# Focus on: Healthcare management (I)

# New Context and Old Challenges in the Healthcare System

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### ABSTRACT

The economic crisis cannot conceal the need for transformation of the National Health System. The financial difficulties of healthcare systems whose spending is growing at a faster rate than the economy have been well known for years. The development and diffusion of new technologies, increased use of health services, rising drug costs, inflation of prices, and the inefficiency of the system explain the new context. The challenges facing the healthcare system are not new: address the debt, improve funding, review the list of services, transform the governance of the system and provide the institutions with real management autonomy. The gravity of the economic situation can be an opportunity to carry out the long-awaited changes.

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# Nuevo contexto y viejos retos en el sistema sanitario

#### RESUMEN

La crisis económica no puede ocultar la necesidad de transformación del Sistema Nacional de Salud. Desde hace años son bien conocidas las dificultades financieras del sistema sanitario, cuyo gasto crece a un ritmo superior que la economía. El desarrollo y la difusión de las nuevas tecnologías y la mayor utilización de los servicios de salud, junto con el gasto farmacéutico, la inflación de los precios y la poca eficiencia del sistema, explican el nuevo contexto. Los retos que afronta el sistema de salud no son nuevos: abordar la deuda, mejorar la financiación, revisar el catálogo de prestaciones, transformar la gobernanza del sistema y dotar a las instituciones de una real autonomía de gestión. La gravedad de la situación económica puede ser una oportunidad para efectuar los cambios largamente esperados.

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#### **Abbreviations**

GDP: gross domestic product

OECD: Organization for Economic Cooperation and Development

The magnitude of the economic crisis has sharpened the debate on the sustainability of the national health system. The collapse of the so-called subprime mortgages in August 2007 is considered the initial trigger of an economic crisis of massive proportions, among whose many consequences is the evident inability to maintain the public services that are the pillars of the welfare state. Education, pensions, and healthcare are seriously threatened by the extreme fall in public revenue, which is a direct result of decreased business activity, accompanied by a dramatic increase in unemployment and the marked decline in the number of employees paying into the social security system. There is no end in sight to this scenario, and given the perception that nothing will be as it was before the

crisis, it is obvious that Spain's National Health System created by the General Health Act of 1986<sup>1</sup> must be reformed to ensure its viability.

However, the magnitude of the economic crisis should not obscure the serious financial difficulties which the majority of the health systems of developed countries have been experiencing for years. Over the last 50 years, the establishment of health systems providing universal coverage in the most advanced European countries has contributed to a permanent improvement of health indicators, but also to a continued increase in health spending that is greater than economic growth in these countries. The same is happening in all member countries of the Organization for Economic Cooperation and Development (OECD), where health spending has increased more than the gross domestic product (GDP), finally reaching a situation that calls into question the economic sustainability of healthcare systems, most of which were created and developed in times of greater prosperity.<sup>2</sup>

# THE NEW SCENARIO

The continued growth of health spending in recent decades reached 9% of the average in OECD countries in 2008. In all cases, health spending has outpaced economic growth in these

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countries; in the last 15 years their annual GDP growth rate was 2.6%, while in the same period increased health spending reached an annual rate of 3.9%. The evidence shows that health spending increases as countries develop and focus on improving welfare, but several factors have clearly contributed to the continued growth of health spending. <sup>2-4</sup>

# **Development and Accelerated Diffusion of Health Technology**

Health technology, understood as any technique, procedure, or diagnostic, therapeutic, and organizational system, has undergone extraordinary progress in recent decades and has decisively contributed to improving public health.

However, health technology is also considered a major cause of increased health spending,<sup>5</sup> largely due to its improper use; its development and diffusion leads to an increase in indications for inappropriate medical and surgical procedures, unnecessary pharmaceutical prescriptions, or an increase in the population targeted for treatment.

Furthermore, new technologies with limited evidence of efficacy have been introduced, to which should be added a well-known effect: new technologies do not always replace previous ones, but rather are added to them.

Some authors suggest that the diffusion of new technologies could help to explain the increase in health spending, which ranges between 33% and 50%.

