

Death risk of older people during COVID-19: A global perspective

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Outline of talk

- Demographic change
- Public health challenges for an ageing society
- Cross country differences in number of deaths due to COVID-19
- Mortality risk in older people due to COVID-19
- Challenges to protect older people within existing health system



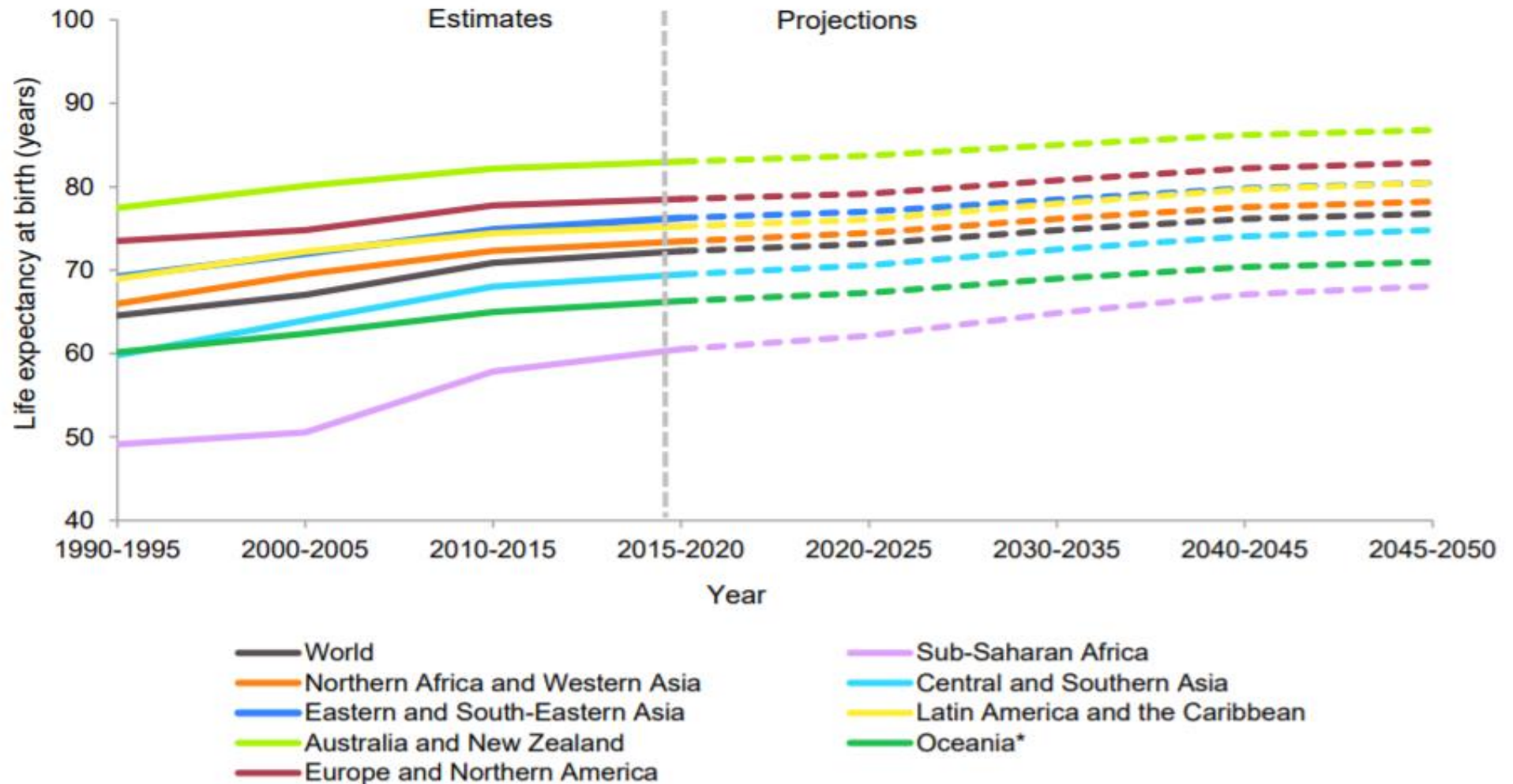
% Population by age group, UN 2020 estimate

Region	0-14 years	60+ years	80+ years
Europe	17.57	20.31	2.95
North America	21.45	16.25	3.20
Asia	30.33	8.65	0.84
Africa	42.66	5.18	0.36
Sub Saharan Africa	44.32	4.74	0.30

Africa will have a young population for sometime

Life expectancy at birth (Globally)

Life expectancy at birth by region, both sexes combined (years), 1990-2050



Burden of disease

Epidemiological transition – changes in leading causes of deaths, from acute and infectious diseases to chronic and non-communicable ones.

Non-communicable diseases are big threats such as Heart disease, Stroke, Cancer, Diabetes, and Dementia.

These are also linked with disability, dependency, and long-term care needs.

Highly likely to suffer from **multi-morbidities**.



Age-related diseases

- Cardiovascular disease
- Cancer
- Stroke
- Dementia (Ageing brain)
- Diabetes
- Osteoporosis
- Arthritis
- Vision, hearing, and other sensory disorders

Age-related disease acted as confounder for deaths during pandemic.

So the aim of the research was to examine the role of comorbidities in deaths of elderly across the world.

Data and Method

Data come mainly from the following web sites (March-May, 2020):

- The World Bank <https://data.worldbank.org/indicator/>
- Office of National Statistics UK, <https://www.ons.gov.uk/>
- Department of Health, South African Government, <https://www.gov.za/taxonomy/term/886>
- Centers for Disease Control and Prevention, https://www.cdc.gov/nchs/nvss/vsrr/covid_weekly/index.htm#Comorbidities
- World Health Organization <https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates>

Proportion of life spent in poor health, England (2013 - 2015)

	At birth Males	At birth Females	At age 65 Males	At age 65 Females
Life expectancy	79.5	83.1	18.7	21.1
Healthy Life expectancy	63.4	64.1	10.5	11.2
Number of years in poor health	16.1	19.0	8.2	9.9
% of life in poor health	20.3	22.9	43.9	46.9

