

READER'S CHIT

COVID-19 in the air and KC Solutions

International Health authorities, politicians, and experts have been continuously changing and updating information about COVID-19, due to constantly ongoing research and evolution of the virus itself. However, lack of correct information has resulted in immense hardship for millions and thousands of people losing their lives.

When the lockdown started in Bangladesh, I began to worry about what is going to happen to my country. Many friends lost their jobs permanently due to this pandemic. I asked myself what I could do to help others in this situation, even though I'm not a doctor or a scientist. Studying about COVID-19 in details was my first instinct.

I contacted many researchers in America and Europe to discuss and question them about information that I did not understand.

On 27th of May, I realised that I was diagnosed with the Covid infection. My sickness gradually peaked and I had to be hospitalised. After nearly 54 days, I am still recovering, but the moment I came back from the hospital, I restarted my research on Covid.

How it spreads

After more than 6 months of research, scientists finally started to paint a better picture of how COVID-19 spreads. The emphasis on the coronavirus spreading mainly through surfaces has been misleading. In fact, the emphasis on washing your hands all the time and not explaining why we should be wearing masks has caused more harm than good.

Before I got infected, I came to understand that the chief culprit was actually air transmission. The fact that Covid can only spread when an individual sneezes has now been proved wrong by scientists.

If an individual is infected (but still unaware), just meeting and talking to another person can get that person infected as well. Scientists call this aerosol transmission. Even when speaking, the virus transmits into the air through the mouth in a cloud-like formation.

This cloud can linger in the air for hours and can also drop onto surfaces. If an individual is in an enclosed space like an office space or restaurant, the virus can spread very easily through air transmission. The virus will spread depending on the location of AC or air ventilation system. It's even riskier at a place with central AC system.

Surface transmission can only take effect immediately. Recently, the WHO has stated that surface transmission is highly possible, but it is not as frequent as they first thought it to be.

The economy

Staying home and maintaining social distancing is not a long-run solution. Countries like Japan and Vietnam allowed their economies to continue, but took many preventive measures including wearing masks and social distancing.

I am very grateful to our honourable Prime Minister for opening up the Bangladesh economy because the alternative would be people starving to death — especially those who earn on a day to day basis. Unfortunately, a lot of people

are losing jobs and thousands are being forced to leave Dhaka for their villages.

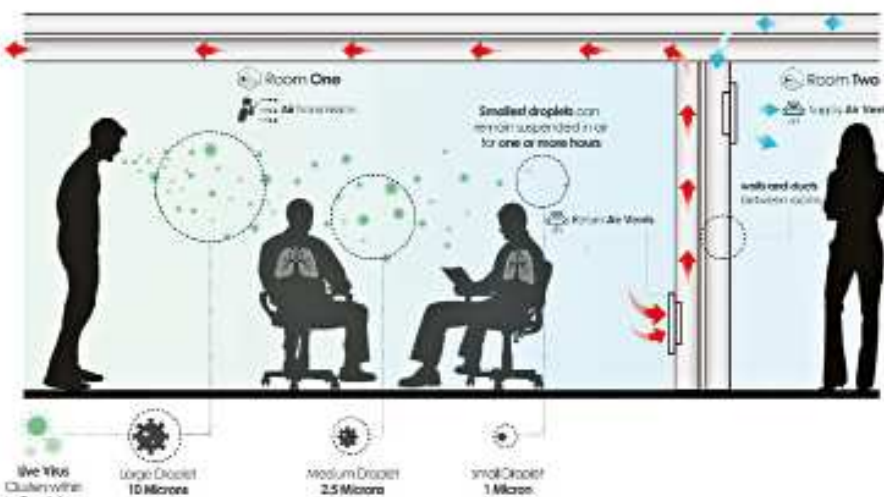
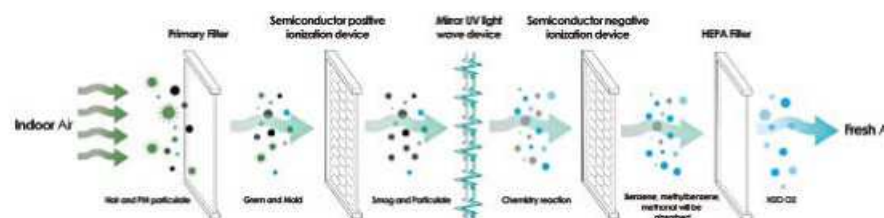
This is happening because people like you and I are worried about keeping up with our daily activities, such as shopping, eating out, etc. This problem is very real, and you are right to worry, but if we keep this up and lose all our businesses, not only will there be a human cost to pay but it will also be devastating to our economy.