## **Increasing Demand and Use of Services**

The increased use of health services has a direct impact on health spending. Spain is one of the European countries where individuals visit the doctor more often: there are 7.5 visits per capita per year, whereas in Sweden the rate is 2.9 visits per year.<sup>2</sup>

Several factors influence the degree of frequency of use of medical services, including the existence of extra charges. In principle, free medical services improve access to health services, whereas the existence of any payment by the user—a moderating "ticket"—tends to reduce the use of health services, as several studies have shown.<sup>7</sup>

We now address the main reasons for the increasing use of health services.

## An Aging Population

This is considered the most important factor in all developed countries and, as suggested by some authors, may be responsible for around 20% of the increase in health spending; however, other authors suggest that the terminal phase of disease explains the impact on health spending far better than age. The projections for Europe suggest that people older than 65 years will constitute 24% of the population by 2030. In Spain, it is expected that 31.9% of the population will be more than 65 years old and 11.8% will be more than 80 years old by 2049 (in 2009, the percentages were 16.8% and 4.9%, respectively). Living longer does not necessarily mean good health in old age and the increased risk of developing a chronic disease in these stages of life translates into higher healthcare costs. In the second of the property of the population will be more than 80 years old by 2049 (in 2009, the percentages were 16.8% and 4.9%, respectively). Living longer does not necessarily mean good health in old age and the increased risk of developing a chronic disease in these stages of life translates into higher healthcare costs.

# The Increase in Chronic Diseases

According to the World Health Organization, 60% of all deaths worldwide are due to chronic diseases. It is estimated that in the European Union 20% to 40% of individuals more than 15 years old have a chronic illness. <sup>10</sup> Chronic patients are the most frequent visitors to doctors and there will be many more in the future. In

industrialized countries comorbidity is around 25% in individuals over 65 years old, and the health systems that serve them are oriented "to cure rather than to care". The current care model focuses on the care of acute illnesses, but several guidelines have recommended directing increased attention to chronic diseases.

The available results show that a critical factor in the care of chronic patients is to design a health system that integrates and coordinates the involvement of various agents in a shared culture and strategy of patient care. Models of chronic care are increasingly based on patients having more responsibility and decision-making power in the management of their disease.<sup>2</sup>

## Unhealthy Lifestyles

Risk factors such as obesity, a sedentary lifestyle, and smoking also contribute to an increased use of health services, and together with hypertension and hypercholesterolemia explain an "epidemic of premature cardiovascular mortality". Spain is one of the European countries with a higher percentage of obese individuals and several studies have demonstrated the high level of health spending associated with obese adults.

## People Have Higher Expectations

This factor also contributes to increased healthcare costs. Various reasons may explain this situation: the relative increase in the concept of quality of life and less acceptance of disease, the medicalization of issues that were not previously considered health problems, <sup>14</sup> and second medical opinions or the increasing legal liability of health professionals and its impact on conservative medical practices.

## **Inflating Medical Costs Are Outpacing General Inflation**

Some studies suggest that this is the second leading cause of increased health spending. The main elements of inflation specific to this sector include the price of new drugs, prostheses, technological or medical devices and materials, and the salaries of health professionals. In recent years, we have witnessed a process of rising unit costs of new health technologies (drugs, prostheses, etc.) due to the increasing costs of introducing innovations. On the other hand, in the period of economic growth, there has been a process of updating professional salaries which, together with the shortage of health professionals in certain specialties, has led to increases above the CPI. This phenomenon is of such importance that the first measures taken to reduce the deficit were specifically the reduction of drug prices and the lowering of the salaries of health professionals.

#### **Pharmaceutical Expenditures**

Spending on pharmaceuticals is on average 17% of the total health expenditures and 1.5% of the GDP in OECD countries, although there is great variability between them. In these countries, pharmaceutical expenditure had outpaced health expenditure, but between 2003 and 2008, after some containment measures had been implemented, pharmaceutical spending decreased by 3.1% of total health spending, which had an average annual growth rate of 4.5%.<sup>2</sup>

Pharmaceutical expenditure containment policies are generally based on price controls, the number of prescriptions, the introduction of generic medicines, and increasing costs borne by users. In Spain, pharmaceutical spending represents 22% of health spending, which is higher than in other European countries,

although the price of pharmaceuticals is lower than in these countries. This may be explained by higher consumption of pharmaceuticals compared to the other countries. The policies and actions implemented to contain pharmaceutical expenditure in Spain have remained constant in recent years, but the measures adopted have not achieved the expected results, possibly due to their being expedients that focus exclusively on the supply side with no attempt being made to overhaul the entire process. In this sense, it is striking that the public contribution to the cost of drugs, the only relevant copayment of the Spanish health system, has been steadily declining over the past 20 years, decreasing from 11% to 5.8%.<sup>3</sup>

# Low Efficiency of the Healthcare Model

Various apparently unrelated factors influence the efficiency of the health system and the overall growth of health spending. Thus, poor integration between healthcare levels involves increasing costs of administering and coordinating the system, which is clearly demonstrated by duplicated medical visits and diagnostic tests.

