Comprehensive Laboratory Services Survey, 2014 Results

INTRODUCTION

Healthy People 2020 includes a Public Health Infrastructure objective 11 (PHI-11) which is focused on comprehensive public health laboratory services. It states, “Increase the proportion of Tribal and State public health agencies that provide or assure comprehensive laboratory services to support essential public health services.”

To track progress toward PHI-11 and its sub-objectives, APHL developed and launched the Comprehensive Laboratory Services Survey (CLSS) in 2004. The survey was piloted in 2004, then updated and now administered biennially to all state public health laboratories (PHLs) and the District of Columbia public health laboratory. It is based on the activities related to the 11 Core Functions of Public Health Laboratories as representative of states’ providing or assuring comprehensive laboratory services in support of public health. The CLSS is the sole data source for PHI-11.

Each PHI-11 sub-objective has a corresponding target value which is the percentage of responding laboratories that meet that sub-objective. Targets were calculated using previous CLSS data as a baseline with the goal of increasing that percentage of responding laboratories meeting each sub-objective by 10% by 2020. This goal is considered challenging yet achievable by Healthy People 2020. A laboratory meets a sub-objective if it garners at least 70% of the available points. Each CLSS section is scored based upon the responses to each question in that section, with each section having a set number of points. To review updated results for all Healthy People 2020 objectives, see the Healthy People and CDC DATA2010 websites.

APHL distributed the 2014 CLSS in early 2015 to 50 state public health laboratories and the District of Columbia public health laboratory. The survey received a high response rate of over 95%, consistent with the rate in previous years: 96.1% in 2010 (49 laboratories), 98.0% in 2012 (50 laboratories) and 96.1% in 2014 (49 laboratories).

FINDINGS

CLSS results from 2006* through 2014 show that public health laboratories’ progress toward Healthy People 2020 targets can be divided into three, broad categories:

- **Target met:** Data Management, Food Safety, Laboratory Improvement and Regulation, Policy Development, Emergency Response, Public Health Research, and Training and Education
- **Progress toward target stable or slow:** Disease Control, Reference Testing and Partnerships and Communication
- **Movement away from target:** Environmental Health

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Of the areas of focus evaluated under PHI-11, Food Safety experienced the largest increase in the percentage of laboratories meeting the Healthy People sub-objective, with 17% reaching it in 2006 and 74% in 2014, an increase of 57 percentage points.

Also in 2014, two major milestones were achieved:

- **Policy Development**: 76% of respondents met the objective, exceeding the target of 74%.
- **Emergency Response**: 100% of respondents met the objective, exceeding the target of 78%.

Conversely, Environmental Health showed the largest decline in the percentage of laboratories meeting the Healthy People sub-objective, with 57% meeting it in 2006 and only 41% in 2014, a decline of 16 percentage points. APHL will analyze the data closely to understand the factors influencing this decline.

Overall, there was a steady increase from 2006 through 2014 in the average number of sub-objectives met by states. See figure below.

### CONCLUSION

Recent investments in data systems, foodborne disease surveillance, emergency preparedness, systems research and other areas may account, at least in part, for public health laboratories’ advances in those areas over the 2006-2014 time period. Yet work remains to be done to meet the objective of 100% for fundamental public health services, such as disease control and surveillance. To assist public health laboratories to obtain knowledge of how their system partners perceive how well the entire laboratory system is meeting the Core Functions and how they all can collaborate to improve the public health laboratory system, APHL recommends that laboratories consider convening a Laboratory System Improvement Program (L-SIP) assessment.

For more information about CLSS or L-SIP, contact Tina Su, MPH, at 240.485.2729 or bertina.su@aphl.org.

*Note that this document compares data from 2006 through 2014 only. Data from the 2004 pilot of the CLSS is not included because feedback from that year led to substantial changes in the survey instrument.*

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% of Respondents Meeting Healthy People 2020 PHI-11 Sub-objectives, 2010-2014

Legend

- **At or above the Healthy People 2020 Target**
- **Below the Healthy People 2020 Target**
- **Reference Line for Healthy People 2020 Target**