



OECD Reviews of Health Systems

COSTA RICA

ASSESSMENT AND RECOMMENDATIONS

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OECD REVIEWS OF HEALTH SYTEMS: COSTA RICA

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Foreword

There is much to praise in Costa Rica's health care system: institutional stability around financing and planning; a closely integrated but well-differentiated provider arm, with strong primary care at its base; an impressive degree of inter-sectoral coordination at national level and, at local level, effective dialogue between users and health service managers to drive service improvement. Innovation around professional roles and ambitious use of electronic health records are also achievements that other health systems could learn from. All this leads to health outcomes on a par with several OECD economies: life expectancy is 79.9 years, compared to 80.6 OECD average, and less than 1% of the population report failing to seek care because of financial reasons.

Serious strains are nevertheless evident. Spending is on a steep upward trajectory, fuelled by salaries as well as facility payments based on last year's outlay. This increase in spending is not always associated with improvement in services: some key performance indicators, such as door-to-needle times for patients who have suffered a heart attack, are worsening. The system is perhaps *too* stable: institutional rigidity and vested interests have stalled vital reforms, meaning that Costa Rica still lacks systematic application of DRGs and health technology assessment, despite attempts to introduce these reforms. This Review sets out recommendations and examples of international best practice to strengthen performance of Costa Rica's health care system.

This Review was prepared by the OECD Secretariat to support the OECD Health Committee's evaluation of Costa Rica's health care system, which is currently being undertaken as part of the process for Costa Rica's accession to the OECD (see the Roadmap for the Accession of Costa Rica to the OECD Convention [C(2015)93/FINAL]). In accordance with paragraph 14 of the Roadmap, the Health Committee agreed to declassify the Review in its current version and publish it in order to allow a wider audience to become acquainted with the issues raised in the Review. Publication of this document and the analysis and recommendations contained therein, does not prejudice in any way the results of the ongoing review of Costa Rica as part of its process of accession to the OECD.

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The review team is especially thankful to Minister Dr. Fernando Llorca Castro and Vice-Ministers Dra. María Esther Anchía Angulo and Dra. Virginia Murillo Murillo at the Ministry of Health; to Dra. María del Rocío Sáenz Madrigal, Executive President of the Caja Costarricense de Seguro Social; to Lic. Elian Villegas Valverde, Executive President of the Instituto Nacional de Seguros; and their officials, especially María del Rocío Peinador Roldán and Adriana Salazar González, for their support for this Review and their help with setting up the visit of OECD officials to Costa Rica. This Review has benefitted from the comments of Costa Rican authorities and experts who reviewed earlier drafts.

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Abbreviations

CAIS	Centres for Integrated Health Care (<i>Centros de Atención Integral en Salud</i>)
CCSS	Costa Rican Social Security Institute (<i>Caja Costaricense de Seguridad Social</i>)
COESAINCO	Commission for liaison between health, industry and commerce (<i>Comisión de Enlace Salud, Industria y Comercio</i>)
CONAPAM	National Council for Older People (<i>Consejo Nacional de la Persona Adulta Mayor</i>)
DRG	Diagnosis-related group
EBAIS	Integrated health care basic teams (<i>Equipos Básicos de Atención Integral en Salud</i>)
EDUS	Unified digital health record (<i>Expediente Digital Único en Salud</i>)
FFS	Fee for service
LAC	Latin America and the Caribbean
NCD	Non-communicable disease
OOP	Out-of-pocket
P4P	Pay for performance
PCIC	Person-centred, integrated care
SHA	OECD System of Health Accounts
UNDP	United Nations Development Programme

Executive summary and policy recommendations

Costa Rica's health care system is widely regarded as a success story. Its single-payer national health service was created in 1941 and has demonstrated considerable institutional stability since then. Costa Ricans have near universal access to a full range of health care services (including the most technologically complex, such as heart and lung transplants) and enjoy effective protection from catastrophic health expenditure. Life expectancy exceeds that in many OECD countries.

But spending is on a steep upward trajectory, rising by around 7% per year in nominal terms, almost double general inflation, between 2011 and 2015. National health expenditure currently accounts for 9.3% GDP (remarkably, for a middle-income country, above the OECD average). This is mainly driven by strong increases in medical salaries, which have increased by 6% per year over the past ten years, much faster than productivity growth in the sector. Cost-containment mechanisms are poor, with little evidence that increased spending is benefitting patients. Frustrated by waiting times of a year or more for procedures such as children's surgery, people are increasingly paying out-of-pocket for care in the private sector, creating the risk of two-tier system.

Reforms that would have tackled some of these challenges, such as results-based payment systems, hospital accreditation programmes or the DRG-accounting system in hospitals, have been attempted but later dropped. Sustainable policy making at times, therefore, appears to be a challenge in Costa Rica's health system. This is likely to be related to the governance arrangements that are in place: no clear mandate is set for the institution that arranges health care insurance and provides health care services, the *Caja Costaricense de Seguridad Social* (CCSS), and no effective mechanisms for regularly and independently auditing CCSS performance are in place. One priority, therefore, is to consider how the role of Ministry of Health in determining the strategic priorities of the CCSS could be strengthened within the current legal framework that underpins the health care system, whilst maintaining the constitutional independence of the CCSS.

Another fundamental reform concerns the funding of the health system. The CCSS is heavily reliant on employment-linked contributions for revenue, but these have come under pressure as an increasing share of

workers is in the informal sector and the population is ageing. Today, only 53% of the population are formal contributors to the CCSS, compared to 70% ten years ago. Over the mid to longer term, then, reduced reliance on employment-linked contributions and a shift to a greater share of revenue from the general government budget must be achieved. More immediately, robust expenditure ceilings and regular spending reviews will also help ensure sustainability.

As these structural issues are tackled, a number of operational weaknesses should also be addressed in order to ensure equitable, sustainable and high-performing health care system for current and future generations. Priority areas for action include:

- Reinstating performance management processes for hospitals, through benchmarking of quality and outcomes, to complement the performance management framework that has been developed for primary care;
- Reinstating a DRG system in hospitals, in order to better understand spending patterns and drivers of inflation within the health system;
- Systematising cost-effectiveness analysis of new (and, where appropriate, existing) services, allowing a benefits package to be defined for secondary and tertiary care to complement that which already exists in primary care;
- Expanding supply of the health care workforce, by giving the CCSS greater flexibility in how and where it employs clinicians (for example, by allowing less than full-time substantive contracts), and encouraging the further development of advanced roles for nurses, pharmacists and technicians.

To extract the most out of these reforms, effective use of health system data will be critical. Costa Rica is making good progress in building its health system data infrastructure, but data on needs and activities are not yet adequately linked to the costs and outcomes of care. Making such links, for key patient groups at facility level, will allow resource allocation to be increasingly based on performance and value, rather than historical spending patterns. Health system performance will also be enhanced by fuller participation in the international benchmarking initiatives, such as the OECD's *System of Health Accounts* and *Health Care Quality Indicators*.

Policy recommendations

Costa Rica, broadly, has a sound infrastructure in place to deliver good health care for all its citizens. In order to ensure equitable, sustainable and high-performing health care system for current and future generations, however, substantial reforms are needed. Priority areas for action are:

Reformed governance of the health care system, by:

- Considering how the role of Ministry of Health in determining the strategic priorities of the CCSS could be strengthened whilst maintaining the constitutional independence of the CCSS, for example by better prioritising public service obligations and agreed performance targets;
- Holding the CCSS to account for delivery, by requiring public reports of progress against its mandate through annual performance reports, independent audits and other mechanisms of public scrutiny. Richer performance data focused on patient outcomes should be a priority;
- Deepening Costa Rica's participation in the international benchmarking of health system performance, through fuller submissions to the OECD's *System of Health Accounts*, *Health Care Quality Indicators* and other initiatives.

Improved accessibility and quality, by:

- Expanding supply of the health care workforce, by giving the CCSS greater flexibility in how and where it employs clinicians (for example, by allowing less than full-time substantive contracts). Some regulation of dual practice is also appropriate;
- Encouraging the further development of advanced roles for nurses, pharmacists and technicians, to undertake tasks traditionally performed by doctors;
- Allowing patients choice of provider, including private-sector providers (paid for publicly), where appropriate;
- Reinstating accreditation and performance management processes for hospitals, through benchmarking of quality and outcomes, rather than one-off assessments of compliance with minimum standards;
- Developing a specialist primary care workforce.

Strengthened efficiency and financial sustainability, by:

- Better understanding spending patterns and drivers of inflation within the health system. Reintroduction of a DRG-accounting system in hospitals is a particular priority;
- Reducing reliance on employment-linked contributions and increasingly funding health care from the general government budget, as part of a broader review of future funding options;
- Blocking further pay increases for CCSS employees (beyond those permitted by labour law, such as inflation-linked increments), unless they can be clearly linked to increased productivity and value;
- Systematising cost-effectiveness analysis of new (and, where appropriate, existing) services, allowing a benefits package to be defined for secondary and tertiary care;
- Better linking funding for primary and secondary care providers to local health care needs and facility performance, rather than historical outlays.

1. Structure and governance of Costa Rica's health care system

This section describes the economic and social context within which the Costa Rican health system operates, as well as the major health care needs that the system must address. It also considers the governance framework and institutions that regulate and provide health care, and finds that central government should be equipped with stronger mechanisms to oversee and steer health care delivery.

1.1. Costa Rica's stable political economy has enabled steady social and environmental progress

Costa Rica has enjoyed political stability for decades, allowing the country to make steady social and economic progress. Since the end of the civil war in 1948, the military was abolished and stronger focus was given to investment in education, population health, and culture. At the same time, sustained and ambitious policies around environmental protection and biodiversity have led to major gains in conservation: Costa Rica has managed to substantially reverse deforestation, the only tropical country in the world to have done so. Costa Rica generates about 90% of its electricity from renewable sources and has announced its ambition to achieve complete carbon neutrality by 2021 (OECD, 2016a).

*Costa Rica is a middle-ranking country in the UNDP's Human Development Index.*¹ It scores 0.766, placing it 69th out of 188 countries and territories and above the average for countries in the Latin America region (UNDP, 2015). Gross domestic product in Costa Rica grew on average 4.5% per year between 2000 and 2013, compared to 3.8% on average among LAC-countries. GDP per capita was estimated to be USD PPP 14 737 in 2015 (using current prices), below that of Mexico (USD PPP 18 077) and Turkey (USD PPP 19 916), but similar to Brazil (USD PPP 15 795) and China (USD PPP 13 884, data from OECD.Stat). Steady economic growth has allowed Costa Rica to have one of the lowest poverty rates in Latin America: 12% of the population lives on USD 4 per day (4.5% on USD 2.5), around one third of the LAC average. Total unemployment was 8.5% of the labour force in 2014, slightly higher than the OECD average of 7.3% in 2014. Unemployment rates have, however, increased from 6.6% in 2005,

with joblessness particularly affecting younger generations, women, the poor and residents of rural areas (OECD, 2016a).

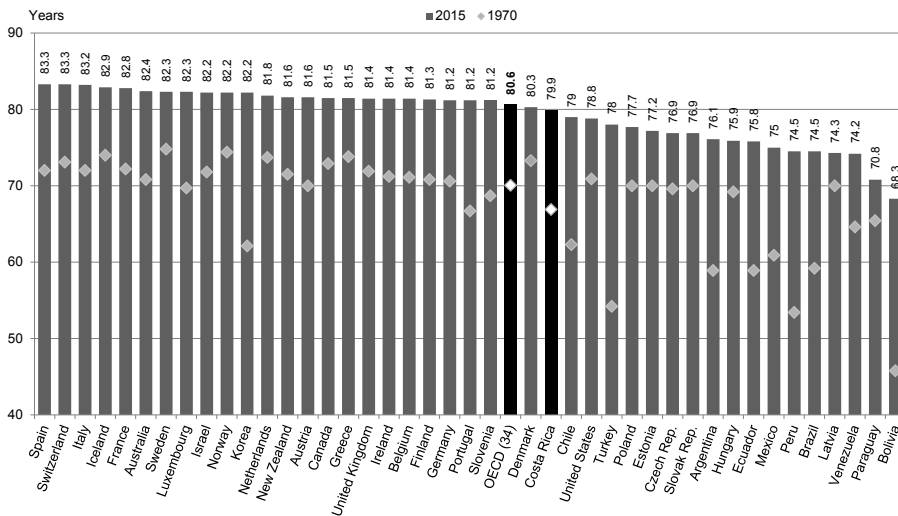
Large socio-economic inequalities persist, however, and are growing. Costa Rica's Gini coefficient² for income inequality now stands at 0.509 before taxes and transfers, and 0.487 after taxes and transfers (OECD, 2015a). On average across Latin America, income inequality was 9% lower in 2013 than in 2001, while in Costa Rica it was 9% higher (although baseline inequality in many Latin American countries was worse than in Costa Rica). Between 2010 and 2014, rising public sector salaries made the largest contribution to inequality – particularly salaries of qualified workers in public agencies outside central government, including the main provider of health services in Costa Rica, the CCSS. Wages in the CCSS are discussed further in Section 3.

1.2. The country's major health care needs stem from chronic diseases of lifestyle

Life expectancy at birth in Costa Rica is similar to the OECD average, having increased from 66.9 years in 1970 to 79.9 years in 2015 (OECD, 2016b). Longevity in Costa Rica is now higher than in many developed countries (Figure 1) and exceeds all comparable Latin American countries.

