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CERGAS
Centro di Ricerche sulla Gestione dell'Assistenza Sanitaria e Sociale

SDA Bocconi School of Management

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40 YEARS TOGETHER

EXECUTIVE SUMMARY
2018 OASI REPORT

Observatory on Healthcare Organizations and Policies in Italy

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This executive summary offers a synthesis of the broader 2018 OASI Report for the international audience.

Every year, the research carried out by OASI (Observatory on Healthcare Organizations and Policies in Italy) aims at offering a detailed analysis of the Italian healthcare system, outlining its future evolution.

The OASI Observatory is a CERGAS - SDA Bocconi initiative. CERGAS (Centre for Research on Health and Social Care Management) is part of the SDA Bocconi School of Management, the top School of Management in Italy and one of the highest-ranking in the world[1]. CERGAS researchers apply principles, instruments and techniques from policy analysis and management to support public institutions, not-for-profit organizations and enterprises targeting collective needs for health and social care.

This executive summary transmits the key messages and main evidence of the full OASI 2018 Report, following the general structure of chapter 1 of the Report. For more information, please refer to the individual chapters of the Report and the sources cited. The summary is divided into four sections. ***Key facts*** (p. 3) presents the 10 main policy and managerial trends described and interpreted in the OASI Report. Relevant figures and concepts are integrated with reference to the corresponding chapters of the 2017 OASI Report and to external sources. The **Index** (p. 9) reports the 2018 OASI Report table of contents, giving the reader the opportunity to retrieve the original research reports. ***Appendix* I** (p. 10) outlines the main features of the Italian Health System within a country overview, while **Appendix II** (p. 11) includes a list of useful data sources related the Italian health care sector.

The contents of the OASI Reports from 2000 to 2018 are fully available in Italian on the CERGAS website: www.cergas.unibocconi.it. The abstract of all chapters of the 2018 OASI Report are also available in English.

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[1] SDA Bocconi is ranked 6th in Europe according to the Financial Times.

10 KEY FACTS to understand the Italian Healthcare System

A. The healthcare system: recent trajectories, critical issues and new axes of stability

Overall positive health results, despite inter-regional heterogeneity, with two elements of stability: the consolidation of the economic-financial equilibrium and the end of the recent round of restructuring of the regional institutional structures.

 # 1. Contained health care spending and a well-established financial and economic balance

- In 2017 Italian National Health Service (INHS) expenditure increased by 1.3% compared to 2016, reaching 117.5 billion Euros. Between 2012 and 2017, the average growth rate of INHS expenditure was 0.6% per year in nominal terms[2], equal to 3.5 billion in absolute terms. *See chap. 3 and chap. 6.*
- The Central and Southern regions are now as virtuous as those of the North in the pursuit of economic-financial equilibrium. In 2017, Lazio and Campania recorded the largest budget surpluses: €529 and € 77million, respectively. *See chap. 3.*
- In 2016, total health expenditure in Italy corresponded to 8.9% of GDP compared to 9.8% for Great Britain, 11.1% for Germany, 17.1% for the United States. The INHS ("public") expenditure covers about 74% of total expenditure, 24% out-of-pocket private spending, with private insurance making up the remaining 2%. *See chap. 3 and chap. 6.*

Between 2012 and 2017, out of total Welfare expenditure, the share allocated to healthcare expenditure decreased from 22.8% to 21.8%. In the period considered, the share of pension expenditure also fell, from 69.5% to 68%. Welfare expenditure, mainly due to disability and caregivers' allowances, went from 7.7% to 10.2%. *See chap. 3.*

