

# Lessons learned from the 3/11 Great East Japan Earthquake and Tsunami



Takashi Shimada

Six months on after Japan was hit by the most destructive earthquake in its history, the country is still a long way off from restoring its devastated infrastructure. In this article, Takashi Shimada, vice-chairman of the American Medical Devices and Diagnostics Manufacturers' Association (AMDD) and president of Medtronic Group in Japan, gives a first-hand account of the quake's impact on the country's healthcare delivery system and how medtech companies coped in the aftermath

At 2:46 pm on 11 March 2011, a huge 9.0 magnitude earthquake struck off the coast of the Tohoku area, in the northeastern part of Japan. Even some 300km away, in the capital city of Tokyo, many buildings shook violently. Transport in the city and the surrounding areas came to a standstill, as evidenced by the hundreds of thousands of people making the long walk home or finding themselves stranded in Tokyo.

The impact in the Tohoku area – the epicenter of the largest earthquake recorded in modern Japan history – was far more devastating, however.

To make matters worse, an hour after the earthquake hit, a huge tsunami inundated the Tohoku coastline.

This disaster seriously damaged the area's social infrastructure, including its healthcare facilities. In the three prefectures worst hit by the tsunami, 15% of the clinics and hospitals, a total of 300, were affected. According to an article on Mainichi.jp, thirty-one hospitals were demolished or partially destroyed and have had to be closed permanently. Many of the hospitals that did survive had to do their best to operate 24 hours a day after the earthquake, but this was made extremely difficult without the adequate power, water, drugs and staff to run their operations.

During this time, AMDD member companies also faced great challenges. Many employees living in the hardest hit areas were victims themselves. Factories and warehouses located near the quake site were affected,

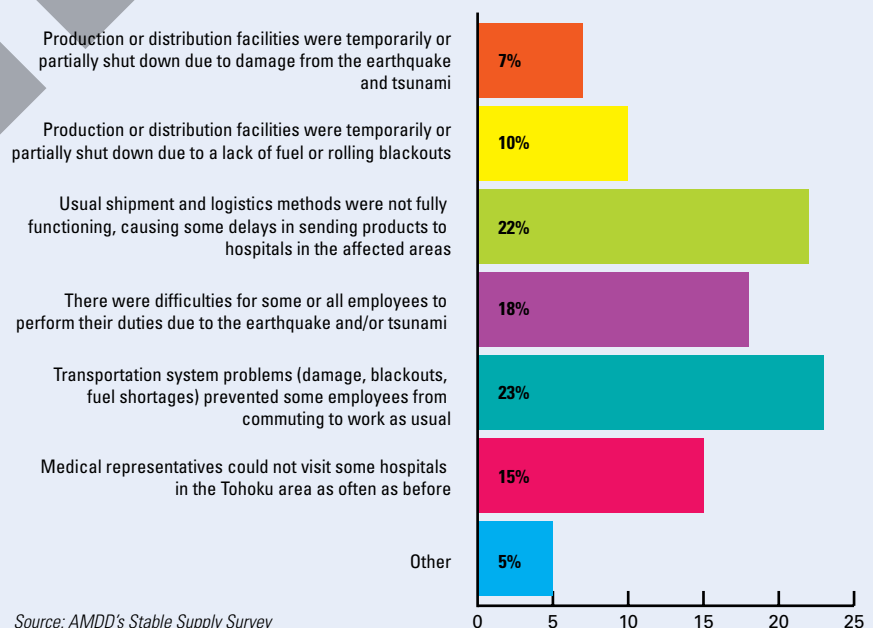
and operations had to be halted for a number of days. Companies acted immediately to make sure that their employees were safely accounted for, and secured food and shelter for them during the emergency period.

Under these harsh conditions, the situation was made worse with the damage to the nuclear plant in Fukushima. Metropolitan Tokyo and its vicinity faced serious power shortages that would affect civil life and public transportation.

As the power shortages dragged on, the public transportation system

functioned at only half capacity for a number of weeks. The results from the AMDD's Stable Supply Survey, conducted this April (53 out of 68 AMDD member companies participated), showed that 96% of participating companies were affected by the earthquake and tsunami in some way. Most importantly, 93% had to take special measures to ensure a stable supply of medical devices and diagnostic products to the affected Tohoku areas. Nearly half of the members had to find alternative ways to transport products to hospitals, >>

Figure 1. How was your company affected?



Source: AMDD's Stable Supply Survey

» including on specially hired trucks and via extraordinary air shipments, because the usual logistics systems were not functioning.

Some 22% of companies experienced delays in sending products to hospitals in the affected areas and 17% had production or distribution facilities temporarily or partially shut down due to the earthquake and to the subsequent fuel and electricity shortages (Fig 1).

The good news is that 29% had fully returned to normal business operations after one week, 61% within two weeks, and 92% within four weeks.

Under these circumstances that made business operations extremely difficult, the AMDD members received many requests for products and support from the physicians and hospitals located in or close to the affected areas. Despite the whole country suffering from gasoline shortages and the collapse of the transportation network, many companies went out of their way to arrange for special

deliveries as well as set up special support systems, including the dispatch of service engineers. We succeeded in responding to almost every request made of us.

We also learned some big lessons dealing with this historic disaster.

### Keeping our supply chain moving was literally a life-or-death matter

Firstly, securing our employees' safety is critical, not just for the obvious reasons, but also from a business continuity perspective. Through this, we were able to serve our customers in times of serious need. In a time of power shortages and knocked-out telecommunications, ensuring the safety of employees was a difficult task. Companies are now upgrading their basic communications infrastructure to meet the demands of times of crisis.

The second lesson we learned was

the critical importance of supply chain. The securing of alternative routes and keeping our supply chain moving was literally a life-or-death matter for many patients. To fulfill our mission, it is necessary to ensure we can maintain a stable supply of products.

Thirdly, we realised that our commitment to the country and market does make a big difference. Our sense of determination and commitment to Japan and its market gave assurance to our employees. They felt it in the way we supported them, as well as in the way we maintained our supply chain. This in turn, gave local employees additional motivation in the way they were able to help the affected institutions and people on the frontlines of the disaster.

Companies remain engaged in voluntary recovery activities, a clear illustration of their commitment to this country. Those of us who live in Japan remain grateful to the dedication of the parent companies and our colleagues all over the world.

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