HIV, STI, and HCV, Oh My!

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2019 HIV DIAGNOSTICS CONFERENCE

Optimizing Testing for HIV, STIs and HCV in Laboratories, Public Health Programs and Clinical Practice

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◦ Prevent Disease ◦ Promote Wellness ◦ Improve Quality of Life ◦

ENDING THE HIV EPIDEMIC: A PLAN FOR AMERICA

Diagnose HIV as early as possible	**Treat** HIV quickly and effectively	**Protect** people at risk	**Respond** quickly to clusters of new cases

HIV TRANSMISSIONS IN 2016

% OF PEOPLE WITH HIV	STATUS OF CARE	ACCOUNTED FOR X% OF NEW TRANSMISSIONS*
15%	didn't know they had HIV	38%
23%	knew they had HIV but weren't in care	43%
11%	in care but not virally suppressed	20%
51%	taking HIV medicine and virally suppressed	0%

*Values do not equal 100% because of rounding

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Major categories:

- Workforce
- HIV Assay Utilization
- Turnaround Times
- Testing Volumes & Specimen Types
- Testing Volume Trends
- HIV Infections Detected
- Planned Changes to HIV Testing
- Outreach and Training
- New Technology
- Testing for HCV
- Etc.

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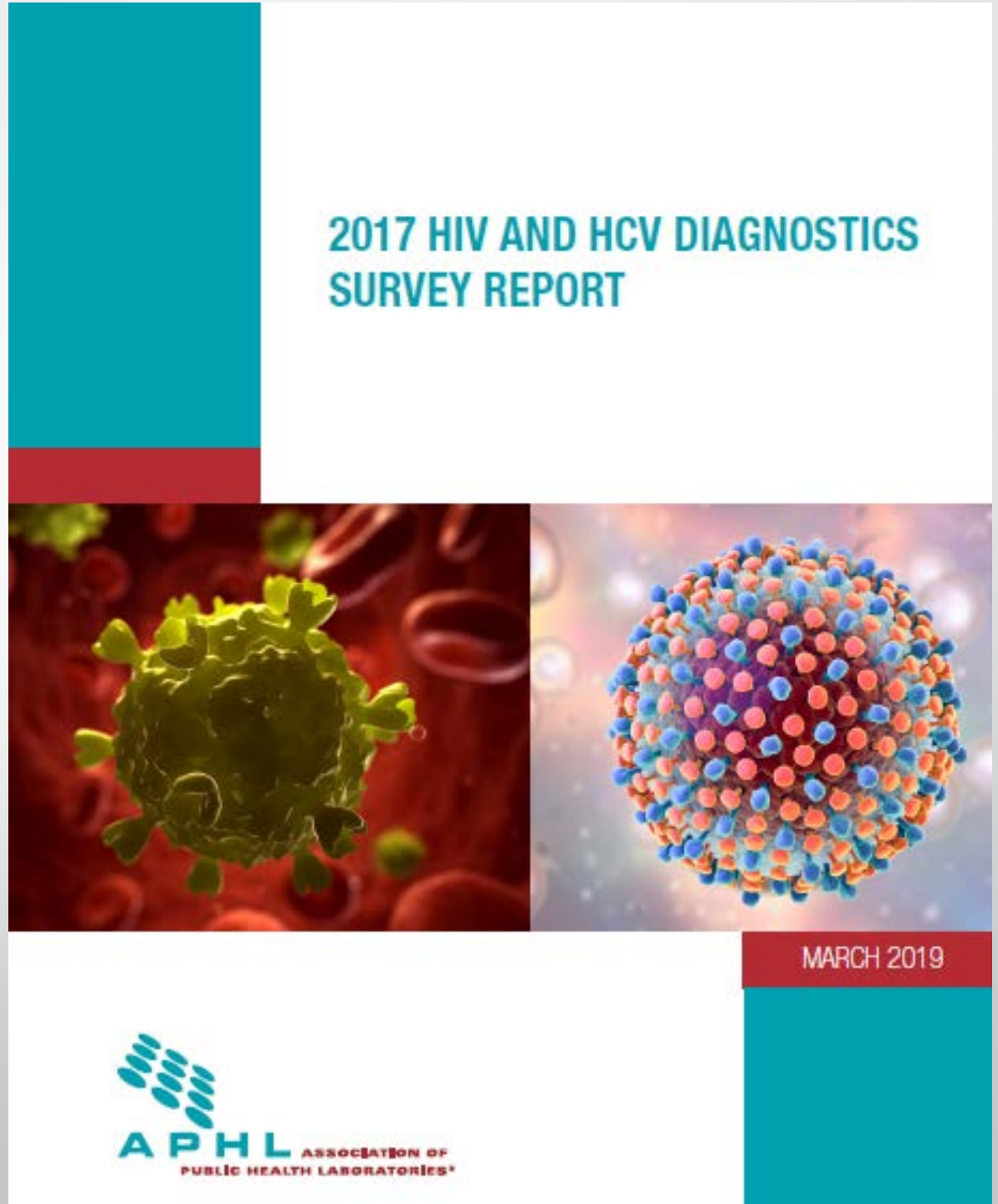
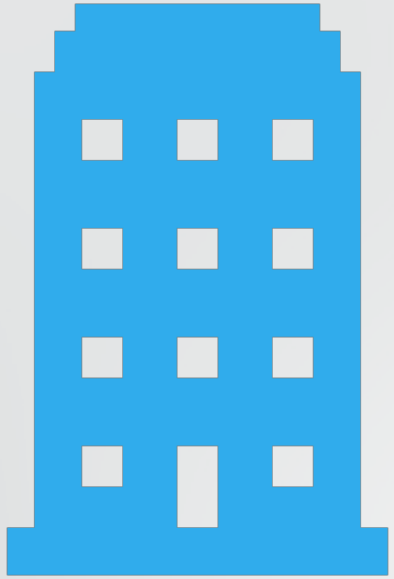


