

FINAL REPORT SUMMARIZING THE
MINNESOTA DEPARTMENT OF HEALTH

Laboratory System Improvement Program (L-SIP) Assessment

Held on June 15, 2010

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Introduction

On Tuesday June 15, 2010, the Minnesota Public Health Laboratory conducted a day-long Laboratory System Improvement Program (L-SIP) assessment as part of a national initiative of the Association of Public Health Laboratories. The focus of the L-SIP assessment was the Minnesota Public Health Laboratory System, which includes all partners that contribute to the State’s ability to meet the laboratory needs for assuring the health and well-being of all Minnesotans. The assessment has been effective when used in other states to identify, troubleshoot, and ultimately mitigate gaps in the state public health laboratory system, with the ultimate goal of continuous quality improvement.

Impressions of Process

The assessment day was structured in a manner consistent with recommendations of the Association of Public Health Laboratories (APHL). Participants first met collectively and were provided orientation through a guiding power point presentation. The participants also worked through an assessment of one essential service of public health and had an opportunity to ask questions about the format and process. Participants were then divided into three smaller breakout groups. Each group would assess three additional essential services, resulting in assessment of all ten essential services of Public Health.

While MDH followed the APHL recommended assessment approach in general, there were some significant differences that provided unique challenges and opportunities. First, unlike the recommended approach of utilizing smaller break out groups, due to the number of stakeholders attending the assessment, MDH utilized larger groups of over 20. While this made consensus building slightly more challenging, it offered an opportunity to hear and synthesize information from a broad range of stakeholders in the state public health laboratory system.

Second, it quickly became apparent that there were several “domains” of the public health laboratory system that overlapped, but also contained distinct differences within the key indicators and ideas. These domains can be characterized as “clinical,” “environmental,” and “newborn screening.” This phenomenon caused some difficulty in the voting. For example, participants frequently noted that for “clinical” the system was “optimal” while for environmental it was “minimal.” This caused some difficulty and discrepancies in voting.

Third, with the larger number of individuals within each break out session, there was a tendency to regress to the mean. Extreme, or outlier, votes mitigated to average with discussion. Many participants maintained their comments, but would change their vote to a more common answer.

Fourth, it was helpful that MDH received a subsequent planning grant to develop a map of the current system and develop recommendations for an ideal system. This next phase allowed participants to understand their votes were impressions and a first step in a broader initiative to understand the system and complexities through a mapping process.

Emergent Themes

Participants in the L-SIP assessment worked collectively to assess Minnesota’s Public Health Laboratory System against national model standards developed under each of the ten essential services of Public Health. The results of the L-SIP assessment were synthesized below and provide priority next steps for improvement as well as key themes that emerged under each of the ten essential public health services discussions. An overarching theme that emerged throughout the assessment was that although the Minnesota Public Health Laboratory System has many strengths, the following steps could sustain and improve the system for the future:

- Inventory stakeholders and services in the system and identify gaps;
- Formalize the state laboratory system, clarifying roles and responsibilities;
- Once the system is formalized, engage in ongoing quality improvement processes, including regular assessments with clear follow up actions and accountabilities;
- Establish clear and effective communication across the system;
- Assure that the system maintains “forums” that foster collaboration and innovation, such as a research committee; and
- Promote the state public health laboratory system and career advancement for laboratory professionals.

A scoring analysis that rates activity levels under each model standard is as follows:

Activity	Essential Public Health Service									
	1	2	3	4	5	6	7	8	9	10
Optimal	77.7	89.0								
Significant			55.7	67.0	72.5	66.8	67.0	55.5		
Moderate									44.3	39.1
Minimal										
No										

Pre- and Post-Assessment (See Appendix B for Pre and Post Assessment Questions)

Participants were asked to complete a pre-assessment and post-assessment that measured basic knowledge of the state public health laboratory system as well as self-reported level of understanding of concepts within the system. Fifty two participants completed a pre-test and 47 participants completed a post-test.

Questions 1-4 were knowledge based, with factual information taken directly from the PHL manual. The number correct increased for questions 1-3, but did not for question 4, as most got it correct in the pre-test. There was a substantial increase in the total number correct from the pre-test (n=8) and post-test (n=35).

