

CyberPower®

POWERING HEALTHCARE

Preserving vaccines
for public health



THE VOYAGE OF THE VACCINE

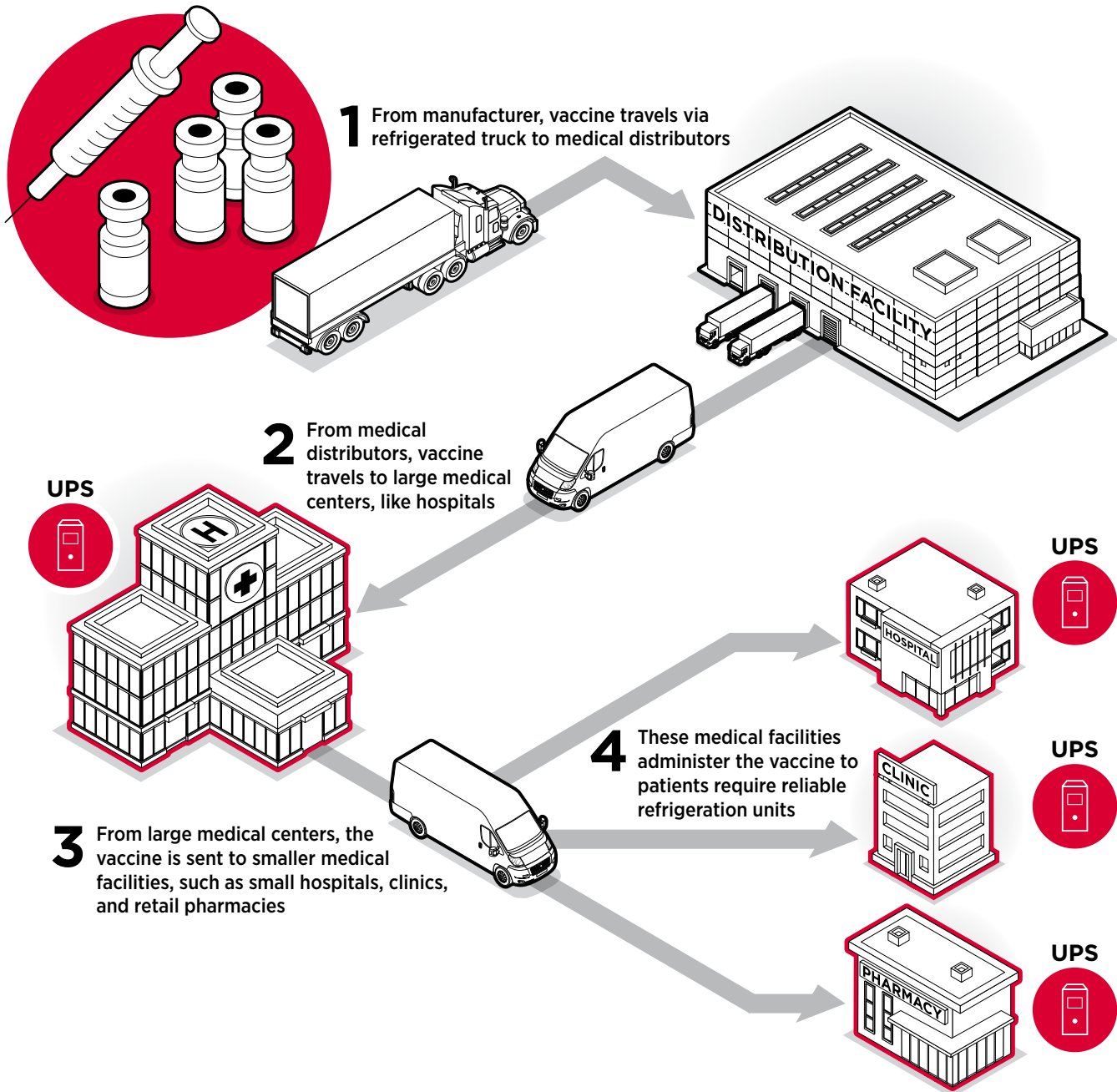
Storage and transportation



The Covid-19 pandemic has impacted everyone. While vaccines are now available to the general public, the temperature requirements for their storage is a huge challenge. CyberPower is your ultimate ally in power in solving this challenge.

THE SITUATION

According to the FDA-approved drug manufacturers, the vaccine must be stored at extremely cold temperatures (-20° to -80°C) to maintain its effectiveness. While vaccinations will be given primarily at hospitals, clinics, and retail pharmacies, the vaccine must first safely travel through a lengthy transportation process.