Measuring 2017 Data



106 Public Health Institutions Surveyed

76% Total Completion Rate of Survey

28

Total questions

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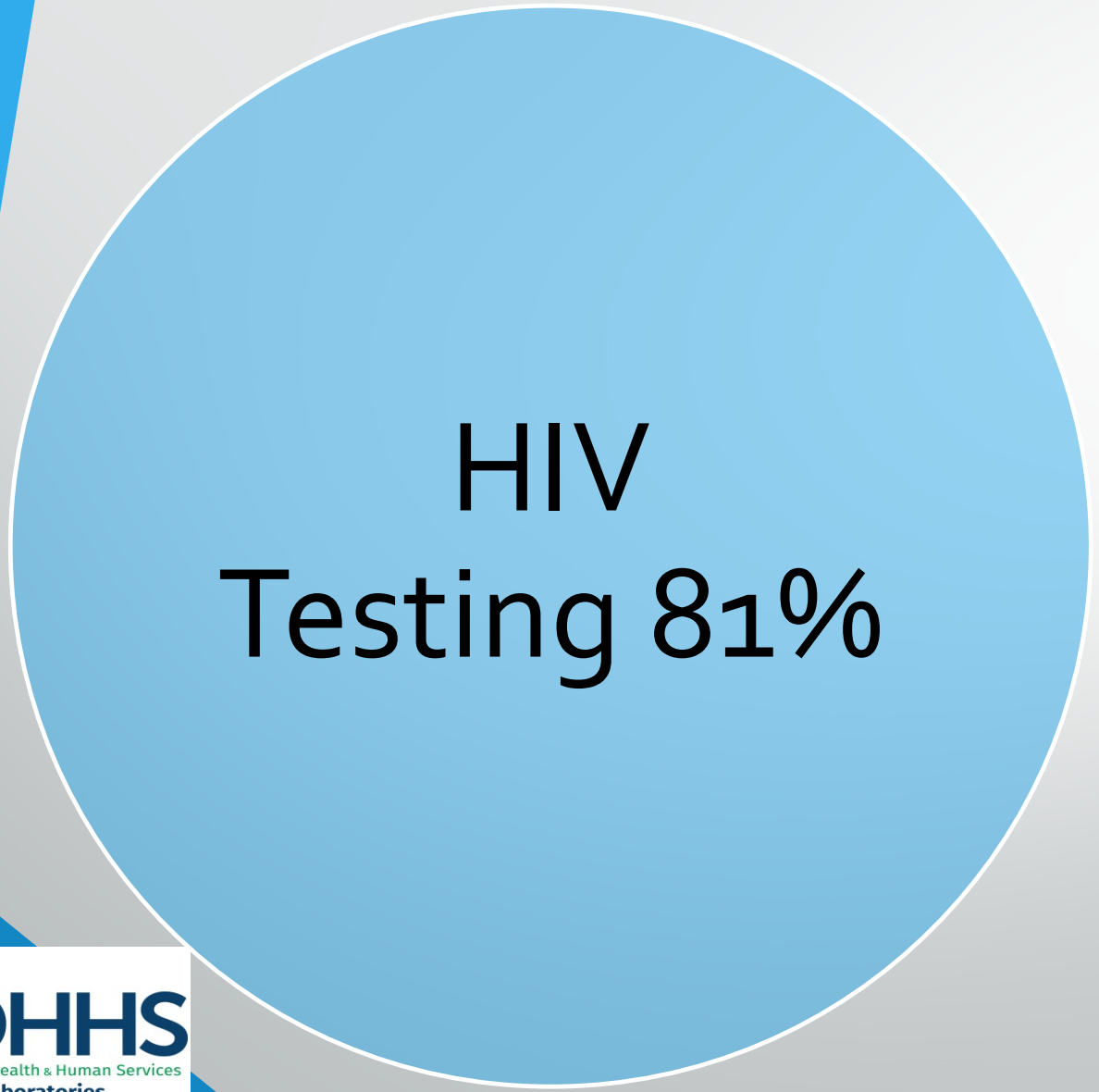
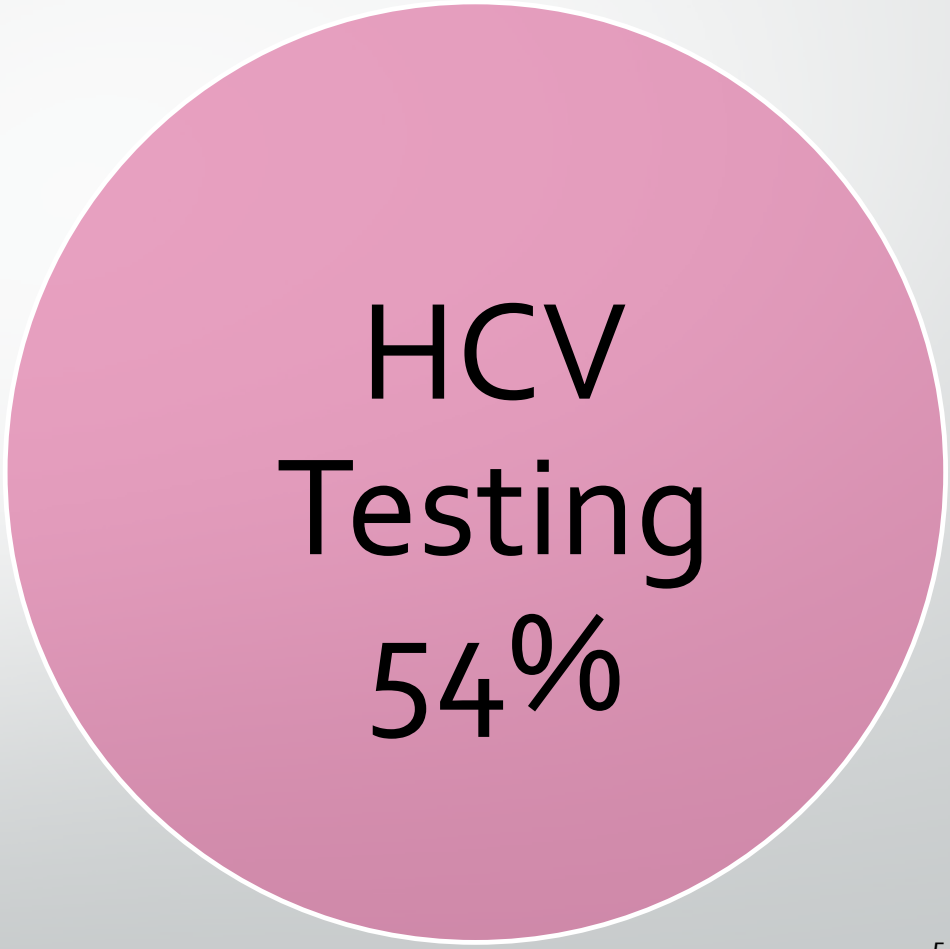
HIV and HCV Testing in PHLs