 # 2. The public supply in gradual reduction and remodulation

- Between 2010 and 2017, the percentage of health expenditure covered by public sources showed a slight but steady decline, estimated at 2.4 percentage points over the period considered. *See chap. 6.*
- Public sources cover 95% of hospital admissions, but only 65% of long-term care (LTC) in residential facilities and 60% of outpatient services. *See chap. 6 and ISTAT - Italian National Institute of Statistics (2017).*
- There is an overall inter-regional convergence towards bed allocations planned by legislators (3.7 hospital beds per 1,000 inhabitants), as well as towards the expected hospitalization rate (160 per 1,000 inhabitants). At the national level, there are 3.55 beds and 126 hospitalizations per 1,000 inhabitants. *See chap. 2.*
- All types of hospital care (inpatient hospitalizations and especially day hospital) show decreasing trends. Overall, hospitalizations dropped to 9 million in 2016, with a decrease of 25% in the period 2008-2016. *See chap. 2.*
- National data on the volumes of outpatient specialist care, historically reported by the Statistical Yearbook of the National Health Service, are unfortunately only available through 2013. Extractions from the databases of some Northern regions (Emilia Romagna, Lombardy) show, however, a substantial stability in laboratory and diagnostic volumes between 2015 and 2017. *See Open Data portal of the Emilia Romagna Region and the Lombardy Region.*
- Emergency care visits were stable at around 20.5 million, with an increase in the number of patients with more than 65 accesses, between 2007 and 2015 (from 29% to 34%). Emergency services are, therefore, configured as a physiological relief valve against a health supply in stasis or substantial reduction. *See chap. 2 and ISTAT (2018), Population and Families Section, Single people by gender, age, and marital status.*

[2] In real terms, the increase in spending was offset by inflation, whose average annual rate over the period considered is equal to 0.7%.

- There is a marked weakness in the home and post-hospital care services: only 27% of over85 year olds are discharged providing continuity of care, while the Integrated home care (ADI) registers a 17-hour care intensity, per year, for the user (down compared to 22 hours in 2008). *See chap. 2 and chap. 5.*

 # 3. Increasing health and social-health needs in a fragmented society

- In Italy, in 2017, 32% of households are single person; this is 8.1 million individuals, of which over half (4.4 million) are over 60. Between 2011 and 2017, the latter category grew by 14%. New social phenomena, such as the increase in over 60 year olds who live alone as a result of divorce or separation, has increased from 314,000 to 515,000 (+ 64%) over the same period. The exacerbation of the process of fragmentation of the family and social fabric makes it more difficult, but at the same time more urgent, to address frailty. *See chap. 1.*
- The ratio between the over 65 population and the active population is equal to 35%, the highest value among European countries, the average number of children per woman held steady at 1.34 and the average age of mothers giving birth increased (31.8 years). Between 2010 and 2017, the over 65 population grew by 1.3 million people (+ 11%). The data bear witness to the persistence of an important demographic crisis, which undermines the conditions underlying the precarious balance of the current Welfare system. *See chap. 2 and EUROSTAT, 2018, Old Age Dependency Index.*
- In 2016, patients with at least one chronic disease in the country represented 39% of the population, while those with chronic multi-morbidity, 21%. The latter, often classifiable as "complex" chronic patients, globally tend to absorb a large part of the provision of outpatient services, prompting occasional recourse by patients to the paid circuit. *See chap. 2.*
- The non-self-sufficient elderly numbered 2.8 million compared to 301.693 beds in residential facilities available in 2015. Social and health services as a whole are scarce compared to potential requests, with public services covering about 32% of the demand. There is both a lack of resources and a fragmentation of institutional capabilities (dispersed between INHS, INPS, Municipalities). Families therefore tend to self-organize (direct engagement in the care of their relative, help from an informal caregiver, recourse to hospitalization in complete health care). *See chap. 5.*
- The 25% of senior citizens, over 85, hospitalized at least once within a year. The hospital stay is on average 11 days. And 67% of admissions for over85 year olds result in a series of consecutive hospitalizations over the year. Only 16% of the over85 population is discharged with some kind of continuity of care in place (hospitalization in an intermediate structure, home care, home hospitalization). The insufficient governance of social and health demand negatively affects the functionality of emergency-urgency health services, the only ones that are almost always present and accessible, but often clinically inappropriate. *See chap. 5.*

