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France: improving the efficiency of the health-care system

Antoine Goujard

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FRANCE: IMPROVING THE EFFICIENCY OF THE HEALTH-CARE SYSTEM

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By Antoine Goujard

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ABSTRACT/RÉSUMÉ

France: Improving the efficiency of the health-care system

France's health-care system offers high-quality care. Average health outcomes are good, public satisfaction with the health-care system is high, and average household out-of-pocket expenditures are low. As in other OECD countries, technology is expanding possibilities for life extension and quality, and spending is rising steadily, while an ageing population requires substantially more and different services. The main challenges are to promote prevention and cost-efficient behaviour by care providers, tackle the high spending on pharmaceuticals, strengthen the role of health insurers as purchasing agents and secure cost containment. Good-quality information and appropriate financing schemes would ensure stronger efficiency incentives. Disparities of coverage across social groups and health services suggest paying greater attention to co-ordination between statutory and complementary insurance provision. Ongoing reforms to improve prevention and co-ordination among care providers are steps in the right direction. However, progress in the development of capitation-based payment schemes, which can reduce the incentives to increase the number of medical acts and encourage health professionals to spend more time with their patients, and performance-based payment schemes in primary care need to be stepped up to respond to the increasing prevalence of chronic diseases and curb supplier-induced demand and social disparities in access to care.

This Working Paper relates to the *2017 OECD Economic Survey of France*
(www.oecd.org/eco/surveys/economic-survey-france.htm).
JEL classification: I11; I12; I13; I15; I18
Keywords: France, health care system, health policy, healthcare coordination, health disparities, ageing, hospital, primary healthcare, pharmaceutical expenditures, generics, prevention, health insurance, fee-for-services, medical demography, health practitioners.

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France: Améliorer l'efficience du système de santé

Le système de santé français offre des soins de haute qualité. Les résultats moyens sur le plan de la santé sont bons, le public est très satisfait du système de santé et les restes à charge sont en moyenne faibles. Comme dans d'autres pays de l'OCDE, le progrès technologique accroît l'espérance et la qualité de vie, alors que la population vieillissante nécessite des services toujours plus nombreux et diversifiés. Les principales difficultés consistent à inciter les professionnels de la santé à adopter un comportement efficient, à enrayer la hausse des dépenses pharmaceutiques, à renforcer le rôle des assureurs en tant qu'agents acheteurs et à assurer la maîtrise des coûts. Une information de bonne qualité et des mécanismes de financement appropriés renforceraient les incitations à l'efficience. Les différences de couverture selon les maladies et les groupes sociaux montrent la nécessité de prêter davantage attention à la coordination entre l'assurance maladie obligatoire et l'assurance complémentaire. Les réformes en cours visant à améliorer la coordination entre les professionnels de santé et à renforcer le rôle de la prévention vont dans le bon sens. Cependant, le développement de mécanismes de rémunération à la capitation qui permettent d'avoir moins d'incitations à multiplier les actes et d'encourager les professionnels de santé à s'occuper plus longtemps des patients, tout comme les paiements en fonction des résultats dans les soins primaires doivent être renforcés afin de faire face à la prévalence croissante des maladies chroniques et de réduire la demande induite par l'offre et les disparités sociales en terme d'accès aux soins.

Ce Document de travail se rapporte à l'*Étude économique de l'OCDE de la France 2017*
(http://www.oecd.org/fr/economie/etude-economique-france.htm)
Classification JEL: I11; I12; I13; I15; I18
Mots clefs: France, système de santé, politique de santé, coordination du système de santé, disparités de santé, vieillissement, hôpital, soins primaires de santé, dépenses pharmaceutiques, génériques, prévention, assurances médicales, tarification à l'acte, démographie médicale, professions médicales.

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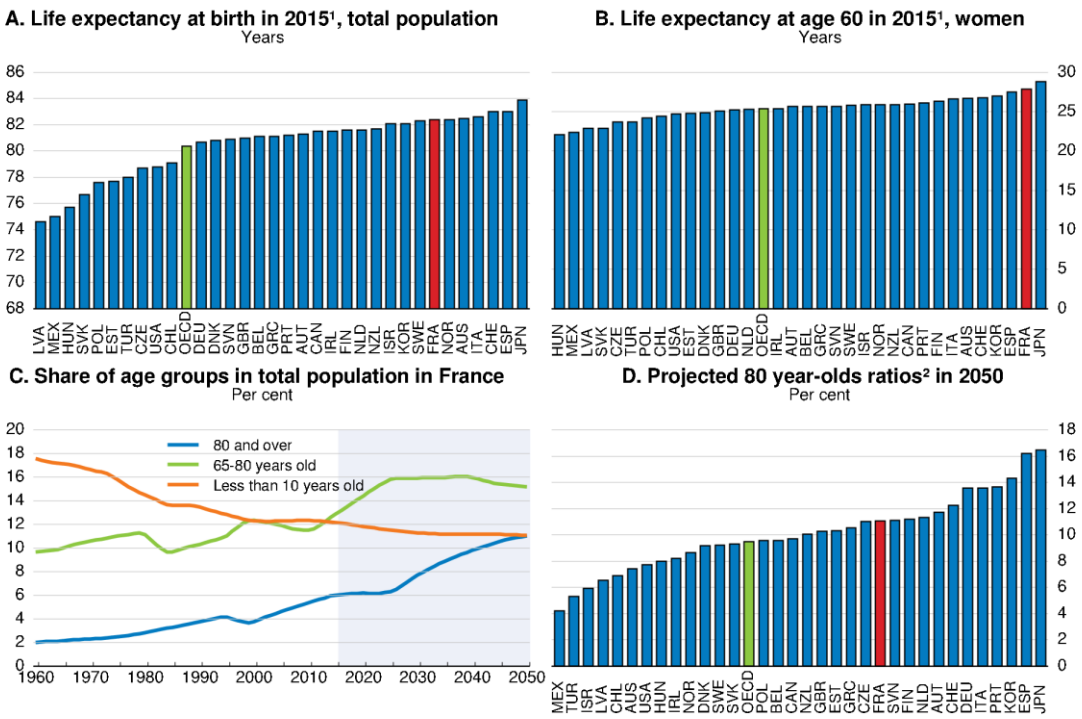
France: Improving the efficiency of the health-care system

By Antoine Goujard[1]

France's health outcomes are good. Various measures of life expectancy are among the highest in the OECD, notably for women (**Figure 1, Panels A and B**), and France has one of the highest Health-Adjusted Life Expectancies in the European Union (WHO, 2016). These measures have also shown steady improvement (Blanpain, 2016). However, its system will come under pressure as population ageing is set to accelerate after the mid-2020s, with a strong increase in the share of people over 80 – the biggest recipients of health and long-term care per capita (**Panels C and D**; Albouy et al., 2009). Price developments and technical progress could also lead to increasing upward pressure on health spending (Fall et al., 2014). Macro- and micro-simulations show significant increases in public health expenditures until 2060, though the scale of the extra spending varies widely (**Box 1**). At the same time, additional years of life in good health open the possibility that people may wish to continue to work at older ages. Giving older people the opportunity and incentives to work longer would raise their material well-being and long-term growth (OECD, 2014a).

Figure 1. Life expectancy and population ageing



1. Or latest available year.
2. Population 80 years and over divided by total population.

Source: OECD (2017), *OECD Health Statistics database*; OECD (2017), *Historical Population Data and Projections Database* (1950-2050).

1. The corresponding author is Antoine Goujard (antoine.goujard@oecd.org) from the OECD Economics Department. He would like to thank Agnès Couffinhal and Valérie Paris (both from the OECD Directorate for Employment, Labour and Social Affairs), Peter Jarrett, Nicola Brandt, Pierre Guérin, Falilou Fall, Robert Ford, Peter Hoeller, Jens Hoj and Alvaro Pereira (all from the OECD Economics Department) and French officials for their valuable comments and suggestions. Special thanks go to Patrizio Sicari for statistical assistance and Claude-Annie Manga-Collard and Dacil Kurzweg for editorial support (all from the OECD Economics Department).

Box 1. Future health and long-term care spending needs

Future health and long-term care needs are highly uncertain, as illustrated by the large differences in projected outlays under different sets of assumptions. This will notably affect public spending, which represents a substantial part of this expenditure (**Table 1**). In addition to demographic and economic trends, health-care spending will depend on:

- More or less healthy ageing, that is: how much of the life expectancy gains will be spent in good health, which will depend notably on medical progress and changes in preventive practices and lifestyles. OECD projections assume fully healthy ageing, while the European Commission (in its "reference" scenario) assumes only "half healthy" ageing.

- The effect of technological progress on the cost of health-care services, both in terms of lowering the price of existing services and creating new potentially costly services. The latter effect has been dominant over the past few decades, contributing to higher spending.

- The income elasticity of health-care demand (by how much an extra 1% of income will increase health- care spending). There is no consensus in the literature, and OECD projections assume a lower elasticity (0.8) than the European Commission (1.05 on average over the projection period).

- The tendency of wages in the health-care sector, as in other service sectors, to grow as fast as in the rest of the economy despite slower productivity gains, leading to relative price increases for health-care services (the so-called Baumol effect).

- Societal changes, such as evolving willingness of family members to provide informal long-term care for their relatives.

- Reforms, such as changes to the follow-up of long-term diseases and payments to health-care providers that would contain expenditure growth as in the OECD cost-containment scenario.

Table 1. Projected increase in public health spending in France, 2010-60[1]

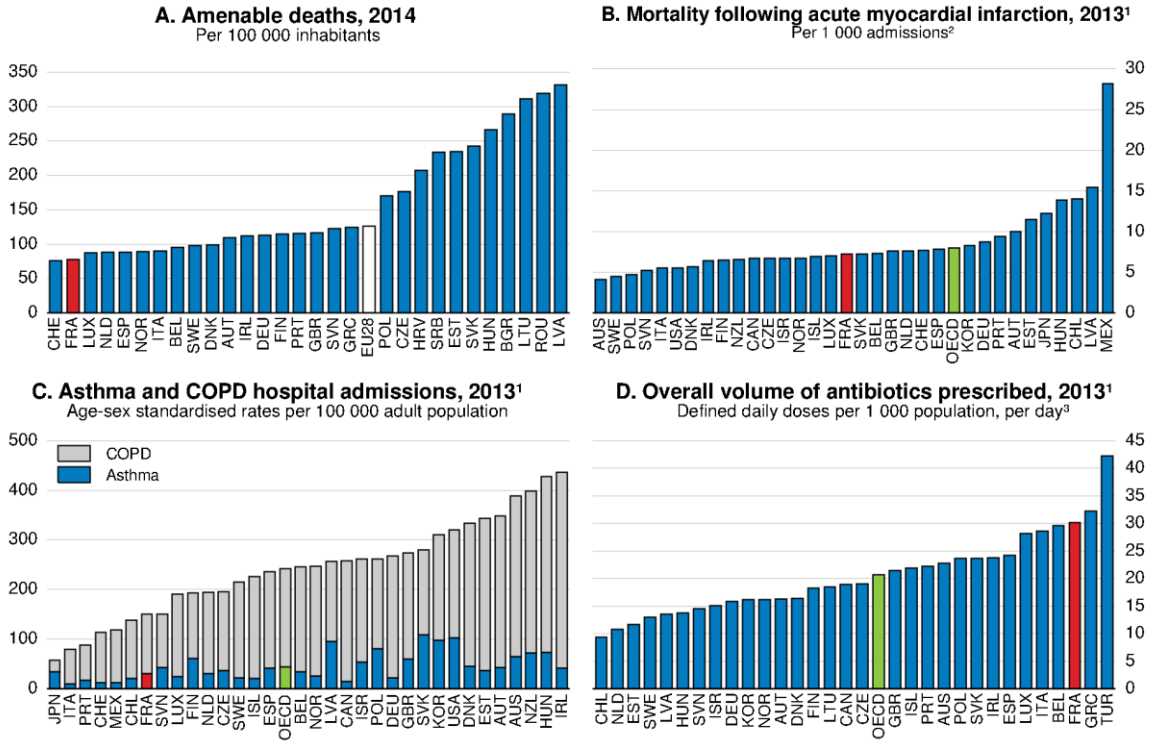
Change in percentage points of GDP		Health care	Long-term care
OECD, 2013	Cost-containment scenario	2.2	0.6
	Cost-pressure scenario	6.1	1.0
European Commission, 2015	Reference scenario	0.9	0.8
	Risk scenario	1.6	2.7
DG-Trésor – PROMEDE, 2013	Reference scenario	2.0 (Public spending)	
	Reference scenario	2.5 (Public and private spending)	

1. For the European Commission, increase is between 2013 and 2060. For Promede, increase is between 2011 and 2060.

Source: de La Maisonneuve, C. and J. Oliveira Martins (2013), "Public spending on health and long-term care, a new set of projections", *OECD Economics Department Working Papers,* No. 1048; European Commission (2015), *Ageing Report*; Geay, C. and G. de Lagasnerie (2013), "Projection des dépenses de santé à l'horizon 2060, le modèle PROMEDE", *Documents de travail de la DG Trésor,* No.8.

The health system delivers good-quality care, but potential cost-efficiency gains are significant. Deaths that could have been avoided if the health-care system had offered more timely and effective access to high-quality services are low in international comparison (**Figure 2, Panel A**). The quality of hospital care, as measured by the survival rate of patients admitted to hospitals for stroke or surviving a heart attack, is above the OECD average (**Panel B**). As a result, public perceptions of the quality of health care are high (European Commission, 2014). The low level of preventable hospital admissions for asthma and chronic obstructive pulmonary diseases (COPD) also tends to show that proper prevention and primary care interventions are in place (**Panel C**). However, some preventive practices are lagging: avoidable hospital admissions for diabetes are comparatively high, and vaccination rates for risky populations have declined (OECD/EU, 2016). At the same time, the overall volume of prescribed antibiotics

Figure 2. Selected indicators of health-care quality



1. Or latest available year.
2. Thirty-day mortality after admission to hospital for acute myocardial infarction. Age-sex standardised rate of adults aged 45 years and over based on admission data.
3. In hospital and primary care. Defined daily doses are the assumed average doses per day for drugs used for its main indication in adults (e.g. 3 grams for oral aspirin). They are constant across countries.

Source: Eurostat (2017), Amenable and Preventable Deaths Statistics. OECD (2015), *Health at a Glance 2015: OECD Indicators*, OECD Publishing, Paris. OECD (2017), OECD *Health Statistics database*.

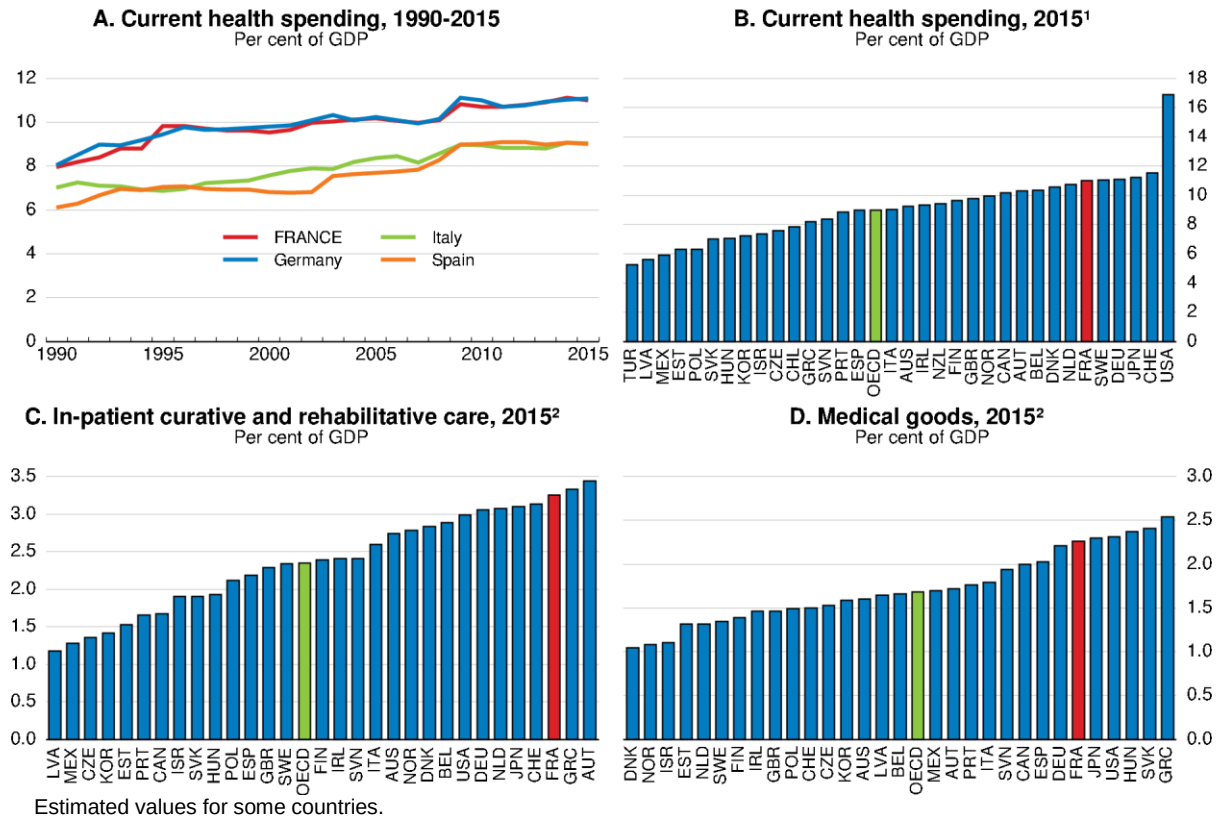
is among the highest in the OECD (**Panel D**), and the use of hospital emergency rooms has risen excessively: nearly 20% of such visits could have been prevented by effective and accessible primary health care (OECD, 2016a).

Public and private expenditures on health care are relatively high. Expenditures have increased steadily relative to GDP in line with other European countries' over the past two decades and reached 11% of GDP in 2015 (**Figure 3, Panels A and B**). Spending on in-patient curative and rehabilitative care and on medical goods, notably pharmaceuticals, are higher than the OECD average (**Panels C and D**). The authorities have undertaken several measures to improve controls on health spending and its efficiency. However, until 2012 spending restraint mostly targeted the reduction of public expenditures, which may have had limited coverage for the most vulnerable groups that did not have access to complementary private insurance schemes and reduced control over overall health spending over the medium term (Askenazy et al., 2013; Bozio and Dormont, 2016).

