



COVID-19 Surveillance

**Surveillance of COVID-19  
at Long-Term Care Facilities**

**Italian National Report**

**Time course of the COVID-19 epidemic**

**October 5<sup>th</sup> 2020 – September 19<sup>th</sup> 2021**

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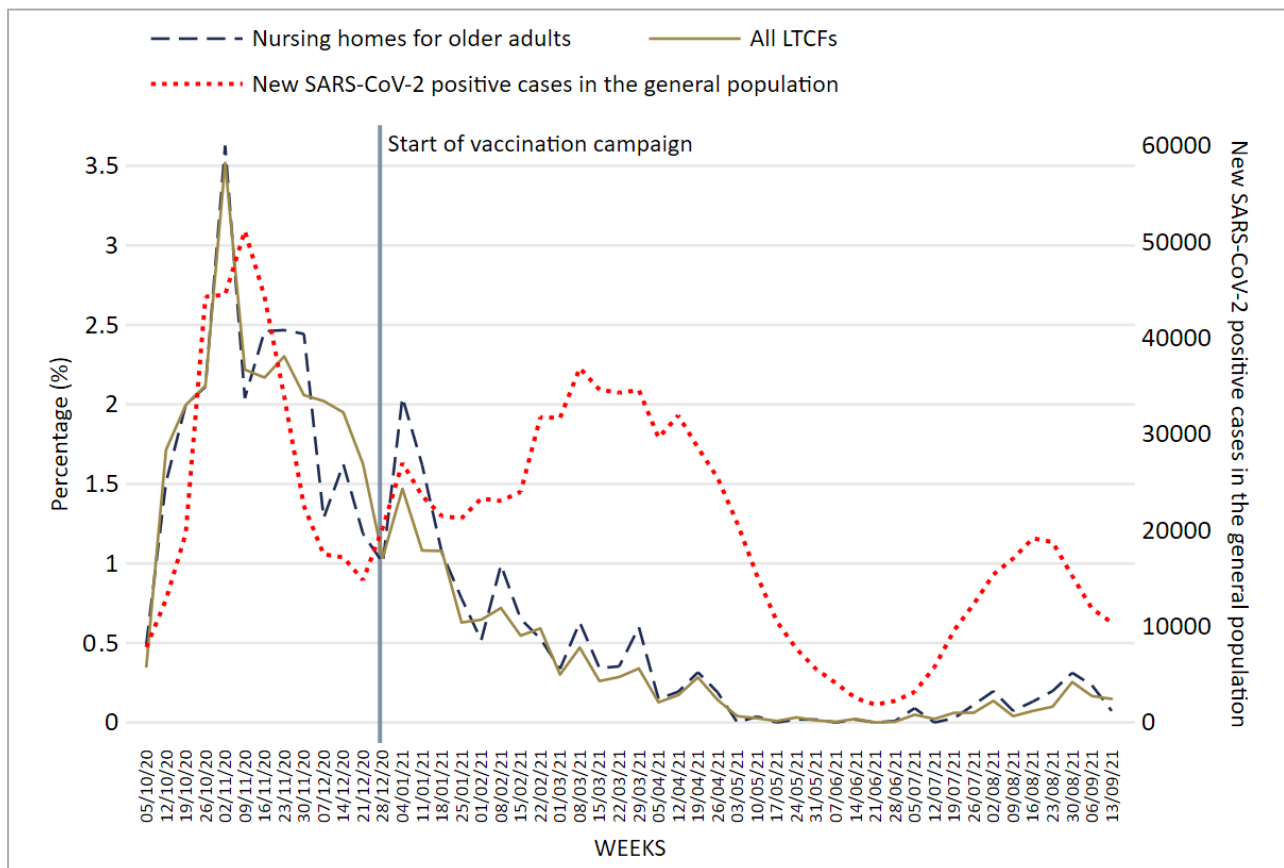
Authors also thank the staff of the monitored facilities for their contribution to this investigation.

# Relevant findings

852 long-term care facilities (LTCFs) participated in the surveillance of COVID-19 emergency from October 5<sup>th</sup> 2020 to September 19<sup>th</sup> 2021, for a total of 31,178 beds. Overall, 341 out of the 852 facilities were nursing homes for older adults (facilities principally providing care to seniors with severe illnesses or high disability burden), for a total of 15,031 beds.

