Clostrioides Difficile Infections in Bernalillo County

Clostridioides difficile Infection (CDI) Surveillance

Clostridioides difficile infection (CDI) is one of the most common healthcare-associated infections in the United States. Nationally, rates of community-associated CDI infections are increasing. The CDI program monitors both community- and healthcare-associated CDI rates through active, population-based surveillance. Laboratory testing is performed on stool collected from persons residing within Bernalillo County, New Mexico.

1 Case Definition

CDI cases are patients with a positive *C. difficile* toxin assay or a positive *C. difficile* molecular assay (e.g. PCR) on a stool specimen. An incident case is a Bernalillo County resident aged 1 year or older who did not have a positive *C. difficile* test in the prior 8 weeks.

2 Methodology

New Mexico Emerging Infections Program (NM EIP) staff contact the clinical laboratories serving the catchment area for queries of positive CDI diagnostic tests. Staff complete standardized case report forms for patient demographics, existing underlying medical conditions, clinical syndrome, outcome of illness, and relevant healthcare exposures.

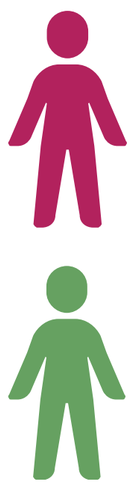
3 CDI Incidence Rates per 100,000 Population, 2020 to 2024

CASES AND RATES

Year	NM EIP Cases	NM EIP Rate	US EIP Rate
2020	592	87	101
2021	638	94	110
2022	630	94	116
2023	624	92	Not available
2024	677	101	Not available

Incidence rates (per 100,000 population) have increased nationally and in Bernalillo County.

BY SEX



Female

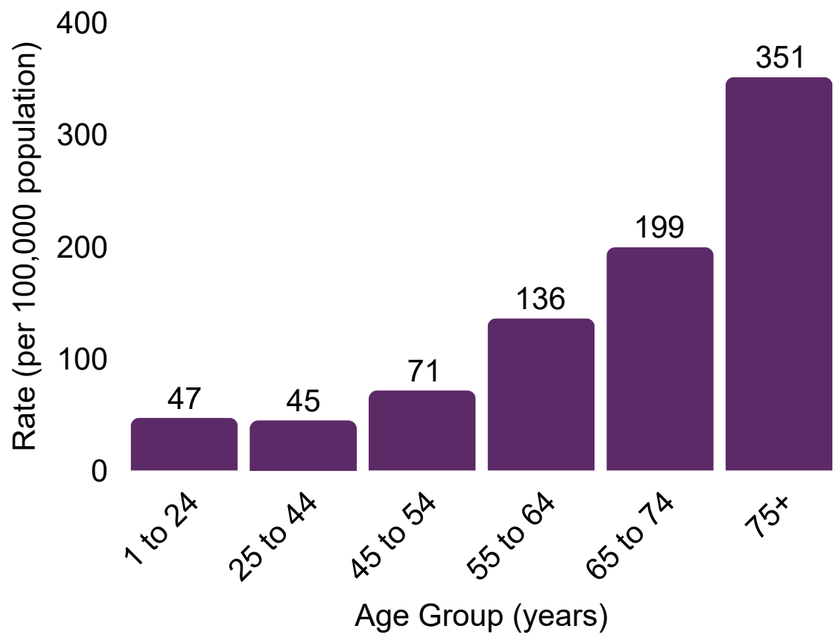
109 per 100,000 population

Male

89 per 100,000 population

Women had 1.2x higher risk of CDI infection as compared to men.