Figure 1. Life expectancy at birth in Costa Rica is comparable to the OECD average

Life expectancy at birth, among OECD and Latin American countries 1970 and 2015 (or nearest years)

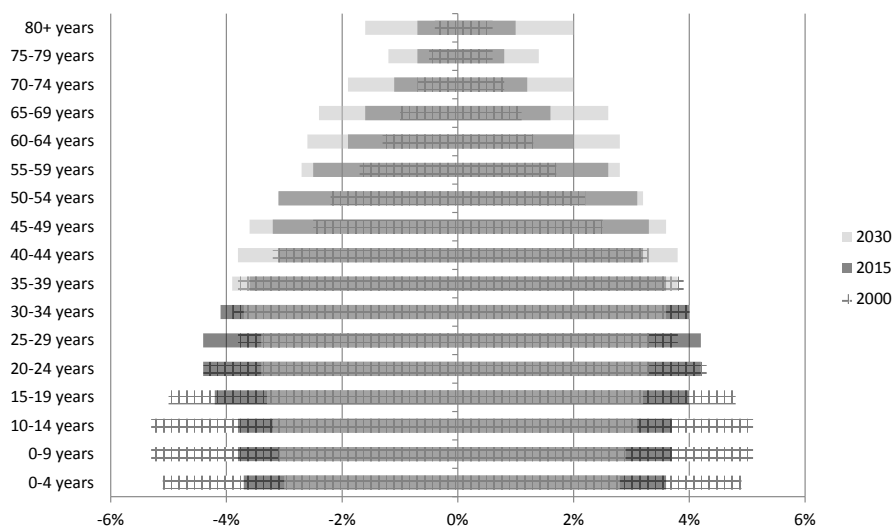


Source: OECD Health Statistics 2015, <http://dx.doi.org/10.1787/health-data-en>.

Population ageing is happening rapidly. In 2010, the population older than 65 years of age represented around 5% of the total population in Costa Rica. By 2050 this figure is expected to have increased four-fold to 21%. Demographic are thus happening more quickly than across the OECD (where the equivalent average figures are 15% in 2010 and 27% in 2050). Ageing, which is often associated with an increasing prevalence of multi-morbidities, therefore, will have an important impact on the health of the population in Costa Rica and put pressure on the health care system.

Figure 2. By 2050, one in five Costa Ricans will be aged over 65

Population pyramid in Costa Rica by sex and age for 2000, 2015 and projections 2030 (population, %)

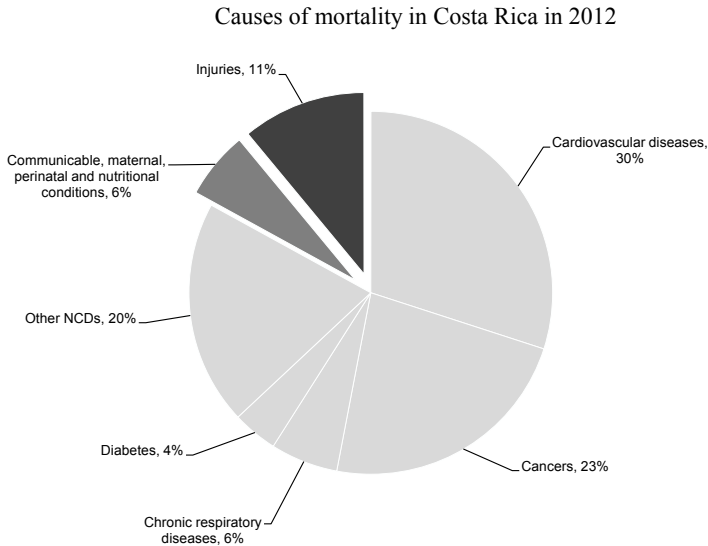


Source: United Nations Department on Economic and Social Affairs, Population Division, *World Population Prospects: The 2015 Revision*, <https://populationpyramid.net/costa-rica/2015/>.

Health care needs in Costa Rica, as in many OECD countries, increasingly stem from non-communicable disease (NCD) such as heart disease, cancer and diabetes. In 2012, 83% of all deaths in Costa Rica were due to NCD; cardiovascular diseases being the principal cause of death accounting for 30%, followed by cancers with 23% of all deaths (Figure 3) (WHO, 2014). In a 2010 survey, 38% adults had hypertension, 42% high cholesterol levels and 51% had low or no engagement in physical activity. Prevalence of obesity was 24.4% of the population in 2014, which is higher than the OECD average of 19% (OECD, 2016b). Furthermore, it was found that 60% of Costa Ricans between 20 to 44 years of age were either overweight or obese. On a more positive note, smoking rates in Costa Rica

are lower than the OECD average: 14.5% of the population 15 years and older smoked daily in 2012 (19.8% among men and 9.2% among women) against the OECD average of 19.7% in 2013 (24.2% among men and 15.5% among women).

Figure 3. Most health care needs in Costa Rica stem from complex, chronic conditions

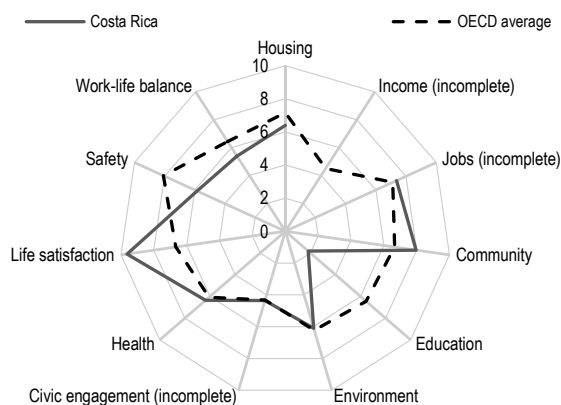


Source: WHO (2014), “Costa Rica”, http://www.who.int/nmh/countries/cr_en.pdf?ua=1.

Overall, Costa Rican’s rate their health above the average score in OECD countries: 6.4 (out of a normalised maximum score of 10) compared to 6.1 OECD average, on the OECD’s well-being indicators (Figure 4).

Figure 4. Costa Rica's health and well-being indicators are comparable with OECD average

OECD Better Life Index scores (preliminary and incomplete)



Note: Each well-being dimension is measured by one to four indicators taken from the OECD Better Life Index set. Normalised indicators are averaged with equal weights. Indicators are normalised to range between 10 (best) and 0 (worst) according to the following formula: $(\text{indicator value} - \text{minimum value}) / (\text{maximum value} - \text{minimum value}) \times 10$.

Source: *Source: OECD Economic Survey: Costa Rica 2016: Economic Assessment*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_surveys-cri-2016-en.

1.3. The health care system benefits from long-standing institutional stability

Health care insurance and health care services in Costa Rica are provided through a single publicly-funded, integrated purchaser-provider, the Caja Costarricense de Seguridad Social (CCSS). The CCSS was established in 1941, with the introduction of mandatory health insurance for city-dwelling, lower-income workers. Twenty years later, Congress established universal health insurance for all workers and their families. In the 1990s, insurance was extended to the uninsured, using transfers from the national budget. The CCSS is now the largest decentralised autonomous public entity in Costa Rica (and also administers state pensions). It provides universal health care insurance by combining social security schemes for four groups into a single national pool:

- Salaried workers and their families: around 60% of the pool (with the employee contributing 5.5% of income, employer 9.25% and state 0.25% via mandatory payroll deductions);

- Self-employed workers and their families (earning above a specified minimum wage, determined annually) and their families: around 25% of the pool (with the employee contributing between 3.45 and 10.69% of income, and the State an inverse proportion to reach a total 12.25% of income);
- Pensioners and any dependents: around 15% of the pool (with the pensioner contributing 5% of their pension, the pension fund 8.75% and state 0.25%);
- Fully Subsidised Beneficiaries (financing is the sole responsibility of the State and is based upon taxes levied on luxury goods, tobacco, liquor, imports and proceeds from the national lottery.)

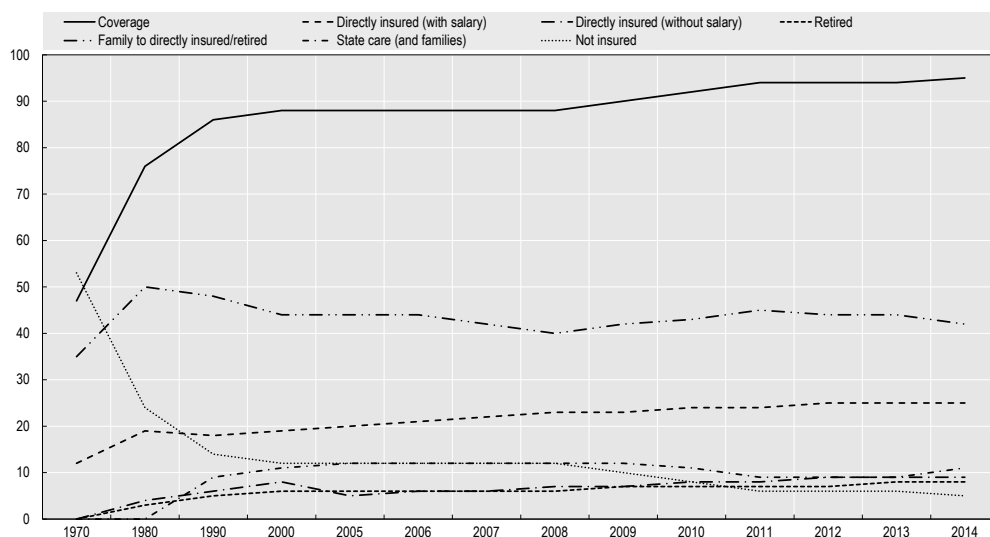
This revenue design is progressive: the poorest 20% (those earning less than 5% of national income) receive close to 30% of public spending on health care. No co-payments are charged for CCSS services.

Health care insurance reached 90% of the population by 2000. Thereafter, a period of stagnation occurred, until coverage began to expand once more in 2008, reaching 95% in 2014 (Figure 5) (CCSS, 2014). The about 5% that continue to lack registration with the CCSS includes some informal or temporary workers (particularly those from neighbouring nations); poor refugees that are not accepted as in charge of the State (and hence, only covered for medical services through the United Nations High Commissioner for Refugees); undocumented migrants; some indigenous groups without civil registration (lacking knowledge of their rights); and, poor individuals who should be fully subsidised but are not identified as such.

All inhabitants, even if uninsured have access to CCSS health care services in emergencies. Uninsured individuals can receive emergency room care at no cost. The uninsured individual is also entitled to further necessary health care (including hospitalisation and surgery), and will be billed for the care given. In non-urgent situations, payment in advance is required, or enrolment in one of the insurance modalities offered by CCSS, according to payment capacity.

Figure 5. Health care insurance covers close to 100% of Costa Rica's population

Health care coverage of the CCSS, 1970-2014

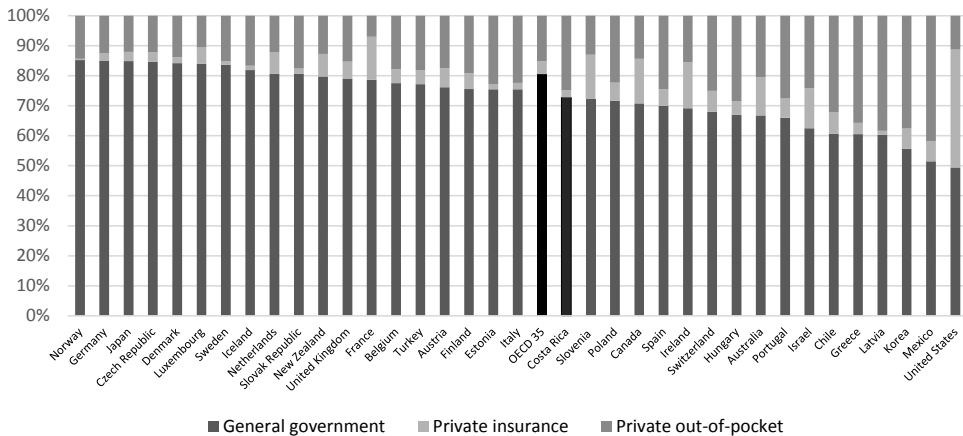


Source: Authors' elaboration based on Sáenz 2011 and CCSS *Costarricense del Seguro Social, Memoria Institucional 2002-2014*.

On some measures, access to services and financial protection appear good. In a 2006 survey, only 3% of the population reported unmet primary health care needs, of which 70% was because an appointment could not be made. Public funds accounted for 73% of total health spending in 2014, equal to the average among OECD countries (OECD, 2016; see Figure 6). Out-of-pocket (OOP) as a percentage of total health care spending was 24.9% in 2014, less than OECD countries in the region (32.8% in Chile, 40.8% in Mexico) – although above the average of 20.1% among OECD countries (OECD, 2016b). Failing to seek care for financial reasons was reported by only 0.8% in Costa Rica in a 2012 survey, as compared to 4.2% in Chile (Knaul, 2012). However, these high-level snapshots are liable to offer false reassurance, given that they hide worrying trends. This is explored in more detail in Section 2.

Figure 6. Health care in Costa Rica is largely financed through public funds

Expenditure on health by type of financing, 2015 (or nearest year)



1. The Netherlands report compulsory cost-sharing in health care insurance and in Exceptional Medical Expenses Act under social security rather than under private out-of-pocket, resulting in an underestimation of the out-of-pocket share.

2. Data refer to total health expenditure (= current health expenditure plus capital formation).

Source: OECD Health Statistics 2016, <http://dx.doi.org/10.1787/health-data-en>, Data for Costa Rica from Knaul (2012).

