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A Message For Medtechs: Adapt For the Future While You Can

by **Ashley Yeo**

With the World Health Organization pressing for an inquiry into the coronavirus pandemic, it is clear that lessons must be learned for how future global public health emergencies must be handled. Medical technology has played a key role in halting the speed of the pandemic, but why has it taken an episode like COVID-19 for medtech's true value to be recognized? ZS principal Brian Chapman says things must never go back to where they were.

- If any good is to emerge from the COVID-19 crisis, it should be that medtech and digital tools have been elevated in importance, become more visible, and are better appreciated for the value they provide.
- Another is that telemedicine and remote patient management are undergoing transformative moments – their place in future health care delivery models no longer merely theoretical or conditional.
- But medtech manufacturers must be creative, and use the time offered by the temporary disappearance of routine transactional business, to devise future-facing ways of meeting customers' needs, and in fact defining who the customers are. It is a once-in-a-generation opportunity. Medtechs know they cannot go back, but will they go forward?

When the recriminations are over, and scientists know the chain of events that led to 5 million COVID-19 infections and 328,000 deaths in the first 20 weeks of 2020, lessons for future pandemics must be learned. They are lessons in how to cope with global public health emergencies, and in how health systems must adjust and stand in readiness for unexpected demands on their capacity to diagnose and treat.

Chinese premier Xi Jinping on 18 May opened the door ajar, albeit reluctantly, on an investigation into what happened in the original epicentre the of SARS-CoV-2 outbreak, Wuhan, a city that implausibly has so far – but not finally – emerged as a success story in terms of controlling the virus. The local lockdown on 23 January was an object lesson in how to restrain the death toll.

In spreading rapidly, COVID-19 has reached 188 countries, many of them ill prepared or slow to react. Questions are demanded about the virus' origins, and on 18-19 May, at the WHO's 73rd World Health Assembly, the Australian and the EU delegations called for a probe into the spread of coronavirus. China was reluctant, offering an open-ended response that it preferred to wait until the pandemic is under control.

So much for the politics of a tragically unprecedented health care episode for the global community. At health care provision and medtech business levels, pragmatic and future-oriented strategies must now evolve so that, short of similar types of outbreak being effectively nipped in the bud, comprehensive and rapid contingency plans can be implemented without the confusion, contradiction and unkept promises that have in large part characterized political reactions to COVID-19.

For its part, the medical technology industry has shown its value during the outbreak, from telemedicine, to tracking apps, lab testing capacity to building to ventilator consortiums.

Health care delivery systems globally were already in various stages of modernization and making themselves fit for the future, but COVID-19 has accelerated that. "Digital health technology is having its best moment, diagnostics are providing the insights that allow us to parse the 'good' pandemic days from the bad," said Brian Chapman, principal, medical technology, at the health care consultancy ZS.

The pandemic has given European strategists cause to think about the organization of health care, and to reflect on why certain countries have struggled with COVID-19, Chapman told *In Vivo*. The regionally delivered budgets and services countries in countries that do not have central control of health care possibly serve to create an ineffective structure when it comes to controlling the fast spreading COVID-19. Italy and Spain fall into this bracket.

The UK's NHS is the least well-funded of the systems in Europe, on a per capita basis, but its centralized system has allowed it to rapidly triage, adapt, load balance, and, in theory, become more responsive. China, Taiwan, Singapore and South Korea have seen central control prove its worth – perhaps more so than in the UK.

German care delivery is coordinated by both the federal government and the 16 states. Its system

is not government funded, but insurance based, and does not rely on a single payer that is called on to make all the decisions. Nevertheless, there is a consistency around funding and non-funding decisions. For instance, if there is decision to pay for remote monitoring for a subset of patients, the regulations around funding can be changed and the decision will apply nationwide.

In addition, hospital spending is well managed in Germany, to the extent where the price of medical devices can be lower than in many other parts of Europe. There is priority placed on health care infrastructure rather than features-heavy devices. Part of the reason why respirator-equipped ICU beds in Germany are two or three times the level that neighboring countries can claim is cost-effective procurement.