Social and geographical disparities in health outcomes are significant, despite good aggregate outcomes. Disparities in life expectancy according to educational attainment have fallen steadily over the past 20 years and are below the OECD average (**Figure 4, Panels A and B**), but differences in life expectancy by socio-economic group have not converged (**Panel C**), and the self-reported health status of low-skilled groups is poor (Pisarik et al., 2017). Differences in mortality rates between manual and non-manual workers appear large by international comparison (Kunst et al., 2000), and health disparities are significant

from a very young age (Chardon et al., 2015). France suffers from a high rate of premature male deaths from accidents and unhealthy habits such as smoking and alcohol consumption, which are the most common causes of avoidable mortality. Regional disparities also remain substantial: the difference in life expectancy between those living in the areas with the highest and lowest unemployment rates has increased by half a year since the mid-2000s (**Panel D**).

Figure 3. Health spending



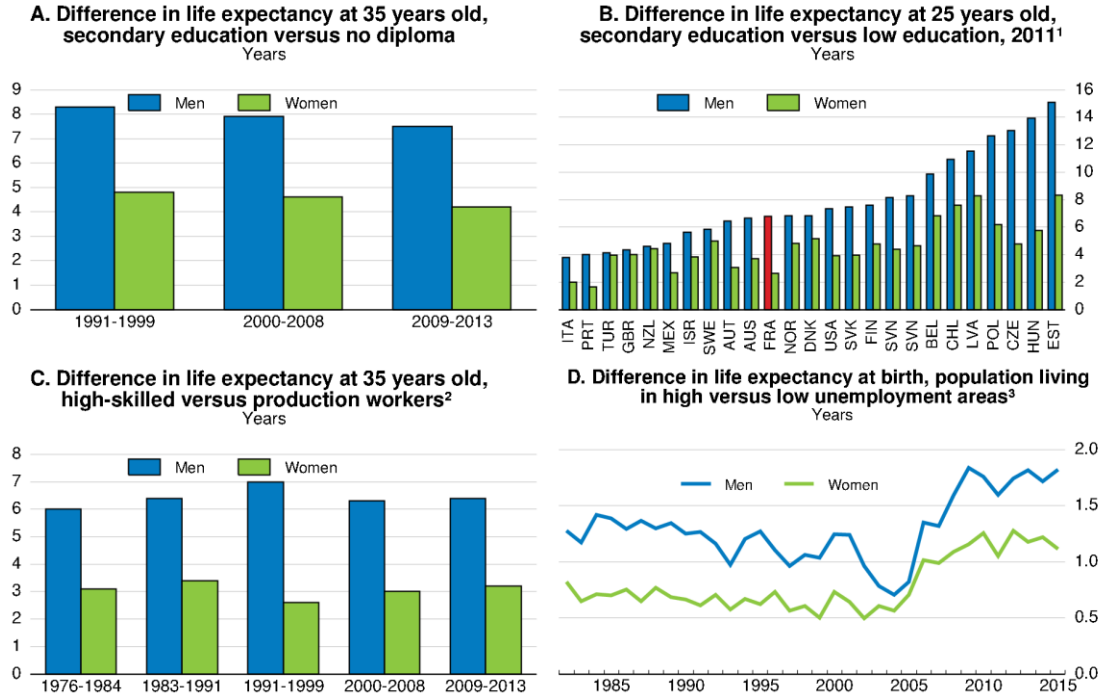
1. Estimated values for some countries.
2. Or latest available year.

Source: OECD (2017), *OECD Health Statistics database*.

Disparities across socio-economic and geographical groups are partly explained by different lifestyles and the design of the health-care system. Differences in access to health- care services across regions and neighbourhoods, high out-of-pocket expenditures for some households, heterogeneous medical practices, notably among hospitals, and the low focus on prevention all play a role. Waiting times for specialists in certain regions are particularly long (Vergier, 2016). As well, primary care access is less developed in poorer neighbourhoods (ONPV, 2016), while the quality of hospital care remains heterogeneous (Gobillon and Milcent, 2013 and 2016). Low spending on prevention may lead to lower well-being for disadvantaged populations and higher fiscal costs in the longer term.

Achieving the objectives of accessible, high-quality and affordable health care in the long run will require that overall budget control be complemented by appropriate micro incentives for efficient supply, while meeting the challenge of a growing elderly population. This paper reviews the regulatory framework surrounding the health-care system before focusing on some specific aspects. The main results are:

Figure 4. Health disparities



1. Low education regroups those with no diploma, primary and lower secondary education.
2. High-skilled workers include white collar and highly qualified workers, such as managers, researchers and industry experts. Production workers refer to both unskilled and less than highly-skilled employees doing mainly manual work.
3. Regions are defined as metropolitan *départements* and are weighted by their populations. High (low) unemployment areas include one third of the population.

Source: Blanpain, N. (2016), "Les hommes cadres vivent toujours 6 ans de plus que les hommes ouvriers", *Insee Première*, No. 1584; Murtin, F., J. Mackenbach, D. Jasilionis and M. Mira d'Ercole (2017), "Mortality Inequality across OECD countries", *OECD Statistics Working Papers*, No. 2017/02, OECD Publishingn, Paris; INSEE (2017), *Macroeconomic database;* OECD calculations.

- The French system produces good aggregate health results, but with significant social disparities and constrained funding. France is also facing the challenge of ageing and rising chronic diseases, making strengthening prevention and outpatient care a priority. Beyond the health-care system, reforming the organisation of long-term care will be crucial (Bozio et al., 2016; OECD/EU, 2016).

- The health-care system is complex and comprises funding and services delivered through the public and private sectors. Despite a sound fiscal framework surrounding the public system, a lack of co-ordination between statutory and complementary insurance provision limits control over expenditures, creates disparities in coverage and access to care and generates high administrative costs.

- Further progress is called for to increase cost control by care providers. Consumption of pharmaceuticals in general and antibiotics in particular are high, and some regulations and payment schemes could further encourage appropriate care and the development of multi-disciplinary group practices for care providers. Stepping up the ongoing efforts to increase prevention and co-ordination among care providers would promote healthier lifestyles and improve medium-term health outcomes. More efficient management of human resources and equipment purchases in hospitals would also generate savings.

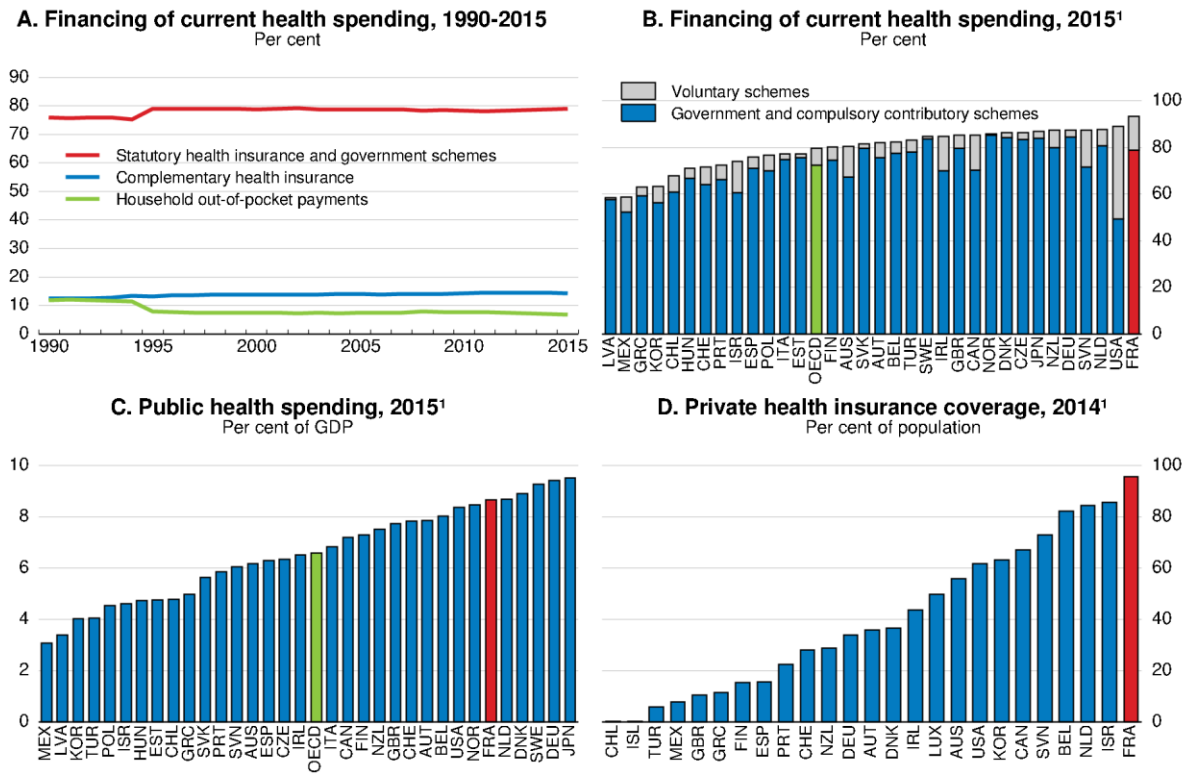
Improving the governance of the health-care system

The French insurance system is based on universal statutory insurance and complementary insurance plans that provide good overall accessibility. Households face limited average out-of-pocket expenditures thanks to publicly funded schemes covering long-term diseases and the poorest households. However, out-of-pocket expenditures are uncapped, and disparities among population groups remain significant, notably for the unemployed and older workers, while a better split between the respective reimbursements by statutory and complementary insurances could provide an incentive for greater efficiency.

Improving the funding of health-care spending

The social insurance system and complementary health insurance plans play a significant role in financing health-care expenditures (**Figure 5, Panels A-C**). Statutory health insurance covers the whole resident population through several schemes. The main one is the Caisse nationale de l'assurance maladie des travailleurs salariés (CNAMTS). It covers 85% of the population, mostly salaried workers and the unemployed, and is complemented by other specific schemes, the main ones being the scheme for agricultural workers, and the scheme for the self-employed. The CNAMTS plays a central role in payments to and management of care providers: it is entrusted with three-quarters of health-care payments and most schemes for low-income households and long-term diseases. Its director also heads the association of the different statutory insurance schemes. In addition, 96% of people use complementary health insurance, through employer-based collective schemes, individual insurance plans or, for around 6%, a non-funded solidarity scheme (**Panel D**).

Figure 5. The financing of health-care spending



1. Or latest available year.

Source: OECD (2017), *OECD Health Statistics database*.

Public spending growth has declined slightly since the fiscal framework was strengthened. The authorities introduced yearly public spending targets, known as the National Objective for Health Insurance Spending (ONDAM or Objectif national des dépenses d'assurance maladie) in 1996. Statutory health insurance and health providers use the ONDAM as a target for spending and savings objectives. The monitoring of objectives has steadily improved as recommended by the OECD (2011a), and effective spending growth has been close to the ONDAM since 2009 (**Box 2; Figure 6, Panel A**). Overall, the fiscal framework appears sound (OECD, 2015a). However, the methods used to set the spending trends that determine the savings to be made remain insufficiently documented by sub-objective according to the Cour des comptes (2015), and the ONDAM does not include maternity and paternity leaves, which are paid by the health insurance and whose high cost warrants close monitoring.

Box 2. Budgeting of public health spending and annual spending targets (ONDAM)

The French parliament votes annual Social Security Finance Acts (LFSS or Lois de financement de la sécurité sociale) and the National Objective for Healthcare Spending (ONDAM). The ONDAM covers spending of the statutory health insurance system and the State, which is around 78% of the total. Since 2014, and until 2017, six specific targets had been defined for: ambulatory care, hospitals' spending related to case-based payments, other hospital spending, elderly care centres, centres for the handicapped, and other items. Since 2017, the two categories of hospitals' spending related to case-based payments (T2A) and other hospital spending have been combined into a single category of hospital spending. The ONDAM targets remain indicative, except (in part) for hospitals, as multiple stakeholders are taking decentralised spending decisions.

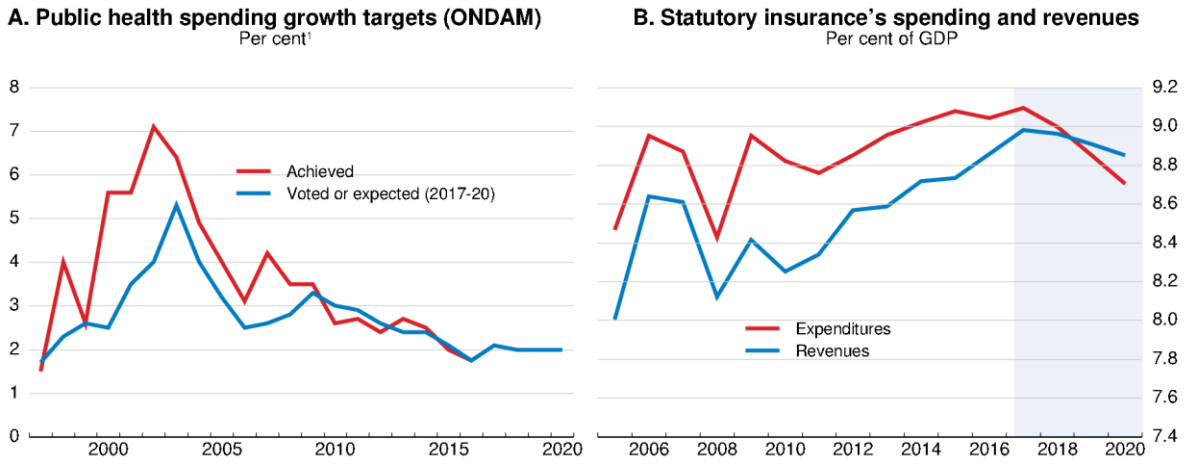
A process for monitoring spending and ensuring compliance with the ONDAM was put in place to respond to the regular overshooting of the ONDAM in the early 2000s. Since 2004, an alert committee has informed the parliament, the government and the health-insurance funds whenever spending may exceed the ONDAM by an amount equal to a percentage of the target (alert threshold). Since 2013, this percentage has been set at 0.5% of the overall target. If the alert procedure is triggered, the health-insurance funds and the government propose corrective measures.

Precautionary savings for allocations are set aside at the beginning of each year, and health practitioners have been increasingly engaged in the management of health spending since 2010. The institutions concerned (hospitals, regional intervention funds (FIR), etc.) receive the precautionary savings (at least 0.3% of the ONDAM agreed in the 2014-2019 public finance programming law) depending on whether the target has been reached at the end of the year. A steering committee meets monthly to foster co-operation between the Health and Budget Ministries and the health-insurance funds, and to avoid warnings from the alert committee.

Based on: OECD (2015a), *Fiscal Sustainability of Health Systems, Bridging Health and Finance Perspectives*; PLFSS (2015), *Projet de loi de financement de la sécurité sociale pour 2016*, Ministère des Finances et des Comptes publics et ministère des Affaires sociales, de la Santé et des Droits des femmes; Drees (2016), *Les dépenses de santé en 2015 – Résultats des comptes de la santé*.

The government expects to hold the ONDAM to a historically low growth rate in 2017-20. This spending restraint would help close the CNAMTS deficit in 2019 (**Figure 6**), if the expected significant pickup in employment and wages, which would in turn raise revenues, materialises (Le Gouvernement, 2016; HCFI-PS, 2017a). The 2016 Health Law (Loi de modernisation de notre système de santé) includes several ways to hold down spending: developing outpatient care, improving the efficiency of hospitals' expenditure, continued efforts to lower drug prices and promote generic drugs, strengthening incentive-based payments, and improving the effective and appropriate use of primary care and hospitalisation. This approach is welcome, as it could increase the sustainability of spending restraints.

Figure 6. Public health spending



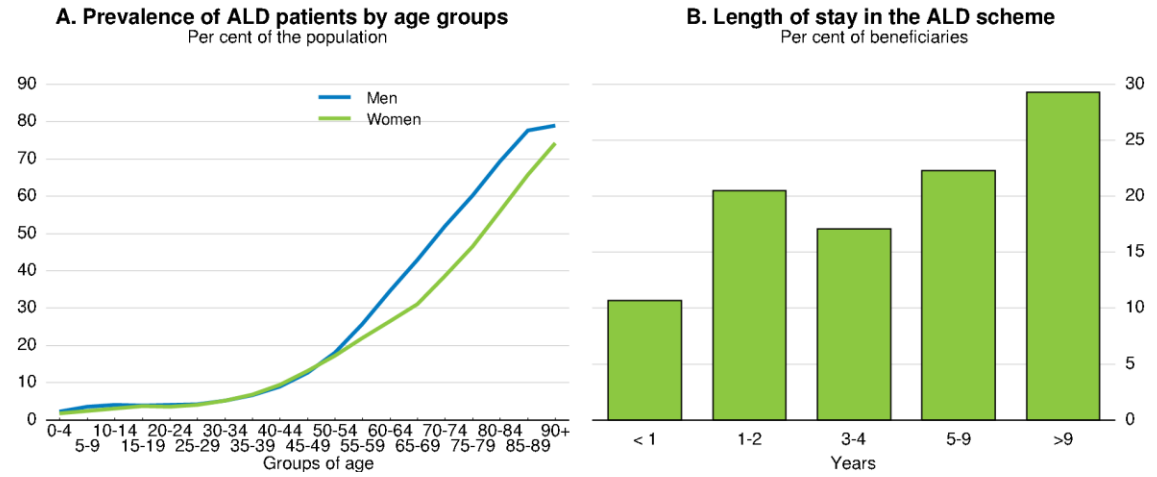
1. Nominal values.

Source: Commission des comptes de la sécurité sociale (2016), *Les comptes de la sécurité sociale : Résultats 2015 et prévisions 2016, June; Loi de financement de la sécurité sociale (LFSS) 2017.*

Health spending of households with long-term diseases entails significant fiscal and equity risks over the medium term. The statutory health-insurance scheme fully covers any spending related to a chronic condition on a medically determined list of long-term illnesses (ALD or *affections de longue durée*). The prevalence of ALD is particularly high for those over 70 (**Figure 7**). Health spending of ALD patients for their chronic conditions and other goods and services reached 4.4% of GDP in 2014 (PLFSS, 2016). However, the ALD scheme covers fully only those expenditures that are directly related to the long-term disease, which is no more than around 14% of ALD beneficiaries' total expenses (Caby and Eidelman, 2015). As a result, patients with long-term diseases tend to have high out-of- pocket expenditures: ALD beneficiaries represented a third of the households with the highest (top 5%) out-of-pocket expenditures in 2010 (HCAAM, 2013).

