Cryptosporidiosis v1
Definition Factsheet & Technical Brief

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Definition Purpose: Created by the CDC National Syndromic Surveillance Program (NSSP) for use with emergency department data to develop queries for all National Notifiable Diseases defined by the National Notifiable Disease Surveillance System (NNDSS). Please note that while the disease queries are developed using the NNDSS case definition as the basis for identifying patient visits of interest, the queried patient visits themselves may or may not represent a case patient in NNDSS and further public health investigation will most often be required. This query is intended to be a version 1 and may be further improved upon by the NSSP community of practice in the future. This query is intended to be narrow and capture visits with specific terms to support greater monitoring and actionable public health data. More complex and/or broader queries may exist that more broadly capture symptoms or travel-based terms.

New or Revised Definition: New Definition

Date Added to ESSENCE: February 2025

Definition Description: Designed to capture emergency department visits with a diagnostic code or textual indicator of possible cryptosporidiosis.

Use-Cases for Definition:
☒ Case-finding
☒ Trend monitoring
☒ Early outbreak detection

Justification: No query definition exists for cryptosporidiosis. CDC wants to use emergency department data to monitor trends.

Data Source During Development: Emergency Department Visits. Chief Complaint Query Validation dataset (CCQV) in ESSENCE.

Development Methods:
1. The CDC team used the NNDSS case definition of cryptosporidiosis to identify diagnostic codes (International Classification of Diseases, 9th & 10th Revision (ICD-9-CM, ICD-10-CM), SNOMED Clinical Terms (CT)) and chief complaint free-text for syndrome development.
2. The codes and free text were then categorized as inclusion or exclusion terms. These terms were formatted for querying in ESSENCE.
3. Text analysis was conducted on the initial query to find additional inclusion or exclusion terms.
4. The query was cross-checked internally as NSSP and by CDC subject matter experts as needed.

<u>Validation Methods</u>: This definition is part of the collection of definitions created by CDC NSSP for the rapid reportables project. The rapid reportables project is led by the CDC NSSP team to create definitions for all nationally reportable diseases. These definitions focus on chief complaint text and diagnostic codes of the disease or its causative agents with no mention of symptoms. Select members of the Community of Practice were then asked to review line-level results for their jurisdictions and provide feedback to ensure the intended results of the definitions were met.

<u>Definition Fields and Structure</u>:
The Chief Complaint Discharge Diagnosis (CCDD) parsed field is used to query both the discharge diagnosis codes and chief complaint free text, and exclusions are incorporated as necessary.

- Inclusion based on cryptosporidiosis chief complaint free text terms:
  - The visit is included if it contains:
    1. A chief complaint related to disease name – ("cryptosp", "crypto parasite") **OR**
- Inclusion based on ICD-10 discharge diagnosis codes related to cryptosporidiosis:
  - The visit is included if it contains:
    1. A discharge diagnosis code for Cryptosporidiosis – (A07.2) **OR**
- Inclusion based on SNOMED discharge diagnosis codes related to cryptosporidiosis:
  - The visit is included if it contains:
    1. A discharge diagnosis code for Cryptosporidiosis – (240370009) **OR**
    2. A discharge diagnosis code for conditions caused by Cryptosporidiosis – (840460003 or 58777003 or 860889002 or 66160001 or 75333007 or 15907009 or 70683005 or 240371008 or 1193801006 or 7977009 or 1193800007 or 713845004)
- There are no exclusions in this query.

Detailed Definition Components
Table 1. *Inclusion and exclusion terms.*

Variable Type	Terms	Description
Inclusions		
Discharge Diagnosis: ICD-10-CM	A07.2	Cryptosporidiosis
Discharge Diagnosis: SNOMED concepts	240370009	Cryptosporidiosis (disorder)
	840460003	Colitis caused by *Cryptosporidium* (disorder)
	58777003	Infection caused by *Cryptosporidium* (disorder)
	860889002	Gastritis caused by *Cryptosporidium* (disorder)
	66160001	Cryptosporidial gastroenteritis (disorder)
	75333007	Infection caused by *Cryptosporidium muris* (disorder)
	15907009	Infection caused by *Cryptosporidium parvum* (disorder)
	70683005	Infection caused by *Cryptosporidium nasorum* (disorder)
	240371008	Chronic intestinal cryptosporidiasis (disorder)
	1193801006	Inflammation of intestine caused by *Cryptosporidium* (disorder)
	7977009	Infection caused by *Cryptosporidium meleagridis* (disorder)
	1193800007	Inflammation of small intestine caused by *Cryptosporidium* (disorder)
	713845004	Infection caused by *Cryptosporidium* co-occurrent with human immunodeficiency virus infection (disorder)
Chief Complaint Terms	"cryptosp"	
	"crypto parasite"	

Table 2. *ESSENCE syntax*

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^cryptosp^,OR,^crypto
parasite^,OR,^;A072^,OR,^;240370009;^,OR,^;840460003;^,OR,^;58777003;^,OR,^;860889002;^,OR,^;
66160001;^,OR,^;75333007;^,OR,^;15907009;^,OR,^;70683005;^,OR,^;240371008;^,OR,^;1193801006;
^,OR,^;7977009;^,OR,^;1193800007;^,OR,^;713845004;^
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