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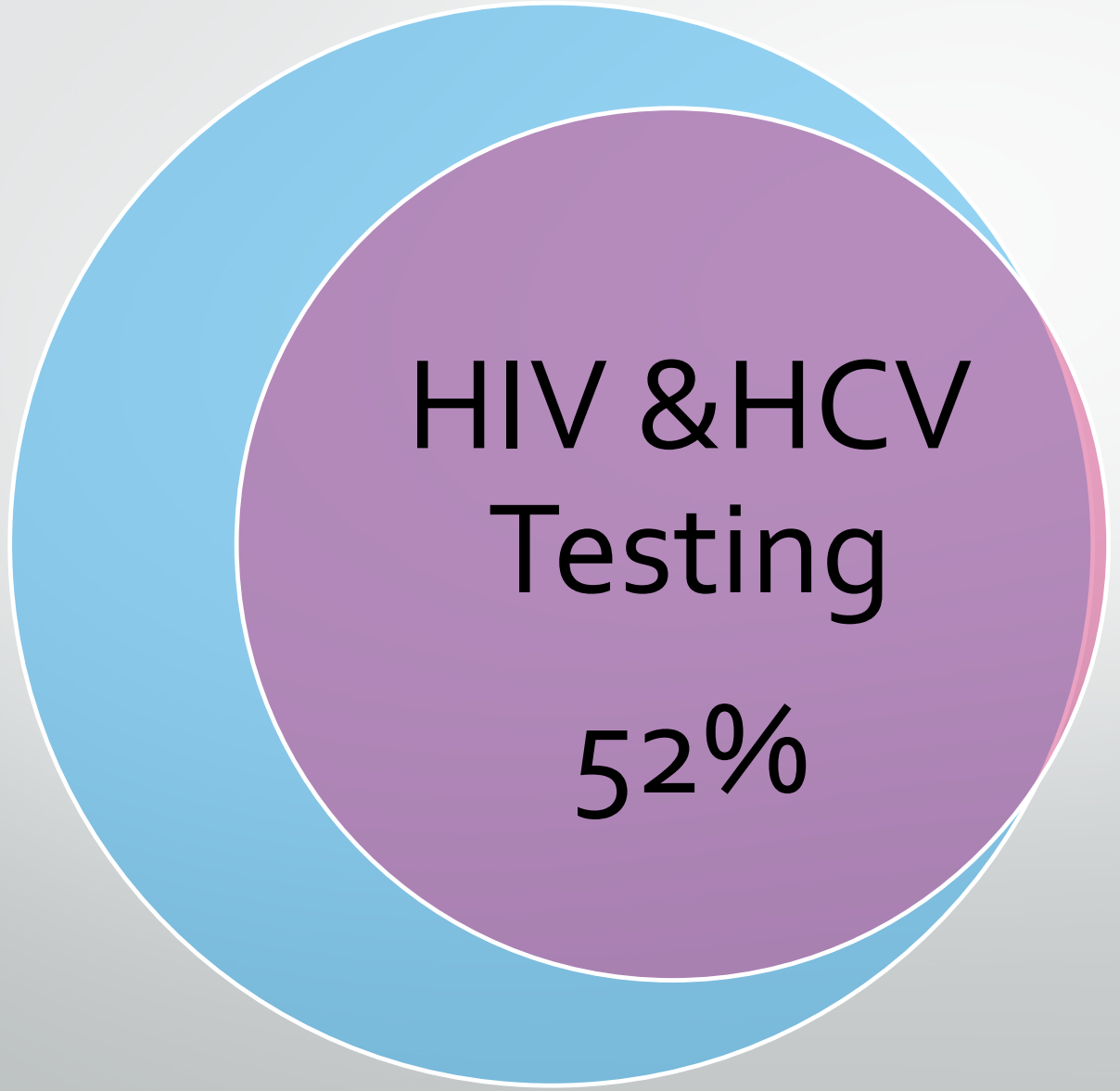
HIV and HCV Testing in PHLs



