8.B. Oral presentations: Impact of COVID-19 and excess mortality

Potential life years lost to COVID-19 in 17 countries during the pandemic period, up to August 2020

Souzana Achilleos

S Achilleos[1], M Pagola Ugarte[2], A Quattrocchi[1], J Gabel[2], O Kolokotroni[1], C Constantinou[3], N Nicolaou[3], JM Rodriguez-Llanes[4], CA Demetriou[1]

[1]Department of Primary Care and Population Health, University of Nicosia Medical School, Nicosia, Cyprus
[2]University of Nicosia Medical School, Nicosia, Cyprus
[3]Department of Basic and Clinical Sciences, University of Nicosia Medical School, Nicosia, Cyprus
[4]European Commission Joint Research Centre, Ispra, Italy

Contact: achilleos.s@unic.ac.cy

Background:
COVID-19 pandemic is affecting populations and regions in different ways. In this study, we assess the Potential Years of Life Lost (PYLL) to COVID-19 across different regions.
Methods:
We used age-group and sex-specific weekly COVID-19 deaths (from January to August 2020) from national primary sources of 17 countries from the C-MOR consortium (Australia, Brazil, Cape Verde, Colombia, Cyprus, France, Georgia, Israel, Kazakhstan, Peru, Norway, England & Wales, Scotland,

Slovenia, Sweden, Ukraine, and the United States). PYLL were calculated by summing up the numbers of deaths in each age group multiplied by the remaining years of life up to age 80. Age-standardized PYLL rates (per 100,000 population), using the World (WHO 2000-2025) Standard population as the reference population, were estimated to facilitate comparison across countries.

Results:

Countries in South America displayed the highest PYLL rates (567-1,377 PYLL/100,000). Countries in Asia & Middle East (besides Kazakhstan), Australia, and some European countries (Georgia, Norway, and Slovenia) observed <50 PYLL/100,000. Furthermore, the male to female PYLL rate ratio was above one in all countries [1.3 (Ukraine) - 14.4 (Cyprus)], besides Georgia (ratio = 0.5).

Conclusions:

South America, and males were found to be the most affected by COVID-19. Ongoing monitoring of the COVID-19 mortality impact is essential in order to assess health system performances, control measures, and identify vulnerable populations. Differences in mortality burden among populations will help public health officials in their efforts to minimize the COVID-19 mortality burden on a local, and on a global level.

Key messages:

- Up to August 2020, COVID-19 was a cause of premature mortality in all the participating countries, with South America and males to be more affected.
- The timing of the pandemic, seasonal trends, the control measures enforced, and underlying social conditions are probable explanations for the differences observed among countries.