

COVID-19 in Italy: a province-based analysis

Weekly deaths January-April from 2015 to 2020

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Notes and Example

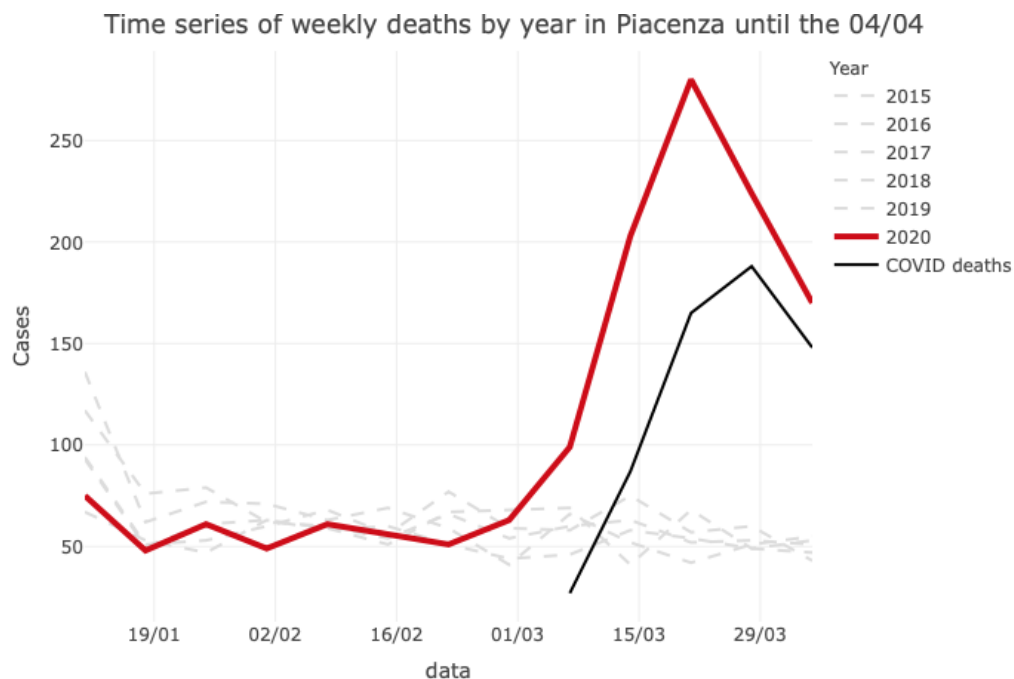
The following plot, for a selected province reports the weakly series of deaths from January to April for 2015 to 2020.

The date source is ISTAT (<https://www.istat.it/it/archivio/240401>).

It is important to notice that the data include only a proportion of municipalities. It is specified that the data made available do not concern a sample of municipalities, but a selection of the latter (1,689 on 5,909 after the weekly update) made on the basis of an assessment of the completeness and timeliness of the information collected, as well as the statistical criteria described in the explanatory note available at the same link, **which should be read very carefully before using the data.** In its web page, ISTAT produces iterative graphs at the municipal level and specifies that the data cannot simply be aggregated at the provincial, regional or national level. We do it for purely exploratory purposes.

In addition to these data, for the provinces for which we managed to obtain them, the weekly series of deaths reported for Covid19 is plotted in black.

In this example we consider Piacenza, where ISTAT data include 25 municipalities on 46.



In this example, for the province of Piacenza we have reconstructed the series of deaths for Covid19 declared by the civil protection every day, starting from the site of the Emilia Romagna region.

The first thing that can be observed is that there is a significant increase in deaths in 2020 (red line) starting from the first week of March. The total deaths from Covid19 declared for the whole province of Piacenza (red line) are however much less than those recorded by ISTAT which, however, only take into account half of the municipalities. The week 15/03 to 21/03 where 280 from ISTAT series and 165 for Covid19. The week from 22/03 to 28/03 where 224 from ISTAT series and 188 for Covid19. The week from 29/03 to 04/04 where 170 from ISTAT series and 148 for Covid19. The gap fortunately is decreasing.

The questions we cannot answer are:

- are the additional deaths due to Covid19 but they are not declared as such because it was not possible to carry out the swab?
- is there a generalized increase in deaths due to the fact that the medical staff and hospital wards were all busy and therefore people with other serious conditions that could have been saved were not treated because of the Covid19 emergency?

Probably both have happened.