

Oregon 2016 HAI Lab Survey

Oregon 2016 HAI Lab Survey

The Oregon Health Authority and the Drug-Resistant Organism Prevention and Coordinated Regional Epidemiology (DROP-CRE) Network request your assistance with this survey to help us keep current with the local and regional laboratory practices.

This year, we've combined surveys from DROP-CRE and Emerging Infections Program (EIP) to minimize the number of survey requests to our partners.

The survey can be completed by your laboratory's microbiology director, lead microbiologist, or a technical specialist who is knowledgeable about your facility's protocols for identifying and reporting multidrug-resistant Gram-negative bacilli and *C. difficile*.

Please complete only one survey for your laboratory.

Complete survey within 30 days of the date received

Please contact Maureen Cassidy at 971-673-1111 or Maureen.p.cassidy@state.or.us with any questions you may have. We appreciate your assistance. Thank you.

*** 1. Respondent Information**

Name of
Laboratory

Your name

Email address

Job title

Phone number

Name of
Microbiology
Supervisor/Directo
r

Microbiology
Supervisor/Directo
r Email address

Microbiology
Supervisor/Directo
r Phone number

*** 2. Please indicate your primary laboratory method used to identify Gram-negative bacilli.**

- None (i.e., our lab does not identify Gram-negative bacilli by species) *go to Q. 3*
- Microscan *go to Q. 4*
- Phoenix *go to Q. 4*
- Vitek *go to Q. 4*
- Vitek2 *go to Q. 4*
- MALDI TOF *go to Q. 4*
- API strips *go to Q. 4*
- Other, (please specify method below) *go to Q. 4*

Other method:

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Outside Bacterial Identification Details

*** 3. Where does your laboratory send isolates for identification?**

If none used, enter "n/a".

Laboratory name:

City and State:

...go to Q. 17

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Bacterial Susceptibility Laboratory Practices

*** 4. Please indicate your primary laboratory method for susceptibility testing of Gram-negative bacilli.**

- None (i.e., no susceptibility testing done) *go to Q. 5*
- Microscan Gram-negative susceptibility panel *go to Q. 6*
- Phoenix Gram-negative susceptibility card *go to Q. 6*
- Vitek Gram-negative susceptibility card *go to Q. 6*
- Vitek2 Gram-negative susceptibility card *go to Q. 6*
- Manual susceptibility testing (e.g., disk diffusion, broth microdilution -please specify below)
- Other, (please specify method below) *go to Q. 6*

Other method:

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Outside Susceptibility Testing Details

*** 5. Where does your laboratory send isolates for antimicrobial susceptibility?**

If none used, enter "n/a".

Laboratory name:

City and State:

...go to Q. 17

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Antimicrobial Susceptibility Testing

Please answer the following questions using your laboratory's current parameters.

*** 6. Please specify which card or panel is used for Gram-negative susceptibility testing:**

*** 7. For *Enterobacteriaceae*, which susceptibility breakpoint does your laboratory use to define Ertapenem resistance?**

- Not applicable (*i.e.*, not testing this antibiotic)
- ≥ 2 mcg/ml (2015 CLSI)
- ≥ 8 mcg/ml (Prior to June 2010 CLSI)
- Other (please specify below)

Comments:

*** 8. For *Enterobacteriaceae*, which susceptibility breakpoint does your laboratory use to define Doripenem resistance?**

- Not applicable (*i.e.*, not testing this antibiotic)
- ≥ 4 mcg/ml (2015 CLSI)
- Other (please specify below)

Comments:

*** 9. For *Enterobacteriaceae*, which susceptibility breakpoint does your laboratory use to define Imipenem resistance?**

- Not applicable (*i.e.*, not testing this antibiotic)
- ≥ 4 mcg/ml (2015 CLSI)
- ≥ 16 mcg/ml (Prior to June 2010 CLSI)
- Other (please specify below)

Comments:

*** 10. For *Enterobacteriaceae*, which susceptibility breakpoint does your laboratory use to define Meropenem resistance?**

- Not applicable (*i.e.*, not testing this antibiotic)
- ≥ 4 mcg/ml (2015 CLSI)
- ≥ 16 mcg/ml (Prior to June 2010 CLSI)
- Other (please specify below)

Comments:

*** 11. How does your laboratory report CRE isolates to state and local public health?
*Select all that apply.***

- Not applicable because our lab does not perform that level of bacteriology.
- Only send isolates to Oregon State Public Health Lab (OSPHL).
- Electronic Laboratory Reporting and send isolates to OSPHL.
- Fax report to local public health and send isolates to OSPHL.
- The hospital infection preventionist reports to public health and the lab sends isolates to OSPHL.
- Other (please specify)

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Antimicrobial Resistance Testing

The following questions are about multidrug-resistant organism testing in your laboratory.

*** 12. If your primary laboratory method suggests a carbapenem-resistant *Enterobacteriaceae* (CRE), does your laboratory routinely confirm carbapenem susceptibility results by another method?**

- Yes
- No
- Unsure

*** 13. If your laboratory performs CRE confirmation testing, what method(s) do you use?**

What method does your laboratory use to confirm primary test results for CRE?

- My laboratory does not confirm CRE suggested by the automatic susceptibility (primary) testing results.
- Confirm using the same method to verify result.
- Etest
- Disk diffusion
- Broth microdilution
- Reference lab (other than OSPHL), if used:

14. For Vitek users, does your laboratory routinely retest ertapenem non-susceptible (I or R) Gram-negative bacilli using an alternative method?

- Not a Vitek user
- No
- Unsure
- Yes, please specify method:

15. For Vitek users, what software do you run with your Vitek?

- Not a Vitek user
- Observa
- Myla
- Both Observa and Myla
- Other (please specify)

*** 16. Does your laboratory currently perform any of the following tests to identify carbapenemases?**

Select all that apply. Specify test type(s) in the comment box, as appropriate.

- Our laboratory does not use any of the following methods to identify carbapenemases.
- Our AES (advanced expert system) will provide a suspected resistance mechanism (e.g., carbapenemase suspected).
- Modified Hodge test
- E-test. *Please specify strips used below.*
- Carba NP test
- Nucleic Acid Test (NAT) directly from the specimen or blood culture bottle (e.g., Verigene®, Biofire Film Array™).
Please specify specimens and test used below.
- PCR-based detection from culture (e.g., NDM, KPC PCRs). *If yes, please elaborate below.*
- MALDI for carbapenemase detection
- Other

Comment or Other (please specify)

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Laboratory Antibigram

For the following section, please refer to the person familiar with antibiogram preparation.

*** 17. For which facility(s) does your laboratory prepare an antibiogram (e.g., cumulative antibiotic susceptibility report)?**

Select all that apply.

- None, we do not prepare an antibiogram. *go to Q. 31*
- None, we do not prepare an antibiogram BUT we receive one for our facility from our reference laboratory. *go to Q. 31*
- We prepare one for our affiliated hospital. *go to Q. 18*
- We prepare one for other acute care facilities in our health system in Oregon. *go to Q. 18*
- We prepare one for other acute care facilities not in our health system. *go to Q. 18*
- We prepare one for skilled nursing facility(ies) (SNF) associated with our hospital. *go to Q. 18*
- Other. *Describe below. go to Q. 18*

Other:

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Antibiogram Preparation and Distribution

*** 18. Do you refer to any of the following documents when constructing the antibiogram(s)?**

- CLSI M39-A4 (2014)
- CLSI M39-A3 (2009)
- We did not refer to any outside documents
- Other (please specify)

*** 19. How often does your laboratory analyze and present the antibiogram(s)?**

- Once a year
- Every two years.
- Other (please specify)

*** 20. Are uncommon test results verified before including them in the antibiogram(s)?**
For example, meropenem-resistance in *E. coli* or vancomycin resistance in *S. pneumoniae*)

- Yes
- No
- Sometimes. *Please explain:*

*** 21. Do you eliminate duplicate isolates for the antibiogram(s)? If so, how?**
For example, name, DOB, species, site, collection date, specific interval (e.g., within 2 weeks).