Box 1. Key features of the Costa Rican health system

The Ministry of Health (MoH) is the highest responsible authority within the health care sector in Costa Rica. Its role is to implement the strategic direction, regulate providers, enable epidemiological surveillance and steer the direction of research and technological development. The MoH is also responsible for funding some public health services alongside the *Caja Costarricense de Seguridad Social*, such as vaccination. The ministry also has offices at the regional and local level, in charge of epidemiological monitoring and outbreak control. Additional regulatory powers address policy around sports, nutrition, water quality, waste and other environmental matters.

The Caja Costarricense de Seguridad Social (CCSS) is the main insurer and provider for personal health services. An autonomous institution with its own authorising law, the CCSS was created in 1941. It independently organises the financing, purchasing and the provision of most health care services in Costa Rica. Its mission is to provide health and some social care services in an integral form to the individual, the family and the community, as well as financial protection from catastrophic expense.

Box 1. Key features of the Costa Rican health system (*cont.*)

The benefits package is not explicitly defined for secondary care. In primary care, there is a defined benefits package that specifies what should be offered at this level of care. There is also a national drugs list.

The CCSS's provider network is organised by three distinct levels of care (primary, secondary and tertiary). The CCSS has 55 000 employees, working across 29 hospitals, 103 health regions and 1 094 primary care units (called *Equipos Básicos de Atención Integral en Salud*, EBAIS). It provides 13.5 million consultations a year, of which just under 10% are secondary care consultations.

Patients do not have any choice of provider or insurer. Individuals are assigned to an EBAIS according to their address, and EBAIS are networked with defined secondary care facilities. Patients cannot access secondary care directly, but must be referred from primary care.

Provider payment systems are traditional, and are typically not need- or performance-adjusted. Both primary care facilities and hospitals receive a global budget, based on last year's outlay. Some adjustments can be made if additional services are offered, but the budget is not explicitly based on risk-adjusted capitation. Primary care workers are paid a basic salary, with adjustments for experience, availability and other factors, which may comprise up to 50% final earnings. Hospital-based clinicians also receive a basic salary, with additional fee-for-service elements as part of special programs to reduce waiting lists.

Private providers play an increasingly important role. A purchasing division within the CCSS was created in the mid-1990s, to allow contracting with independent providers. Now, around 15% primary care takes place within this model, paid for by the CCSS.

The *Instituto Nacional de Seguros* (INS – national insurance agency) is a specialised insurance agency. It uniquely covers health care needs arising from employment or traffic accidents, including any related hospitalisation or rehabilitation. In 2009, Costa Rica partially deregulated the health insurance market in 2009 to allow private companies to offer competitor insurance products for occupational and transport risks.

Voluntary private health insurance plays a small role, covering just 0.3% of the population and accounting for just 2% of total national expenditure on health.

The structural and functional cohesiveness of Costa Rica's health care system is an undoubted strength, particularly in a region where fragmented and inequitable health care systems persist (OECD, 2015; OECD 2016a; OECD, forthcoming). Its stability is also exceptional. As noted by Cercone and Pacheco (2008), "One remarkable feature is that all the regulatory institutions are solid entities with at least 50 years of existence ... The CCSS Constitutive Law has stayed largely the same since its promulgation in 1943. Changes have been made, but on average only once every 10 years".

*The unity and stability of the CCSS has allowed it to develop a deep institutional relationship with local communities and offers an example of good practice also for OECD health systems. The Law on Decentralisation in 1998 created democratically elected community health boards to supervise the delivery of local health care services (Balabanova, 2011). They improved responsiveness and increased community participation for setting priorities and health-related performance targets. A network of almost 150 local users' groups (*juntas*) is well-established, which actively collaborate with the CCSS to discharge a wide range of responsibilities. As well as mediating public queries/complaints and generally seeking to improve relations between the CCSS and users, *juntas*' activities include identifying local service needs and assisting in procurement decisions (for a new ambulance, pain clinic or mammography kit, for example); assisting in local epidemiological surveillance (particularly of infectious disease such as dengue); organising blood donations; and, organising local health promotion activities. *Juntas* report feeling fully integrated into the local CCSS infrastructure, and the CCSS appoints a named professional (such as a social worker) to support their activities. It has been reported that the CCSS is the public institution with the highest level of approval among Costa Ricans (Cercone and Pacheco, 2008).*

1.4. The provider arm of the CCSS is built upon a well-developed primary care base

*Costa Rica, rightly, points to its well-established primary care infrastructure as a successful illustration of ambitious reform. Primary care stands as a solid base for the rest of the health care system, and serves as a model of interest for other health systems at all stages of development. Reforms began following the WHO Alma-Ata Declaration on Primary Health Care in 1978 to improve the reach and quality of primary care, particularly in under-served areas. Efforts were deepened in the 1990s, when Costa Rica established community clinics called *Equipos Básicos de Atención Integral de Salud*, (EBAIS, or integrated health care basic teams) as the functional unit of primary care delivery.*

Each EBAIS serves around 1 000 households, and each consists of at least one medical doctor, one nurse and one health care assistant. Higher-level personnel, such as social workers, dentists, laboratory technicians, pharmacists and nutritionists may also support the clinic. Outpatient services, family planning and community medical services, health promotion and disease prevention interventions, are all delivered through the EBAIS. The EBAIS can refer patients to higher levels of health care when required. By 1995 there were 232 EBAIS in Costa Rica, mostly among

underserved communities, greatly improving rural access to primary care. In these areas, adequate access to the health service rose from 64% in 1995 to 79% in 2000. Today, more than 1 000 EBAIS are present in every territory of the country and constitute the basis of the national health care system. On a more negative note, EBAIS only offer appointments in the morning and early afternoon, which limits access to primary care.

A specialist primary care workforce is not, however, well developed in Costa Rica. Most doctors working in EBAIS do not have specialist post-graduate training in primary care. Family Medicine exists as a speciality, but very few (less than ten a year) doctors train in it, apparently because the tough qualifying exam discourages potential recruits. Costa Rica is currently aiming for each local health authority (of which there are around 100; see Box 1) to have a family medicine specialist, but not each EBAIS.

Primary care services are continuing to develop with the establishment of three Centros de Atención Integral en Salud (or Centres for Integrated Health Care, CAIS). These represent an extended model of primary care, and offer maternity services, intermediate care beds (to avoid hospital admission or expedite early discharge), minor surgery, rehabilitation, speciality clinics (such as pain management), and diagnostics such as X-rays. CAIS support the more typical primary care providers by holding workshops for local EBAIS (to compare and discuss their performance indicators, described below), by offering telemedicine and home-visits, and by keeping a focus on preventive care (in one CAIS, for example, most of the 15 000 home visits undertaken in 2015 were for health promotion and preventive care; the same CAIS also established a local commission on domestic violence). CAIS integrate upward with secondary care providers by leading the development of protocols and patient pathways for service networks in psychiatry, paediatrics, elderly care and other specialities. This ambitious and innovative model of primary care will be of significant interest for OECD health systems looking to strengthen people-centred, integrated care.

Out-patient secondary care and in-patient care is provided through 10 major clinics, 13 peripheral hospitals and 7 regional hospitals. Treatment and rehabilitation procedures of the highest specialisation and complexity are provided at the tertiary level through 3 national general hospitals and 5 national specialised hospitals (specialised in pediatrics, gerontology, women, rehabilitation and psychiatry). These hospitals are located in the metropolitan area of San José, and equip the CCSS to provide highly complex procedures, such as heart and lung transplants. The systematic approach that CCSS has taken to establishing a hub-and-spoke model across Costa Rica is illustrated in Annex A.

Levels of care are well differentiated. Even though the CCSS is vertically integrated (or perhaps because of this), a clear hierarchy of services exists and efforts are made to ensure that care is delivered at the most appropriate level. CCSS data show that 80% of primary care presentations are resolved at that level, without referral to secondary care. Referral guidelines exist, and referrals are turned back if appropriate steps have not been completed in primary care (data from one hospital visited demonstrated that some 20% of primary care referrals were turned back for this reason). Hospital doctors also train colleagues working in EBAIS to strengthen primary care management.

The CCSS has developed a detailed primary care performance framework. The framework evaluates local health authorities across 30 indicators in the domains of access, continuity, effectiveness, efficiency, patient satisfaction and organisational competence. Many indicators reflect processes (such as coverage of vaccination or cancer screening), but each of the five effectiveness indicators reflect outcomes, such as adequate control of lipids and blood pressure in people with diabetes (see Annex B for full list of indicators). For each indicator, a national target is set. Dashboards of local results are published, allowing providers to compare their performance against national, regional and local benchmarks (Figure 7), and a detailed analysis of regional variation in performance was included in CCSS's 2014 evaluation report (CCSS, 2014).

Performance dashboards at provider level are being created, using information from the EDUS data system (see Box 4). Both clinical indicators (similar to those presented in Annex B) and productivity indicators are included, the latter measuring aspects such as EBAIS opening hours, number of patients seen per day, the share of consultations conducted in-person, by telephone and via internet, and the number of unused appointments. An illustration of the information available is given in Annex C. In that illustration, dating from May 2016, 64 006 in-person primary care appointments, 5 869 telephone appointments, and 6 505 internet appointments were allocated in the Huetar Atlántico region (population 445 000). On average, EBAIS saw just over 25 patients a day. Benchmarking is possible by health authority (Cariari, Guácimo and Matina are shown) and by EBAIS (those within Matina are shown).

Efforts to deliver integrated, people-centred health services are well advanced in Costa Rica. A number of innovative approaches illustrate service delivery models that other health systems could learn from. Home care is well-established, for example. Patients are given a journal, explaining that home care is an integral part of the hospital/EBAIS network, and allowing them to record their diagnoses, treatments, test results and appointments. Space for recording preferences, concerns and questions is

also allocated. The back page explains that the point of the journal is to help the patient and their family to be more involved in care, encourage multidisciplinary care and avoid duplication and waste. Planned hospital discharge is also systematised, supported by national policy frameworks that stress that planning for discharge begins at admission (or even before), with a multidisciplinary assessment of likely needs upon leaving hospital. Regions are expected to develop service frameworks that bring the various elements of integrated, people-centred health care together. The framework for the Huetar Atlántica region, for example, sets out in detail how its home care and intermediate care facilities, day hospitals, planned discharge programmes and telemedicine should articulate to deliver more person-centred care. Efforts that align with the OECD Council's recommendation on Integrated Mental Health, Skills and Work Policy are also evident (see Box 2).

Box 2. Mental health and work in Costa Rica

Costa Rica's national mental health plan for 2012 to 2021 states that improving the detection, care and rehabilitation of people with mental health issues through a community-focussed programmes, rather than hospital-dependent approaches, is a priority. The importance of using multisectoral initiatives to achieve this is also stated in the cross-government National Development Plan. A recent collaboration with the Ministry of Planning and Political Economy, for example, focusses on building school children's self-esteem and to tackle low-mood and anxiety. Labour market reinsertion is also a priority.

Multidisciplinary teams in primary care are supported to improve the detection and treatment of people with mental health problems at an early stage. So far, some 400 of the 1 041 EBAIS have received additional mental health training – eventually all will have. The needs of those with more severe mental health problems are monitored through a national register of individuals with depression, bipolar disorder and schizophrenia. Specialised care for people misusing alcohol and substances is available through the national Institute for Alcoholism and Drug Dependency. There is also a national mental health committee, with representation from citizens and service-users, to monitor the accessibility and quality of mental health care services.

*Costa Rica has developed a rich, multi-sectoral approach to tackle the challenges of an ageing society that serves as a model of good practice. The rights of people aged over 65 are set out in a dedicated law that specifies rights to participate in the economic life of the country, as well as cultural, sport and recreational activities. Rights to credit; to continuing education and to preferential treatment in dealing with administrative bodies are also specified. The *Consejo Nacional de la Persona Adulta Mayor* (National Council for Older People, CONAPAM) is a dedicated unit within the Office of the President. It coordinates a range of services and programmes to*

support healthy ageing, particularly focussed on elderly individuals living in poverty and/or lacking family support. In addition, Costa Rica was the first Latin American health system to develop a plan for managing the health and social care burden from dementia (including development of a network of ten memory clinics), and was one of the first globally to participate in the WHO's Dementia Observatory.

Private health care providers are increasingly used to deliver primary care. In an effort to expand access, a diversified provider market is developing for primary care. Currently, around 15% of primary care is delivered by independent providers that hold contracts with the CCSS. Reportedly, however, there are still problems with access to primary care (particularly in the afternoons, since many EBAIS only see patients until 3pm), leading to congested hospital emergency departments (see Section 2.1). Individuals may also seek private care, financed directly out-of-pocket or, more rarely, through private insurance. Private providers are both for-profit and not-for-profit. The CCSS also contracts with a small number of private institutions to provide high complexity diagnostics and treatments, most often for cancer patients.

1.5. Government's oversight of the CCSS's strategic objectives and performance is too weak

The Ministry of Health's influence over the planning, funding and delivery of health care in Costa Rica is weak. The CCSS is an arms-length body, with its own authorising law. It formally has a "relation of confidence" with central government (Cercone and Pacheco, 2008) but remains constitutionally independent and operates autonomously.

The 2015-2018 National Policy for Health (*Política Nacional de Salud "Dr. Juan Guillermo Ortiz Guier" 2015-2018*), signed by the President and Minister of Health, sets the strategic direction for the public health and health care sectors. It sets out ambitions in five key areas: inter-sectoral action and citizen participation; universal access and equity; healthy behaviours, recreation and sport; environmental health; and, climate change and risk management. The Policy is operationalised through the 2016-2020 National Plan for Health (*Plan Nacional de Salud, 2016-2020*). This specifies baselines and targets for key indicators, and assigns responsibility for implementation to named institutions, including the CCSS.