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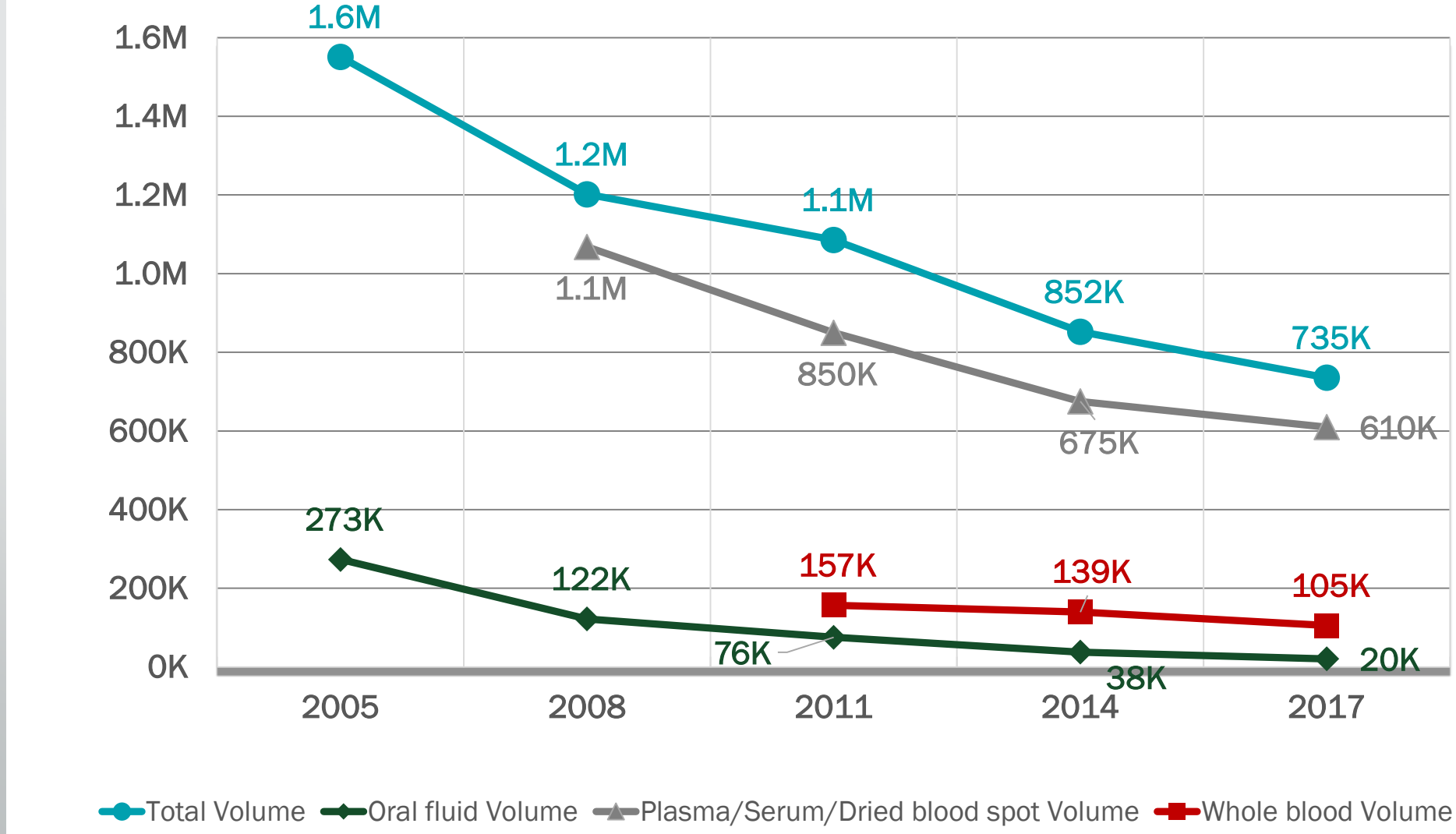
HIV Testing Volume Trends for PHL System, 2005 – 2017 (n=34)