COVID-19 affects everyone today

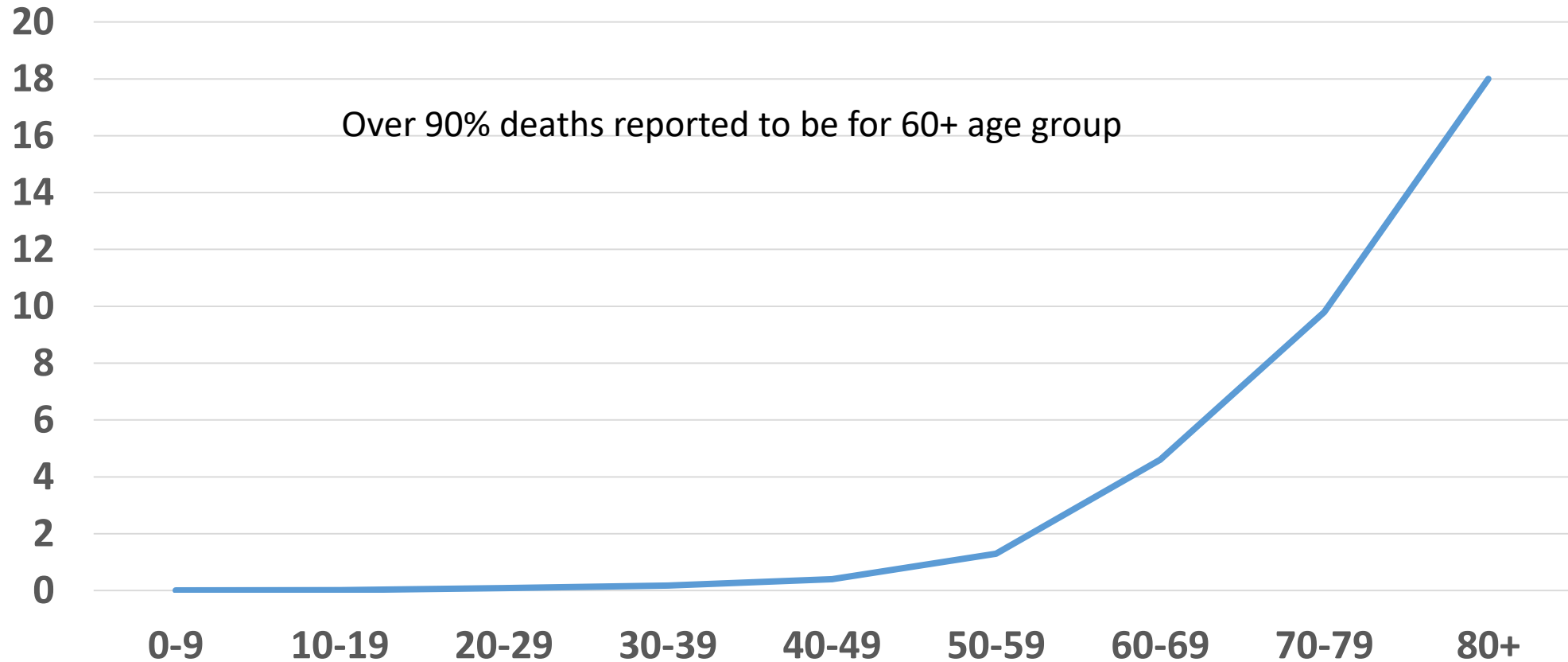
COVID-19 pandemic affects all segments of the society, including young adults

- Unemployment rate has increased across countries
- Remittance has dropped in many countries, affecting families dependent on this
- Family support and healthcare services are affected
- Elderly are more vulnerable due to ill health
- Elderly are largely dependent on financial support system mainly from state and family



Age-specific mortality rate, by age, in China

In China, mortality rates rise significantly among older patients

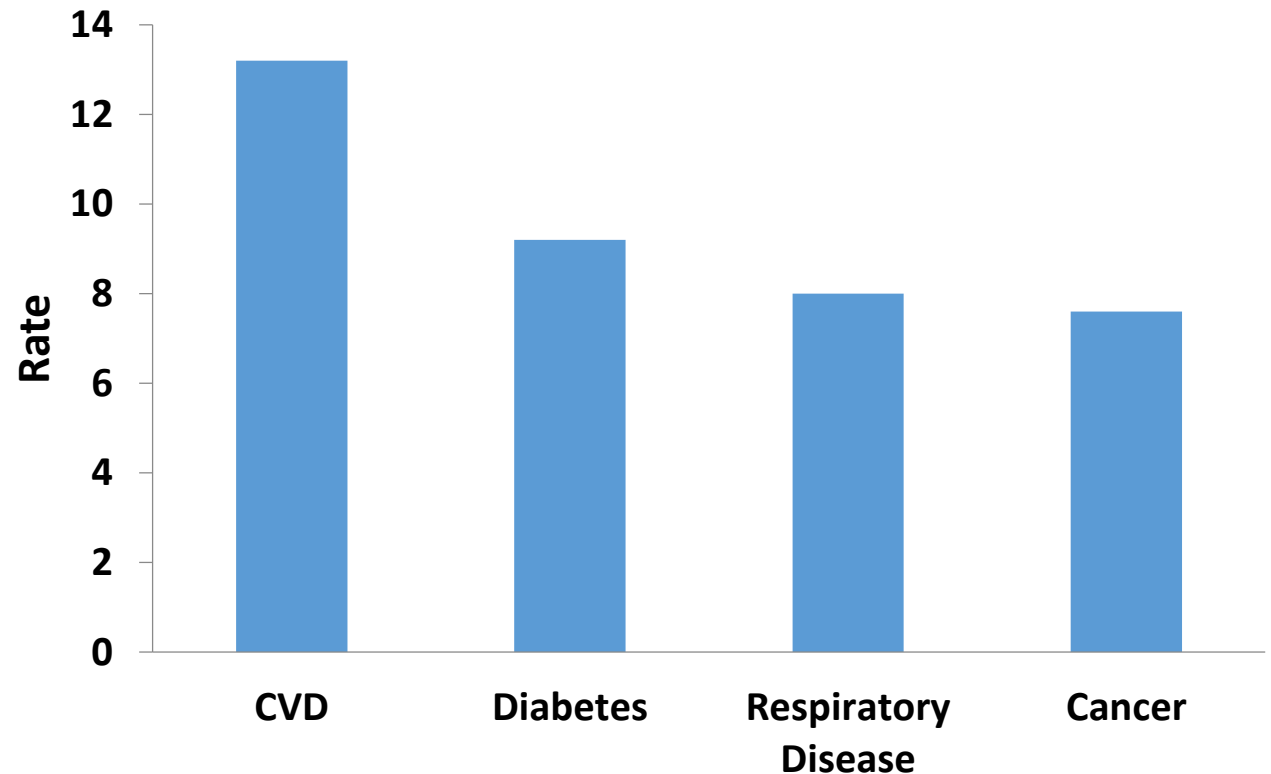


Co-morbidities were more prevalent in the dead group.

Nearly 61% of the patients had comorbidities,

About 24% had two or more comorbidities.

