

2026 HAIC Multi-site Gram-negative Surveillance Initiative (MuGSI) Supplemental Surveillance Officer Survey

Please answer the following questions for the year 2026, unless otherwise specified. The purpose of the survey is to verify and document current surveillance procedures, including isolate collection and testing methods at clinical laboratories. Please enter your responses into the corresponding REDCap database. If you have questions, please contact Joshua Brandenburg (ode4@cdc.gov) and the MuGSI Inbox (mugsi@cdc.gov).

Site: CA CO CT GA MD MI MN NM NY OR TN
Person(s) Completing the Form: _____

Please note that the information collected in the sections below about specific MuGSI pathogens should only be completed for those sites that participate in those surveillance activities.

Surveillance Area Characteristics

1. What counties are under surveillance for MuGSI activities at your site?
 - a. Carbapenem-resistant Enterobacterales (CRE) surveillance area, please specify: _____
 - b. Carbapenem-resistant *Acinetobacter baumannii* (CRAB) surveillance area, please specify: _____
 - c. Extended-spectrum β -lactamases-producing Enterobacterales (ESBL-E) surveillance area, please specify: _____
 - d. Invasive *Escherichia coli* (iEC) surveillance area, please specify: _____

2. Is CRE reportable at your state/site? yes no
 - a. If yes:
 - i. Please describe your state reportable definition of CRE: _____
 - ii. Where in your state is CRE reportable?
 Statewide
 Defined area, such as a county(ies). Please specify _____
 - iii. Is isolate submission to the State Health Department Laboratory required?
 yes no specify _____
 - b. If no:
 - i. What mechanism do you have in place that allows for surveillance officers (SOs) to have access to CRE laboratory reports and medical records?
 Agent of the state
 State Health Department Regulation
 Other, please explain: _____
 - ii. Does your state/site plan to make CRE reportable? yes no unknown

1. If yes, when does your state/site plan to make CRE reportable?

3. Is CRAB reportable at your state/site? ___ yes ___ no

a. If yes:

i. Please describe your state reportable definition of CRAB: _____

ii. Where in your state is CRAB reportable?

_____ Statewide

_____ Defined area, such as a county(ies). Please specify _____

iii. Is isolate submission to the State Health Department Laboratory required?

_____ yes _____ no

b. If no:

i. What mechanism do you have in place that allows for SOs to have access to CRAB laboratory reports and medical records?

_____ Agent of the state

_____ State Health Department Regulation

_____ Other, please explain: _____

ii. Does your state/site plan to make CRAB reportable? ___ yes ___ no ___ unknown

1. If yes, when does your state/site plan to make CRAB reportable?

4. Is ESBL-E reportable at your state/site? ___ yes ___ no

a. If yes:

i. Please describe your state reportable definition of ESBL-E: _____

ii. Where in your state is ESBL-E reportable?

_____ Statewide

_____ Defined area, such as a county(ies). Please specify _____

iii. Is isolate submission to the State Health Department Laboratory required?

_____ yes _____ no

b. If no:

i. What mechanism do you have in place that allows for SOs to have access to ESBL-E laboratory reports and medical records?

_____ Agent of the state

_____ State Health Department Regulation

_____ Other, please explain: _____

ii. Does your state/site plan to make ESBL-E reportable? ___ yes ___ no ___ unknown

1. If yes, when does your state/site plan to make ESBL-E reportable?

5. Is iEC reportable at your state/site? ___ yes ___ no

a. If yes:

i. Please describe your state reportable definition of iEC: _____

ii. Where in your state is iEC reportable?

_____ Statewide

_____ Defined area, such as a county(ies). Please specify _____

iii. Is isolate submission to the State Health Department Laboratory required?

_____ yes _____ no

b. If no:

i. What mechanism do you have in place that allows for SOs to have access to iEC laboratory reports and medical records?