Similarly, the productivity of health professionals has a considerable effect on health spending. In the Spanish setting, the prevailing model is one of salaried professionals; changes in their productivity have an immense impact on health spending. Various analyses<sup>3,16,17</sup> have highlighted the low productivity of the whole public sector in Spain and that of healthcare professionals. The increases in medical care costs are mainly due to increases in health center staffing levels.

In addition, clinical practice has certain shortcomings: variability and adverse events associated with healthcare involve additional costs to the system.

Fulfilling certain administrative formalities (prescription renewal, filling in sick leave forms for patients, etc.) also leads to inefficient activity and use of medical services. On the other hand, increased efficiency is very unlikely in a healthcare system which is extremely rigid, bureaucratic, and politically colonized, in which health institutions lack both basic management autonomy and incentives to improve efficiency or instruments that can identify and recognize excellence among its professionals.

Health systems should be economically sustainable if the benefits of maintaining or improving the level of health of individuals are higher than the costs of their healthcare. Some authors suggest that increased health spending is associated with the reduction in mortality—specifically, mortality due to cardio-vascular diseases—which by itself would explain at least half of the reduction in the mortality rate. 18

According to some projections,<sup>4</sup> if health spending in European countries continues to grow at current rates it could increase from 8% of the average GDP in 2000 to over 14% in 2030. The biggest problem is that health spending in these countries is growing at a faster rate than their economies and their ability to fund it through taxes or levies. Thus, given that the sustainability of the health system mainly depends on economic growth, over the short term the economic crisis, slower growth, and consequent deterioration of public finances are seriously endangering the sustainability of the health systems that were already experiencing structural sustainability problems.

# **OLD CHALLENGES**

In the case of Spain, the situation is even more dramatic than in neighboring countries, mainly because in addition to the structural deficit the health system has been burdened by its debt to providers (pharmaceutical industries, medical technology providers, private health providers, pharmacies). At the end of 2011, its debts to the pharmaceutical industry and healthcare technology industry alone reached 11 595 million euros, 36% higher than in 2010, with an average delay in payments of more than 500 days. <sup>19</sup> When other health system providers are included, the debt probably rises above 15 000 million Euros. The gravity of this situation very seriously compromises the sustainability of the health system and requires drastic measures to contain the deficit in the short term and the implementation of structural transformation measures in the medium and long term.

#### **Accumulated Debt**

The first challenge is undoubtedly to fully uncover the current National Health Service debt, establish a solvency plan to stop it from increasing, and agree to a mechanism to clear the debt to suppliers. The risk of not agreeing to a solution is that some of these enterprises will place restrictions on supplying health centers, as has happened in other southern European countries.

Total health spending in Spain accounts for 9.5% of the GDP (2009), which is one of the lowest in Europe, whereas life expectancy in Spain is one of the highest in the world. The health system in Spain is financed by taxes and funds are transferred to each autonomous region. The autonomous regions then decide on the amount to allocate to health spending, which represents between 35% and 40% of their overall budgets. In 2009, they allocated 64 097 euros to health budgets (about 1320 euros per person per year).<sup>20</sup>

In the present setting, the possibility of bearing rigid health costs, which can only be reduced with great difficulty, are very limited. In Spain, between 2007 and 2010, the fall in public revenue was over 20%, 21 but in the same period health spending continued to increase and attempts to curb its growth have been, at the very least, suboptimal. Regional governments with greater accumulated debt and a greater budget deficit may not be able to maintain their level of public spending—thus endangering the sustainability of health spending—while reducing the accumulated debt to suppliers. It is reasonable to expect them to rapidly cut spending and initiate an in-depth transformation of their health systems.

# **Improving Funding**

The options to increase public revenue are few. It is hoped that the tax increases announced by the new Spanish Government will translate into increased revenues, but if the economic recovery is delayed or a new economic recession occurs, the revenues generated could be lower than expected.

