

## What are the few good things that the COVID-19 Pandemic taught us?

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The COVID pandemic took the world and our country by storm when the first case in the world was reported in Wuhan in December 2019 and the first case in India was reported in Thrissur in Kerala on 27th January 2020. So far, COVID has affected 549.5 million people in the world and caused 6.35 million deaths. In India, we have had three major peaks, the first between Sept-Oct 2020, the second between April to May 2021, and the third around January 2022. In India, there have been 43.4 million cases reported with 5.25 reported deaths. Many of us have lost our near and dear ones, many of us went through it ourselves and are lucky to have survived, at least the first and the second waves. Our schools were shut for over 2 years, many offices and industries were closed, and many people lost their jobs. Globally, over 8.3 trillion dollars have been estimated to be wiped out due to COVID, making the world a poorer place<sup>(1)</sup>. The economic loss due to COVID in India is estimated to be around 52.6 lakh crore Indian rupees<sup>(2)</sup>.

Yet, some good things happened during the COVID pandemic. The world became one to fight this deadly virus. Scientists from across the world came together in an unprecedented collaboration to develop vaccines for the deadly SARS-Cov2 virus. In a short period of time, 200 candidate vaccines for COVID were developed, of which over 50 different vaccines reached clinical trials and many of these have been used to vaccinate the world. India too developed its own COVAXIN by ICMR and Bharat Biotech in record time. Many more vaccines from India are in the pipeline. The world realized that vaccines are an integral part of our survival. The science of vaccinology suddenly evolved as a savior of our human race. India showed the world that we were capable of producing vaccines not only for ourselves but also for the whole world. India is on the verge of developing an mRNA vaccine, a technology that not only produces a good number of antibodies but also overcomes the challenges of cold storage and production speed. We are now in a far better position to handle such catastrophes if at all they occur in the future.

The lung got recognition as an important organ during the COVID pandemic. Pulse oximetry, high-resolution computerized tomography of the thorax (HRCT-Thorax), and the pneumonia scoring caused by COVID-19 became household names. Until the pandemic, the lung had always

remained a neglected organ, despite the fact that it provides one of the most crucial functions of the body of nourishing it with oxygen and getting rid of the waste product, carbon dioxide. On a daily basis, we humans breathe in around 10,000 liters of air, of which the lungs soak in around 1000 liters of oxygen and transfer it to the circulatory system. The oxygen that the lungs provide helps generate 90% of the body's energy, with the remaining 10% coming from the food that we eat and the water that we drink. The 1000 liters of oxygen that our human body needs every day to keep ourselves alive and healthy is transported by the hemoglobin molecules present in the red blood cells. Each red blood cell has 300 million Hb molecules stuffed inside and there are a total of around 25 trillion RBCs circulating in the blood at any moment. The circulating RBCs account for over two-thirds of the total body cells. Over 45% of the nutrient circulating in the blood is oxygen. Nobody realized the tremendous amount of investment that the human body was making to soak in the oxygen from the air and transport it to all the cells in the body. The lung and oxygen suddenly became very important words during the COVID pandemic. The world will now look at the lung with a lot more respect. The COVID pandemic taught us to start taking care of our lungs and realize the importance of oxygen in our lives. Oxygen generating plants have now become a necessity in our hospitals.

The other important thing that the COVID taught us is the importance of air pollution in our lives. When industries shut down, offices were closed, road traffic came to an almost standstill, and the pollution levels in the ambient air plummeted suddenly. The air that we breathe became cleaner. Childhood asthma exacerbations reduced significantly<sup>(3)</sup>, and hospitalization for a wide variety of acute reasons came down dramatically. We started realizing the importance of clean air for our health. The significant reduction in the levels of air pollutants in the environment was unprecedented, something which may never happen again, but it taught us an important lesson that clean air can reduce the burden of many diseases. We experienced this benefit for the first time.

In my opinion, one of the biggest positive changes that have occurred during the COVID pandemic is not only the importance of wearing a mask but also the fact that we are capable of adapting to such an important behavior change. I

never imagined that we human species could put on a mask and keep it for a long time. The mask became a savior during the COVID pandemic. It genuinely protected people from spreading and catching the COVID-19 infection, of course, if worn properly. The efficacy of a mask in protecting oneself from catching the infection was shown for the first time in Manchurian, China during the Plague epidemic of 1910-1911. A simple mask made of several layers of gauze prevented one from catching the deadly plague infection. Earlier (1905), Dr. Alice Hamilton from the United States showed for the first time that when surgeons operated, they breathed out large numbers of pathogenic bacteria from their mouth<sup>(4)</sup>. Whispering and talking generated aerosols containing bacteria that infected the surgical sites and therefore to protect the patients catching the infection from the operating surgeon, all surgeons and nurses were asked to wear masks. A surgeon wears a mask more so to prevent his patient from catching his oral bugs, rather than protect himself from the patient's bugs. Walking, talking, whispering, sneezing, or even the simple act of breathing was shown to generate aerosols that contained bacteria and viruses with the potential to infect the other person. The quality of these masks evolved very rapidly during the COVID-19 pandemic and a significant spread of the infection was averted by this humble mask. The COVID pandemic taught us the importance of wearing masks. Even one day when the pandemic will be over, we should continue with this habit of wearing masks. It will not only protect us from inhaling potentially harmful viruses and bacteria but also protect us from inhaling harmful air pollutants. India is one of the most polluted countries in the world, we do not even realize that. We are constantly inhaling very high levels of harmful particulate matter pollutants that damage not only our lungs, but also the heart, brain, kidney, and several other

organs. We have realized the importance of wearing masks and we have learned to accept it as a part of our daily lives. We should now continue wearing masks even after the COVID-19 pandemic is over to protect us from the harmful effects of air pollution. We have been advocating the use of a mask to protect ourselves from air pollution for decades, but it never happened. We should now change our behavior by taking cues from the COVID pandemic and protect ourselves from air pollutants by continuing to wear masks.

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### References

1. United Nations. Department of Economic and Social Affairs. COVID-19 to slash global economic output by \$ 8.5 trillion over next 2 years. Available at: <https://www.un.org/en/desa/covid-19-slash-global-economic-output-85-trillion-over-next-two-years>. Accessed on 28.06.2022.
2. Scars of the Pandemic. Reserve bank of India. Available at: <https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/4SCARSOFTHEPANDEMICFE3A153493524026B1C02EB2FD2CB5C9.PDF> Accessed on 28.06.2022.
3. Akelma Z, Çetin S, Baþkaya N, Bostancı Y, Özmen S. Preschool children with asthma during the Covid-19 pandemic: fewer infections, less wheezing. *J Asthma*. 2022 Jun 22:1-7.
4. Hamilton, A. Dissemination of *Streptococcus Sputum*, *JAMA* 1905; 44: 1108.