The financing of statutory health insurance is based on both contributions and taxes. Wage-based contributions (primarily levied on employers) have progressively declined (**Figure 8, Panel A**). A broader tax, the CSG (*contribution sociale généralisée*), has gained in importance and is levied on income sources including wages, income from financial assets and investments, pensions, unemployment benefits, disability benefits and gambling proceeds. More than 20 earmarked taxes on relatively narrow bases, including taxes on harmful consumption, such as smoking and drinking, also finance health care (OECD, 2015a). This mixture of revenues limits transparency for firms and households (HCFI-PS, 2015), while it increases the administrative burden for firms, as they face many institutions collecting different taxes and social contributions, even if simplified e-procedures are in place, such as the electronic payroll reporting statement (DSN) which was rolled out in January 2017 to increase transparency and reduce the administrative burden (see below). Simplification measures designed in particular to lower the tax/social wedge could be implemented (such as the abolition of employees' health insurance contributions). After that, further simplification would be possible with a view to, on the one hand, unifying the various behavioural taxes and, on the other hand, increasing the financing based on the very broad CSG tax in the place of contributions based solely on the labour factor. Such financing would in particular help reduce disparities in coverage between employees, the unemployed and independent workers (HCFI-PS, 2017b).

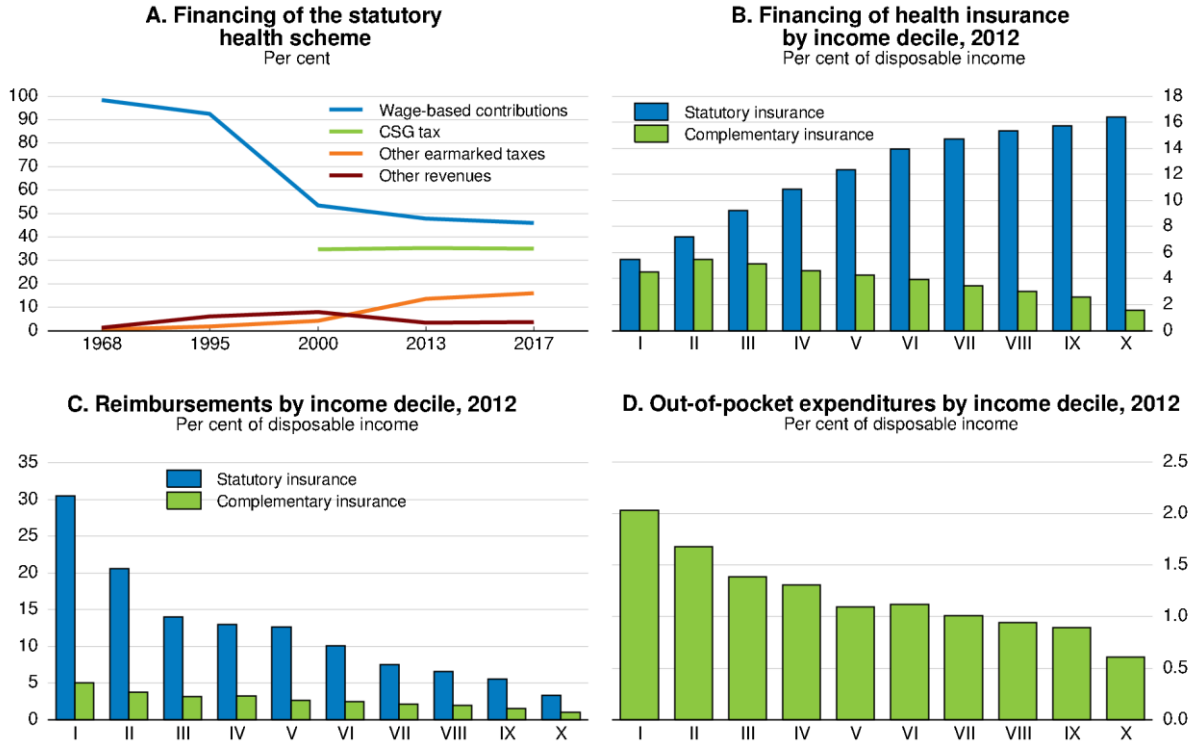
Figure 7. Special scheme for long-term diseases (ALD), 2014



Source: Païta, M., S. Rivière, S. Tala and A. Fagot-Campagna (2016), "Les bénéficiaires du dispositif des affections de longue durée en 2014 et les évolutions depuis 2005", *Points de repère*, No. 46; Sécurité Sociale (2016), *Répartition des personnes en ALD au 31 décembre 2014 selon l'ancienneté de leur ALD*.

Figure 8. The health system is redistributive

By disposable income deciles from I (lowest) to X (highest)



Source: Drees (2016), *La complémentaire santé : acteurs, bénéficiaires, garanties - édition 2016* and *Les dépenses de santé en 2015 - Résultats des comptes de la santé*; Commission des comptes de la Sécurité sociale (2014, 2016 and 2017), *Les comptes de la Sécurité sociale. Résultats 2014 ; Les comptes de la Sécurité sociale. Résultats 2015* and *État des lieux actualisé du financement de la protection sociale – janvier 2017*.

Complementary insurance plans insure against residual health costs after reimbursement by the statutory insurance schemes. For some types of service, given the relatively low reimbursements by the

statutory insurance system, complementary insurance coverage is key to ensuring access to care. In contrast to many other European countries, complementary insurance covers all or part of the residual costs after the intervention of statutory insurance (Askenazy et al., 2013; Paris et al., 2016). Some complementary insurance plans are private, for-profit companies, while others are non-for-profit organisations (*mutuelles* and provident institutions). In the current framework, complementary insurance companies tend to act as residual payers for many services, and have little impact on the organisation of care provision. They have developed limited networks of care providers only for specific expenditures that have a low statutory reimbursement rate, notably optical care, dentures and hearing aids (HCAAM, 2013). Indeed, they cannot contract with GPs (Pierron, 2016).

The aim of the complementary insurance plans and the authorities is to make the pathway to care more efficient, using financial incentives and the enhanced role of treating physicians. As recommended by the OECD (OECD, 2000; Imai et al., 2000), the authorities have introduced various forms of co-payments, deductibles and flat rates and reduced some statutory reimbursement rates to limit public expenditure growth. For example, patients have to pay 1 euro per medical consultation (which cannot be reinsured by state-approved complementary insurance policies (*contrats solidaires et responsables*), reflecting a policy of co-ordination between statutory and complementary insurers), and the reimbursement rates of some medical services depend on the chosen pathway to care. In particular, the statutory health insurance regime reimburses a lower share of dental and optical care and consultations with specialists engaging in extra billing. Hospital charges also apply.

Coverage by statutory and complementary insurance plans varies significantly across providers and treatments. In particular, the main source of funding for primary care is statutory health insurance (64% in 2015) (**Table 2**). Since the reform of state-approved contracts (*contrats responsables*) in 2014, complementary insurance plans, except in rare cases, cover all forms of co-payment. While the numerous levels of co-payments may reduce the transparency of the system for households, the systematic acceptance of co-payments by state-approved contracts helps reduce the number of people foregoing treatment. In addition, access to care is facilitated by the fact that use of the direct payment system (*tiers payant*) is obligatory when dealing with fragile populations (CMU-C (complementary universal health coverage), ACS (vouchers) and AT-MP (occupational risks), but also ALD (long-term illnesses) and persons receiving maternity care since 2017).

Table 2. Structure of financing of different medical goods and services, 2006-15

	Share of spending	Statutory health insurance		CMU-C and State[1]		Complementary insurance		Households	
	2015	2006	2015	2006	2015	2006	2015	2006	2015
Hospital care	55.2	92.0	91.3	1.1	1.2	4.4	5.2	2.4	2.3
Public hospitals	42.9	92.5	92.0	1.4	1.4	4.1	4.8	2.0	1.8
Primary care	44.8	63.9	64.2	1.6	1.6	20.0	20.4	14.5	13.8
Medical services	21.9	63.4	64.7	1.9	2.0	21.0	21.7	13.8	11.7
Dental care	2.4	35.7	33.4	3.0	3.6	34.7	40.3	26.6	22.7
Medicines	16.0	68.5	68.8	1.5	1.5	16.5	12.8	13.6	17
Other medical goods[2]	4.1	41.7	43.1	0.8	0.8	32.6	39.0	24.9	17.3
Transportation	2.8	92.7	93.1	0.8	0.9	3.9	3.8	2.6	2.2
Health Spending	100.0	76.8	76.8	1.4	1.4	12.8	13.3	9.0	8.4

1. CMU-C and State spending are government schemes aimed at supplementing statutory insurance and complementary insurance schemes for the poorest households and immigrants.
2. Optics, prostheses, orthotics, invalid carriages, and other small equipment.

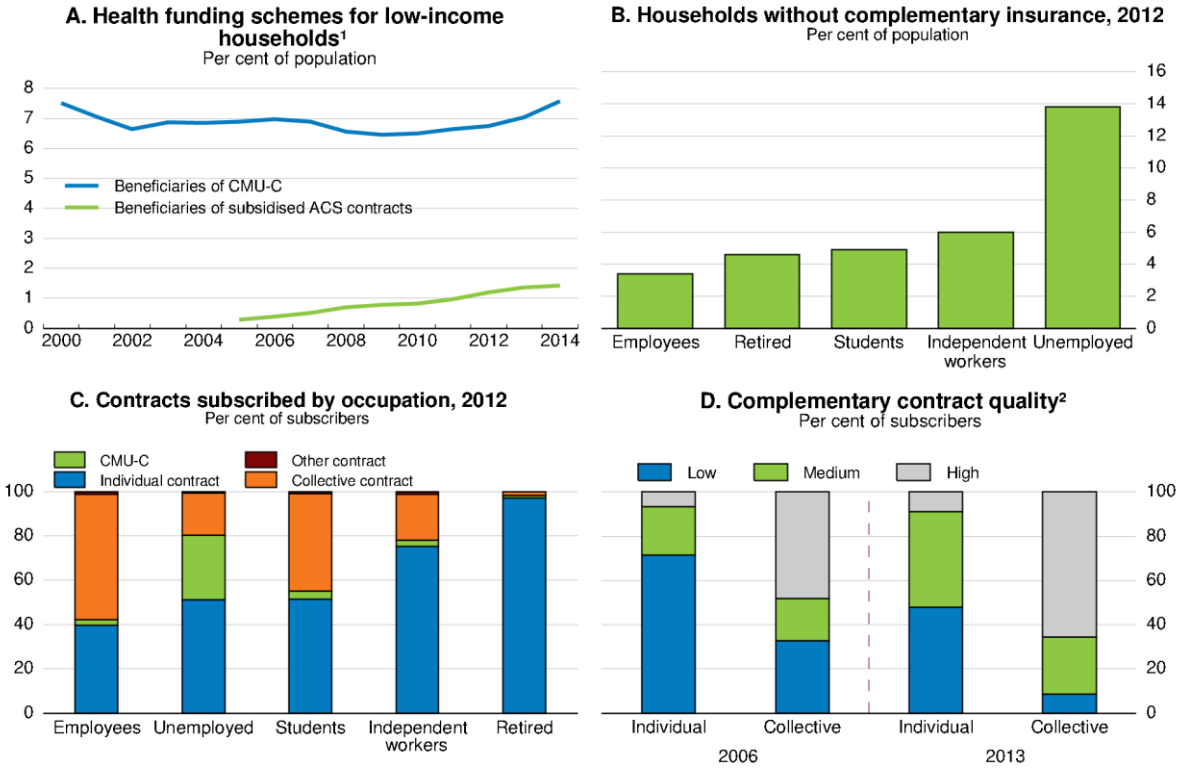
Source: Drees (2016), *Les dépenses de santé en 2015 - Résultats des comptes de la santé*.

The health system generates significant redistribution among income groups, mostly through its financing. It reduces inequality of household disposable income, as measured by the Gini coefficient, from 0.30 to 0.25 according to Ministry of Finance simulations (Duval and Lardellier, 2012). Complementary insurance premiums only decrease slightly in relation to income (**Figure 8, Panel B**). At the same time, reimbursements by statutory and complementary insurance are also progressive, although the share of out-of-pocket expenditures in the disposable income of low-income households is higher than for other households (**Panels C and D**).

Reducing disparities in coverage and improving incentives for health providers

Three main schemes help poor households and immigrants access health care. Direct government funding (AME or Aide médicale d'état) covers a wide range of health services for illegal residents. In addition, two other schemes ease access to complementary insurance. The poorest households (7.6% of the population in 2014) are eligible for complementary universal health coverage (CMU-C). The scheme offers free complementary cover to those on low incomes, and its income cap was significantly increased in 2013. People in other disadvantaged socio-economic groups may benefit from vouchers (ACS) to finance their complementary insurance premiums. However, the ACS scheme has had a particularly poor take-up. In 2014, the rate of utilisation was somewhere between 30% and 43% (Bruant-Bisson and Daudé, 2016) and, even among households who managed to receive the vouchers, 20% did not use them (**Figure 9**, **Panel A**).

Figure 9. Access to complementary health insurance schemes



1. The series for the beneficiaries of CMU-C is back-casted in 2000-05 based on Eco-santé data
2. The Ministry of Health assesses contract quality based on the level of reimbursements for a given basket of goods: from A (highest reimbursements) to E. Low-quality contracts correspond to types D and E, medium to C, and high-quality contracts to A and B.

Source: Drees (2016), *La complémentaire santé : acteurs, bénéficiaires, garanties - édition 2016*; Eco-santé online database; OECD calculations.

Access to complementary insurance plans is unequal. Unemployed workers, new labour-market entrants and older workers have had lower access (**Figure 9. Panel B**). They also rely more on individual contracts than on collective employer-sponsored plans, which are more generous (**Panels C and D**). At the same time, generous tax exemptions have supported firm-level collective contracts that offer, on average, more extensive coverage with reimbursements recently capped at a high level (Bruant-Bisson and Daudé, 2016). In addition, collective employer-sponsored plans became mandatory for private-sector employees in 2016, enabling care coverage to be extended. The separation of individual from collective contracts, however, limits risk pooling between employees and riskier households. Indeed, the generalisation of collective plans for employees concentrates individual contracts on higher-risk households. There is a possibility that the portability of rights may limit this phenomenon in the long term, despite the fact that it currently entails a sharp increase in the cost of contracts for policyholders when they retire.

The authorities have taken some steps to increase access to complementary insurance plans for the retired and poorer households. They recently expanded eligibility to assistance schemes facilitating access to care (CMU-C and ACS) for poorer households. The reform of the ACS vouchers led to the selection of specific complementary insurers that offer specific standardised reimbursements, and suppressed direct payments by eligible households (*tiers payant*). Employers' complementary insurers have had to propose coverage to newly retired and unemployed workers since 2008. In addition, tax incentives encourage state-approved collective complementary insurance contracts (*contrats solidaires et responsables*) that do not discriminate by age and guarantee minimum and maximum reimbursements. At the same time, discrimination by health risks is not authorised for either individual or collective contracts.

These measures have led to an increase in the share of the population with complementary insurance, but their effects have been ambiguous for some vulnerable populations. For example, corporate and personal income tax breaks for collective plans have encouraged extra billing by professionals, despite capped reimbursements. This raises costs for those less well covered who have to finance extra-billing through out-of- pocket expenditures. Phasing out tax breaks for collective plans would save 2.35 billion euros (0.1% of 2014 GDP) (Bruant-Bisson and Daudé, 2016), but could also increase labour costs. Additional reforms could also improve access to complementary insurance for low-income households and their health in the medium term (CNAMTS, 2016a), notably by promoting the use of existing administrative data on income and other social spending to determine and verify access to ACS vouchers. Indeed, past experiments have shown that eligible households, mostly long-term unemployed and retirees, may be difficult to reach through information campaigns (Guthmuller et al., 2012). The sustainability of the ACS scheme could be improved in part by reviewing the eligibility conditions (Cour des comptes, 2015).

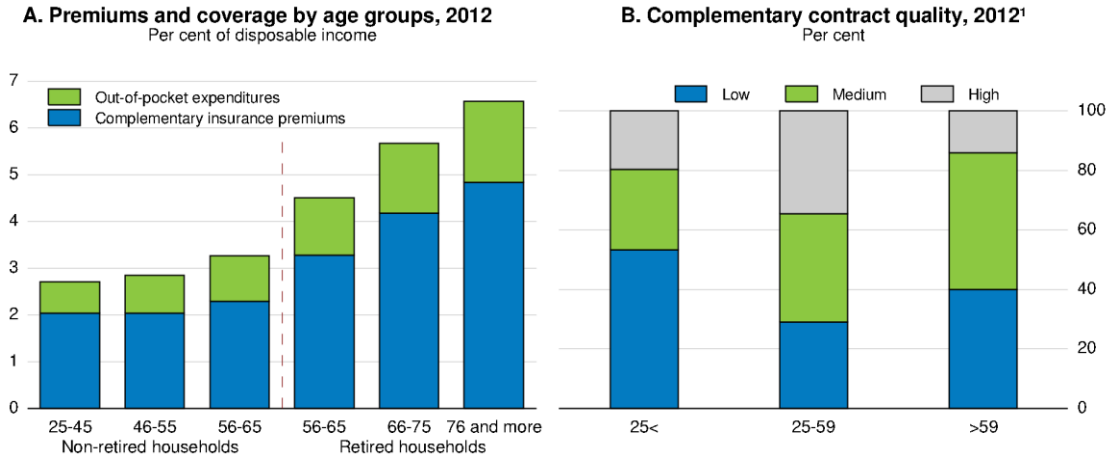
Complementary insurance plans limit cost-sharing for spending over which patients have some control, such as some medicines and consultations with high-fee doctors. This may in turn spur expenditure growth and prices, excluding more vulnerable groups. Indeed, the joint reimbursements by statutory and complementary insurance plans for the same basket of medical goods limit incentives for more efficient health-care spending, as households cannot easily distinguish reimbursement rates and as some complementary contracts also cover all forms of co-payment (**Table 2**). Better coverage by complementary insurance plans appears to have increased demand for high-fee specialists (Dormont and Péron, 2016). Similarly, the recent decreases in statutory reimbursement rates for medicines and sick leave have not led to lower use, which suggests that these health-care expenditures are not price-sensitive in France (Davezies and Toulemon, 2015; Pollack, 2015).

To increase the effectiveness of cost-sharing arrangements, the independent National Health Authority (HAS or Haute Autorité de santé), in charge of evaluating health goods and procedures, is empowered to

define a list of drugs, medical devices and procedures that would be reimbursed by statutory health insurance and their reimbursement rates. This would need to strengthen the link between reimbursement rates and the assessment of clinical and cost effectiveness of new medications (see below). As a first step the statutory insurance could stop reimbursing authorised pharmaceuticals with uncertain medical effects that now have low statutory reimbursement rates. A more ambitious reform of the insurance system could separate medical goods and services covered by statutory and complementary insurances (Askenazy et al., 2013). This could ease negotiations with care providers for goods and services. Complementary insurance plans would then specialise in "supplementary" medical goods and services, such as optical care, some dental care and hearing aids. However, if the statutory insurance were to withdraw from sectors in which its funding only covers a minor share of expenditures, such as eye and dental treatment and hearing aids, this would raise sensitive issues such as the risks of adverse selection, price increases and loss of control over the related spending.