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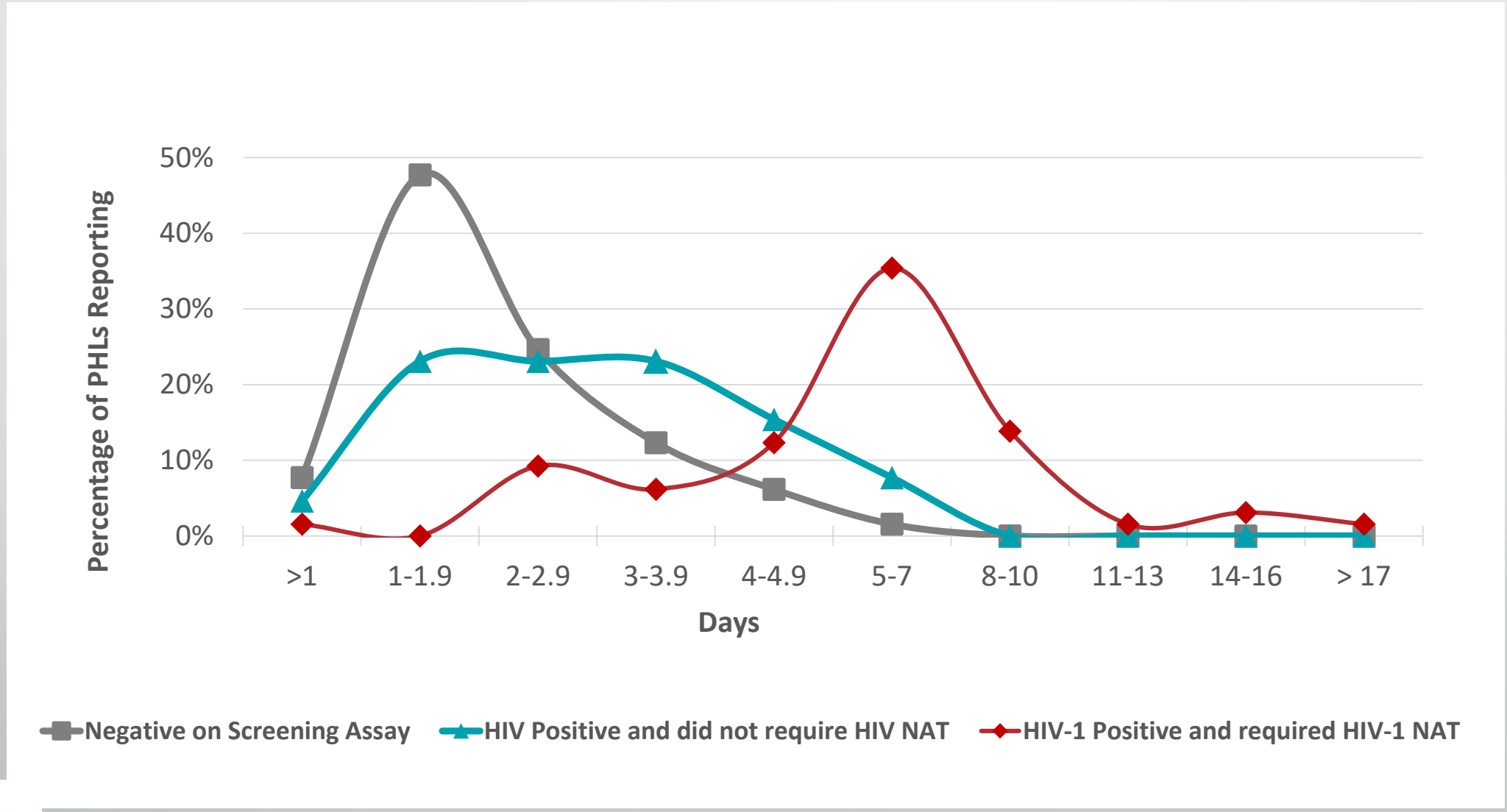
Average Turnaround Time for PHLs reporting, by days (n=65)



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Planned Changes from Survey Respondents

Screening Immunoassay

Additions or Changes

- Two PHLs plan to bring on new screening assay
- Four PHLs plan to replace existing screening assay with a new screening assay
- One PHL plans to refer screening to another laboratory

Eliminate or Decrease

- Three PHLs plan to or already have discontinued HIV testing, including screening
- One PHL plans to discontinue dried blood spot testing

Supplemental Antibody Assay

Additions or Changes

- Two PHLs plan to add a supplemental assay to be performed on site
- One PHL plans to replace existing supplemental assay with a new assay
- One PHL plans to modify an existing supplemental assay (for oral fluid testing)

Eliminate or Decrease

- Three PHLs plan to or already have discontinued HIV testing, including supplemental testing

Supplemental HIV-1 Nucleic Acid Assay

Additions or Changes

- Six PHLs plan to add an HIV-1 NAT to be performed on site
- One PHL plans to add an HIV-2 NAT
- One PHL plans to replace an existing HIV-1 NAT performed on site with a new HIV-1 NAT
- One PHL plans to modify an existing HIV-1 NAT (changing instrument for a laboratory developed test)

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Table 6: Most common topics that PHLs provided outreach, training or education