A second option is to switch over to direct economic contributions by the users. Spain is one of the few European countries in which no mechanisms have been established for users to participate in costs<sup>16</sup> and where the high percentage of free health services does not contribute to the population being aware of its cost. This approach is widespread in OECD countries, and in a context where public funds are exhausted, there is a growing tendency to introduce individual sources of funding other than collective sources. These instruments-copayments-have the effect of reducing the use of health services, increasing individual responsibility, and increasing funding for the system.<sup>22</sup> However, it is accepted that the application of copayments can affect equality of access to services and represent a "tax" borne by the patients. Thus, they should be linked to income level and modulated by type of disease. In any case, the administration of copayment involves an added cost.

In the case of Spain, one of the lowest added costs requiring the fewest modifications would clearly be to update copayments at the

pharmacy.<sup>3</sup> The patient's actual contribution to drug costs has been cut in half between 1990 (11%) and 2010 (5.4%).

#### The List of Services

One issue to be addressed in the near future is the length of the list of services and, fundamentally, the mechanism by which these are incorporated into the system. Rationing services or limiting or reducing the services covered are usually included in any healthcare reform agenda, but are difficult to implement. It would be arduous to modify the list of services without having resolved the assessment procedure and the incorporation, if any, of new healthcare services and technologies. Assessment should be the first step before including a new service in the health system list, and in this sense, reports issued by assessment agencies should be definitive. Despite being widespread, the recommendations and reports of the majority of these agencies are not binding on their governments, not even those of the United Kingdom-based National Institute for Health and Clinical Excellence (NICE), which applies cost-effectiveness criteria to assess medical practices and new services. The National Health Service (NHS) is required to incorporate a new service in its catalog if positively recommended by the NICE, whereas negative recommendations remain at the discretion of the NHS.

#### Governance of the Health System

The organization of the health system itself is one of the pending changes at both central and regional levels. To the extent that the system involves more actors—various Public Administrations, health institutions with legal standing, professional groups, healthcare providers, citizens, etc.—the complexity of the system has increased and traditional approaches for governance based on hierarchies are inadequate in this context. Thus, the governance of the system affects models "where the hierarchy is, simply, one of many mechanisms that may shape relationships between multiple actors". <sup>23</sup>

The effective separation of service delivery purchasing functions—a model based on the contract between healthcare service buyers and suppliers—promotes transparency and efficiency. This requires a governance system that facilitates the clear identification of responsibilities in the health system and the monitoring of health objectives established in contracts.<sup>2</sup>

In this scenario, the involvement of the public should increase. This is in contrast to the principles that have guided the creation and development of a large part of the health systems, which have typically been a type of "enlightened despotism" based on the concept of "everything for the people, but without their involvement". Policies on quality and patient safety must also acquire greater importance, while patients will be more responsible for their own health as well as any treatment and care regimes to be followed.

# **Management Autonomy**

The autonomy of health institutions is an essential factor in obtaining greater and better use of resources. To ensure the genuine and effective autonomy of health institutions, they need to have legal standing and a professional governing body that is independent and not politically colonized. The mechanism and criteria to be applied to appoint members to this governing body — administrative council, board of directors, governing board, depending on the legal formadopted—represents a crucial decision to safeguard the independence of the institution, strengthen its

identity, free it from political influence and, ultimately, ensure good government. "Transparency, accountability and incentives to promote participation"<sup>24</sup> have been cited as essential requirements of good government.

Unfortunately, the Spanish health system as a whole is, in reality, very far from meeting these requirements. There is often confusion between government administration and management; budgets become restrictive instruments removed from the actual situation and needs of the hospitals; politicians and the party apparatus appoint, dismiss and exchange the managers of health institutions; there is no culture of measuring outcomes and so management teams are not dependent on them, thus leading to very limited accountability; and finally, many health organizations behave as mere administrative services. 24

Management autonomy involves the transfer of responsibility to hospitals and their professional staff. There is increasing evidence indicating an association between management autonomy and better outcomes in hospitals and health centers, as well as professional staff becoming more involved in and responsible for hospital management. A study of 1194 hospitals in 7 countries (Germany, Canada, France, Italy, the United Kingdom, Sweden, and the United States), <sup>25</sup> showed that when there is improved hospital management, the quality of patient care improves as well as productivity. Noting the variability in management practices in the hospitals studied, the authors associate the most effective management with some common factors in the best hospitals analyzed: competition between centers, the presence of qualified health managers, greater management autonomy, and larger and privately owned hospitals with or without a profit motive. These criteria would be difficult to transfer to the Spanish health setting. but they are supported by a good deal of evidence suggesting that they should form the basis for making decisions and remain one of the challenges that Spanish hospitals have to meet.