The authorities should also further tighten the standards for the *contrats responsables* of complementary insurance plans, and make them easier to understand in order to boost competition. At present, the complementary insurance plans can potentially use indirect methods (different types of contract) to segment their clients by risk group despite the ban on discrimination by health risks. This stricter framework would lower incentives for consumption by healthier individuals and extra-billing by capping complementary reimbursements at lower levels and benefit older and lower-income populations. Indeed, insurance companies have favoured healthier populations by applying different premium structures: the result is that households' health-care costs rise sharply with age (**Figure 10**; Drees, 2016a), even among the non-profit *mutuelles* (Leduc and Montaut, 2016). A system with more constrained contractual terms could limit risk selection and push complementary insurers to compete on premiums for different groups of risks and populations. In such a system insurers would have to contract with care providers and organise more effective health-care pathways. This would require risk pooling, such as a system of equalisation across insurers based on their patients' risk profiles to ensure health-care coverage and limit the potential rise in insurance premiums, while making allowance for the free choice of services.

Figure 10. Access to complementary health insurance schemes by age groups



1. The Ministry of Health assesses contract quality based on the level of reimbursements for a given basket of goods: from A (highest reimbursements) to E. Low-quality contracts correspond to types D and E, medium to C, and high-quality contracts to A and B.

Source: Drees (2016), *La complémentaire santé : acteurs, bénéficiaires, garanties - édition 2016*.

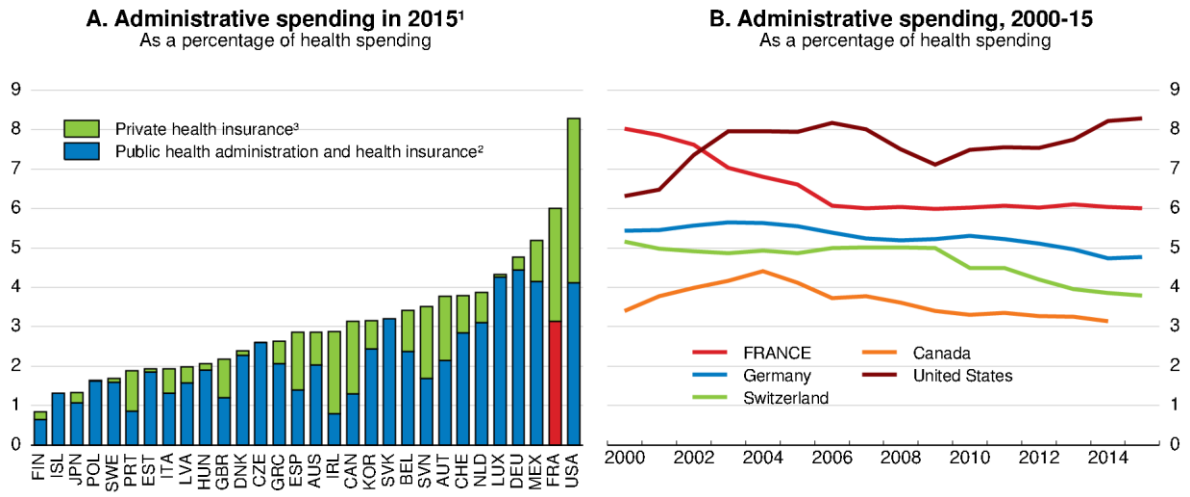
In the context of an ambitious reform of complementary insurance plans, introducing a limit on household out-of-pocket expenditures could improve equity and efficiency. The upper limit for these out-of-pocket payments could be fixed in relation to household income as in other OECD countries (Paris et al., 2010) and would replace the ALD scheme. In contrast to the ALD, the cap would not rely on the patient's

specific diseases. It would also be independent of the insured's employment status, which currently affects complementary insurance premiums and reimbursements, thereby offering better protection against health risks and limiting the potential negative effects of low income on access to care. However, a low cap would threaten the attractiveness of complementary insurance policies and require a broad reform of the system.

Lowering administrative costs

The joint reimbursements of health spending complicate claim processing and the management of health funding. French health-care management costs are higher than in most other OECD countries (**Figure 11**). Administrative costs of the statutory and complementary insurances are roughly equal, but complementary insurance finances a much smaller share of total health spending. Its comparatively high costs are mainly explained by marketing and search costs, as their costs of health-care case management are – at 5.4% of spending – close to the 3.5% of the CNAMTS (Auvigné et al., 2013), and the large number of relatively small private insurance companies does not allow the achievement of available economies of scale.

Figure 11. Health administrative spending is high



1. Or nearest year.
2. Including compulsory health insurance provided by private insurers.
3. Refers mainly to voluntary health insurance schemes.

Source: OECD (2017), *OECD Health Statistics database*.

Unifying revenue collection and improving the management of local statutory insurance agencies would allow some savings. To this end, universal health coverage was strengthened in 2016 in order to simplify and unify administrative management. The local organisation of statutory insurance remains fragmented, though payments to providers for the different statutory schemes were unified in 2016 (Auvigné et al., 2013; Cour des comptes, 2016a). Some statutory schemes have their own networks for revenue collection and may combine the management of health insurance and other social security spending (e.g. occupational risks, pensions and some family benefits). The local agencies of the CNAMTS provide reimbursements to patients for medical services, audit patient claims and perform other administrative tasks. However, they are sometimes in charge of very large populations and territories and have mixed results (Auvigné et al., 2013). Beyond the convergence of the different administrative structures to best practices, lowering the number of special regimes would reduce complexity, thereby improving efficiency and co-ordination, notably in revenue collection (Cour des comptes, 2015).

Improving prevention and the organisation of health-care provision

A new approach to the organisation of health-care supply based on meeting patients' needs could help accommodate pressures from population ageing and the rising prevalence of chronic diseases, while lowering disparities in access to care. Recent OECD cross-country evidence suggests that both supply-side aspects, such as payments to health practitioners and regulations, and demand-side features, such as gatekeeping and cost- sharing, can play a key role in regulating health-care expenditures (de la Maisonneuve et al., 2016). Well-trained GPs and specialists, evenly distributed across the country, are also crucial to ensure an adequate supply of outpatient care and co-ordination with hospitals and other primary-care providers (OECD, 2016b).

Better co-ordinating the supply of care

France has a public and private care delivery system with patient freedom of supplier choice. Management of health-care supply is partly decentralised, and complementary insurance, hospitals and ambulatory-care professionals are encouraged to co-ordinate patients' pathways at the local level through several measures such as the development of care homes and health centres, regional support platforms and care projects, and the PAERPA scheme for improving the co-ordinated care of frail elderly people. Organisational outcomes are mixed despite the launch of national action plans. Hospital and primary-care spending have been rising faster than total health spending (**Table 3**), while spending on prevention is lagging (**Figure 12, Panel A**). Moreover, hospital admissions for asthma and chronic obstructive pulmonary diseases are relatively low, but those for diabetes that could be safely treated at the primary-care level are above the OECD average (**Panel B**), and the use of hospital emergency departments has increased over the last 20 years, reflecting in part the failure to organise sufficient round-the-clock outpatient services and the misuse of the hospital care system by patients (**Panel C**). In 2013 the share of long-term care recipients aged 65 and over receiving care at home was below the OECD average (OECD, 2015b).

The authorities are planning several reforms of health-care supply. They had planned to raise home-based long-term care to 1.2% of hospital stays by 2018. However, it remains less developed than in most other comparable countries, and past measures have failed to raise the level of home care and to reach a balanced geographical supply (Cour des comptes, 2016b). Similarly, because some forms of ambulatory surgery remain relatively less developed than in other OECD countries (**Figure 12, Panel D**), the government aims to increase its share from half the total in 2015 to more than two-thirds in 2020, which will require a well-trained network of GPs and nurses, formal co-ordination between primary- care providers and hospitals (implemented in 2016 with the enactment of the Health Law (Loi de modernisation de notre système de santé), and adaptation of existing payments and regulations (Bert et al., 2014; ATIH, 2016).

The co-ordination of health-care supply at the regional level has made progress. Regional Health Authorities (ARS) unified previously separate entities for hospital and outpatient care in 2010. The ARS are responsible for ensuring that regional actors meet the needs of the population by improving the co-ordination between the primary and hospital sectors and health- and social-care services, while respecting the official national spending growth ceiling. The ARS have some control over the organisation of hospital services, notably capacities. The government plans to support more integrated care pathways across hospitals and primary-care practitioners. The 2016 health law created a framework for developing primary-care teams and aims to strengthen local health communities that are in charge of co-ordinating ambulatory care with monitoring by the ARS through the creation of regional support platforms. However, the ARS' influence on primary and ambulatory care will remain limited, as most payments and regulations depend on

Table 3. Structure of health-care expenditures[1], 1995-2015

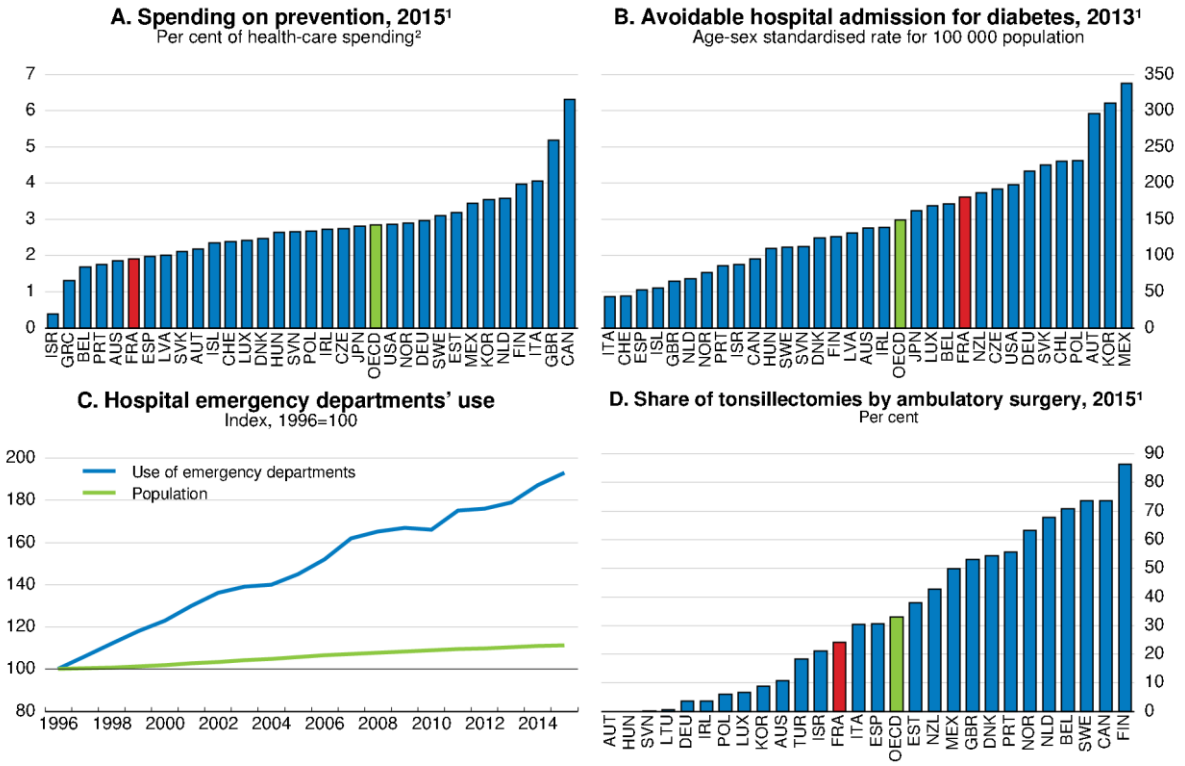
	1995	2000	2007	2010	2012	2013	2014	2015
A. Expenditures as a share of GDP								
1-Hospital care	3.9	3.6	3.7	4.0	4.0	4.1	4.1	4.2
Public hospitals	2.9	2.8	2.9	3.1	3.1	3.1	3.2	3.2
Private hospitals	1.0	0.8	0.9	0.9	0.9	0.9	0.9	1.0
2-Primary care	3.9	4.1	4.4	4.7	4.7	4.7	4.7	4.8
Primary services	2.1	2.0	2.1	2.2	2.2	2.3	2.3	2.3
Transport	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Pharmaceuticals	1.4	1.6	1.7	1.7	1.7	1.6	1.6	1.6
Other medical goods[2]	0.3	0.4	0.5	0.6	0.6	0.6	0.6	0.7
3-Long-term care	.	0.5	0.7	0.9	0.9	0.9	0.9	0.9
4-Sick pay	.	0.6	0.6	0.6	0.6	0.6	0.6	0.6
5-Other spending for patients	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6-Prevention	.	0.3	0.3	0.3	0.3	0.3	0.3	0.3
7-Spending for the health system	.	0.5	0.5	0.6	0.6	0.6	0.6	0.6
Research	.	0.4	0.4	0.4	0.4	0.4	0.4	0.3
8-Management costs of the health system	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7
Consumption of services and goods (1+2)	7.9	7.7	8.2	8.7	8.7	8.7	8.8	8.9
Current health expenditures (1+…+8)[1]	.	10.2	10.9	11.8	11.8	11.9	12.1	12.0
Current health expenditures – OECD definition	9.8	9.5	10.0	10.7	10.8	10.9	11.1	11.0
B. Expenditures, annualised real growth rates								
1-Hospital care	.	0.5	1.7	2.9	2.6	1.9	2.3	2.1
Public hospitals	.	1.1	1.4	2.9	2.7	2.0	2.1	2.0
Private hospitals	.	-1.3	2.4	3.0	2.2	1.7	2.9	2.2
2-Primary care	.			2.8	2.9	2.4	3.8	2.8
Primary services	.	2.5	3.6	3.4	3.2	3.3	1.5	2.7
Transports	.	3.1	5.9	4.0	2.9	2.7	6.6	3.6
Pharmaceuticals	.	5.0	6.9	3.9	4.5	3.6	3.9	4.1
Other medical goods	.	8.1	6.7	2.9	2.6	1.9	2.3	2.1
3-Long-term care[3]	.	.	5.7	6.2	2.6	3.0	1.9	1.4
4-Sick pay[3]	.	.	1.9	3.4	-0.5	-0.4	3.6	1.6
5-Other spending for patients[3]	.	.	.	5.9	10.9	6.0	0.0	-2.5
6-Prevention[3]	.	.	2.1	0.8	-1.0	1.7	-0.8	-1.6
7-Spending for the health system[3]	.	.	2.6	1.6	1.1	2.0	-1.3	0.1
Research[3]	.	.	.	-0.5	-0.5	0.1	-0.3	-0.6
8-Management costs of the health system[3]	.	2.4	1.6	2.4	1.6	2.9	0.3	-1.9
Consumption of services and goods (1+2)	.	2.3	3.6	2.8	2.8	2.2	3.1	2.5
Current health expenditures (1+…+8)[1, 3]	.	.	2.7	2.1	1.4	1.3	1.9	0.9
Current health expenditures – OECD definition[3]	.	2.3	2.5	2.1	1.6	1.6	2.0	0.6

1. Current health expenditures, national definition.
2. Optics, prostheses, orthotics, invalid carriages, and other small equipment.
3. Deflated by the GDP deflator.

Source: OECD calculations based on Comptes nationaux de la santé en bases 2000, 2005 et 2010; Le Garrec, M.-A., M. Koubi and A. Fenina (2013) "60 années de dépenses de santé", *Études et résultats*, No. 831, Drees; *OECD National Accounts database*; OECD (2017), *OECD Health Statistics database*.

national decisions. Giving the ARS more autonomy in contracting with health providers to co-ordinate pathways would help to raise co-ordination across local health-care providers. The ARS should be able to manage the organisation of primary care in their region, which could be financed based on the regularly estimated requirements of their regional populations. They would then have more leeway to co-ordinate primary care, hospitals and medico-social services, in particular if they were allowed to carry over their annual savings for their own purposes. For example, the ARS could set funding of medico-social services through bundles of goods and services for a network of providers and develop payments for joint structures to encourage co-operation.

Figure 12. Selected indicators of prevention and co-ordination among health-care providers



1. Or nearest year.
2. The scope used for institutional spending differs however from global spending on prevention in France, notably for regular consultations, which according to the Drees amounted to 9.3 billion euros in 2014, i.e. 3.9% of health-care spending compared to 2.0% in 2014 according to OECD data

Source: OECD (2017), *OECD Health Statistics database*; Drees (2017), *Les établissements de santé - édition 2017*; OECD (2015), *Health at a Glance 2015: OECD Indicators*, OECD Publishing, Paris.

Electronic health information sharing, currently being developed through the shared personal medical file (*dossier médical partagé* or DMP) or through other measures such as encouraging care homes to set up shared IT systems, should be strengthened. The implementation of a paper-free health system and shared electronic health records has progressed slowly. Hospitals are developing their IT systems (DGOS, 2016), and electronic pharmaceutical records (DP) are widespread in pharmacies, but the implementation of shared DMP designed to promote prevention, quality, continuity and co-ordinated patient care due to take place in 2014 has been delayed, with only 600 000 records by end-2015. More generally, a few years ago France was lagging many European countries in the take-up of personal electronic health records and exchange of information between professionals (European Commission, 2013a), and its overall readiness to adopt e-technologies remains low (OECD, 2017a). A single phone number has been in place to co-ordinate out-of-hours services since 2015, but progress remains partial. The 2016-20 e-health strategy plans to give priority to investment in co-ordination

tools across health providers and to the development of integrated IT solutions that would simplify patient procedures and adherence to medical guidelines by health professionals.

Further use of available health data and development of e-records could improve service quality and cut administrative costs. Increased use of performance reporting would incentivise providers to concentrate on aspects of quality that give rise to genuine improvements in patient outcomes. The available administrative data could be better used for additional *ex post* medico-economic evaluations, notably by independent institutions and researchers, or to improve the detection of abuses and fraud. Over the longer term e-records in primary care could also usefully include information on pathologies and care to improve evaluations, including those regarding practices. Training for public and independent experts would also be needed, notably in using data, as the exploitation of administrative data for evaluation has been limited to date (Cour des comptes, 2016c). Moreover, the national health authority (HAS), which develops medical guidelines, focuses on clinical trials and developing *ex post* evaluations of treatment strategies, and additional data analyses could help adapt its recommendations. Such information can significantly improve physicians' lifelong learning and ensure independence from the pharmaceutical industry; however, HAS budget restrictions have prevented the implementation of the structures necessary for this work.

