

To: Jeffrey M. Zirger, Information Collection Review Office, CDC

From: Mitchell Berger, (comments made in personal capacity), mazruia@hotmail.com, 8.1.26

Re: Use of the Cyclosporiasis National Hypothesis Generating Questionnaire (CNHGQ) During Investigations of Foodborne Disease Clusters and Outbreaks 2026-11011, Proposed Data Collection Submitted for Public Comment and Recommendations, [Docket No. CDC-2026-0925].

Dear Dr. Zirger: In reference to this notice, I respectfully offer the following recommendations to reduce respondent burden, improve data quality, and strengthen the questionnaire's usefulness for future investigations. Please note that comments reflect solely my personal views and not those of an agency, organization, or other individual. Thank you for your consideration.

Consider modularizing the questionnaire: The current CNHGQ is lengthy and administered to all case-patients, requires approximately 45 minutes to complete, according to the Federal Register notice. CDC could substantially reduce respondent burden by dividing the questionnaire into three modules:

- Core module (asked of all respondents): symptoms, onset date, demographics, interview metadata.
- Produce module (*Cyclospora* specific): herbs, salad kits, berries, leafy greens, multi-ingredient dishes.
- Retail traceback module (only if relevant produce was consumed): shopper cards, receipts, store names, brand/lot/date codes.

This modular approach would reduce the number of questions asked of every interview respondent and improve interview efficiency. Checkbox grids and skip logic could further reduce interview time by presenting detailed follow-up questions only for foods that were actually consumed.

Focus on consumption of high-risk produce: The current questionnaire includes long lists of fruits and vegetables. Based on recent outbreak sources,¹ CDC could condense these sections to focus on produce most likely linked to *Cyclospora* outbreaks, including cilantro, basil, salad kits, bagged leafy greens, and berries. These items have been recurrent vehicles in recent investigations. When respondents report consuming one of these higher-risk items, follow-up questions could collect structured information on the brand, package type, purchase location, and lot or date code obtained from packaging or receipts.

Add a brief water-exposure module: Although recent U.S. outbreaks have been primarily foodborne, *Cyclospora* is highly prevalent in water globally and can be transmitted through contaminated drinking water, beverages, or recreational water.² A short module could include:

- Main drinking water source (public system, private well, bottled).
- Any bottled water consumed in the 14 days before illness.
- Any recreational water exposure (pool, splash pad, lake, river).

¹ Hadjilouka A, Tsaltas D. *Cyclospora* Cayetanensis-Major Outbreaks from Ready to Eat Fresh Fruits and Vegetables. *Foods*. 2020 Nov 20;9(11):1703. doi: 10.3390/foods9111703; <https://www.cdc.gov/cyclosporiasis/outbreaks/07-26/investigation.html>

² Naganathan T et al., The prevalence of *Cyclospora cayetanensis* in water: a systematic review and meta-analysis. *Epidemiol Infect*. 2021 Dec 10;150:e15. doi: 10.1017/S0950268821002521.

These questions would add minimal burden and potentially identify less common exposure pathways.

Add a short host-factor module: Individuals who are immunocompromised or immunosuppressed may face higher risks of infection or complications.³ Certain medications, such as proton pump inhibitors (PPIs) and GLP-1 receptor agonists, may influence susceptibility due to reduced stomach acidity or delayed gastric emptying.⁴ While pregnancy does not inherently increase Cyclospora risk, prolonged dehydration and diarrhea can pose concerns.⁵

CDC could include a brief yes/no host-factor module asking whether the interviewee:

- has an immunocompromising condition (e.g., HIV/AIDS, cancer, organ transplant)
- uses immunosuppressive medications (e.g., steroids, biologics, transplant medications)
- uses acid-suppressing medications (PPIs)
- uses GLP-1 receptor agonists (e.g., semaglutide, liraglutide)
- uses tirzepatide
- is pregnant (if applicable)

Although additional research may be needed regarding some of these factors, collecting this data could facilitate epidemiologic analyses without greatly increasing the interview burden.

Improve traceback detail: The current questionnaire relies heavily on free-text fields for brand, lot, and purchase information. Data quality and consistency could be improved by using structured fields for:

- brand name(s)
- package type(s) (checkboxes)
- lot or date codes
- purchase date using a standardized format (MM/DD/YYYY)

Structured data elements would improve data quality, facilitate analysis, and support more efficient traceback investigations. These changes would improve data quality and reduce interview time. With these revisions, the CNHGQ would be better positioned to meet the needs of current and future Cyclospora outbreak investigations.

Sincerely,



Mitchell
Berger

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Note/Disclosure: I am submitting these suggestions solely in my personal/private capacity. The views expressed are mine only and should not be imputed either to other individuals or to any public or private entity.

³ Ghorbani A, et al., Prevalence and Associated Risk Factors of Cyclospora cayetanensis in Immunocompromised Patients: A Systematic Review and Meta-Analysis. Can J Infect Dis Med Microbiol. 2025 Aug 28;2025:8837624. doi: 10.1155/cjid/8837624; https://www.autoimmuneinstitute.org/research_updates/cyclospora-outbreak-and-autoimmune-disease/

⁴ Tian L, et al., Proton pump inhibitors may enhance the risk of digestive diseases by regulating intestinal microbiota. Front Pharmacol. 2023 Jul 17;14:1217306. doi: 10.3389/fphar.2023.1217306; Jalleh RJ, et al., Clinical Consequences of Delayed Gastric Emptying With GLP-1 Receptor Agonists and Tirzepatide. J Clin Endocrinol Metab. 2024 Dec 18;110(1):1-15. doi: 10.1210/clinem/dgae719.

⁵ <https://www.babycenter.ca/a25053974/should-pregnant-women-be-worried-about-the-recent-cyclospora-outbreak>