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Anatomy

1. COVID-19 likely emerged from an animal source but now is spreading from person to person. Human coronaviruses most commonly spread from an infected person to others through a variety of means, such as airborne droplets from coughing and sneezing; close personal contact, including touching and shaking hands; and touching one's nose, mouth, or eyes before washing one's hands. It is currently unknown if the virus can be spread through semen or sexual intercourse.

Currently, there is limited information from published scientific reports about the susceptibility of pregnant women to COVID-19 and the severity of infection. Available data are reassuring but are limited to small case series. In general, pregnant women experience immunologic and physiologic changes that make them more susceptible to viral respiratory infections, including potentially COVID-19. It is reasonable to predict that pregnant women might be at greater risk for severe illness, morbidity, or mortality compared with the general population, as is observed with other related coronavirus infections [including severe acute respiratory syndrome coronavirus (SARS-CoV) and Middle East respiratory syndrome coronavirus (MERS-CoV)], and other viral respiratory infections, such as influenza, during pregnancy. Data from MERS-CoV and

SARS-CoV, although limited, suggest that infection in pregnancy may be associated with severe infection and adverse neonatal outcomes, including increased risk of miscarriage, fetal growth restriction, and preterm birth (5, 6). But again, data specific to COVID-19 are not yet available.

The currently published data on COVID-19 infection in pregnancy include 2 case series, totaling 18 women, only 1 of whom suffered severe respiratory morbidity requiring intensive care unit admission and mechanical ventilation (lower than the reported general population risk) (7, 8). While these data are reassuring that pregnant women did not have severe outcomes, they must be interpreted with caution given the small numbers.

Does COVID-19 cause miscarriage or congenital anomalies?

At this time, very limited data regarding risks associated with infection in the first and second trimesters exist. There are mixed data regarding the risk of congenital malformations in the setting of maternal fever in general. Currently, there are inadequate data on COVID-19 and the risk of miscarriage or congenital anomalies. Data from the SARS epidemic are reassuring, suggesting no increased risk of fetal loss or congenital anomalies associated with infection early in pregnancy.

2. As the coronavirus pandemic unfolds across the globe, threatening lives, it has also had a profound impact on the environment.

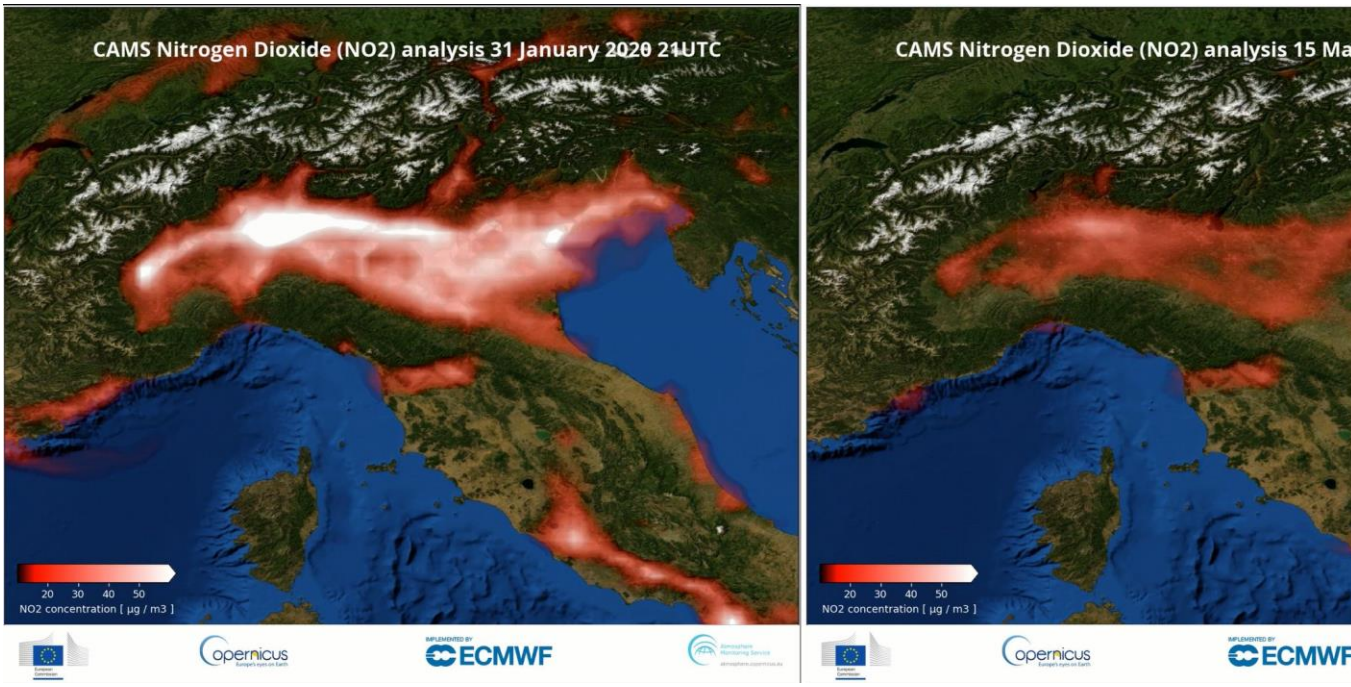
Scientists first noticed a decrease in greenhouse gas emissions in China, where the pandemic began. This trend followed the pandemic's spread across the world.

Traffic congestion

With lockdown or stay at home orders in effect in countries across the globe due to the coronavirus pandemic, there's been a steep decline in travel and economic activity worldwide.

Traffic congestion in major cities fell dramatically as a result. With less traffic comes less pollutants like carbon monoxide.

Effect on carbon emissions



Surface concentrations of nitrogen dioxide over northern Italy, comparison between 31 January and 15 March 2020. (Credit: Copernicus Atmosphere Monitoring Service (CAMS); ECMWF)

Has the drop in traffic and air travel had a significant impact on greenhouse gas emissions such as nitrogen dioxide and carbon monoxide?

It appears so. China's carbon emissions fell by around 25 percent over a four-week period after Chinese New Year, according to Carbon Brief.

Elsewhere, northern Italy reported a 10 percent reduction in the pollutant nitrogen dioxide per week over the four to five weeks before March 17. The area has been hit hard by COVID-19 and been in lockdown.

The improvement in air quality was even more apparent in Madrid, Spain due to stay at home orders for the entire country. The average level of nitrogen dioxide recorded on March 17 was almost 75 percent lower than the previous week. And in New York City, carbon monoxide, mainly from cars, had been reduced by nearly 50 percent compared with March 2019.

The Coronavirus affects individuals of all age groups with the elderly being the most vulnerable. The reason being that older people don't have a strong immune system so they are more vulnerable to infectious disease. They're also more likely to have conditions such as heart disease, lung disease, diabetes or kidney disease, which weaken their body's ability to fight infectious disease.

3. **Significance of Spermatogenesis:**

It ensures consistent supply of germ cells, which differentiate into mature sperm, ready to fertilize and thus pass on the individual's genetic content to the next generation.

Significance of Oogenesis:

It helps to retain sufficient amount of cytoplasm in the ovum which is essential for the development of early embryo. Formation of polar bodies maintains half number of chromosomes in the ovum. (iii) During meiosis first crossing over takes place which brings about variation.

4. **.** Personal hygiene involves those practices performed by an individual to care for one's bodily health and wellbeing through cleanliness.

A disaster is a serious disruption occurring over a short or long period of time that causes widespread human, material, economic or environmental loss which exceeds the ability of the affected community or society to cope using its own resources.

Lack of personal hygiene can promote the spread of an epidemic which classifies as a disaster.