THE CHALLENGE

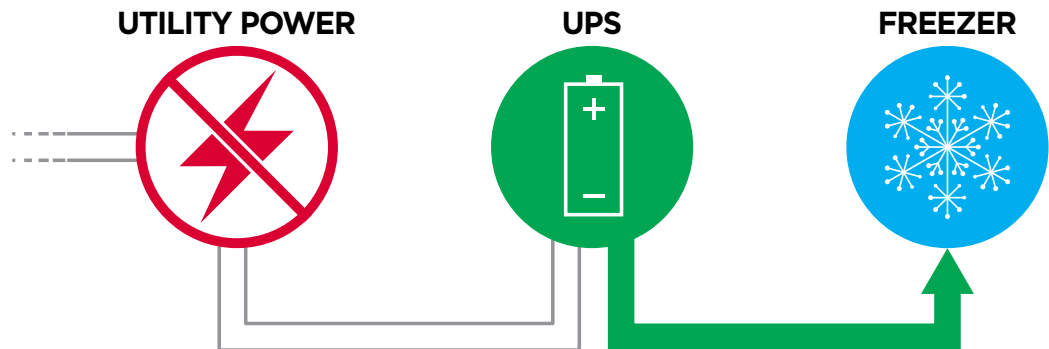
Vaccine manufacturers, distributors, and administrators are tasked to ensure the vaccine is stored at the appropriate, consistently cold temperature throughout the journey from manufacturer to each patient. This includes the various distribution warehouses, hospitals, clinics, and retail pharmacies as well as the movement of the vaccine within each of these facilities.

STORAGE STOPOVERS:

- **Permanent Freezers:** often found in large medical centers and may be hooked up to generators for long-term storage (up to 6 months)
- **Portable Freezers:** typically found in large medical centers and smaller medical administration facilities, portable freezers are designed for shorter-term storage or for moving the vaccine from one location to another within a facility.
- **Refrigerators:** utilized in hospitals, clinics, and pharmacies, refrigerators house high-turn medicines and vaccines. Hence, they are best suited for short-term, temporary storage (up to 5 days to 2 months, depending on the vaccine brand).

To maintain consistent power for the various cold storage units at the medical administration facilities, battery backup power or uninterruptible power supply (UPS) systems are required. A UPS system provides a bridge of power if power is lost or disconnected, providing valuable time to relocate the vaccine to a working freezer, refrigerator, or cooler. UPS systems are even useful in facilities with backup generators. Typically, critical care equipment is connected to the generator while power to other devices is deprioritized. A UPS system provides a vital bridge of power to all devices connected to it when a power disruption occurs.

HOW IT WORKS:

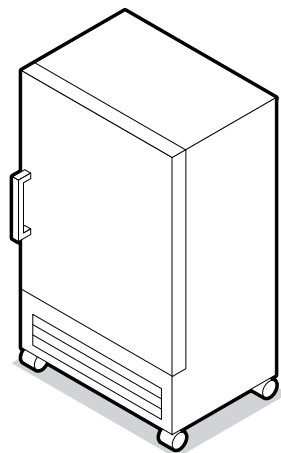
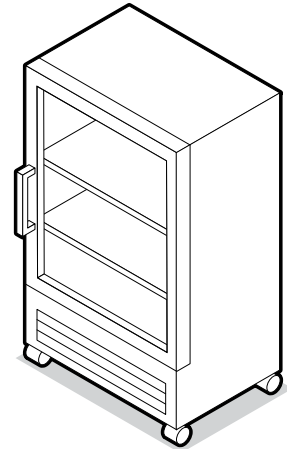
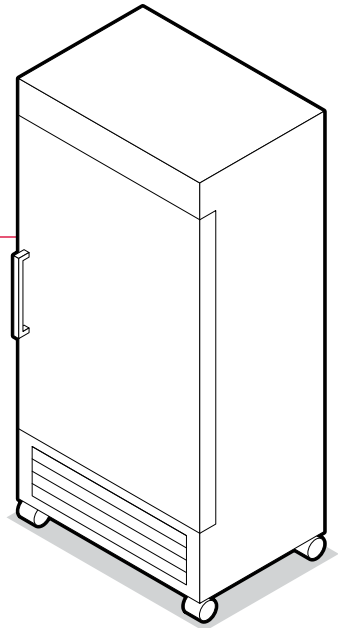


When utility power fails, the UPS system will activate to provide a bridge of power until utility power is restored.

However, not all cold storage units were created equal - they can vary in size, power requirements, and intended usage.