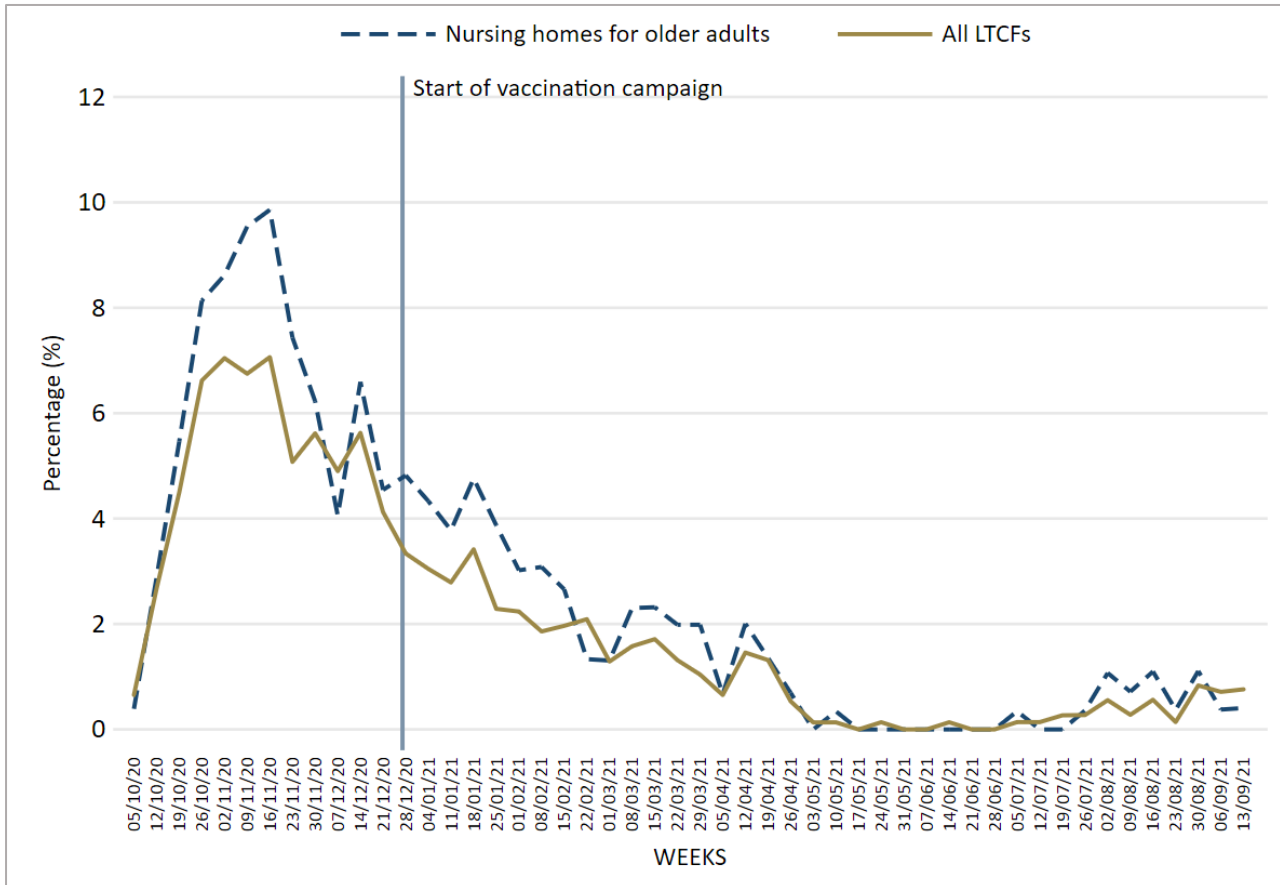
Main findings that emerged from the surveillance activity are synthesized here below:

- The weekly incidence of SARS-CoV-2 positive cases in LTCFs increased remarkably during October and November 2020, in correspondence with the second wave of the epidemic: in line with what was observed in the general population, a peak of 3.2% was found in November 2020 in nursing homes for older adults, and a peak of 3.1% was found in all LTCFs (Figure 1). The incidence of positive cases decreased after the start of the vaccination campaign (Dec 27<sup>th</sup> 2020), and reached values close to 0.01% of new cases per week during May and June 2021. In the months of July, August and September 2021 a slight increase in the number of positive cases in LTCFs was noted; in the week from August 30<sup>th</sup> to September 5<sup>th</sup>, positive cases raised to 0.3% in nursing homes for older adults and to 0.2% in all LTCFs.



