Environmental health checklist when responding to a *Cryptosporidium* outbreak

1. Pool should be closed immediately and hyperchlorinated per CDC guidelines:
    a. If stabilizer is NOT used in the pool, hyperchlorinate to 20 parts per million (ppm) for 12.75 hours (13 hours).
        i. See Hyperchlorination to Kill Cryptosporidium When Chlorine Stabilizer is NOT in Water (PDF) (https://www.cdc.gov/model-aquatic-health-code/media/pdfs/hyperchlorination-to-kill-crypto-when-chlorine-stabilizer-is-not-in-the-water.pdf) for more information.
    b. If stabilizer is used in the pool, and the cyanuric acid concentration is 1–15:
        i. Raise the free chlorine to 20 ppm and maintain for 28 hours, or
        ii. Raise the free chlorine to 30 ppm and maintain for 18 hours, or
        iii. Raise the free chlorine to 40 ppm and maintain for 8.5 hours
            1. See Hyperchlorination to Kill Cryptosporidium When Chlorine Stabilizer is in Water (PDF) (https://www.cdc.gov/model-aquatic-health-code/media/pdfs/hyperchlorination-to-kill-crypto-when-chlorine-stabilizer-is-in-the-water.pdf) for more information.
    c. If the cyanuric acid concentration is more than 15 ppm, lower the concentration to 1–15 ppm by draining partially and adding fresh water without chlorine stabilizer before attempting to hyperchlorinate.
    d. Pools must be held at the appropriate concentration for the entire length of time (e.g., 20 ppm for a full 12.75 hours) and someone should monitor the pool to ensure this level is maintained.
    e. All pools effected should be held at this level (e.g., kiddie pool, slides, lazy river). Keep slides running, and leave toys and floaties in the pool to sanitize as well.
    f. A 2-3-day shut-down time during hyperchlorination should be expected. Normal chlorination kills crypto naturally in 10.6 days.
    g. Discourage the use of dechlor to bring down chlorine levels after the appropriate length of time has been reached. Dechlor doesn't work immediately, so often times more and more is dumped in until there is no chlorine left. Either let the chemical levels come down naturally or add more water to the pool before reopening.
2. Provide factsheet to operator on crypto and ask that they post signs around pool. A few examples are provided below:
    a. Cryptosporidiosis (Cryptosporidium) https://www.health.state.mn.us/diseases/cryptosporidiosis/crypto.pdf

   b. Important Notice to All Swimmers
      https://www.health.state.mn.us/diseases/waterborne/healthyswim.pdf
   c. Hyperchlorinating is only effective until the next ill swimmer enters the water. It is important to provide education.
3. Ask about fecal accidents in the pool and request copies of the pool logs dating back to a few weeks before the incident date (exact date can be discussed with lead Epi).
4. Epi may request reservation lists to contact additional guests or ask Environmental Health to conduct interviews of all aquatic staff (this will be determined by lead epi).
   a. Staff with crypto-like symptoms (diarrhea) should be excluded for 2 weeks after their last symptom of diarrhea.

*During a crypto investigation, MDH usually does not test the water for crypto (results take too long and if negative, it doesn't tell us that the parasite is not in the pool).