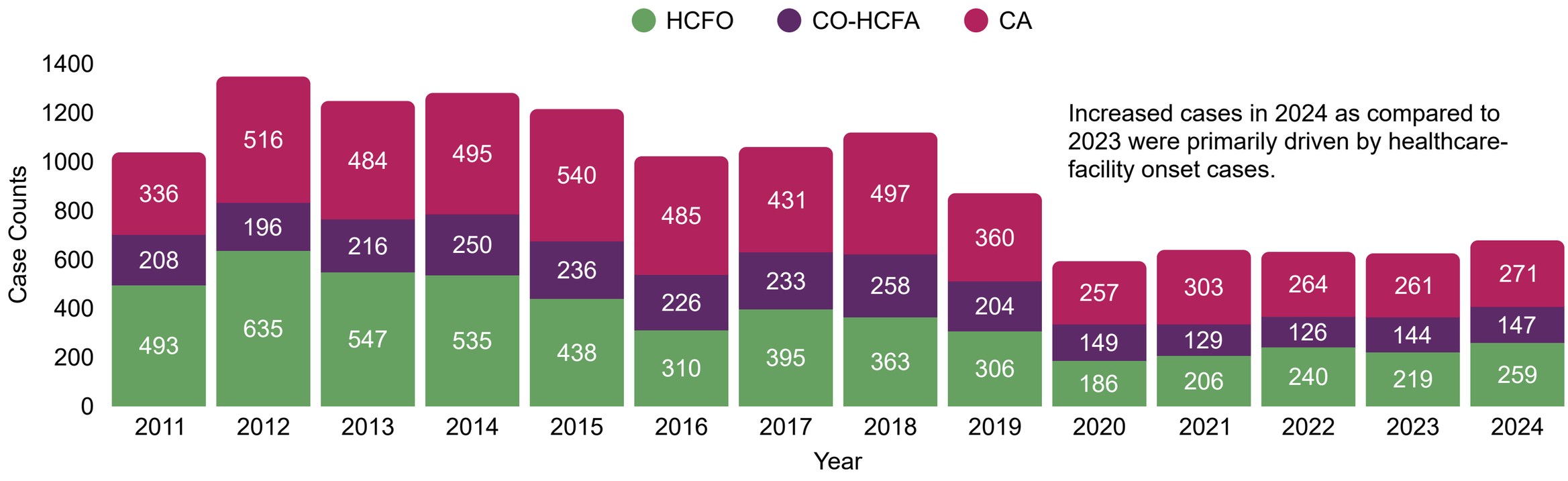
BY AGE GROUP



Nearly half (52%) of cases were 65 years or older. Incidence increased with age.

4 CDI Cases by Onset Classification* Since Surveillance Began in Bernalillo County

Healthcare facility-onset (HFCO), Community-acquired (CA) & Community-onset healthcare facility-associated (CO-HCFA)



Increased cases in 2024 as compared to 2023 were primarily driven by healthcare-facility onset cases.

*A CDI case is classified as community-associated (CA) if the specimen was collected in an outpatient setting or within 3 days after hospital admission. CA cases with a prior healthcare exposure (see Section 6) were classified as community-onset healthcare-associated (CO-HFCA). Cases with specimens collected after 3 days of admission to a hospital, long-term care facility (LTCF), or long-term acute care hospital (LTACH) were classified as healthcare facility onset (HCFO).

EMERGING INFECTIONS PROGRAM HEALTHCARE-ASSOCIATED INFECTIONS - COMMUNITY INTERFACE (HAIC)