Other authors highlight a number of factors that may be easier to incorporate in our setting and which characterize the health organizations listed as "high value". These include deeply embedded habits in routine hospital operations, such as planning, understood as the explicit definition of objectives and the organization and programming of the means needed to achieve them; the design of the infrastructure, specifically the design of microsystems that include staff, information and health technology, physical space, management processes, and policies and procedures that promote care and patient care; measuring and follow up, mainly used for management and internal monitoring; and finally, self-learning, the critical and systematic review of clinical practice in relation to the available scientific evidence.

Management autonomy is not synonymous with good management, but the latter cannot be achieved without the former. Good management improves the efficiency of hospitals and this should be promoted by a system of payments to hospitals and health centers that encourages the more efficient use of resources. Management autonomy facilitates sharing services between providers, re-designing health maps, and introducing performance-based remuneration mechanisms (p4p or pay for performance).

The complexity of medical practice means that professional practice is virtually unthinkable except in the context of a health organization, and the participation, commitment, and leadership of these professionals is essential to undertake the daily management of the institutions. In order for professionals to feel committed to the institution, the first step is to promote and encourage their participation and to develop staff management policies tailored to professionals such that they perceive its support; this is the most important factor in the development of commitment to the institution.<sup>27</sup> Obviously, without genuine

management autonomy the development of such staff management policies is more difficult; due to the lack of autonomy, staff policies are imposed on hospitals that might be suitable in other administrative areas but not to meeting the needs of health institutions or the expectations of health professionals.

In conclusion, the management capacity and autonomy of institutions favors their greater efficiency and flexibility, and consequently those of the national health systems, and steers institutions toward excellence and accountability regarding their care, teaching, research, and economic outcomes.

#### CONCLUSIONS

The five challenges raised here (accumulated debt, improved funding, list of services, governance, and management autonomy) have become recurrent issues in recent years. The gravity of the current economic environment is a clear opportunity to decisively deal with them. It is to be hoped that this situation is not simply used as an argument to reduce public health spending in the short term pending a possible improvement in the economic environment, but instead may act as a long-awaited stimulus to facilitate the necessary transformation of national health systems.

#### **CONFLICTS OF INTEREST**

None declared.

#### **REFERENCES**

- 1. Ley 14/1986, de 25 de abril, General de Sanidad. BOE número 102 de 29/4/1986, 15207-24
- 2. OECD, Health Policy Studies. Value for Money in Health Spending. Paris: OECD Publishing; 2010.
- Gil V, Barrubés J, Álvarez JC, Portella E. Sostenibilidad financiera del sistema sanitario: 10 medidas estructurales para afrontar las causas del crecimiento del gasto. Barcelona: Antares Consulting, S.A.; 2010.
- Economist Intelligence Unit. The future of healthcare in Europe. A report from the Economist Intelligence Unit sponsored by Janssen. London: The Economist Intelligence Unit Limited; 2011.
- Smith S, Newhouse JP, Freeland MS. Income, insurance, and technology: why
  does health spending outpace economic growth? Health Aff (Millwood).
  2009;28:1276–84.
- Mohr PE, Mueller C, Neumann P, Franco S, Milet M, Silver L, et al. The impact of medical technology on future health care cost. Final report. Bethesda: Project HOPE Center for Health Affairs; 2011.
- 7. Brook RH, Ware JE, Rogers WH, Keeler EB, Davies AR, Sherbourne CD, et al. The effect of coinsurance on the health of adults: results from the RAND Health Insurance Experiment. Santa Monica: RAND Corporation; 1984. Available at: http://www.rand.org/pubs/reports/R3055