Due to the variety of cold storage units on the market, the power protection solution should be customized to each specific freezer or refrigerator model. If you don't have the model number available, below are a few questions to help determine the right power protection for your needs:

- Does the unit have a compressor?
- Is the unit connected to a generator?
- How large is the unit in cubic feet?
- What is the input power - single phase or 3-phase?
- What is the voltage - 120V or 208V?
- What is the wattage?
- What is the amperage?
- What is the startup (in-rush) power draw?
- What are your runtime requirements?



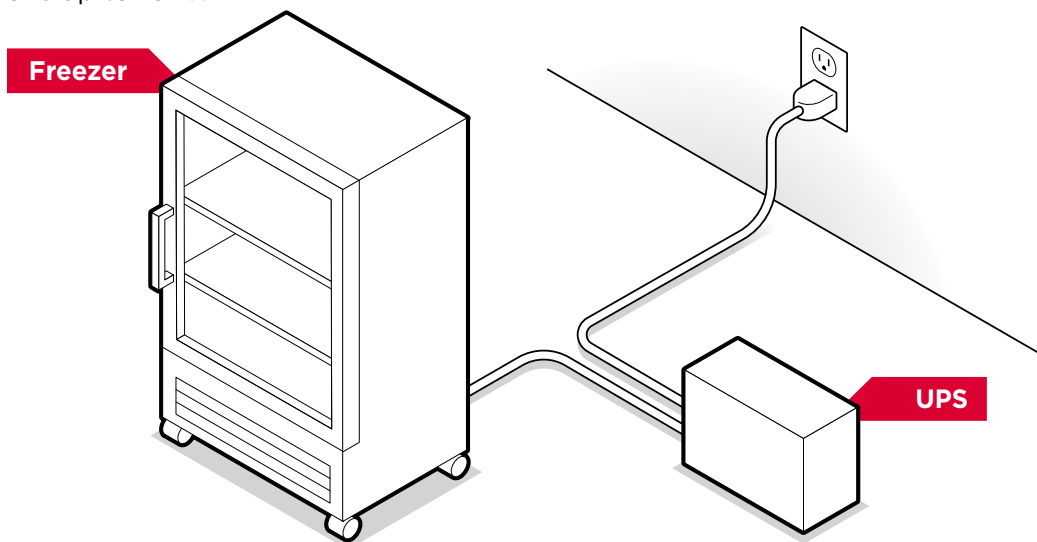
THE SOLUTION

While many healthcare facilities backup their power with a generator, they may not have enough outlets connected to the generator to meet the additional temperature requirements of the vaccine storage.

Knowing your cold storage equipment is powered and protected by a UPS system to provide short-term power until the utility power returns, will provide peace of mind.

To ensure your cold storage units remain operating at peak performance during this critical time, for long-term storage, short-term storage as well as movement of the vaccine within medical facilities, you will need reliable backup power. CyberPower has provided innovative UPS systems trusted by many industries for decades, including the healthcare industry.

CyberPower UPS systems are easy to connect. For lower power installations, the units are plug and play, with options to save space. For larger installations, we offer 208V options up to 10kW.



CyberPower offers many UPS system options that are ideally suited to meet the backup power for most freezers and refrigerators used in healthcare settings such as:



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& CLINICS**



**GENERAL
PRACTITIONER
& SPECIALTY
GROUP PRACTICES**



**DRUG STORES
& PHARMACIES**

IMPACT

Vaccines are very sensitive to variances in temperature. When power is lost or disconnected to a freezer housing the Covid-19 vaccine, its efficacy is immediately at risk. CyberPower is committed to helping our customers solve these challenges with trusted power solutions.

WHY CYBERPOWER?

Power is our focus. As a direct manufacturer, we control product quality at every step, from product design to production to delivery. This allows us to offer great value along with industry-leading warranties and connected equipment guarantees. CyberPower offers a wide variety of UPS systems to provide flexibility and meet the stringent cold storage demands during the vaccination rollout.

CyberPower makes power solutions simple. For questions or to learn more about CyberPower UPS Systems contact CyberPower Engineering Applications team:

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CyberPower

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APPENDIX

MANUFACTURER

VACCINE STORAGE CONDITIONS



-70°C/-94°F up to 6 months
Refrigerated at 2° - 8°C/36° - 46°F
up to 5 days



-20°C/-4°F up to 6 months
Refrigerated at 2° - 8°C/36° - 46°F
up to 5 days



2° - 8°C/36° - 46°F up to 6 months



2° - 8°C/36° - 46°F for up to 6 months