Pre Test

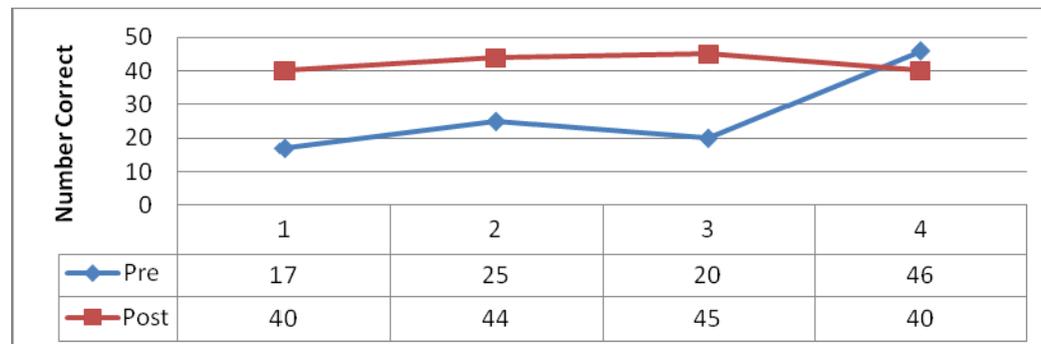
	Total	Correct N	Correct %	Incorrect N	Incorrect %
Question 1	52	17	33%	35	67%
Question 2	52	25	48%	27	52%
Question 3	52	20	38%	32	62%
Question 4	52	46	88%	6	12%

	0	1	2	3	4
N Correct	1	17	19	7	8

Post Test

	Total	Correct N	Correct %	Incorrect N	Incorrect %
Question 1	47	40	85%	7	15%
Question 2	47	44	94%	3	6%
Question 3	47	45	96%	2	4%
Question 4	47	40	85%	7	15%

	0	1	2	3	4
N Correct	0	1	5	6	35



Questions 5-8 were self-report, using a likert scale format and were attitudinal in nature. Participants were asked to rate their level of understanding of the following areas using the following scale: 1 = Low level of understanding; 2 = Moderate level of understanding; 3 = High level of understanding.

5. The general purpose of a public health laboratory system.
6. The 11 core functions of a state public health laboratory.
7. Your (or your agency's) role in a public health laboratory system.
8. The difference between a public health laboratory and a public health laboratory system.

Participants self-rated level of understanding significantly increased from the pre-test (scores of 2%-35%) to the post-test (scores of 43%-76%).

Pre Test

	1	%	2	%	3	%
Question 5	4	8%	39	81%	5	10%
Question 6	31	65%	17	35%	1	2%
Question 7	6	13%	24	50%	17	35%
Question 8	12	25%	27	56%	9	19%

Post Test

	1	%	2	%	3	%
Question 5		0%	17	37%	29	63%
Question 6	2	4%	24	52%	20	43%
Question 7	2	4%	18	39%	26	57%
Question 8		0%	11	24%	35	76%

Question 9 assessed a participant's initial accuracy on the perceptions of a state public health laboratory system. The vast majority of the self-reported accuracy of initial perceptions was moderately accurate.

Post Test

	1	%	2	%	3	%
Question 9	2	7%	25	93%	0	0%

Evaluation

In addition to the pre- and post-assessments, MDH conducted an evaluation of the assessment and implementation. The following represents a summary of the results of the evaluation:

Utility of Meeting:	Yes	No
Stated objectives of meeting were met	44	0
Dialogue was useful	44	0
I support the efforts being made	44	0
Next steps are clear	32	10
Meeting was a good use of my time	44	1

Flow of Meeting:	Yes	No
Good flow and timing of work throughout the day	44	1
Clear objectives for meeting	42	2
Facilitation was effective	43	1
The "right" people were at the meeting	34	7*

* Comments reflected the MDH epidemiology was under-represented

Next Steps

The L-SIP assessment process provides a strong foundation for future efforts to improve the state public health laboratory system. To this end, the Minnesota Public Health Laboratory received a grant to continue improvement efforts started under the L-SIP assessment process. Under the grant, a Design Group will be established and will meet three times between September 2010 and January 2011 to use the L-SIP assessment information to develop a blue print for an ideal public health laboratory system for Minnesota and establish an implementation work plan. The Design Group is comprised of broad representation and perspectives from all components of the public health laboratory system.



