016).

The UNCAM proposal is discussed with different provider unions. Medical professionals' unions exert considerable power through lobbying in the parliament. The Ministry of Health therefore plays a significant role in the negotiations, which can be complicated between UNCAM and unions of physicians, in particular. Unions obtaining more than 30% of the votes from their professional groups can sign the agreement on their own, while those obtaining between 10% and 30% of the votes need to sign the agreement together with the other unions. Agreements for each professional group cover a period of five years. At the same time, regular amendments occur (at least annually for doctors) to adjust for changes demanded by the Social Security Finance Act, which sets the ONDAM expenditure targets and defines new provisions and measures to reach the targets each year.

Traditionally the fees have been increased regularly, mainly by taking into account inflation and depend on the bargaining power of the professional unions (Figure 2). In 2011, the SHI fund had introduced a P4P scheme (see below) and froze the prices until 2016. However, in the national agreement of August 2016 (just before the presidential elections), physicians obtained a significant increase in tariffs (from €23 to €25 for a regular GP consultation and from €28 to €30 for a regular consultation with most specialists). This agreement introduced higher fees for consultations with complex patients (a tariff reaching €50) and very complex patients (with a tariff of €60) (CNAM, 2018c). These consultations are dedicated to patients with multiple, complex and unstable conditions, and to specific services with strong public health stakes (such as screening and prevention). The visits that can benefit from these new tariffs are defined by the SHI fund in the national agreement. Complex consultations include, for example, visits for contraception and prevention of sexually-transmitted diseases for teenagers, while very complex visits include, for instance, initial visits to organize treatments for severe chronic conditions, such as cancer and neurodegenerative disorders (*Union nationale des caisses d'assurance maladie* et al., 2016). Since 2016, the SHI fund has also offered a lump-sum payment (of €50 000) for physicians setting up their practice in a medically underserved region with a complementary payment of up to €5000 per year to compensate low revenues in less populated areas.

All medical professionals are subject to the terms of the national agreement, except if they explicitly choose to opt out (less than 1% of all physicians), in which case their consultation fees are not reimbursed at all. The SHI fund pays the social contributions, including the pension, of physicians who agree to charge patients on the basis of the nationally negotiated fees (called sector 1 contractors). About 75% of private physicians are sector 1 contractors and are generally not allowed to charge higher fees with very few exceptions[1] (France Assos Santé, 2017).

Some physicians and dentists are allowed by SHI to charge prices higher than the regulated fees (sector 2 contractors) based on their level and experience. Doctors working as sector 2 contractors are free to charge higher fees, but must purchase their own pension and insurance coverage. The creation of sector 2 contractors in 1980 aimed to reduce the cost of social contributions for the SHI fund, but did not have the expected impact, and the demand for the sector was much higher than predicted. Consequently, access to sector 2 has been limited since 1990; each year, only 1000 new doctors are allowed to work in sector 2.[2]

1 When patients do not respect the gate-keeping system (*médecin traitant*) developed under the 2004 Social Security Finance Act to support coordinated care pathways, the physician is allowed to charge a supplemental fee (maximum 17.5% of the nationally negotiated fees) that complementary insurances are not allowed to cover.

2 The attributes of doctors allowed to work in sector 2 are listed in the national agreement and include doctors with previous public hospitals positions (former medical chief resident, former hospital assistant, hospital practitioner appointed permanently, and part-time practitioner with at least five years of experience) and physicians or surgeons in the army.

The amount exceeding the regulated price (balance billing) is not covered by SHI but can be covered by private CHI. Nevertheless, the generosity of CHI contracts varies largely with different price limits on extra billing. Around one quarter of physicians are sector 2 contractors, but this proportion shows strong variation across regions and medical specialties and is higher for specialists (43%) than for GPs (10%) (France Assos Santé, 2017).

Figure 2
Evolution of ambulatory care spending

Type of spending	2016 (in million €)	2017 (in million €)	Percentage change (2016-17)	Contribution to growth (%)	Share of spending (%)	Mean annual growth between 2006 and 2016 (%)
Medical fees						
General practitioners	5889	6054	2.8	8.1	8.4	2.6
Specialists	9677	10008	3.4	16.3	13.9	2.9
Midwives	228	248	8.6	1	0.3	10.4
Dentists	2762	2807	1.6	2.2	3.9	1.4
Allied health professionals' fees						
Nurses	5384	5631	4.6	12.2	7.8	8.1
Physiotherapists	3233	3325	2.8	4.5	4.6	4.6
Speech therapists	605	628	3.8	1.1	0.9	5.8
Orthoptists	67	70	4.1	0.1	0.1	6.2
Medical laboratories						
Total	2899	2935	1.2	1.8	4.1	1
Health products						
Drugs	19361	19595	1.2	11.5	27.2	1.4
Medical devices	5395	5614	4.1	10.8	7.8	6.9

Source: CCSS, 2018. Based on data from SHI (*Caisse nationale de l'Assurance Maladie, Régime général*).

Regulation of prices in sector 2

Prices set by sector 2 physicians above the regulated tariff may or may not be covered by CHI depending on the contract. This means that for some patients, out-of-pocket payments to see a physician may be too high, which raises concerns both on equity of access to care and health care expenditure growth, since unregulated prices could be highly inflationary. Therefore, the SHI fund has introduced several regulatory mechanisms and tools to control the prices in sector 2.

First, for emergency care and when patients are covered under low-income schemes (*couverture maladie universelle complémentaire*, CMU-C, or *aide au paiement d'une complémentaire santé*, ACS), balance billing is not allowed. These schemes are partly funded by the state with the objective of reducing the burden of cost-sharing for these populations. Sector 2 doctors have to charge national/ negotiated tariffs to patients with CMU-C and ACS.

Second, the social security code (Section L162-1-14-1) as well as the medical code of ethics impose that balance billings have to be a reasonable amount (*tact et mesure*). Until recently, there was no regulatory or legislative definition of the term "*tact et mesure*" or what is considered to be a reasonable amount. In 2012, under pressure from the SHI fund, the French national medical council (*Conseil national de l'ordre des médecins*, CNOM) recognized it as a fee exceeding three or four times the regulated prices.

More recently, SHI introduced a new contract in order to regulate prices charged by sector 2 physicians: "controlled tariff option" (*option de pratique tarifaire maîtrisée*, OPTAM), which is a yearly and optional contract. Physicians who choose this contract commit to freeze their fees (at the average of the three previous years) and not to charge more than double (100%) the regulated tariff. They are also asked to perform a share of their services at regulated tariff levels. In return, they receive a bonus proportional to the share of their activity respecting the rules. There is also an option with similar modalities for specialists who performed at least 50 surgical or obstetrical procedures/year in private practice or in hospitals (*option de pratique tarifaire maîtrisée chirurgie et obstétrique*, OPTAM-CO). In 2017, more than 12,000 doctors, representing close to 40% of sector 2 contractors, have signed this contract (Foult, 2017).

