Laboratory System Improvement Program (L-SIP) Assessment Report

Houston Health Department
Laboratory Services
August 6, 2024

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Introduction

Houston is the most populous city in Texas and the 5th most populous metropolitan area in the nation. The Houston Health Department (HHD) is an entity within the City of Houston (COH) government system that actively works in partnership with the community to promote and protect the health and social well-being of all Houstonians.

In effort to demonstrate its commitment to the health of its citizens, HHD was the first health department in Texas and the second largest U.S. city to earn national accreditation from the Public Health Accreditation Board (PHAB).

The HHD laboratory serves as a regional reference laboratory in the Texas Public Health Region 6/5 and provides high-quality clinical and environmental laboratory testing services to the 17 surrounding counties.

Clinical services include testing for sexually transmitted infections (STIs), respiratory viruses, arboviruses, immune status, rabies, tuberculosis, foodborne diseases, healthcare associated infections (HAIs), vaccine preventable diseases (VPD), bioterrorism agents, and other emerging and remerging infectious diseases.

Environmental testing services include pollen counts, dairy testing for regulatory compliances, detection of coliform in water systems (private well and non-COH public systems), detection of Enterococcus and *E. coli* in non-potable water, wastewater surveillance, lead testing of homes, monitoring of municipal regulated waste (such as fat, oil, grease), and air monitoring for biological terrorism agents.

The HHD Laboratory is a critical component of the local public health system. The laboratory provides testing results as scientific evidence for patient care and public health decision making in disease prevention and control, and environmental monitoring.

The Association of Public Health Laboratories (APHL) works to strengthen laboratory systems serving the public's health in the Unites States and globally. APHL's member laboratories protect the public health by monitoring and detecting infectious and foodborne diseases, environmental contaminants, terrorist agents, genetic disorders in newborns, and other diverse health threats.

To improve and assess the performance of state and local public health laboratory systems, APHL, in collaboration with the Centers for Disease Control and Prevention

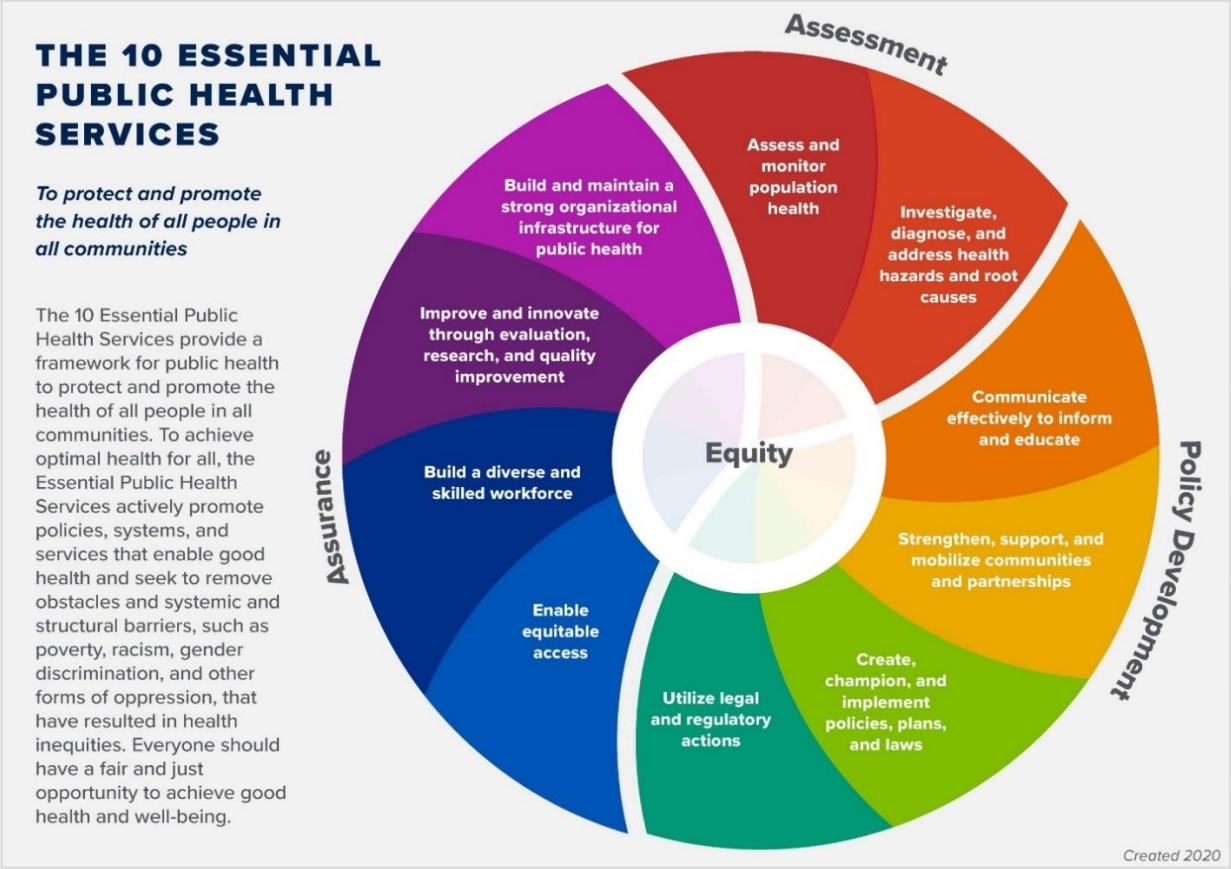
(CDC), developed the Laboratory System Improvement Program (L-SIP) in 2006. It is modeled on the proven performance standard assessment process used by local and state public health departments for the last decade and establishes measurable services for public health laboratories.

On August 6, 2024, the HHD Laboratory hosted a day-long L-SIP assessment at the Sunnyside Multi-Cultural Center to evaluate the current functionality of the local laboratory system. Over 40 system partners, including representatives from area hospital laboratories, first responders, state and county governments, and 16 volunteers worked collaboratively with HHD to assess the laboratory system against national model standards developed under each of the Ten Essential Services of Public Health.

What is an L-SIP

The Laboratory System Improvement Program (L-SIP) Performance Measurement Tool is based on the Eleven Core Functions and Capabilities of Public Health Laboratories and is designed within the framework of the Ten Essential Public Health Services (Figure 1). These services are the foundation for the National Public Health Performance Standards Program tools used for state and local public health systems and for local Boards of Health.

Figure 1: The Ten Essential Public Health Services



Benefits of completing an L-SIP include the following:

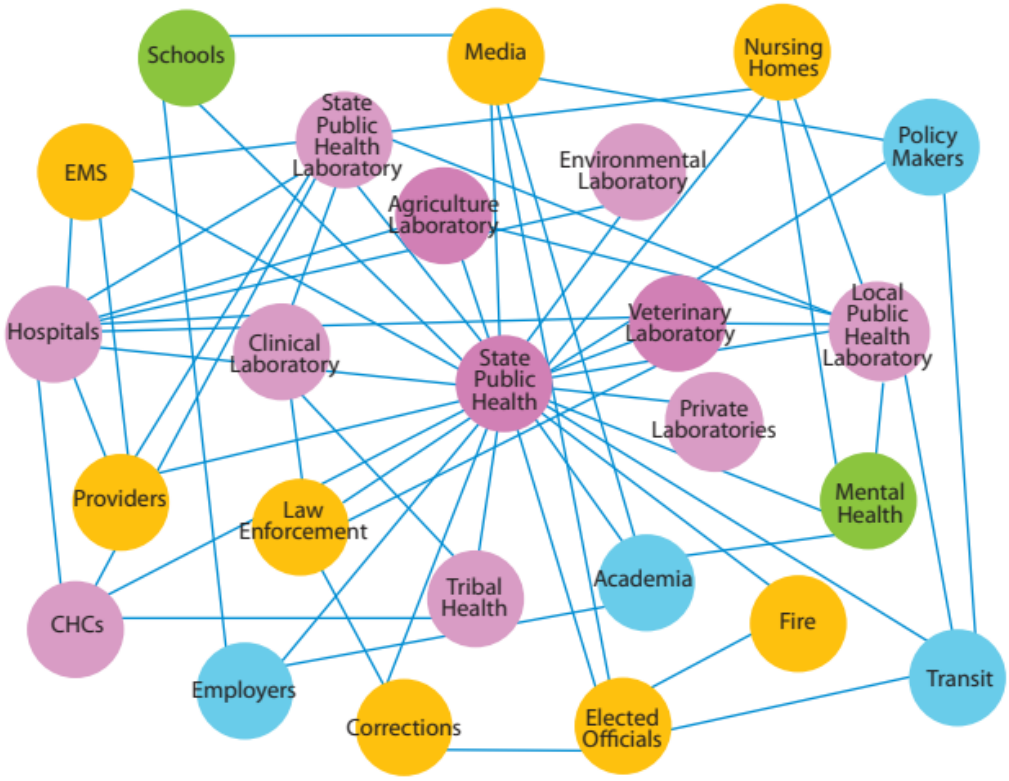
- Aligns with the PHAB accreditation requirements of state and local public health departments.
- Provides a benchmark for public health laboratory system practice improvements, by setting a "gold standard" to which public health systems can aspire.
- Improves communication and collaboration by bringing partners (e.g., first responders, key constituencies, public health and other laboratories, etc.) together.