**COVID-19 fatality rate by co-morbidity in China
(n=55924)**

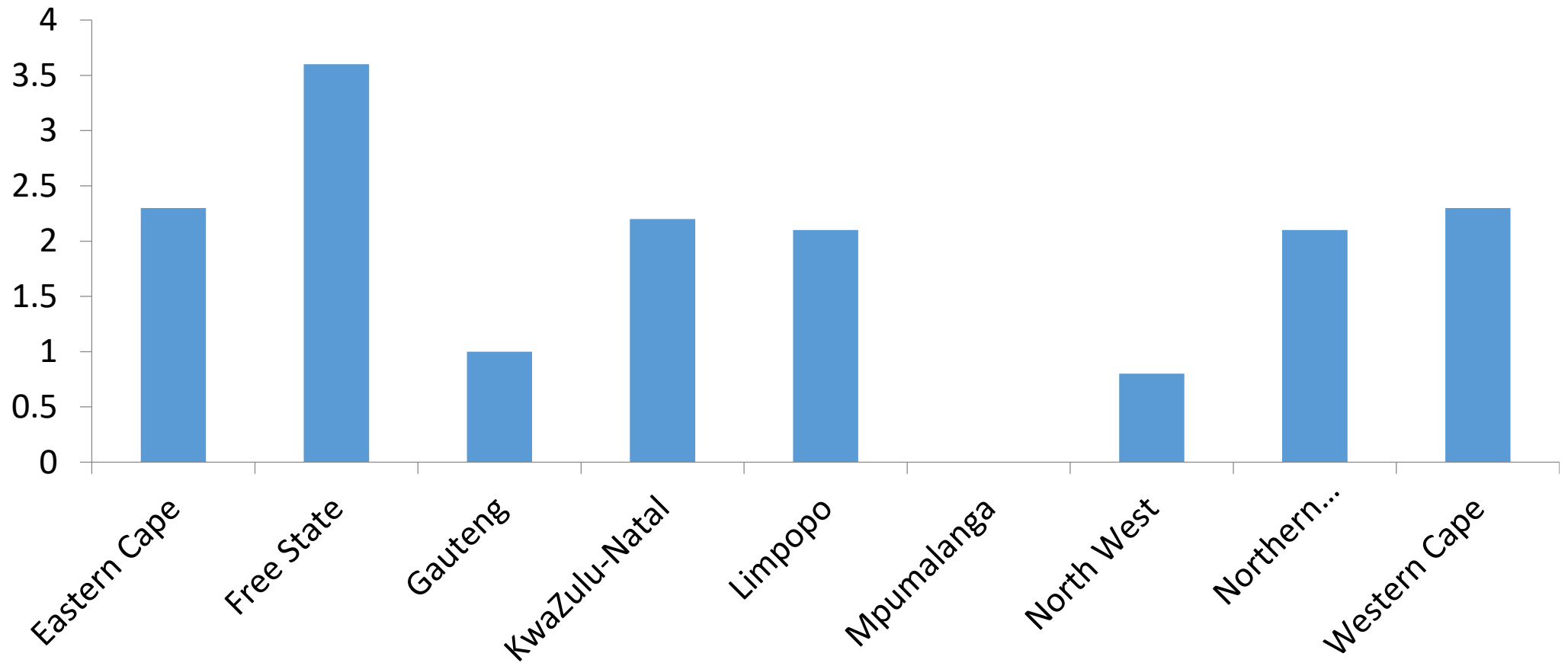


Trends of specific cause of deaths out of all cause (% of people in 60+ age groups)

Year	Cause	China	South Africa	USA
2016	CVD	47.51	33.16	32.13
	Cancer	37.17	12.21	22.60
	Diabetes	1.72	11.36	2.98
	Respiratory disease	1.69	8.00	2.52

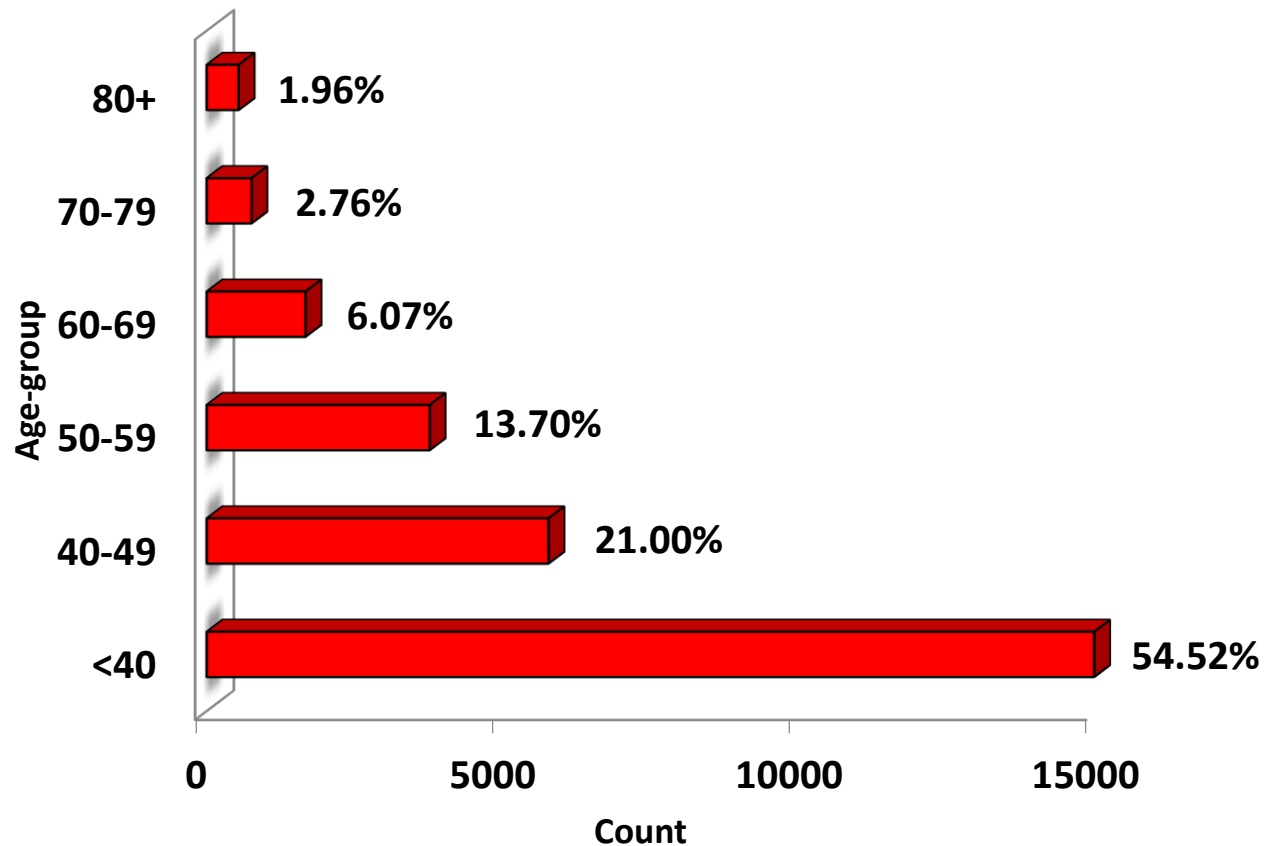
Fatality rates in different Provinces of South Africa