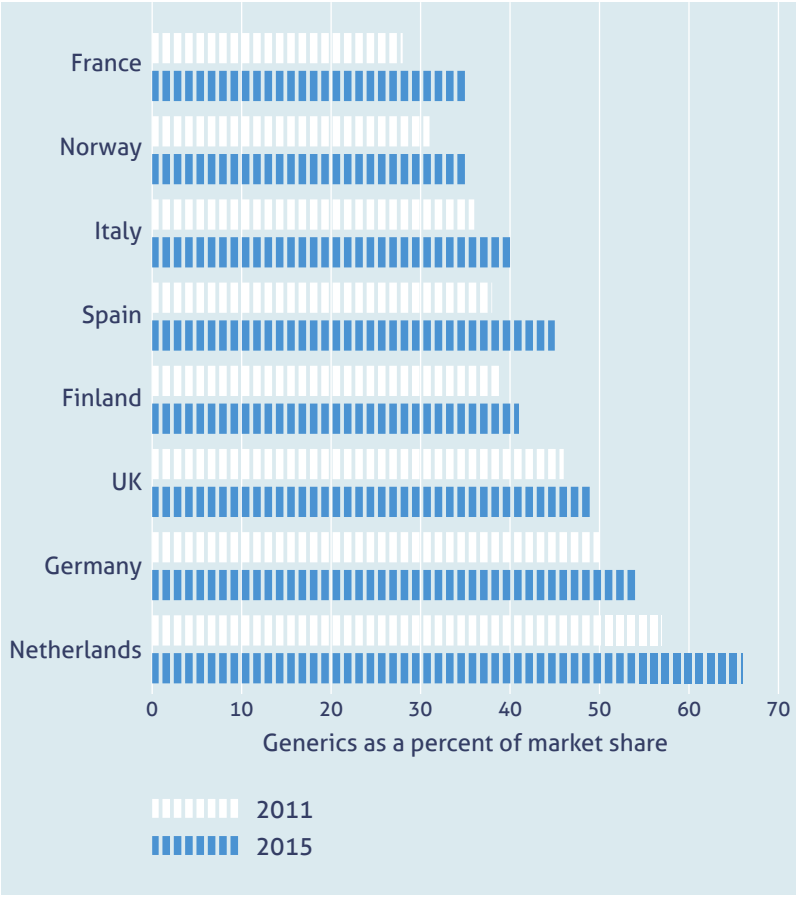
Penalties exist for physicians who do not comply with the requirements of their sector. They include an adjournment of the payment of social contributions by SHI for physicians in sector 1 or the adjournment of the right to extra bill for physicians in sector 2.

A progressive shift towards value-based payment

While the existing system, based on collective negotiations, can be considered as effective for controlling prices of services, it is not entirely effective for assuring cost containment in the ambulatory sector. Overall, between 2006 and 2016, physician revenues have increased on average 2.8% annually, which is largely above inflation based on the consumption prices/index (Figure 2). Physicians appear to increase the volume of their services for achieving a target income. Increasingly, the SHI fund questions the value or quality of services provided with a progressive development of value-based payments in primary care. Given the high level of freedom of choice for patients, supporting GPs as gatekeepers in the system to improve both the quality and the efficiency of the care provision has been an important pillar of reforms in the past decade.

Since the 2005 national agreement, GPs have committed to improve the care coordination of their patients, promote prevention and improve their patients' prescription habits by respecting guidelines, reducing the overall volume of prescriptions and increasing generic prescriptions (which is very low in France – see Figure 3). In return, they have benefited from an increase in their consultation fees. However, these objectives were non-binding for individual physicians and have therefore had limited impact on GPs' practice. Therefore, in 2009, SHI introduced P4P contracts for improved individual practice (*contrats d'amélioration des pratiques individuelles*, CAPI) for GPs in an attempt to enhance and support the quality of primary care and more efficient prescribing. The development of these contracts was facilitated by the 2004 reform introducing the preferred doctor scheme, which enabled the identification of a patient list per physician. The contracts, initially proposed to primary care physicians and signed on a voluntary basis by individual GPs, had the same objectives in terms of improving clinical quality of care and encouraging prevention and generic prescription, but did not alter the existing FFS scheme. Participating physicians received additional remunerations on top of their normal FFS income if they met the targets set: up to €7000 annually if all targets were achieved or proportionally to their progress if objectives were not fully achieved (Bousquet, Bisiaux and Ling Chi, 2014). Despite a lack of evaluation of the impact on outcomes and costs, SHI decided to extend the scheme. It was generalized to all GPs in the 2011 national agreement, which stipulated that the payment of primary care providers could be related to their performance. The P4P scheme was renamed "the payment for public health objectives scheme" ("*rémunération sur objectifs de santé publique*", ROSP) and extended to other physicians.

Figure 3
Market share of generic drugs in selected countries



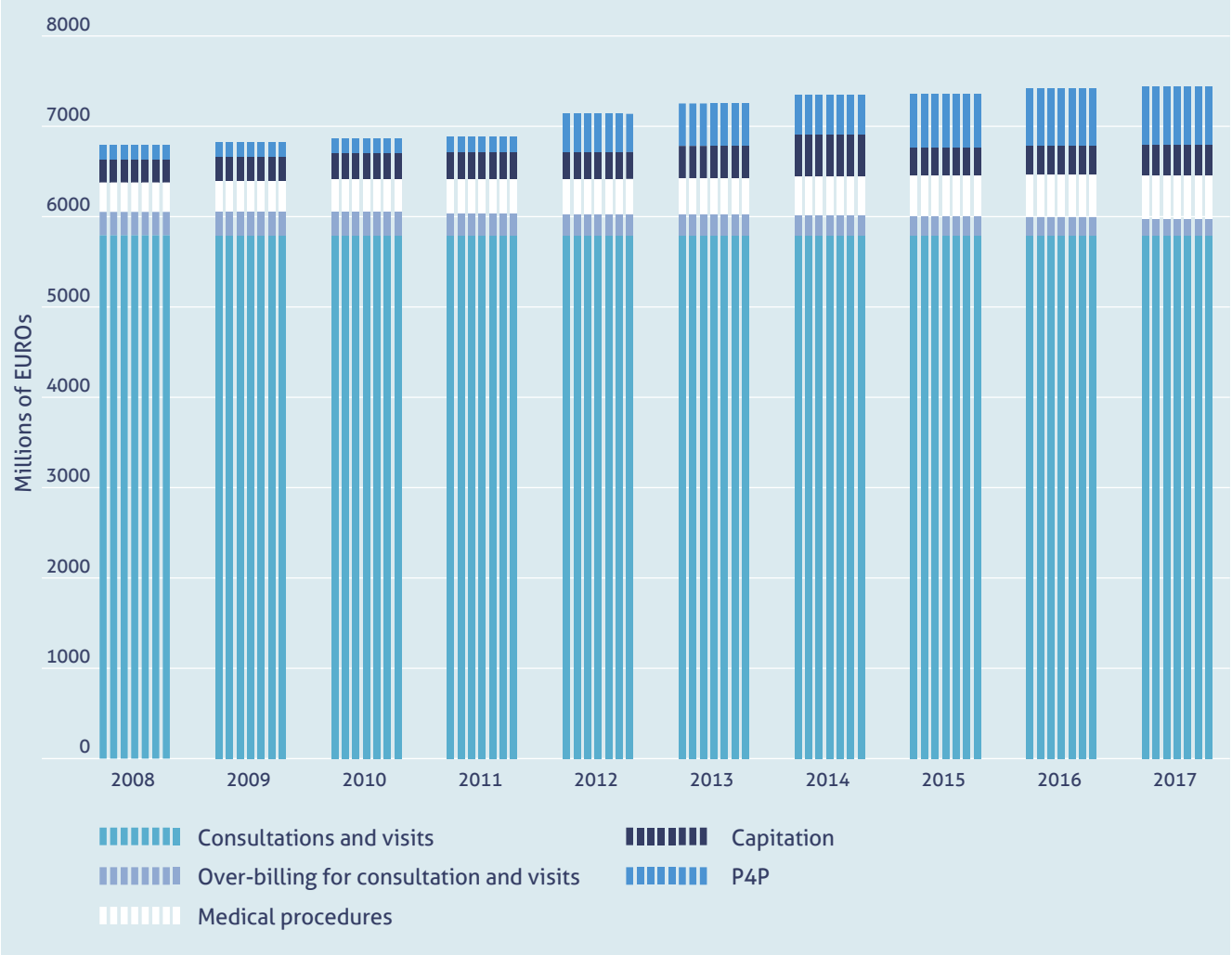
This P4P scheme represents a significant change in paradigm, as this new P4P scheme has officially replaced the traditional increase in the FFS tariffs, which were regularly obtained by physicians without being accountable individually for their results. This new scheme has been progressively extended to specialists, starting with cardiologists, gastroenterologists and endocrinologists, and now covers all physicians who signed the national collective agreement of 2016. However, physicians are allowed to opt out by writing to their local health insurance fund in the three months following the national collective agreement (*Union nationale des caisses d'assurance maladie* et al., 2016). There are 29 indicators in the latest version of the ROSP scheme (25 are calculated from the claims data and four rely on physicians' own statements). Initially the list included structural indicators (mostly related to organization of the office practice), but they now only focus on medical practice in three areas: prevention (for instance counseling for smoking cessation or vaccination) and screening (in particular for cancer); follow-up of chronic disorders (such as the follow-up of cardiovascular risk); and efficiency of drug prescriptions (with the objective of reducing inadequate prescribing and increasing generic prescriptions) (CNAM, 2018c). Indicators can vary according to the type of doctor involved (GP for adults or children, cardiologist, gastroenterologist or endocrinologist). Targets are fixed during the national collective negotiations between the stakeholders based on national good practice