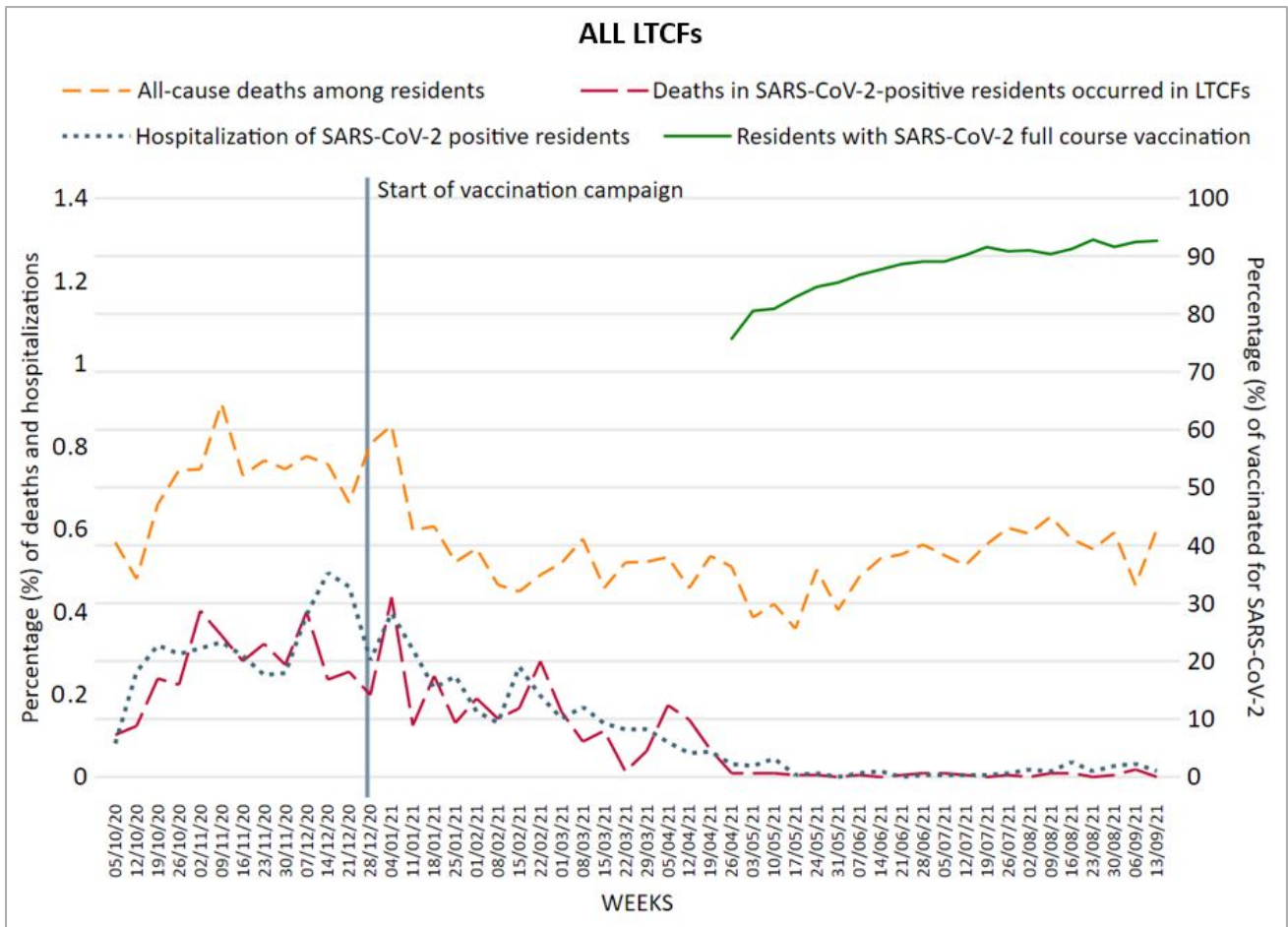
**Figure 1.** Weekly incidence of SARS-CoV-2 positive cases among LTCFs residents and in the general population of the Regions under surveillance in the period October 5<sup>th</sup> 2020 – September 19<sup>th</sup> 2021. (labels on the horizontal axis report the first day of each monitored week).