BRIAN CHAPMAN

Early testing was important, but it was only part of the story, said Chapman. Germany has a robust lab testing environment, i.e. testing outside of the hospital. In in week 20 of 2020, the lab medicine association, ALM, reported that its members had performed a record 364,716 COVID-19 tests and had a capacity to do 845,000 per week.

Equally important is Germany's centralized approach to reimbursement and funding technologies, coupled with a decentralized way of providing them. That means there is a distributed infrastructure ready for when manufacturers identify the protocols allowing them to roll out their technology for clients.

The US has had the worst of all experiences in terms of COVID-19 control efforts. The US testing system is not just very confusing, but there is a lack of proactiveness about US diagnosis and testing. It should have be very accessible, said Chapman, but access was hampered because in the US, tests cost the individual or the payer money. And, in his view, there were mistakes in what had been approved.

The system tolerates a situation where individuals can be without insurance, which makes for a weaker system during a pandemic. During COVID-19, only the Medicare-insured have a clear pathway for treatment and cares. "The infrastructure should have been on tap, but the tap did not turn on," Chapman said.

In a recent blog on the ZS website, Chapman wrote that the US had made early tactical mistakes and suffered from a lack of supply readiness. The government's decision not to opt for virus

tracking has proved costly, more so even than an ostensibly expensive diagnostic test for an uninsured individual. When the US did have an approved test, it was in a very large, high-volume central lab with slow turnaround time.

COVID-19 lessons should certainly be learned in the US, including how New York City, the world's richest city, can become an epicenter for some of the worst mortality rates globally. Some of the questions will focus on the cost of decentralized care, what just what level of influence private should have in decisions over what is paid for.

The world has changed too for medtech. Conferences that are traditionally generators of medtech innovation headlines, like the HIMSS and American Cardiology Conference (ACC) are necessarily not as high profile in 2020 as is the norm. Medtech industry leaders are watching all the changes, gauging how lasting they will be, and assessing how they should react.

In Chapman's view, now is an ideal opportunity for medtech businesses to think strategically. "For the, it should be less about 'When can I get sales reps back into the hospital,' and more about 'Why am I so reliant on one single channel for commercial outreach?'"

He said, "Being reliant on people deciding to take themselves to hospital for an episode of care is not a system we should be using going forward. That must be a matter for urgent change."

The reality is that the industry will have to diversify. Medtech companies are already doing that to a greater or lesser extent, in all patient settings. "But I think we will now see that it has all been too half-hearted," said Chapman. Little more than lip service has been paid by many companies to developing digital marketing or investing in or using the tools that they knew were needed, "But most did not invest because the 'here and now' was the focus and the tried-and-tested method that always worked."

Companies must invest more in multi-channel promotions, whereas in reality they are still reliant on those reps in the field and doing business with that one clinical stakeholder, the surgeon. "We've heard talk about diversifying, but we haven't really seen the consequences of not diversifying - until now." Medtech has two main elements: sales forces and innovative engineering. But it should also have great PR, marketing and multi-channel engagement, said Chapman. Companies should be interacting with many different stakeholders, patients, administrators and referring doctors.

COVID-19 has provided them with the time out potentially to reflect on future health care models. With reps temporarily unable to work in the field, medtechs should make them use the time not just to contact doctors on standard sales business, but to train up those clients on the tools they have already purchased but not used. They should invest in showing them how to make these new tools flow into their operations, said Chapman.

Companies are at different stages of maturity in this transition, but COVID-19 will be a fillip for manufacturers across the board. “Hopefully we won’t have to be taught a second time that we can no longer rely on the old model,” said Chapman.

It is a hard lesson to learn perhaps, but there are many opportunities to take the positives. “People have realized that there are more ways to engage, by using the tools that we haven’t so far.” The question is will we go back to the old methods? “Eyes have been opened to the digital health side, and the opportunities available for much more remote patient monitoring and management, and to use the diagnostic tools that bring care closer to the patient, and even into their own homes.”