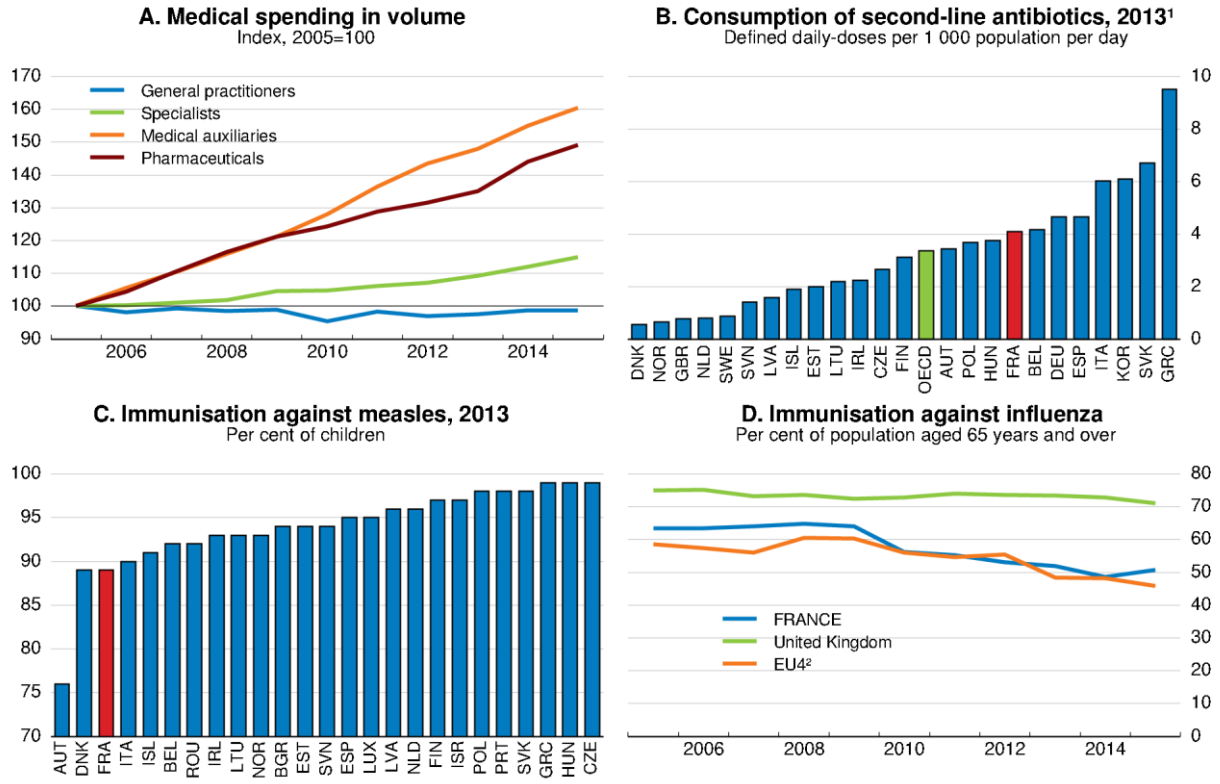
Reforming primary care and hospitals would help address co-ordination failures. For example, hospital emergency departments tend to be used for routine needs, which could be dealt with by a GP. They are perceived as accessible "one-stop shops", while 55% of patients reported out-of-hours access difficulties to GPs in 2011 (Berchet, 2015; Berchet and Nader, 2016). A single phone number has been in place since 2015 to co-ordinate out-of-hours services. Other measures would also help. Developing out-of-hours primary care, for example through new forms of organisation, such as out-of-hours GP services, and continuing to raise the public's and doctors' awareness are crucial. However, incentives for hospitals to limit the use of their emergency departments or downscale them will also be needed, as their emergency fees are determined by past and current use and independent of pathologies treated (Cour des comptes, 2014a). At a minimum, the financial contribution of policyholders should be modulated according to the care received.

The lifelong training of professionals in primary care and hospitals, which also improves work practices, was strengthened in the 2016 Health Law. Since 2009 lifelong training has been mandatory for health professionals (every three years), but there is no significant penalty for non-compliance. Training is organised through a single system for all health professionals. However, the quality of training providers is insufficiently monitored, funding is limited to less than 0.01% of GDP (Drees, 2016b), and take-up could be improved: only a quarter of all medical personnel undertook any training in 2014 (Deumie et al., 2014). Additional joint training throughout their careers would allow better co-ordination among care providers and could help them adapt best practices in terms of care pathways and prescriptions (see below).

Adapting the primary-care network and its payment systems

Fee-for-service (FFS) payments remain the main source of outpatient care providers' incomes, despite an upward trend in the proportion of performance- and capitation-based payments. Together with limited out-of-pocket expenditures and low public trust in some preventive measures, such as vaccines (Larson et al., 2016), this may be reflected in France's very high per capita prescription drug consumption. This may also raise drug prescription and consumption, and primary-care spending (**Figure 13, Panels A and B**), even if the decline in health practitioner density in the face of growing demand for care

Figure 13.Selected primary-care outcomes



1. Or nearest available year.
2. EU4 is the average of Denmark, Germany, Italy and Spain.

Source: OECD (2017), *OECD Health Statistics database*; Drees (2016), *Portrait des professionnels de santé - Edition 2016*; World Health Organisation, Europe (2017), CISID database (http://data.euro.who.int/CISID); Drees (2017), *L'état de santé de la population en France - Édition 2017*

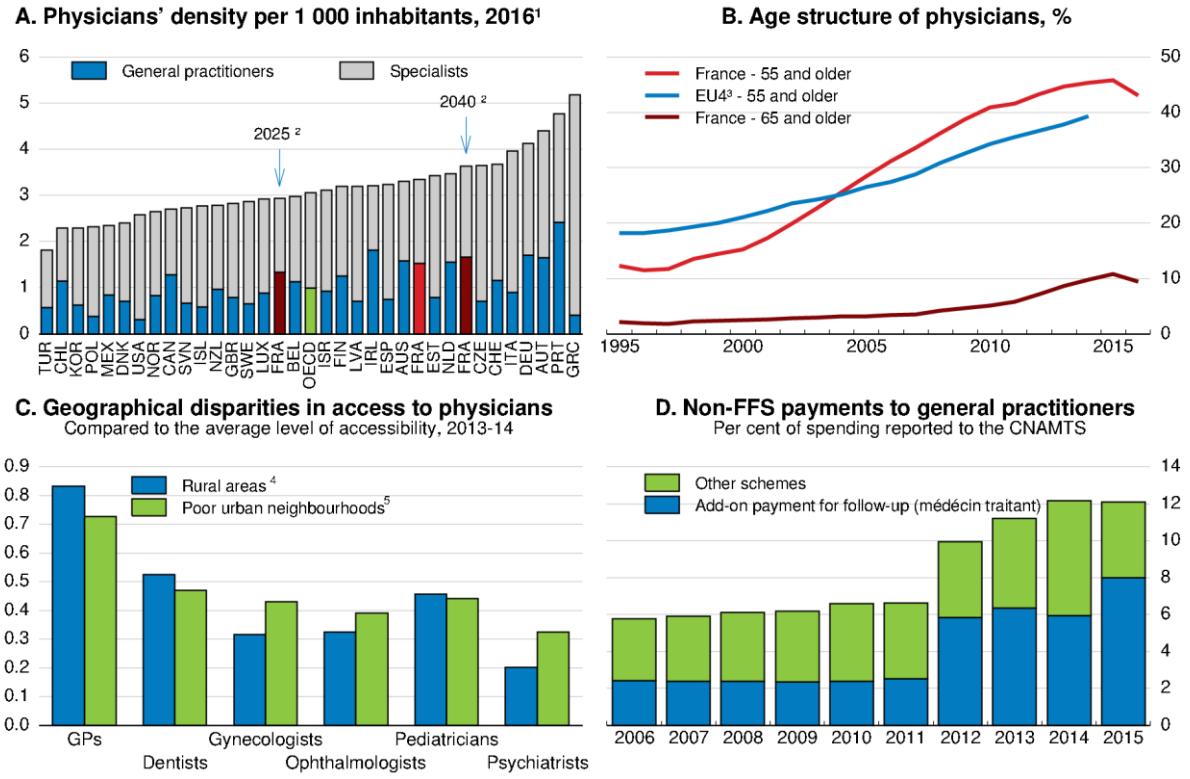
may limit these impacts (Albouy and Deprez, 2008). FFS payments are unlikely to be appropriate in fostering co-ordinated care for chronic diseases and for patients who require proactive and co-ordinated care with an emphasis on preventive aspects (OECD, 2016c). Moreover, immunisation rates among children against measles are relatively low (**Panel C**), and immunisation against influenza has declined among older people and remains well below 40% for some risky populations, despite an official target of 75% (**Panel D**; PLFSS, 2015).

General practitioners (GPs) are often the first point of contact with the health system. The authorities formalised their role as gatekeepers in 2004 by incentivising all patients to register with a treating physician, as recommended by the OECD (OECD, 2000; Imai et al., 2000). Patients face higher cost-sharing for consultations if they do not register with a GP or if they consult a specialist without a referral. In addition, the statutory reimbursement rate for consultations out of the "co-ordinated care pathway" was progressively reduced to 30% by 2009 (except for patients visiting gynaecologists, ophthalmologists and young people receiving psychiatric treatment). Following that reform, direct access to specialists fell rapidly to less than 9% of total specialist consultations in 2014.

There are widespread local disparities in the density of health-care workers, and primary care supply could be better aligned with local needs. The number of GPs per capita is set to decrease temporarily below the current OECD average around 2025, due to their unfavourable age structure and historically tight restrictions on the number of medical students (**Figure 14, Panels A and B**; Drees, 2016b; Bachelet and Anguis, 2017). This may possibly reinforce local shortages (excluding the impact of more GPs

continuing to work after retirement or an increased inflow of foreign physicians), as older GPs are predominant in rural areas and poor neighbourhoods where access is already constrained (**Panel C**).

Figure 14. Density of physicians and payments



1. Or nearest available year.
2. Projection of Drees (2016), central scenario.
3. EU4 is the average of Denmark, Germany, Italy and Spain.
4. Ratio of accessibility index in rural areas to the index in France. Rural areas are weighted according to their population in 2011.
5. Ratio of density per inhabitant in poor urban neighbourhoods (Quartiers Prioritaires de la Ville) to density in metropolitan France.

Source: OECD (2017), *OECD Health Statistics database*; Drees (2016), *Portrait des professionnels de santé - Edition 2016*; OECD calculations based on ONPV (2016), "L'offre de soins dans les quartiers prioritaires de la politique de la ville, en 2014", *Rapport annuel de l' Observatoire National de la Politique de la Ville 2015;* Vergier, N. (2016) "Accessibilité aux professionnels de santé libéraux: des disparités géographiques variables selon les conditions tarifaires", *Etudes et Résultats*, No. 970, Drees; Brutel, C. and D. Levy (2011), "Le nouveau zonage en aires urbaines de 2010", Insee Première, No. 1374; Drees (2016), *Les dépenses de santé en 2015 - Résultats des comptes de la santé*.

Geographic disparities are especially pronounced for specialists and self-employed paramedics, as many specialists are free to set their tariffs and tend to practice in wealthier urban areas where people can afford these additional payments (Vergier, 2016; ONPV, 2016). Indeed, households in poor neighbourhoods were only half as likely as the general population to have complementary insurance in 2012 (ONZUS, 2015), despite the CMU-C and ACS schemes, and this could have effectively limited their ability to afford extra billing (which moreover is forbidden for this category of patient). In addition, the CMU-C and ACS schemes limit physicians' tariffs and exempt households from co-payments, and the outcomes of several discrimination tests indicate that households covered by CMU universal health coverage are frequently refused medical appointments, in particular by specialists who extra-bill (Baudis, 2014; Desprès et al., 2009).

The authorities have increased significantly the number of training places in general medicine and created additional incentives to encourage practicing in underserved areas. France, like other OECD countries, does not limit physicians' choice of location but provides incentives to locate in some areas (Ono et al., 2014). Since 2010 medical students may receive monthly subsidies (CESP) if they commit to practice for at least two years in underserved areas. As well, the authorities introduced a guaranteed annual income for recently qualified GPs in the first two years after the establishment of their practice in rural and underserved regions in 2012. The 2016 medical agreement added to these measures, for example by introducing an installation contract to help GPs set themselves up in practice. Moreover, each medical student has to spend at least one of his/her six semesters of training in a GP's practice as from 2017.

These are steps in the right direction. However, CESP subsidies were given to only 236 students, including 172 in general medicine, out of 7 700 new students in 2016 (Anguis, 2017), and demographic forecasting and training capacity planning are mostly done at the national level using quotas covering the number of students admitted to medicine, pharmacy, dentistry and midwifery (and physiotherapy in part), and other health-related education programmes such as nursing and speech therapy (*numerus clausus*). In the French context education and training are provided through public universities and professionals have freedom of location choice. The centralised definition of regional *numerus clausus* for physicians and the national exams which enable the attribution of a speciality and a medical school to each student are co-ordinated with regional post openings (*internats*) to take local needs better into account. In fact universities partly determine the locations of the first internships for GPs (ONDP, 2014; Golfouse and Pheng, 2015). Regional *numerus clausus* should be linked more tightly to the teaching capacity of regional universities and foreseen needs, while initial education should include more joint training and practices among future GPs, specialists, nurses and pharmacists to improve co-ordination over the medium term. These could be supplemented by higher capitation-based payments in less served areas, which could compensate for their lower potential for extra billing and inequalities in population health and working conditions.

Sector 1 physicians contracted to the health system are paid through regulated fees, while others, sector 2 physicians, can practise extra billing. Those with little recourse to extra billing can enter into a contract with the statutory insurance system in order to obtain extra, performance-based payment. The ongoing development of pay-for-performance (P4P) payments can create some incentives for efficiency gains and more targeted treatment, but they are a small share of the incomes of self-employed GPs (**Figure 14, Panel D**). The Ministry of Health plans additional supplementary incentives to improve health-care access, limit extra billing, and foster the uptake of IT systems in practices, but P4P schemes could also be expanded further. Bundled payments could also be developed for nurses, midwives and physiotherapists, as outpatient prescriptions and spending for these care activities have increased rapidly, driven largely by hospital prescriptions (**Figure 13, Panel A**). Indeed, such prescriptions are less restrained than for other medical expenditures. Developing specific bundled (lump-sum) payments per patient for following up chronic diseases or for long-term services would help.

Curtailing extra billing, notably for specialists, would also generate savings and improve access for all income groups. This could partly affect the supply of new specialists, and care will be needed in the adjustment. Around 45% of specialists are allowed to extra- bill patients, except CMU-C and ACS recipients. Extra billing has increased rapidly to 18% of the remuneration of all specialists in 2015 (worth 0.1% of GDP), while add-on and P4P payments still represent less than 1% (Drees, 2016c). The authorities offered voluntary contracts to some specialists guaranteeing, in particular, partial coverage of their social contributions if they limited extra billing, but they have had a modest take-up. Since 2015 complementary insurance schemes have to cap their reimbursements of extra billing to 125% (100% in 2017) of the regulated tariffs in order to benefit from some tax breaks. However, the number of specialists' consultations has also risen relatively fast (**Figure 13, Panel A**), and extra billing is concentrated on specific forms of care and geographical areas, generating inequalities. Introducing an

adjustable price system for overall tariffs and extra payments for all providers with a capped budget, as in Germany, could be more effective at curbing expenditure growth and induced demand (Bozio and Dormont, 2016); alternatively, the rate of extra billing per act could be capped.

Organisational innovations would help address shortages and improve co-ordination among providers. French GPs spend a large amount of time on non-medical tasks (Jakoubovitch et al., 2012). Though most physicians and nearly 40% of nurses work in group practices (Drees, 2016b), the development of structures for out-of-hours consultations with local non-hospital doctors and other health professionals could offer better geographic coverage, around-the-clock availability and continuity in the course of treatment. A system of Maisons de santé pluridisciplinaires (MSPs) was introduced in 2007 and strengthened by the 2016 Health Law. They allow physicians and other health professionals to operate group practices while remaining self-employed. MSPs and health centres appear to have led to better working conditions and greater accessibility for patients and some efficiency gains (Mousquès and Daniel, 2015a and b).

However, there is room for the further development of joint professional services firms (HCAAM, 2014). Additional public payments encourage the development of MSPs. In addition, the composition of health professionals as well as financial investment in MSPs and common GPs' practices are restricted by different legal constraints and ownership criteria (OECD, 2016b and c). Uncertainty about the remuneration of joint services and global payments has also been a barrier, and the April 2017 inter-professional agreement could ease collaboration among professionals. However, further simplification of administrative structures and requirements could also help (FFMPS, 2017), as well as lowering restrictions from self-regulations (see below) and increasing the sharing of responsibilities among doctors, nurses and other professionals. The government intends to facilitate the financing of joint professional services teams in 2018, and to double the number of MSPs by 2022.

Developing new health-care professional missions for nurses and pharmacists and e-health solutions would increase efficiency. Current legislation defines in specific terms what each health professional can and cannot do (Delamaire and Lafortune, 2010), and financial incentives to develop new provider missions are low. For example, nurses' medical activities remain circumscribed, despite the co-operation protocols authorised by the 2009 law (Loi hôpital, patients, santé, territoires). In addition, the 2016 self-regulation (*code de déontologie*) has further constrained competition and the size of medical practices (Autorité de la concurrence, 2016a). Though the 2016 Health Law expanded midwives' roles somewhat, a more general definition of the scope of activities of different professions, for instance in terms of general "missions" rather than specific tasks/acts, would provide greater flexibility. For example, private-hire vehicles could be allowed to transport autonomous patients and complement the services of taxi drivers, and optometrists could be authorised to prescribe some medical goods, such as glasses (IGF, 2013).