guidelines or taking the average practice as baseline if there is no such guideline. There is no penalty for physicians who do not reach the targets.

It is difficult to make a conclusion on the cost efficiency of the P4P scheme in France since there is no proper evaluation of the reform. The national health insurance fund reports some improvements, in particular, concerning colorectal cancer screening and antibiotics prescription. However, it is difficult to disentangle the effect of the scheme from other programs introduced recently to improve the quality of care such as national awareness campaigns for cancer screening. The total annual cost of the ROSP scheme reached €250 million in 2017, with the average annual sum earned through that scheme reaching €4522 for GPs, €1726 for cardiologists and €1436 for gastroenterologists (CNAM, 2018c). While the introduction of ROSP appeared to be cost-neutral initially, with slower increases in prices and volumes, it is not clear yet what will be the impact of the latest increases in tariffs on overall expenditure. Therefore, while there has been a progressive shift towards more value-based payment with an annual growth rate of 9.1% in SHI spending dedicated to P4P between 2012 and 2016 and an increased number of physicians covered by P4P schemes, this still represents a small part of physician income (Figure 4).

In the 2016 national collective agreement with physicians, structural indicators previously including the ROSP scheme became part of a specific bundled payment for all physicians whatever their medical specialty. The bundle is divided in two parts: one for improving the organization of office practice (in particular the development of electronic records), and the other for providing better services to patients (such as participation in training, patient education, etc.; see Annex for the list of indicators used). Physicians earn a bundled payment, which can reach up to €1750 yearly, if they meet all the indicators. The total bundle is expected to increase to €4620 over 2019-2020 (CNAM, 2018b).

Figure 4
Share of P4P in GP revenues: evolution between 2008 and 2017



Source: DREES, 2018.

Setting fees for medical ambulatory procedures

Medical ambulatory procedures are funded on a FFS basis similarly to consultations and are also subjected to the same regulations of over-billing. They account on average for about 50% of the fees (revenues) received by private providers (CNAM, 2018a). However, since 2005, the prices of ambulatory procedures have been valued separately from consultations. The first step was the creation of a French classification of medical procedures (*classification commune des actes médicaux*, CCAM) defining the estimated time and costs of performing each procedure in order to assign a tariff. This classification has been developed during nearly a decade. The objective was to promote equitable fees for medical procedures for all doctors and between different specialties in order to avoid the selection of procedures based on their profitability (Bras, Vieilleribiere and Lesteven, 2012).

CCAM currently covers more than 8000 medical procedures and includes imaging procedures, technical medical procedures (such as diagnostic procedures), surgical, obstetrical and dental procedures as well as procedures of anatomo-cytopathology. Each act is hierarchized according to a methodology partly based on the Resource-Based Relative Value Scale (RBVRS) developed in the US for physician services (Hsiao et al., 1988). The tariff of each medical act in CCAM is calculated by adding an estimated cost related to medical work (*coût du travail medical*) to an estimated cost related to office practice (*coût de la pratique*). The cost related to medical work is expressed as a global score (*score travail*) and takes into account the effort to perform the procedure (time, stress, mental effort and technical skills) for a regular patient. This score is converted into a monetary value in euros by setting a conversion factor. Its value is set in the national collective agreement between UNCAM and health professionals, similarly to consultation tariffs. The costs related to medical practice cover structural costs supported by health professionals (staff, rent, social contributions, etc.) in each medical specialty (Bras, Vieilleribiere and Lesteven, 2012).

This complex system for fixing the prices of medical procedures has faced several difficulties. First, strong pressure from the unions of health professionals resulted in a situation where tariffs set for new procedures via this classification were never lower than the previous ones even when the cost scale from the classification suggested lower tariffs. Second, there has been no regular update of the estimated costs to take into account evolutions in medical practice and technology over time, except for imaging procedures. Third, the number of medical procedures considered in France appears important in comparison to other countries (for instance more than 8000 vs. 5200 in the current revision of the Australian classification of medical procedures) (Task Force "*Réforme du financement du système de santé*", 2019). In 2016, the national collective agreement decided that CCAM should be revised. A new commission is now in charge of grading medical procedures within CCAM and reducing the delays in registration of new procedures (*Union nationale des caisses d'assurance maladie*, 2016).