- No
- Yes. *Please specify method:*

*** 22. How many isolates per species do you require for inclusion in your antibiogram(s)?**

- >0
- ≥10
- ≥30
- Other (please specify)

*** 23. Do you include any surveillance isolates in the antibiogram(s) (e.g., MRSA or VRE screening cultures)?**

- Yes
- No
- Unsure

*** 24. When categorizing isolates for the antibiogram, what source of susceptibility data is used?**

Select all that apply.

- MIC values directly from the instrument
- MIC values modified by expert rules (AES) or user
- Interpretation, unmodified by AES (expert rules) or user
- Interpretation modified by expert rules or user

Other: *Please indicate below.*

*** 25. If your laboratory suppresses certain antibiotic classes in reports to providers (a.k.a., cascade reporting), are these suppressed antibiotic classes included in the antibiogram? (i.e., carbapenems)**

- We do not suppress select antibiotic classes in the provider report (no cascade reporting).
- Yes, we suppress classes on the provider report AND the antibiogram.
- No, we suppress classes on the provider report but NOT the antibiogram.
- Unsure

*** 26. How does your facility stratify its antibiogram?**

Select all that apply.

- N/A, antibiogram is facility-wide, only.
- by ICU location
- by inpatient location
- by outpatient location
- by cystic fibrosis service
- by transplant or oncology service
- by site (e.g., urine, bloodstream, other)
- by multi-drug resistant categories (e.g., Gram-negatives)
- Other (please specify)

*** 27. For drug-resistant organisms, does your antibiogram provide susceptibility to combination regimens to maximize the likelihood of successful empiric coverage?**

For example, percent of *Pseudomonas spp.* that are susceptible to cefepime or tobramycin?

- Yes
- No
- Unsure
- Other (please specify)

*** 28. With whom does your laboratory routinely share antibiogram data?**

Select all that apply.

- We don't routinely or widely share antibiogram data.
- Clinical staff
- Pharmacy staff
- Quality committee
- Infection control committee
- Executive leadership
- Other hospitals or providers in our healthcare system
- Outside community providers (dialysis, ASCs, providers, other healthcare systems)

*** 29. How does your laboratory routinely share antibiogram data?**

Select all that apply.

- We don't have a mechanism to routinely or widely share antibiogram data.
- Intranet
- Email
- Grand Rounds, medical staff meetings, other formal presentations
- Other (please specify)

*** 30. How is antibiogram data routinely used at your facility?**

Select all that apply.

- We don't routinely use antibiogram data to change hospital or provider practice.
- Compare our antibiogram with other sources (e.g., NHSN national data, other healthcare systems, etc)
- Guides empiric antibiotic treatment in hospital order sets.
- Guides clinical decision support for clinicians.
- Guides infection control activities (e.g., surveillance, quality improvement focus)
- Guides antibiotic stewardship program decisions (e.g., restricted antibiotics, education focus, etc)
- Guides pharmacy decisions (e.g., pre-approval of certain antibiotic classes)
- Guides laboratory practice (e.g., additional reference lab testing to determine cause of resistance)
- I'm unsure how the antibiogram data is used at our facility.

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Laboratory Information Management Systems

To complete this section, it will be helpful to consult with someone familiar with your facility's Laboratory Information Management System (LIMS), or equivalent.

*** 31. Does your laboratory provide testing results to healthcare facilities electronically via Test-Order-Results (TOR)?**

- Yes
- No
- Other (please specify)

*** 32. Does the laboratory use an electronic Laboratory Information Management System (LIMS)?**

- Yes *go to Q. 33*
- No *go to Q. 35*
- Other (please specify) *go to Q. 33*

Laboratory Information Management System (LIMS) Vendors

* 33. Please choose your current LIMS vendor:

* 34. Are there plans to change your current LIMS vendor or start using LIMS?