COVID-19 fatality rate in South Africa

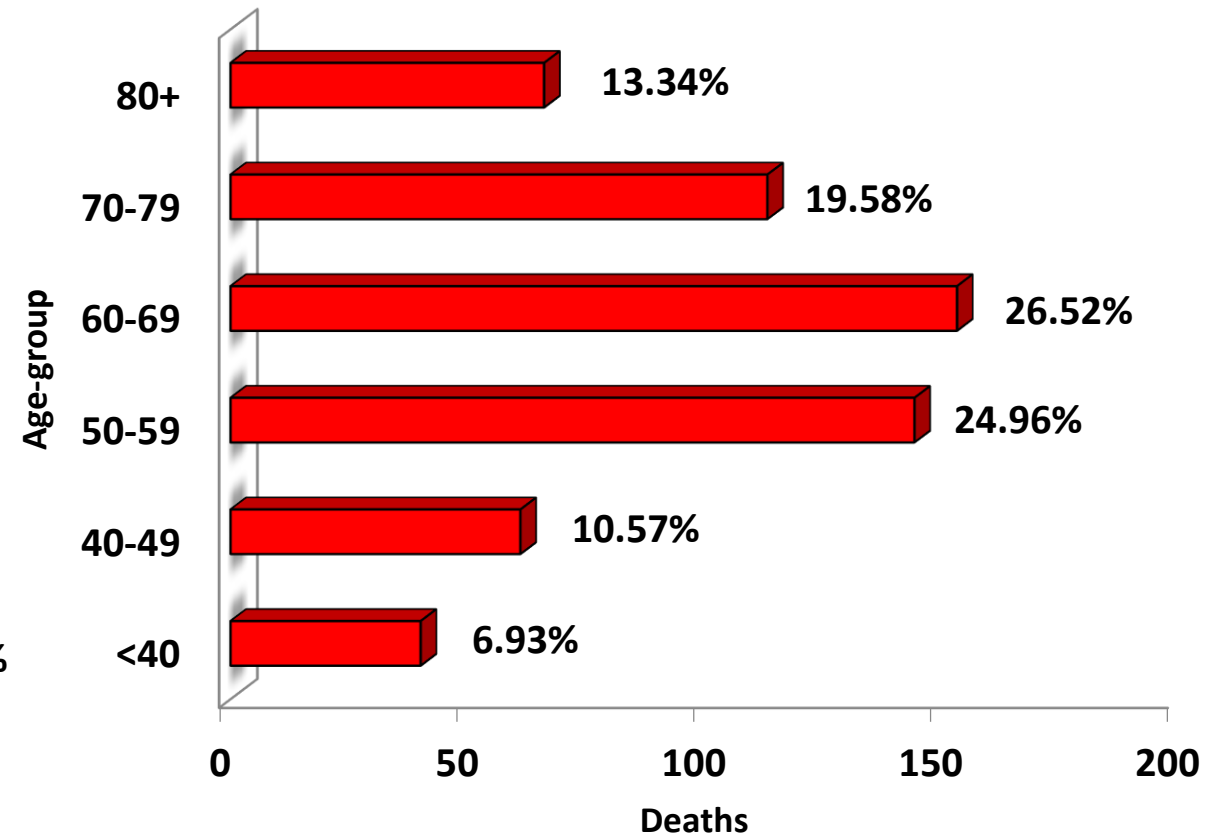


Age distribution of cases and deaths due to COVID-19 in South Africa

Age distribution of test+ cases

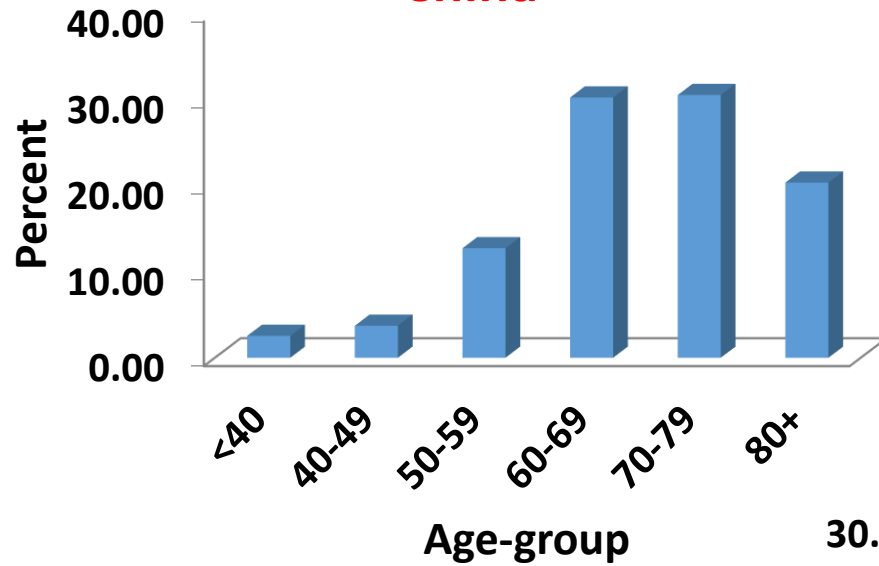


Age distribution of deaths

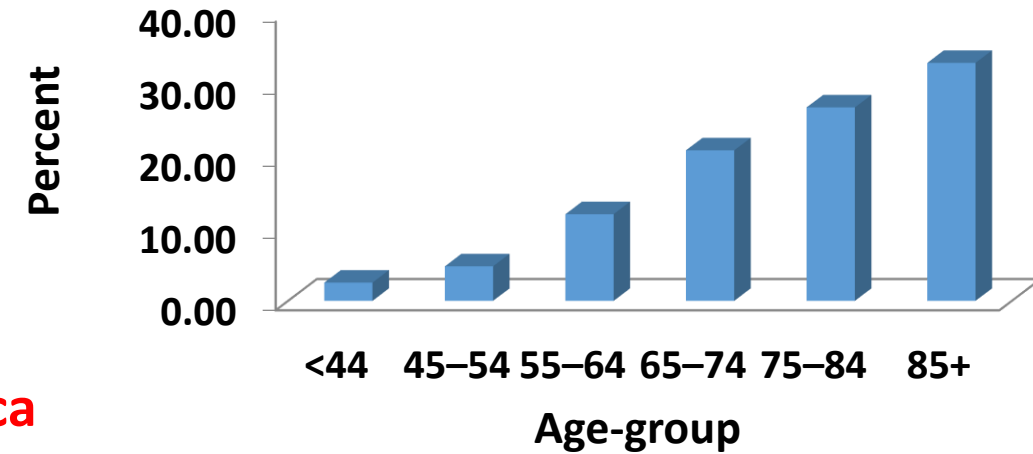


Age distribution of deaths due to COVID-19

