



**Every Patient, Every Time - That's our mission and our legacy**

We call our holistic risk management approach "Supply Resilience". Supporting this, we have multiple ongoing initiatives that are designed to extend our manufacturing advantage by optimizing our manufacturing network and/or mitigating risks while continuing to ensure adequate supply of our products.

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**AMGEN®**

Amgen is one of the worlds' leading biotechnology companies. We are a values-based company, deeply rooted in science and innovation to transform new ideas and discoveries into medicines for patients with serious illnesses. Over the years we have built a resilient manufacturing and supply chain to ensure our patients suffering from serious illness always receive their medicine. We are very proud of the fact that since this measure of drug shortages was tracked in 2007, Amgen did not have to report any drug shortages to agencies<sup>1</sup>. This legacy continues despite the increasing frequency of supply chain interruptions such as hurricanes, earthquakes, fires, and now through the COVID-19 pandemic. Following our values, we can confidently say that we do not anticipate any drug shortages or disruptions of our commercial products during these times of disruption.

### Amgen continuously invests in supply resilience

Amgen has a history of investing in our end-to-end supply chain to deliver on our mission to serve patients. We continuously evaluate our supply chain and invest to improve our resilience across five key elements:



**Infrastructure:** Investments to ensure facilities can continuously operate by withstanding disruptive events such as earthquakes and hurricanes. This includes proactive supplier engagement to ensure that they are investing to improve their infrastructure as well.



**Technology:** Over the years we have also invested in advanced manufacturing technologies across our network. Our recent investments in digitalization and data analytics enabled us to leverage our central holistic monitoring system ('control tower') to gain end-to-end visibility 24 hours a day, 7 days a week and prevent supply disruptions



**Inventory:** We proactively manage our inventory levels from raw materials to finished products at various strategic locations, worldwide. In times of crisis, such as responding to the COVID-19 pandemic, we increase without delay our inventory levels for key raw materials and products according to the changing demand. This may support the supply of quality medication in the event of disruptions in a particular country or region that if a disaster strikes in one region, we can continue to provide quality medications to the market without disruption.



**Diversification:** Along with inventory we have made strategic investments to our back-up manufacturing facilities to provide longer term operations should a disruption circumvent our Infrastructure or Inventory countermeasures.



**Business continuity:** All our manufacturing sites have robust business continuity plans and continuously improve those plans through practice exercises. This safeguards Amgen's employees are trained and know what to do in the event of an unplanned event, while leveraging the other four investments outlined above

**We continuously review all these elements at least annually to evaluate, assess changes in both external and internal environments, and make necessary adjustments to retain our ability to ensure 'Every Patient, Every Time'.**

<sup>1</sup> Source: American Society of Health-System Pharmacists

**WEATHERING HURRICANE MARIA: WHEN OUR SUPPLY CHAIN WAS PUT TO THE TEST**

Hurricane Maria—a devastating Category 5 hurricane—hit Puerto Rico in September 2017. In its path was one of Amgen’s most important manufacturing facilities. Despite the historic storm, there were zero interruptions in supplying medication to patients around the world.

Every company plans for disasters and crises. For Amgen, that means a robust business continuity plan, consistent investments in infrastructure, and a mission-driven commitment from our staff.

In the case of Hurricane Maria, Amgen took proactive steps to ensure continued operations like moving to backup generators before the storm made landfall. Additionally, the dedication of our team in Puerto Rico—even in the face of their own personal adversity—was exceptional as they continued to show up every day to serve our patients.

**Supply resilience in action: COVID 19 Pandemic**

**Consistent Supply:** In the first 5 months of our COVID-19 response, we made nearly 300,000 commercial deliveries without missing a single patient. Automated monitoring systems were set up at multiple sites globally to collectively work around the clock actively managed to intervene, if needed, for 24/7 delivery, to secure direct-to-patient supply for commercial and investigational medicinal products.



**Agility:** Decisions were made to increase the inventory of commercial and clinical products and the materials needed to manufacture them. 78 new transportation lanes were created, an increase of 17% from pre-COVID levels, to overcome uncertainties in freight capacity. The clinical supply chain was strengthened with inventory at warehouses, depots and clinics worldwide, and industry leading direct patient supply was set up in over 30 countries. And while we were assuring supply to current patients, we successfully launched more than 90 Stock Keeping Units (SKU) worldwide in the first half of 2020.



**Business performance:** At the early stages of COVID-19, Amgen was among many companies to mandate social distancing. We enabled a large portion of our staff to communicate and collaborate with each other, our suppliers, and customers working from home. This helped reduce the number of people and risk our sites manufacturing medicines for our patients. At the same time, we increased our management cadence across manufacturing, quality, process development, and supply chain to ensure quick decisions as local disruptions were developing. As such, daily meetings and close attention to details became the immediate mode of operation.



**Risk Mitigation:** Risk-based decisions were made and communicated timely to overcome challenges targeting resources and taking steps to ensure that manufacturing of products and respective supplies worldwide to fulfill demand as needed. Our Operations Data Strategy (ODS) became the critical success factor, transcending conventional processes, to enable faster decision making through visibility and smart analytics.

The changes in the way we work will make Amgen’s supply chain even stronger in a future beyond the COVID Pandemic, true to our mission of serving “Every Patient, Every Time”.



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