- No
- Yes, in the next 6 months
- Yes, in the next 7-12 months
- Yes, in >12 months

If YES, who is the new vendor?

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Clostridium difficile Laboratory Practices

Please answer the following questions according to your current *C. difficile* testing practices.

* 35. Does your laboratory ever send specimens off-site for *C. difficile* testing?

- Always (No onsite testing performed) go to Q. 45
- Never (All testing performed onsite) go to Q. 36
- When a test ordered by a physician cannot be performed onsite go to Q. 36
- Unknown go to Q. 36
- Other (please specify): go to Q. 36

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C. difficile Laboratory Practices (2)

*** 36. What type and order of *C. difficile* testing is routinely performed?**

Select the type of test for 1st, 2nd, and 3rd line testing. Read choices carefully.

Test Types	
1st line of testing	<input type="text"/>
2nd line of testing (if applicable)	<input type="text"/>
3rd line of testing (if applicable)	<input type="text"/>
Other (please specify)	<input type="text"/>

*** 37. Which specimens are used during your 2nd line of testing?**

- Positive by the 1st line of testing
- Negative by the 1st line of testing
- Specimens with discordant results (e.g. EIA+/GDH- or GDH+/EIA-)
- All specimens
- Do not use 2nd line of testing

*** 38. Which specimens are used during your 3rd line of testing?**

- Positive by the 2nd line of testing
- Negative by the 2nd line of testing
- Specimens with discordant results (e.g. EIA+/GDH- or GDH+/EIA-)
- All specimens
- Do not use 3rd line of testing

Testing Kits

*** 39. Which EIA test kit is currently used by your laboratory? (Check all that apply)**

- N/A (Do not use EIA testing)
- Premier (Meridian) Toxins A & B
- Premier (Meridian) Toxins A & B
- Premier (Meridian) Toxin A
- Remel ProSpecT Toxins A & B
- TechLab Toxins A & B
- Inverness Medical/Wampole Toxins A & B QuikCheck
- Inverness Medical/Wampole QuikCheck Complete (Toxins A & B and Antigen)
- Other (Please enter kit name/manufacturer):

*** 40. Which Nucleic Acid Amplification test is currently used by your laboratory?**

- N/A (Do not use nucleic acid amplification)
- BD-GeneOhm C. difficile
- Cepheid Xpert C. difficile
- Meridian Illumigene
- Prodesse (Gen-Probe) Progastro CD
- Luminex xTAG GPP
- Other (please specify)

Testing Codes

*** 41. What are the testing codes associated with the tests your lab currently uses?**

Laboratory Algorithm

*** 42. Has your C. difficile lab testing algorithm changed during the last year?**

- No go to Q. 46
- Yes go to Q. 43

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Changed *C. difficile* testing algorithm

43. If YES, when did the change occur?

Date started NAAT testing:

(if day unknown, use 1st of the month)

MM	DD	YYYY
<input type="text"/>	/ <input type="text"/>	/ <input type="text"/>

44. If YES, what was your previous type and order of testing?

Select the type of test for 1st, 2nd, and 3rd line testing. Read choices carefully.

Test Types

1st line of testing	<input type="text"/>
2nd line of testing (if applicable)	<input type="text"/>
3rd line of testing (if applicable)	<input type="text"/>

Other (please specify)

...go to Q. 46

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Off-site *C. difficile* testing

*** 45. Where does your laboratory send specimens for *C. difficile* testing?**

Laboratory name:

City and State:

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C. difficile Laboratory Practices (3)

Laboratory Policies

*** 46. Does your lab have a policy to reject stool specimens for *C. difficile* testing?**

Read all options. Check all that apply.