Despite these mechanisms, it is reported that the ministry struggles to influence the CCSS's strategic planning. The National Plan for Health, for example, comprises well over 200 targets and indicators, which are not prioritised. Furthermore, the CCSS has no incentive to follow

recommendations issued by the ministry, and the ministry has no direct mechanism to require it to do so – in the past, the ministry was also required to seek judicial orders for the CCSS to release performance data.

Audits of CCSS performance are also lacking. As described in Section 2, the CCSS has, in the past, produced performance reports. The last of these was in 2014, however, and its coverage of indicators was patchy. The CCSS has a statistics and analysis unit, which compiles and analyses service delivery data, and its Directorate for Service Purchasing also monitors activity levels. Neither of these, however, produces regular and transparent audits of performance. The Ministry of Health recognises that the information made available to it to understand CCSS performance is fragmented and inadequate, limiting its ability to monitor quality and outcomes of health care services. It is seeking greater inter-institutional cooperation, including the establishment of a new technical advisory unit, to better monitor CCSS performance.

Publicly-owned entities may be at particular risk of under-performance, because of the absence of two key disciplining factors: the possibility of takeover or of bankruptcy (OECD, 2016a). The CCSS currently enjoys both privileges: it is the monopoly provider of general health insurance and near-monopoly provider of general health care services in Costa Rica, and financial shortfalls are regularly met by transfers from the Treasury (see Section 3). Given failures in performance that have been identified in the past (through now discontinued accreditation programmes or deteriorating door-to-needle times for patients with a heart attack, for example; see Sections 2 and 3), lack of detailed, transparent and rigorous processes to set a clearly prioritised mandate for the CCSS and audit its performance is a serious concern.

1.6. The Ministry of Health has a strong focus on public health and preventive health care

Given the ministry's minimal role in health care delivery, it focuses instead on public health. Current priorities include health promotion and prevention, environmental health and the impact of migration. Tobacco and alcohol taxes are used to fund the national institute that tackles alcoholism and drug dependency, as well as funding CONAPAM (see Section 1.4). The national strategy against non-communicable disease and obesity defines several targets, including a 12% reduction the prevalence of smoking, a 15% reduction in salt intake and a 2% reduction in childhood obesity levels before 2021. A number of national bodies are called upon to work in partnership to deliver these targets, including the Ministries of Education, of Sport and Recreation and of Agriculture. Public-private partnerships are also

exploited to improve public health, particularly to encourage physical activity. The CCSS invests in public health, and recently agreed funding for health and nutrition coaches, to work with individuals in priority regions. Although a wide range of public health initiatives are in place, their impact is rarely evaluated. Furthermore, a recent WHO evaluation against essential public health functions found weaknesses mechanisms for performance and accountability (particularly at sub-national level) and training of the public health workforce.

The ministry has also become very good at inter-sectoral collaboration. A good example of this is the *Comisión de Enlace Salud, Industria y Comercio* (COESAINCO, the Commission for liaison between health, industry and commerce), established in 2012. This brings together the Ministries of Health, Economics, External Trade and the Presidency, and a number of national trade and industry bodies (including those representing the pharmaceutical sector). COESAINCO has issued several norms and recommendations around, for example, streamlining market authorisation for new products or voluntary salt reduction in foodstuffs. The third sector (religious, charitable and other non-governmental bodies) also plays an important role in providing some aspects of health and social care. The national *junta* (committee) for social protection dates back to 1845 and uses income from its national lottery to fund a variety of health promotion programmes, palliative care programmes, drug and alcohol treatment programmes and support for disabled people and the elderly, amongst other things.

1.7. Institutional stability has been an obstacle to reform in key areas

Costa Rica has been unable to introduce health system reforms in a number of important policy areas. This is particularly true of the hospital sector. Attempts to introduce initiatives to improve quality and efficiency, such as DRG-accounting system or accreditation (see Section 2), have been later abandoned. In the case of DRGs, this occurred because the licence for use expired (and no home-grown system was developed to replace it). In other cases, such as with accreditation, reasons for abandonment are not always clear. Attempts to systematise health technology assessment, which is not generally carried out in Costa Rica, have also failed. In other cases, directives have been implemented (including government directives in 2011, 2012 and 2013 on cost containment) but are clearly not implemented effectively, given the continuing upward trajectory in spending (see Section 3).

Rigidities are to some extent characteristic of the Costa Rican health system, the flipside of its long-standing stability. The inability of the Ministry of Health to hold the CCSS and its providers to account has already been discussed. In turn, the ability of the CCSS to reform is significantly constrained by professional groups. A recent High Level Commission (*Comisión de Notables*) reviewing the CCSS in 2010-2011, noted that senior appointments within it were rotated around a small group of directors, without open competition or performance management. The Commission recommended that all senior management positions within the CCSS should be renewed through open competition. As of 2016, this recommendation has still not been acted upon. Similarly, although user groups are well-established (see the discussion on *juntas*, above), they seem ineffective in exerting pressure to extend opening hours in primary care, to give one example, a significant source of public dissatisfaction. The *juntas* are not disruptors; they have the capacity to be, but vested interests are too strong.

The overly-rigid system should be put in context. The 1990 reforms to decentralise the CCSS architecture, primary care reforms to create EBAIS and creation of a unified health and social care electronic patient record (EDUS, see Box 4), demonstrate that the CCSS is able to reform. In the hospital sector, however, and more critically, in the broader issues of transparency and accountability, the system has made little or no progress.

1.8. Reforms to steer and hold the CCSS to account more effectively are needed

Costa Rica should consider how central government can determine CCSS's public service obligation, and hold it to account for delivery, more effectively than it currently does. The Ministry of Health, for example, should better prioritise annual performance objectives for the health care insurance/provision arm of the CCSS, as occurs in other health systems with similar institutional configurations (OECD, 2016c, 2015a). Any recasting of the relationship between central government and the CCSS should preserve the operational flexibility that the CCSS already has.

In parallel, there is a need to establish better reporting systems to allow the Ministry of Health (as well as other bodies in central government, such as the Ministry of Finance) to better monitor CCSS performance, and audit compliance with relevant standards. Two distinct aspects are critical here. First, accountability for service delivery and quality; second, accountability for financial stability and probity. A public account of progress against agreed objectives and standards, by CCSS and/or an independent auditor, would be strengthened by systematic benchmarking of CCSS performance both domestically and abroad. Domestically, such benchmarking could

assess compliance with standards on transparency, citizen participation, data governance etc., as well as metrics on clinical outcomes, patient satisfaction etc. Internationally, benchmarking should address key indicators of health system performance, and be aligned with the OECD's *System of Health Accounts*, *Health Care Quality Indicators* and other benchmarking initiatives.

In looking to establish clearer accountability of the CCSS to central government, Costa Rica starts from a good position. The CCSS enjoys a high level of public trust; it is clear that CCSS and central government objectives (to meet Costa Rica's health care needs efficiently and equitably) are fairly well aligned; and multi-stakeholder processes for agreeing health system priorities exist (even if the national plans which currently emerge lack teeth). Recent reforms in the United Kingdom offer an interesting case-study for Costa Rica to consider. There, the 2012 Health and Social Care Act substantially recast relations between central government (the Department of Health) and the monopoly provider of health care insurance and services (the National Health Service). A new entity, *NHS England*, was created whose principal function is to provide or purchase health services, and deliver continuous improvements in quality and outcomes. The intentions of the Secretary of State are communicated to *NHS England* via a mandate, which sets out priorities such as enhancing quality of life for people with long-term conditions and freeing the NHS to innovate. The *Care Quality Commission* is an independent auditor of service quality, and *Monitor* is an independent auditor of financial stability (OECD, 2016c).

2. Access and quality

This section assesses the accessibility of health care in Costa Rica, as well as quality. Long waiting times have traditionally been a problem in the CCSS. While these are now improving, financial accessibility may be worsening, with evidence of an upward trend in out-of-pocket spending. A preoccupation with waiting times also means that other dimensions of quality, particularly patient outcomes, have not received sufficient attention.

2.1. Although UHC has nominally “been achieved”, people can wait years for scheduled care

Waiting times for elective surgery are well over a year. According to the CCSS’s last published self-evaluation, average waiting time for general surgery was 452 days. Almost a third (31%) of patients were waiting for longer than 540 days (CCSS, 2014). Particularly long average waiting times affected certain specialities, including joint replacement (978 days), varicose vein removal (525 days), or inguinal hernia repairs (365 days). These are not life-threatening conditions, but such long waits must fall short of patients’ expectations. Tertiary specialist hospitals were also worse affected. This includes the national children’s hospital, where average waiting time for surgery was remarkably long, at 701 days. It is interesting to note that waiting times in the hospitals belonging to the INS insurer-provider network (see Box 1) are typically less than a week. Although the INS offers a restricted set of services compared to the CCSS, its short waiting times include elective surgery.

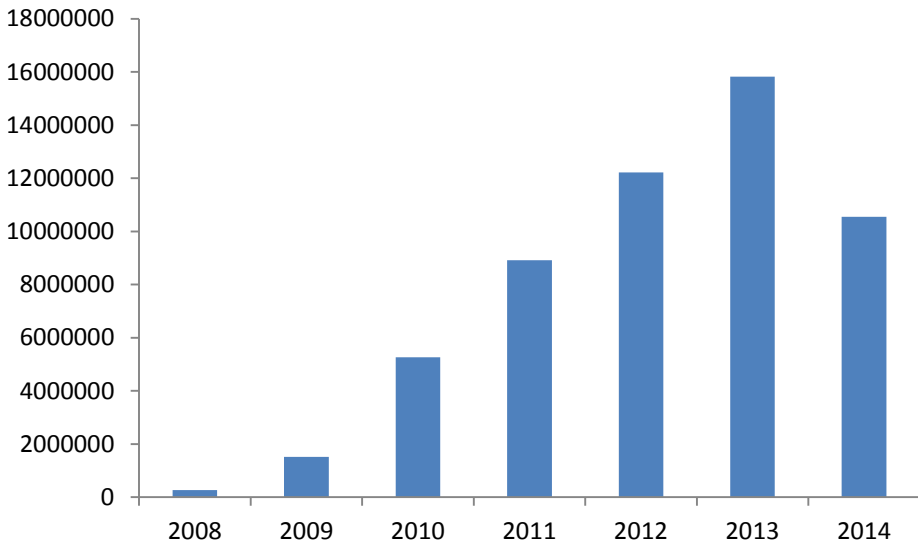
Poor access to primary care is also leading to congestion in hospital emergency rooms. Although primary care sector is well developed (see Section 1.4), most EBAS only offer appointments in the morning and early afternoon, closing at around 3pm. Patients reportedly get up very early to start queueing for an appointment. Such difficulties make many patients go directly to hospital emergency departments for primary care. In 2010, 44% of all public consultations were held in emergency services (43.5% in hospitals and 56.5% in health areas), out of which 60% turned out not to be actual emergencies. As a comparison, non-urgent visits to an emergency department (ED) accounted for nearly 12% of all ED visits in the

United States, 20% in Italy, 25% in Canada, 31% in Portugal, 32% in Australia and 56% in Belgium.

Waiting times for surgery have improved in recent years, as shown in Figure 7. The CCSS introduced a national initiative to tackle lengthy waiting lists in April 2014. By September 2015, 93% of hospitals had managed to reduce waiting times, with an overall reduction of over a year (from 613 days in 2012, to 256 days in 2015). This was achieved by encouraging more efficient use of surgical theatre time and recovery beds, extending the operating day into the early morning and evening, specifying maximum waiting times and establishing a unit that monitors and intervenes in services with excessive waits.

Figure 7. Waits for elective surgery in Costa Rica have started to improve, after deteriorating for several years

Total days waited for elective surgery, 2008-2014



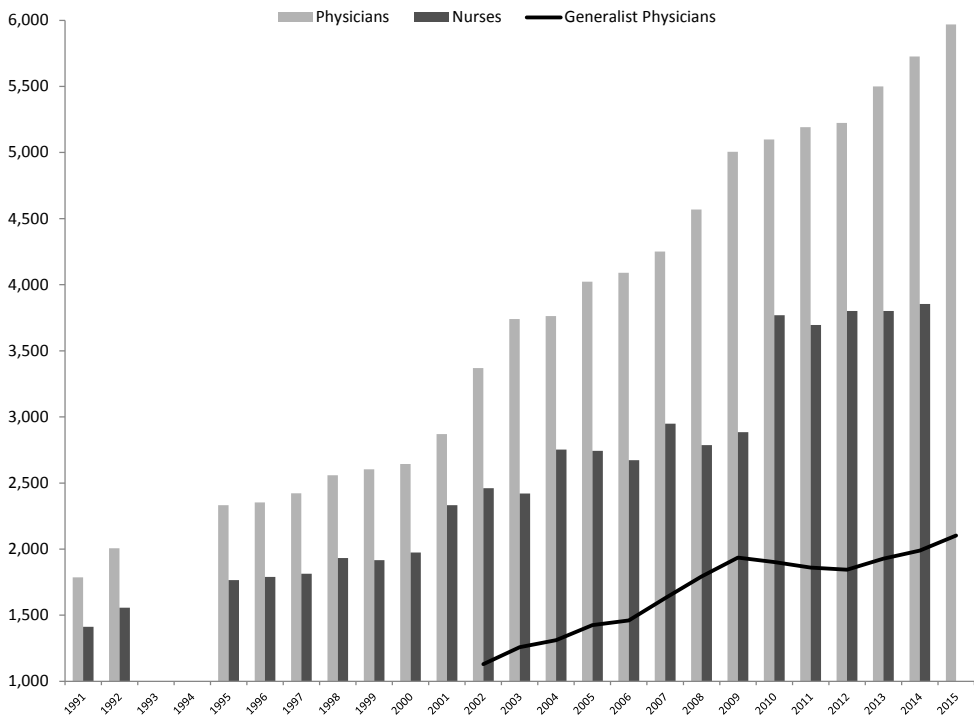
Source: CCSS (2014).

