

Economic effects of a possible prolonged deterioration in the general health of the Spanish population

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Rationale

The last year has seen growing demand for healthcare services, but the causes of this increase, and how persistent it will be, are as yet uncertain. Should these dynamics prove to be long-lasting and associated with a prolonged deterioration in the general health of the Spanish population, they could have a significant economic impact.

Takeaways

- The latest waves of the Centro de Investigaciones Sociológicas healthcare barometer show an increase in demand for healthcare services in Spain. The number of workers losing work days as a result of illness, temporary disability or injury has also risen.
- There is considerable uncertainty as to the causes and potential persistence of these developments, although some dynamics appear to be in line with the predictions made in the literature studying COVID-19 sequelae among a widely vaccinated population.
- If these developments prove to be long-lasting and associated with a prolonged deterioration in the general health of the Spanish population, they may require a structural increase in healthcare expenditure that is as yet difficult to estimate, as well as having an adverse, but highly uncertain, impact on potential output.

Keywords

Healthcare demand, COVID-19, public expenditure, potential output, employment, capital, productivity.

JEL classification

E23, E22, H51, I10, N30, O40.

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Recent dynamics in demand for healthcare services

The latest Centro de Investigaciones Sociológicas (CIS) healthcare barometer¹ reveals that demand for healthcare services in Spain has surged in recent quarters. For instance, in November 2022 the percentage of the population that had visited their general practitioner (GP), a specialist doctor or the accident and emergency (A&E) department in the previous 12 months had risen by 12.1 percentage points (pp), 21.5 pp and 14.8 pp, respectively, compared with the 2018-2019 average (see Table 1). The increases were particularly marked among younger population groups.

This greater demand has been accompanied by a rapid increase in waiting lists. According to the same CIS study, the percentage of patients who had to wait for more than a day before being seen by their GP rose from 55.1% before the pandemic to 78.2% in November 2022. Similarly, in the case of specialists, the percentage of patients who had to wait more than three months for an appointment has risen from 25.8% before the pandemic to 37.9% in the most recent wave of the study.

In line with the evidence from the CIS healthcare barometer, the data from the Spanish labour force survey (EPA, by its Spanish abbreviation) reveal that Spain has seen an ongoing pronounced increase in sick leave since 2020. Specifically, in 2022, an average of 4.1% of workers reported that they had not worked in the week prior to the survey because of illness, temporary disability or injury. The upward trend in sick leave observed since 2020 has thus continued, with numbers rising clearly above pre-pandemic levels (2.7% in 2019) (see Chart 1). While very widespread across genders and age groups (see Charts 2.a and 2.b), this increase has been higher in relative terms among younger and middle-aged groups.

The increase in sick leave is also observed in other information sources, such as the quarterly labour costs survey, which reported that hours not worked because of temporary disability rose from 3.7% of usual hours in 2019 to an average of 4.9% in the first three quarters of 2022.²

Possible causes and persistence of these developments

There is considerable uncertainty as to the causes of these developments and how persistent they will be. One possible factor behind the recent growth in healthcare demand could be the postponement of medical treatments during the worst phases of the pandemic. If this were the

1 Centro de Investigaciones Sociológicas (2022).

2 According to this survey, 4.4% of agreed hours were not worked in 2020 and 2021 because of a temporary disability.

Table 1

Demand for healthcare services in Spain: main figures from the CIS healthcare barometer