- Educates stakeholders about the public health laboratory system and the interconnected activities that lead to collaborative system solutions.
- Strengthens the diverse network of partners throughout the federal, state and local systems, leading to cohesive partnerships and better coordination of activities and resources.
- Identifies strengths and gaps that can be addressed in laboratory system quality improvement efforts.

A public health laboratory (PHL) system is an alliance of laboratories and partners within a state or locality that supports the ten essential public health services (Figure 2). System members and stakeholders operate in an interconnected, yet interdependent manner to facilitate the exchange of information, optimize laboratory services, and help control and prevent disease and public health threats.

The role of the PHL is often overlooked until a public health emergency arises. One of the indirect benefits of completing an L-SIP is to advocate for PHLs by highlighting their crucial role within public health systems.

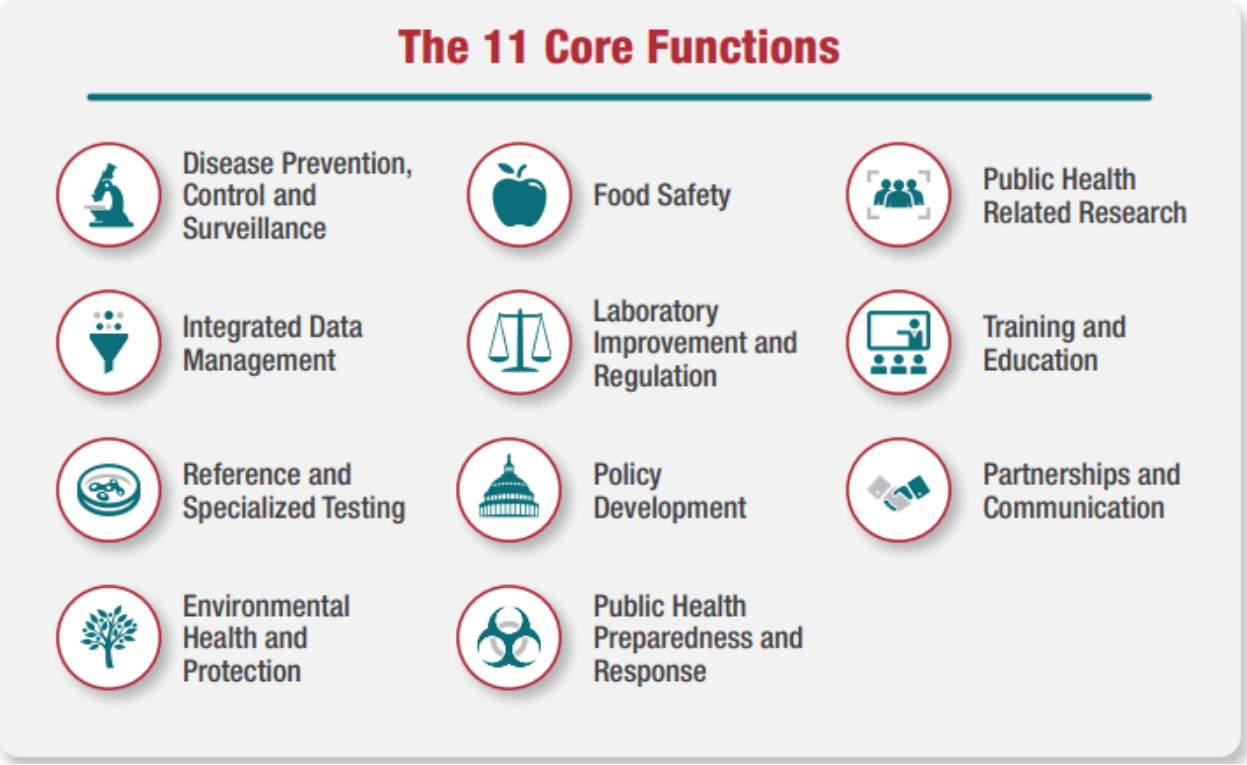
Figure 2: The Public Health Laboratory System



APHL adopted and published a document that defines the essential services and core functions of public health laboratories. It is important to note that this list of essential services and core functions is not a minimum standard for performance, but rather a gold standard that public health systems that laboratories should aspire to achieve.

The Eleven Core Functions (Figure 3) provide a foundation for the measurement of a variety of public health laboratory quality systems goals. The Core Functions together with the 10 Essential Public Health Services provide the foundation for the L-SIP assessment process.

Figure 3: The Eleven Core Functions of PHL



The ultimate goal of the L-SIP is to facilitate the improved performance of state and local Public Health Laboratory Systems for continuous quality improvement. Through collaborative efforts among the Public Health Laboratory System partners, outcomes of the process include:

- Assessing the system's performance
- Planning for system improvements
- Implementing improvement strategies
- Evaluating effects of strategies
- Re-assessing system performance

Assessment Planning and Event Day

Event planning occurred from April to August 2024 and was primarily carried out by an L-SIP coordinator and L-SIP supervisor, both identified by the HHD Laboratory Chief. Additional staff identified to assist with the event included facilitators and theme-takers for the event's break-out sessions.

Planning activities included training volunteer staff for roles, selecting a date and facility for the assessment, identifying and inviting stakeholders (Appendix 1), assigning stakeholders to break-out groups, making travel/lodging arrangements for facilitators, and preparation of communications and event materials (Appendix 2), supplies, and food accommodations.

The event opening session included welcoming statements from Roger Sealy, MS, CPM (HHD Assistant Director of Environmental Health and Public Health Science and Surveillance) and HHD Laboratory Chief, Dr. Meilan Bielby, Ph.D. HCLD (ABB).

Bertina Su, MPH (APHL Program Manager of Quality Systems and Analytics) provided an overview of the L-SIP Assessment process and facilitated the group's evaluation/scoring of Essential Service #2 (Inform, educate, and empower people about health issues).

Thereafter, stakeholders were divided into three break-out groups by area of expertise. Each break-out group evaluated three of the remaining nine Essential Services for the remainder of the day. The facilitator assigned to each group guided participant discussions for the evaluation of each service. Notetakers assisted in active documentation of discussion points, key ideas, parking lot issues, and key idea scores.

At the end of the allotted time for each discussion point, participants rated each essential service by holding up a card with their final rating, ranging from optimal to minimal. A consensus vote was then agreed upon with assistance of the facilitator and recorded by the notetakers.

Scores for each essential service were entered into an Excel spreadsheet provided by APHL upon completion of the entire assessment and presented to system partners once all reconvened into the main event room. The event concluded with closing remarks and awards by HHD Assistant Director, Roger Sealy and Laboratory Chief, Dr. Meilan Bielby.