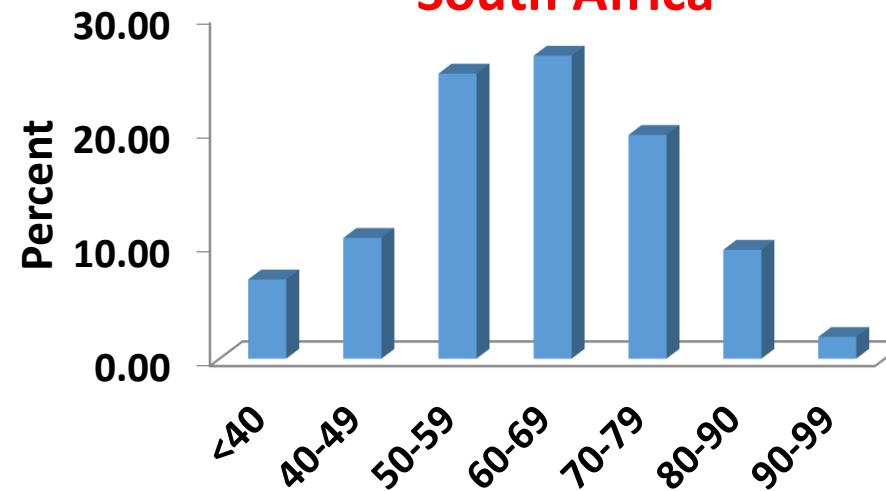
China



USA

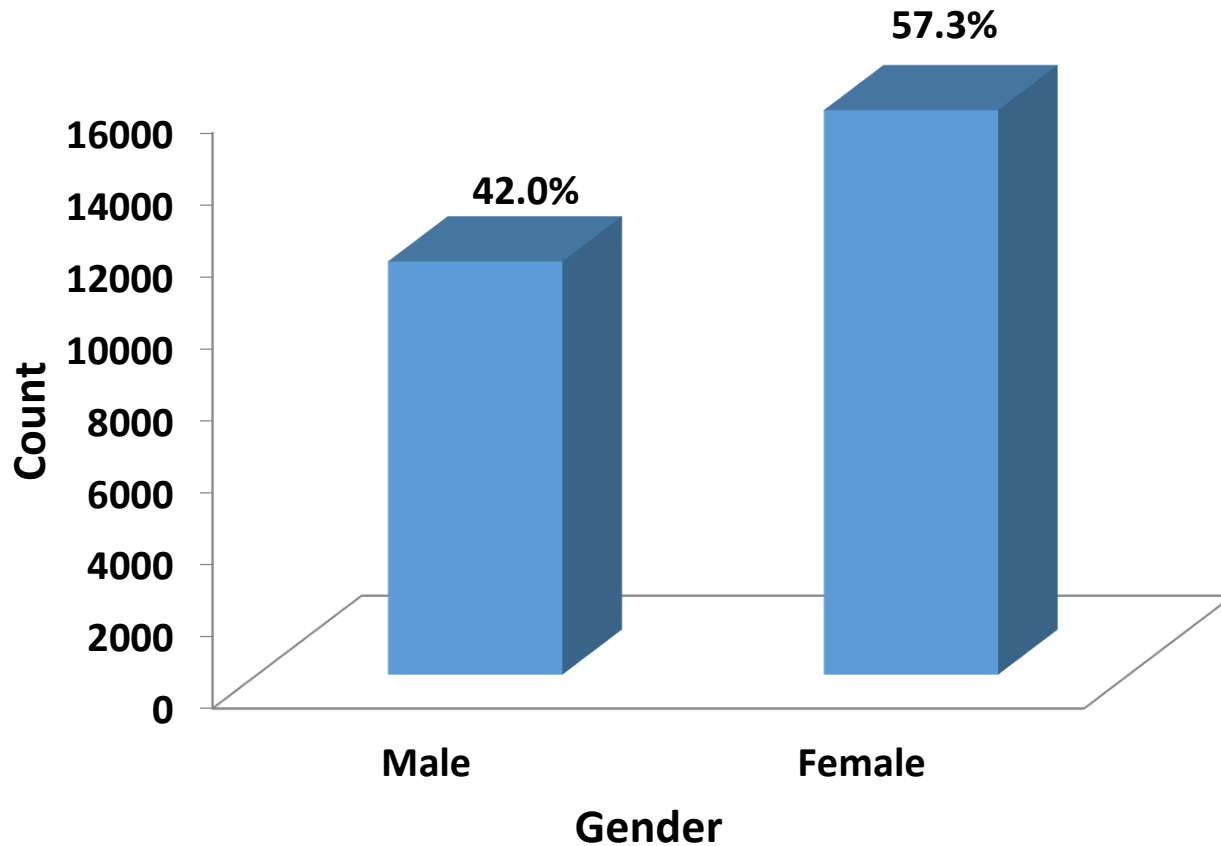


South Africa

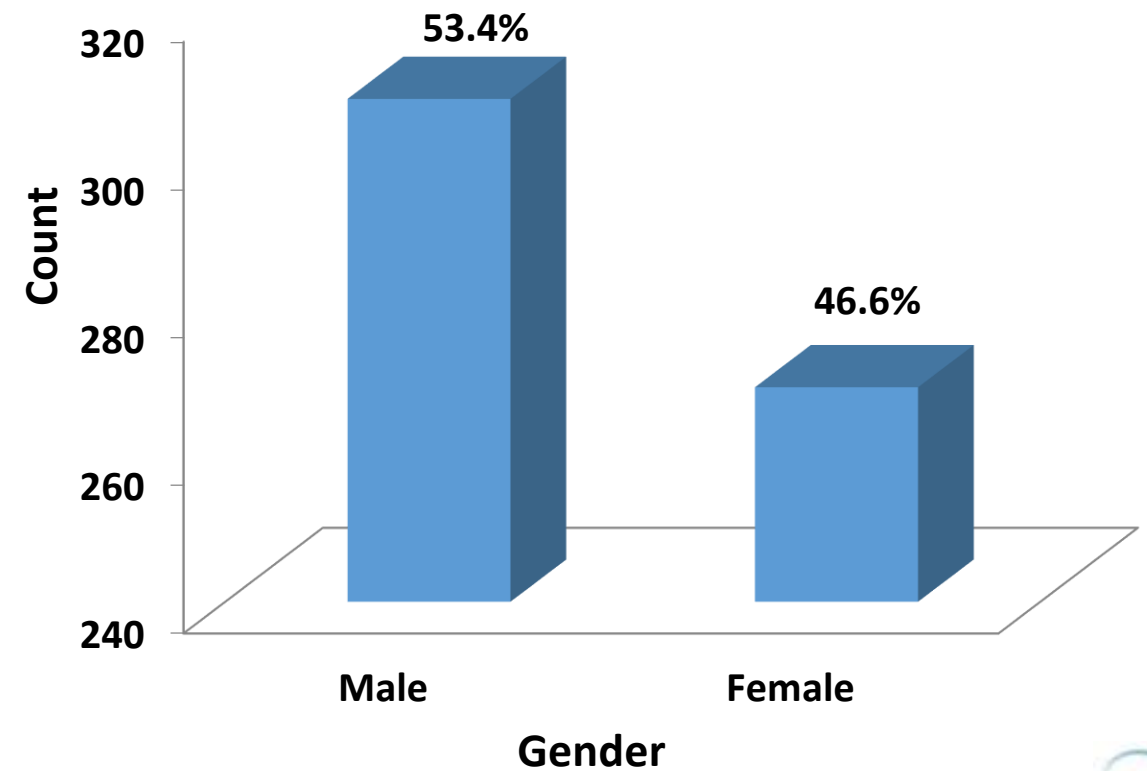


Cases and deaths by gender in South Africa

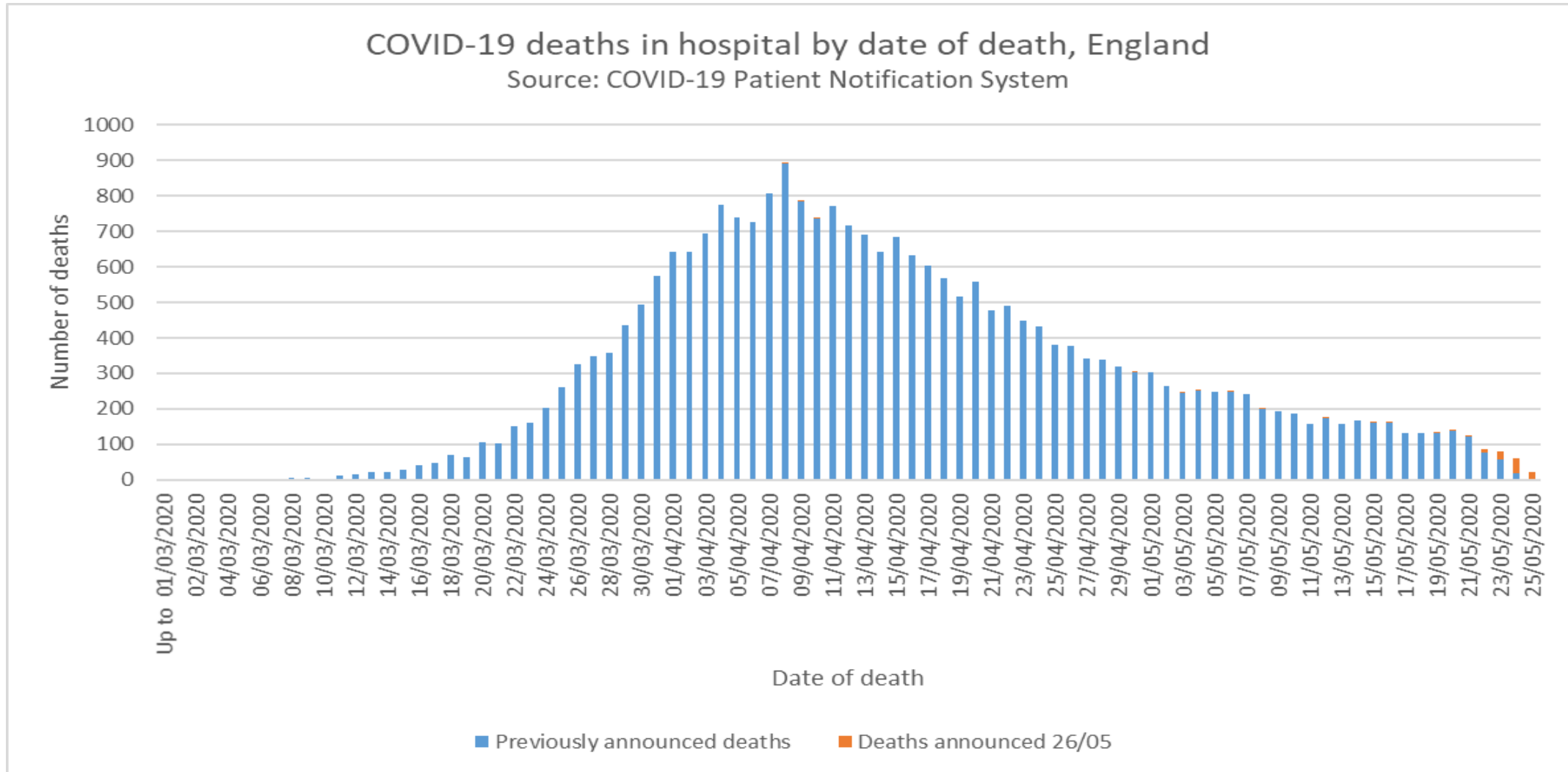
Distribution of test+ cases



Distribution of deaths

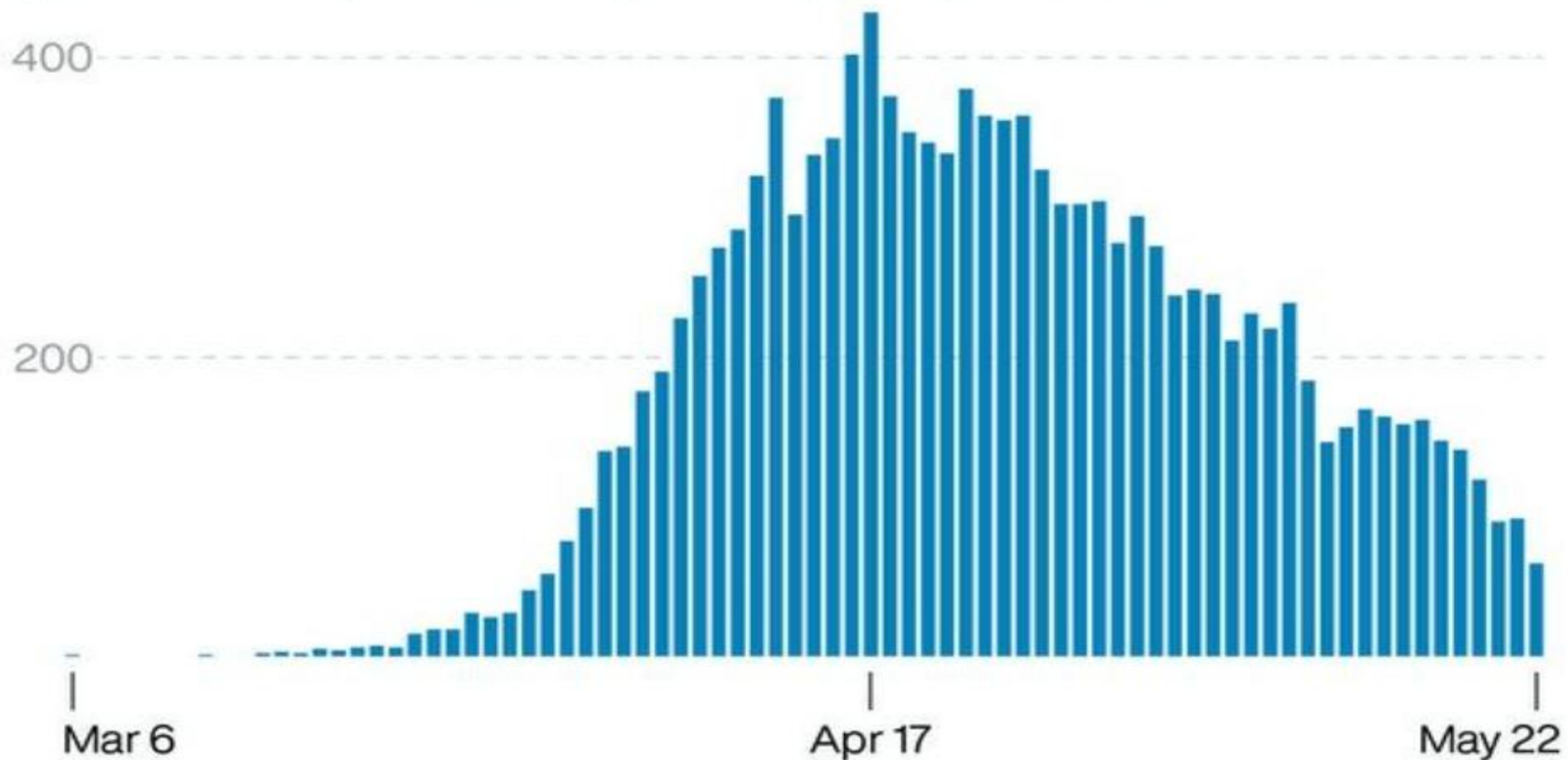