Lengthy waiting times are likely to be due, in part, to substantial shortfalls in the number of doctors and nurses working for the CCSS. Despite success in reducing waiting times through efficiency initiatives, Costa Rica's relative lack of medical workforce is likely to be an underlying structural factor that maintains long waits. The number (headcount) of physicians and nurses working in Costa Rica has risen considerably over the

past two decades (Figure 8), yet physician density per 1 000 inhabitants remains just 2.1 per 1 000 inhabitants, below the OECD average of 3.3 practicing physicians per 1 000 inhabitants (OECD, 2016b) (Figure 9). In particular, it is reported that the lack of secondary care doctors is likely to be contributing to long waiting times.

Figure 8. The number of doctors and nurses working in Costa Rica has risen considerably in recent years

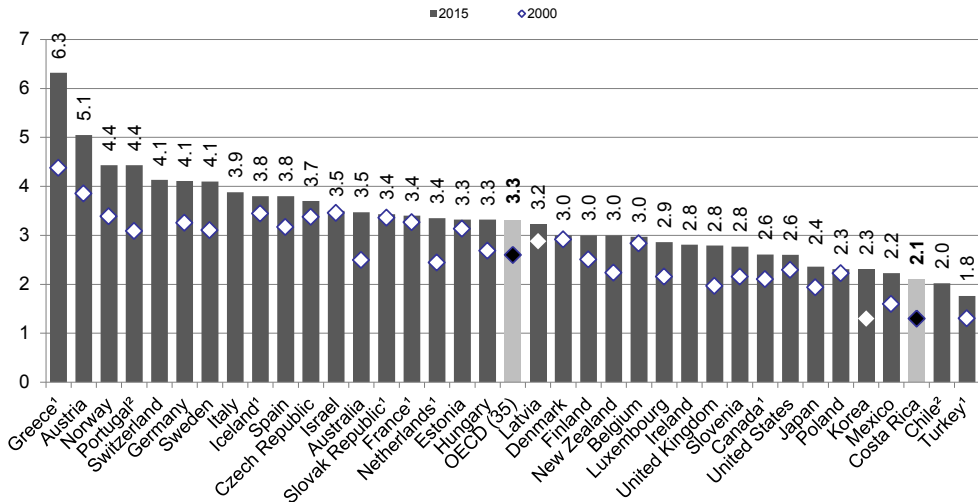
Headcount of doctors and nurses in Costa Rica, 1991-2014



Source: OECD Health Statistics 2016.

Figure 9. Costa Rica has many fewer practicing physicians than OECD health systems

Practising doctors per 1 000 population, 2000 and 2015 (or nearest year)



1. Data include not only doctors providing direct care to patients, but also those working in the health sector as managers, educators, researchers, etc. (adding another 5-10% of doctors).

2. Data refer to all doctors licensed to practice (resulting in a large over-estimation of the number of practising doctors in Portugal, of around 30%).

Source: OECD Health Statistics 2016, <http://dx.doi.org/10.1787/health-data-en>.

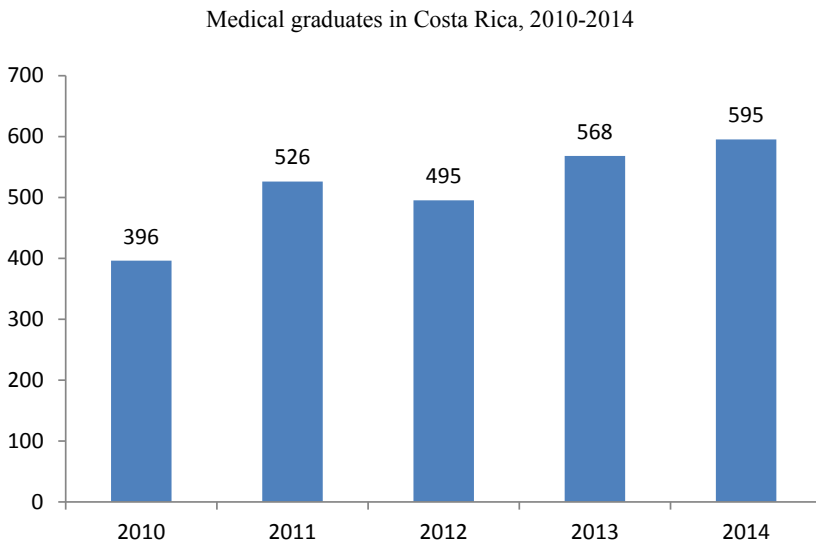
Institutions to monitor workforce needs are well developed, but the flexibility with which the CCSS can plan and deploy the medical workforce is restricted. The Centro de Desarrollo Estratégico e Información en Salud y Seguridad Social (Centre for Strategic Development and Information in Health and Social Security, CENDEISS) is a unit within CCSS that, for over 40 years, has been responsible for the planning and strategic development of the health care workforce. Costa Rica also has Observatorio Nacional de Recursos Humanos en Salud (National Observatory for Human Resources in Health) to monitor workforce trends and support dialogue between professional associations, the Ministry of Health, the CCSS, private employers, academics and other stakeholders. Notably, however, the Colegio de Médicos y Cirujanos (College of Physicians and Surgeons) also exerts significant influence in this sphere.

The doctors' professional association has prevented liberalisation of employment practices. The Colegio, citing concerns over medical unemployment and maintenance of professional standards, has secured

restrictions on the ability of foreign-trained doctors to work in Costa Rica when physician shortages have been declared, known as “inopia”. The CCSS reports these restrictions as being excessively prohibitive. The *Colegio* also has influence over the number of training places in Costa Rica’s medical schools. The number of medical graduates grew some 50% between 2010 and 2014 (Figure 10). In addition, doctors can only be appointed to numbered, full-time positions.

Current workforce plans allow for 200 new specialists a year, just covering expected retirement, even though CENDEISSS estimate that 1 500 additional specialists are needed immediately. Dual practice, however, is unregulated. This means that doctors have no minimum commitment to the CCSS and can develop a private practice without restriction, and there are reports of doctors exploiting lengthy waiting lists to steer patients toward private care. Given comparative workforce numbers internationally, it is also unlikely that the *Colegio*’s concerns over medical unemployment are well-founded.

Figure 10. Recent years have seen little growth in numbers of medical graduates in Costa Rica



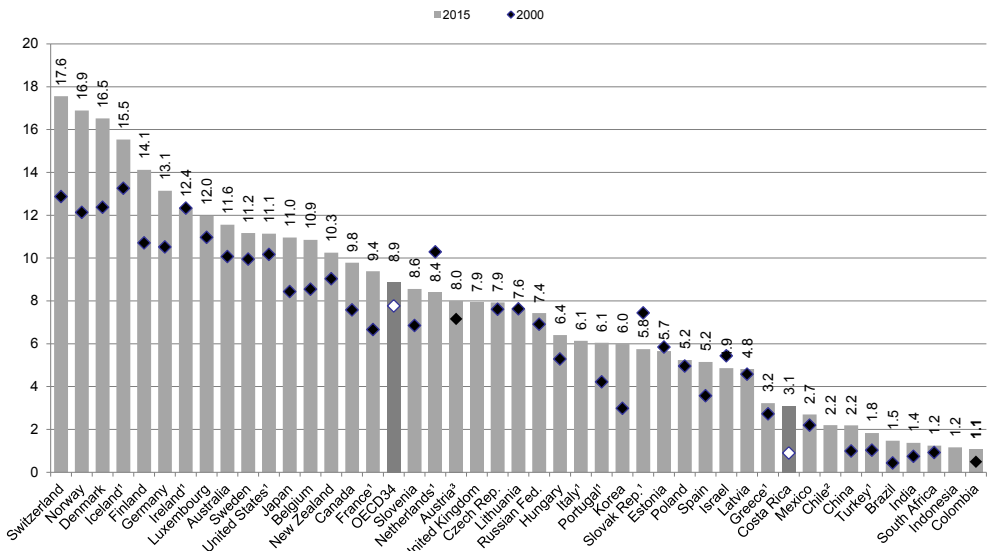
Source: Consejo Nacional de Rectores (2015).

Deficiencies in the nursing workforce are even more concerning. On average across the OECD, there are about three times more nurses than doctors. Costa Rica, on the other hand, reports around 1.5 nurses for every

doctor. There are 3.1 nurses per 1 000 inhabitants, compared to 9.1 per 1 000 inhabitants on average among OECD countries (OECD, 2016b). Differences in the way a “nurse” is defined may partly explain this finding (for example, auxiliary nurses without a degree may not be counted in Costa Rica, but included in other health systems’ nursing headcount). Promisingly, there has been rapid growth in numbers of nursing graduates, from 647 in 2010 to 1 541 in 2014. The supply of new nurses, as a result, now substantially exceeds that of doctors (Figure 11).

Figure 11. Costa Rica’s shortfall in practicing nurses is even more marked than the lack of doctors

Practising nurses per 1 000 population, 2000 and 2015 (or nearest year)



1. Data include not only nurses providing direct care to patients, but also those working in the health sector as managers, educators, researchers, etc.

2. Data in Chile refer to all nurses who are licensed to practice (less than one-third are professional nurses with a university degree).

3. Austria reports only nurses employed in hospital.

Source: OECD Health Statistics 2016, <http://dx.doi.org/10.1787/health-data-en>.

Nurses’ contribution to health care is substantial, given that they have an unusually extended scope of practice compared to other health systems. There are a number of defined nursing specialities, including anaesthetics or cancer care, supported by Masters and Doctoral programmes. Nurses also go abroad for advanced specialist training. Nurses run their own clinics for a

wide range conditions, including diabetic complications (such as foot ulcers), anticoagulation and cardiac rehabilitation. Such well-developed advanced nursing roles are unusual even in OECD health systems, and offers an example of good practice for other health systems to consider.

2.2. Out-of-pocket spending is drifting upward, risking creation of a two-tier system

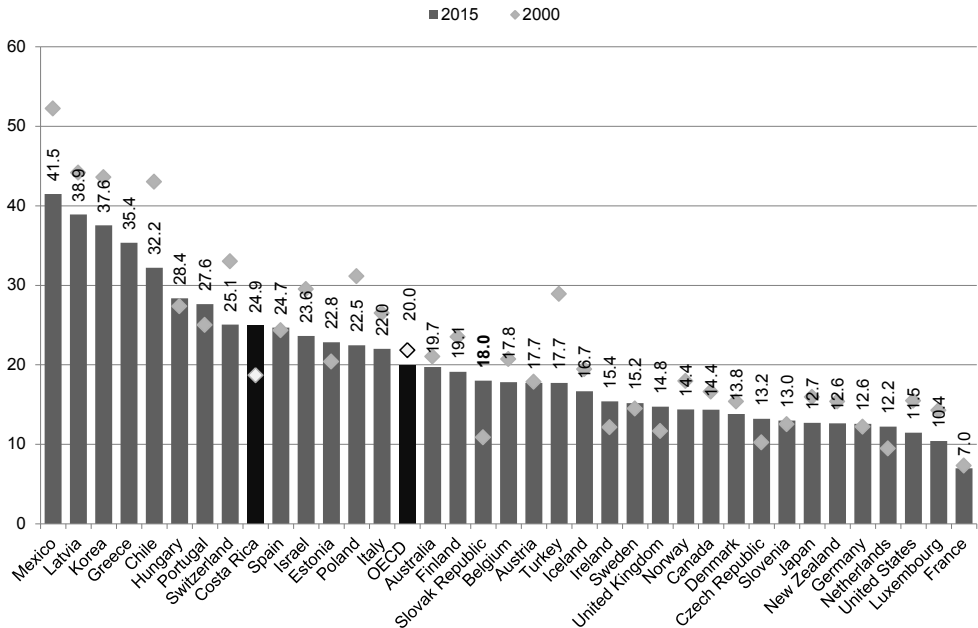
Direct spending out-of-pocket now accounts for a quarter of health system revenue. Health system financing is discussed in detail in Section 3, but a steady upward drift in out-of-pocket spending is worth noting during this discussion on accessibility. As a share of total health spending, OOP expenditure has risen from 18.7% in 2000 to reach 24.9% in 2014 (Figure 12). In contrast, the majority OECD health systems have managed to reduce out-of-pocket costs in recent years.

Household surveys show that around 30% of the population uses private health services at least once a year, typically provided by CCSS doctors engaged in dual practice. In one survey, 60% respondents reported preferring private health care providers to CCSS services (Gutiérrez, 2009). Furthermore, 50% of the population thought they should be able to stop contributing to the social security system and join a private insurance instead. In another survey, however, 68% thought that the government, rather than private institutions, should be responsible for managing the health care system (Hernández, 2014). This may explain why voluntary private health insurance (VHI) remains little exploited. VHI accounts for just 2% of total national expenditure on health, covering just 0.3% of the population (see earlier Figure 6).

The trend in OOP spending, with large numbers using private sector services, suggests development of a two-tier system. Studies have shown that the main components of OOP spending in Costa Rica are medical consultations and drugs, accounting for over 80% OOP spending, with laboratory tests accounting for around 7% (Knaul, 2012). Those who can afford to, then, are increasingly bypassing lengthy waits (or perceived poor quality) in the public system, and purchasing basic procedures in the private sector. Catastrophic spending remains low, because individuals opt back into the CCSS for major procedures. Costa Rica's long tradition of solidarity and publicly-funded basic service means that the insidious emergence of an inequitable two-tier system would be a major failure of good governance. Avoiding this must be a priority, especially given that society may already be fragmenting, as evidenced by a worsening Gini coefficient (see Section 1.1).