Assessment Results

Overview of Houston Health Department Laboratory System L-SIP Results by Essential Service (ES)

ES	Key Idea	No Activity	Minimal	Moderate	Significant	Optimal	Overall Score
1	1.1.1			X			Moderate
	1.1.2*	--	--	--	--	--	
	1.1.3			X			
2	2.1.1				X		Significant
	2.1.2			X			
3	3.1.1				X		Significant
	3.1.2				X		
4	4.1.1					X	Significant
	4.2.1				X		
	4.3.1				X		
5	5.1.1			X			Moderate
6	6.1.1					X	Optimal
	6.1.2					X	
7	7.1.1			X			Significant
	7.1.2				X		
8	8.1.1			X			Moderate
	8.2.1			X			
	8.2.2			X			
9	9.1.1				X		Moderate
	9.2.1			X			
	9.2.2			X			
10	10.1.1			X			Moderate
	10.1.2			X			
	10.1.3			X			

ES 1.1.2- Not evaluated. HHD Laboratory does not provide newborn screening services.*

Rating Key

Rating	% Met within Public Health Laboratory System
Optimal	Greater than 75%
Significant	50% to 75%
Moderate	25% to 50%
Minimal	1% to 25%
No Activity	0%- None of the performance described is met

Essential Service #1:	Assess and monitor population health status, factors that influence health, and community needs and assets.
Key Idea 1.1.1	The system identifies infectious disease and environmental sentinel events, monitors trends, and participates in state and federal surveillance systems. Does the system: *Contribute/support statewide sentinel surveillance for infectious disease and environmental events? Engage partners to assess needs? Monitor foodborne outbreaks? Translate data into useful information?*

Strengths	• HHD lab engages partners:
	  ○ Texas Southern University (TSU) received help from APHL to establish a high complexity COVID-19 testing lab. HHD lab hosted TSU students for a tour of testing operations to aid in setting up the TSU COVID-19 lab.
	  ○ Opens the door with training and resources, e.g., provides packaging and shipping training for sentinel labs/local partners and it is a helpful engagement.
	  ○ Laboratory Response Network (LRN) regularly contacts sentinel providers to assess their needs.
	  ○ Concept of analyzing risk/necessities for partners has improved.
	• HHD lab participates in state/federal surveillance programs for infectious disease/environmental events:
	  ○ Foodborne testing-- In the process of reinitiating sequencing, salmonella testing.
	  ○ HHD LRN/BioWatch labs provide area surveillance for bioterrorism agents.

Opportunities for Improvement	• Communication between stakeholders:
	  ○ MAVEN system has incorrect labs marked, which creates results issues for submitters (Harris County).
	  ○ Harris County did not realize monthly calls were being held by the state for salmonella.
	  ○ Gaps in communication with cases within HHD Epidemiology. (EPI) and lab. The lab isn't always kept in the loop on outbreaks once results are reported.
	• Data sharing issues:
	  ○ Getting accurate data can be an issue because agencies are on different systems, which increases data loss.
	  ○ Identify data gaps from other jurisdictions that impact response time. Data glitches also impact response time.

	○ At times partners have a new outbreak but then find that one has already occurred in another jurisdiction. A more uniform route to share outbreak information is needed. ○ Partners don't always know trends. They must reach out to HHD or other agencies individually to gauge trends. Sometimes they only know ones in their area, while HHD only knows trends in their area. ○ Region/DSHS sometimes doesn't know trends because there are too many systems and information gets lost. Surveillance systems don't always have reliable data.
Other Notes	• Improved communication/data sharing is ideal so everyone can participate in making assessments. • A single sharing system between partner agencies would improve communication issues/data gaps.
Parking Lot Issues	None
Key Idea Score	**Moderate**
Action Items	• Initiate regularly scheduled meetings with partners to communicate updates and get feedback.
Key Idea 1.1.2	*The system monitors congenital, inherited and metabolic diseases of newborns and participates in state and federal surveillance programs.*
N/A	• HHD lab does not provide newborn screening services. Cases are referred to Texas Department of State Health Services (DSHS).
Key Idea 1.1.3	*The System has a secure, accountable and integrated information management system for data storage, analysis, retrieval, reporting and exchange. Partners collaborate to strengthen electronic surveillance systems.* Does the system: *Support highly integrated and comprehensive information systems? Have IT systems with database and capability to electronically share lab results? Support real-time lab reporting and data exchange? Budget resources for IT upgrades?*
Strengths	• HHD has Laboratory Information Management Systems (LIMS) that meet security/confidentiality requirements (server room, cyber security, access, admin, etc.). Its functions are limited so we are in the process of purchasing a new system. • HHD has an offsite backup electronic system for LIMS. • Despite challenges with data sharing, partners receive data and cases for follow-up.
Opportunities for Improvement	• Issues with current Information Technology (IT) system: ○ A new one is needed because the current system is outdated. It requires patches to improve capabilities. Funding prevents the implementation of improved features.

	○ HHD Lab reported previous financial issues (exceeded allocated contract funds), resulting in loss of data access for about a month. • Data sharing issues: ○ Various partners use MAVEN, but COH uses it differently. When the information transfers, it looks different on the partners' side. ○ Even labs with the same system utilize their systems differently, creating issues with data sharing. This limits local/county partners from observing trends. ○ Identifying people to help with resolving data issues. • Procurement issues impact IT system: ○ There is a general lack of scientific understanding of laboratory needs among City of Houston (COH) and HHD staff that support lab procurement. The 3-bid process utilized by the Strategic Planning Division (SPD) may result in the HHD lab acquiring equipment that doesn't meet the lab's needs and may result in compliance issues. ○ The lowest bidder system is antiquated and not always suitable when the lab has specific equipment/supply needs. Risk Management and Houston Fire Department (HFD) expressed similar frustrations with the procurement system. ○ Delays in the procurement process severely impede the lab's ability to incorporate patches or acquire a new system altogether.
Other Notes	• One communication system for all partners would be ideal.
Parking Lot Issues	Procurement process for IT systems
Key Idea Score	**Moderate**
Action Items	• HHD lab is in the process of updating their LIMS systems. The lab should survey partners to get a better understanding of features that would be beneficial to the system, e.g., the ability to send mass distribution communications to clients regarding surveys or testing fees, etc. • In the interim, the lab should regularly update stakeholder contact lists so issues can be resolved faster between partners.
Overall Score	**Moderate**

Essential Service #2:	Investigate, diagnose, and address health problems and hazards affecting the population.
Key Idea 2.1.1	The System assures the effective provision of services at the highest level of quality to assist in the detection, diagnosis and investigation of all significant health problems and hazards. Does the system: *Possess scientific expertise and necessary resources to assure the highest level of testing? Use resources to respond to health problems and hazards? Assure capacity with the appropriate level of containment (e.g., biosafety Level 3 capacity, lead containers for radioactivity, etc.)? Have timely communication with customers and stakeholders to support diagnosis and investigations? Support public health investigations through participation of system partners?*
Strengths	• HHD has good expertise and resources, which is attributed to having partnerships with CDC and other federal agencies. The lab assists partners at times when testing with quick turnaround is needed. In terms of technology and expertise, partners feel the lab performs at a high level – the system can't really speak on too many bubbles. • HHD staff are well connected and can refer partners to the right people. • HHD's relationship with Harris County Public Health is very good. HazMat has many opportunities to engage with HHD LRN lab for guidance, responses, and FBI collaborations, etc. Plans for biological incidents have been established. HHD has been good for ensuring communication and training in the lab. Hazmat has reciprocated by inviting lab to the HazMat conference to expose them to their operations. Such collaborations should continue.

