

## **COVID-19 MOST AFFECTED AGE GROUPS AND LETHALITY IN EUROPE**

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### **ABSTRACT**

**Introduction:** The outbreak of a novel coronavirus disease (COVID-19; previously known as 2019-nCoV) was the beginning of one of the largest and most critical COVID-19 clusters in the world since late December 2019. Despite intensive prevention measures, the epidemic tends to propagate and the number of patients infected is growing. The case-fatality incidence was very high and is driven by very elderly people. **Methods:** in this study, we collected data from the (Covidgraph.com) database as the number of infection cases in the world reached 2736188 infections and the number of recovery cases reached 751805 and the number of deaths reached 191423. **Results:** it turns out that the virus infects older people and the older a person is, the higher the chance of infection with the virus. Results from this analysis the mean age of death is 78 years. Data from 106,399 cases and 12,550 deaths in Italy, to 2 April. In Spain, they are based on 7 April, 88,144 cases, and 3,479 deaths. There were less than 80 deaths in patients younger than 50 years of age. **Conclusion:** Coronavirus is a global epidemic, and it's hard to control, and it's not enough to prevent people from spreading the virus. The age groups most vulnerable to lethality are shown in this paper, in Italy, the virus destroys people over 75 years of age, In Spain, however, the virus destroys people aged over 85 Taking into account numerous comorbidities, including psychiatric, cerebrovascular, endocrine, metabolic, and respiratory disorders.

**Keywords :** COVID-19, Epidemic, Europe, Lethality, patients

## Introduction

The novel coronavirus disease (COVID-19) triggered pneumonia in 2019 is an extremely contagious disease and the current epidemic has been proclaimed a global public health emergency by the WHO (Lai et al., 2020). and In December 2019, COVID-19 pneumonia was first recorded in Wuhan, Hubei Province, China, preceded by an epidemic Province of Hubei, and other parts of the world (Surveillances, V. 2020). Continued coronavirus disease outbreak 2019 (COVID-19) is a major public health issue in Europe. Several European countries registered cases of COVID-19 imported from Italy, the European epicenter for some European countries' local transmission of COVID-19 has been reported. As of 10 March 2020, reported cases of COVID-19 in Italy reached 10,000, in Spain, France and Germany surpassed 1,000, and in other European countries rose rapidly. (WHO, 2020). To date, most affected patients with SARS-CoV-2 have experienced minor Symptoms include dry coughing, sore throat, and fever (Xu, X. W et al.,2020). and Many situations have been settled naturally. However, some fatal incidents have resulted, Organ collapse, septic shock, lung edema, severe pneumonia, and acute respiratory distress syndrome (ARDS) involved (Docea et al.,2020). and In-vitro studies have shown that chloroquine, an immunomodulant drug widely used to treat malaria, has been effective in reducing viral replication in some infections, including SARS (CoV) and MERS-CoV associated with coronavirus. (Cortegiani et al.,2020). also For those afflicted with SARS-CoV-2, 54.3 percent are males for average age 56. Patients who needed urgent care were, also, older and had many comorbidities,

including psychiatric, cerebrovascular, endocrine, metabolic, and respiratory disorders (Wang et al.,2020). and the Patients who sought intensive care were also more likely to suffer dyspnoea, dizziness, stomach pain, and anorexia. also, COVID-20 (Coronavirus Disease-2019) is a public health epidemic around the world. Patients with a serious form of disease-account for about 15 percent of accidents. Since that time no single, effective, recorded pharmacological treatment has been established (Kahn 2020). The research aims to determine the ages most vulnerable to Coronavirus infection, and also to research the most lethal ages in Europe due to COVID-19.

## Methods

This study was carried out by collecting data from ([covidgraph.com](https://covidgraph.com)) people who were infected with Coronavirus when the virus appeared worldwide in 2019. cases of patients that were diagnosed and confirmed to be infected with Coronavirus In the world, the number of patients reached 2736188 and the number of recovery cases reached 751805 and the death toll reached 191423.the data are based to April 7, 2020, The study includes data regarding the deadliest age groups due to Coronavirus. Data was distributed according to age. In this study, in terms of the most infected age groups and those most vulnerable to COVID-19, we discussed data for those infected in Italy and Spain.

## Results

As a result, it turns out that the virus infects older people and the older a person is, the higher the chance of infection with the virus. Results from this analysis are seen as seen in Figure 1 and 2, the mean age of death is 78 years. Data from 106,399 cases and 12,550 deaths in Italy, to 2 April. In Spain, they are based on 7 April, 88,144 cases, and 3,479 deaths. There were less than 80 deaths in patients younger than 50 years of age.