Figure 12. Out-of-pocket spending is high and increasing despite high health spending

Out-of-pocket spending as a share of total health expenditure, 2000 and 2015 (or nearest year)



Source: OECD Health Statistics.

2.3. Costa Rica needs a more flexible workforce policy, designed around the needs of patients

Costa Rica should increase the domestic supply of health care workers.

Nearly all OECD countries have considerably increased the number of students admitted to medical and nursing education in recent years to meet current and anticipated shortages (OECD, 2016d). In the United States, for example, intake at medical schools increased by a third between 2001 and 2013. Occasionally countries, such as Australia, have abandoned *numerus clausus*³ policies in some clinical areas to stimulate supply. Policies to improve retention rates throughout professionals' working lives (particularly for nurses) have also been pursued, such as financial incentives to resume training or work after a career break. Costa Rica should also consider relaxing rules which prevent appointment of new specialists unless into a centrally-listed, full-time role.

Accelerating the supply of Family Medicine specialists and Advanced Nurse Practitioners will also deliver more patient-centred care. Although Costa Rica’s primary care base is strong, it is staffed by relatively few clinicians with specialist post-graduate training in primary care or family medicine. A number of OECD countries, such as England, France and Canada, have expanded specialist post-graduate training in primary care, and sought to make it a more attractive option for new doctors (by increasing pay, for example). The professional group(s) responsible for providing primary care need not be exclusively limited to doctors, since some of its core functions (comprehensiveness, continuity and coordination) can be discharged by other professional groups. Accordingly, some countries such as the United States, Canada and the Netherlands have sought to improve access to primary care by expanding advanced education programmes for nurses (OECD, 2016d). Costa Rica is well advanced in developing extended nurse roles, and the CCSS should consider expanding the opportunities for nurses to offer more services traditionally undertaken by doctor, in line with recommendations from the High-Level Commission on Health Employment and Economic Growth (WHO, 2016).

Greater openness to foreign-trained health workers may also be part of the solution to Costa Rica’s short-term needs. OECD countries have, in the past, depended heavily on clinicians trained elsewhere. On average across the OECD in 2013-14, about one in six doctors and one in sixteen nurses was trained abroad, surpassing more than one in three doctors in countries such as Israel, New Zealand, Australia, Norway and Ireland (OECD, 2016d). Such figures displace any concerns that professional associations in Costa Rica may have about the quality or value of foreign-trained clinicians. Ethical practice (avoiding active recruitment from developing countries suffering critical workforce shortages, for example) is clearly necessary, and most OECD countries are gradually reducing their dependence on foreign-trained workers by expanding domestic supply. The CCSS and the government should also explore using training locations abroad for Costa Rican health professionals, if the domestic supply of training locations cannot be expanded given the small size of the country.

2.4. Waiting times should also be tackled through effective enforcement of waiting time guarantees

Supply-side initiatives alone will not be enough to substantially reduce Costa Rica’s long waiting lists for scheduled care. OECD experience shows that funding additional activity, including contracting with the private sector (or subsidising private insurance), are weak and poorly-sustainable solutions to lengthy waiting times (Siciliani et al., 2013). Waiting time guarantees

(such as those recently introduced by the CCSS) are also weakly effective, unless effectively enforced. Approaches combining additional activity and waiting time guarantees with sanctions (for breaching them) and patient-choice of provider (if breaching is likely) have shown the greatest, sustained impact on improving access.

Costa Rica should consider allowing patients a choice of hospital, including private sector providers. This is not a pro-privatisation argument, but an argument to bring peoples' increasing use of private providers back into the fold of a unified, publicly-funded social security system. A number of single-payer OECD health systems have introduced reforms that allowing choice of provider, including private-sector providers paid for publicly. These countries include Portugal, the Netherlands, the United Kingdom and Denmark. The Portuguese model has been particularly effective in decreasing waiting times – vouchers allowing free choice of any provider are issued to patients when 75% of the waiting time guarantee is reached (Siciliani et al., 2013). Experience shows that only small numbers of patients need to choose an alternative provider to seriously concentrate hospital managers' minds on improving their service. Sophisticated pre-requisites must be in place, however, including an effective purchase-provider split; a DRG-type provider payment system; and an accurate and timely national database of hospital waiting times for specific procedures. Cost-control can also be difficult to achieve when trying to reduce waiting lists rapidly, particularly if activity-based financing is predominant the underlying payment mechanism.

2.5. Quality and outcomes are not monitored consistently

A significant volume of data around CCSS services is routinely collected, but little relates to quality or outcomes. The CCSS published evaluations of its service delivery in 2013 and 2014, addressing some thirty indicators access, quality and efficiency in both primary and secondary care. Most indicators address inputs and activities. A few outcomes, however, are measured. Encouraging results were found for hypertension, where adequate control was achieved in 66% individuals with high blood pressure, unchanged from 2012. Blood pressure screening also increased from 30% to 34% (of the undiagnosed population) between 2013 and 2014. In contrast, adequate control of cholesterol levels was achieved in only around 45% people with dyslipidaemia. The evaluation considered reasons for falling short of the 55% target, including poor adherence to clinical guidelines or deficient information systems.

The evaluation also reported hospitals' risk-adjusted mortality rates, using methods developed by the Canadian Institute of Health Information. Six out of 23 hospitals had rates significantly above the national average of 2.4 deaths per 100 patients. In another section, door-to-needle times for

patients with a heart attack were reported. Of significant concern, these had worsened substantially between 2013 and 2014: 74% received thrombolysis within 30 minutes in 2014 (and 89% within 60 minutes), compared to 85% (97%) the year before. Inter-hospital variation was not analysed for this indicator, nor were reasons for its deterioration explored.

Cervical cancer screening rates were reported (and found to be worsening), but breast and colorectal cancer screening were not reported. No cancer survival rates were reported. Independent studies, however, have reported that cervical cancer five-year relative survival rate for patients diagnosed in 1999 was 68.3%, higher than the OECD average of 64% for the period 1998-2003 (Quirós, 2015; and OECD, 2016b). A breast cancer survival rate of 88% was observed in Costa Rica for patients diagnosed in 2009 after a median follow-up of 46.8 months, as compared to the OECD average of 84.5% (although this OECD average is over a follow-up of five years) (Rivero, 2014; and OECD, 2016b). Costa Rica has a national cancer registry, but it does not appear to be used for quality monitoring and improvement.

It is concerning that the last CCSS performance report was published in 2014. More recent reports are not available for comparison, even though the stated intention of the 2013 and 2014 reports was to establish a baseline for future comparison. Furthermore, several important indicators were not measured in the 2014 evaluation. Survival rates after a heart attack, for example, were not reported – a key indicator directly relevant to deteriorating door-to-needle times. It should also be noted that Costa Rica has not, to date, submitted any data to the OECD’s *Health Care Quality Indicators* project.

The CCSS undertook a patient satisfaction survey in 2012/13, with encouraging results. Several dimensions of satisfaction were assessed (such as quality of the physical environment, punctuality, and staff empathy) but sample sizes were very small – just 120 in-patients per hospital, for example. Overall, 86% patients appeared satisfied with in-patient services, and 83% with out-patient services. The survey was repeated in 2015, capturing more patients and extending to primary care (results not available at time of writing).

2.6. Policies and institutions to improve quality are also poorly developed

A national health care quality programme is nominally in place, but is very restricted in scope. The programme, run by the Ministry of Health and applying to CCSS as well as private facilities, focuses on accrediting health care providers. Accreditation is at a basic level, however, and essentially

comprises verification that the facility complies with minimum requirements around staffing levels, equipment and documentation.

More ambitious quality monitoring and improvement programmes have been abandoned. Between 1998 and 2007, a voluntary accreditation programme for general hospitals was developed with assistance from Canada. Evaluations were carried out annually between 2000 and 2006, during which time the only hospital to fulfil all accreditation criteria was one in the private sector. No CCSS hospital attained the necessary standards; indeed, serious emergent deficiencies led to the closure of a number of units. Despite this, the programme was discontinued. The private hospital that had attained accreditation swapped to an international (commercial) accreditation agency, and now the only hospitals actively engaged with a formative accreditation and improvement programme (such as that run by the Joint Commission International) are in the private sector.

Similarly, tailored accreditation standards for specific sectors (such as elderly care and palliative care facilities) previously existed, but have fallen into disuse. And until 2008, the Ministry of Health ran a programme with the CCSS to evaluate primary care services, including patient satisfaction, with results made public at facility level. This too, was abandoned, although the primary care performance framework described in Section 1.4 has rectified this.

A number of minimum service standards and clinical guidelines are produced, both by the Ministry of Health and CCSS in a collaborative process that involves clinical, technical and administrative personnel at each service level from both institutions. These guidelines not only cover specific diseases (such as breast cancer), but also address the needs of defined patient groups (such as adolescents or post-partum mothers), in order to encourage integrated, patient-centred care. The ministry issues such guidelines by executive decree, and compliance is technically compulsory. There are, however, no mechanisms to monitor compliance and no accompanying incentives, sanctions or support to help providers adapt their processes to comply. There is a risk, then, that these guidelines are not adequately adopted at the clinical front-line.

Patient safety is not well addressed. The CCSS does have a system in place to monitor, respond to and prevent hospital-acquired infections. A national monitoring and learning system for other adverse events is not, however, in place.

Steps are being taken to address acknowledged gaps in Costa Rica's quality monitoring and improvement architecture. The ministry's 2015-2018 National Health Plan established a health care quality programme that focuses on wider implementation of the EDUS information system (see

Box 4) and reduction of waiting times. It also, however, aims to systematise measurement of patient experiences and establish quality standards and indicators, initially around organ donation and transplantation. The CCSS recently established quality monitoring programme in primary care (see Section 1.4), with plans to develop a similar programme for hospitals.

Box 4. The *Expediente Digital Único en Salud*

The CCSS is developing an ambitious warehouse of personal health data, built around the *Expediente Digital Único en Salud* (unified digital health record, or EDUS). EDUS started by recording hospital emergency attendances, admissions and discharges, and surgical operations digitally. Its second phase integrated a personal health record (containing diagnoses and treatments), with the national appointment system, for planned elective care. Importantly, EDUS also contains a “family” record for each individual, systematically recording broader determinants of health and well-being, such as other family members with complex illnesses, and any financial or housing difficulties. This allows a fuller assessment of the individual’s needs, as well as enabling local population health profiles to be built, and needs predicted. Future development will link EDUS to digital imaging, laboratory records, pharmacy records and in-patient clinical notes (nursing as well as medical).

Currently, all EBAIS use EDUS to record patient contacts. Some EBAIS already use EDUS linked to digital imaging – allowing x-rays to be viewed and shared instantaneously. By 2018, it is expected that all secondary and tertiary care facilities will use it. If achieved, Costa Rica will be one of the first countries in the world to have a single, national electronic health record that is unified across all levels of care.

EDUS is intended to be used by patients. It has telephone and web interfaces, to allow users to interact with their records. Text-messaging is also being used to send personalised health promotion messages (375 000 had been sent by February 2016). In October 2015, an EDUS app was launched, that allows patients to view their diagnoses, medications, future appointments and other information (31 500 downloads had occurred by February 2016).

2.7. Quality governance must be embedded more effectively in the health system

Health system performance, at local and national level, needs to be better measured using data focussed on patient outcomes. Not enough is known about the quality and outcomes of care in Costa Rica. Although some important initiatives are underway, such as the primary care performance monitoring framework, quality does not emerge as the dominant governing idea within Costa Rican health care. “Quality” is still thought of in limited terms (typically, waiting times) meaning that important gaps in the health system’s information infrastructure persist. Even though there is a national cancer observatory, for example, authorities were unable to produce data on

the stage of cancer at diagnosis (vital for understanding the effectiveness of screening and prevention programmes) when asked.

A richer set of quality indicators, with particular attention to patient outcomes, should be a priority. Quality indicators should focus on chronic conditions such as obesity, diabetes and cardiovascular disease, as well as mental health, given Costa Rica's evolving health care burden. Validated metrics of the quality of primary care for these conditions are well established internationally (such the OECD's *Health Care Quality Indicators*), and should be adopted by Costa Rica. Costa Rica should aim to submit data to the OECD's *Health Care Quality Indicators* project in 2017.

Critical gaps in the policy and institutions that monitor and improve health care quality also need to be addressed. It is very concerning, for example, that the only hospitals actively engaged with a formative accreditation and improvement programmes are in the private sector. To ensure that this issue receives proper attention, Costa Rica should consider establishing an independent commission for quality monitoring and improvement. This authority, independent of the CCSS, should be responsible for setting standards for safe and effective care across all providers, including private ones. It should also be attributed powers to collect, analyse and publish quality and outcomes data, sharing the lessons of good performance. The United Kingdom's *Care Quality Commission* (see Section 1.8) offers a model to consider.

Improving quality also requires effective mechanisms to monitor adverse events and disseminate good practices that avoid them. Arrangements in Italy are a model of particular interest. There, the National Observatory on Good Practices for Patient Safety has been established that identifies transferable learning from adverse events in hospitals and clinics, and organises workshops and materials to share good practices. The Observatory has been very effective by raising awareness among health care professionals and nurturing a culture of change across the whole country (OECD, 2015e).