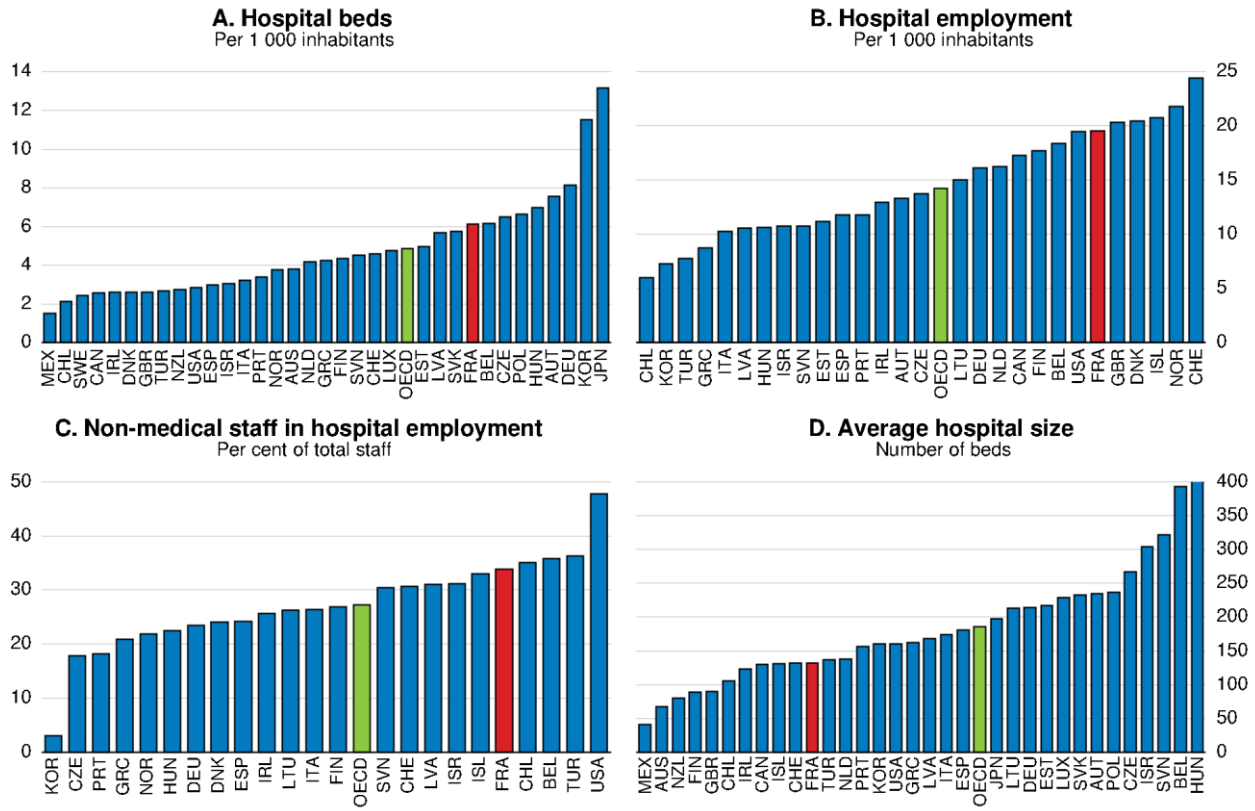
The development of telemedicine to remotely connect patients and doctors when needed could also hold potential for savings, better follow-up of chronic diseases and increasing monitoring of treatments (Compagnon and Lopez, 2015). Coverage of telemedicine by the statutory health insurance will be implemented in 2018. Similarly, on-line sales of over-the- counter drugs remain particularly restricted (on health grounds), as is investment in pharmacies, despite a partial easing of the regulations in 2016 (Autorité de la concurrence, 2016b).

Modernising hospital management and services

Reducing hospital costs could generate important savings. Hospital expenditures have risen steadily to 40% of current health spending (4.4% of GDP) in 2014 (OECD, 2016d). The number of hospital beds per inhabitant is relatively high, their occupancy rate is only average, and hospital employment is above

the OECD average, notably among administrative and support staff (**Figure 15, Panels A to C**). France's hospital facilities comprise public institutions, private non-profit hospitals and for-profit institutions. Their average size is relatively small (**Panel D**), and the number of small hospitals is high, despite their relatively lower efficiency and fewer innovative practices (Gobillon and Milcent, 2013 and 2016). According to OECD evidence, the average costs of some surgical acts are 23% higher than in other European countries (Koechlin et al., 2014).

Figure 15. The hospital sector, 2015[1]



1. Or nearest available year.

Source: OECD (2017), *OECD Health Statistics Database*.

The introduction of an activity-based payment system (*tarification à l'activité,* T2A) has led to some improvements. As in many other OECD countries (OECD, 2016c) and in line with OECD recommendations (OECD, 2000), a diagnosis-related group (DRG) payment scheme was phased in during 2004-08, replacing the previous system of global grants and daily allowances. It is complemented by volume-based payments, such as fees for emergency services or the use of innovative treatments, and add-on payments, such as investments for teaching, research and innovation, the maintenance of emergency units, prevention and treating risky and low-income patients. Using DRGs has led to lower cost variability across hospitals (Milcent, 2016a) and to an increase in the surgical activity of those public hospitals that are exposed to private-sector competition (Choné et al., 2014).

Box 3. Hospital payments and the diagnosis-related group (DRG) system

French acute-care hospitals, excluding psychiatric hospitals, are financed by a diagnosis- related group (DRG)-based payment system, which allocates funding according to the number of stays, patient pathologies and tariffs. The main statutory insurance scheme assigns each stay to a DRG. Hospitals then receive a sum that depends on the number of their patients in each DRG group and the associated tariffs.

The Ministry of Health sets DRG tariffs that reflect the average costs of treatment of a DRG group in a sample of hospitals and the annual global budgetary ceiling for hospitals (**Box 2**) and some incentives. Tariffs correspond to the relative average costs of treatments in each DRG group rescaled to ensure that the annual global budgetary ceiling is met. They also aim to encourage some activities such as ambulatory surgery. Therefore, tariffs may not reflect changes in average hospital costs. In addition, lower tariffs are applied to days of care above and below standard duration thresholds within each DRG group. Tariffs also vary between public and non-profit and private hospitals, where physicians′ fees are paid separately.

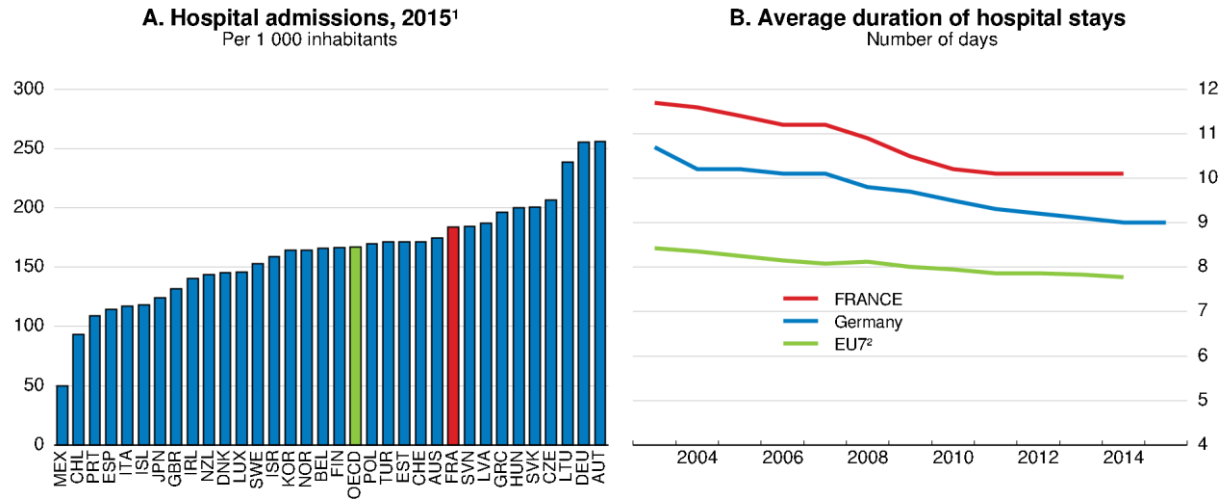
The DRG scheme has been reformed many times since its introduction in 2004. In particular, the number of DRG groups increased from 700 in 2004 to about 2 300 in 2009, and duration thresholds have been regularly adjusted. For example, since 2010, some short stays are paid using a fixed fee and a daily tariff.

Payments differ from one hospital to another. DRG rates differ between public and private hospitals, and do not account for the payment of health-care professionals in private hospitals, which prevents any rate convergence. Moreover, public hospitals have some leeway to adjust the amounts charged to complementary insurance plans and households, such as the per-diem tariffs (*tarifs journaliers de prestation*). Such differences blur the incentives of public payments and do not ensure equal treatment for patients. It would be preferable to increase the add-on payments for difficult cases to progressively eliminate these disparities, as DRG payments could allow only a partial reduction of the heterogeneity of patients across establishments (Milcent, 2016a; Véran, 2016).

DRG payments that are based on average costs may increase efforts to select patients, specialise in more profitable procedures and reduce concerns about quality within DRG groups. They may also give incentives to optimise the reporting of activity and overstate the difficulties of each patient. In France, DRG groups capture less than half of patients' heterogeneity (Milcent, 2016b), and up-coding (i.e. deliberately overstating the case-mix) appears significant, as in the United States (Milcent, 2016a and 2016b; Dafny, 2005). Moreover, as in primary care, the payment structure provides little incentive for prevention and co-ordination between care providers. Indeed, the number of hospital admissions is high, and the duration of stays remains relatively long (**Figure 16**).

Since 2012 the authorities have taken additional steps to reform hospital payments and reduce the negative incentives of DRG payments. Adjustments for care quality have been piloted and scaled up, though their amount remains below 0.5% of the participating hospitals' medical spending. In 2017 grants for acute-care equipment increased to better take into account fixed maintenance costs. In addition, the authorities plan to develop bundled payments for acute care and rehabilitative services to improve pathways for patients with chronic illnesses. At the same time, the 2016 law guaranteed the financing of small local hospitals (*hôpitaux de proximité*), which have been receiving grants since 2014, while focusing their missions on primary care and patient follow-up. These reforms may lead to a more flexible payment system, but they will require the ARS to closely monitor hospitals' efficiency gains to guarantee the effectiveness of incentives to raise productivity and avoid hindering the reorganisation of hospital services, as payments are becoming more and more variable across hospitals.

Figure 16. Hospital use



1. Or nearest available year.
2. EU7 is the average of Austria, Belgium, Denmark, Germany, Italy, Portugal and Spain.

Source: OECD (2017), *OECD Health Statistics Database*.

Managing public hospitals is difficult. Their debt was around 1.4 % of GDP in 2015 following massive investment programmes with varying returns at the beginning of the 2000s (Cour des comptes, 2014b), and the sector often remains in deficit, partly due to high debt service (Drees, 2016d). The wage bill amounts to 60% of public hospital spending and could be used for spending adjustments, but managers have little impact on hiring decisions, careers and wages of public servants and doctors. Proxies for the quality of human-resource management appear weak in international comparison (Bloom et al., 2014). For example, France's 35-hour workweek, the announced general increases in civil servant base wages and the taking into account of bonuses in pension rights in 2016 raised spending and long-term liabilities. At the same time, rewards to doctors or nurses taking additional management or medical responsibilities are tightly constrained, and medical personnel have limited accountability for the spending effects of their prescriptions either within hospitals or in outpatient care (Cour des comptes, 2016d).

Strengthening human resources management would improve patient care and working conditions. Staff management rigidity, mainly in terms of physicians' pay, has led in particular to a rise in the costly recourse to temporary contracts with independent health practitioners (Véran, 2013), potentially worsening patient outcomes (Bartel et al., 2014) and working conditions (Coutrot and Davie, 2014). In addition, university hospital governance is complicated by the different affiliations of their staff to universities, other hospitals and research centres and the lack of co-ordination among them. For example, doctors can cumulate teaching, care and research responsibilities with different public bodies.

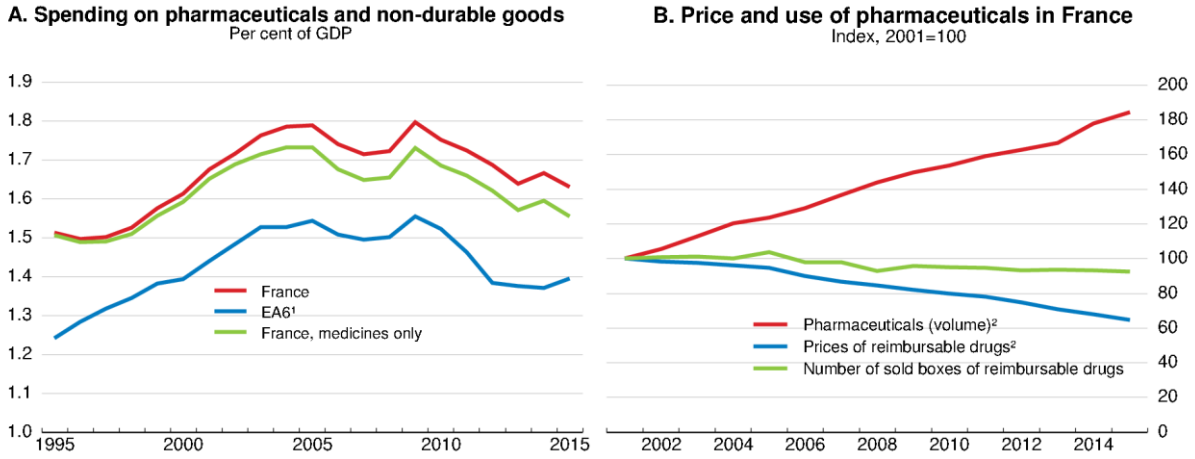
Strengthening the autonomy of public hospital managers and improving co-ordination among establishments could ensure more equal access to hospital care. Public managers have little autonomy regarding investment decisions, which may be an obstacle to an effective implementation of the DRG payment system, as this hinders the restructuring of public hospitals and the potential to realise efficiency gains (Bruant-Bisson et al., 2012). Local political interventions in the management of public hospitals have also led to overstaffing and inefficiencies, notably in high unemployment areas (Clark and Milcent, 2011 and 2015). It might seem desirable for local politicians not to have the right to manage hospitals' supervisory boards or intervene in the nomination of their directors. At the same time, the creation of local hospital clusters encourages co-ordination among hospitals, with a view to limiting geographical disparities in access to innovative services (Drees, 2016d).

The 2016 Health Law seeks increased synergies among public hospitals. Local hospital clusters (GHT) should allow the creation of joint medical services, notably for public procurement, and some efficiency gains. In addition, the generalisation of the 2016 financial incentive scheme for quality improvements to hospitals in the medical, surgery or obstetrics services sector (*médecine-chirurgie-obstétrique*), which was extended in 2017 to follow-up care and rehabilitation units, is welcome: it rewards hospitals for their excellence (outcomes obtained) and their efforts (developments observed) according to national indicators of quality and safety of care (for example, those relating to health-care associated infections, specific care services provided, satisfaction of hospitalised patients), indicators from the national "digital hospital" programme (for example, those relating to digital patient records, e-prescriptions) and HAS certification of health-care establishments. The maximum top-up is worth 0.6% of their activities (capped at 500 000 euros a year). However, much will depend on implementation, and stimulating effective co-operation will require DRG payments and the recent specific small-hospital payment scheme to be modified. Additional independent econometric research using hospital-level data would also help identify best practices and potential efficiency gains.

Containing pharmaceutical spending

The growth of outpatient pharmaceutical spending as a share of GDP has been successfully restrained since the mid-2000s, but its level remains significantly higher than in other euro area countries (**Figure 17, Panel A**). The increased use of generics and the end of patents on some widely used drugs contributed to the drop in pharmaceutical spending until 2014, which was also helped by holding down the

Figure 17. Pharmaceutical consumption and prices



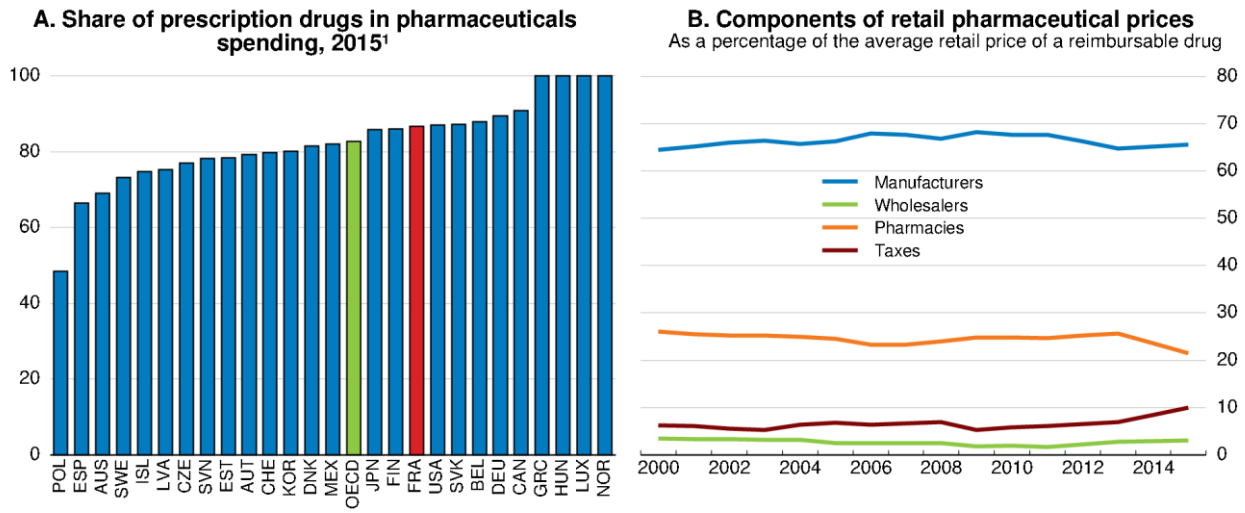
1. EA6 is the average of Austria, Germany, Italy, the Netherlands, Portugal and Spain.
2. At constant quality, excluding new drugs and innovations. The retail price indices (national definition) include reimbursements by the statutory insurance schemes.

Source: OECD (2017), *OECD Health Statistics database*. Drees (2016), *Les dépenses de santé en 2015 - Résultats des comptes de la santé*; Comité économique des produits de santé (2015), *Rapport d'activité du CEPS 2015*.

regulated prices and sales of reimbursable products. However, the financing of expensive treatments has not prevented the sustained increase in volume of use (**Panel B**). Over the longer term the rise in chronic diseases and the arrival on the market of innovative but costly new drugs will put additional pressures on pharmaceutical spending (OECD, 2015b). Moreover, the volume of use of drugs poses significant health issues for older people (Jardin et al., 2012). Strengthening the use of medico-economic drug evaluations, increasing the share of generics and further reducing the volume of prescriptions could allow additional savings, improve health outcomes, lower medical waste and maintain incentives for pharmaceutical innovation.

Regulated prices, margins, specific taxes and reimbursement rates influence the consumption of most pharmaceuticals. Households can purchase some reimbursable drugs without a prescription, but the statutory insurance does not cover such spending or the costs of non-reimbursable drugs. Prescription drugs and reimbursable drugs hold more than 87% and 90% of the retail market, respectively (in value) (**Figure 18, Panel A**; Drees, 2016c). Nine specific taxes are levied on pharmaceutical companies, of which three aim at reducing excessive consumption (Baulinet et al., 2012). In particular, as in Belgium and Italy, specific volume clauses are automatically imposed on pharmaceutical firms to offset budget overruns on some drugs. They were increased in 2015 and 2017 and limit the share of retail sales proceeds going to manufacturers (**Panel B**), but they do not directly tackle excessive prescriptions in outpatient care. Specific taxes are also levied on wholesalers and pharmacists. By contrast, reduced value-added tax rates on pharmaceuticals encourage consumption. Reduced rates on drugs should be phased out.

Figure 18. Retail sales of pharmaceuticals



1. Or nearest available year.

Source: OECD (2017), *OECD Health Statistics Database*; Ecosante.fr; and LEEM (2013 to 2016), *Les Entreprises du médicament en France*.