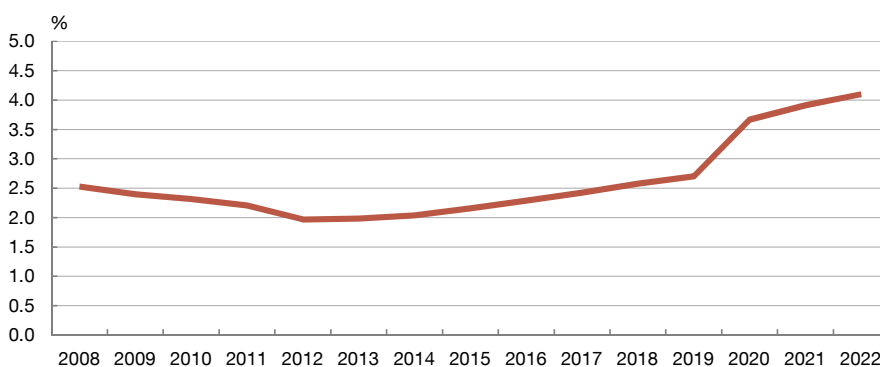
	2018-2019 average	November 2022
Percentage of the population that had had an appointment with their GP in the previous 12 months (%)	70.2	82.3
Of which, percentage that had to wait for more than one day for the appointment (%)	55.1	78.2
Average wait time for appointment with GP (days)	3.2	6.8
Percentage of the population that had visited the A&E department in the previous 12 months (%)	29.7	44.5
Percentage of the population that had visited the public A&E department five times or more in the previous 12 months (%)	2.1	4.9
Percentage of the population aged 18-34 that had visited the public A&E department five times or more in the previous 12 months (%)	2.9	8.8
Percentage of the population that had had an appointment with a specialist in the previous 12 months (%)	42.4	63.9
With a public-sector specialist (%)	34.4	45.5
With a private-sector specialist (%)	11.6	27.3
In public health care, following GP referral: percentage that had to wait more than three months (%)	25.8	37.9

SOURCE: CIS.

Chart 1

Loss of work days because of health problems

1.a Workers who had not worked in the previous week because of illness, injury or disability (a)



SOURCE: EPA (INE).

a Percentage of employment.



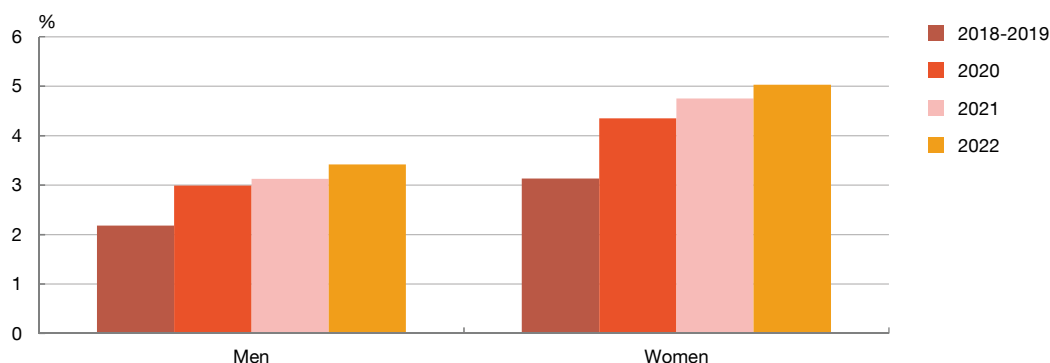
main factor driving the dynamics of recent quarters, most of the upsurge in demand for healthcare services would be expected to be predominantly temporary.

However, some evidence suggests that at least part of the increase observed in healthcare demand could be longer-lasting and associated with COVID-19 sequelae. First, there is evidence of a quantitatively significant incidence within the population of long COVID, defined as cases with symptoms continuing for more than four weeks after initial infection. For instance, some

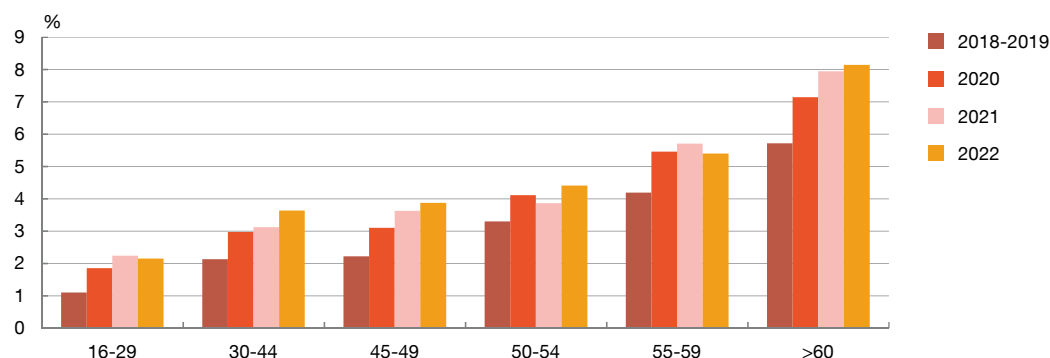
Chart 2

Workers who lost work days because of health problems, by group

2.a Workers who had not worked in the previous week because of illness, injury or disability, by gender (a)