Time series by date of deaths in England

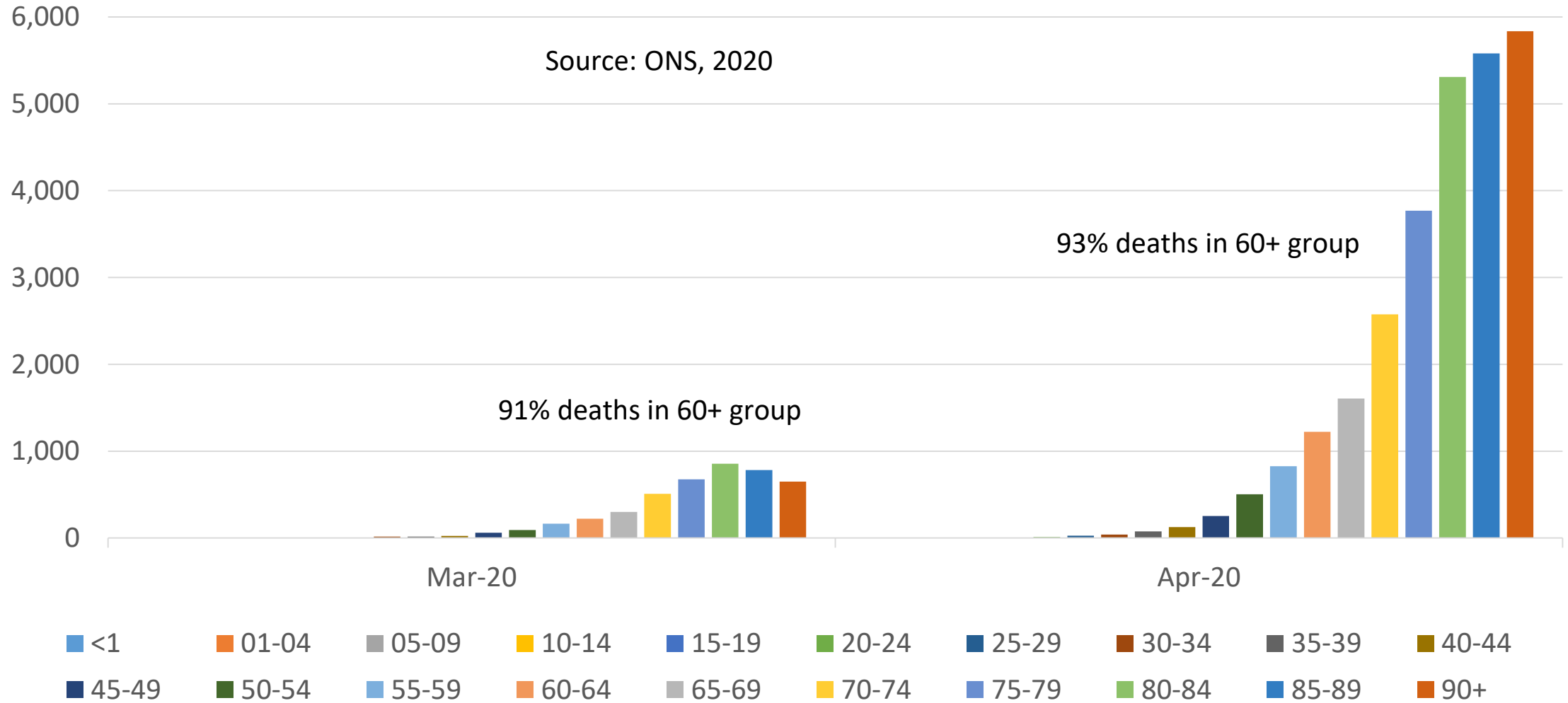


Deaths involving Covid-19 in care homes in England and Wales

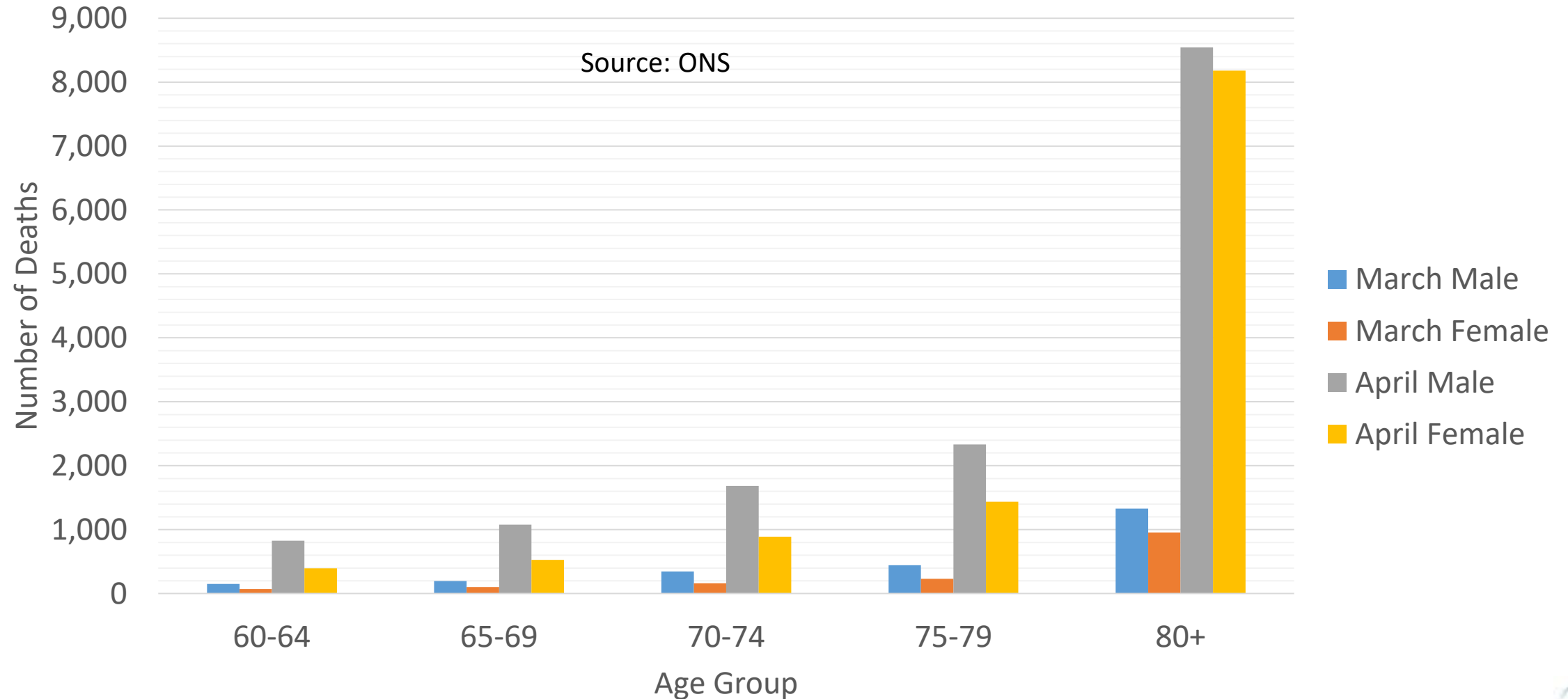
(by date of death, for deaths registered up to May 30 2020)



Number of deaths due to covid-19 in England and Wales