Opportunities for Improvement	• Communication:
	  ○ Partners suggested the need to create a means by which partners can share each other's contact information.
	  ○ Determine a means of communication to share how local testing compares to regional, state and national data trends.
	• Talent and technology:
	  ○ System has great expertise but there are challenges in keeping subject matter experts (SMEs) in the system. Finding talent may be easy but keeping and maintaining it is hard. Succession planning has been a challenge.
	  ○ PHLs can easily become overwhelmed during outbreaks so there is always potential to improve capacity and throughput.
	  ○ HHD lab has funding challenges to maintain technology.
	  ○ Scalability of resources and procurement- both can impact the lab's ability to respond, especially during an outbreak. Partners

	would like to see national level to support acquiring technology (through prepositioned/ advance contracts).
Other Notes	None
Parking Lot Issues	None
Key Idea Score	**Significant**
Action Items	• Share HHD's stakeholder contact information database by either email distribution list or on website with all partners.
Key Idea 2.1.2	The System has the necessary capacity and authority in place to rapidly respond to public health events. Does the system: *Provide for triaging and testing of samples that may contain potential biological, radiological, or chemical threats, including specimen tracking, results reporting, interpretation and use of laboratory information? Utilize public health preparedness and response networks?* *•Include a representative cross-section of members in the development and definition of partner roles, Continuity of Operations Plan (COOP), preparedness and response?*
Strengths	• The system has a Public Health Authority (Dr. David Persse, MD FACEP FAEMS), Medical Service Chief (Dr. Janeana White, MD), and HHD Director of Public Health Department (Stephen Williams, Med, MPA) with the authority to rapidly respond to public health events. • The system utilizes the Incident Command Structure during public health emergencies. • Harris County/state manages Health Alert Network (HAN), but not HHD. • The system has COOP plans in place for public health events. • The lab has processes in place (e.g., specimen tracking, results reporting/interpretation, data sharing) to quickly respond to events but has the potential to be overwhelmed due to staffing limitations and procurement setbacks. • System has partnerships with federal agencies and APHL which assist during public health events.

Opportunities for Improvement	• Results reporting:
	  ○ Develop a means to allow hospitals to access testing results electronically (preferably). This allows for real-time review of results. There is already an initiative in progress, but efforts need to be increased.
	  ○ During COVID-19, there was a system-wide challenge when labs reported results for a more comprehensive overview. Data was not being transmitted/shared correctly, creating many cleanups.
	• Departments assisting with procurement activities need to understand the needs/limitations of the laboratory, especially during public health emergencies.

Other Notes	None
Parking Lot Issues	• EPI is involved in triaging and there's contention between getting enough samples and not overwhelming the lab. • System has limited abilities on the radiological and chemical side.
Key Idea Score	**Moderate**

Action Items	• Improve data issues where possible:
	  ○ Continue with data storage improvement projects. Progress is slow because each program has its own format, and systems are not always compatible with each other.
	  ○ Continue work on aggregating data to better manage results and trends.
	• Recommend training for HHD staff involved in procurement processes for the lab (equipment/supplies purchases and service agreements). Also, consult with COH procurement department to see if procurement processes can be altered to better serve the lab and the public (needs to be initiated by HHD Assistant Director or Director).
	• Build partnerships with entities that have radiological and chemical testing capabilities.

Overall Score	**Significant**

Essential Service #3:	**Communicate effectively to inform and educate people about health, factors that influence it, and how to improve it.**
Key Idea 3.1.1	The System develops and disseminates accurate and consistent information to community partners about relevant health issues associated with laboratory services. Does the system: *Support processes that distribute accurate/consistent lab information to partners? Conduct outreach to partners to provide resources/info about lab services? Assure that the communication and information between partners and the stakeholders is culturally and linguistically appropriate? Conduct outreach to the general public about lab services?*
Strengths	• HHD has Community outreach for outbreaks. • Harris Health public alert covers 17 surrounding counties and works closely with COH for communications. • Outreach efforts during MPOX included local and federal partners. • There is targeted outreach for emerging diseases and immunizations.
Opportunities for Improvement	• Not enough data sharing between EPI partners (COH/Harris County). • No longer have a robust network of partners.

	• Because outreach is often targeted, there is a lack of awareness among the overall public. • Routine testing resources are often lacking due to funding. It is easier to get support for outbreaks than routine testing because there is usually federally funding for outbreaks.
Other Notes	None
Parking Lot Issues	• The lab needs outreach support for respiratory testing.
Key Idea Score	**Significant**
Action Items	• Initiate an annual meeting (at minimum) to inform partners of needs, testing capabilities, and gaps. • Implement efforts to improve client survey participation (e.g., upload survey link to HHD lab website).
Key Idea 3.1.2	The System creates and provides educational opportunities to community partners. Does the system: *Participate in the education of public health officials, partners, state and local legislators and the academic community on current and emerging lab issues? Offer a variety of community educational opportunities that are broad-based and include multicultural, rural and urban perspectives? Use multiple communication approaches (e.g., websites, flyers, social media/marketing, etc.) and levels of complexity (e.g., reading levels, technical level, multiple languages) for educating partners and the public? Work with the media to educate stakeholders about laboratory topics and matters?*

Strengths	• HHD offers the following:
	  ○ Packaging and Shipping training to sentinel labs and internal/external partners.
	  ○ Training for HazMat teams- environmental monitoring/ sampling/ Chain of Custody (COC) procedures for BT testing.
	  ○ Training/technical guidance in areas such as reporting assays, collection methods, address frequent errors, Quality Assurance (QA) labs.
	  ○ Internship (APHL, COH Summer Internship Program, AmeriCorps) and fellowship programs (area academic institutions).
	  ○ Outreach efforts to area academic institutions to promote the field of public health and educate students on career paths.

Opportunities for Improvement	• Training opportunities are not extended to smaller area hospitals.
Other Notes	• Lab does not communicate directly with the media. HHD communications must go through the Public Information Officer (PIO). • Liaisons between partners/agencies will help improve communication/ data sharing. A team of liaisons were utilized during COVID-19.

Parking Lot Issues	None
Key Idea Score	**Significant**
Action Items	• Extend training opportunities to more partners (e.g., smaller hospitals).
Overall Score	**Significant**

Essential Service #4:	**Strengthen, support, and mobilize communities and partnerships to improve health.**
Key Idea 4.1.1	Partners in the System develop and maintain relationships to formalize and sustain an effective system. Does the system: *Regularly convene partners to strengthen the System? Formally define roles and responsibilities of member organizations within the Lab System? Have a process for identifying key constituents and building partnerships among member organizations? Address the need for member organizational missions, visions, and values to be in alignment with the system goals?*
Strengths	• The HHD lab maintains strong partnerships with private hospitals and clinics, and sentinel partners. They send communications regarding new and emerging pathogens (MPX, A/H5, etc.). • Local LRN lab has a BT coordinator to maintain outreach with partners. • HHD lab has an Antimicrobial Resistance (AR) coordinator that maintains outreach for healthcare-associated infection (HAI) testing under the Antibiotic Resistance (AR) Lab Network. • Working groups among DSHS, EPI and the lab were established to strengthen collaborations.

Opportunities for Improvement	• Outreach is limited to bioterrorism and HAI fields.
	• Outreach roles are not formally defined, especially among lab and EPI.
	• Improved communication among lab and EPI:
	  ○ EPI does not always follow up with the lab although both should be involved in making decisions.
	  ○ Lab previously had meetings with EPIs in the region, but they were suspended during the COVID-19 pandemic.

Other Notes	None
Parking Lot Issues	• EPI must train their submitters even though it is not their expertise.
Key Idea Score	**Optimal**
Action Items	• Expand outreach beyond bioterrorism and HAI areas. • Use the website for outreach efforts and to engage new partnerships. • Formally define outreach roles across programs (Lab and EPI).

	• Reinitiate monthly meetings among Lab and regional EPIs for improved communication.
Key Idea 4.2.1	System members communicate in regular, timely, and effective ways to support collaboration. Does the system: Share member communication plans and work towards coordination of plans among partners? Provide information, both routine and emergency, to partners in a coordinated and redundant fashion? Have a mechanism in place that supports feedback among partners? Use multiple and alternative methods to effectively communicate PH Laboratory System messages to ensure the public is well informed about public health issues?
Strengths	• Lab uses email distribution list to send communications to partners. • Lab has done well in quickly communicating information regarding new emerging infectious diseases (e.g., A/H5 lab developed information page with APHL and CDC and pushed to contacts).
Opportunities for Improvement	• Partners would like written plans for partnerships, e.g., Memorandum of Understanding (MOUs), etc. While we have historically collaborated with handshake agreements, more formal plans are preferred and beneficial for all partners. • HHD programs would like to see a better dissemination of partner contact information internally so that the correct partners are contacted when necessary. • Quicker forms of communication are ideal.
Other Notes	• Although information is not always sent in a timely manner, partners understand that we do our best under the circumstances. Outside constraints are noted.
Parking Lot Issues	None
Key Idea Score	**Significant**
Action Items	• Discuss/implement the use of MOU's when possible. • Explore faster routes of communication. • Share partner contacts internally.
Key Idea 4.3.1	The PH Laboratory System works together to share existing resources and identify new resources to address health issues. Does the system: Time and resources to build and maintain relationships with partners? A mechanism to share resources to increase effectiveness? A mechanism to proactively collaborate in seeking/obtaining new resources? A process to evaluate system effectiveness/resource needs?
Strengths	• Mechanisms to proactively collaborate in real-time are difficult to achieve. Although we do not have a formal system in place, events like the L-SIP are good to keep partners connected.

