

As populations across OECD countries continue to age, an increasing number of people will require support from long-term care (LTC) services, including nursing homes and LTC living facilities (see indicator on “Recipients of long-term care”). Providing safe care for these patients is a key challenge for OECD health systems, as residents of LTC facilities are more frail and sicker, and present a number of other risk factors for the development of patient safety events, including healthcare-associated infections (HAIs) and pressure ulcers (OECD/European Commission, 2013[1]).

HAIs can lead to significant increases in patient morbidity, mortality and cost for the health system. In the acute care sector, HAIs alone are estimated to make up 3-6% of hospital budgets (Slawomirski et al., 2017[2]). These infections are also generally considered to be preventable through standard prevention and hygiene measures. The most commonly occurring HAIs in LTC facilities include urinary tract infections, lower respiratory tract infections, skin and soft tissue infections (Suetens et al., 2018[3]).

In 2016-17, the average prevalence of HAIs among LTC facility residents in OECD countries was 3.8% (Figure 11.14). This proportion was lowest in Lithuania, Hungary, Sweden, Germany, and Luxembourg (less than 2%), and highest in Denmark, Portugal, Greece and Spain (over 5%).

The impact of HAIs is increased by the rise of antibiotic-resistant bacteria, which can lead to infections that are difficult or even impossible to treat. Figure 11.15 shows the proportions of bacteria isolated from LTC residents that are resistant to antibiotics. On average, over one quarter of isolates were resistant to antibiotics. This is nearly equivalent to levels seen in acute care hospitals, where antibiotic resistance is considered a major threat.

Pressure ulcers are another important patient safety concern in LTC facilities. A pressure ulcer is an injury to the skin or underlying tissue resulting from sustained pressure; they occur frequently in patients with limited mobility. Pressure ulcers can lead to complications including infections, and cost up to EUR 170 per patient per day in LTC settings (Demarré et al., 2015[4]).

Across OECD countries on average, the observed prevalence rate of pressure ulcers in selected LTC facilities was 5.35 (Figure 11.16). The highest rates of pressure ulcer prevalence were observed in Spain, Italy and Portugal, at nearly twice the OECD average, while Lithuania, Hungary and Luxembourg reported the lowest rates at under 3%.

### Definition and comparability

Data came from point-prevalence surveys conducted between 2016 and 2017 by the European Centre for Disease Control and Prevention (ECDC) and the Centers for Disease Control and Prevention (CDC)

among participating LTC facilities. Facilities in ECDC data included: general nursing homes, mixed long-term care facilities and residential homes, and excluded specialised long-term care facilities, as defined by the ECDC. Only nursing homes were included in CDC data. Point-prevalence surveys currently represent the best tool for collecting internationally comparable data, but they are subject to possible biases due to facility selection, local recording practices or observer training. Countries noted as having poor data representativeness had low participation among LTC facilities, which may lead to large variance or biased estimates.

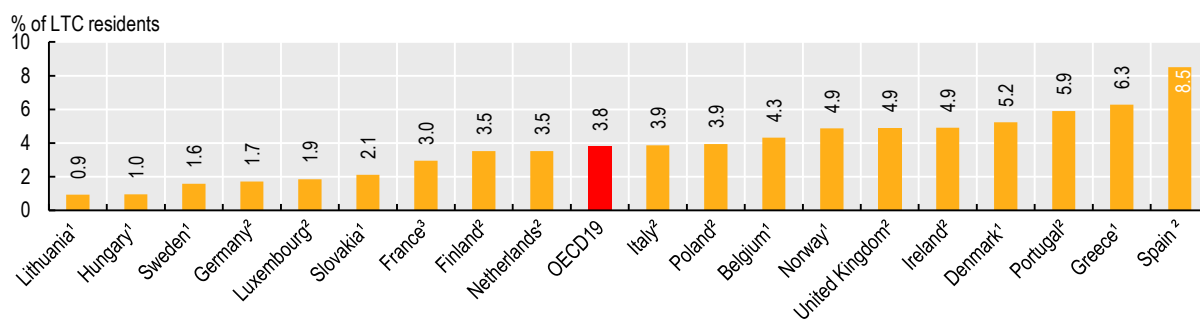
Pressure ulcers in prevalence estimates include all grades or categories, including grade I. Accuracy of recognising pressure ulcers may vary considerably, particularly as this measurement was not the core purpose of data collection. HAI data included healthcare-associated pneumonia, urinary tract infections, surgical site infections, *Clostridium difficile* infections and primary bloodstream infections. Resistance proportion data are based on a composite antibiotic resistance indicator developed by the ECDC (Suetens et al., 2018).

Both HAI and pressure ulcer prevalence data are unadjusted. Many factors – including increased patient age, limited mobility and use of invasive medical devices – may increase the risk of developing either an HAI or a pressure ulcer and may influence the variability of rates between countries. One of these factors – the proportion of residents with limited mobility – is noted by country in the relevant figures.

