

Intense Efforts to Secure COVID Vaccine, Keep It Off the Black Market

As we've already seen with protective gear and coronavirus tests stolen for profit, thieves know how to exploit a pandemic. So how are we safeguarding the new vaccine, which holds the promise to save lives?

By Ryan Kath and Jim Haddadin • Published December 16, 2020 • Updated on December 16, 2020 at 9:19 pm

As delivery trucks rumble out of Pfizer's Michigan plant with an escort from U.S. Marshals, they are also under the watchful eye of FedEx employees.

Each box of vaccines is equipped with Bluetooth and GPS sensors to monitor their location and temperature.

"I refer to them as guardian angels," said Richard Smith, regional president of the Americas for the shipping giant. "They are using the technology to have eyes on every single one of them to be alerted to any potential failure."

Once the precious cargo arrives at hospitals, it is quickly unpacked from dry ice and loaded into freezers that stores the vaccines at sub-zero temperatures.

Joy Vreeland, the associate chief pharmacy officer at Boston Medical Center, told reporters about security measures the hospital has in place after receiving the first shipment on Monday.

Dry ice will be necessary to transport some of the COVID-19 vaccines, including one by Pfizer that has received emergency approval from the FDA. The freezer is locked and the key is kept in a safe. The restricted area can only be accessed with a badge reader by certain approved pharmacy personnel.

"We'll be checking the inventory counts every day," Vreeland said. "We don't want to lose track of any vaccines."

On a broader scale, there are reports that shipping companies will send out "dummy trucks" to throw criminals off the trail. On a microlevel, each vial will contain a special mark that glows under blacklight to prevent counterfeit samples.

But even with all that security, how difficult will it be to keep the vaccines out of the wrong hands?

"It's an extremely important point and not enough is being said about that," said Anna Nagurny, a professor in Amherst who specializes in the complexities of global supply chains. "This is a hot, hot commodity."

Right now, Nagurney said it's easier to track shipments because production is just ramping up. But as other vaccine manufacturers like Moderna are given FDA emergency authorization, the delivery network will quickly expand.

Nagurney told NBC10 Boston that thieves will find a way to intercept valuable cargo in places where it's more vulnerable, like truck stops.

Over the past five years, world-wide incidents such as theft and counterfeiting of pharmaceutical products rose nearly 70%, according to the Pharmaceutical Security Institute, a trade group.

But Nagurney also pointed to the emerging threat of cyber attacks that can expose sensitive information about delivery routes or hack into the high-tech refrigeration equipment that stores vaccines at -94 degrees Fahrenheit.

In short, there are plenty of things to worry about, according to the UMass professor.

"There are physical aspects that are very, very challenging, but also the cyber security aspect," Nagurney said.

Glenn Ellis, a fellow at Harvard Medical School's Center for Bioethics, said the current climate is ripe for criminals to make a big profit off the potentially life-saving shot.

That's because the vaccine is only available to a small segment of the population and many healthcare locations don't have the right equipment to store shipments at the required frigid temperatures.

"We don't have the infrastructure in this country to have equitable distribution and storage of vaccines," Ellis said. "You have a demand and there's no supply. That's the perfect recipe for a black market."

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