_____ Agent of the state

_____ State Health Department Regulation

_____ Other, please explain: _____

ii. Does your state/site plan to make iEC reportable? ___ yes ___ no ___ unknown

1. If yes, when does your state/site plan to make IEC reportable?

Laboratory Participation and Isolate Testing – Part 1

1. Please describe the clinical laboratories in the MuGSI catchment area:

a. CRE

i. Proportion of clinical laboratories serving the MuGSI CRE surveillance area with queries installed on their automated testing instrument (ATI) or laboratory information system (LIS): _____

ii. Numerator: Number of clinical laboratories serving the MuGSI CRE surveillance area with queries installed on their ATI or LIS: _____

iii. Denominator: Total number of clinical laboratories that receive and process specimens from residents of the MuGSI CRE surveillance area: _____

iv. Please describe how MuGSI CRE surveillance is conducted at laboratories where ATI/LIS queries are not installed (e.g., HL7 messages from LabCorp):

b. CRAB

i. Proportion of clinical laboratories serving the MuGSI CRAB surveillance area with queries installed on their ATI or LIS: _____

ii. Numerator: Number of clinical laboratories serving the MuGSI CRAB surveillance area with queries installed on their ATI or LIS: _____

iii. Denominator: Total number of clinical laboratories that receive and process specimens from residents of the MuGSI CRAB surveillance area: _____

iv. Please describe how MuGSI CRAB surveillance is conducted at laboratories where ATI/LIS queries are not installed (e.g., HL7 messages from LabCorp):

c. ESBL-E

i. Proportion of clinical laboratories serving the MuGSI ESBL-E surveillance area

with queries installed on their ATI or LIS: _____

- ii. Numerator: Number of clinical laboratories serving the MuGSI ESBL-E surveillance area with queries installed on their ATI or LIS: _____
- iii. Denominator: Total number of clinical laboratories that receive and process specimens from residents of the MuGSI ESBL-E surveillance area: _____
- iv. Please describe how MuGSI ESBL-E surveillance is conducted at laboratories where ATI/LIS queries are not installed (e.g., HL7 messages from LabCorp):

d. iEC

- i. Proportion of clinical laboratories serving the MuGSI iEC surveillance area with queries installed on their ATI or LIS: _____
- ii. Numerator: Number of clinical laboratories serving the MuGSI iEC surveillance area with queries installed on their ATI or LIS: _____
- iii. Denominator: Total number of clinical laboratories that receive and process specimens from residents of the MuGSI iEC surveillance area: _____
- iv. Please describe how MuGSI iEC surveillance is conducted at laboratories where ATI/LIS queries are not installed (e.g., HL7 messages from LabCorp):

2. Did any laboratories drop out of participation in 2025? _____ yes _____ no

a. If yes, how many? _____

b. Why did these laboratories drop out of participation?

3. In 2025, did you identify additional laboratories, regardless of location, which identify MuGSI isolates from persons who are residents of the MuGSI surveillance area at your site?

_____ yes _____ no

a. If yes, how many? _____

b. If yes, how many of these laboratories were added? _____

i. If all new laboratories identified were not added, why not?

c. If yes, how did you identify these new laboratories?

d. Approximately how many cases are identified at the new laboratories each year among residents of the MuGSI surveillance area? _____

4. Did your site send any MuGSI isolates to CDC for characterization in calendar year 2025?

_____ yes _____ no

a. If yes, please describe how your site determines which MuGSI isolates to send to CDC:

i. CRE: _____

ii. CRAB: _____

iii. ESBL: _____

iv. iEC: _____

b. If yes, how many clinical laboratories contributed MuGSI isolates:

i. CRE: _____

- ii. CRAB: _____
- iii. ESBL: _____
- iv. iEC: _____

5. How many isolates with a specimen collection date in 2025 did you expect to be able to collect from the clinical laboratories?

_____ CRE; _____ CRAB; _____ ESBL; _____ iEC

6. What was the total number of isolates with a specimen collection date in 2025 that were collected from the clinical laboratories?

_____ CRE; _____ CRAB; _____ ESBL; _____ iEC

Laboratory Participation and Isolate Testing – Part 2

Please complete the following information for each clinical laboratory participating in MuGSI surveillance at your site in 2025:

1. Laboratory ID: _____

2. Type of laboratory:
 - _____ clinical laboratory
 - _____ public health laboratory
 - _____ research laboratory
 - _____ reference laboratory

3. MuGSI pathogen(s) under surveillance:
 - _____ CRE
 - _____ CRAB
 - _____ ESBL
 - _____ iEC

4. Method for sharing laboratory reports with your site:
 - _____ electronic messaging, such as HL7
 - _____ e-mail
 - _____ fax
 - _____ EIP staff manually generate reports on-site
 - _____ other, please specify _____
 - _____ unknown

5. Method for case identification:
 - _____ automated testing instrument
 - _____ laboratory information system
 - _____ medical record
 - _____ other, please specify _____
 - _____ unknown

6. Type of ATI and card: _____

7. Carbapenem confirmatory testing method

a. Please report the carbapenem confirmatory testing method(s) performed for each MuGSI organism separately.

kirby bauer:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
other, please specify: _____	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
laboratory not testing	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
unknown	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC

8. Carbapenemase testing method

a. Please report the carbapenemase testing method(s) performed for each MuGSI organism separately.

