BioSpectrum
the business of Bio & Health Sciences
ASIA EDITION

"Effective Healthcare Communication in Digital Age" an opinion by Alcatel-Lucent

July 8, 2020 | Opinion

In conversation with Mr Dirk Dumortier, Head of Business Development Smart-City and Healthcare, Asia Pacific, Alcatel-Lucent Enterprise who provides insight on building a resilient post-COVID world through Digital Healthcare System



As economies gradually reopen in many cities across Asia and businesses find ways to ease back into what many are calling a ‘new normal’, it is also time for us to reflect on what we have learned from the last few months of battling a global pandemic.

One thing that stood out for us in the communications solutions business and technology community is that well-orchestrated communication is crucial in a virus outbreak and similar crisis situations. In today’s digital age, communication plays a front and center role right from the prevention and intervention stages to the times when we are knee-deep in operational and logistical management.

Communicate early and effectively to minimize panic

Confusion and fear amongst the people were apparent when the coronavirus outbreak started early in the year. It also did not help that in today's connected world, we often get a barrage of mixed information with no way of clearly differentiating the genuine and important from false and sensational. Generalized fear, augmented by viral sharing of fake news, can easily lead to over-reactions.

Government and public service officials can mitigate unnecessary panic and its consequences by connecting with the population over official emergency channels and offering prevention or first intervention information. During this time, it is critical for leaders to minimize panic and resolve problems such as emergency bottlenecks and medical equipment shortages.

In a virus outbreak, healthcare officials must rapidly:

- Inform the affected areas or populations at risks, such as the elderly, the young or the immunodeficient
- Explain how the virus is being transmitted
- Describe the seriousness of the situation and the risks involved
- Provide recommendations and immediate steps that people have to take

Communicate across platforms for better command and control

Effective communication is mission-critical in an emergency operation plan, and in aligning healthcare workers in epidemic control and treatment. For many public healthcare officials, the main concern over the past few months has been to ensure that healthcare facilities have the capacity to receive all the affected patients.

In some cities, temporary hospitals were set up, some within days, when the number of COVID-19 cases rose quickly. However, this may not always be an available option for some who were trying to find hospital beds for hundreds of new patients each day.

A successful epidemic control and intervention plan need to allow healthcare officials to ensure continuity of services. Proficient communication, both onsite within healthcare facilities and in remote locations like command centers, is vital for such a plan.

Efficient communication channels in place will allow healthcare officials to:

- Coordinate available resources across different hospitals and hospital departments
- Organize, prepare resources on the ground and plan for mass casualty incidents
- Allocate resources, across different healthcare facilities or different locations, if required
- Review assets and resources to ensure the safety and security of patients and healthcare workers

A modern, well-designed public healthcare communication network needs to integrate notifications, unified communication solutions, and collaboration services, all supported by a highly resilient and redundant communications system. It needs to be able to make multiple connections:

Connection 1: Coordinated mass notification

It is critical to connect public safety officials with a large number of people under their charge during emergency situations. This way they can disseminate critical information accurately to the people and coordinate the responses they need quickly. One scenario is when they have to coordinate emergency responders and healthcare workers on and off-site to effectively allocate resources.

At the core of a well-designed public safety system needs to be a capability for coordinated mass notification. The system needs to enable officials and healthcare workers to effectively notify people and push information out across multiple channels, such as email and instant messaging, and send alerts or audio broadcasts across to desk and mobile telephones.

Connection 2: Multidisciplinary teams across different geographical locations

Multidisciplinary collaboration is key to successful crisis management. First responders, medical and paramedical workers, public safety workers, hospital support staff, ministerial-level planners, law enforcement, provincial/state-level and federal-level officials, etc. all need to be able to communicate well to work together to battle an outbreak.

Obviously, in a crisis situation, there is little room for error and miscommunication can have a devastating impact on peoples' health and lives.

Connection 3: Human with human, human with machines, and machines with machines

Today’s communication systems need to be smart enough to not just connect human to human, but also human to the machine as well as machine to machine.

Smart devices and Internet of Things (IoT) equipment are deployed across many healthcare facilities and urban areas these days. These devices can provide accurate, critical, and up-to-date information that can help officials quickly analyze, identify issues and make informed decisions in emergency planning.

Medical devices and operational equipment that are IoT enabled can receive and transmit data over networks and the Internet. They can be programmed to feed business systems with data to drive automated or mobility programs. One common example is when equipment automatically informing a wider system that parts are faulty, require repair or replacement.

Newer technologies like artificial intelligence (AI), machine learning, and data analytics can also transform outbreak management. Correlating different sources of data can be very helpful for identifying how an epidemic evolved and the risks involved.

Scientists may also tap on data from previous crisis situations and figure out transmission patterns and timescales, allowing healthcare officials to model action plans and population information broadcasts.

Communicate and collaborate with tools of the digital age

Advancements in technology is currently driving innovation across the healthcare landscape. Smart hospitals are adopting technology to deliver patient-centered care and treatment plans that are designed based on the analysis of thousands of similar cases.

Today’s healthcare communication solutions, crisis or not, need to support coordinated, mission-critical collaboration amongst teams of multi-disciplinary specialists and technicians. They will need to seamlessly and securely connect patients, healthcare workers, devices, processes and facilities across wired and wireless networks, location-based services, IoT platforms, smart devices and so on.

Well-designed healthcare communication systems do not hinder but simplify and facilitate efficiency and allow healthcare workers to collaborate easily and effectively. They should also free up precious resources and time for healthcare workers to focus on patient care and virus control.