	• HHD prioritizes outreach despite not having the resources to formally build/maintain relationships with partners. Staff perform outreach in addition to their daily duties. • Lab resources are usually grant funded, so there are limitations on sharing. When possible, the lab has utilized the "payback method" to assist partners in need.
Opportunities for Improvement	Identify formal means for resource sharing.
Other Notes	None
Parking Lot Issues	None
Key Idea Score	**Significant**
Action Items	Consider formally adding positions that specifically address outreach/resources sharing efforts.
Overall Score	**Significant**

Essential Service #5:	**Create, champion, and implement policies, plans, and laws that impact health.**
Key Idea 5.1.1	The System obtains input from diverse partners to develop new policies, plans and laws and modify existing ones, using scientific evidence to inform and influence policy. Does the system: Consider input from all partners in policy development and planning? Promote and support policies, plans and laws that are consistent with public health best practices and community needs? Collaborate with state/local officials to prioritize efforts to address pressing health needs of the community, using evidence-based approaches? Integrate lab issues into program planning? Have access to data that can be used to inform the policy making process?

Strengths	• Partners work together to address regulatory requirements and policy planning:
	  ○ The system brings together multiple agencies, leading to good collaborations.
	  ○ Orange County Public Health partners love to be included in meetings.
	  ○ American Society for 18th Century Studies (ASECS) meetings are held with physicians from the Texas Medical Center (TMC) to discuss emerging infections, trends, and which areas are handling situations.
	  ○ Regional meetings help bring multiple key players together.

	○ HHD participates in National Association of County and City Health Officials (NACCHO) Preparedness Summit and regional healthcare preparedness meetings which have good attendance for collaboration. • Updates in policies, plans and laws are communicated to partners. • HHD lab has implemented a self-inspection process as a best practice. Lab participates in College of American Pathologist (CAP) peer review efforts. • The Environmental sections collaborate with the Texas Commission on Environmental Quality (TCEQ) and the Environmental Protection Agency (EPA). LRN lab collaborates with multiple partners. Each entity has a procedure for information sharing. No improvements are needed. Everything is working as it should. • The environmental lab is involved with permits for air quality and concrete plants.
Opportunities for Improvement	• Procurement issues: ○ Spending grant money is impeded by inefficiencies in the procurement process. Funds often expire before equipment/ supplies are ordered and vendor contracts are implemented. ○ Policy development for HHD is an issue. High level policies/plans are implemented at the City level, and HHD does not have input. • Data is not getting to where it needs to go for policy development. The system is working to give the State PH system better access so they can present data for policy changes within the State. Locally, a process has been initiated to get data to the partners to make the changes within HHD. Are local and State officials looking at the data to make the decisions? • HHD has a large pool of data and does not know how to present it to officials to invoke change.
Other Notes	None
Parking Lot Issues	None
Key Idea Score	**Moderate**
Action Items	• Inquire about working with the State for procurement since they are more efficient with procurement. Is it possible for funding to be given to the State and have them procure items for HHD? • High level HHD management needs to push for changes and participate in developing city policies that impact the department. • System needs to inquire/collaborate with other local systems to get ideas on how to present public health data to officials for policy development.
Overall Score	**Moderate**

Essential Service #6:	Utilize legal and regulatory actions designed to improve and protect the public's health.
Key Idea 6.1.1	The System is actively engaged in the review and revision of laws and regulations pertaining to laboratory practice. Does the system: *Review lab-related laws and regulations? Provide recommendations regarding the revision of regulations to elected officials and other policy makers? Evaluate the appropriateness of laws and regulations affecting laboratory practice?*
Strengths	• The HHD lab is governed by three accreditors (Clinical Laboratory Improvement Amendments (CLIA), National Environmental Laboratory Accreditation Conference (NELAC) and American Industrial Hygiene Association (AIHA) and is regulated by two government entities for bioterrorism programs and one for dairy testing.
Opportunities for Improvement	• Lab does not have a means to provide input for regulation changes. Recent APHL/FDA interpretation of regulations for laboratory developed test (LDT) evaluations have caused confusion and increased regulatory requirements. Such changes will slow the implementation of new tests. • Implemented regulations are required to be followed by HHD. Revision of policies often require congressional approval. The local system partners are low on the decision-making process to have a true effect on changes.
Other Notes	None
Parking Lot Issues	None
Key Idea Score	**Optimal**
Action Items	• Encourage partners to join associations such as APHL or accrediting agency boards so that the system has a voice in changes.
Key Idea 6.1.2	The System promotes compliance by all laboratories with regard to applicable laws and regulations. Does the system: *Promote quality practices that meet regulatory standards? Communicate and disseminate regulations clearly and in a timely manner to the regulated community? Have educational opportunities, outreach or other resources available for partner organizations to assist in understanding and complying with health policies, laws, and regulations? Work with regulatory agencies to improve compliance? •Assure that all laboratories participate in compliance programs, including enrollment and participation in proficiency testing programs?*
Strengths	• HHD provides stakeholders with information and reference materials on how the lab meets all their regulatory standards through proficiency testing, training and audits, and providing proof of accreditation. • Training and educational opportunities are available for partner organizations. HHD provides regulatory requirements and quality

	practices to providers to ensure regulations and compliance align with expectations that meet federal guidelines. • HHD works with partners to promote compliance programs and enrollment opportunities for proficiency testing programs such as the CAP-LPX although it is not our responsibility to enforce/drive compliance.
Opportunities for Improvement	None
Other Notes	None
Parking Lot Issues	None
Key Idea Score	**Optimal**
Action Items	Continue to promote compliance among partners.
Overall Score	**Optimal**

Essential Service #7:	**Assure an effective system that enables equitable access to the individual services and care needed to be healthy.**
Key Idea 7.1.1	The System identifies laboratory service needs and collaborates to fill gaps. Does the system: *Ensure availability, quality, accessibility and timeliness of laboratory services? Make projections of future capacity and capability needs with partners? Collaborate to seek resources to fill gaps in the provision of laboratory services? Coordinate the transport of samples to the laboratory?*
Strengths	• The system provides excellent services to all sentinel hospitals and local partners covering the HHD jurisdiction. • HHD offers a wide range of services for reference testing, with multiple options available to providers. • There is a good transport system available to deliver specimens to the laboratory.
Opportunities for Improvement	• Public sector clients are unaware of all testing services provided by HHD. • Website navigation needs improvement as requirements are not always clear for submissions from people without lab background. Partners suggest clearer instructions for layman submission of environmental samples (suggestion pertains to environmental since HHD does not accept clinical samples from the public). This suggestion was made by clients who have accessed the website for water testing submissions. • Critical public health testing in surge capacity situations is limited due to low staffing levels (outside of public health emergencies). There is a balance with maintaining staff and funding availability.

