



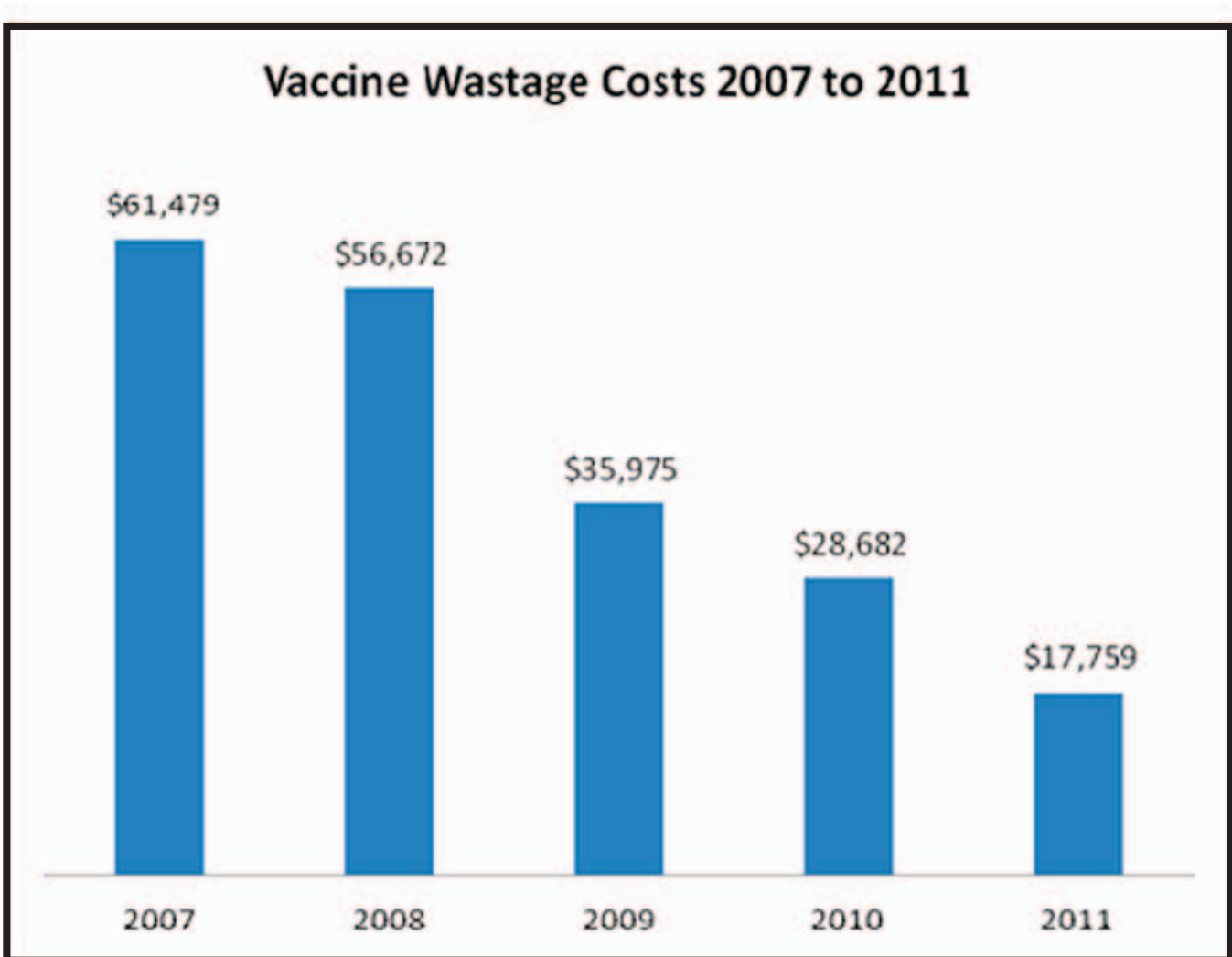
Communiqué

Cold Chain: **Good Work!**

Vaccine Wastage and Exposure continues to decline in Haldimand-Norfolk

As seen in the accompanying graph, the amounts of vaccine wastage are steadily decreasing. In 2007 there was \$61,479.84 in wastage and 26 cold chain failure incidents. In 2011 there were 16 cold chain failure incidents with \$17,759.28 worth of wastage. All facilities in Haldimand and Norfolk counties are to be commended on their vigilance and diligence in properly recording and reporting any variance in the temperatures of

their vaccine fridges. By working together, we have seen a substantial decrease in wastage since 2007. Each facility has a copy of the Vaccine Storage and Handling Guidelines (2006) from the Ministry of Health and Long Term Care which is an excellent reference guide. If you have any questions please call one of the public health nurses working in our Vaccine Preventable Disease Program.



