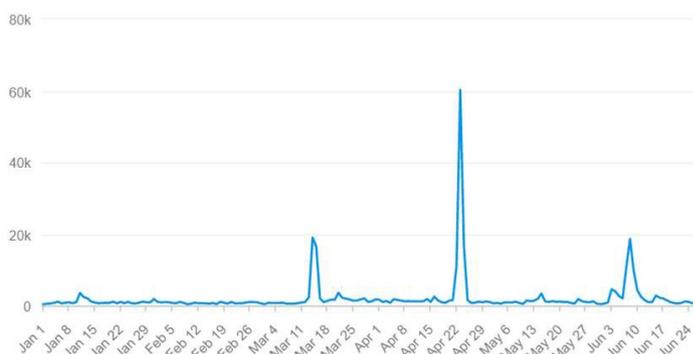




The New Normal in Food Safety and Regulations

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(as seen in Physician's Weekly: <https://www.physiciansweekly.com/the-new-normal-in-food-safety-regulations/>)

Food and food related safety has come to the fore in recent times. There are a whopping 362K online searches on "food safety" since Jan 2020 with per day mentions rising up to 60K which is 70% higher than the previous year.¹ Consumers are curious, confused and worried about food handling and the supply chain.



Despite updates from the CDC and WHO on safety of food during the current pandemic, the topics of food, eateries, packaged food, food production and delivery supply chain have come under much scrutiny. The reasons are obvious. Myths around spread of diseases through food are many and, in the case of a pandemic, being extra cautious is the obvious reaction by the individuals.

A lot of this paranoia is also leading consumers and food business owners to invest more time to ensure food safety and hygiene measures are well in place. Part of the issue is that contamination of the food supply can occur at various points of the supply chain, from the farm to the table. Each step of the way may introduce risk and thus should be [assessed](#) for proper preparation, storage, and handling.

Role of Technology in the New Normal

The current pandemic has caused governments to rethink strategies that involve not just domestic production of food but also exports and imports. For example, Asia Pacific countries are focused on modernizing their [food safety systems](#) to ensure the availability of safe and nutritious food for the projected five billion inhabitants in 2050. These procedures vary based on the regulatory framework followed by a country or nation. The current pandemic however has made it important for having a global standard of food safety; something that needs to be followed by all nations alike. Technology can help nations reach this uniformity of standards.

Healthcare institutions and hospitals dealing with children and the elderly who are at a much higher risk need to provide more vigilance and scrutiny in the services they deliver. Food hygiene in [hospitals](#) pose peculiar problems, particularly given the presence of patients who could be more vulnerable to microbiological and nutritional risks.

Multiple technologies already exist in this realm and there are a few which are bringing unprecedented levels of transparency and insight, paving the way for a safer food future. They are blockchain, industrial internet of things (IoT) and next generation sequencing (NGS). The use of blockchain technology gives organizations the ability to record and secure the validity of a wide variety of data. In the supply chain this is already being realized as the blockchain is being used to amplify the traceability of products. For instance, Walmart has been working with IBM for over a year on using the [blockchain](#) to digitize a wide variety of products.

Blockchain has been used to document the journey of everything from wine to salmon from source to table.

Another area of promise is the rise of the industrial application of IoT through the widespread adoption of sensor technologies that accurately and consistently capture and communicate data. Advances in networking, storage, and processing have created a mass market for sensors delivering real-time data from across the food supply chain. The net-new data gathered by innovative sensors will be leveraged to build safer food manufacturing plants that will operate more efficiently, monitor for unintended contamination, and protect against food fraud. Each one of these potentialities would strengthen food safety programs and help brands identify problems more accurately and earlier.

The third technology is NGS-based food tests and software analytics that have the potential to significantly improve the scalability and accessibility of food safety and quality measures. NGS-based tests have very low limits of detection; the increased sensitivity of NGS produces more accurate results along with much higher levels of specificity and resolution in a single unified test. This results in more actionable information, faster and at lower costs. The result of NGS adoption will be bulletproof food safety testing programs that provide an unprecedented insight into supply chains at a rate and scale that has never been experienced before.

Role of HCPs

Although there is no evidence of food, food containers, or food packaging being associated with the current pandemic, it is a virus that can [survive](#) on surfaces or objects.

To address this concern, the latest guidelines released by WHO includes a recommendation for the food industry to reinforce personal hygiene measures and provide refresher training on food hygiene principles to eliminate or reduce the risk of food surfaces and food packaging materials becoming [contaminated](#) with the virus from food workers.

While technological advances, digitalization, novel foods and processing methods provide a wealth of opportunities to simultaneously enhance food safety, and improve nutrition, livelihoods and trade, there are additional challenges on the horizon - myths surrounding food safety in times of a pandemic. One of the most effective means we have today, to reduce food safety concerns, is simply to educate consumers - by providing them with information and help alleviate their concerns.

HCPs can play a significant role in imparting awareness around the following aspects:

- Busting myths through sharing credible information and encouraging them to use reliable information sources like CDC and WHO
- Educating their patients and consumers about basic hygiene measures and precautions to take in these times
- Reinforcing their faith in the regulations and processes by way of mentions about technology implementations in this field

Food systems are becoming even more complex and interlinked, blurring the lines of regulatory responsibility. Solutions to these potential problems require intersectoral and concerted international action. Hence, greater international cooperation is needed to prevent unsafe food from causing ill health and hampering progress towards sustainable development. It also calls for a sustained investment and coordinated, multi-sectoral approaches for regulatory legislation, good manufacturing practices, accredited laboratory capacities, and adequate disease surveillance and food monitoring programs, all of which need to be supported by information technologies, shared information, training and education.

References:

1. *Source Meltwater: Search results for "Food Safety" and "Covid19"*