



CARD 4E MODEL:

A guide for providers of vaccination services

The **CARD system (Comfort, Ask, Relax, Distract)** is a framework that can be used to plan and deliver vaccinations. Each letter category (C-A-R-D) includes evidence-based activities that vaccinators and vaccine clients can **play** to reduce pain and other immunization stress-related responses (i.e., fear, headache, nausea, dizziness, fainting). Using CARD improves the vaccination experience for vaccine clients and staff.

Learn how to integrate CARD in your practice setting using the **4E model (Education, Environment, Engagement and Evaluation)** as a guide. For more information and resources, you can visit CardSystem.ca.

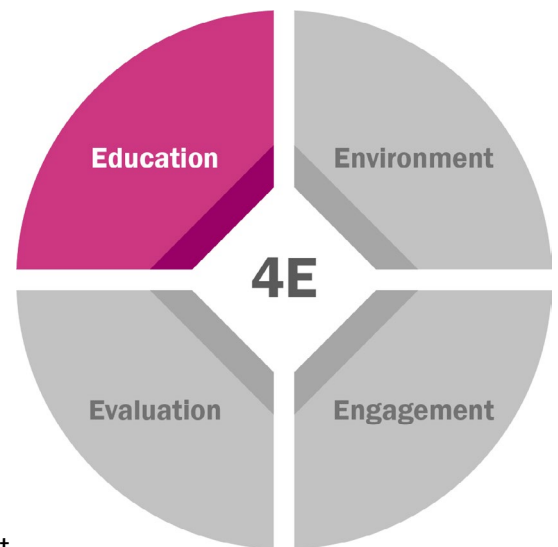
EDUCATION:

BEFORE VACCINATION DAY

- **Staff:** Review information about CARD and share with staff. Address comments and questions and plan for how to integrate CARD into the vaccination process. Consider feedback obtained from vaccine clients about how to make vaccinations a more positive experience for them. Review the [CARD vaccination planning checklist](#) and [CARD vaccination day checklist](#) to select options for your setting. Integrate into vaccination policies and procedures.
- **Clients:** Provide information about CARD ([CARD fact sheet](#)) to vaccine clients at various times in the vaccination process, such as at the time of booking and at vaccination appointment check-in. Include information about what to expect and available coping strategies in the different letter categories of CARD (i.e., Comfort, Ask, Relax, Distract) ([CARD checklist](#)).

ON VACCINATION DAY

- **Staff:** Review CARD with staff and implement selected tools and processes.
- **Clients:** Use the CARD checklist at vaccine appointment check-in to record demographic information (including the level of fear) and coping strategy choices. The completed CARD checklist can be used to guide the appointment. If [topical anesthetic](#) is checked off, staff can explain the required waiting period (e.g., 20 to 30 minutes for Maxilene™; other products take longer). Assist with topical anesthetic application and give options to leave and return or engage in a distraction activity while waiting.
- If clients identify a history of fainting, counsel them regarding the prevention of fainting using [muscle tension](#) (and supine positioning).



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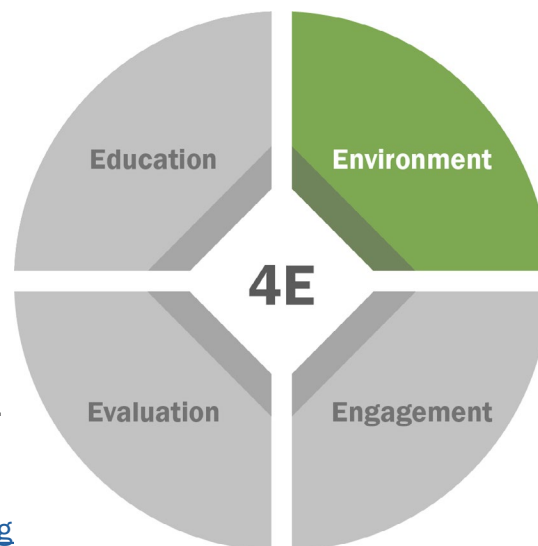
ENVIRONMENT:

ALL AREAS

- Have separate waiting areas for pre-vaccination, vaccine injection and aftercare with chairs available for clients and a caregiver/support person.
- Prepare the environment to be inviting to vaccine clients. Hang up age-appropriate CARD posters (for [teens/adults](#) and for [children](#)) and directional signage. Place items at eye level for vaccine clients. Consider having footprint decals on the floor with pre-set distance (2 metres) to specify clinic flow. Ideally, there is one-way flow through these areas.
- Provide age-appropriate distraction items and activities for vaccine clients (e.g., [search and find posters](#), [mazes](#), [colouring pages](#), [connect the dots](#), pipe cleaners, fidget spinners, squishy balls, treats/rewards). Have these items available for client use at any time during the appointment. Contain items in bins and moveable trolleys/carts to facilitate access. Include clipboards and writing tools for easy use for writing activities (e.g., colouring pages) as many areas do not have tables.
- Have topical anesthetics available for those that want to use them.
- Ensure safety measures are in place to prevent transmission of infectious diseases (e.g., sanitization items).
- Have calming background music to increase comfort and minimize auditory fear cues (clinic rooms are typically not soundproof).
- Allow clients to remove extra clothing before entry into the injection area (coats and sweaters) to prevent over-heating and to expedite the procedure by allowing easy access to the vaccination site (anxiety builds with time and having to disrobe in the injection area).