The Importance of Cold Chain

Vaccines are sensitive biological substances that can lose their potency and effectiveness if they are exposed to heat and/or direct sunlight or fluorescent light. For example, certain vaccines lose potency when exposed to room temperature for as little as thirty minutes, or when exposed to light. Freezing damages most vaccines. Exposed vaccines can result in a reduced immune response and/or increased local reactions. The loss of vaccine potency cannot be reversed.

Protecting Ontario's Vaccine Supply

The mandatory Ontario Public Health Standards, issued under the Health Protection and Promotion Act, require health units to inspect premises, where provincially funded vaccine is stored, at least annually

Vaccines may be wasted if they have been exposed to temperatures below 2° C or above 8° C, and are spoiled, or if they have expired before they can be used. Vaccine wastage results in increased costs (to replace the wasted vaccines). Also, with the globalization of the vaccine manufacturing industry, and intermittent global vaccine shortages, it is not always possible for Ontario to quickly obtain additional quantities of vaccine to replace vaccine that is wasted.

Patients/clients who are immunized with exposed vaccines often need to be recalled by the health care practitioner and re-immunized to ensure that they are protected against specific vaccine preventable disease(s).



Maintaining Vaccine Potency and Minimizing Wastage

There are several key steps to ensuring that potent vaccines are administered to vaccine recipients:

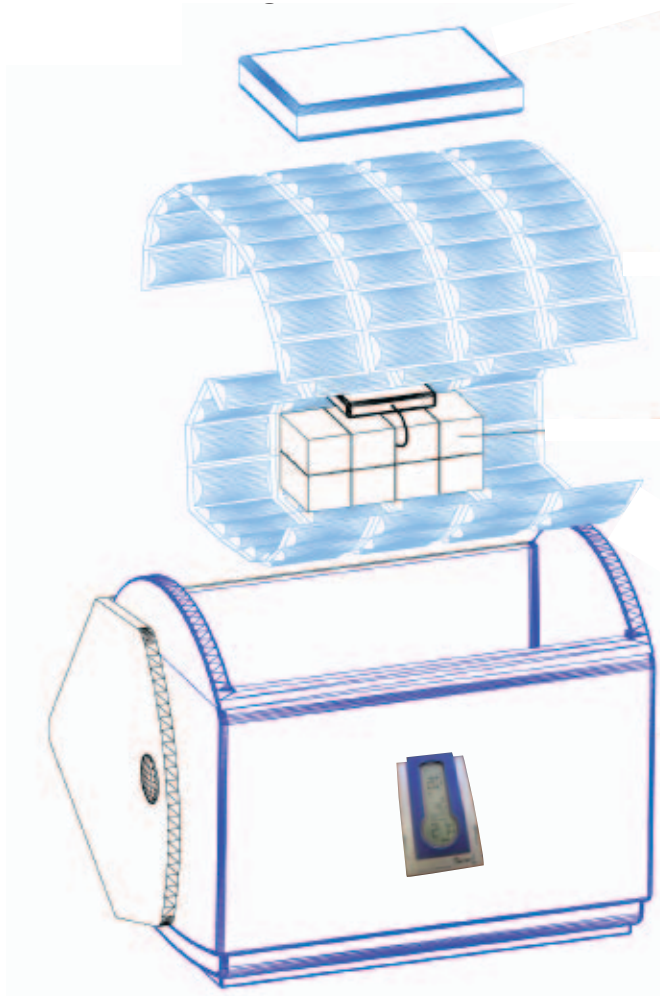
- Monitor and document refrigerator temperatures twice daily **(including time the temperature was taken)**.
- Call the health unit immediately to report vaccines that have been exposed to temperatures below 2° C or above 8° C.
- Never administer or discard exposed vaccine until the health unit has assessed the situation.
- Spoiled or expired vaccine should always be returned to the health unit.