- 8. Zweifel P, Folder S, Meiers M. Ageing of population and health care expenditure: a red herring? Health Econ. 1999;8:485–96.
- Instituto Nacional de Estadística. Proyecciones de población a largo plazo. Periodo 2009-2049. Available at: http://www.ine.es/inebmenu/mnu\_cifraspob. htm
- Nolte E, McKee M, editors. Caring for people with chronic conditions. A Health system perspective. European Observatory on Health Systems and Policies series. Maidenhead: Open University Press/McGraw-Hill; 2008.
- Bengoa R, Nuño Solinís R. Curar y cuidar. Innovación en la gestión de enfermedades crónicas: una guía práctica para avanzar. Colección Economía de la Salud y Gestión Sanitaria. Barcelona: Elsevier-Masson; 2008.
- 12. An epidemic of risk factors for cardiovascular disease. Lancet. 2011;377:527.
- Sanz de Galdeano A. An economic analysis of obesity in Europe: health, medical care and absenteeism costs. Documento de Trabajo 2007-38. Serie 6. Madrid: Cátedra FEDEA-La Caixa: 2007.
- 14. Smith R. In search of "non-disease". BMJ. 2002;324:883-5.
- Subdirección General de Análisis Económico y Fondo de Cohesión. Ministerio de Sanidad, Política Social e Igualdad. Informes para el análisis del gasto sanitario. Available at: http://www.msps.es/estadEstudios/estadisticas/sisInfSanSNS/infAnalisGasto.htm
- Beltrán A, Forn R, Garicano L, Martínez M, Vázquez P. Impulsar un cambio posible en el sistema sanitario. Madrid: McKinsey & Company y FEDEA; 2009.
- García Vargas J, Pastor A, Sevilla J. Diez temas candentes de la sanidad española para 2011. El momento de hacer más con menos. Madrid: Pricewaterhouse-Coopers, S.L.; 2010.
- Cutler DM, Rose AB, Vijan S. The value of medical spending in the United States, 1960-2000. N Engl J Med. 2006;355:920-7.
- 19. FENIN (Federación Española de Empresas de Tecnología Sanitaria). Carta al Presidente del Gobierno de varias asociaciones patronales y Cámaras de Comercio extranjeras «La deuda sanitaria es incompatible con la marca España». 2012. Available at: http://www.fenin.es/es/sala-prensa\_notas\_detalle.php?ID\_ noticia=1578
- 20. Secretaría General de Sanidad. Dirección General de Ordenación Profesional, Cohesión del Sistema Nacional de Salud y Alta Inspección. Subdirección General de Análisis Económico y Fondo de Cohesión. Cuenta Satélite del Gasto Sanitario Público. Estadística del gasto sanitario público (EGSP). Principio del Devengo (2002-2009). Madrid: Ministerio de Sanidad, Servicios Sociales e Igualdad; 2012. Available at: http://www.msps.es/estadEstudios/estadisticas/inforRecopilaciones/gastoSanitario2005/home.htm
- 21. Dirección General de Análisis Macroeconómico y Economía Internacional. Subdirección General de Análisis Coyuntural y Previsiones Económicas. Síntesis de Indicadores Económicos, Tablas y Gráficos. Madrid: Ministerio de Economía y Competitividad. 2012; Available at: http://serviciosweb.meh.es/APPS/DGPE/ TEXTOS/pdf/completos/sie\_total.pdf
- Rodríguez M, Puig-Junoy J. Por qué no hay que temer al copago. Gac Sanit. 2012;26:78–9.
- Longo F. Introducción. Los directivos públicos ante los retos de la gobernanza contemporánea. In: Longo F, Ysa T, editors. Los escenarios de la gestión pública del siglo xxI. Barcelona: Escola d'Administració Pública de Catalunya; 2008. p. 15–35
- 24. Meneu R, Ortún V. Transparencia y buen gobierno en sanidad. También para salir de la crisis. Gac Sanit. 2011:25:333–8.
- Dorgan S, Layton D, Bloom N, Homkes R, Sadun R, Van Reenen J. Management in healthcare: why good practice really matters. London: McKinsey & Company; 2010
- Bohmer RMJ. The four habits of high-value health care organizations. N Engl J Med. 2011;365:2045–7.
- 27. Peiró M. Dirección pública y gestión del compromiso de los profesionales. In: Longo F, Ysa T, editors. Los escenarios de la gestión pública del siglo xxI. Barcelona: Escola d'Administració Pública de Catalunya; 2008. p. 249–79.