	• In surge situations, sections such as BioWatch, must initially bolster testing support due to lack of adequately trained staffing among partners, leaving vulnerabilities in the section's responsibilities.
Other Notes	None
Parking Lot Issues	None
Key Idea Score	**Moderate**
Action Items	• HHD lab recently developed a brochure with an overview of testing services along with the goals of the laboratory. Consider posting the brochure on website so public sector clients can learn about available testing services. • Develop a working group for the improvement of the laboratory website.
Key Idea 7.1.2	The System provides timely and accessible quality services. Does the system: *Ensure testing services for routine and emergency situations in a timely manner? Share information among system partners and the public about available services? Provide access to laboratory expertise and consultation services? Address access to laboratory services in sparsely populated, underserved and rural areas?*
Strengths	• HHD has extensive infrastructure set up to maintain operations in an emergency (e.g., inclement weather) that would cause grid issues. The lab has generators and backups to continue operations. • Critical public health test resulting/communication takes place when samples exceed the typical turnaround time. These systems are in place to notify submitters when systems are down or delayed. • COH mobilizes quickly during public health emergencies. • The system provides access to services in the community (e.g., mobile units and free services at HHD clinics for sparsely populated, underserved and rural populations).
Opportunities for Improvement	• HHD website updates could include turnaround time for services. • Public awareness of laboratory services needs improvement.
Other Notes	• Liaisons to communicate between partners/agencies. • Regular Point of Contact (POC) updates.
Parking Lot Issues	• Inefficiencies in the procurement process were discussed since it impedes the system's ability to ensure continuity of operations during emergencies.
Key Idea Score	**Significant**
Action Items	• Promote public awareness of lab services through PIOs and HHD website. • Develop outreach to promote testing services. • Update HHD website to include turnaround time for services.
Overall Score	**Significant**

Essential Service #8:	Build and support a diverse and skilled public health workforce.
Key Idea 8.1.1	The System maintains an environment to attract and retain diverse and highly qualified staff. Does the system: *Have position descriptions describe the education, experience, skills, and abilities required to complete specific tasks and fulfill defined responsibilities of positions across all phases of laboratory testing? Use creative approaches to promote vacancies based on current market strategies to attract qualified new personnel? Support and advocate for compensation or other job satisfaction commodities? Empower staff by supporting their participation and membership in professional organizations and educational opportunities for professional growth and development? Routinely assess job seeking behaviors and criteria from newly hired employees or employees who resign?*
Strengths	• Staff meet accreditor regulatory requirements for education, skills and experience needed for positions. • COH Human Resources (HR) provides detailed job descriptions that include educational and work experience requirements needed by applicants to meet minimum qualification for employment. • The HHD lab seeks competitive candidates through national websites such as APHL to recruit top tier candidates for employment. • COH offers benefits such as professional development, public loan forgiveness, and matching duties with compensation.
Opportunities for Improvement	• HHD lab needs support to advocate for staff compensation. Although the city tries to meet competitive salaries, there are a lot of funding and financial difficulties. COH is not a for-profit entity. Staff salaries originate from local government funding and grants. • Retention for quality candidates is low. HR doesn't have the option to entice candidates with increased compensation. HHD lab is located in the TMC and Energy Capital, where there is a lot of competition for similar positions (microbiology/chemistry). • HHD lab sees overqualified applicants applying for positions, often raising concerns regarding candidate intentions and if they will stay long term. • There are limited possibilities for growth within the department. Often employees stay withing the city but leave the department for career advancement.
Other Notes	None
Parking Lot Issues	None
Key Idea Score	**Moderate**
Action Items	• Develop a plan to advocate for staff compensation.

Key Idea 8.2.1	The System works to assure a competent workforce by encouraging and supporting staff development through training, education, coaching and mentoring. Does the system: *Institute/document appropriate staff development activities to address gaps in competencies at all levels? Collaborate with academia and other partners to develop and promote programs such as laboratory internships, fellowships, training programs, practicums, rotations, coaching, mentoring and job opportunities? Offer continuing education opportunities to all levels of staff?*
Strengths	• HHD partners with academic institutions such as Texas Children's Hospital (TCH) and Baylor College of Medicine (BCM), by providing internships and fellowships to ensure doctoral candidates meet educational requirements. • HHD lab provides seminars to area universities regarding the role of the PHLs and to educate students on career paths in public health. • American Society for Clinical Pathology (ASCP) certification opportunities and APHL training opportunities are promoted to HHD lab staff.
Opportunities for Improvement	• Currently, internships and fellowships are unidirectional with HHD providing opportunities to partners. HHD would like to see a two-way opportunity where partners offer mentorship, rotations, etc., to HHD staff. • Partners often host events where Continuing Education Credits (CEUs) can be earned. HHD would like partners to open these opportunities to HHD staff.
Other Notes	None
Parking Lot Issues	• In-person training opportunities are offered for Packaging and Shipping of infectious materials and Bioterrorism preparedness to sentinel labs. Partners would like electronic offerings and further outreach.
Key Idea Score	**Moderate**
Action Items	• HHD lab needs to devise a plan to increase career growth (e.g., a defined career latter, training opportunities from partners, etc.). • Increase communication within HHD staff to promote awareness of training and career growth opportunities to encourage organization involvement and personal development (e.g. CEU opportunities). • Create an online training course for sentinel partners that describes processes such as packaging and shipping and general laboratory submission procedures.

Key Idea 8.2.2	The System identifies and addresses current and future workforce shortage issues. Does the system: *Monitor trends related to the lab workforce? Collaborate with partners to promote succession planning/leadership development? Raise awareness of lab career rewards and job opportunities? Promote lab career opportunities to middle school and high school counselors, teachers, STEM advisors and students? Advocate for expansion of lab training programs offered by universities and community colleges for training laboratory professionals?*
Strengths	• The System offers cross-training for staff to promote career opportunities and an expanded knowledge base. • HHD works with partners from academia and national programs like APHL to host internships and fellowships that can lead to potential employment or connections for future collaborations.
Opportunities for Improvement	• The system does not promote succession planning by design. COH policy prevents the hiring of a candidate for a position that was vacated prior to the employee's departure. This creates difficulties in knowledge transfer and is extremely detrimental to operations when tenured staff resign.
Other Notes	None
Parking Lot Issues	None
Key Idea Score	**Moderate**
Action Items	• Continue to develop/sponsor internship/fellowship opportunities for prospects.
Overall Score	**Moderate**

Essential Service #9:	**Improve and innovate public health functions through ongoing evaluation, research, and continuous quality improvement.**
Key Idea 9.1.1	The effectiveness, accessibility and quality of the individual- and population-based laboratory services provided throughout the state is regularly evaluated. Does the system: *Have a process in place to evaluate the effectiveness of services? Have a plan and the resources for tracking the contribution of lab services to health outcomes over time? Have a process in place to evaluate the availability/utilization of lab services? Have a process in place to access laboratory system resources and capacity to meet System needs? Use assessments to evaluate the quality of services, including policy development and resource allocation?*
Strengths	• HHD website has a list of all tested performed by the laboratory, along with submission guidelines.

	• HHD lab implemented a Knowledge Performance Indicator (KPI) Report that includes Turn-Around-Times (TAT). Reports monitored monthly (at minimum) by management to address shortcomings and areas of improvement. • During the COVID-19 pandemic, the HHD lab effectively implemented testing and assessed community needs. High risk populations (e.g., underserved/underrepresented groups, and long-term care facilities, etc.) were identified and incorporated into the system for surveillance monitoring.
Opportunities for Improvement	• Make outside entities aware of established TAT so they can plan accordingly and have plans in place for when to expect results. • Implement a pending list of all samples sent to DSHS that submitters can also view. • Implementing tracking systems for other health outcomes (other than COVID-19).
Other Notes	None
Parking Lot Issues	• Determine which tests are incorporated into services, which are prioritized. • Determine which health outcomes we want to track and how to implement them.
Key Idea Score	**Significant**
Action Items	• Reach out to other jurisdictions to see how they evaluate the effectiveness of services and test results. Work on the expansion of two-way communication with laboratory services and submitters. • Share HHD annual survey results with stakeholders to potentially increase participation. • Develop a sample tracking tool and establish prioritization/corresponding triggers.
Key Idea 9.2.1	The System has adequate expertise and capacity to plan research and innovation activities. Does the system: *Identify research activities at the system level, including partner/agency collaborations to provide guidance? Have an established process for recommending research projects that support broad public health goals? Collaborate to obtain resources for research activities, (e.g., time, finances and staff)? Have access to institutional review boards (IRB) that provide protection for human research subjects?*
Strengths	• HHD partners with the stakeholders (DSHS, APHL, CDC, etc.) to recommend research projects/grant opportunities to support broad public health goals.