3
Price setting for drugs and medical devices

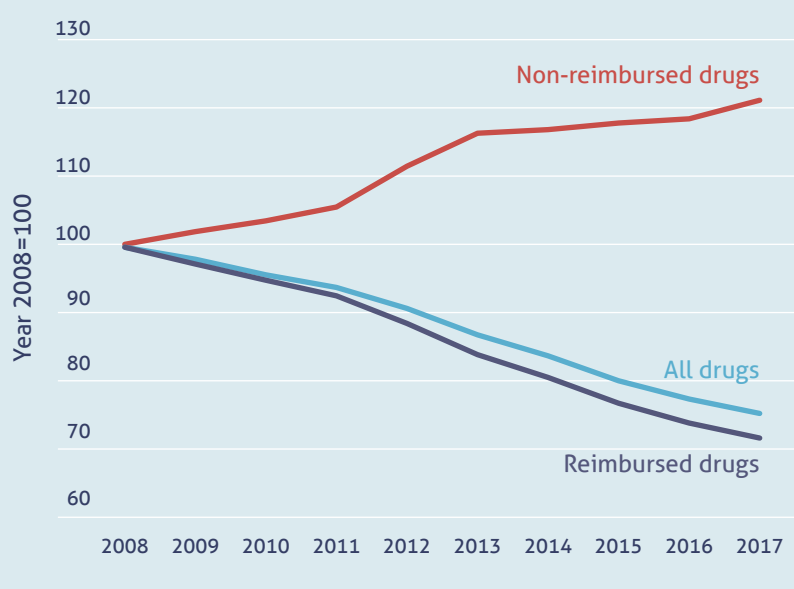
Setting prices of drugs and medical devices used in ambulatory settings

The prices of drugs and medical devices are regulated through multiannual framework agreements between the state, which is represented by the Economic Committee for Health care products (*Comité économique des produits de santé*, CEPS), and the pharmaceutical industry since 1994 (Grandfils, 2008). The agreement defines common objectives for market trends (in terms of expenditure) as well as price setting mechanisms. The latest agreement was signed in 2016 for three years. In the frame of this agreement, prices of drugs are negotiated between each pharmaceutical company and CEPS. Prices are re-evaluated every five years according to similar modalities. The main elements that are taken into account in the negotiations include the added therapeutic value of the drug (*amélioration du service médical rendu*, ASMR), which is measured in comparison to the clinical benefits of existing drugs or therapies in the market and varies from 1 (the highest added therapeutic value) to 5 (the lowest therapeutic value), as well as its cost-effectiveness (since 2012), as assessed by the National Health Authority (*Haute autorité de santé*, HAS). In price negotiations, the prices of other drugs with the same therapeutic objective and the expected or observed volumes of sales are also taken into account. If there is no agreement between the two parties, CEPS sets unilaterally the price of drugs, but pharmaceutical companies benefit from some guarantees for drugs with a significant clinical added value. For drugs with an added value of 1, 2, 3 or in specific cases 4, the price set cannot be lower than the price in four reference European markets (Germany, Spain, Italy and the UK). This guarantee is to make France an attractive location for the early marketing of innovative drugs (Cour des comptes, 2017).

The price of a drug is set before the decision to include it (or not) in the public benefit package. To be reimbursed by the SHI fund, drugs have to be evaluated and registered in a positive list (*liste des spécialités pharmaceutiques remboursables*). The prices are defined by the Ministry of Health based on the advice from HAS and CEPS, while the reimbursement rate (65%, 30%, 15% or 0%) is defined by the SHI fund based on the therapeutic value of the drug (*service médical rendu*, SMR). SMR is assessed by HAS and takes into account the severity of the illness targeted by the drug, its effectiveness, its impact on public health and its side effects with regards to all other drugs or treatments targeting the same health condition. Traditionally, complementary insurance funds covered the remaining costs for patients of any reimbursed drug. Since 2012, the SHI fund encourages (with tax returns for responsible contracts) the CHI funds to reimburse only the cost of drugs with a major and important SMR, but the coverage of costs by CHI varies

significantly depending on the type of contract chosen by the beneficiary. For drugs reimbursed by SHI, the price set by CEPS serves as a basis for reimbursement, while the prices of drugs that are not included in the benefit package are not regulated. Between 2008 and 2017, the prices of drugs not reimbursed increased by about 20%, while the prices of drugs on the positive list (reimbursed) dropped by about 30% (Figure 5).

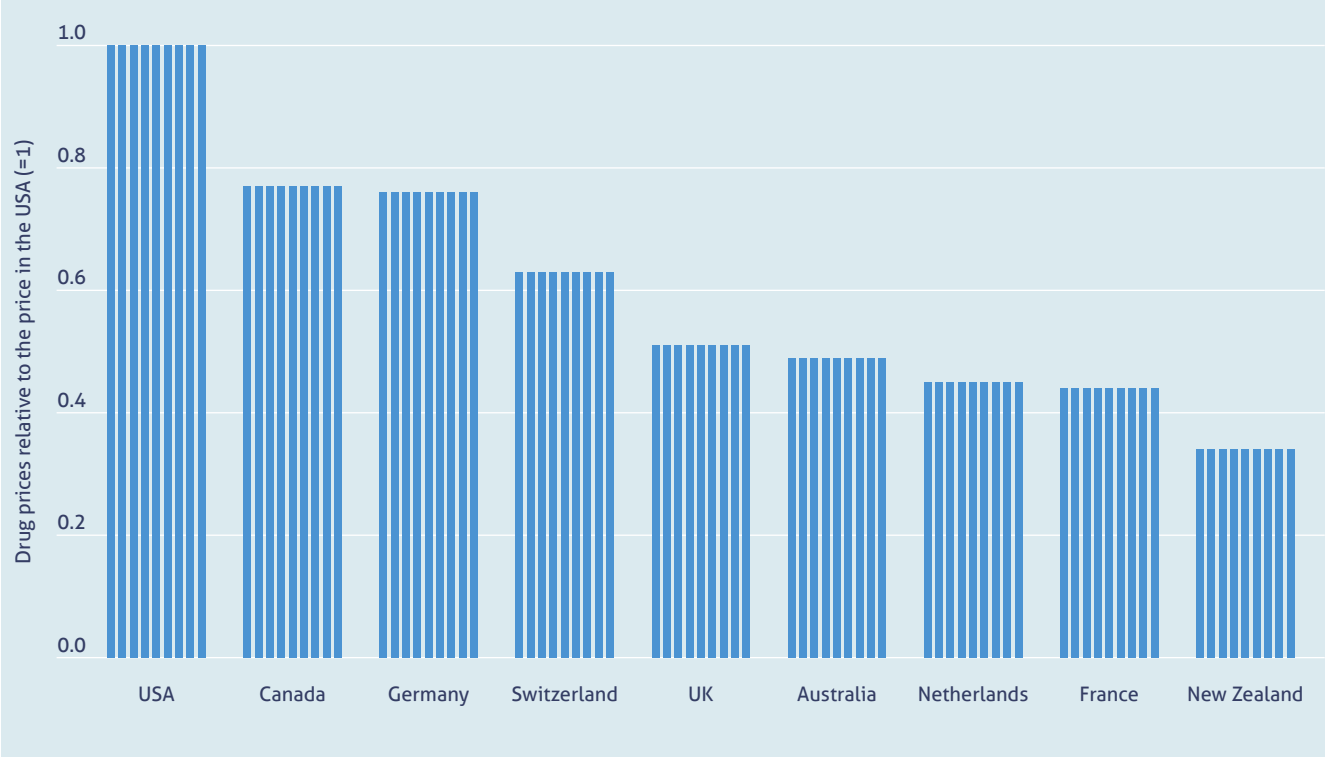
Figure 5
Trends in drug prices over time (Price in 2008=100 as reference)



Source: DREES, 2018.