**LABORATORY SYSTEM
IMPROVEMENT PROGRAM (L-SIP)
ASSESSMENT**

**SYNTHESIS OF RESULTS OF
L-SIP ASSESSMENT
HELD ON, JUNE 15, 2010**

EXECUTIVE SUMMARY

BACKGROUND: On Tuesday June 15, 2010, the Minnesota Public Health Laboratory conducted a day-long Laboratory System Improvement Program (L-SIP) assessment as part of a national initiative of the Association of Public Health Laboratories. The focus of the L-SIP assessment was the Minnesota Public Health Laboratory **System**, which includes all partners that contribute to the State's ability to meet the laboratory needs for assuring the health and well-being of all Minnesotans. The assessment has been effective when used in other states to identify, troubleshoot, and ultimately mitigate gaps in the state public health laboratory system, with the ultimate goal of continuous quality improvement.

OVERARCHING ASSESSMENT PROCESS AND HIGHLIGHTS: Participants in the L-SIP assessment worked collectively to assess Minnesota's Public Health Laboratory System against national model standards developed under each of the ten essential services of Public Health. The results of the L-SIP assessment are synthesized below and provide priority next steps for improvement as well as key themes that emerged under each of the ten essential public health services discussions. A scoring analysis that rates activity levels under each model standard is also provided under separate cover. An overarching theme that emerged throughout the assessment was that although the Minnesota Public Health Laboratory System has many strengths, the following steps could sustain and improve the system for the future:

- Inventory stakeholders and services in the system and identify gaps;
- Formalize the state laboratory system, clarifying roles and responsibilities;
- Once the system is formalized, engage in ongoing quality improvement processes, including regular assessments with clear follow up actions and accountabilities;
- Establish clear and effective communication across the system;
- Assure that the system maintains "forums" that foster collaboration and innovation, such as a research committee; and
- Promote the state public health laboratory system and career advancement for laboratory professionals.

NEXT STEPS: The L-SIP assessment process provides a strong foundation for future efforts to improve the state public health laboratory system. To this end, the Minnesota Public Health Laboratory has applied for and received a grant to continue improvement efforts started under the L-SIP assessment process. Under the grant, a **Design Group** will be established and will meet three times between September 2010 and January, 2011 to use the L-SIP assessment information to develop a blue print for an ideal public health laboratory system for Minnesota and establish an implementation work plan. The follow up improvement initiative will be enriched if the Design Group has broad representation and perspectives from all components of the public health laboratory system. Thus, your participation would be greatly appreciated.

If after reviewing the results of the L-SIP assessment you are interested in participating as a member of the Design Group, please contact Maureen SullivanMDH:Maureen.Sullivan@state.mn.us.

ESSENTIAL SERVICE # 1: MONITOR HEALTH STATUS TO IDENTIFY COMMUNITY HEALTH PROBLEMS	
INDICATOR 1.1: SURVEILLANCE INFORMATION SYSTEMS	
Score: 100.0	
PRIORITY NEXT STEPS	KEY THEMES
<ul style="list-style-type: none"> • Preserve current strengths – keep pushing the bar (high priority) • Gold standard is here : promote and communicate that to the whole system so that interaction occurs within the state (high) • Increase scope of collaboration between state and local levels (high) • Develop a Joint Information Center to assure clear, consistent messages (high) • Clarify CDC role – make sure PH and clinical do not interact with CDC completely independently • Evaluate other surveillance systems and consider partnerships and improvements • Incorporate formal/systematic needs assessment, gap analysis, and follow-up via quality assurance/improvement program (high) • Develop policies and procedures for specimen storage and use (i.e., bio-monitoring work plan) • Continue to obtain isolates • Consider the impact on all partners of non-culture methods on disease surveillance • Assure knowledge of users on test capability (sensitivity, specificity, decision tiers) • Provide greater access to data registry of diseases and patterns • Assure staff capacity to implement existing and new surveillance systems 	<ul style="list-style-type: none"> • We're great but...
INDICATOR 1.2: MONITORING OF COMMUNITY HEALTH STATUS	
Score: 55.4	
PRIORITY NEXT STEPS	KEY THEMES
<ul style="list-style-type: none"> • Assure sustainability of existing strong programs and establish advocacy process across system partners to achieve sustainability (including protecting against privacy claims) 	<ul style="list-style-type: none"> • Great but..... • Private well, pesticide, and brownfield testing issues and meth houses problematic • A few surveillance systems exist, lab