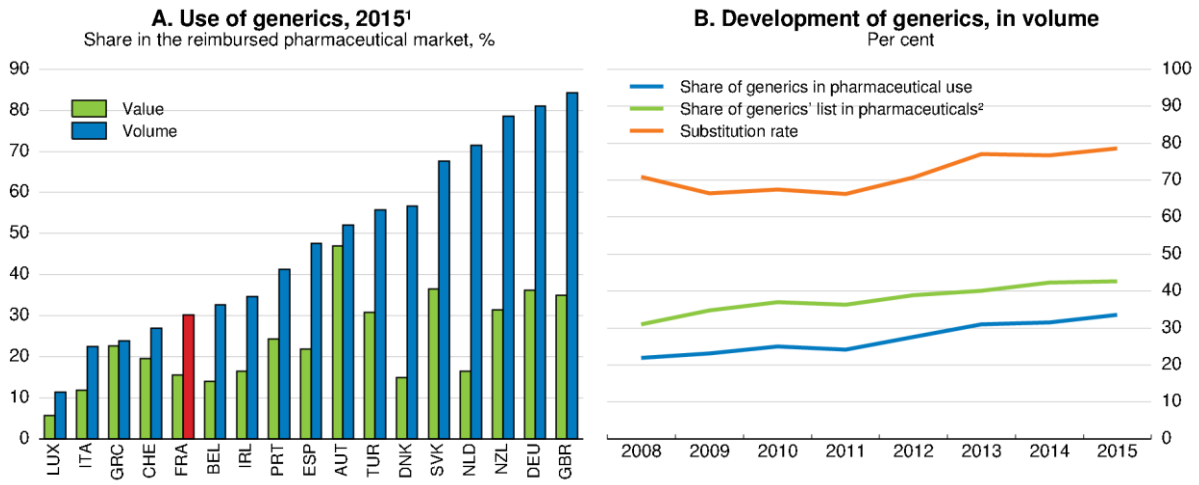
French statutory reimbursement rates, and the retail prices of reimbursable pharmaceuticals are linked to their medical efficiency. More specifically, the reimbursement rate depends on the effectiveness of the drug and the severity of the illness, and the price of the drug depends on its relative effectiveness compared to other products already on the market. The Health Ministry authorises the reimbursement of drugs based on the advice of the National Health Authority (HAS). The HAS uses both the estimates of mandatory cost-effectiveness tests and its assessment of medical improvements to make its recommendations. Before the final reimbursement decision, the CEPS (Comité économique des produits de santé) negotiates prices based in particular on the HAS evaluation. The CEPS also takes into account the market situation (target population size and data available regarding the international market). Moreover, the association of statutory insurance plans (UNCAM) sets reimbursement rates using the HAS evaluation, which takes account of the severity of the cured conditions. The regulatory framework includes mandatory drug re-evaluation by the HAS every five years, which can in some cases lead to the termination of reimbursement. At the same time, frequent re-evaluation of the effects of most individual drugs and their alternatives helps improve the setting of reimbursements.

Strengthening the link between drug evaluations and their reimbursement and retail prices would limit inefficient uses. The statutory reimbursement rates could be more tightly linked to the outcomes of the cost-effectiveness tests. Low-effectiveness drugs have an average reimbursement rate of 38%, well

above the recommended reimbursement rate of 15% (Polton, 2015). In addition, homeopathic items benefit from a 30% reimbursement rate, despite weak evidence of their effectiveness (OECD, 2011b). Moreover, some innovative costly drugs that are sold through hospitals (*liste en sus*) are not automatically re-evaluated.

Developing the use of generics would cut costs further (**Figure 19, Panel A**). The French authorities have defined the drugs for which generics may substitute based on the generic drugs directory, which is more restrictive than in other countries as clusters are based on products with the same active ingredient, the same dosage and the same method of administration, rather than the active ingredient alone for example (Caby and Zafar, 2017). Generics are available only if they are registered in the directory (the share of authorised generics classes among prescribed drugs reached only 43% in volume terms in 2015), while other OECD countries – such as Germany – have allowed a broader use of generics by defining different clusters not only for products having the same active ingredients but also for products that have comparable therapeutic effects. As a result, the overall share of generics in pharmaceutical use in France remained around one third in 2015, despite a substitution rate close to 80% within authorised classes of drugs (**Panel B**). Adopting a broader list of drugs for which generics may substitute and, more generally, allowing greater use of generics, would be helpful (Cour des comptes, 2014c). Indeed, the authorities plan a limited expansion of the list of drugs that generics may substitute (ministère des Affaires sociales, de la Santé et des Droits des femmes, 2015).

Figure 19. Consumption of generics



1. Or latest available year. Share in the reimbursed pharmaceutical market.
2. Share of sold pharmaceuticals that are associated with a potential generic substitute.

Source: OECD (2017), OECD *Health Statistics Database*; Comité économique des produits de santé (2015 and 2016), *Rapport d'Activité du CEPS 2014/2015* and *Rapport d'Activité du CEPS 2015*.

As in many OECD countries, the French authorities tend to regulate the price of generics at market entry by reference to the price of the patented product and fixed discount rates. Tendering for new generics could allow more downward price pressure to be exerted. Generics manufacturers would bid on the price of a given pharmaceutical, and pharmacies would have no choice but to stock the product of the winning manufacturer. These competitive processes have been used in New Zealand, the Netherlands and Germany with some success.

Increasing the share of generics would require further reforms in primary care. Pharmacists have been the main force for the promotion of generics since 1999 (Autorité de la concurrence, 2013). They are free to propose generic substitutions that are in the authorised list, and regulations ensure them the

same margins (in absolute value) for generics and their alternatives, despite the lower retail prices. In addition, they may charge back significant resale costs to wholesalers that cannot exceed 40% of sales prices for generics compared to 2.5% for other pharmaceuticals. This creates risks of collusion between pharmacists and wholesalers and price-fixing agreements (DGCCRF, 2016). The CNAMTS has also paid bonuses to pharmacists for high shares of generics use on some pharmaceuticals since 2012 in the form of add-on payments. As a result, the incentive mechanisms for generics are costly (Cour des comptes, 2014c).

Reforming pharmacists' payments would be beneficial to the development of generics and encourage quality improvements in their services. Re-balancing part of the current support for generics towards more payments to pharmacists for care-services such as counselling, co-ordination between care providers, patient monitoring and coaching, would reduce the dependence of their income on pharmaceutical sales and would reward their counselling function. This could be associated with further expansion of their public health-care missions, notably for following up patients with chronic diseases, as foreseen in a 2009 law (Loi hôpital, patients, santé, territoires), which remains to be fully applied.

Strengthening GPs' incentives to prescribe generics would also help. The CNAMTS introduced such incentives through their pay-for-performance scheme in 2009 and enhanced them somewhat in 2012. However, information on generics and less costly pharmaceutical alternatives should be developed further, notably by targeting providers through promoting planned clinical guidelines (ministère des Affaires sociales, de la Santé et des Droits des femmes, 2015). In addition, developing prescriptions using International Non-proprietary Names (INNs), which were rare in 2013 (Cour des comptes, 2014c) but became mandatory in 2015, is also expected to ease generics use (Belloni et al., 2016).

A reform aimed at creating greater incentives for patients to use generics and biosimilars could lower pharmaceutical spending. Since 2003 capped reimbursement amounts (TFR or *tarif forfaitaire de responsabilité*) apply to all pharmaceuticals in the equivalence group of generics that do not achieve a substitution rate of over 80% after 30 years in the generics' market: patients have to pay the difference between the TFR (near the cheapest generic price) and the price of non-generic or more costly generic alternatives. In practice, laboratories align their prices with the TFR so that there is no surcharge for patients (Caby and Zafar, 2017). In addition, since 2010 patients have had to pay in advance for their drugs and get reimbursed later when they refuse a generic substitution. These are steps in the right direction. However, TFR was applied only to 16% of generics in 2015 (Drees, 2016c). They should be applied much more widely.

More generally, stepping up information provision and targeting incentives for care providers could lower potentially inappropriate prescribing and excessive antibiotic use. France's prescription rate is one of the targets of add-on payments to physicians who can compare themselves to regional averages (CNAMTS, 2016b). Moreover, the 2016 antibiotics strategy aimed at reducing resistance to antibiotics foresees additional information campaigns, training of health-care professionals and higher spending on research and monitoring (CIS, 2016). However, this feedback to physicians and information campaigns could be better focused, as practitioners and patients are broadly targeted. Indeed, in the case of the United Kingdom, feedback practices focusing on physicians with the highest prescribing rates for antibiotics were effective in reducing their use, while patient-focused information campaigns had limited effects (OECD, 2017b).

Beyond primary care, significant efforts have to be made to improve the use of pharmaceuticals in hospitals. Hospitals represent around a quarter of overall pharmaceutical sales in France, and the share of generics use there was only 2.3% in value in 2013 (ANSM, 2014). This low share is partly explained by different patient pathologies and hospitals' heavier and more innovative treatments (OECD, 2015b), but producers also often sell branded drugs at discounted prices to gain a wider market (Dahan, 2016).

Indeed, hospital prescriptions tend to have broader implications as patients tend to have similar treatments after their stay (Cubaynes et al., 2011). The authorities' plans to increase co-ordination of prescriptions between hospital and outpatient care and to better integrate spillovers to outpatient care in hospital procurement decisions are welcome (ministère des Affaires sociales, de la Santé et des Droits des femmes, 2015).

Strengthening the independence of care providers from the pharmaceutical industry would also help. Declarations of conflict of interests are insufficiently monitored and updated, and the funding of research activities, lifelong training and other relationships by industrial firms should be clearly identified (Cour des comptes, 2016e). For example, the group of Parisian hospitals (AP-HP) created an independent agency to fund its joint research activities with industry, and this initiative could be generalised. The ongoing development of joint public hospital procurement is likely to limit potential conflicts of interest for hospital doctors and other providers and institutions, but there should be greater recognition of expertise in medical products and public procurement in medical researchers' careers and compensation.

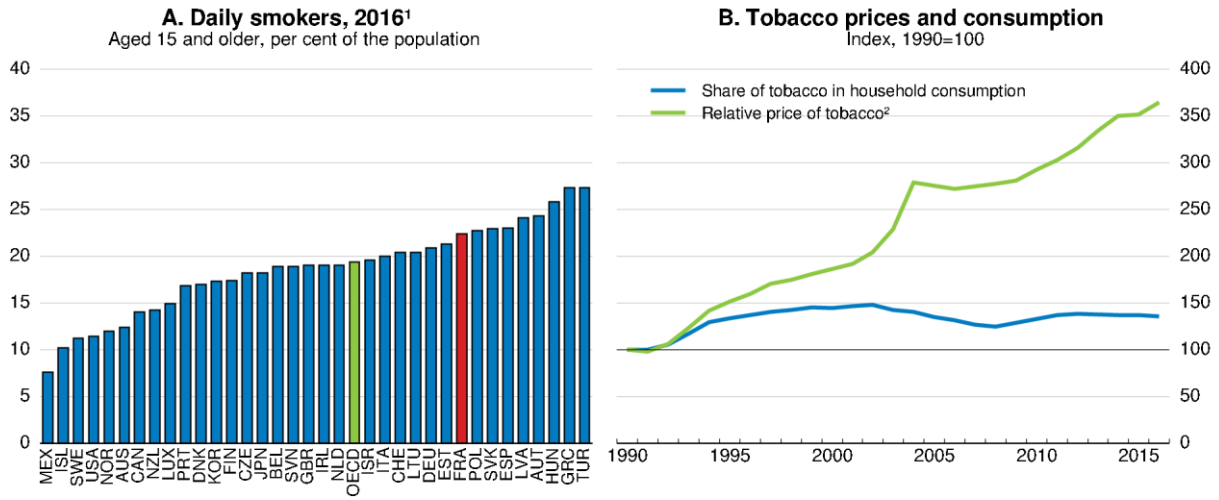
Investing in prevention and adopting healthier lifestyles

France suffers from a high rate of premature male deaths from accidents and of unhealthy habits such as smoking and harmful alcohol consumption, which are the most common causes of avoidable mortality. Tackling excessive drinking and tobacco consumption would also improve health outcomes and allow significant long-term savings on health expenditures and could help reduce social disparities. Indeed, alcohol and tobacco use and obesity are more frequent among the lowest-income households. Nevertheless, new methods specifically targeted at this population are required, given that they are the most difficult to reach through traditional prevention campaigns. However, addressing long-term unemployment and social mobility issues are also key determinants of longer-term health outcomes (Persson and Rossin-Slater, 2016). At the same time, improving environmental outcomes and reducing occupational risks would have significant benefits.

Improving prevention and addressing risky behaviour

The prevention of tobacco and alcohol addiction, as well as the prevention of obesity in young people, are among the commitments that are agreed between physicians' associations and health insurers. The percentage of the population that smokes daily in France remains well above the OECD average, notably for women (**Figure 20, Panel A**). Daily smoking remains widespread among youth (Spilka et al., 2015), and tobacco consumption causes some 78 000 deaths per year (Ribassin-Majed and Hill, 2015). The authorities have elaborated several plans to confront this problem, in particular by regularly raising tobacco taxes (**Panel B**); the new government intends to pursue this measure by gradually raising the price of a packet of cigarettes to 10 euros. In addition, the 2014 national programme and the 2016 Health Law stepped up information campaigns and prevention, notably for youth, enforced public smoking bans, and made plain packaging mandatory. However, these measures could be usefully complemented by taking into account the follow-up of tobacco-dependent patients in GPs' remuneration and developing e-coaching strategies (CNAMTS, 2016a).

Figure 20. Tobacco consumption

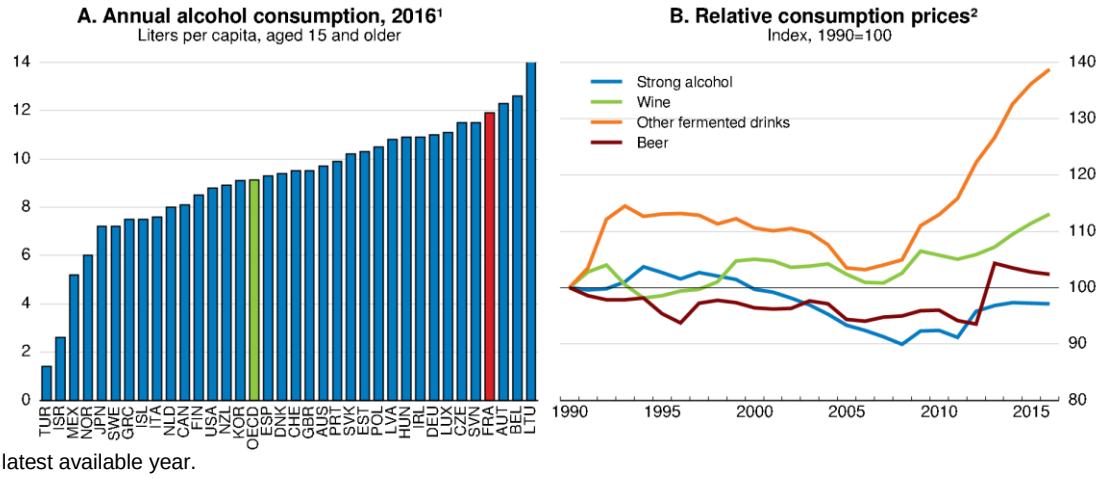


1. Or latest available year.
2. Changes relative to the overall Consumer Price Index (CPI).

Source: OECD (2017), *OECD Health Statistics Database*; INSEE (2017), Macroeconomic database.

Alcohol consumption has declined over the past 30 years in France but remains among the highest in the OECD (**Figure 21, Panel A**). It causes about 49 000 deaths per year in France (Guérin et al., 2013) and involves a large number of avoidable hospital admissions (Paille and Reynaud, 2015) and heavy external costs imposed by drinkers on others, such as traffic fatalities and higher domestic violence. The government has adopted a wide range of measures to restrict the promotion of alcoholic beverages and on- and off-premise sales of alcoholic beverages (e.g. to minors and in petrol stations). However, compared to other OECD countries, France maintains lower levels of tax on alcohol, particularly on wine (OECD, 2015c). It is also noteworthy that taxation has been independent of the degree of alcohol since 1990 (**Panel B**). Beyond higher taxation, more effective bans on alcohol advertising could decrease total alcohol consumption, with likely larger effects for heavy drinkers (OECD, 2015c). Banning advertisements on digital media, strengthening prevention and monitoring of vulnerable populations, beefing up sanctions against illegal sales and developing technologies preventing drunk driving would significantly lower the social costs of alcohol consumption (Cour des comptes, 2016f).

Figure 21. Alcohol consumption and prices

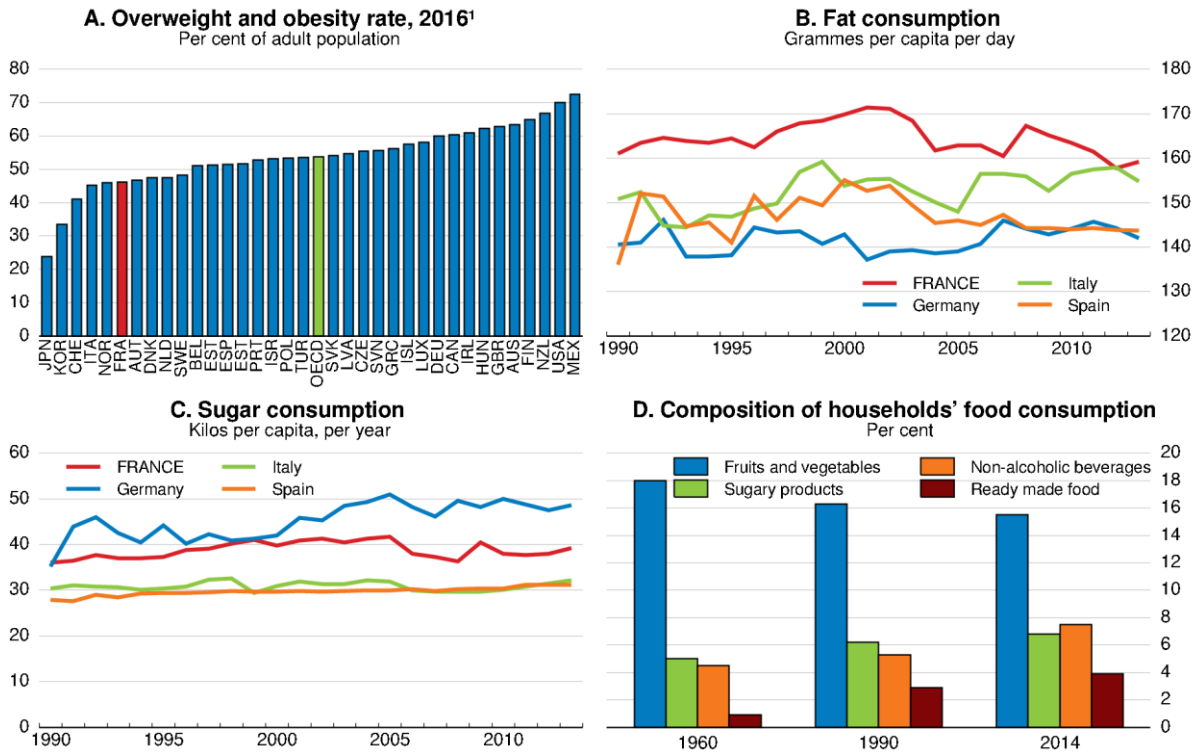


1. Or latest available year.
2. Changes relative to the overall Consumer Price Index (CPI).

Source: OECD (2017), *OECD Health Statistics Database*; INSEE (2017), Macro-economic database.