Non-molecular test methods

carbaNP:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
carbapenemase inactivation method:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
CPO detect:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
disk diffusion/ROSCO disk e-test:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
modified carbapenemase inactivation method:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
modified hodge test:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
RAPIDEC:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
Other, please specify: _____	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
laboratory not testing:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
unknown:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC

Molecular test methods

automated molecular assay:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
carba-R:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
check points:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
MALDI-TOF MS:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
next generation nucleic acid sequencing:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
polymerase chain reaction:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
streack ARM-D:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
other, please specify: _____	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
laboratory not testing:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
unknown:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC

9. ESBL production testing method

a. Please report the ESBL production testing method(s) performed for each MuGSI organism separately.

broth microdilution – ESBL well:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
broth microdilution – ATI flag:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
broth microdilution – manual:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
disk diffusion:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
e-test:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
molecular test, please specify: _____	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
other non-molecular test, please specify: _____	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
laboratory not testing:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
unknown:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC

10. Organism identification method[†]

a. Please report the organism identification method(s) performed for each MuGSI organism separately.

MALDI-TOF:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
polymerase chain reaction:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
whole genome sequencing:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
DNA sequencing, please specify: _____	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
rRNA gene sequencing, please specify: _____	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
biochemical tests, please specify: _____	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
immunological techniques, please specify: _____	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
other, please specify: _____	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
laboratory not testing:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC
unknown:	_____	CRE	_____	CRAB	_____	ESBL	_____	iEC

b. Please specify the database or library for the instrument(s) selected above: _____

11. Culture-independent diagnostic test:

_____ yes, please specify the type of test _____

_____ If yes, is a positive test result always followed up by a culture? _____ yes _____ no _____ unknown

_____ no

_____ unknown

12. Isolate submission to state public health laboratory

_____ yes

_____ no
_____ unknown

13. Most recent year a check-in was completed for the laboratory: _____

14. Please describe the participating laboratory's policy on maximum duration of referral for antimicrobial susceptibility testing for successive isolates of the same MuGSI organism. Successive isolates are defined as two microorganisms with similar identification that was cultured from the same patient at two different time points. Please indicate if the policy differs depending on whether successive isolates were cultured from the same specimen source or different specimen source.

Additional information on MuGSI surveillance activities

1. Does your site complete a survey for any of the following types of facilities:

- a. Physician/Outpatient provider: _____ yes _____ no
 - i. If yes, the last survey was completed in: _____
- b. LTCF: _____ yes _____ no
 - i. If yes, the last survey was completed in: _____
- c. LTACH: _____ yes _____ no
 - i. If yes, the last survey was completed in: _____
- d. Dialysis center: _____ yes _____ no
 - i. If yes, the last survey was completed in: _____
- e. Hospital laboratory: _____ yes _____ no
 - i. If yes, the last survey was completed in: _____

2. In 2025, did your site update its inventory of facilities within the MuGSI surveillance area? _____ yes _____ no

a. If no, why not?

b. If yes, how many facilities serve the MuGSI surveillance area? _____

c. If yes, how many facilities have you identified the clinical laboratory that serves it? _____

3. Does your site run a data edit program in addition to the CDC edit program that is sent out monthly? This could include the data edits available on the MuGSI Case Management System dashboard.

_____ yes _____ no

a. If yes, how often:

_____ Monthly

_____ Quarterly

_____ Other time frame, specify: _____

_____ Never

b. If yes, what type of edits are you running? Do you think they would be helpful to add to edits generated by CDC?

4. Did your site geocode MuGSI cases in 2025? _____ yes _____ no

a. If yes, what is the most recent year of surveillance data that was geocoded? _____

b. If no, why not?

5. Did your site match MuGSI cases to the state vital statistics death registry in 2025? _____ yes _____ no

a. If yes, what is the most recent year of surveillance data that was matched? _____

b. If no, why not?

6. Did your site complete CRF re-abstracts in 2025? _____ yes _____ no

a. If yes, what was the most recent year of surveillance data with CRFs re-abstracted? _____

b. If no, why not?

7. What is the IRB determination for MuGSI at your site? _____ Research _____ Non-Research _____ Other _____ Unknown

8. General comments