<ul style="list-style-type: none"> • Establish stronger and less territorial coordination across state agencies that will assure implementation of model standards. (Barriers: Conflicting agency missions, legislative) • Get people on board - raise knowledge and awareness of need for monitoring community health status (high) • Develop programs to track risk factors for chronic disease (NHANES) and create a registry to track connections • Partner with health plans to ID ways to collect/aggregate data (chronic disease) • Establish testing standards to include parent and child compounds • Address “threat” of non-culture • Continue to develop systems for emerging pathogens • Address/study future needs: link toxins to diseases, genetics, gene/environment interactions, identify vulnerabilities relative to bio terrorism • With respect to information systems, encourage self-assessment of core functions using best practice tools and conduct survey of system regarding electronic transfer and use of information • Establish common vision for information systems use and interoperability (high) • Survey the system to assess readiness for exchange and create system wide agreements and policies for exchange of information (high) • Establish plan for implementation of HIT vision; achieve interoperability and connect to other states and CDC 	<ul style="list-style-type: none"> • system not greatly involved • Standards and technology exist but <10% of labs meet standards of vocabulary/ transmission
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ESSENTIAL SERVICE #2: DIAGNOSE AND INVESTIGATE HEALTH PROBLEMS IN THE COMMUNITY

INDICATOR 2.1: APPROPRIATE AND STATE OF THE ART TESTING
Score: 100.0

PRIORITY NEXT STEPS	KEY THEMES
<ul style="list-style-type: none"> • The state system needs to define roles and manage expectations around testing (immediate need) • MDH should analyze MN emergency response compared to benchmarks; 	<ul style="list-style-type: none"> • Tiered testing system in place so that the state and federal government can support counties and other small labs • Good relationships between the lab and law enforcement and emergency

other states or federal systems (immediate need)	<p>response communities</p> <ul style="list-style-type: none"> Lack of system for assessing the quality of the overall system
INDICATOR 2.2: COLLABORATION AND NETWORKS	
Score: 100.0	
PRIORITY NEXT STEPS	KEY THEMES
<ul style="list-style-type: none"> Involve more partners in planning and exercising emergency and surge plans (high priority) MDH should foster more partnerships with the public safety community (low priority) MDH should improve education to stakeholders in the laboratory system (low priority) 	<ul style="list-style-type: none"> Some lack of awareness about the laboratory system's involvement with investigation and emergency response There have been a number of demonstrations of the laboratory system planning and response to emergencies within the last few years Lack of communication and resources in greater MN due to lack of funding dedicated to greater MN
INDICATOR 2.3: CONTINUITY OF OPERATIONS PLAN AND SURGE CAPACITY	
Score: 67.0	
PRIORITY NEXT STEPS	KEY THEMES
<ul style="list-style-type: none"> The state system should define additional redundancies/layers for surge logistics and operations (immediate) The system should work to improve emergency response communications throughout the state (low) 	<ul style="list-style-type: none"> H1N1 response was adequate and "just in time" given the resources, but more planning and additional surge capacity is needed Surge capacity is logistically, financially, and politically complicated and difficult to plan for If the laboratory system has well defined plans and roles established in advance, the system will likely respond more effectively to public health emergencies Regulatory and legal considerations cause barriers to ideal emergency response
ESSENTIAL SERVICE #3: INFORM, EDUCATE, AND EMPOWER PEOPLE ABOUT HEALTH ISSUES	
INDICATOR 3.1: APPROPRIATE AND STATE OF THE ART TESTING	
Score: 67.0	
PRIORITY NEXT STEPS	KEY THEMES
<ul style="list-style-type: none"> Develop a system for outreach to the general public and include community interactions (e.g. MDH fair booth, speaker forums). Need to develop a mechanism to inform passive people about the information available to them (high) 	<ul style="list-style-type: none"> Formal functions (e.g. MLS, newsletters, press release) for communication with partners. Proactive approach for capabilities (e.g. PTs samples) rather than reactive.
INDICATOR 3.2: PUBLIC INFORMATION	
Score: 67.0	