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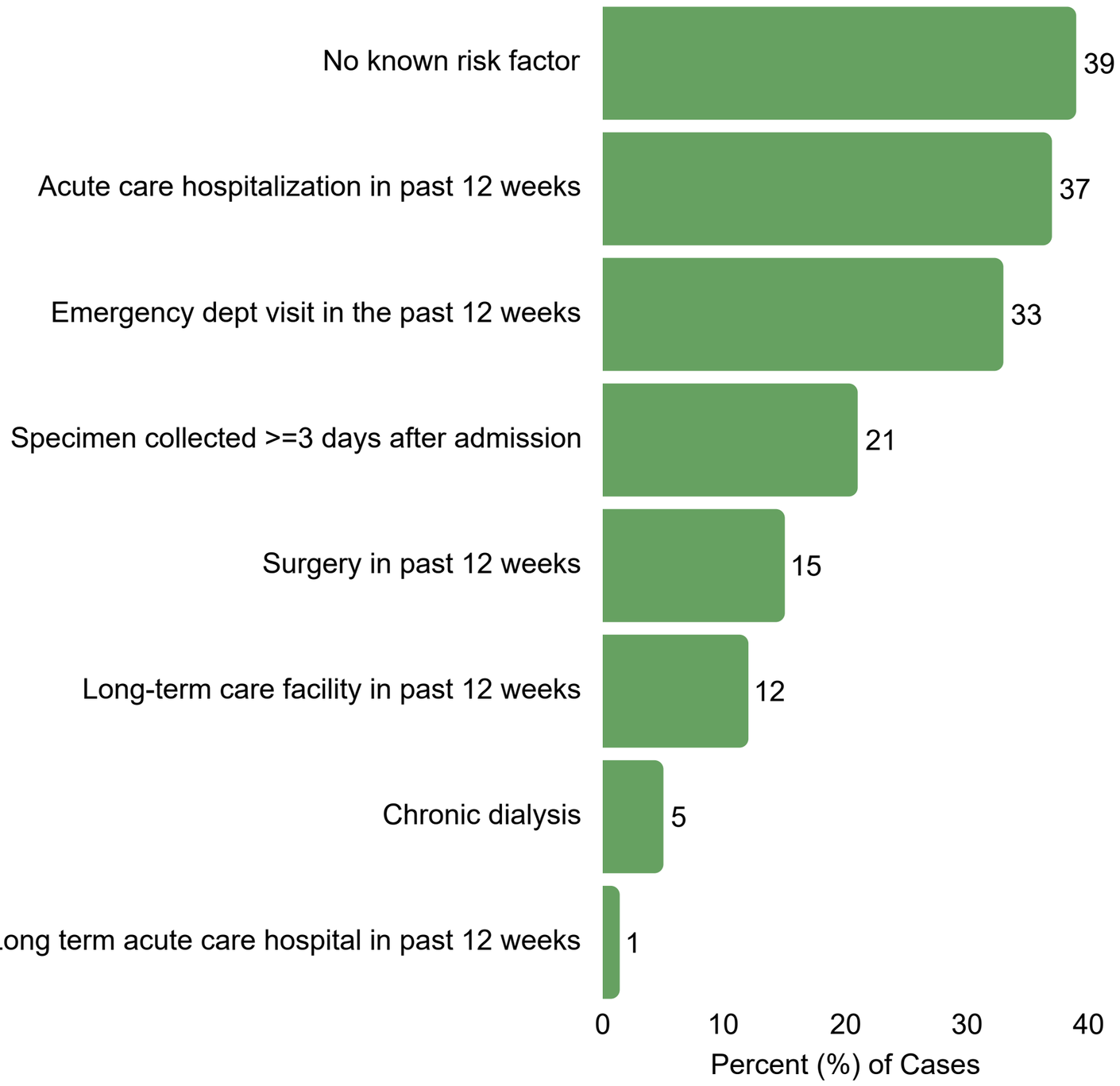
Melissa Christian, MPH

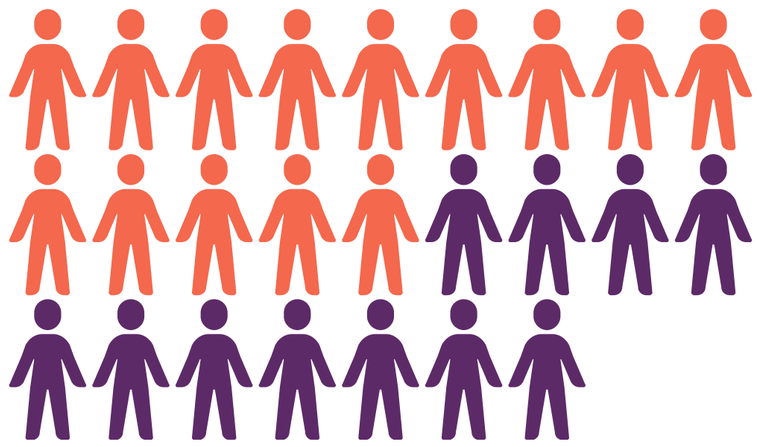
5 *Clostridioides difficile* Infection (CDI) Symptoms and Recurrence

Many patients reported having diarrhea (68%), nausea (22%), and/or vomiting (16%) within the six days before, on the day of, or one day after testing positive for CDI, as well as fever >=100.4 F (6%) in the two days before or on the day of testing positive for CDI. Approximately 12% of patients were reported to have a recurrent infection (a positive *C. difficile* test 2 to 8 weeks after their last positive test).