Wearing PPE and masks for the rest of our lives every time we go out is not going to be the solution that will take us forward.

The solutions

Before I was hospitalised, I put together several teams of engineers and scientists to work on different solutions.

1. How to protect ourselves when visiting shops and retail establishments
 2. How to protect our doctors and medical professionals (our heroes)
 3. How to protect our factory workers
- For each of these three problems, we



have devised different solutions. An office building with a central AC system will not be given the same solution as a restaurant. And a factory with thousands of workers cannot be given the same solution as a large market or mall.

I am releasing several more videos which will build on this awareness and explain to you how we will use different types of technologies to destroy Covid germs in different environments.

The KC solutions

Let me explain how we can protect you when you visit retail establishments such as shops and restaurants, with an example of a sari shop. When you visit a sari shop you normally will go with friends or family. There may be other families visiting as well. Now, in the group who visited before you, there may have been someone who was infected. They have left a cloud of infection in the air and has also contaminated the surfaces of the saris and other things they have touched.

Air disinfection solution

Firstly, we have to consider the type of space we are working with. As mentioned earlier, Covid spreads through the air and is circulated through AC or the ventilation system. Our team will evaluate the points of airflow coming into and leaving the space. I have sourced highly specialised air disinfection systems which will make sure that the air is completely disinfected in this closed environment.

If the air flow of this shop is dependent on central AC for a mall, then we will install the central AC system technology. There are separate devices for air inflow and outflow.

The central AC system kills germs and bacteria's using a single Photo catalysis system which uses UV technology. We can also use a dual protection system which will include negative ion technology. The central AC system is easy to install and an immediate solution that can be used by any large establishment.



After every group leave, the electrostatic spray technology, together with our FDA approved disinfecting chemicals, is the right answer. It will disinfect all surfaces without inconveniencing other people nearby.

This system also has many benefits over traditional methods.

- 1) There absolutely won't be any gap in coverage because the system works like a magnet on all surfaces including shadowed or hidden areas
- 2) Also because of the cationic charge of particles there will be a wraparound effect around round objects
- 3) The mist will also be dry and very tiny so there will be no wetting of any surfaces. In a sari shop the owner can spray the saris if they want to disinfect them from any viruses left by visitors
- 4) Only FDA APPROVED chemicals are used, making it perfectly safe for humans but deadly for COVID within minutes.

You can spray while there are other people close by.

These are just some of the solutions that are available from KC. The advantages of these technologies are that unlike existing methods that provide periodic disinfection, our solutions will work throughout the day.

We have all learned about the country-wide infection curves. Now let's talk about our "germ build up curve." I am actually talking about the virus and bacteria build-up in an enclosed space. Take the example of the number of people coming in and out of an office over a week. The curve will keep on peaking and spreading when infected guests are coming in and out and will only decrease once the area is periodically disinfected. Now, when you are using the KC disinfection solutions, we won't allow a curve to happen in the first place. Maybe there will be a small bump, but it will be immediately taken care of because our disinfecting systems are constantly working

KC will soon come out with an assurance program. Retail establishments who will use our comprehensive solutions will be recognised on our social media page. We will also encourage you to start visiting these places again, feeling safe and knowing that our Covid busting devices are working behind the scenes.

To experience the products first hand, visit the KC gallery and we will give you a demonstration of some of our disinfecting systems. Remember it's safe to visit us.

By **Kawsar Chowdhury**

Photo courtesy: **Kawsar Chowdhury**

For more details visit kc.design or write to kc@kc.design

If the building owner is not interested in our central AC system, then we can provide specialised and individual protection for the shop or floor owners. Coming back to the sari shop example, it may be the case that this shop does not have central air conditioning and is a standalone shop.

For places like these, our mobile type units are best suited to serve the purpose of air disinfection. The mobile units should be carefully placed between groups to make sure that any stale or infected air from one group does not reach groups that are close by. It is even more important to make sure there is no build-up of germs in that location which could result in a super spreading event. Mobile units can be equipped with triple layer disinfecting features by adding a hepa filter.

Surface disinfection solutions

Now let's talk about surface disinfection in the said saree shop. Visitors will be coming in and out throughout the day.