- Yes, when stools are formed (formed stools are defined as stools that do NOT take the shape of the container)
- Yes, if there is a stool specimen already positive within 24 hrs of a new stool specimen
- Yes, if there is a stool specimen already positive within 48 hrs of a new stool specimen
- Yes, if there is a stool specimen that tested negative for *C. difficile* within 48 hrs of a new stool specimen
- Yes, will not accept more than one stool specimen in a 24 hr period
- No rejection policy
- Other rejection policies (please specify):

*** 47. Has this rejection policy for stool specimens changed during the last year?**

- No
- Yes

If yes, specify changes:

48. If YES, when did the change occur?

Date changed rejection policy:
(if day unknown, use 1st of the month)

MM	DD	YYYY		
<input type="text"/>	/	<input type="text"/>	/	<input type="text"/>

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Reportable Disease Testing

To complete this section, please indicate whether your laboratory provides the following testing.

*** 49. What antigen-based test is used by your laboratory to detect Shiga toxin or E. coli O157?**

Select all that apply.

- We do NOT perform antigen-based testing to detect E. coli O157.
- Alere Shiga Toxin Quik Chek
- Immunocard STAT! EHEC (Meridian)
- Duopath Verotoxins (Merck)
- Premier EHEC (Meridian)
- ProSpecT STEC (Remel)
- VTEC Screen (Denka Seiken)
- Other (please specify)

*** 50. What other method(s) does your laboratory use on site to detect Shiga toxin or E.coli O157?**

Select all that apply.

- We do NOT use other method(s) to detect Shiga toxin or E.coli O157 on site. Please indicate off site laboratory below.
- Culture
- PCR. Please indicate the PCR platform below.
- Other. Please indicate the test below.

Details:

*** 51. What antigen-based test is used by your laboratory on site to detect Campylobacter?**

Select all that apply.

- We do NOT perform antigen-based testing to detect Campylobacter on site.
- ProSpecT Campylobacter assay (Remel)
- PREMIER CAMPY assay (Meridian)
- ImmunoCard STAT! CAMPY (Meridian)
- Xpect Campylobacter assay (Remel)
- Other (please specify)

*** 52. Which other method(s) does your laboratory use on site to detect *Campylobacter*?**

Select all that apply.

- We do NOT use other methods to detect *Campylobacter* on site. Please indicate the off site lab below.
- Culture
- PCR. Please indicate the PCR platform in the comment box below.
- Other. Please indicate the test below.

Details:

*** 53. What antigen-based test is used by your laboratory on site to detect *Cryptosporidium*?**

Select all that apply.

- We do NOT perform antigen-based testing to detect *Cryptosporidium* on site.
- Alere Giardia/Crypto Quik Chek
- ImmunoCard STAT! Crypto/Giardia (Meridian)
- XPect *Cryptosporidium* (Remel)
- XPect Crypto (Remel)
- ColorPAC Crypto/Giardia (Becton Dickinson)
- ProSpecT *Cryptosporidium* (Remel)
- ProSpecT Crypto/Giardia (Remel)
- Wampole EIA *Cryptosporidium*
- TechLab EIA *Cryptosporidium*
- Crypto CELISA (Cellabs)
- Para-TECT Crypto Antigen 96 (Medical Chemical Corp)
- Triage parasite panel (BioSite)
- Other (please specify)

*** 54. Do you perform any of the following tests on site at your laboratory to detect Cryptosporidium?
Select all that apply.**

- We do NOT use other methods to detect Cryptosporidium on site. *Please indicate the off site laboratory below.*
- PARA-TECT Crypto/Giardia DFA 75 (Medical Chemical Corp)
- Merifluor DFA (Meridian)
- Crypto CEL (Cellabs)
- Crypto/Giardia CEL (Cellabs)
- Wet mount
- Trichrome stain
- Modified acid-fast
- Other. *Please indicate the test in the comment box below.*

Details:

*** 55. Which method(s) does your laboratory use on site to test stool specimens for Salmonella?**

- We do NOT test stool specimens for *Salmonella* on site. *Please indicate the off site laboratory below.*
- Culture only
- Non-culture test only (e.g., PCR or EIA). *Please indicate the non-culture method below.*
- Non-culture, then reflex to culture. *Please indicate the non-culture method below.*
- Culture and non-culture methods simultaneously. *Please indicate the non-culture method below.*

Details:

*** 56. Which method(s) does your laboratory use on site to test stool specimens for Shigella?**

- We do not test stool specimens for *Shigella* on site.
- Culture only
- Non-culture test only (e.g., PCR or EIA). *Please indicate the non-culture method below.*
- Non-culture, then reflex to culture. *Please indicate the non-culture method below.*
- Culture and non-culture methods simultaneously. *Please indicate the non-culture method below.*

Details:

*** 57. Which method(s) does your laboratory use on site to test stool specimens for Vibrio?**

- We do NOT test stool specimens for *Vibrio* on site. *Please indicate the off site laboratory below.*
- Culture only
- Non-culture test only (e.g., PCR or EIA). *Please indicate the non-culture method below.*
- Non-culture, then reflex to culture. *Please indicate the non-culture method below.*
- Culture and non-culture simultaneously. *Please indicate the non-culture method below.*

Details:

*** 58. Which method(s) does your laboratory use on site to test stool specimens for Yersinia?**

- We do NOT test stool specimens for *Yersinia* on site. *Please indicate the off site lab below.*
- Culture only
- Non-culture test only (e.g., PCR or EIA). *Please indicate the non-culture method below.*
- Non-culture, then reflex to culture. *Please indicate the non-culture method below.*
- Culture and non-culture methods simultaneously. *Please indicate the non-culture method below.*

Details:

*** 59. Does your laboratory perform on site any of the following tests for enteric pathogens?**

Please read and select all that apply.

- Biofire Film Array
- BD Max Enteric
- Diatherix
- Luminex
- ProGastroSSCS
- Medical diagnostics
- Metamatrix
- Nanosphere
- Seegene
- Staten Serum Institut PCR assay
- Lab-developed test
- We do NOT perform any of the above tests on site.
- Other (please specify)

*** 60. Please indicate where the testing for the following pathogens occurs:**

	We do NOT offer this testing	Perform on site	Send to reference lab
Giardia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Norovirus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Influenza, EIA (rapid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Influenza, PCR	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Respiratory viruses, other than influenza (e.g., human metapneumonovirus)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mycobacteria	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 61. Which of the following methods does your laboratory currently provide forenteric isolate testing?**

	Send to reference laboratory	In-house	We do NOT use this testing method.	Other
MALDI-TOF for identification	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pulsed-field gel electrophoresis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strain typing (SPA, MLST)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Whole genome sequencing (WGS)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other <i>Please indicate below.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

*** 62. Which of the following methods does your laboratory currently provide fomon-enteric isolate testing?**

	Send to reference laboratory	In-house	We do NOT use this testing method.	Other
MALDI-TOF for identification	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pulsed-field gel electrophoresis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strain typing (SPA, MLST)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Whole genome sequencing (WGS)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other <i>Please indicate below.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

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Your priorities

* 63. Tell us what laboratory priorities related to multidrug-resistant organisms, outbreaks, or healthcare-associated infections you would like your laboratory to prioritize during 2016?

* 64. Tell us what laboratory priorities related to multidrug-resistant organisms, outbreaks, or healthcare-associated infections you would like OSPHL/OHA to prioritize during 2016?

Oregon 2016 HAI Lab Survey

Thank you!

Thank you for your participation in this survey.

We wish you and your laboratory team a happy and healthy 2016!

Sincerely,

The Oregon HAI Program

Please forward your laboratory antibiogram or any survey questions to tomaureen.p.cassidy@state.or.us, or (971) 673-1111.