Therefore, this price setting mechanism in France appears to be successful, since drug prices in France are relatively low in comparison with other OECD countries (Figure 6).

Figure 6
Drug prices for the 30 most commonly prescribed drugs, 2006–2007



Source: Commonwealth Fund, 2019. Note: USA prices are set as reference at 1.0

Definition of prices of pharmaceuticals and medical devices used in hospitals

The prices of hospital drugs were set freely via negotiations between pharmaceutical companies and individual hospitals without any regulation until 2004. Therefore, the same drug could have different prices in different hospitals depending on the hospital's negotiating power. With the introduction of activity-based payment (ABP), most drugs are now included in the tariffs of the diagnosis-related groups (DRG). While their price is not directly regulated and is still negotiated between the pharmaceutical industry and hospitals, drugs are reimbursed to hospitals by the health insurance fund in the limit of a maximum fixed tariff (*tarif de responsabilité*), which becomes in practice the regulated price. This tariff is set according to modalities similar to those used to set the prices of drugs in the ambulatory sector (through the involvement of CEPS).

Furthermore, there are some specific measures for regulating the costs of very expensive and innovative drugs. Their significant cost relative to DRG tariffs as well as the need for assuring quick access to innovation justified the development of a list of drugs for which payments are made on top of DRG tariffs. These drugs (mostly for cancer) are included on a specific list (*liste des médicaments facturables en sus des prestations d'hospitalisation*) based on strict criteria (a strong

added therapeutic value of the drug, a cost superior to 30% of the DRG tariff, and an indication for less than 80% of the patients included in the DRG). A specific targeted budget for this list of drugs is set in ONDAM, and the prices of these drugs are regulated via negotiations between each pharmaceutical company and CEPS mainly using European prices (in Germany, Italy, Spain and the UK) as a reference. While this procedure has been created as a temporary option for funding innovation (once a drug is part of regular treatment, it should be included in the DRG tariff), in practice the number of exclusions from the list overtime is low (Gandré, 2011).

Expenditure for these drugs and devices has increased by almost 20% between 2011 and 2015 (18.5% for drugs and 23% for medical devices) to reach €4.8 billion (5.3% of total hospital care spending). Rising spending is mostly driven by the public sector and by drugs for the treatment of cancer and autoimmune diseases. While there were 150 drugs on the list in 2015, 10 drugs accounted for two thirds of the total expenditure associated to the list (DREES, 2017).

4
Price setting for acute hospital care

Hospital context

The French hospital sector is characterized by a high number of public and private providers. Patients can freely choose between them without a referral. While 90% of the hospital expenditure is funded through public health insurance, one third of this expenditure occurs in private-for-profit hospitals.

Public hospitals represent 60% of hospitals and 65% of all acute inpatient beds. They have the legal obligation of ensuring the continuity of care, which means providing 24-hour emergency care, accepting any patient who seeks treatment, and participating in activities related to national/regional public health priorities. The private-for-profit sector represents 25% of all inpatient beds, but 45% of surgical beds. The market share of private hospitals depends heavily on the type of hospital activity: more than half of all surgery and one fourth of obstetric care are provided by private-for-profit hospitals. Their market share goes up to more than 80% in some areas of elective surgery, such as eye surgery (cataract in particular), ear surgery, and endoscopies. In contrast, certain complex procedures are carried out almost exclusively by public hospitals, for example in the case of burn treatments (92%) or treatment of patients with surgery of serious multiple trauma (97%).

Until 2004, public and private hospitals were paid under two different schemes. On the one hand, public and most private not-for-profit hospitals had global budgets mainly based on historical costs, making little adjustment for hospital efficiency.

On the other hand, private for-profit hospitals had an itemized billing system that was inflationary with daily tariffs covering the cost of accommodation, nursing and routine care, and a separate payment based on the diagnostic and therapeutic procedures carried out, with separate bills for costly drugs and medical devices. In addition, doctors working in private hospitals are paid on a FFS basis unlike those working in public hospitals who are salaried.

The difference in payment between public and private hospitals has always been a subject of conflict. Public hospitals considered global budgets as an instrument of rationing, which strangled the most dynamic hospitals and was insensitive to changing demand. Private hospitals advocated that global budgets rewarded inefficiency and fair benchmarking; they believed that they would be more efficient and increase their market share under activity-based payment. Therefore, the introduction of ABP (*tarification à l'activité*, or T2A in French) in 2005[3] to pay for acute hospital services was very welcomed initially. The major objectives of ABP were to increase hospital efficiency, to create a 'level playing field' for payments to public and private hospitals, and to improve the transparency of hospital activity and management. The initial objective of shifting to ABP for funding rehabilitation facilities and psychiatric hospitals has been postponed several times due to difficulties in implementation and problems faced in the acute sector.

Price setting in acute care hospitals: the DRG payment model

Under ABP, the income of each hospital is linked directly to the number and case-mix of patients treated, which are defined in terms of homogeneous patient groups (called GHM in French, *Groupe Homogène de Malades*). The classification system used in France was inspired initially from the US Health Care Financing Group classification (HCFA-DRG) but adapted to the French system and modified regularly over the years. The GHM classification has changed three times since the introduction of T2A, passing from 600 groups in 2004 to 2680 today (in 2018). The current version (version 11), introduced in 2009, significantly complicated the classification with four levels of case severity applied to most GHM, using information on length of stay (LOS), secondary diagnoses and age.

The institution responsible for developing the patient classification system and calculating prices is the Technical Agency for Hospital Information (*Agence technique de l'information sur l'hospitalisation*, ATIH). ATIH was created in 2002 and is an independent public administrative institution co-funded by the government and public health insurance funds. It has an advisory committee, involving representatives of public and private health care facilities, which make suggestions based on their experiences with the system.

3 Implemented progressively in the public sector between 2004 and 2008.

Definition of GHM tariffs

The information for calculating prices (reference costs) comes from the hospital cost database (*Etude nationale de coûts à méthodologie commune*, ENCC), which provides detailed cost information for each hospital stay from voluntary hospitals. Until 2008, the cost database covered only 3% of public and private non-for-profit hospitals (about 40). The number of participating hospitals has increased slightly since 2008. In 2018, the ENCC covered 135 hospitals (of which 52 are private-for-profit) (ATIH, 2017).

GHM reference costs are updated annually by ATIH on the basis of information from the hospital cost database. However, there is always a time lag of two years between the year of the data and the year of the price application in hospitals. For example, hospital costs data from the years 2013, 2014, 2015 (three-year average) were analyzed during the year 2016 in order to define GHM prices for hospital payments in 2017.

GHM prices (tariffs) are set at the national level based on average reference costs by GHM calculated separately for public and private hospitals. Therefore, there are two different sets of tariffs: one for public (including private-non-profit) hospitals and one for private for-profit hospitals. Moreover, what is included in the price differs between the public and private sectors. The tariffs for public hospitals cover all of the costs linked to a stay (including medical personnel, all the tests and procedures provided, overheads, etc.), while those for the private sector do not cover medical fees paid to doctors (who are paid on a FFS basis) or the cost of biological and imaging tests (e.g. scanners), which are billed separately. The initial objective of achieving price convergence between the two sectors started in 2010 on about 40 GHM (highly prevalent both in public and private hospitals) and pursued until 2012, but was abandoned afterwards against fervent critics from public hospitals (where the tariffs are higher).