VACCINE INJECTION AREA

- Have a private room available with a door that is closed during vaccine injections. If a private room is not available, simulate one by using a privacy screen coupled with a sound machine (white noise or music).
- Ensure the vaccine injection area is tidy and free of clutter.
- Have comfortable seating in the injection area with the ability for clients to lie down if they are feeling dizzy or unwell (e.g., exam bed, gym/exercise mat, reclining chair, camping pad).
- The injection area should accommodate a support person with seating beside the vaccine recipient.
- The injection area should accommodate the vaccinator with their own seating beside the client.
- Obscure frightening equipment such as needles (e.g., put CARD poster on sharps container and put sharps container in front of needles). Arrange the seating so the client faces something interesting and engaging (e.g., age-appropriate CARD distraction items). Do not have clients face needles and equipment; vaccinators can face the equipment.
- Ensure the workflow and processes, including dose preparation and injections, do not make the needles prominent or in view (e.g., do not wave needles in the air or lay them down in front of clients). Draw up doses away from the client's view.
- Have age-appropriate distraction items and activities available in the injection area. These can be taken away by clients, tossed away or wiped down between uses, as appropriate.



ENGAGEMENT:

ALL AREAS

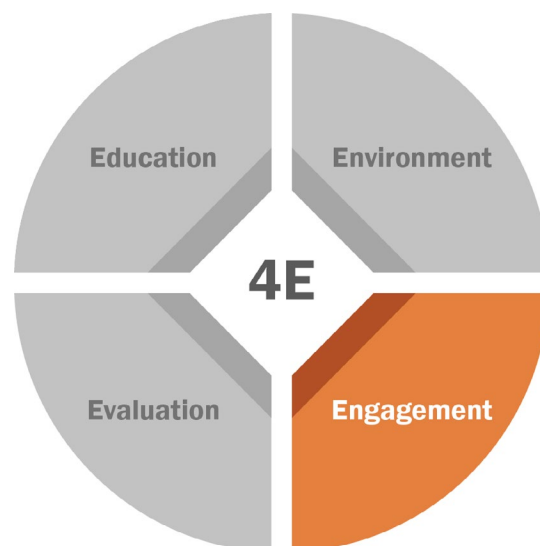
- Greet clients with a smile and acknowledge all children, not just their parent/guardian.
- Don't appear rushed. Focus your attention on the vaccine client.
- Use '[what to say](#)' resource for communication tips (e.g., communicate using neutral language, be positive, invite vaccine clients to participate).

PRE-VACCINATION (WAITING) AREA

- Review the vaccine client's completed CARD checklist to screen for level of fear and accommodations that need to be made.
- Assist with topical anesthetic application if selected as a coping strategy. Provide distraction items and activities to clients while they are waiting for the anesthetic to work or allow them to leave the area and return. Vaccinate others that are present to prevent falling behind schedule.

VACCINE INJECTION AREA

- Review the vaccine client's completed CARD checklist to guide interactions. If multiple individuals are being vaccinated, identify the most fearful person and vaccinate them first. This can be done by scanning the CARD checklist which contains information about the fear level and coping choices.
- Vaccinate individuals independently and privately unless they specify their preference to be vaccinated with others present. Younger children, however, are accompanied by a parent/guardian. Note that anxiety typically increases if witnessing others getting vaccinated, particularly for children. Vaccinating children independently is easier to achieve when there are two parents/caregivers present.
- Avoid interruptions during vaccine injection.
- Confirm selected coping strategies from the CARD checklist with the vaccine client and implement them with the client (if they are a child, then implement with child and parent/guardian). Avoid long discussions which prolong the vaccination appointment and increase fear and anxiety. The CARD checklist replaces long discussions and increases efficiency.
- Have clients sit on a chair facing away from equipment and supplies. Ensure age-appropriate distractions and activities (e.g., search and find poster) are in view and available for use.
- Use the CARD checklist to inform client preferred positioning. Younger children can choose to sit on a caregiver's lap. Use [comfort positions](#) that allow children to be upright and secured so their limbs can be accessed for vaccination. The position used depends on the child's age and level of fear. Younger and more fearful children can sit on a parent/guardian's lap in a chest-to-chest hold, back-to-chest hold or a side-sitting hold. Refrain from restraining children as this increases distress.
- Determine which arm to vaccinate based on the preference specified in the CARD checklist (pick the non-dominant arm if the client does not have a preference). Position the client to ensure that the arm is accessible; involve parent/caregiver, if needed.
- Sit down on a chair near the client. Sitting down places the vaccinator at eye level with the client which promotes relaxation.
- For those who are fearful, offer to skip the alcohol swab before injection as it is not necessary and the procedure is faster without it (World Health Organization; 2010).
- Ask clients if there is anything you can do to help them cope.



- Ask the client to keep their arm loose and jiggy, but still.
- Coach the individual during the injection procedure, if needed. For example, if the client chose a strategy and does not appear to be following it and is getting more visibly distressed, ask them about it. Review their coping plan and invite them to change it if they want to.
- If the individual is not coping well (escalating fear), offer some directed coping, for example, ‘Do you want to try deep breathing’ or ‘Do you want to press a bubble blower and catch the bubbles.’ Do not impose coping strategies, do not act upset or frustrated, and minimize discussion as these strategies can escalate fear further. Allow clients to end the appointment without getting vaccinated and offer to reschedule for another time.
- Inject the vaccine quickly without aspiration and do not rub the arm after the injection.
- Cover the injection site as the sight of blood will scare some individuals. Use child-friendly bandages for children, if available. Note that some people do not want to have a bandage.
- End the visit on a positive note by thanking the client for getting vaccinated and offer a treat or reward (e.g., photo, sticker, certificate, candy).

EVALUATION:

- Ask clients (including children and parents/caregivers) to fill in [client feedback surveys](#) after injection to report on their symptoms, things that went well and things that can be done better the next time.
- Ask staff to provide feedback ([staff feedback surveys](#)).
- Review client and staff feedback to inform future practice.

To see research publications and related topics on the CARD system, visit HelpNeedlePain.ca.