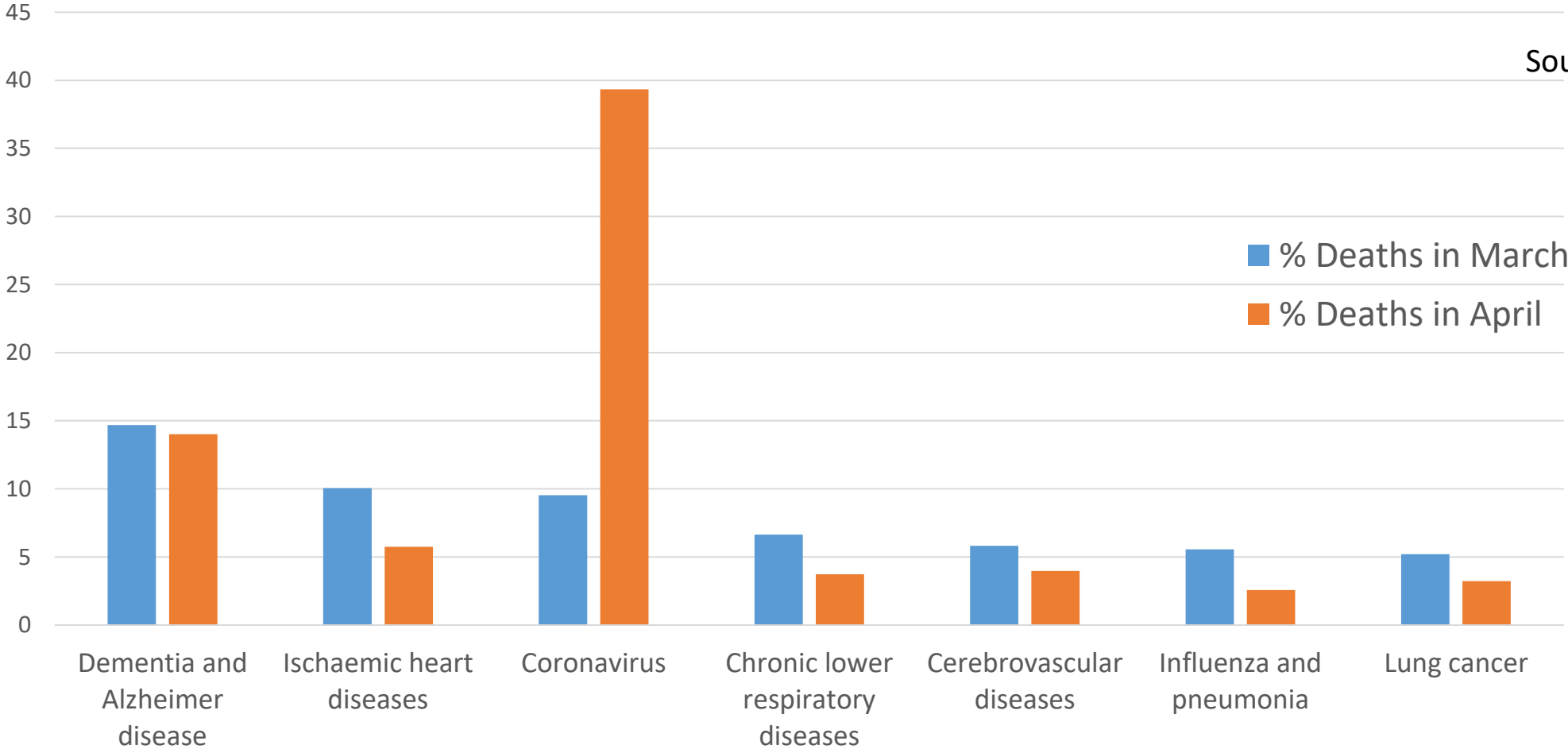


Deaths by age and gender in March/April 2020, England and Wales



Leading causes of deaths in England and Wales 2020

Cause of deaths in England and Wales



Conclusion

- Older people are affected most due to COVID-19.
- Over 90% of all deaths are among 60+ age group of people.
- Older males are in greater risk than females counterparts.
- Pre-existing health condition is a risk factor for COVID-19.
- The elderly becomes extremely vulnerable and isolated.
- Africa seems to have suffered less due to the age structure of its demography and lower rates of obesity.



Questions?



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