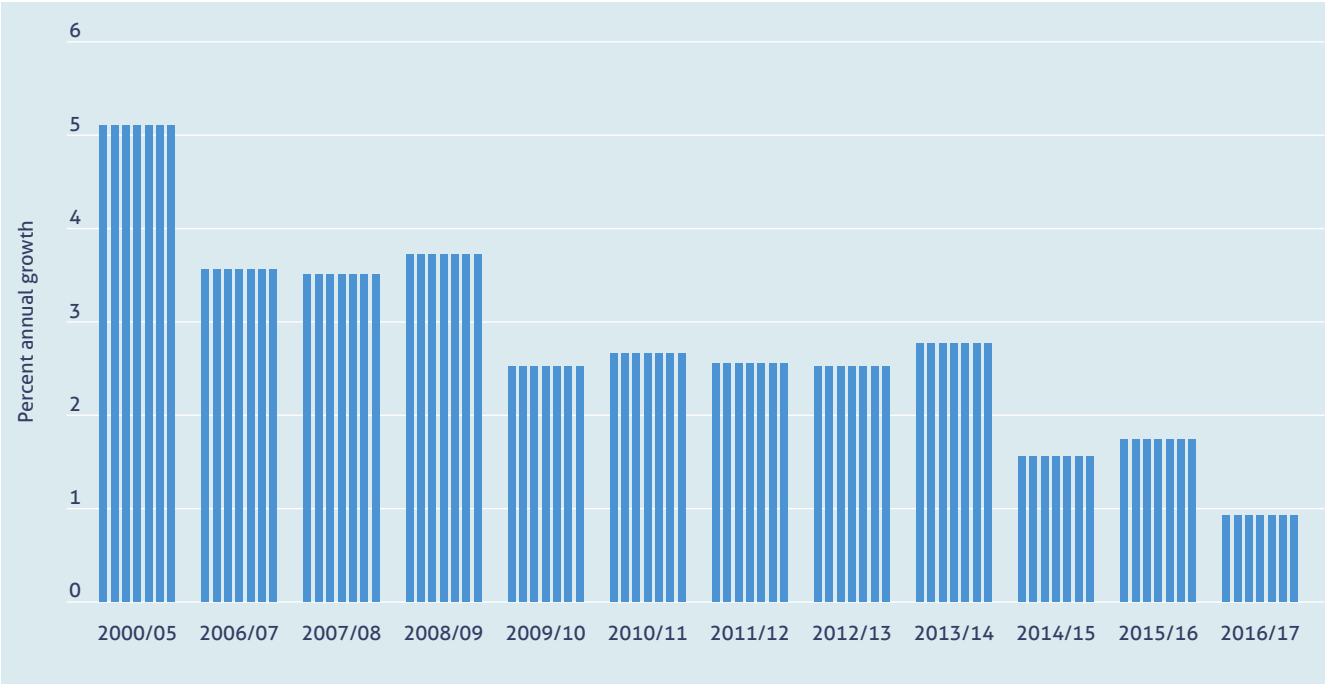
In principle, GHM prices are not adjusted to take into account "unavoidable variations" in the cost of delivering services, but public hospitals (and private hospitals participating in so-called 'public missions') receive additional bundled payments to compensate for costs linked to education, research and innovation related activities (MIGAC) and some public missions (activities of general public interest such as investing in preventive care, outreaching to under-privileged populations, etc.). Hospitals can also receive funding from regional health agencies (*agences régionales de santé*, ARS) to finance investments for quality improvement. The costs of maintaining emergency care and related activities are paid by fixed yearly grants, plus a FFS element taking into account the yearly activity of providers. Finally, a restricted list of expensive drugs and medical devices is paid retrospectively, according to the actual level of prescriptions made.

The actual prices per GHM are not exactly equal to reference costs. They are determined by the Ministry of Health taking into

account the overall budget for the acute hospital sector (ONDAM target expenditure) and public health priorities. In order to contain the level of hospital expenditure, national-level expenditure targets for acute care (with separate targets for the public and private sector) are set by the Parliament each year. If the actual growth in total hospital volume exceeds the target, prices go down the following year. The growth of activity volumes is not regulated at the individual hospital level but at an aggregate level (separately for the public and private sector). Prices have been adjusted downwards quite regularly since 2006, since the hospital activity volumes have been increasing consistently faster than the targets set. Furthermore, GHM reference costs ("raw" tariffs) are modified in an opaque way to integrate various objectives set by the government and the SHI fund each year when computing actual prices. For example, in 2009, ATIH noted that GHM prices were modified to adjust for the increase in the additional budgets for specific 'missions', including education, research and innovation related activities, the growth of expenditures for additional payments on expensive drugs, and national priorities (for cancer treatment and palliative care) as well as the evolution of overall activity volumes. However, it is not entirely clear how these different elements influenced the prices of different GHM.

Globally, this mechanism appears to be successful in containing overall hospital expenditures, since the share of hospital expenditures in total expenditure growth has decreased visibly since the introduction of ABP (Figure 7). In recent years (2014/15), the hospital sector managed even to underspend with respect to the target set by ONDAM. However, this macro-level regulatory mechanism has its downsides (Or, 2014). It created an opaque environment where it became very difficult for hospitals to predict their budget situation for the next year, since prices change every year as a function of overall activity. The lack of information on the specific objectives pursued with the payment policy also created frustration and resentment about T2A at the provider level. In the absence of clear price signals and lack of cost data for benchmarking hospitals, providers appear to be concerned mainly on balancing their accounts by increasing their activity.