3. Efficiency and financial sustainability

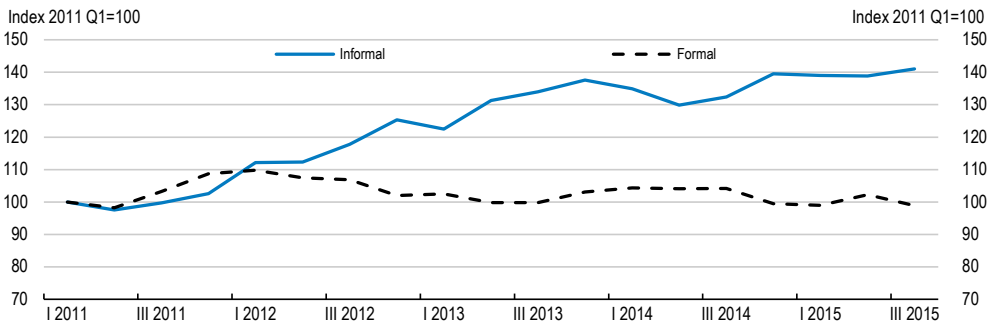
This section assesses the efficiency and financial sustainability of health care in Costa Rica. Upward trajectories of spending mean that the health system's, at best, fragile efficiency is likely to deteriorate. Health spending now surpasses the OECD average, as a share of GDP. Spending increases have been almost entirely consumed by increases in the number and salary of CCSS employees, with little evidence of benefit to patients. In the shorter term, Costa Rica will need to apply more effective expenditure ceilings and reviews to the health sector. In the longer term, better use of performance data and innovative payments systems will be needed, as well as a shift away from employment-linked contributions as a basis for health system revenue.

3.1. Over-reliance on employment-linked revenues threatens the CCSS's financial sustainability

CCSS income is heavily dependent on employment-linked contributions, which have been under pressure following the global financial crisis. Prospects for improvement are bleak – informal employment is increasing in Costa Rica, contrary to many Latin American economies, and now accounts for almost half of all employment (Figure 13). In addition, worsening income inequality and population ageing (see Section 1) may both imply greater numbers of self-employed, informal workers and elderly individuals falling within the threshold for non-contributory affiliation to the CCSS.

Figure 13. Informal employment is increasing

Relative rates of informal and formal employment in Costa Rica, Q1 2011-Q3 2015



Source: *OECD Economic Survey: Costa Rica 2016: Economic Assessment*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_surveys-cri-2016-en.

Costa Rica's overall fiscal system is excessively dependent on social security contributions. By way of broader context, the OECD's *Economic Survey of Costa Rica, 2016* notes that total fiscal revenue amounts to only 23% of GDP. Social security contributions account for 8% GDP and about 34% of total government revenue, substantially above the regional average of 18% in Latin America and OECD average of 27%. Revenues from income tax and VAT are lower than in other Latin America economies (and much lower than OECD economies) because of a narrow tax base and low tax rates. The standard VAT rate, for example, is 13%, compared to 19.1% average across OECD economies. In addition, the tax-free threshold for income tax is around twice the average wage – much higher than most OECD economies, including Mexico and Chile. The Survey concluded that failing to broaden and deepen the tax revenue base is likely to lead to public debt rising to unsustainable levels (OECD, 2016a).

3.2. Cost-containment mechanisms are poor, with little evidence that increased spending is benefitting patients

Budgetary discipline is not robustly applied to the CCSS. Its authorising law gives the CCSS complete autonomy over financial matters. Accounts must be presented to the Comptroller-General of the Republic, but this institution does not have the authority to direct the CCSS to reallocate or reduce spending. Neither does the CCSS annual budget have to be approved by the Legislative Assembly. Furthermore, the CCSS is exempt from most regulations established by the Ministry of Finance and other national authorities. It is only required to adhere to codes of conduct around

employment. Any other type of regulation, either issued by the Ministry of Finance or by other bodies within central government, do not apply to the CCSS (Cercone and Pacheco, 2008).

Operational spending is heavily skewed toward the hospital sector. CCSS data show that since 2010, costs in this sector have risen annually by an average of 7.9%. In contrast, operational costs in the primary care sector are around 40% of those in the hospital sector and are rising more slowly, at an average of 6.7% per year (Table 1). Of note, both primary care areas and hospitals receive an annual global budget based on last year's outlay, which is likely to explain the inflationary trend.

Table 1. Hospitals consume an accelerating share of health care spending in Costa Rica

	Spending (millions Costa Rican colones, nominal values)						AAGR, 2010-2015
	2010	2011	2012	2013	2014	2015	
Acute care hospitals							
Total	596 435	659 720	710 057	752 589	806 089	878 382	8.10%
...of which, operational spending	592 006	652 730	705 943	746 851	798 708	866 441	7.90%
...of which, salaries	420 578	453 677	479 338	516 333	548 532	586 605	6.90%
Primary care							
Total	259 454	278 924	291 415	318 999	331 572	357 409	6.60%
...of which, operational spending	256 557	276 365	289 873	316 645	328 660	354 001	6.70%
...of which, salaries	160 935	174 235	180 566	197 956	210 821	225 992	7.10%

Broad measures of efficiency suggest that Costa Rica's health system is struggling to deliver value for patients. As described earlier, 7.5% GDP was spent on health care in 2005, rising to 9.3% GDP in 2014. This is slightly more than the OECD average, yet life expectancy in Costa Rica falls just below OECD average (although life expectancy also depends on other factors including the level of development). Long-standing problems with excessive waiting times and inconsistent performance indicators (such as the worsening door-to-needle times for patients who have suffered a heart attack, described in Section 2) also imply that increasing investment in health care is not translating into value on the front-line.

Key indicators of productivity are also concerning. Physicians, who are salaried, are seeing fewer patients year on year. The rate of consultations fell from 2.21 per capita population in 2010 to 2.18 in 2015. This is substantially lower than the OECD average of 6.8 – no OECD health system reports such

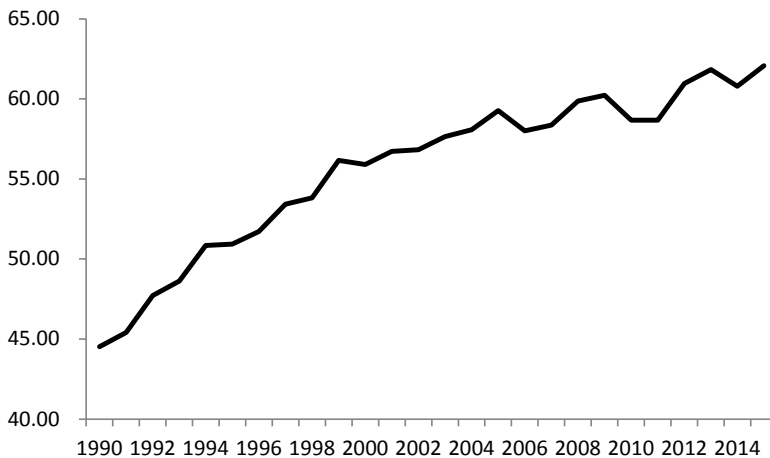
a low consultation rate (the lowest is Mexico, at 2.6). In short, there is little evidence that rapidly growing spending is benefitting patients. Payment systems are tied to activities, inputs or last year's outlays, and do not reward quality or outcomes. The negative effects that one would expect from traditional payment systems are manifest – increasing spend, with no improvement in productivity or outcomes.

3.3. Principal drivers of spending include growth in hospital activity, poor price control and increases in medical salaries

Increases in hospital expenditure can be linked to steady expansion in the volume of hospital activity. The rate of hospital discharges per bed has risen from 45 discharges per bed in 1990 to 62 in 2015, as shown in Figure 14. Average length-of-stay (all causes) in Costa Rica was 6.6 days in 2015. While this is less than the OECD average of 6.9 days (excluding Japan and Korea), it should be noted that this figure has not fallen in last decade in Costa Rica, in contrast to most OECD health systems.

Figure 14. Discharges per bed have steadily grown

Number of discharges per hospital bed, 1990 to 2015



Source: OECD Health Statistics 2016, <http://dx.doi.org/10.1787/health-data-en>.

Critically, the CCSS cannot accurately price episodes of hospital care. The CCSS maintains a list of the price of particular services, updated every six months. But this list has been criticised on several fronts. First, costs are derived from prices set by the *Colegio de Médicos y Cirujanos*. The *Colegio*

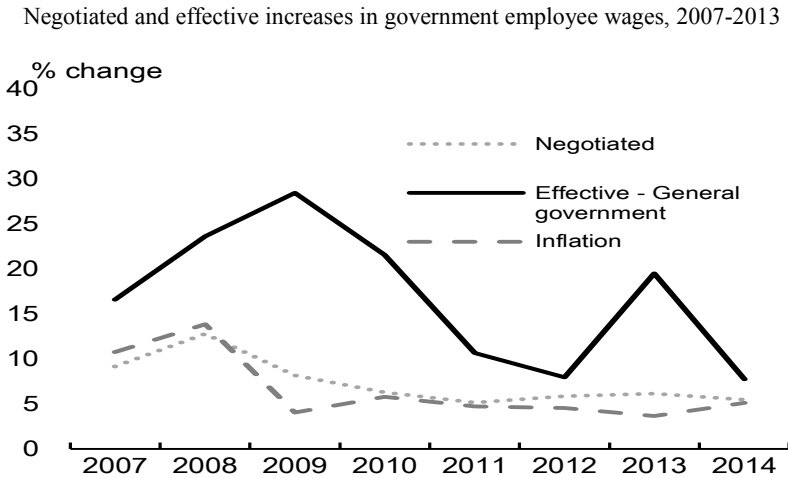
claim to have a fair and robust process for determining such prices, but they are clearly not independent. Second, national tariffs do not reflect variations in operating cost across hospitals. The DRG system that the CCSS used to employ revealed significant cost and productivity variation across providers. Once the DRG system was abandoned, however, this analytic capability was lost leaving the CCSS with mere approximations of cost at individual provider level. Finally, the CCSS is unable to sum costs across a pathway of care for a given admission, and link total cost to outcomes. Overall, the CCSS finds itself in the unsustainable situation of increasing hospital activity, with little understanding of the costs thereof.

Salaries account for around 65% of operational expenditure and are going up by around 7.0% a year. This is true of both the hospital and primary care sector (see Table 1), and is being driven by the increase in the headcount of individuals working for the CCSS (appropriately, given the shortage of personnel; see Figure 9). Additionally, however, generous increases in individuals' salaries are also causing wage bill inflation. It was reported, for example, that salaries for CCSS employees increased by 27% in 2010 and 18% in 2011, despite the prevailing global economic crisis (Boddinger, 2012). In contrast, annual growth rate in Costa Rica's consumer price index (a measure of inflation) averaged 4.8% between 2011 and 2014 (OECD CPI indicators, <http://dx.doi.org/10.1787/eee82e6e-en>, accessed on 10 September 2016). The growth in salaries is perhaps remarkable given doctors' falling productivity, discussed in Section 3.4

Unsustainable public sector salaries are a systemic problem in Costa Rica. Government salaries are equivalent to 13% of GDP, on a par with Norway (13.6%) and easily exceeding the OECD average of 10.6%. As noted in the OECD's *Economic Survey of Costa Rica, 2016*, Costa Rica's "public-sector wage bill as a share of GDP is higher than in most OECD countries, even though its public employment share is among the lowest". Effective increases in public sector salaries have far exceed negotiated targets and inflation in recent years (Figure 15). Excessive wage bills pose a threat to the wider social fabric. The Survey also noted that "rising public sector salaries made the largest contribution to inequality between 2010 and 2014, particularly salaries of qualified workers in public agencies outside central government" – such as the CCSS (OECD, 2016a).

Demographic trends and worsening risk factors, self-evidently, will also add to spending pressures. As noted in Section 1, for example, obesity rates are higher in Costa Rica than most OECD countries.

Figure 15. Effective increases in public sector salaries far exceed negotiated targets and inflation in Costa Rica



Source: OECD Economic Survey: Costa Rica 2016: Economic Assessment, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_surveys-cri-2016-en.

3.4. Expenditure ceilings, regular spending reviews and early warning systems should be used to control spending and encourage efficiency in the short term

Central government control over health system spending needs to be reinforced. In most OECD health systems, the central budgetary authority (e.g. the Ministry of Finance) sets expenditure ceilings for the health sector, annually or over multi-year cycles. Ceilings are usually determined by economic rather than health factors, and they may be rigidly enforced. A number of countries have also introduced “early warning systems”, which alert central government to the risk of overspending and allow proactive measures to be taken – rather than relying upon *post hoc* settlements, as the CCSS currently does. Several central budgetary authorities also undertake regular health sector spending reviews to identify inefficiencies, opportunities for disinvestment and potential savings (OECD, 2015a).

The OECD’s System of Health Accounts should be used to help manage spending growth. Costa Rica submission to the SHA, to date, is very basic. Data solely comprise high level aggregates of total expenditure and cannot be broken down by function or provider. Aligning CCSS accounts with the SHA would equip Costa Rica with a robust framework to analyse spending patterns and compare them to international trends. This work is underway

(SHA-formatted data were prepared for 2013, apparently) and should be accelerated.

Central government and the CCSS should draw from OECD experience to use the full range of the policy instruments that control spending growth. In France, for example, National Objectives for Healthcare Spending (ONDAM) targets were introduced in 1996, and ratified by Parliament. Coupled with an early warning system, the targets allowed payments to be withheld from health providers if they exceeded agreed spending limits. Controlling the CCSS wage bill is a particularly urgent priority in Costa Rica. In the United Kingdom, central government has insisted upon caps on health spending in recent years, to be achieved through pay freezes (or limits to pay growth) and reductions in administrative spending (OECD, 2015b).