Topics	# of PHLs	Percentage
Result Interpretation	21	65.6%
Specimen Handling/Requirements	21	65.6%
Algorithm Interpretation	19	59.4%
Result Reporting	16	50.0%
Specimen Collection	16	50.0%
Implementation of the Recommended Diagnostic Algorithm (e.g. appropriate tests, sequence)	15	46.9%
Supplemental HIV Ab differentiation tests (performance or platforms)	10	31.3%
HIV Ag/Ab or HIV Ab Immunoassays (performance or platforms for screening tests)	8	25.0%
HIV-1 NAT/RNA for Diagnosis (performance or platforms)	7	21.9%
Rapid Tests (performance and selection of test kit)	4	12.5%
Rapid Tests (i.e. implementation and quality assurance)	3	9.4%
Cost of Tests	1	3.1%
Laboratory Developed Tests	1	3.1%
Other	1	3.1%
Guidance on Validating FDA Approved tests	0	0.0%
HIV1-NAT/RNA for Viral Load/Monitoring	0	0.0%

Table 7: PHL Interest in Potential New HIV Testing Technology

Proposed Laboratory Assay	All Respondents (n=81)	Currently Performing HIV Testing (n=65)	Not Currently Performing HIV Testing (n=16)
HIV-1 NAT with a dual claim (single assay that is FDA approved for diagnosis and viral load monitoring)	56%	62%	31%
Rapid HIV NAT (HIV-1 and/or HIV-2)	33%	37%	19%
Alternative supplemental HIV-1/2 antibody differentiation assay	23%	26%	13%
HIV-2 NAT	23%	23%	25%
Alternative HIV-1/2 Ag/Ab differentiating combination immunoassay	22%	23%	19%
HIV-1 p24 Ag confirmatory assay	22%	23%	19%
Rapid HIV-1/2 Ag/Ab combination immunoassay	14%	12%	19%
Other, please specify	11%	9%	19%

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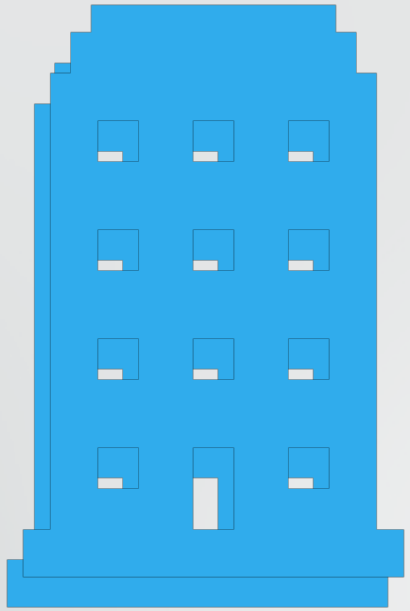
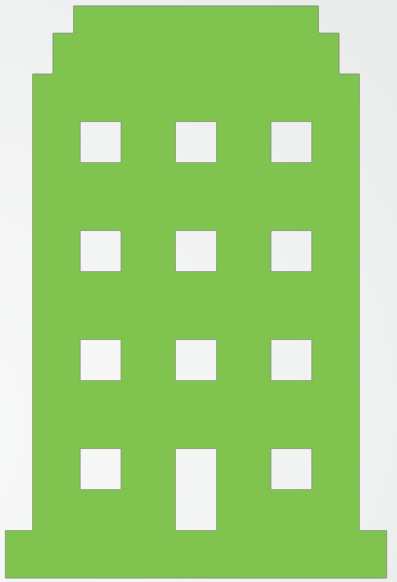


The Countdown is on as Public Health looks to eliminate Hepatitis C Virus



42 PHLs performing anti-HCV Ab Testing

21 PHLs performing HCV RNA for Diagnosis

10 PHLS performing HCV RNA for Patient Management /Viral load

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Oh My – What a learning Experience!

- Diagnostics for HIV, STIs, and HCV
  - Sessions specific for HIV-1 and HIV-2
- Impact of algorithms
- Rapid Assays
- Point of Care Testing
- Discussion Panels
- Posters
- Opportunities to interact with laboratory, program, epidemiology, and manufacturer staff members

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The Team

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S. Michele Owen, PhD
Bobbi Van Der Pol, PhD
Marty Soehnlen, PhD

Scientific Steering Committee Co-chairs

Anne Gaynor, PhD
Laura G. Wesolowski, PhD

Conference Manager

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