 # 4. Appropriateness and good health outcomes, with some areas of concern

- In 2016, Italy recorded excellent life expectancy, equal to 82.8 years, higher than the United Kingdom, the USA and Germany, but slightly lower than France and Spain. *See chap. 7.*
- Life expectancy in good health in Italy is slightly increasing, but to a lesser extent compared to other developed countries. Life expectancy is also growing, but less so than in other countries: Italy fell from second to sixth place between 2000 and 2016 in WHO surveys, even while recording higher values than the United Kingdom, Germany and the USA. *See chap. 7.*
- The mortality rate in adults (15-60 years) is among the lowest on the international scene and lower than those recorded by United Kingdom, Germany, France, Spain and USA. Conversely, Spain and France have standardized rates of overall mortality that are more modest than those in Italy. *See chap. 7.*
- At the national level, the long-term trend in mortality rates for the leading causes of death declined between 2003 and 2015 (with average annual decreases between -1.3% and -2.2%, depending on the

regions). Mortality due to mental disorders and diseases of the central nervous system is increasing in all regions (from + 0.5% to + 5.8% in terms of average annual rates). *See chap. 7.*

- In 2016, Italy had fewer inappropriate hospitalizations (asthma, COPD and diabetes) than in the United Kingdom, USA, Spain, Germany and France; on the other hand, it shows high consumption of antibiotics and a reduction in caesarean sections, but still higher than other benchmark countries. *See chap. 2.*
- In 2016, the percentage of citizens who declare an episode of having to renounce on treatment was 5.7%, down compared to 2015 (7.9%). The waivers are mainly due to the perceived cost of services. The most significant drop in the renunciation of care was recorded in the poorest sections of the population. The slight economic recovery and the important work aimed at reducing waiting lists are likely explanations of this significant improvement. *See chap. 7.*

 # 5. An unequal health system

- Despite the decrease in hospitalizations, between 2014 and 2016 interregional mobility recorded an increase of about 8,000 hospitalizations. In 2016, the share of inpatient admissions on extra-regional mobility was 8.2% for acute and 16.3% for rehabilitation. From 2017, the introduction of national regulatory limitations to extra-regional admissions may however have limited flows. *See chap. 2 and Report SDO 2016, Ministry of Health.*
- Indices such as the incidence of caesarean sections or discharges with medical DRGs from surgical departments suggest the persistence of a qualitative gap between the hospital systems of the North and South of the country. *See chap. 2.*
- Between 2012 and 2017, the gap in the average score for the «LEA Grid» indicators the for regions under Recovery Plans ("Piani di Rientro") compared to those never forced to go under Recovery Plans has increased from 34 to 37 points. *See chap. 2.*
- The standardized mortality rates of some provinces of the South, such as Naples and Caserta, are 20% higher than the national average. *See chap. 7.*
- Healthy life expectancy varies from 52 years in Calabria to 69 in the Autonomous Province of Bolzano and, more generally, from 56.6 in the South to 60.5 in the North. In addition to the socio-economic context, varying ability to take care of chronic conditions and LTC partly explains this differential. *See chap. 5.*
- The rates of coverage of LTC needs, contained in the North, tend toward zero in the central and southern regions. *See chap. 2 and chap. 7.*
- Private health expenditure of families is biased in the North. Valle D'Aosta and Lombardy, with 951 and 825 Euros per inhabitant, register values that are more than double compared to Campania (335 euros). *See chap. 6.*

 # 6. The need for new and informed personnel policies

- The INHS provides a considerable contribution to national employment: NHS employees represent 1.0% of the population, 1.6% of the active population (15-65) and 2.7% of those employed. *See chap. 2.*
- Restrictions on hiring to replace turnover emerges as the main means of containing health spending in recent years. In Italy nursing staff is less than half compared to Germany: 5.6 nurses per 1,000 inhabitants versus 12.9. At the same time, 53% of doctors are over 55; the number of candidates for medical specialties is more than double compared to the contracts financed (16.046 versus 6.934). The problem is the scarcity of resources to hire and train trainees, not the lack of doctors. *See chap. 2 and MIUR, 2018, institutional site.*
- Numbers of employees in several southern Regional Healthcare Services (RHS) have dropped significantly, and their numbers are now lower than in the north. In 2016, Lombardy registered 9.6 NHS

employees per 1,000 inhabitants (-3% compared to 2010), compared to 7.3 in Campania (-15%) and 7.1 in Lazio (-14%)[3]. *See chap. 2 and chap. 12.*