3.5. In the longer term, health system funds should increasingly come from the general government budget

Costa Rica should reduce reliance upon employment-linked revenues, and increasingly fund its health system from the general government budget. OECD health systems that have historically depended on the labour market for revenue are gradually switching to the general government budget as a source of funding. Payroll-deductions are too narrow a basis for health system funding as fewer and fewer people engage in formal employment. This is true in Costa Rica too (see Figures 2 and 13), but other arguments make the case especially compelling. Structured and more regular use of government funds should introduce a greater measure of budgetary discipline to the health system. In addition, central government already funds important preventive, public and environmental health programmes, so greater reliance on the general budget would allow a more integrated approach to be taken to all health care activities.

France provides an interesting case study that Costa Rica could consider. From 1999 onwards, France has substantially reconfigured the health system's funding base, first by introducing an ear-marked tax on all income (beyond just salaries) and reducing employees' payroll-linked social insurance contributions to almost zero. Later, consumption taxes and taxes on tobacco, alcohol, pharmaceutical companies, pollution and other elements were used to provide extra revenue (OECD, 2015b, 2016e).

A detailed technical review of future funding options for the health system should be undertaken. Costa Rica is considering, for example, whether local taxes could fund some health care services, such as primary care. "Sin taxes" on alcohol, tobacco and other products are also being

discussed. Formally defined user charges or co-payments may also be an option at the margin, to substitute and better target rising levels of OOP spending by encouraging use of high-value services and discouraging unnecessary care. Caution, though, is needed with any reconfiguration of the funding base. Both co-payments and sin taxes, for example, are typically regressive and ear-marking new taxes for health care at local (or national) level can introduce unnecessary rigidities into resource allocation, and/or backfire if the general allocations for health care are reduced. Overall, an independent technical review of future funding options for Costa Rica's health care system should be commissioned. Critically, this work should go hand in hand with efforts to cut waste and increase value from spending today.

3.6. A defined benefits package in secondary care should be introduced, supported by systematic health technology assessment

Costa Rica should establish an independent, transparent and rigorous process to assess the cost-effectiveness of health care activities. Previous attempts to establish a health technology assessment function have been unsuccessful, and currently only budget-impact analyses are undertaken. Establishing systematic and rigorous cost-effectiveness analysis would allow the coverage of secondary care services to be more closely defined, by excluding poorly cost-effective interventions. Whether Costa Rica sets up its own agency and/or collaborates in regional initiatives, it is important that adequate funds, workforce, political support and international technical assistance are in place to deliver timely, robust and transparent assessments. Encouraging public/patient participation in cost-effectiveness assessment will also support credibility.

An increasing number of countries in the Latin America region are developing sophisticated health technology assessment agencies. In Colombia, for example, the *Instituto de Evaluación Tecnológica en Salud* (IETS, institute for technical health evaluations) was created in 2012. This public-private institute has developed its own methodology to perform evaluations of evidence-based technologies and produce guidance and protocols over medicines, procedures and treatments. It makes recommendations on which technologies should be covered by the national health system, and offers Costa Rica a model to follow (OECD, 2015c).

Opportunities for identifying and disinvesting from low-value care should also be sought. The full range of OECD experience in this regard will be set out in a forthcoming OECD publication *Releasing Health Care System Resources: Tackling Ineffective Spending and Waste*. One particularly promising example concerns the *Choosing Wisely* campaign to

reduce waste, overuse and harm. The campaign distills complex clinical guidelines into “nuggets of evidence-based don’t do’s”. These are intended to be shared and discussed with patients, avoiding alarm about rationing. An example would be MRI scan of the lower back in the first six weeks of uncomplicated back pain (<http://www.choosingwisely.org>).

3.7. Innovation in payment systems would allow value and patient outcomes to be better rewarded

In hospitals, DRG-based data should be used to shift reimbursement away from historical budgets. Historically-based global budgets can be inflationary if not underpinned by detailed analyses of whether activities are appropriately meeting needs. In contrast, funding based on DRG analysis can allow for a more finely tuned prospective budget, coupled with add-on payments to encourage particular activities or expenditure caps on others. Accordingly, many OECD health systems use DRG systems not just to monitor hospital activity, but as the basis for payment as well. This is especially true in countries with social health insurance, such as Australia or the Netherlands. Even in systems that are tax-financed (and/or use residence-based health insurance coverage as in Costa Rica), DRG-payment systems increasingly used for hospital payment. DRGs form the basis for hospital payments in England, for example. Downward-adjustment of the national tariff attached to these realised savings of, on average, of 1.5% in cash terms between 2011-12 and 2014-15 (OECD, 2015b) demonstrating the potential power of DRGs in better understanding hospital budgets. Costa Rica should look to move away from budgeting based on historical outlays, to more strategic methods of targeting and controlling spending.

In primary care, budgets should include a greater element of risk-adjusted capitation. Although Costa Rica’s historic budgets in primary care imply some degree of responsiveness to local health care needs, a more transparent risk-adjusted capitation scheme would allow more strategic resource allocation, and proactive prioritisation of particular health care needs. Nearly all OECD countries that use capitation adjust for risk factors (including age, gender and health status) to ensure that the health care needs of specific groups (such as the elderly) are properly addressed. Capitation is usually combined with fee-for-service, to encourage particular activities. Costa Rica starts from a good base here, since it already has a blended payment system in primary care (see Box 1) and a rich understanding of local health and social care contexts through the family record held within EDUS (see Box 4).

Health care worker salaries should be better linked to performance. There is an urgent need to better control growth in Costa Rica’s public-sector wage bill, and it is unacceptable that recent large increase in health care workers’ salaries have not been accompanied by any convincing improvement in productivity or patient outcomes. Ideally, payments to clinicians should reflect value, as far as possible. This can be accommodated within existing FFS schemes, by expanding the definition of a “service”. In Japan, for example, the FFS schedule has matured to include packages of pro-active care for people with chronic diseases. Furthermore, value should be measured by improved patient outcomes where possible. In Sweden, for example, 10% of the payment for spine surgery is related to the patient’s functionality after surgery. Although the evidence base for performance related pay is still evolving, it is clear that any physician P4P scheme should be aligned with non-financial incentives and complementary incentive schemes at institutional and/or locality level. At the very least, no further pay increases should be awarded for CCSS employees (beyond those permitted by labour law, such as inflation-linked increments), unless they can be clearly linked to increased productivity or value.

3.8. The availability and use of performance data needs to be improved

More robust and detailed information on health care activities, costs and outcomes is Costa Rica’s most pressing need. Without a fuller understanding of how health care needs link to activities, costs and outcomes – at individual patient level – the CCSS will struggle to control costs, achieve full separation of the purchaser and provider functions, and develop more innovative payment models that incentivise quality and productivity. This information should be collected system-wide as well as for specific patient groups, and be used to predict evolving health care needs and model potential service reconfigurations.

Reinstating a DRG system to analyse hospital activity should be the first priority, given that costs are accelerating most rapidly in this sector. Nearly all OECD health systems use a DRG system to monitor and analyse hospitals’ activity. Although these vary significantly in their detail and complexity, they allow health system planners to better understand trends and variation in hospital care. Extensive international experience is available to support Costa Rica to re-establish a DRG system (Busse et al., 2011).

Better information on hospital activity should be linked to patients’ outcomes, as well as to pathways of care outside the hospital system. This is a challenging undertaking, but Costa Rica’s EDUS framework (see Box 4) offers a solid basis to achieve it. Costa Rica should look to OECD country

experience to accelerate progress with EDUS. In Finland, for example, the *PERFormance, Effectiveness and Cost of Treatment* (PERFECT) project links individuals' data to report outcomes and costs for whole pathways of care for patients with breast cancer, schizophrenia and several other conditions. Likewise, reforms in Portugal demonstrate success in optimising both cost and quality across numerous clinical areas including prescribing, day-case surgery and care for chronic conditions (OECD, 2015d).

*Finally, the CCSS should resume annual publication of performance reports, in formats oriented to the public as well as more technically detailed analyses for professional groups. The fact that performance reports are only accessible for 2013 and 2014 is a significant failing. Other publicly-funded health systems make detailed analyses of performance readily available in a variety of formats. The CCSS should aspire to a similar level of transparency, and ensure that indicators are aligned to international benchmarks such as OECD's *System of Health Accounts* and *Health Care Quality Indicators*. Canada offers a particularly rich illustration to emulate (<https://www.cihi.ca/en/health-system-performance>).*

Notes

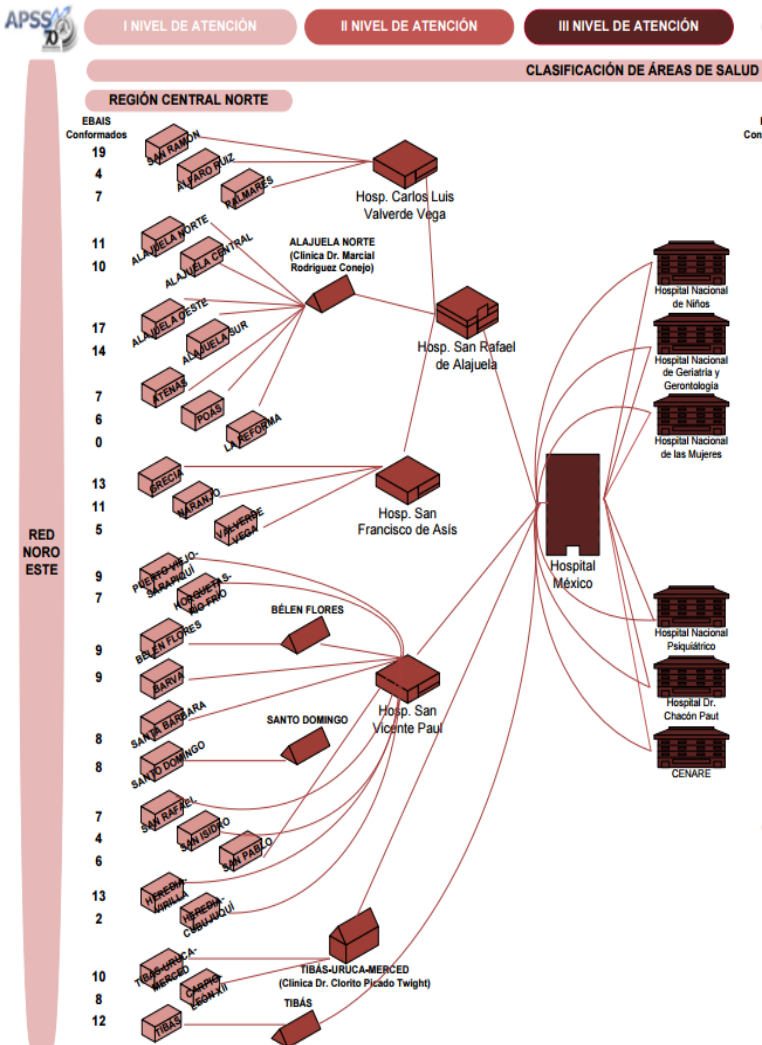
1. The Human Development Index (HDI) is a composite statistic of life expectancy, education, and per capita income indicators, published by the United Nations Development Programme.
2. The Gini coefficient summarises the income distribution within a population. A Gini coefficient of zero expresses perfect equality (i.e. everyone receives the same income). A Gini coefficient of 1 expresses maximal inequality (i.e. one person receives all income).
3. Pre-determined quotas on the number of students admitted nationally to a training programme.

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Annex A Illustration of a CCSS Service Network



Annex B

CCSS Primary Care Performance Framework

Dimension	Indicator	2018 target
Access	Hypertension screening Cervical cancer screening Early childhood intervention Early pregnancy intervention HIV screening in pregnancy Early post-natal intervention Elderly influenza vaccination Participation in at least 8 healthy lifestyles workshops Health promotion campaigns	38% target pop'n 45% target pop'n 85% target pop'n 85% target pop'n 60% target pop'n 90% target pop'n 80% target pop'n 0.25% target pop'n 2 campaigns
Continuity	Timely colposcopy Timely syphilis screening in pregnancy Timely syphilis treatment in pregnancy Completion of immunisation schedule in first year of life Completion of immunisation schedule in second year of life Drop-out rate from pentavalent vaccine schedule Anaemia screening in children under 2 years Anaemia treatment in children under 2 years	100% target pop'n 80% target pop'n 100% target pop'n 95% target pop'n 95% target pop'n Less than 5% 80% target pop'n 100% target pop'n
Effectiveness	Lipid control in individuals with dyslipidaemia Blood pressure control in individuals with hypertension Glycaemic control in individuals with diabetes Blood pressure control in individuals with diabetes Lipid control in individuals with diabetes	55% target pop'n 65% target pop'n 52% target pop'n 40% target pop'n 52% target pop'n
Acceptability	Patient satisfaction scores	73%
Efficiency	Index of Relative Efficiency score	100
Administration	Disability Assessment certification Technical Support certification Budget certification Human Resources certification Occupational Health certification Fire Safety certification	

Annex C

Screenshot of a primary care performance indicator available from the EDUS information system



Source: <https://edus.ccss.sa.cr/>.

COSTA RICA

ASSESSMENT AND RECOMMENDATIONS

These reviews examine the performance of health care systems in various countries, highlighting key challenges and opportunities for system strengthening based on international best practice. Each review provides targeted recommendations to improve health system accessibility, quality, efficiency and sustainability in the subject country.

<http://www.oecd.org/els/health-systems/reviews-health-systems.htm>