

Benefits of COVID-19 vaccination: Almost half a million lives saved in WHO European Region since end of 2020

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In a rapid communication published today in *Eurosurveillance*, authors from the World Health Organization's (WHO) Regional Office for

Europe, the European Centre for Disease Prevention and Control (ECDC), national public health institutes and ministries estimate that COVID-19 vaccination prevented almost 470,000 deaths among people aged 60 years and older across Europe between December 2020 and November 2021. This represents slightly over half (51%) of the expected deaths due to COVID-19 in this period.

The authors estimated the number of lives saved in this age group from COVID-19 vaccination in 33 countries, using observed weekly reported deaths and vaccination coverage. For the period from December 2020 to November 2021, reported data on both COVID-19 age-specific vaccination and age-aggregated COVID-19 mortality for people 60 years and older was available and analyzed from 33 of the 51 countries in the WHO European Region.

Early implementation of vaccination associated with largest reduction in expected deaths

Pebody et al. show that following the fast development, licensure and roll-out of several COVID-19 vaccines from late 2020 onwards, the uptake of vaccines in the priority groups increased to the effect that by the 45th week of 2021, 80% (range: 20–100) of people 60 years and older had received a complete vaccination series and 84% (range: 29–100) had received at least one dose.

In their calculation, 51% (n=469,186) of total estimated deaths (n=911,302) were averted by COVID-19 vaccination between December 2020 and November 2021; ranging from 93% of deaths averted in Iceland to 6% in the Ukraine. The three countries that had 60% of their population 60 years and older fully vaccinated by week 45 of 2021 (Moldova, Romania and Ukraine) had a maximum of 20% expected deaths averted over the study period.

In the four countries (Israel, Malta, UK-England and UK-Scotland) that achieved very high complete vaccination coverage (above 90%) already by week 23 in 2021, the proportion of averted deaths by week 45 in 2021 was over 65%.

The authors hypothesize that "this direct impact has been heterogenous because of the speed and extent of the vaccination in eligible groups. Countries with high early uptake (including France, Greece, Ireland, Israel, Malta, Norway, Portugal, Spain, UK-England and UK-Scotland) have substantially reduced predicted mortality, especially in those 80 years and older. Other [countries](#) have experienced more limited impact of vaccination to date."

More information: *Eurosurveillance*, www.eurosurveillance.org/content/2021/11/ro-surveillance/26/47

Provided by European Centre for Disease Prevention and Control (ECDC)

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