

July 8, 2025

Indiana 2021 - 2024 CAP LPX Survey Results

Introduction

The College of American Pathologists (CAP) Laboratory Preparedness Exercise (LPX) provides clinical laboratories with an educational exercise to help prepare for the laboratory detection of pathogens that exhibit bioterrorism agents, and ensure effective communication between public health authorities and laboratories throughout Indiana. Laboratory Response Network (LRN) Sentinel Laboratories are required to contact their LRN Reference Lab, in this case the Indiana Department of Health (IDOH) Laboratory, if/when they are unable to rule out an isolate as an agent of bioterrorism. The Association of Public Health Laboratories (APHL), CAP, and the IDOH continue to recognize the educational importance of this exercise.

Performance Evaluation

The IDOH Public Health Preparedness Program provided federal Public Health Emergency Preparedness (PHEP) financial support for eligible clinical laboratories to receive the CAP LPX. The number of Indiana sentinel laboratories participating in the LPX has decreased by 18% since 2016, mostly due to the merging of the microbiology department of laboratories. In 2024, 31 laboratories participated in this exercise. Indiana laboratories continue to do an excellent job of making referral calls to the IDOH Laboratory, in 2024 an average of 98.4% referred appropriately.

CAP LPX 2021 to 2024 - Percentage of Indiana Labs Referred to IDOH Laboratory							
2021 LPX-A	2021 LPX-B	2022 LPX-A	2022 LPX-B	2023 LPX-A	2023 LPX-B	2024 LPX-A	2024 LPX-B
93.5%	90.6%	97.10%	96.8%	100%	96.7%	100%	96.7%

Results

Cells highlighted in yellow denote the samples where Indiana performed higher than the national average.

2024 CAP LPX Survey – Comparison of National and Indiana Sentinel Laboratory Results

2024 CAP LPX Analysis by Sample						
	LPX-01	LPX-02	LPX-03	LPX-04	LPX-05	LPX-06
	Suspect <i>Burkholderia</i> <i>pseudomallei</i> ^	Non-BT culture^	Non-BT culture	Non-BT culture	Non-BT culture	<i>Yersinia</i> <i>pestis</i>
National	95.8%	100.0%	94.3%	94.0%	90.8%	94.2%
Indiana	100%	96.7%	96.2%	93.5%	93.5%	83.3%

[^] Refer to CAP LPX-A 2024 Participant Summary and Final Critique Supplemental Reports

2023 CAP LPX Survey – Comparison of National and Indiana Sentinel Laboratory Results

2023 CAP LPX Analysis by Sample						
	LPX-01	LPX-02	LPX-03	LPX-04	LPX-05	LPX-06
	Non-BT culture	<i>Bacillus anthracis</i>	<i>Yersinia pestis</i>	<i>Francisella tularensis</i>	Non-BT culture	Non-BT culture
National	99.6%	92.8%	82.1%	92.0%	97.3%	96.6%
Indiana	96.8%	87.1%	67.7%	87.1%	100%	87.1%

2022 CAP LPX Survey – Comparison of National and Indiana Sentinel Laboratory Results

2022 CAP LPX Analysis by Sample						
	LPX-01	LPX-02	LPX-03	LPX-04	LPX-05	LPX-06
	Non-BT culture	<i>Bacillus anthracis</i>	Non-BT culture	<i>Francisella tularensis</i>	Non-BT culture	Non-BT culture
National	94.5%	95.4%	55.0%	92.5%	95.2%	95.4%
Indiana	100.0%	91.4%	32.4%	88.2%	90.9%	97.1%

2021 CAP LPX Survey – Comparison of National and Indiana Sentinel Laboratory Results

2021 CAP LPX Analysis by Sample						
	LPX-01	LPX-02	LPX-03	LPX-04	LPX-05	LPX-06
	Non-BT culture	<i>Bacillus anthracis</i>	Non-BT culture	Suspect <i>Burkholderia pseudomallei</i> *	Non-BT culture	Non-BT culture
National	91.5%	97.1%	98.7%	95.5%	97.9%	87.6%
Indiana	83.3%	96.8%	89.3%	100.0%	100.0%	90.0%

* Refer to CAP LPX-B 2021 Participant Summary and Final Critique Supplemental Reports

Concluding Remarks

The purpose of the LPX is to provide laboratories with an educational exercise that can be used to prepare for the detection of pathogens of epidemiologic importance, including pathogens that can be used as biothreat agents, and to test communications between LRN sentinel and reference laboratories. For this reason, the exercises are not graded, and responses should be evaluated based on the intended responses rather than correct or incorrect. IDOHL will follow up with sentinel labs who did not have the intended response for 2024 sample LPX-06; over the last couple of years, sentinel labs have had some difficulty ruling in *Yersinia pestis* on the exercise.

The IDOH Laboratory sincerely appreciates the time sentinel laboratories invest in participating in this exercise. We look forward to the continued partnership with Indiana's sentinel laboratories!

