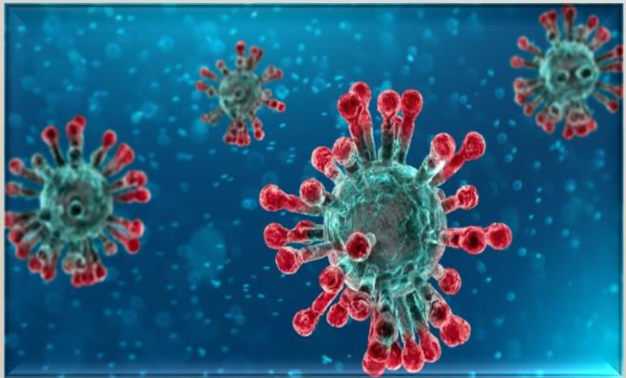


How Math Has Contributed to the Progression of Modern Medicine

The emergence of modern medicine came in the mid-1800s. Doctors and physicians were making ground-breaking discoveries at this time, and something that played a significant part in this was mathematics. We often underestimate the role math plays in medicine, whether this be in the invention of medicines and medical apparatuses, or in the everyday routines of doctors and nurses.



Nurses use mathematical skills on a daily basis while at work. This ranges from computing BMI of patients, to administering the correct dosage of treatments. Doctors working in hospitals must sometimes use scans and screenings to diagnose patients and identify any underlying health complications. This includes x-rays such as MRI and CAT scans. Math is necessary here so that x-ray intensity can be monitored and so that the rays can be correctly angled to scan specific body parts. Devices such as these have led to early prevention of many diseases.



The recent spread of a viral infection has made us all realize the importance of vaccines. Viruses contain protein shells that many scientists describe as geometric labyrinths. As a result of this, the development of modern vaccines would not have been possible without the contribution of experienced mathematicians. Statistics is also important when it comes to deciding how to distribute vaccines. With a limited supply of vaccines available, statisticians need to calculate and determine how and to whom they should be administered.



Statistics are often used in medicine when working with probability and prediction. data collected from medical samples is evaluated and then subjected to analysis. This data is then graphically and numerically sorted and is interpreted by medical experts to identify trends and predict certain outcomes. In this way, doctors and epidemiologists have been able to predict outbreaks of many diseases and how they will affect the population.



Human medicine and veterinary medicine are very similar in nature. Using mathematics has hence proved crucial in veterinary medical practices too. To undergo complicated surgeries on animals that are sometimes very small or very large, veterinarians need to use math to determine exact doses of medicines such as anesthesia to administer to them to meet the requirements of each species. Mathematics in veterinary medicine will therefore continue to be important for as long as new animal species are being discovered.