PRIORITY NEXT STEPS	KEY THEMES
<ul style="list-style-type: none"> • Develop guidelines, standard operating procedures for the environmental lab system needs and provide to stakeholders (e.g. sample field collectors, handling and submittal)(high) • Define day-to-day operations and procedures for all aspects of the sample collection and submittal. Provide the information to all stakeholders with the information in a usable fashion (accurate and in both electronic and paper formats) Model: The emergency response and preparedness program • Increase and formalize education/outreach of the general public in non-emergency situations and the role the public health system (e.g. in science, health issues, emergency preparedness and legislative interests) • Market the public health laboratory and its services (high) • Host a media day and tour of the public health laboratory 	<ul style="list-style-type: none"> • Testing of complicated samples (e.g. wells and H1N1) and how and who communicated the information.
INDICATOR 3.3: EDUCATION Score: 33.0	
PRIORITY NEXT STEPS	KEY THEMES
<ul style="list-style-type: none"> • Collaborate with stakeholders (environmental, agriculture and MPCA) to develop and implement environmental (day-to-day) training sessions (e.g. data review, sample collection) • Build and formalize the educational outreach programs and identify contact personnel (e.g. speakers list). 	<ul style="list-style-type: none"> • Education has fallen off radar especially from an environmental aspect. Example: environmental training; willingness to collaborate and brainstorm was very helpful and useful.
ESSENTIAL SERVICE #4: MOBILIZE COMMUNITY PARTNERSHIPS TO IDENTIFY AND SOLVE HEALTH PROBLEMS	
INDICATOR 4.1: CONSTITUENCY DEVELOPMENT Score: 67.0	
PRIORITY NEXT STEPS	KEY THEMES
<ul style="list-style-type: none"> • Formalize the system (high) • Create a system road map for internal/external systems to show stakeholder roles and partnership needs. Map current system and ideal system to identify and address gaps (high) 	<ul style="list-style-type: none"> • Communication silos; Communication system • Parts of the system are using the feedback differently and not as effectively • H1N1 response/communication was confusing because of the number and

<ul style="list-style-type: none"> • Assure senior level management meetings to convey information at all levels (high) • Once system is formalized, ensure communication and actions/active participation in system (high) • Improve the communication system to relay and communicate to all parts of the system's response. There are current effective communication models in action that might be incorporated in other areas (e.g. Emergency Preparedness and the epidemiology sections) 	<p>types of communications received from MDH and CDC</p> <ul style="list-style-type: none"> • Formal vs. informal systems • Models are out there • Knowledge of lab • MOUs/Agreement (resources redirects) <p>**Roadmap for system partnerships = highest priority, because roadmap will identify gaps.</p>
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INDICATOR 4.2: COMMUNICATION

Score: 67.0

PRIORITY NEXT STEPS	KEY THEMES
<ul style="list-style-type: none"> • Improve communication plans and information with the number and types of stakeholders and the current systems that exist (e.g. MLS and Health alert) • Formalize the process for conducting business (between agencies or systems) • Ensure that system communication goes in both directions (e.g. press releases are beneficial; also offer technical and timely communication to stakeholders/scientific community) 	<ul style="list-style-type: none"> • There is a lack of knowledge about the number and types of stakeholders within the collaborations and the systems • The process between agencies is informational and has minimal communication • Assure communicating both up and down the chain to ensure the stakeholders communicate in both directions

INDICATOR 4.3: RESOURCES

Score: 67.0

PRIORITY NEXT STEPS	KEY THEMES
<ul style="list-style-type: none"> • Formalize the communication system to promote or model the relationships between stakeholders and how they are specifically involved (i.e. sitting at the table versus driving the response). Identify gaps within the system and make sure it is not who you know but the role or the service to contact (high) • Take an inventory of communication channels and determine the lab system as it relates to other systems vs. the PHL system in general and roadmap the stakeholders and their current communication vehicles (high) • Collaborate with lab and other information sources • Evaluate the system to ensure it is 	<ul style="list-style-type: none"> • Identified the available resources and their role: website, health alert, press releases, MLS alerts, emerging pathogens notices and newsletters and list serve. • The system needs to be defined and ensure that the communication is at all levels. • The over-abundance of information and the flow of communication through websites. • Lab is under resourced (technical expertise, lack of money, good job leveraging); grants are limited. • Redundancy of communication and the need to ensure the communications are received (instead of assuming).