6 Healthcare Exposures

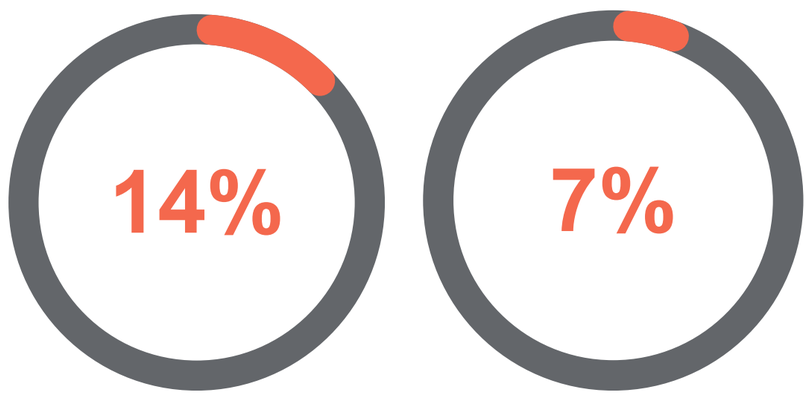


7 Hospitalizations



56% Admitted to a hospital within 6 days of a positive CDI result

8 Outcomes Among Hospitalized Patients



Admitted to intensive care unit

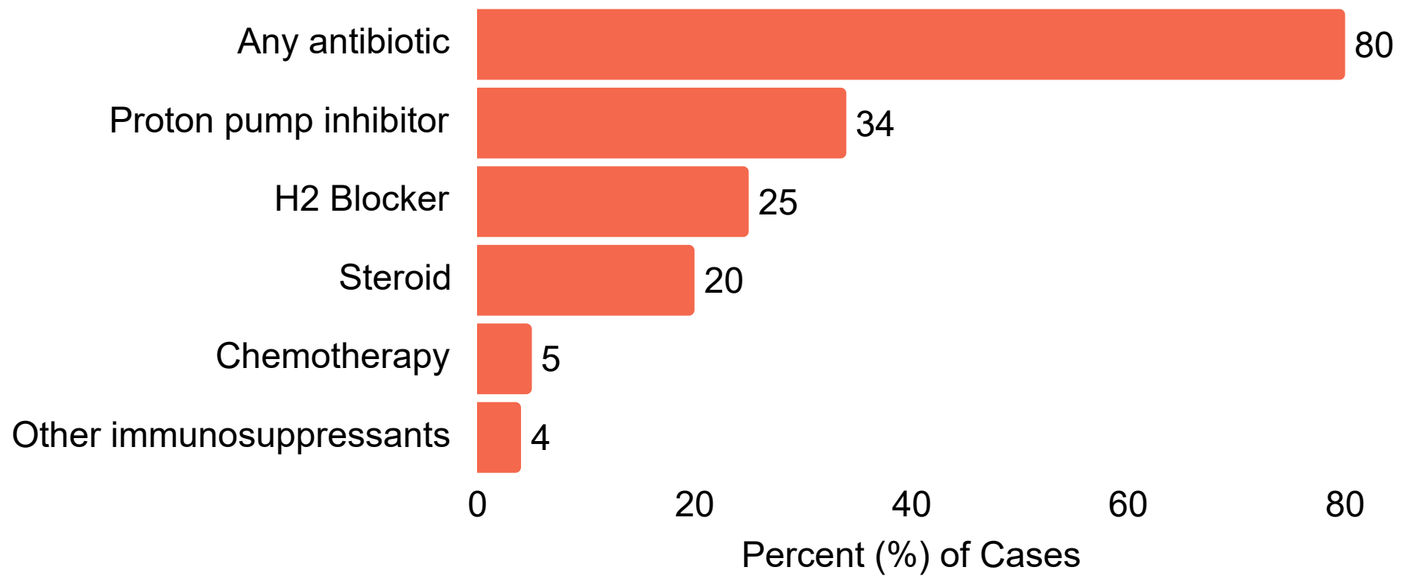
Died during hospitzation

The majority of CDI specimen collections occurred in an inpatient setting.

Location	%
Hospital Inpatient	47
LTCF or LTACH	10
Emergency Department or Outpatient Setting	44

9 Medication Use in the Past 12 Weeks

Prior antibiotic use is a risk factor for CDI infection. 80% of patients had received an antibiotic in the 12 weeks prior to a positive CDI lab test result.



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