	• By being one of the largest cities in the nation, HHD is allowed to participate in studies/grant opportunities that are usually limited to state public health lab systems. • Oftentimes, the system relies on public health emergencies to fund innovation and improvements in the system.
Opportunities for Improvement	• The HHD lab is limited on research-based projects because we are a public health lab that focuses on diagnostics/surveillance, not research. • The system has limited partnerships with academic research institutions (currently only partnered with Rice University for research projects). • System has limited opportunities to participate in Research Use Diagnostic (RUD) and LDTs. • Regulations on public health samples limit their use for research purposes.
Other Notes	• Most of our grants exclude research. Public health labs don't focus on academic research, but we should work to see if we can potentially address these concerns for future collaborations. • How do accreditation requirements apply to research samples since we predominantly test diagnostic samples.
Parking Lot Issues	None
Key Idea Score	Moderate
Action Items	• Expand collaborations with Academic/Research institutions. • Explore opportunities to participate in more RUDs and LDTs.
Key Idea 9.2.2	The System promotes research and innovative solutions. Does the system: *Draw on diverse perspectives and expertise, including academic and research institutions, to stimulate innovative thinking? Encourage staff to identify and propose innovative solutions to workplace challenges? Have the ability to contribute to partnerships by incorporating new technology and scientific knowledge? Evaluate findings of research and implement innovative solutions to foster improvement? Disseminate research outcomes, best practices, and recognition of research activities?*
Strengths	• HHD's environmental wastewater testing was quickly implemented, and testing targets were expanded with collaboration with Rice University (through an established MOU). • HHD Lab testing equipment is interfaced with the LIMS systems, to expedite results interpretation and reporting to clients.
Opportunities for Improvement	• MOU approvals for clinical testing take months to years, which slows down innovation. • Implementation of LDTs is lengthy, costly, and heavily regulated which thwarts implementation of new testing services.
Other Notes	None

Parking Lot Issues	None
Key Idea Score	Moderate
Action Items	• Devise a process for expediting clinical testing MOUs.
Overall Score	**Moderate**

Essential Service #10:	**Essential Service #10: Build and maintain a strong organizational infrastructure for public health.**
Key Idea 10.1.1	The System is composed of different entities that work together effectively on public health activities and are transparent and accountable to the community it serves. Does the system: *Have organizational components, e.g. governmental, community-based organizations, academia, etc., that support public health activities? Have memorandums of understanding (MOUs) between public health partners and stakeholders to solidify roles, responsibilities, and goals in collaborations? Have a mechanism in place to empower, support, and sustain beneficial relationships?*
Strengths	• HHD legally implemented MOUs with Rice University and The University of Georgia, Atlanta. These MOU's have been mutually accepted by both partners to meet COVID-19 wastewater testing and whole genome sequencing projects, respectively. • Houston metropolitan's large geographical footprint, that encompasses the largest medical center in the world, has facilitated beneficial relationships with local hospitals and HHD to better serve the community's public health needs.
Opportunities for Improvement	• MOU's take an extensive amount of time and legal involvement with the corresponding institutions. • HHD Public Health Lab surveillance test results are not released to submitting agencies.
Other Notes	• Communication with school districts poses its own set of hurdles. Many schools lack the funding to provide registered nurses. Developing communications with public health and science/clinical based wording is difficult for people outside the medical community.
Parking Lot Issues	None
Key Idea Score	**Moderate**
Action Items	• HHD should consider letters of intent when MOUs are not feasible. • Develop a system to share surveillance testing results with submitting agencies for transparency.

Key Idea 10.1.2	The System's leadership acts ethically and strategically and communicates proactively to the public through different mechanisms. Does the system: *Have leaders who work collaboratively across organizations on decision-making, governance, and strategic planning? Have a communication system that uses different avenues to effectively disseminate science and data-driven messages? Have the means to expect and ensure ethical leadership?*
Strengths	• HHD lab implemented a web-based portal and Electronic Laboratory Reporting (ELR) system that allows submitters to expedite retrieval of testing results. • HHD implemented new methods of communication during COVID-19 for better public interaction with partners and the public (e.g., Dashboards, Twitter, emergency broadcast test messages, social media outreach). These digital platforms also facilitated strategic planning and dissemination of critical information effectively to the public. • HHD was praised for their ethical training of lab personnel. Although ethical training is required by accrediting agencies, partners view the training as a demonstration of trust and accountability to the public and the clients we serve.
Opportunities for Improvement	• Improve communication of outgoing/incoming data between submitters, lab and EPI. • HHD improved communication by incorporating digital platforms for outreach (portal availability) but need to work on increasing digital traffic to their sites.
Other Notes	• Funding is an issue with HHD technology infrastructure. Keeping up with quick pace changes with digital media platforms can cause disparity across programs. What is optimal for one program may be moderate in another.
Parking Lot Issues	None
Key Idea Score	**Moderate**
Action Items	• Develop a procedure that helps submitters join HHD digital platforms to make reporting cases to HHD more efficient/streamlined (web portal and ELR, etc.). • Increase social media outreach to more diverse populations.

Key Idea 10.1.3	The System has the necessary resources (e.g. financial, technological, physical (facilities), human) to perform and sustain public health activities. Does the system: *Have the technology that meets privacy/security standards and the capability/ capacity to support its public health responsibilities? Have the financial resources to support and sustain the public health laboratory workforce, technological infrastructure, etc.? Utilize partnerships to collaborate/share resources to address public health needs? Conduct periodic needs assessments to better understand and strategize how to allocate resources equitably?*
Strengths	• IT infrastructure was improved with COVID-19 funds. Features include improved maintenance capabilities and security standards. • The lab meets regulatory requirements for integrity standards (e.g., Environmental ISO 17025 internation standards are applied to the entire laboratory).
Opportunities for Improvement	• HHD is largely funded by federal grants. The loss of federal funding would incapacitate HHD and result in a vulnerable public health system (e.g., inability to update infrastructure as needs arise). • Implementing ELR throughout HHD programs is limited due to funding. • Loss of trust in the public health discipline after the COVID-19 pandemic.
Other Notes	• None
Parking Lot Issues	• HHD needs to invest in sentinel outreach for IT infrastructure updates.
Key Idea Score	**Moderate**
Action Items	• Apply for more federal grants to sustain public health initiatives. • Expand ELR throughout HHD programs. • Rebuild trust with the community through transparency and public outreach.
Overall Score	**Moderate**

Conclusions and Next Steps

The first L-SIP assessment conducted by HHD was successful in convening stakeholders from various local entities to engage in discussions for the evaluation of the local laboratory system with respect to the 10 Essential Public Health Services and 11 Core Functions of Public Health Laboratories.

Evaluation of the laboratory system was positive. Ratings of all Essential Services ranged from moderate to optimal (Five services received Moderate ratings; Four services received Significant ratings; One service received an Optimal rating). "Minimal" and "No Activity" scores were not observed.

Rating Key

Rating	% Met within Public Health Laboratory System
Optimal	Greater than 75%
Significant	50% to 75%
Moderate	25% to 50%
Minimal	1% to 25%
No Activity	0%- None of the performance described is met

Gaps and areas of improvement in the system were identified. Both were insightful to the overall performance of the lab system. Some of the issues identified were ones already known, while others were novel.

Common themes emerging from discussions include:

- The need for improved communication among partners (e.g., results reporting, data sharing of disease trends, data sharing across partner systems, sharing of stakeholder contact information, website development so that it provides useful information, etc.).
- The need for improved procurement processes since current practices are detrimental to the success of the laboratory system.
- Staff development and retention efforts (e.g., training opportunities, compensation, defined career ladder).

HHD will develop an advisory or strategic planning team to address the findings of the L-SIP assessment and monitor the progress of quality improvements. Although action items for each area of improvement were suggested in the Results section of this report, the committee may choose to change the proposed improvements. The committee will be

comprised of both HHD staff from various programs and stakeholders. The finalized L-SIP report will be shared with participants via the HHD laboratory website and email, as will the outcomes of the improvement phase once completed.

L-SIP post-survey results indicate overall satisfaction of the assessment process (Appendix 3). Partners unanimously (100%) voted that the L-SIP assessment was a helpful tool and process, and 92% of participants stated that they would participate in this event again.