<p>timely and effective and working for all stakeholder categories (high)</p> <ul style="list-style-type: none"> • Increase sharing resources with “for” and “non” profits • Increase participation within stakeholder relationships by building on the lack of access to resources. • Develop cooperative grants and evaluate needs w/n system 	
<p>ESSENTIAL SERVICE #5: DEVELOP POLICIES AND PLANS THAT SUPPORT INDIVIDUAL AND COMMUNITY HEALTH EFFORTS</p>	
<p>INDICATOR 5.1: ROLE IN LABORATORY RELATED POLICY MAKING Score: 83.5</p>	
<p>PRIORITY NEXT STEPS</p>	<p>KEY THEMES</p>
<ul style="list-style-type: none"> • Improve translation of lab data for public consumption • Work to promote the image of the laboratory system; a lab spokesperson 	<ul style="list-style-type: none"> • Collaboration is good for emergency preparedness planning and policy • Issues with translating lab data to the general public because of lab policies • MDH has held ground on evidence based policies in the face of political pressure • Difficult for PH professionals to effectively present data to public/legislators • Lack of formal assessment and analysis for getting input from communities on lab policy development
<p>INDICATOR 5.2: PARTNERSHIPS IN PUBLIC HEALTH PLANNING Score: 67.0</p>	
<p>PRIORITY NEXT STEPS</p>	<p>KEY THEMES</p>
<ul style="list-style-type: none"> • Establish routine way to continue gathering input from partners and the public (immediate) • Educating system stakeholders about how they can get involved in making policy (medium) 	<ul style="list-style-type: none"> • Advisory groups may not effectively represent community interests • L-SIP brought together a diverse group of partners and is a good first step • Differences in partner perception of the level of collaboration across multiple laboratory disciplines • Success in this area is demonstrated in emergency preparedness policy and planning
<p>INDICATOR 5.3: DISSEMINATION AND EVALUATION Score: 67.0</p>	
<p>PRIORITY NEXT STEPS</p>	<p>KEY THEMES</p>
<ul style="list-style-type: none"> • Identify what can be done to focus on improving input from smaller labs (low) • Improve presenting data to promote the relevance of data (high) 	<ul style="list-style-type: none"> • System has workgroups, but needs to improve how these groups get input to make decisions • MDH does a good job using website to disseminate plans and policies • Small organizations may be left out of

	planning and policy because they don't have sufficient staff resources to fully participate
ESSENTIAL SERVICE #6: ENFORCE LAWS AND REGULATIONS THAT PROTECT HEALTH/SAFETY	
INDICATOR 6.1: REVISION OF LAWS AND REGULATIONS Score: 67.0	
PRIORITY NEXT STEPS	KEY THEMES
<ul style="list-style-type: none"> Identify who owns/represents the "system" (high) MDH should engage partners similar to workgroup for MSRA (low) 	<ul style="list-style-type: none"> Organizations are motivated by political and regulatory environment System works by "happenstance" because of the impact laws have on the work of people within it Organizations review laws and rules, lab system does not review laws and rules Federal laws are not reviewed by the system
INDICATOR 6.2: ENCOURAGE COMPLIANCE Score: 83.5	
PRIORITY NEXT STEPS	KEY THEMES
<ul style="list-style-type: none"> Regulatory and accrediting bodies should improve technical assistance, consultation, and training (immediate) 	<ul style="list-style-type: none"> Lack of knowledge of training and enforcement of laws and rules Lack of HR and funding resources to encourage compliance More problems with training/compliance for smaller facilities MDH and large institutions (Mayo) provide training Issues with trust regarding separation of education and enforcement Perception that labs in the state are complying with rules and laws
INDICATOR 6.3: ENFORCEMENT OF LAW AND REGULATIONS Score: 50.0	
PRIORITY NEXT STEPS	KEY THEMES
<ul style="list-style-type: none"> Define IAA (Inter Agency Agreement) between MDH and MPCA to address chronic environmental quality issues in labs (low) 	<ul style="list-style-type: none"> Regulatory and accrediting bodies put most of their resources into enforcement Issues for small facilities to comply Government labs are held to a different standard than private lab MDH does a good job with resources, but more resources are needed Difficult for organizations that have a shared role as enforcer and educator Difficult for facilities that need to comply but don't have adequate education