- The nurse to doctor ratio at the national level in 2016 was 2.45, with significant inter-regional variability, substantially stable compared to 2010. The Northern regions maintain a greater number of nurses compared to doctors, reflecting the difficulty in rebalancing the skill mix of the RHSs often affected by the Recovery Plans. *See chap. 12.*
- Between 2006 and 2016, administrative role profiles in public healthcare companies rose from 77.148 to 68.947 and those under 35 dropped by 64%, with a consequent increase in the average age: 44% of employees in administrative roles were over 55. In some specific functions, the incidence of employees under 35 to the total was less than 10%, with a significant difference between companies in regions subjected over time to Recovery Plans and not (on average 2.7% vs. 7.1%). *See chap. 14.*

 # 7. Centrality and the prospects of the accredited private sector

- In 2017, INHS expenditure accounted for 18.8% of total public expenditure, with marked differences in the inter-regional comparison. *See chap. 4.*
- In 2016, 30% of INHS beds were located in accredited private facilities, up 3.2 points since 2007. Public and private distributors are highly complementary in the INHS, partly because the latter cover, among others, some areas where demand is growing and limited public supply, such as rehabilitation. *See chap. 4 and chap. 6 OASI 2017 Report.*
- The accredited private hospital sector has added 5,000 new beds and 21 facilities, going from 35% to 38% of total accredited beds. The average size of the accredited facilities is limited: 116 beds. *See chap. 4.*

 # 8. Newfound stability in the institutional set-ups of the RHS

- In 2018, as in 2017, there were 120 local health authorities (LHAs[4]) with an average population served of 500,000 inhabitants. There were 43 Public Independent Hospitals (PIHs[5]), unchanged compared to 2017, but in clear decline compared to 75 in 2015, before the reorganization of some RHS (primarily Lombardy) re-integrate in the LHAs many PIHs. Also the number of public teaching & research hospitals (PTRH[6]) and intermediate entities of the NHS remained unchanged compared to 2017. *See chap. 2.*
- This window of institutional stability has allowed some consolidation of governance structures, organizational structures and managerial skills of the companies, in line with the different delivery missions and specializations. *See chap. 1.*

B. Public healthcare organizations and management: restarted the mechanics of innovation, which strategic direction?

Within the framework of financial and institutional stability, public healthcare organizations (PHO) confirm their ability to activate new operating systems and service models, but identify the strategic priorities to which innovation should be directed. It is increasingly important to verify at the organizational level the effects of models, choices and procedures handled at the regional level. In addition, the time of political-media communication and the implementation time on the administrative side are increasingly divided. The role of

[3] It is specified that these are not differences attributable to the different incidence of the accredited private sector, because in Lombardy the share of expenditure for accredited private assistance is higher (28%) than in Campania (21%) and Lazio (25%).
[4] In Italian, ASL (Azienda Sanitaria Locale) and ASST (Azienda Socio-Sanitaria Territoriale).
[5] In Italian, AO (Aziende Ospedaliere).
[6] In Italian, IRCCS (Istituti di Ricovero e Cura a Carattere Scientifico).

management remains to identify the strategic priorities and take care of their implementation, aware of the elements that determine the areas of autonomy.