System partners enjoyed the opportunity to highlight key issues and contribute to potential solutions. Many stakeholders were glad for the opportunity to meet each other for the first time. Participants felt that there was a good representation of stakeholders and appreciated the opportunity to understand partner strengths and weaknesses and how to close the gap both internally and externally.

Completion of the first L-SIP will serve as a documented baseline for ongoing quality improvement efforts in the local laboratory system with respect to standards for public health systems and laboratories. HHD looks forward to future collaborations with partners to address findings, implement quality improvements, and host future assessments to strengthen the local public health laboratory system and to advocate for the invaluable role of the public health laboratory.

References

APHL Laboratory System Improvement Program User Guide, January 2023.

City of Milwaukee Health Department Laboratory System Improvement Program. Assessment Report, May 10, 2018.

Ten Essential Public Health Services (2020 Revision).

The Core Functions of Public Health Laboratories, v 4.0, March 2024.

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- The Association of Public Health Laboratories (APHL) and Bertina Su for the support, training, event resources, and funding provided for the successful completion of the laboratory's first L-SIP.

- Genie Davis (Arkansas - Glen F. Baker Public Health Laboratory), Caitlin Gallardo-Sebti (Colorado State Public Health Laboratory), and Timbreah Henderson (Georgia Department of Health), for their excellence in facilitating the breakout sessions.

- Participants and volunteers for their willingness to foster improvements in performance/services and build stronger partnerships for continuous quality improvement of the local Public Health System.

Appendix 1- Participant List

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Appendix 2- L-SIP Agenda

LABORATORY SYSTEM IMPROVEMENT PROGRAM| AGENDA

PROGRAM/DIVISION/AREA: Houston Health Department Bureau of Laboratory Services

PURPOSE: Laboratory System Improvement Program (L-SIP)

DATE: August 6, 2024

TIME: 7:30 am to 4:30 pm

LOCATION: Sunnyside Multi-Service Center (4410 Reed Road, Houston, TX 77051)

HHD MISSION: The mission of the Houston Health Department is to work in partnership with the community to promote and protect the health and social well-being of Houstonians and the environment in which they live.

AGENDA ITEMS	TIME	LOCATION
Registration	7:30 to 8:15 am	Lobby
Light Breakfast / Snacks	7:30 to 8:15 am	Auditorium
Welcome / Introductions - Roger Sealy – Assistant Director - Dr. Meilan Beilby – Laboratory Director Overview of Assessment Day - Facilitator 1	8:15 to 9:15 am	Auditorium
Plenary: - Essential Service (ES) #2: Investigate and Diagnose Health Problems	9:15 to 10:15 am	Auditorium
BREAK	**10:15 to 10:30 am**	
Breakout Sessions		
• Group A – ES #1: Monitor Health	10:30 to 11:30 am	Classroom 2126
• Group B – ES #9: Improve and Innovate Public Health Functions		Classroom 2127
• Group C – ES #8: Build and Support Workforce		Multi-Purpose Rm 2133

Appendix 2- L-SIP Agenda (continued)

LUNCH (provided)	11:30 am to 12:30 pm	Auditorium
Breakout Sessions		
• Group A – ES #7: Assure Equitable Access to Health Services	12:30 to 1:30 pm	Classroom 2126
• Group B - ES #10 Build and Maintain Infrastructure		Classroom 2127
• Group C - ES #4: Strengthen, Support, and Mobilize Partnerships		Multi-Purpose Rm 2133
BREAK	**1:30 to 1:45 pm**	
Breakout Sessions		
• Group A - ES #3: Inform and Educate	1:45 to 2:45 pm	Classroom 2126
• Group B - ES #5: Create, Champion, and Implement Policies and Plans		Classroom 2127
• Group C - ES #6: Utilize Legal and Regulatory Actions		Multi-Purpose Rm 2133
BREAK	**2:45 to 3:00 pm**	
Summary, Evaluation, and Next Steps - Facilitator 1	3:00 to 4:30 pm	Auditorium
Adjourn	4:30 pm	

Appendix 3- Summary of Post-Assessment Survey

	Poor		Average		Superb
Unity of Meeting	**1**	**2**	**3**	**4**	**5**
State objectives of meeting were met			12%	50%	38%
Dialogue was useful			7%	44%	49%
I support the efforts being made			4%	40%	56%
Next steps are clear		15%	31%	31%	23%
Meeting was a good use of my time		4%	22%	41%	33%
Meeting Arrangements					
Advanced notice of the meeting			7%	30%	63%
Meeting room accommodations			4%	22%	74%
Advance materials for meeting were useful		3.5%	3.5%	37%	56%
Advance materials were received with time to review		4%	7%	30%	59%
Flow of meeting					
Started on time				33%	67%
Clear objectives for meeting		7%	11%	26%	56%
Agenda followed or appropriately amended				33%	67%
Facilitation was effective				42%	58%
The “right” people were at the meeting			19%	40.5%	40.5%
				Yes	**No**
Would you participate in this process again?				**92%**	8%
Was this a helpful tool and process?				**100%**	
Number of Participants (of 45 that registered)					39
Completed Surveys					27

-Continued on next page.

What worked?

- Break out session format. Built in breaks. Having dedicated note takers.
- The time allowed for each section/discussion worked.
- Good representation of stakeholders.
- Facilitators helped guide discussions.
- It was helpful to go through the first service as a group.
- Identify the issues and everyone makes recommendations for a solution.
- More regional meetings like this.
- Data sharing.
- The facilitation, guide, and voting tools worked very well.
- There was great discussion.
- Onsite lunch and snacks kept us here on-task.
- Communication between different entities.
- Good interaction between HHD and clients.
- I got to meet people I have been talking to on the phone for a long time.
- Communication amongst partners to establish the need to improve lab systems.
- Understanding partner strengths/weaknesses and how to close the gap internally/ externally.
- I liked the fact that this was a quick assessment and not drawn out for weeks/months.
- I enjoyed the embrace of an open dialogue.
- The event encouraged us to share opinions.
- It was great to hear/learn from everyone in different departments.
- Size of group was good.
- The time/schedule was appropriate.
- Recapping, giving examples.
- We learned about the process of finding out the areas to improve very early.
- The discussions about policy were very good and insightful.
- Being able to learn/explore the strengths/weaknesses when working with hospitals, first responders, and community orgs regarding a public health emergency.
- Discussion points and ideas.

What could be improved?

- Narrow the focus of the questions/topics.
- Share examples from other jurisdictions.
- Less topics should be discussed.

- It would be interesting if questions were provided to stakeholders beforehand. This would allow everyone to think through the questions and be better prepared during discussion.
- Some partners had more input because they regularly participate in the system, while it was clear that others didn't have enough experience to offer suggestions.
- Some of the topics did not apply or overlapped so there were limited opportunities for unique feedback.
- Include discussion on action items and who could be involved in improvement process.
- Make sure the right audience is present and slim down the time a bit.
- Advance understanding of meeting purpose.
- Clear examples of discussion expectations.
- Shorter time blocks for breakout sessions.
- The objectives could have been made clearer for those who do not deal with the lab or other labs regarding their processes and procedures.
- More time allowed for discussions.
- A larger variety of guests net time.
- The initial presentation contained the objectives and system chart. It would have been helpful to have that information available throughout the meeting.
- In the larger group, people mention who they work for. It was diverse group, it's helpful to know others' perspectives- Private/ Public/ Academia/ Public Health.
- More people perform/test/communicate with patients and have patient perspective.
- Being more in the loop, some divisions are part of HHS but not interacted with.
- Involve more groups.

Overall Comments

- Great forum to start program improvement discussions. Will improvements be implemented is the question. How/what are the next steps to effective change.
- I think the L-SIP did a good job at giving a big picture of entire system. It also identified system issues like procurement that affect multiple departments/ partners within COH.
- Continue to improve communication process.
- Very well prepared and facilitated event.
- Great discussions and moderators.
- I don't think I personally had enough knowledge and/or expertise to contribute.
- I would participate if the objective was clear and what was expected of me. It was helpful for those who work directly with the lab.
- I appreciate that this was a 1-day exercise. Looking forward to the outcomes/ follow-up.
- Great ideas for improvement/success within partners and improvement of communication.
- Very informative process - do not see much to improve.


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