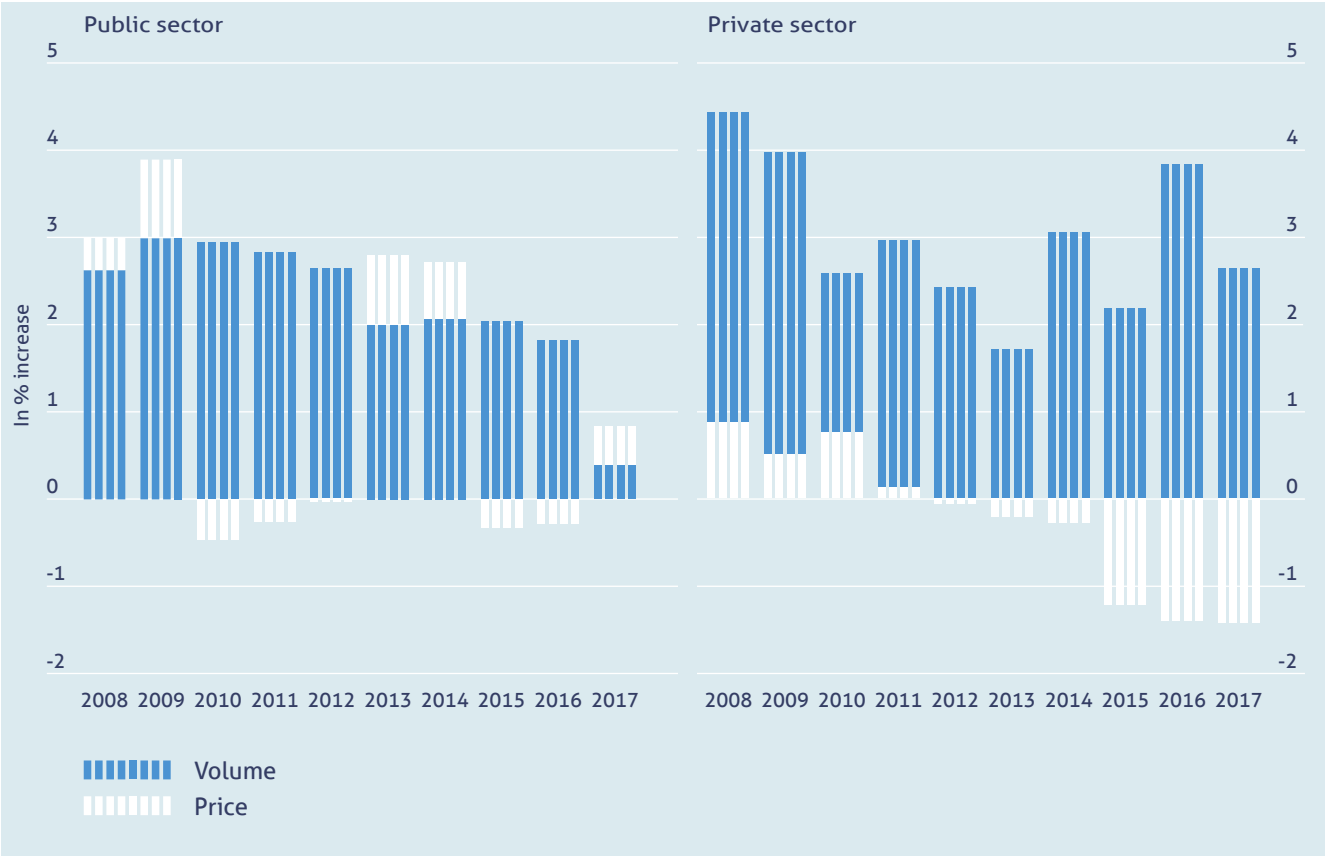
Figure 7
Annual percentage increase in hospital expenditures



Source: DREES, 2018.

Despite a positive trend in productivity of public hospitals since 2004, with a strong rise in case-mix weighted production, there is also evidence of patient selection with increased specialization in the private sector and induced demand for some types of surgery (Or et al., 2013; Studer, 2012). Moreover, external controls carried out by SHI to identify "unjustified" billing of services show that up/incorrect coding was an issue, at least in the initial years of ABP. Between 2006 and 2009, three quarters of hospitals were audited at least once, and, among these, half were audited more than once. In 2006, more than 60% of inpatient stays (more than 80% for ambulatory episodes) had some kind of coding error or inconsistency in procedures billed (CNAM, 2009). If up-coding or incorrect coding is detected, hospitals have to reimburse received payments. In addition, they may have to pay financial penalties which can go up to 5% of their annual budgets. The revenues recovered from these penalties amounted to €51 million in 2008 and €23 million in 2010 (Daudigny et al., 2012). Overall, DRG-based payment addressed some chronic problems inherent to the French hospital market and improved the overall transparency of information concerning hospital activity. Nevertheless, it also created its own problems.

Figure 8
Hospital expenditure growth: Price versus volume effect



Source: DREES, 2018.

Today, it is largely recognized that ABP provides incentives to develop hospital activity, sometimes beyond what is medically necessary, raising questions about the appropriateness of hospitalizations for certain procedures and conditions (Figure 8). A survey of the French Public Hospital Association showed that, according to hospital physicians, one-quarter of the procedures and medical tests carried out in hospitals were medically unjustified (*Fédération hospitalière de France,* 2012). Furthermore, there is a growing consensus that ABP does not favor cooperation between different providers or between different services within the same hospital to assure care coordination and a holistic approach in care provision.

In 2016, a quality-based payment scheme (*Incitations financières à l'amélioration de la qualité*, IFAQ) was introduced to encourage investment in quality. A modest proportion of providers' income is linked to the achievement of nationally set objectives concerning a battery of quality indicators (mostly of care process and structure/organization, but also patient satisfaction in 2018). The IFAQ payment framework can cover up to 1.5% of a hospitals' annual income, and this percentage is expected to increase in coming years. The current government is also planning to reduce the share of ABP in hospital payment, with several propositions for bundling payments beyond acute hospital reimbursement (especially for chronically ill and multi-morbidity patients) and including

rehabilitative services. However, this may be more difficult to bring about than initially thought due to the lack of robust cost data across providers.

Using prices to regulate hospital activity

In parallel, DRG tariffs are used increasingly to influence hospital activity and incentivize better practice. In two areas, prices were used actively: for developing ambulatory surgery and for controlling caesarean section rates. The prices of ambulatory stays are aligned with non-complicated overnight stays for most common procedures in order to encourage hospitals to invest in ambulatory surgery. Increasing ambulatory surgery rates has been a long-term objective for the hospital sector, but it is only recently, since 2011, with price adjustments that rates have been picking up (from 44% in 2011 to 54% in 2016). As for caesarean sections, tariffs for uncomplicated programmed caesarean sections have been kept relatively low in recent years to make sure that the profit margins for these operations are very low. Currently, there is some discussion on identifying other areas where financial incentives may support good practice or on sanctioning unwarranted hospitalizations.

Since 2014, the Ministry of Health has introduced a volume-price control mechanism at the individual hospital level. For a number of high volume/fast growing DRGs (including knee prosthesis and cataract surgery), the Ministry sets a national rate of activity growth. If a hospital's case load (for a given DRG) grows faster than the threshold set, the tariff of the concerned GHM goes down by 20% for the hospital. There is not enough information on the impact of this policy on hospitals, but a very recent note from the Ministry of Health announced that there will be further measures for reducing interventions considered as "low value" care.

Payments for acute psychiatric hospital care

The ABP system has not been extended to acute psychiatric hospital care. This is related to the difficulties in establishing a diagnosis for mental health problems, the diversity in the forms of psychiatric care provided, and the historical territorial organization of mental health care in France. In addition, there is no conclusive experience of the DRG-based payment system for acute mental health care abroad (Denk et al., 2011; Wolff et al., 2015; Lin et al., 2016; CNAM, 2018d). The psychiatric care in public and non-profit hospitals is therefore funded through an annual prospective global budget which is paid by SHI and allocated by regional health agencies on the basis of historical costs adjusted by the expected annual growth rate of hospital spending. The global budgets are defined in the frame of ODAM, which is a sub-objective of ONDAM for hospitals not funded through the activity-based model (*Cour des Comptes*, 2011). These global budgets include capital investments which do not benefit from specific dedicated funding. Payments to for-profit hospitals are based on predetermined daily rates

fixed according to the type of care provided (for instance full-time or part-time hospitalization). These rates are adjusted yearly at the regional level by the ARS in line with the national expenditure targets set by ONDAM for hospital care (*Cour des Comptes*, 2011).