2.b Workers who had not worked in the previous week because of illness, injury or disability, by age group (a)



SOURCE: EPA (INE).

a Percentage of employment.



recent estimates place such prevalence at 5.4% of the US population,³ 3.7% in Canada⁴ and Australia⁵ and 3.4% in the United Kingdom.⁶

Second, various studies have found significant increases in the incidence of other types of pathologies among individuals that have been infected with COVID-19, with the probability of being diagnosed with diabetes or cardiovascular, gastrointestinal or neurological disorders tending to increase after a COVID-19 infection.⁷ According to these studies, such diseases are generally between 50% and 100% more prevalent when compared with pre-pandemic levels or

3 Robertson et al. (2022).

4 Statistics Canada (2022).

5 Biddle and Korda (2022).

6 Office for National Statistics (2022).

7 Douaud et al. (2022), Hampshire et al. (2022), Katsoularis et al. (2022), Knight et al. (2022), Kompaniyets et al. (2022), Taquet et al. (2022), Uusküla et al. (2022), Zhao et al. (2022) and all the literature using the US Department of Veterans Affairs national healthcare databases, including the studies by Al-Aly, Xie and Bowe (2021), Al-Aly, Bowe and Xie (2022), Bowe, Xie and Al-Aly (2022), Xie and Al-Aly (2022), Xie, Xu and Al-Aly (2022), Xu, Xie and Al-Aly (2022) and Xu, Xie and Al-Aly (2023).

with people who have not been infected.⁸ By population group, the available studies tend to find a higher increase in these pathologies among the middle-aged and women. Although vaccinations and the recent variants of the virus appear to have reduced these sequelae to some degree, the studies analysing these two factors separately – for instance Taquet et al. (2022) and Al-Aly, Bowe and Xie (2022) – continue to find a much higher incidence of these disorders, even among the vaccinated population that had been infected with the Omicron variant.

In 2022 the number of deaths from COVID-19 fell in Spain (51,138 deaths in 2020, 38,513 in 2021 and 27,855 in 2022, on Ministry of Health figures). However, total excess deaths in that year rose compared with 2021, totalling 73,222 in 2020, 29,310 in 2021 and 34,773 in 2022, according to Instituto de Salud Carlos III excess mortality data calculations (MoMo). Thus, extraordinary deaths not directly related to the most acute phase of the COVID-19 pandemic appear to have increased in 2022.

Economic implications of a potential permanent deterioration in the population's general health

If the recent increase in demand for healthcare services and in sick leave were to persist over time⁹ and be linked to a lasting deterioration in the general health of the Spanish population, the economic impact could be sizeable. Should these developments become entrenched, they could require a structural increase (which is still very difficult to quantify) in healthcare expenditure and in the number of healthcare professionals.

Moreover, these dynamics persisting over time could impact the economy's potential output in the medium and long term through several channels, all of which are subject to considerable uncertainty. First, it could limit the labour input available in the economy. Some recent evidence appears to point in this direction. For example, Goda and Soltas (2022) find, for the United States, that the labour force participation rate of people with at least one week-long work absence during the pandemic is, subsequently, 7 pp lower than in the case of workers who had no such absence. Along the same lines, in the United Kingdom the number of economically inactive persons due to long-term illness rose by 10.1% between August 2021 and August 2022. In aggregate terms, the size of this effect is consistent with the 0.4 pp fall in the UK labour force participation rate during that period.¹⁰

Sufficiently detailed information is not yet available in Spain to draw definitive conclusions on the impact that the post-pandemic deterioration in health might be having on decisions about participating in the labour market. Nevertheless, in aggregate terms, changes in the labour market

8 For example, Al-Aly, Bowe and Xie (2022) find that, over a six-month control period, the percentage of individuals diagnosed with gastrointestinal disorders is 4.2% in the historical control group, 3.8% in the contemporary control group, 7.5% among those infected who had been vaccinated and 9.4% among those infected who had not been vaccinated.