“Telemedicine and remote patient management are having their transformative moments.” – Brian Chapman

Reimbursement for remote patient management tools must be factored into the changes that healthcare delivery models are now undergoing, said Chapman. “And when it is, we won’t go back, because we will realise that it’s a cheaper way of doing it.” Whatever the post-COVID-19 recovery looks like, it is certain that society will come out of it leaner, so the ways of managing patients by getting the same outcomes for less cost is something that is not going to simply go away. “Telemedicine and remote patient management are having their transformative moments.”

Governments stand to learn the most from COVID-19, and we should expect change there, said Chapman.

In the US ambulatory healthcare setting, procedures are now taking place outside the hospital. The outcomes are good, the processes are efficacious, and money is being saved. “That won’t reverse.” It is one of the areas where lessons will have been learned. But equally, digital health cannot simply be applied for every procedure or case in every setting. That said, a lot of things will stick.

Technology And Remote Care Are Here To Stay

In a recent blog posted on ZS’ website, Brian Chapman wrote that COVID-19 had cemented remote healthcare tools into delivery systems, now and in the future.

The lack of adoption of virtual tools has always baffled, especially when coupled a general practitioner shortage. There are ready-made

Other changes swept in with the virus center on diagnostics: to make money in diagnostics in the past, the aim was to develop esoteric tests and find new, cutting edge treatments and work in genetic profiling, for instance.

However, COVID-19 has prioritized high-volume testing, so we will have to do a rethink. “So much R&D money has been directed towards finding needle-in-a-haystack technologies,” said Chapman. But he thinks the future will be different. “I predict that diagnosis for routine health is going to be done closer to the patient. Among other things waiting times for diseases results will no longer be measured in days.”

However, not every test needs an immediate turn-around. “This revolution will relatively quiet, but the fact is that, historically, high volume tests for infectious disease has been a centralized issue. Now we are finding that there has been a lack of responsiveness. We need to rethink that.”

How do medtech leaders balance up these changing needs? First, they must keep monitoring – and doing – the innovation, and bringing new areas of innovation to the sales force. ZS’ ongoing program of work centers on helping clients identify their options in what is a really uncertain situation. It involves devising scenarios, and eventually, they boil down to areas where the clients would have no regrets about taking a strategic course.

The general aim is to move away from the notion that being reliant on one mechanism is preferable to interacting with different stakeholders and being more diverse in the channels used.

For companies that have seen revenue falls, reacting well when the recovery comes will be very important. They should already be planning scenarios of readiness, and how to help customers deal with the drive to handle a lot of pent-up demand.

For orthopedics companies, planning their return to normal is really critical. But for all sectors, scenario modeling is a critical activity. However, very few companies will be in a position where

solutions for home monitoring, and now COVID-19 is shining a torch on the utility of this technology. Digital health and remote monitoring represent transformative change, not a passing fad. “Coming through this crisis will teach us some important lessons; a lasting one is the viability and benefit of digital health.”

Hastily adapting reimbursement mechanisms to care for patients during a crisis has suddenly given these solutions the air they need to thrive. Moreover, pretending that regulation, privacy and provider relationships can keep tech companies out of healthcare doesn’t seem so smart anymore.

See the full [blog](#) and Chapman’s top five takeaways for COVID-19-affected businesses.

they need to make contingency moves. “A lot of the time, it’s about understanding the scenarios and being ready to take creative steps, even during uncertain times.”

Many people in the organization, working for home during lockdown maybe, will have had time to pause, and this is a useful opportunity for them to start thinking about building new capabilities for the future. “It might be tempting for some to view it as ‘when can I get back to the old world,’ but that is a wasted opportunity. Rather, they should be asking ‘what do I need to build while I’m shut away’.” This forces them into thinking about those silver linings of the COVID-19 crisis that will guarantee their future.

This includes developing the tools that had not readily been adopted because they did not fit into the dominant business model. Companies have perhaps not focused their utilization, as they did not want to take their people out of the field and build a new jigsaw, said Chapman.

What will the world look like when COVID-19 is a thing of the past, whenever that time arrives? Companies will still have to be heads down, focusing on their core businesses and operational priorities. But they will also have to lift their head ups and take a wider view. For example, as Chapman put it, paying the reps’ variable comp is urgent, but it’s not important from a long-term viewpoint. And companies should get ready for the future, because business will never be quite the same again.