

## Fact Sheet

# Cold Chain Back-up Plan

## Back-up plan implementation

### When the power goes off:

1. Immediately isolate vaccines in the fridge. Keep refrigerated between +2°C and +8°C and put a sign on the fridge stating '*Power out. Do not use vaccines. Keep fridge door closed.*'
2. Closely monitor the fridge temperature with a minimum/maximum thermometer and/or a **battery-operated portable** data logger.
3. If the temperature rises to +8°C, move vaccines to alternative monitored storage arrangements.

### Purpose-built vaccine fridge

- > The fridge may warm quickly during a power failure depending on the quality and design of your vaccine fridge and the ambient temperature of your facility. Providers may need to contact the fridge manufacturer to establish this time period and document this in your back-up plan.
- > If vaccines are at risk of being exposed to temperatures greater than +8°C for longer than 15 minutes use alternative monitored storage arrangements as per your organisation's back-up plan.

### When the power is returned:

- > Record the minimum, maximum and current fridge temperature and reset.
- > Download the data logger and check numerical temperature readings.
- > Ensure the fridge temperature has returned to +2°C and +8°C prior to returning vaccines.
- > If a cold chain breach has occurred report it to the Immunisation Section on 1300 232 272 and include all the information outlined in the [Cold Chain Breach Flowchart](#). **Do not use or discard any vaccines until you have received advice from the Immunisation Section.**
- > Continue to monitor the fridge closely e.g. hourly, then as recommended twice daily.

## Alternative vaccine storage

In the event of a power failure an alternative means of vaccine storage is recommended, to allow providers to continue to store vaccines between the recommended temperatures of +2°C and +8°C, thereby minimising vaccine loss and disruption to businesses. The recommended options may include any of the following:

1. **A back-up power supply e.g. generator or battery/solar back-up**
2. **A monitored fridge off-site**

- > Ensure an agreement has been put in place with the relevant organisation (e.g. local hospital/pharmacy) prior to the event. Also consider that this organisation may also be affected by a power failure.



### 3. An Esky or cooler

- > Ensure the Esky or cooler is large enough to accommodate:
  - all vaccines, loosely packed
  - ice packs or gel packs
  - insulating material e.g. polystyrene chips or bubble wrap
  - minimum/maximum thermometer (available from the Immunisation Section)
- > Pack the Esky or cooler according to the [National Vaccine Storage Guidelines: Strive for Five 3<sup>rd</sup> Edition 2019](#).
- > Monitor the temperature 15 minutely for the first two hours, then hourly while vaccines are being stored in the Esky or cooler.

**Never transport vaccines to another vaccine refrigerator, cooler or cold box without a minimum/maximum thermometer or data logger to monitor the temperature.**

**If there is no suitable alternative monitored storage option, isolate the vaccines and leave them in the vaccine refrigerator with the door closed for the duration of the power outage. Domestic refrigerators (including bar fridges) are not built or designed to store vaccines and should not be used for vaccine storage.**

**Refer to the [National Vaccine Storage Guidelines: Strive for Five 3<sup>rd</sup> Edition 2019](#) or the Immunisation Section, SA Health for further advice.**

### Support systems that may assist with your management of a power failure

- > Some power networks provide timely power outage alerts via a SMS text message or email to registered customers.
- > An auto-dialler alarm system can be installed in purpose-built vaccine fridges. This system sends an electronic alert to designated phone number/s outside business hours if the temperature deviates outside of +2°C and +8°C. The alerted staff member can take action and may be able to prevent vaccine losses.
- > A separate battery-operated minimum/maximum thermometer will assist in continually monitoring fridge temperatures and may help prevent vaccine loss. During a power failure not all purpose-built vaccine fridges continue to display the current temperature.

Reference: [National Vaccine Storage Guidelines – Strive for 5, 3rd Edition 2019](#)

### For more information

**Immunisation Section  
Communicable Disease Control Branch  
Adelaide SA 5000  
Telephone: 1300 232 272  
[www.sahealth.sa.gov.au/immunisationprovider](http://www.sahealth.sa.gov.au/immunisationprovider)**

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