### Italy

Age	% of cases	Lethality
0-9	0.7%	0.0%
10-19	0.9%	0.0%
20-29	4.3%	0.1%
30-39	7.0%	0.4%
40-49	12.9%	0.8%
50-59	19.7%	2.3%
60-69	17.0%	8.0%
70-79	18.1%	21.8%
80-89	15.3%	30.9%
≥90	4.1%	28.7%
<b>Average</b>		<b>11.8%</b>

**Figure 1:** Patient age groups and age relation in Italy and the percentage of lethality shown

Source: <https://covidgraph.com> (Accessed on April 7, 2020)

## Spain



**Figure 2:** Patient age groups and age relation in Spain and the percentage of lethality shown

Source: <https://covidgraph.com> (Accessed on April 2 , 2020)

## Discussion

In December 2019 in Wuhan, Hubei Province, China, a group of patients with pneumonia of unknown cause is reported to be infected with a novel coronavirus, known as 2019-nCoV, that had not previously been identified in humans or animals (Xu, X. W et al.,2020).the median age of death is 78 years old. Data based on 106.399 cases and 12.550 deaths in Italy Where the patients were divided based on age groups from (0-9) to (80-89) and more than 90 years, and in (70-79) 21.8% and in (80-89) 30.9% and in ages over 90 For a year, the lethality rate was 28.7%, and the lethal rate among the age groups was 11.8%,and the highest incidence of coronavirus among the following age groups (60-69) (70-79) (50-59) was 17.0%, 18.1%, 19.7%. Choosing to describe COVID-19 death in this way may have contributed to an overestimation of the rate of case-lethality. ischemic heart disease, diabetes, cancer, atrial fibrillation, dementia, stroke history. The presence of these comorbidities may have raised the risk of mortality independent of infection with COVID-19(Onder, G., et al 2020). The incidence of case- lethality was very high and is dominated by very old patients (Livingston, E., & Bucher, K. 2020). In Spain, the data are based on April 7, 88,144 cases, and 3,479 deaths. Less than 80 deaths occurred in patients younger than 50 years of age, divided by age group and lethality by Coronavirus, the mortality rate was 0.20 percent, 0.20 percent, 0.20 percent, 0.40 percent, 0.90 percent, 2.80 percent, 9.50 percent, and 19.10 percent, respectively. The lethality was very high in people over 90 years of age and was 23.20 percent higher than the rest, the highly contagious nature of the virus and the large number of asymptomatic people infected and the absence of a vaccine, Implies that social distancing is critical in fighting the spread of the virus and preventing a health system collapse. Social distancing can be accomplished by the cooperation of the community and voluntary compliance. This, however, needs high amounts of altruism – internalizing the social distancing harm for the

good of society at high (Amat et al., 2020). In Figure 2, the largest age groups infected with the Coronavirus were 16.2%, 16.9%, 18.8% in the following age groups (70-79), (60-69), (50-59). Given the recent rapid rise For Spain and France, recent cases COVID-19, transmissibility in real-time, and control of mortality are a concern. Since the epidemic COVID-19 remains a major concern in Germany, it is important to read the interventions on low mortality. Many European countries will continue to prepare and respond to COVID-19 and will learn about various preventive and control measures from Italy, Spain, France and Germany (Yuan, J et al., 2020).

The recommendation Given that the Hubei region in China has a marginally smaller population than Italy (about 50 million in Hubei and 60 million in Italy), the most successful way of suppressing this viral epidemic in European countries is possible to prevent direct interaction at the individual level and social meetings in each group. (Remuzzi et al.,2020). Stricter surveillance and control steps to limit the spread of COVID-19 are recommended in some countries. Locking-out findings in Italy remain unclear. In new cases of COVID-19, Quarantining Hubei Province including the epicenter of Wuhan City, proved successful in slowing the drastic rise. Continued tracking in addition, new cases of COVID-19 reported in Italy are needed to help assess the effect of the Italian lockdown. The Hubei province quarantine also prevented COVID-19 from spreading to other areas of China and across the globe. Active surveillance of new cases of COVID-19 found in other European countries would enable European and local authorities to better understand the consequences of lock-ups outside Italy. (Yuan et al., 2020).

## Conclusion

Coronavirus is a global epidemic, and it's hard to control, and it's not enough to prevent people from spreading the virus. The age groups most vulnerable to lethality are shown in this paper, in Italy, the virus destroys people over 75 years

of age, In Spain, however, the virus destroys people aged over 85 Taking into account numerous comorbidities, including psychiatric, cerebrovascular, endocrine, metabolic, and respiratory disorders.

### Conflicts of Interest

The author declare no conflicts of interest.

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