Reminders:

TETANUS BOOSTER

All adults 19 to 64 years of age in Ontario are eligible for one publicly funded lifetime dose of Tdap (Tetanus, Diphtheria and Pertussis) vaccine. This will replace one dose of the Td (Tetanus, Diphtheria) vaccine that is recommended every ten years.

	<i>Tdap</i> (<i>Adacel®</i> or <i>Boostrix®</i>)	<i>Td</i>
Adolescents 14-16 years	✓	Every ten years thereafter
Adults 19-64 years	✓ One life- time dose	Every ten years thereafter



BRING YOUR COOLER!

To pick up publicly funded vaccine from the Health Unit, a properly preconditioned cooler is required to transport vaccine to your facility. Without a cooler, vaccine will not be issued to that person.

HOT WEATHER IS ON THE WAY!!!

Check the attached algorithm to help you assess problems with your vaccine fridge temperatures...

How to reduce Vaccine Injection Pain in Children

Vaccines protect against serious diseases. Most children feel brief pain or discomfort from immunization. This may lead to fear of needles or other medical procedures. Following are methods to reduce discomfort or pain when receiving injections:

During Immunization

- Offer to rub skin near injection site with moderate intensity before vaccination. Avoid rubbing injection site after as this may increase discomfort.
- Turn infant/toddler's attention to favourite toys or books
- For children over three years of age, talk about pets, a recent activity or movie they watched, also use humour. Another technique is to have the child engage in slow deep breathing or blowing during vaccination.

Comfort measures that can be used

- Hold babies and young children in an upright position, on the parents lap or in a bear hug.
- For older children, hold hands or stroke their arm.
- Encourage breast feeding mother to feed her baby before, during and after the immunization. Breastfeeding has been shown to have pain relieving effects.
- If a parent is not breastfeeding, sugar water can be given to infants less than 12 months of age. Parents can mix 1 teaspoon of sugar with 2 teaspoons of water. This can be given using an oral syringe, medicine cup or pacifier a minute or two before injection. The analgesic effect of sucrose may last for



up to 10 minutes. Advise parents not to use sugar at home to calm upset or crying babies. This is only recommended for managing pain during medical procedures.

Medication: Topical Anesthetics

- These are pain relievers that can be placed on the skin where the vaccine will be injected. They are safe and effective for all ages.
- They are available for purchase without prescription from a pharmacy.
- Must be applied ahead of time (up to 1 hour)
- Examples include EMLA® (lidocaine-prilocaine) patch or cream.

Injection Procedure

- To reduce pain at the time of injection, administer intramuscular vaccine to children in a rapid injection technique without aspiration.
- When administering multiple vaccine injections to children sequentially, insert the most painful vaccine last to reduce pain at the time of injection.

Medication: After Immunization

- For minor reactions such as fever, irritability or sore arm /thigh Acetaminophen (Tylenol®, Tempera®) or Ibuprophen (Motrin® or Advil®) may be given.
- These medications are not recommended for use before immunization. Recent data has shown this type of drug given prior to injection may interfere with the immunogenicity of common childhood vaccines.

Reference: CMAJ December 14, 2010 Reducing the pain of childhood vaccination: an evidence-based clinical practice guideline

Communiqué is a newsletter distributed by the Haldimand-Norfolk Health Unit for those who work in the area of Vaccines and Vaccine Preventable Diseases. If you have ideas or suggestions of topics for future Communiqués, please contact the Health Unit.