- After the November 2020 peak, the SARS-CoV-2 outbreaks within the monitored LTCFs – namely, 2 or more positive cases per structure – progressively reduced and reached values as low as 0.01% in June 2021 (Figure 2). In August and September 2021, a new increase was noted in the percentage of LTCFs with outbreaks. In the last week of monitoring, from September 13<sup>th</sup> to 19<sup>th</sup> 2021, this percentage raised to 0.4% in nursing homes for older adults and to 0.8% in all LTCFs.

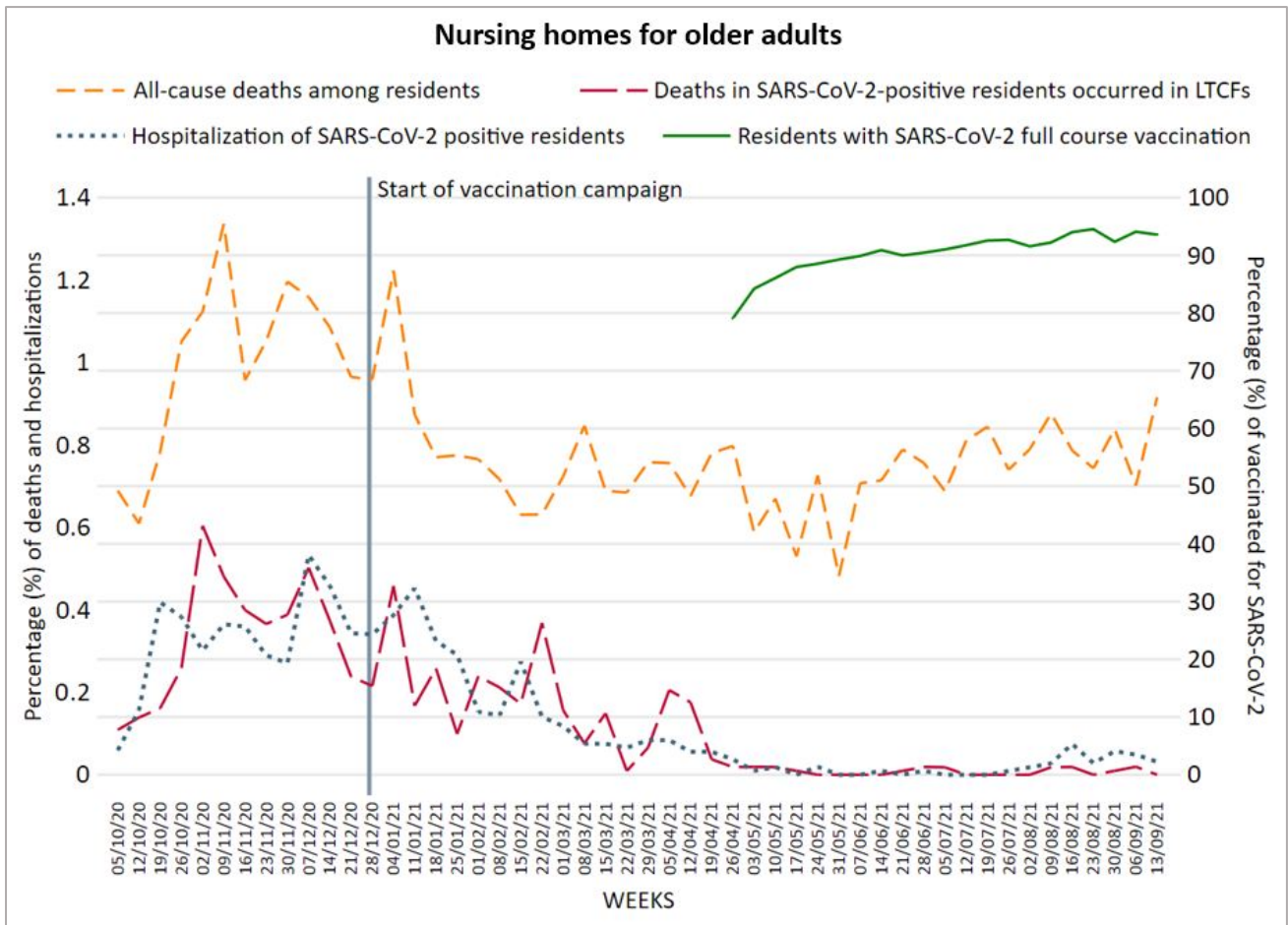


**Figure 2.** Percentage of LTCFs with SARS-CoV-2 outbreaks among residents in the period October 5<sup>th</sup> 2020 – September 19<sup>th</sup> 2021. (labels on the horizontal axis report the first day of each monitored week).

- Data from the surveillance showed that as vaccination coverage increased, a reduction was observed both in deaths from SARS-CoV-2 occurred in LTCFs and in those occurred at the hospital; this trend appears to be lasting over time. Similarly, the weekly deaths from all causes underwent a significant reduction after the start of the vaccination campaign, while remaining stationary from February 2021 onwards, and the contribution of COVID-19 to deaths in LTCFs from February 2021 onwards was found to be marginal. Data associated with all LTCFs are summarized in Figure 3, those associated with only nursing homes for older adults are shown in Figure 4.



**Figure 3.** With reference to the period October 5<sup>th</sup> 2020 – September 19<sup>th</sup> 2021, and to all monitored LTCFs, the figure shows the percentages of: weekly deaths for all causes among residents, occurred in LTCFs; weekly deaths for all causes among residents, occurred at the hospital; weekly deaths among SARS-CoV-2 positive residents, occurred in LTCFs; weekly hospitalized SARS-CoV-2 positive residents; residents with SARS-CoV-2 full vaccination course (data available from April 26<sup>th</sup> 2021). (labels on the horizontal axis report the first day of each monitored week).



**Figure 4.