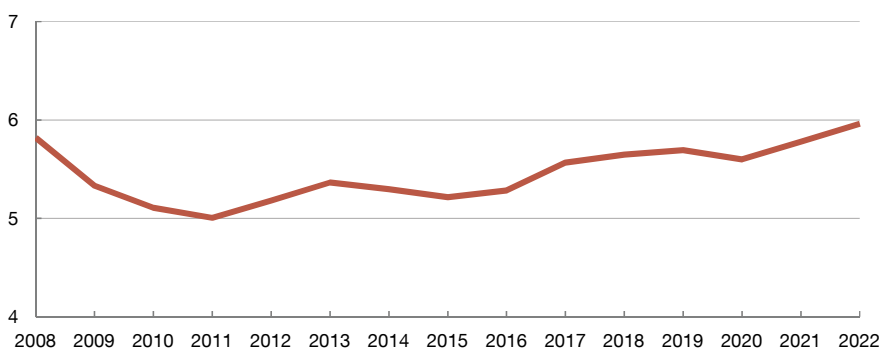
9 Given that the above-mentioned COVID-19 sequelae are more prevalent among the middle-aged population and they often materialise as a higher incidence of different chronic pathologies, their impact on demand for healthcare services is likely to be relatively persistent. See, for example, Van Wambeke, Bezler, Kasprovicz, Charles, Andres and Geny (2023).

10 Office for National Statistics Labour Force Survey data.

Chart 3

Economic inactivity because of health problems

3.a Economically inactive because of illness or disability (a)



SOURCE: EPA (INE).

a Percentage of working age population.



participation rate in Spain to date do not appear to point to the impact of the pandemic being particularly significant. Specifically, the participation rate recovered its pre-pandemic level (60%) by mid-2021, while in 2022 the economically inactive who reported that they were not seeking employment due to illness or disability were, as a percentage of the working age population, only slightly higher than in 2019 (6% and 5.7%, respectively) (see Chart 3).

Productivity is the second channel through which a hypothetical persistent deterioration in the population's health could adversely affect the economy's potential output. However, determining the quantitative importance of this channel, and even the direction in which it would operate, is highly complex,¹¹ because of, among other reasons, the concurrence of different factors with opposing effects on aggregate productivity. For instance, poorer health may indeed lower each person's individual productivity. Yet at the same time it may also lower labour market participation more among less productive individuals, which would generate a positive composition effect on average productivity. In this respect, note that within the group of workers with poor health, more productive individuals are more likely to remain economically active as their incentives are greater.¹²

In any event, Acemoglu and Johnson (2007) estimate that health interventions that are effective in reducing mortality and increasing life expectancy have a positive impact on GDP in the long term. However, this impact would be smaller than that had on the total population, such that there would be no improvement in terms of GDP per capita. Other studies find that health has important

11 Very few estimates of the impact of COVID-19 on productivity exist. One example is Fischer, Reade and Schmal (2022), who estimate a 5% decrease in labour productivity eight months after infection. However, this study is based on the performance of professional athletes. Therefore, its findings cannot be immediately extrapolated to the behaviour of productivity in the population as a whole.

12 See, for example, Jäckle and Himmler (2010) and Cai (2020).

positive effects on long-term growth. In these studies, the main channel tends to be the greater incentives for young adults to invest in their own human capital when they expect to reap the associated rewards over a longer period.¹³ This channel is particularly important in contexts where an endemic disease is eliminated. However, it may not operate in the same way in the case of the COVID-19 pandemic.

Third, a permanent deterioration in the population's health could also influence the economy's potential output via its impact on the stock of productive capital. For instance, a common finding in the literature on population ageing¹⁴ is that a decrease in life expectancy tends to reduce saving and capital in the economy, while lowering the retirement age tends to increase them. In this respect, it is still too early to assess whether the as yet incipient signs of a potential deterioration in the population's health will, in the future, have a greater impact on life expectancy or the retirement age, and, therefore, in which direction they will impact the capital stock in the economy.

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¹³ See, for example, Lucas (2010).

¹⁴ See, for example, the theoretical models in Futagami and Nakajima (2001) and Krueger and Ludwig (2007), and the empirical estimates of Askoy, Basso, Smith and Grasl (2019).

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