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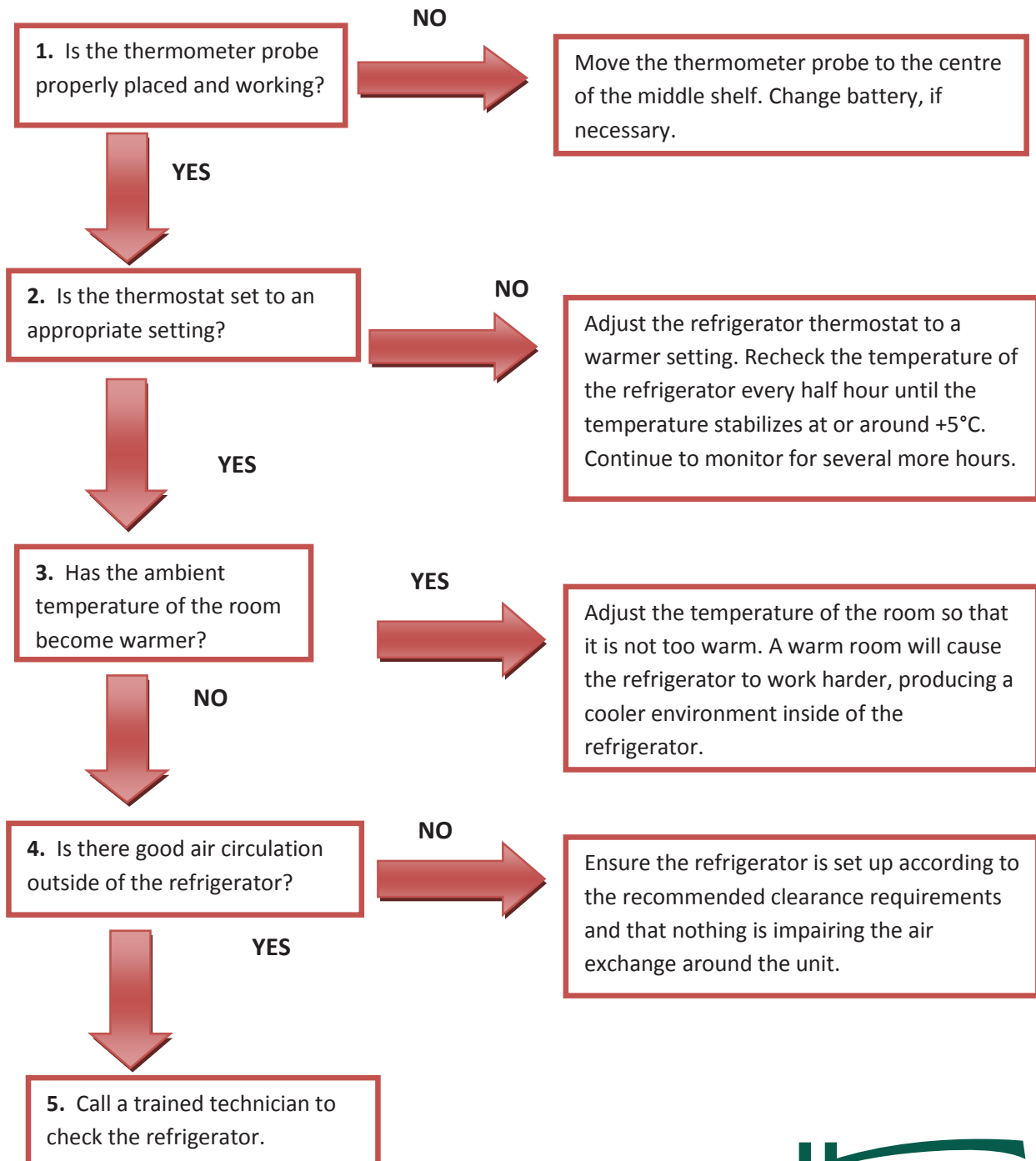
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Algorithm to assess Problems in Temperature Readings Outside the Recommended Ranges of +2°C to +8°C

Call the Health Unit to Report the Problem

If Possible Prior to Assessment of the problem, move vaccine to a monitored, backup refrigerator

VACCINE FRIDGE TEMPERATURE READING IS $<+2^{\circ}\text{C}$



VACCINE FRIDGE TEMPERATURE READING IS $> +8^{\circ}\text{C}$

After ensuring that the refrigerator is plugged in, the outlet is working and/or the cord is functioning properly...

