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CLIMATE CHANGE AND INFECTIOUS DISEASES



Despite what you may hear in certain parts of the world, climate change is a real issue which is affecting sea levels, climates and eco systems around the world.

In the last 100 years, sea level has risen by 17 centimetres with the top 700 metres showing signs of warming, impacting on coral reefs, fish migration patterns and depletion of cold water marine life.

The surface temperature is also climbing.

Whilst to some this may mean long, hot summers, the reality is delicate changes to eco systems that allow pathogens and vectors to thrive where they would otherwise perish.

Whether a pathogen requires a host or a vector to spread, it also requires an environment necessary for survival and further transmission.

As such, changes to the climate have a direct impact on how both pathogens and vectors behave and adapt.

Evidence suggests that as temperatures have increased, the geographic expansion of infectious disease have moved with it.

Because weather and climate has always constrained the spread and intensity of outbreaks, climate change is having the opposite effect. Contagions that wouldn't normally be found in North America and Southern Europe are migrating.

In countries like the UK and Germany, where climate change has brought heavier rain fall and widespread flooding, there is an increasing number of environments where pathogens and vectors can thrive. Specifically, large areas of water logged ground that succumb to decay or areas of standing water that stagnate.

Moreover, because diseases are migrating to environments in which they would historically perish, there is no natural immunity or immunisation response in place making outbreaks all the more severe and containment harder to manage.

What can be done?

Short of climate change reversal – which is unclear if that's even possible at this point – medical facilities have to better prepare for more aggressive outbreaks of both usual and unusual infectious diseases.

The good news is that organisations like the UCLH in the UK and the Centre for Infectious Diseases Research in the States are already taking steps to contain outbreaks.

Some countries, such as South Africa are using awareness campaigns to educate the populous of the symptoms of specific diseases in an effort to limit exposure and isolate the infected. However, as we can move in close proximity to dozens of people every day, isolation can make little or no difference.

Whilst there are stockpiles of vaccines for certain diseases and containment will always be the first step to managing an outbreak, 'herd immunisation' is still the most effective way of preventing widespread infection of a major disease.

There will also need to be a major investment in existing healthcare facilities to cope with the inevitable influx of people needing care.



Prevention is better than cure

Although we can all do our part for the environment and carbon extraction technology is being trialled in countries like China, the fight against any major outbreaks will be won or lost at a grass roots level: in hospitals, clinics, schools and care homes.

Where systems for reporting symptoms exist, response times are shortened and containment measures far more effective with the potential outbreak far more localised than it otherwise would be.

After which it's about applying best practice infection control methodology including appropriate hand care, through to the correct disposal of human waste and other contaminants.

But there's more to it than that. Effective infection control has to be a closed loop. This means ensuring clinicians are taking care of themselves as well as their patients.

Healthy staff present are at a lower risk of infection than those turning up to work sick. A compromised immune system could spell disaster for a busy, inner city ward.

As ever, planning and the appropriate infection control solutions will be the bulwark against which an infection will break.

DDC Dolphin is committed to supporting the medical and care sectors with complete sluice/dirty utility room solutions that fight the outbreak of infectious disease.

If you would like to discover more about our range and services or would like advice designing your sluice/dirty utility room, contact us, one of our experts can help.

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