### References

- [4] Demarré, L., et al. (2015). “The cost of prevention and treatment of pressure ulcers: a systematic review”, *International journal of nursing studies*, Vol. 52, No. 11, pp. 1754-1774.
- [1] OECD/European Commission (2013), *A Good Life in Old Age? Monitoring and Improving Quality in Long-term Care*, OECD Health Policy Studies, OECD Publishing, Paris, <https://doi.org/10.1787/9789264194564-en>.
- [3] Suetens, C. et al. (2018), “Prevalence of healthcare-associated infections, estimated incidence and composite antimicrobial resistance index in acute care hospitals and long-term care facilities: results from two European point prevalence surveys, 2016 to 2017”, *Euro Surveill.*, Vol. 23, No. 46, <https://doi.org/10.2807/1560-7917.ES.2018.23.46.1800516>.
- [2] Slawomirski, L., A. Aaraaen and N. Klazinga (2017), “The economics of patient safety: Strengthening a value-based approach to reducing patient harm at national level”, *OECD Health Working Papers*, No. 96, OECD Publishing, Paris, <https://doi.org/10.1787/5a9858cd-en>.

Figure 11.14. **Percentage of long-term care facility residents with at least one healthcare-associated infection, 2016-17**

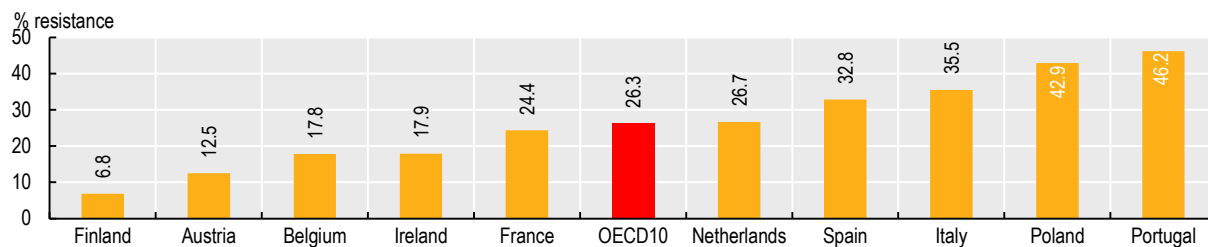


1. Limited country representativeness 2. Under 40% of residents sampled were wheelchair-bound or bedridden. 3. Between 40% and 50% of residents sampled were wheelchair-bound or bedridden.

Source: ECDC.

StatLink <https://doi.org/10.1787/888934018507>

Figure 11.15. **Proportion of antimicrobial-resistant bacterial isolates from healthcare-associated infections in long-term care, 2016-17**

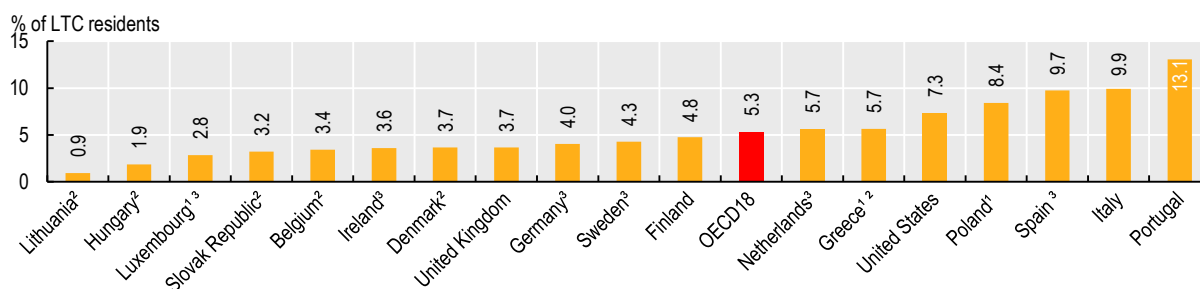


Note: Based on composite antibiotic resistance indicator developed by ECDC. Only countries with over 15 bacterial isolates were included.

Source: ECDC.

StatLink <https://doi.org/10.1787/888934018526>

Figure 11.16. **Percentage of long-term care facility residents with at least one pressure ulcer, 2016-17**



1. Under 45% of residents sampled were wheelchair-bound or bedridden. 2. Over 45% of residents sampled were wheelchair-bound or bedridden. 3. No data available on the proportion of wheelchair-bound or bedridden residents.

Source: ECDC, CDC.

StatLink <https://doi.org/10.1787/888934018545>



**From:**  
**Health at a Glance 2019**  
OECD Indicators

**Access the complete publication at:**  
<https://doi.org/10.1787/4dd50c09-en>

**Please cite this chapter as:**

OECD (2019), "Safe long-term care", in *Health at a Glance 2019: OECD Indicators*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/e7ea0db8-en>

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area. Extracts from publications may be subject to additional disclaimers, which are set out in the complete version of the publication, available at the link provided.

The use of this work, whether digital or print, is governed by the Terms and Conditions to be found at <http://www.oecd.org/termsandconditions>.