Many successive institutional reports have criticized these funding mechanisms for acute psychiatric hospital care and suggested a global reform of the payment model (Piel and Roelandt, 2001; *Cour des Comptes,* 2011). Planned evolutions include an adjustment of the global budgets for public and non-profit acute psychiatric hospitals on the characteristics of the population served, including their socio-economic characteristics, from 2019 onwards. Adjusting budgets on indicators of quality of care, similarly to what is done for acute care hospitals, and harmonizing the payment models of the public and private for-profit sector are also listed as future reforms by the government (Task Force "*Réforme du financement du système de santé*", 2019).

5 Price setting for rehabilitation and long-term care (LTC)

Inpatient rehabilitation services

Rehabilitation in institutions (*soins de suite et de réadaptation*, SSR) were funded until 2017 based on a model similar to the one for acute psychiatric hospital care through an annual prospective global budget for public and private non-profit hospitals and through a daily fixed rate for private for-profit hospitals. Since 2017, the global budgets have been adjusted to take into account the volume and case-mix of the patients treated. Since 2010, a patient classification system applying the logic of homogeneous medical resource groups as in DRGs has been used. There are about 750 groups called GME ("*groupes médico-économiques*") for services provided in these institutions. Reference costs for different groups of patients have been estimated and updated annually by ATIH. The process of fixing these reference costs is similar to the one for the DRG tariffs in acute care based on a cost database of a sample of voluntary hospitals (see section 4.2). Since March 2017 (i.e. seven years after the development of the first classification and costs in SSR), the funding of rehabilitation facilities has been mixed: 90% of the funding is calculated by former modalities (global budget or fixed daily rate), while 10% is activity-based using GME as reference tariffs.

Long-term residential care for elderly

Older people who need medical attention or help with the activities of daily living if they cannot live alone at home are looked after in facilities which are medical nursing homes for dependent elderly people *(Etablissement d'hébergement pour*

personnes âgées dépendantes, EHPAD). The public funding of these facilities comes mainly from SHI concerning the cost of health care and from local authorities (*départements*) and the national fund for autonomy (*Caisse nationale de solidarité pour l'autonomie*, CNSA) to finance personal and social care.

The overall amount for residential care funded by SHI is set annually by a ministerial order. It corresponds to the medico-social fraction of the national health insurance expenditure target (ONDAM). This amount was about €9 billion in 2017 for the long-term care of the elderly. This funding is entrusted to CNSA, which is responsible for redistributing the funding to the ARS. The mission of ARS is to regulate the supply (authorization to open a facility, number of places, etc.), control the quality of care, and negotiate the health care portion of the funding in nursing homes.

Historically, the budget was negotiated according to the volume objectives of facilities and on the basis of past expenditures. In recent years, there has been a shift from cost-based funding to payments-based funding on the activity and characteristics of the care recipients. Today, facilities for dependent older people, whether private for-profit, private non-profit or public are paid by a three-part tariff: a care package, a long-term care (or dependency) bundle and an accommodation fee (Bonne, 2018).

The care package, financed by the SHI fund, is calculated for each facility according to a synthetic indicator, called the ISO-weighted care group (GMPS), which corresponds to the average care needs and dependency level of people living in the facility. Care needs are measured by the coordinating doctor of the facility[4] using a classification called "pathos", which identifies 50 clinical conditions with 12 profiles of care required by these conditions constituting 238 couples of "condition-profiles" (CNSA, 2017). For each of these condition-profiles, eight resource groups were identified (physician, psychiatrist, nursing, rehabilitation, psychometrics, biology, imaging and pharmacy), which define the level of care resources required. For health professionals, this corresponds, for example, to the time required for patients with a given profile. The average resource level required for each of the 238 couples was defined by specialists (geriatric physicians) and reported in terms of points per cost item. For example, for the couple "heart failure" with the profile "close monitoring", the specialists estimated that it requires 13 minutes of geriatrician time a day, 36 minutes of nurse time, etc. The average pathos score (PMP) is the sum of the points of care required in eight resource groups weighted by a coefficient depending on resource groups expressed on average per individual. The care bundle is also adjusted by the dependency level, which is calculated by the AGGIR (Gerontology Autonomy and Iso-Resource Groups) model, which assesses the autonomy of a person for carrying essential daily activities (CNAM, 2008). The dependency score (GIR) is based on 10 variables of physical

4 This evaluation has to be validated by two other external medical doctors appointed by the local county (*département*) and the regional health authority.

and mental activities (coherence, orientation, toilet, dressing, food, etc.) and seven variables of domestic and social activities (cooking, household, transport, etc.).

The amount of care payment for each facility is the average GMPS score[5] multiplied by the value of the point. The value of the point is defined by the Ministry of Health (at the national level) based on ONDAM for medico-social facilities.

The long-term/dependency bundle finances the care provided to the most dependent residents in helping them with the activities of daily living (cost of the caregivers). It is calculated according to the GMP (average GIR score) of the facility and the value of the departmental GIR point fixed by the county council (*Conseil départemental*). The value of the departmental GIR point, that is, the level of funding by the *département*, varies greatly between *départements*, ranging from €5.7 in the Alpes-Maritimes to €9.4 in the South of Corsica in 2017 as a function of local policy and income.

Accommodation fees are paid entirely by the residents. The rates vary depending on the "standing" of the facility (comfort of the rooms, quality of the cooking, etc.), but also on the agreement of the facility to receive social/public aid. Only private for-profit facilities are completely free in setting the accommodation prices, because the majority of non-profit facilities, whether private or public, are eligible for public support and cannot ask for a higher accommodation price than the one set by the *département* (based on past declared costs by the facilities).

For dependent elderly people living at home, medical and social care services are generally provided and paid separately. Health care is financed on the basis of prices fixed by the SHI fund with a fee for visits, procedures and medical devices with the possibility of balance billing. The personal and social care services (help with daily living, meals, etc.) are offered by the public, private or associative sectors. Prices are not regulated and vary according to supply and demand. There is, however, a reference tariff used by *départements* to calculate the amount of the financial aid (APA) for dependent older people (not mean tested, but depending on the "need" evaluated by the *département* using the grid GIR assessing autonomy). These reference rates vary from one *département* to another from €13 to €24 per hour. The nursing care at home is mostly provided by self-employed FFS nurses who are paid based on prices set by the SHI fund.

5 The GMPS score of a facility is the average pathos score (PMP) plus the average GIR score of all residents.

Annex 1
Indicators taken into account for bundled payments to physicians

Section 1: organization of office practice	Availability of a software certified by the national health authority to help with prescriptions and compatible with shared electronic medical records
	Availability of a secure health messaging service
	Display of practice hours in the health directory
	Availability of the latest version of software (Sesam-Vitale) for billing electronically
	Rate of electronic transfers superior or equal to 2/3 of all consultation/prescription forms issued
Section 2: involvement in services for patients within the office practice	Capacity to code medical data
	Involvement in coordinated care pathways
	Specific services offered to patients
	Management and training of medical students
	Rate of dematerialization reached on a number of teleservices

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