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# **PREPARING FOR THE UNEXPECTED: LESSONS LEARNED FROM COVID-19 AND OTHER DISASTERS**



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# Background:

- **Analysis of years of life lost (YLL) due to premature deaths during the COVID-19 pandemic can direct decision-makers towards specific public health recommendations in order to improve health and lives of people.**
- **Our study aimed to examine the existence of age- and sex-specific patterns of the three most common causes of premature death in Belgrade during the first year of the COVID-19 epidemic.**

# Methods:

- Mortality data disaggregated by age, sex and cause of death, as well as the estimated number of inhabitants and remaining life-expectancy by age-groups for Belgrade was provided by the Statistical Office of the Republic of Serbia.
- YLLs were calculated using the methods of the Global Burden of Disease Study, without garbage code redistribution.
- Mortality rates were standardized according to the European Standard Population.
- We acknowledge the support from the **COST Action 18218 – European Burden of Disease Network.**

# Results:

- In 2020 in Belgrade, according to the share in all-cause YLLs, cardiovascular diseases ranked first (36.2%), followed by neoplasms (25.7%) and COVID-19 (11.1%).
- However, on average, COVID-19 generated higher number of YLLs per death case (11.9) than cardiovascular diseases (9.2), but fewer than neoplasms (13.9). In total of 31,943 YLLs due to COVID-19, men had 1.7 times more YLLs than women.
- By age groups, the highest YLL share due to COVID-19 was among men aged 45–49 (16%) and 70–74 (16%) and among women aged 20–25 (33%) and 25–29. years (29%).
  - In men, COVID-19 YLL rate was 2,488 per 100,000 and was higher after standardization (2,714).
  - In women, COVID-19 YLL rate was 1346 per 100,000 and was lower after standardization (1,245).

# Conclusion:

- Assessing the causes of premature mortality is important for determining community health priorities
- In 2020, COVID-19 was among the top three causes of premature mortality among male and female contingents of the Belgrade population.
- In Belgrade, COVID-19 was the third cause of premature mortality in 2020.
- The difference between COVID-19 YLL rates in men and women were even more prominent after standardization.
- Future research is needed to determine the synergistic impact of COVID-19 and other causes of premature death.