 # 9. Management systems and service models: evolutions and open strategic options

- The PHOs born from the merges analysed have often demonstrated competence and relative speed in adapting the management control systems (MCS) to the new, wider organizational perimeters. On the other hand, the contribution of MCS is still uncertain in substantially strengthening the responsibilities and powers of PHOs' middle management, in discontinuity with the classic structure based on the two hierarchical levels of the strategic summit and the operating units of the line. *See chap. 9.*
- In 2018, at least 37 PHOs of the NHS have structured the function of operations management (OM) on a formal level. The mission of OM's functions is common: to pass, especially in the surgical field, from fragmented planning and management of assets and production processes to a more centralized government, uniform and coherent with corporate strategies. It remains to be clarified whether the OM function is destined to become "proprietary" of the assets, or to limit itself to supporting the clinical Operative Unit (OU) with respect to the optimization of production processes. *See chap. 10.*
- Several PHOs have adopted validation tools and development of clinical skills, monitoring the number of cases treated by individual doctors for specific procedures or therapeutic areas. The purpose of the tool remains ambivalent, which can be used to increase the flexibility of doctors or to define the specialization of individual operators and to concentrate the cases. *See chap. 13.*
- The processes to accompany the certification of financial statements have been consolidated, with a greater incidence in the southern regions compared to the north. Even the certification process can and must focus on partially different purposes: it can make some administrative processes more efficient, it can standardize accounting procedures to make financial statements more comparable, or simply validate accounting records. *See chap. 8.*
- The exposure of PHOs on social media has expanded (Facebook, but also Youtube and LinkedIn). Rarely, however, are there dedicated organizational structures that enhance these communication channels. Again, the strategic goals often appear undefined: to convey health information to patients; bring innovation to internal communication, overcoming at least some hierarchies; activate a tool to promote the results achieved and the organization's identity. *See chap. 11.*

 # 10. The role of PHOs' managers: spaces of autonomy between centralized regional functions, administrative time and acceleration of political-media narrative

- The regional models of Population Health Management (PHM) and their applications represent a disruptive opportunity in the traditional models of policy and management for regional health systems: the programming takes place for «the» target populations, and this reinforces the need to balance choices standardized (top-down) with the particulars of health conditions. In these models, the roles of public health and territorial assistance find new value. However, important requirements of the advanced models of PHM, essential to pursue the strategic aims of these models, are absent or embryonic even in the most mature experiences: the development of evaluation systems on outcomes, the lack of social and health information and social, difficulties in integrating general medicine. *See chap. 18.*
- Consolidation of the experience of regional purchasing centers, which now performs a significant share of procurement activities. With regard to drugs, the presence of generic/biosimilar and originator batches in the lot and the fact that the winning product is a generic have an important positive impact on the number of offers and the size of the discount. More controversial, or less important, is the role of the type of procedure, the level of aggregation of buyers and volumes purchased. Generally speaking, it is clear that the effectiveness of a purchase depends not only on the intrinsic quality of the purchased object, but also on the management of the purchasing process. Particular attention must be paid to timing. It is common that the writing of the specifications to the final adjudication takes 2-3 years, with the risk of nullifying any

innovation inherent in a device or a drug. The focus on purchasing center procedures is strategic to allow PHOs to achieve not only efficiency, but also the production of value for the patient. *See chap. 1, 16 and 17.*

- In the perspective of public management, the divergence between political-media and administrative rhythms can, on the one hand, create an area of strategic autonomy and, on the other, increase pressure on management. The moment of implementation is in fact far from the moment of formulation of the target and political attention of the public, allowing significant degrees of managerial autonomy. However, the problems that are being discussed politically, characterized by tight rhythms emphasized by social networks, cannot find quick administrative answers. The role of management remains that of identifying strategic priorities and guiding their implementation, taking into account the elements that continuously reorganize the areas of autonomy. *See chap. 1.*

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Please note that the OASI Report chapters are in Italian. English abstracts are available at www.cergas.unibocconi.it

Appendix I - An overview of Italy and Italian Healthcare

Demographic profile

Italy is the fifth most populous country in Europe, with 60.5 million inhabitants in 2018[7]. The population growth rate is slightly negative (-0.17% in 2017, -0,13% in 2016 and -0,21% in 2015), one of the worst in the EU. On one hand, immigration, with 262,117 foreign newcomers in 2017, plays a key role in maintaining the population decrease close to zero. On the other hand, the balance of the resident population is deeply negative, (-184,000 190,910), mainly due to a low fertility rate (1.32 children per woman).