The social costs of the overweight population are also high. France's overweight and obesity rates have been increasing rapidly (OECD, 2014b), though they remain among the lowest in the OECD (**Figure 22, Panel A**). The annual social costs of the overweight population are roughly comparable to those from tobacco and alcohol consumption (Caby, 2016). Sugar consumption per inhabitant has increased over the past 20 years, as household consumption shifted towards sugary products and ready-made food, though fat consumption has been overall stable at a high level (**Panels B to D**). Raising the prices of sugary products with judicious tax levies could promote healthier diets, as the consumption of such sugary products appears to have had a high price elasticity in France over the past 50 years (Larochette and Sanchez-Gonzalez, 2015; Sassi et al., 2013). The French tax on sugary and artificially sweetened beverages introduced in 2012 could be fine-tuned and expanded to other products. Indeed, it is based on the value of selected products rather than their sugar content, which may limit its pass-through to consumers and efficiency (Bonnet and Réquillart, 2013; Berardi et al., 2016). Integrating this approach with the national programme to promote healthy eating (PNNS or Programme national nutrition santé) and the 2017 voluntary health-based labelling of food would raise consumer awareness. Moreover, the treatment of children aged 3-8 at risk of obesity will be trialled in 2017-18.

Figure 22. Prevalence of overweight individuals and food diet



1. Or latest available year. The overweight and obesity rate is self-reported in some countries.

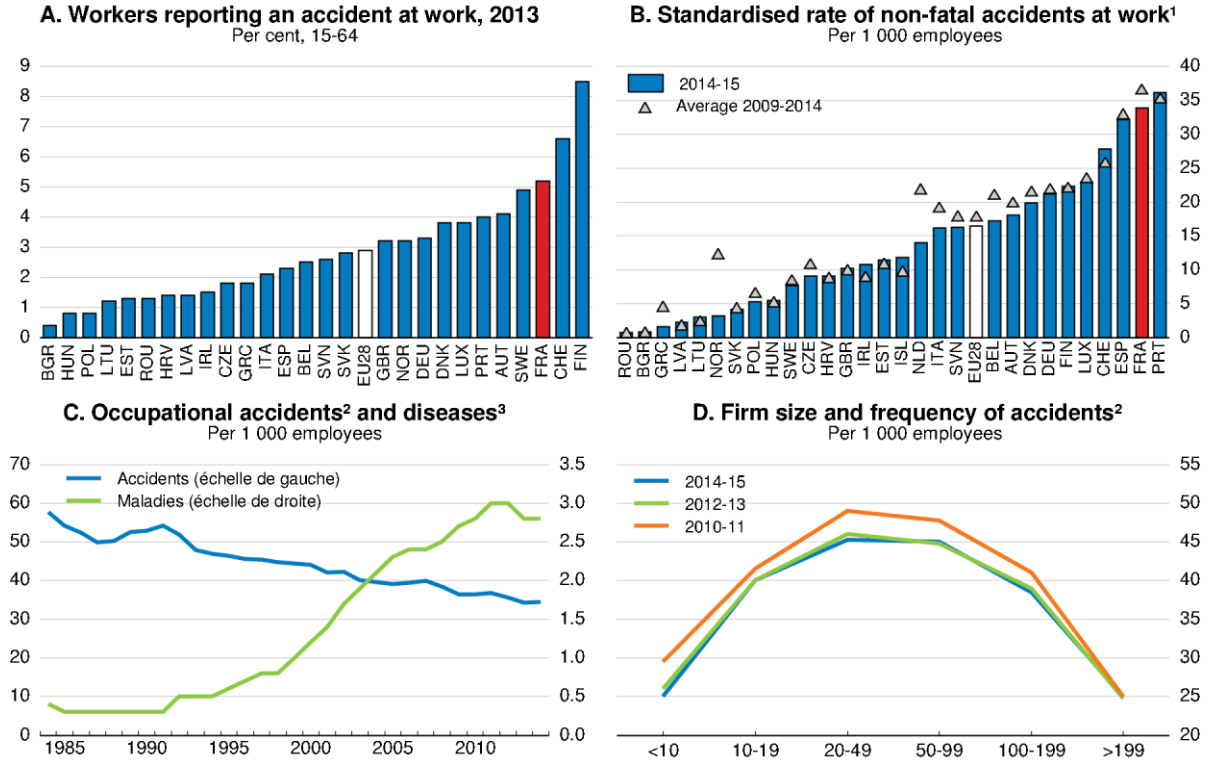
Source: OECD (2017), *OECD Health Statistics Database;* Larochette, B. and J. Sanchez-Gonzalez (2015), "Cinquante ans de consommation alimentaire : une croissance modérée, mais de profonds changements", *Insee Première*, No. 1568.

Reducing workplace risks

Compared with other European countries, declarations of accidents at work are relatively frequent, even after controlling for differences in industry structure (**Figure 23, Panels A and B**). However, accidents at work have decreased steadily (**Panel C**), albeit at a slower rate than in other European countries (Premier Ministre, 2011). At the same time, official data show that the prevalence of musculo-skeletal disorders and other occupational diseases has increased rapidly, even if underreporting remains

common (Drees, 2015). Progress has been heterogeneous across firms, and the frequency of accidents remains high in many SMEs (**Panel D**).

Figure 23. Occupational risks



1. Declarations of accidents at work are corrected for industry structure. The standardised incidence rate assumes that the economic sectors in each country have the same relative size in terms of reference populations as the sectors at EU level.
2. Occupational accidents are accidents resulting in a missed day of work.
3. Data cover only employees affiliated with the main statutory occupational scheme and metropolitan France from 1984 to 1999, and all workers in the following years.

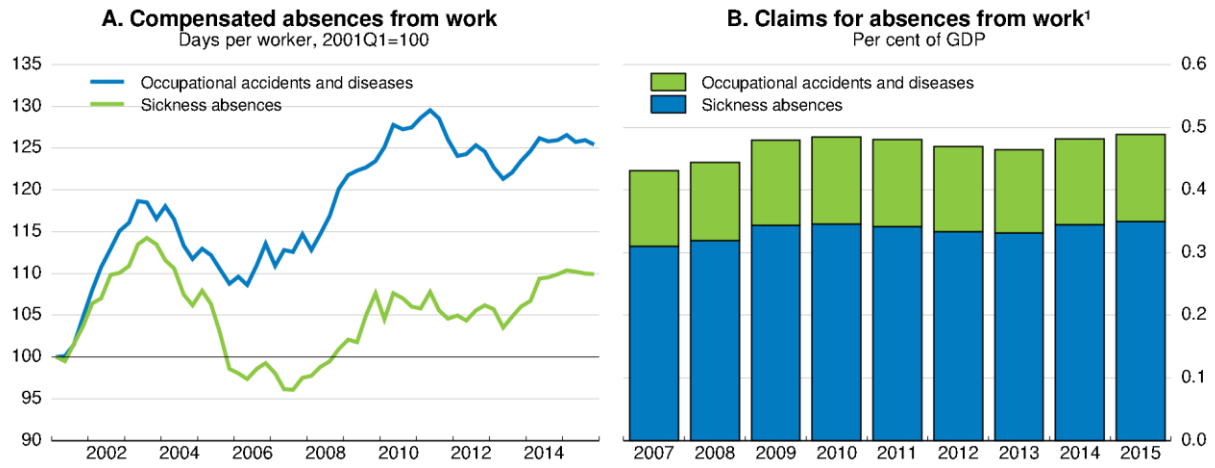
Source: Eurostat (2017), *Accidents at work and other work-related health problems*; Assurance-Maladie Risques Professionnels (2016), *Bases de données: principaux indicateurs AT, 2010 à 2015*, www.risquesprofessionnels.ameli.fr/.

Absenteeism due to occupational and health-related issues has increased. Days missed per worker for occupational accidents and diseases have risen by 25% over the last 15 years (**Figure 24, Panel A**), and indemnities for occupational risks as a share of GDP have increased by 15% since 2007 (**Panel B**). The under-reporting of occupational diseases and accidents (Sécurité sociale, 2014) probably reduces firm incentives for prevention. The CNAMTS has managed the main scheme for occupational risks (AT-MP), partly based on firm-level experience rating, and statutory insurance covering health-related absenteeism (IJ). Absenteeism due to injuries that are not clearly tied to a work accident may be billed under either scheme: around 20% of claims due to occupational accidents and diseases may be diverted towards health-related statutory insurance schemes (Askenazy, 2006; Cour des comptes, 2012). Indeed, the experience-rating part of the AT-MP scheme may also have negative side-effects, by discouraging reporting accidents and health issues and by reducing the employability of vulnerable populations, such as disabled and older workers.

Better targeting and monitoring of prevention programmes could lower occupational risks. This is the aim of the third national 2016-20 occupational health plan, which has made primary prevention a priority. Work accidents follow an inverted U-shaped relationship with firm size, with a downswing starting around

50 employees, even after controlling for the severity of accidents (Garoche, 2016). However, some subsidies for the prevention of risks are available only to SMEs with fewer than 50 employees (Cour des comptes, 2013), and firm-level committees on health, safety and working conditions conditions (CHSCT) are frequently lacking in firms with over 50 employees, even though they are mandatory (Breda, 2016). Small firms and local governments implement few preventive measures. In 2013 only 60% of employers had taken any measures over the last 12 months, and less than half of all firms had prepared the mandatory plans to identify occupational risks (Amira, 2016). Focusing prevention on SMEs as foreseen in the national 2016-20 occupational health plan is welcome. Indeed, the introduction of CHSCTs in SMEs is associated with better knowledge of health risks (Coutrot, 2009). The 2016 labour law could also help raise prevention. It has made it possible for time to be devoted to preventive action in the workplace by creating an information and prevention visit, and by allowing the increased involvement of multidisciplinary teams.

Figure 24. Sick days and days missed for occupational accidents and diseases



1. Claims on the statutory insurance regime (CNAMTS), excluding costs covered by other statutory schemes, notably for civil servants, agricultural and independent workers, and by complementary insurance plans.

Source: Drees (2016), *Les dépenses de santé en 2015 - Résultats des comptes de la santé*.

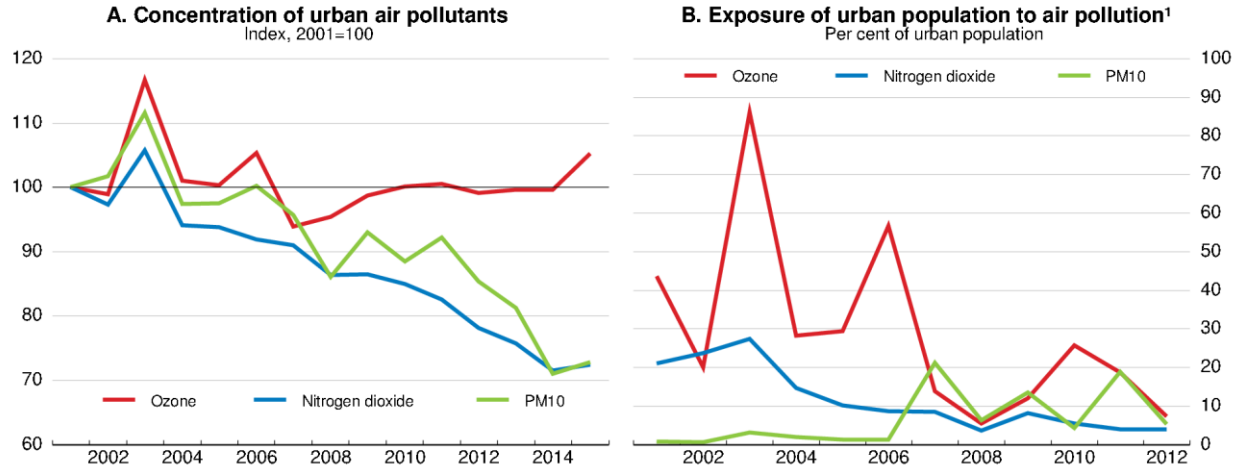
Reducing occupational risks and absenteeism in the public sector would also allow some budgetary savings. Public schemes covering occupational risks for public hospitals and central and local governments offer few incentives for prevention. At a minimum, convergence of rules towards the AT-MP scheme would have beneficial efficiency and equity effects, as that scheme already covers non-civil servants who work for health-care establishments and local governments. At the same time, human resources management could be stepped up in local governments, for which absenteeism is high, and many contracts have less statutory working time than the legal workweek, increasing the wage bill (Cour des comptes, 2016g). Improving management practices and reducing overstaffing and duplications in local governments could play a positive role. Indeed, public employees reporting having less autonomy or conflictual relationships at work are more frequently absent, even after controlling for age, occupation and education (Davie, 2015).

Ensuring healthy environmental conditions

France performs well in terms of overall environmental quality, though air pollution peaks in some cities have negative health effects. Atmospheric small particle (PM10) pollution is considerably lower than the OECD average and has fallen steadily (**Figure 25, Panel A**; OECD, 2016e), though levels are much higher in some cities. Ground-level ozone concentrations have risen and are regularly above recommended health thresholds in some cities during warm periods (**Panel B**), which could boost the

incidence of respiratory diseases. Recent estimates suggest that local air pollution peaks could cause around 48 000 deaths per year in France (9% of overall deaths) and reduce life expectancy at age 30 by more than two years (Santé publique France, 2016). Road transport is a major contributor to these trends: raising the tax burden on diesel fuel, a major source of PM10 pollution, as planned, would be appropriate.

Figure 25. Urban air pollution



1. Air pollution is defined as a concentration of a given chemical above European regulatory thresholds (daily PM10 concentrations exceeding 50 µg/m^3 for more than 35 days a year, daily 8 hour mean O_3 concentrations exceeding 120 µg/m^3 for more than 25 days a year, and annual average NO_2 concentrations above 40 µg/m^3).

Source: Commissariat Général au Développement Durable (2017), *Chiffres clés de l'environnement Édition 2016*; European Energy Agency (2014), *Percentage of urban population resident in areas where pollutant concentrations are higher than selected limit/target values, 2000-12 (EU-28).*

Better integrating local and national air-quality policies would help reduce local air pollution. The European Commission (2013b and 2017) has opened proceedings against France for its alleged failure to reduce local concentrations of PM10 and nitrogen dioxide. Regional governments, large cities and metropolitan areas have had to develop air-quality plans since 1996. Though such plans authorise central government to limit new installations of polluting activities, some have been mostly indicative (OECD, 2016e). The preparation of strategic sub-national documents is not fully co-ordinated, and there have been few evaluations of local measures and their fiscal impacts (Cour des comptes, 2016h). The former government proposed a draft strategy for 2016-20, notably including an increase in taxes on diesel, additional support and monitoring of local governments, annual progress reports and further impact evaluations. These measures should all be rapidly implemented. At the same time, the taxation of diesel and other heavily polluting vehicles that benefit from subsidies and tax rebates, such as taxis, public transport vehicles and some heavy-weight vehicles, should increase further in line with their environmental and health damages.

France is also one of the world's heaviest users of pesticides, which pose significant potential risks to health, the environment, biodiversity and ecosystems. Pesticide use increased by 29% in France from 2008 to 2014 (OECD, 2016e), and many farmers suffer from associated long-term diseases. While additional studies are needed to distinguish the effects of different pollutants (ANSES, 2016; Cour des comptes, 2016h), policy needs to encourage a transition to greener agriculture. The 2014 elimination of the reduced VAT rate on fertilisers and pesticides is welcome, and integrating air- and water-quality effects in the procedures to authorise new fertilisers would also be useful (Husson and Aïchi, 2015). These effects should also be reflected in the existing taxation of phytosanitary products and the levy on diffuse pollution. It is encouraging that organic farming has increased by over 60% over the past five years (Eurostat, 2016).

Recommendations for improving the efficiency of the health-care system

Improving the funding of health spending

- Evaluate more frequently the effectiveness of pharmaceuticals and treatments and associated tariffs. As planned, strengthen the link between evaluation outcomes and reimbursement rates. Promote monitoring and analysis of health-care quality.

- Remove corporate and personal income tax breaks for joining collective complementary insurance plans, taking account of their impact on the cost of labour. Instead, ease access to health care for low-income households by using administrative data to determine their eligibility for different programmes offering aid for complementary health plans. Continue the convergence of the different statutory schemes so as to ultimately move to a single scheme.

- Reconsider the separation of goods and services covered by the statutory insurance and complementary insurance plans, respectively. By ensuring that the scope of the health- care covered by complementary schemes is not too targeted, in order to avoid adverse selection.

Promote the appropriateness of care and cost containment

- Increase health practitioners' remuneration for prevention and complex chronic diseases, which would help reduce the volume of treatments, prescriptions and drug sales.

- Strengthen co-ordination among health professionals by developing electronic health records.

- Make it easier for insurers to contract with group practices in order to improve staffing in underserved areas.

- Increase opportunities for joint initial and lifelong training of health professionals in particular through the development of a common complementary training platform to improve co-ordination between health-care professionals. Enhance the role of nurses and pharmacists as practitioners. Consider a wider reform of regulated health professions by defining their activities in terms of general objectives.

- Adjust the activity-based system for hospital funding (Diagnosis Related Groups) to increase rewards for efficiency and quality in public and private hospitals.

- Strengthen the autonomy of public hospital managers, by increasing their independence from local governments and allowing them to develop their own human resource policies, subject to regional supervision.

- Lower pharmaceutical spending by increasing the use of generics, developing targeted information for hospitals and primary-care providers to promote appropriate prescribing and applying capped reimbursement amounts to a wider range of drugs.

Invest in prevention, healthier lifestyles and environmental protection

- Increase excise taxes on alcohol and information campaigns targeted at drinkers. Reform the excise tax on soft drinks to reflect their sugar content, and extend it to other food products.

- Continue to increase taxation on diesel fuel and heavy polluting vehicles. Integrate assessment of air- and water- quality impacts in the authorisation process for agricultural inputs.

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