** With reference to the period October 5<sup>th</sup> 2020 – September 19<sup>th</sup> 2021, and to monitored nursing homes for older adults, the figure shows the percentages of: weekly deaths for all causes among residents, occurred in LTCFs; weekly deaths for all causes among residents, occurred at the hospital; weekly deaths among SARS-CoV-2 positive residents, occurred in LTCFs; weekly hospitalized SARS-CoV-2 positive residents; residents with SARS-CoV-2 full vaccination course (data available from April 26<sup>th</sup> 2021). (labels on the horizontal axis report the first day of each monitored week).

## Conclusions

The indicators calculated on the basis of the LTCFs surveillance show an increase in both COVID-19 cases and deaths in the months of October and November 2020, in correspondence with the second epidemic wave in Italy.

However, in contrast with the national data, a progressive reduction of COVID-19 cases, hospitalizations of SARS-CoV-2 positive residents and deaths was observed in LTCFs in the period from February to April 2021. This trend is associated with the start of the vaccination campaign, which primarily concerned nursing home residents and severely vulnerable people, as well as the LTCFs staff.

In the months of July, August and September 2021, a slight increase is observed in COVID-19 cases, both in residents and among the staff. This data is related to the increase in the number of new cases in the general population in the same period. However, it should be noted that, despite the increase in new cases and outbreaks in the monitored facilities, the number of deaths from COVID-19 occurring in LTCFs remains very low (< 0.01% per week), and this is probably due to the protective effect of the SARS-CoV-2 vaccination against the most severe forms of COVID-19.

Although the surveillance showed a significant decrease in new SARS-CoV-2 positive cases in LTCFs during the period May-June 2021, a slight increase of positive cases has been observed during summer, in the period July-September 2021, which shall not be overlooked; rather, it suggests the opportunity to strengthen the immune protection through an additional dose of vaccine, as already provided for by Circular no. 43604 of September 27<sup>th</sup> of the Italian Ministry of Health.