Socio-economic profile

After years of recession, Italy has seen a slight recovery since 2014, with annual GDP growth rates remaining below 1%. In addition to stagnation, public finances are constrained by the high levels of government debt (133% of the GDP)[8] and tax evasion. Consequently, resources available for welfare expenditure are considerably lower than in other large European countries. According to Eurostat[9], in 2016 Italian expenditure on social protection, per inhabitant, was about €8,100, while Germany reached €10,900, France €10,800 and UK €7,800 at PPS[10]. Italy is a decentralized state, with a significant quota of public expenditure managed by the Regions. Italian territory is made up of 20 administrative Regions, which are extremely varied in size, population and levels of socio-economic development. The well-known divide between Northern and Southern areas is still relevant. Italian per capita GDP is €25,900 overall, while North West regions reach €31,800 (+23% with respect to the national average) and €17,200 (-34%) in the South. According to EUROSTAT (2017)[11], the Italian Gini Index is 32.7, slightly above the EU-28 value of 31.0 and many European countries: France is 29.2, Germany 30.1, while Spain register 34.6. In addition to the Southern regions, socio-economic hardship affects younger people and families with children, since the Welfare State considerably reduces poverty risk only for retired people (ISTAT, 2018)[12]

Healthcare System profile

In 2016, the Italian National Health Service (INHS), a tax-funded, Beveridge-type public insurance scheme, covered about 74% of total healthcare expenditure (please see the Appendix for more details on the governance of the INHS). Private, out-of-pocket (OOP) expenditure accounted for 24%, and the remaining 2% pertained to voluntary schemes like private insurance and mutual funds.
The INHS was introduced in 1978 with Law No. 833/1978, which defined a universal healthcare system for Italian citizens and foreigners legally residing in Italy. The Decree 502/1992 introduced managerial principles into the INHS and marked the start of concerted efforts to devolve healthcare powers to the Regions. Nowadays, Italy's healthcare system is a regionally-based, National Health Service that provides universal coverage, largely free of charge at the point of service. The national level is in charge of general objectives and the fundamental principles of the INHS. Regions are responsible for ensuring the delivery of a package of services through a network of population-based "local health authorities" (LHAs) and public and private, accredited hospitals. The national level defines the total amount of public resources for health expenditure.

[7] The Source of the demographic data is the Italian National Institute of Statistics (ISTAT). Last access 02.26.2018
[8] While primary surplus been positive since 2009, the relevant debt service results in a negative fiscal balance (-2.4 in 2016).
[9] Please see the Eurostat newsreleas 188/2017 – 12.8.2017.
[10] Parity purchase standard Eurostat Parity purchase power
[11] Please consult the EUROSTAT database: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_di12. Last access 02.28.2018.
[12] Please see the report "La redistribuzione del reddito in Italia", http://www.istat.it/it/files/2017/06/CS_-Redistribuzione-reddito-in-Italia_2016.pdf.

This amount is allocated among regions according to their demographic profiles (mainly, age structure and sex ratio). Regions can integrate the National Health Fund with their own additional resources. Regions are responsible for guaranteeing financial equilibrium as well as minimum standards of care. Serious deficits can result in Recovery Plans ("Piani di Rientro"). This kind of compulsory administration entails an automatic increase in regional taxation, while key policy choices are under the strict monitoring of the national government. Today, 7 Regions are under Recovery Plan Schemes; which are mainly located in the south of the country.

Appendix II - Selected data sources for the Italian Healthcare System

- Italian Ministry of Health, Open Database

  http://www.salute.gov.it/portale/documentazione/p6_2_8.jsp?lingua=italiano
- Italian Ministry of Health, Report on Hospital Admissions (Rapporto SDO)

  http://www.salute.gov.it/portale/temi/p2_4.jsp?lingua=italiano&area=ricoveriOspedalieri
- Italian Ministry of Health & National Agency for Regional Health Systems, National Outcomes Program

  http://pne2017.agenas.it/
- Italian National Institute of Statistics, Health statistics,

  http://www.istat.it/it/salute-e-sanit%C3%A0