	<ul style="list-style-type: none"> • SPH laboratory acts like an island • There are chronic environmental quality problems across all labs and the SPH lab should be a leader in addressing them
ESSENTIAL SERVICE #7: LINK PEOPLE TO NEEDED PERSONAL HEALTH SERVICES AND ASSURE THE PROVISION OF HEALTH CARE WHEN OTHERWISE UNAVAILABLE	
INDICATOR 7.1: AVAILABILITY OF LABORATORY SERVICES Score: 67.0	
PRIORITY NEXT STEPS	KEY THEMES
<ul style="list-style-type: none"> • Expand testing capacity • Create overall advisory/feedback organization that assesses gaps in system and then identifies plans for improvement • Assure that laboratories work together to exchange information electronically • Expand private testing for wells • Clarify role of PH in funding testing 	<ul style="list-style-type: none"> • Numerous examples of successful collaboration between the MDH lab and partners • Communication from MDH is key • Insufficient testing capacity and response during H1N1 • Gaps in well testing for pesticides, organics, rad • PH funding for uninsured • Results reporting – how to move information electronically • Unavailability of Epi to interview FBD outbreak on weekend • Death and worried well in small community – results not timely • Any state agency is “the State” so we all have to get it right
ESSENTIAL SERVICE #8: ASSURE A COMPETENT PUBLIC AND PERSONAL HEALTH WORKFORCE	
INDICATOR 8.1: WORKFORCE COMPETENCIES Score: 83.5	
PRIORITY NEXT STEPS	KEY THEMES
<ul style="list-style-type: none"> • Establish consistent competencies across system (high priority) • Consider licensure of CLS (this has state and national ramifications, but steps can be taken at state level) (high) • Foster partnership between University and MDH to prepare new and provide ongoing training for existing laboratory professionals (i.e., IT, understanding how “system” works)(high) • Clarify and communicate competency/certification requirements for staff/laboratories • Clarify national environmental standards • Borrow from other national/local best 	<ul style="list-style-type: none"> • Current activity high but emerging issue regarding workforce competency re: IT and other abilities (some staff need to know, move, manage, communicate info across the system) • Preparation of new as well as continued development of existing staff • Staff competency in the face of new methods and technologies – emerging science but need assurance of quality--different for clinical and environmental • Recognize that it is not always possible to certify for emerging testing – consensus versus best practice

<p>practices to learn how best to assure workforce competency (high)</p> <ul style="list-style-type: none"> • Establish/address standards for assessing workforce competency • Clarify one, consistent SPHL contact point for communication with partners • Establish system to “validate” new methods and technologies for emerging science, assure quality and if testing is performed on more than one plane, certify results • Establish system to link staff credentials with person actually performing test 	
<p>INDICATOR 8.2: STAFF DEVELOPMENT Score: 50.0</p>	
<p>PRIORITY NEXT STEPS</p>	<p>KEY THEMES</p>
<ul style="list-style-type: none"> • Assure gap analysis - so as training/education needs emerge, they are addressed – for individual organizations and system wide • Provide access to and incentives for continuing education (current system is punitive) • Follow-through on identified staff development needs • Assure approaches for planning, funding, time, and resources for training and collaborate on training when some labs are not at same level as the definitive lab • Establish training that goes beyond competitive barriers 	<ul style="list-style-type: none"> • Include hiring of new staff in model standard
<p>INDICATOR 8.3: ASSURING LABORATORY WORKFORCE Score: 33.0</p>	
<p>PRIORITY NEXT STEPS</p>	<p>KEY THEMES</p>
<ul style="list-style-type: none"> • Increase salaries (high priority) • Offer expanded career pathways (high) • Continue existing workforce initiatives (i.e., HEIP)(high) • Promote awareness of value of laboratory profession and respect for professionals (high) 	<ul style="list-style-type: none"> • Consider from front end as well as retention
<p>ESSENTIAL SERVICE #9: Evaluate effectiveness, accessibility, and quality of personal and population-based health services</p>	
<p>INDICATOR 9.1: SYSTEM MISSION AND PURPOSE Score: 67.0</p>	
<p>PRIORITY NEXT STEPS</p>	<p>KEY THEMES</p>

<ul style="list-style-type: none"> • Conduct an inventory of the “system:”-- Assess/ evaluate the capacity for all private, public and governmental stakeholders for specific testing procedures and services offered for emergency preparedness and technology advancements. Both up (MDH) and across stakeholders (lab to lab) (high) • Assess differences in clinical, agriculture and environmental stakeholders and stakeholder processes and provide <u>inventory of services</u> and the quickest turnaround (e.g. the need for the MLS on the agriculture/food and environmental side of the system). • Identify and communicate the types of laboratories (e.g. sentinel, non-sentinel, private, governmental) that are within the network and what samples can be analyzed within each laboratory and capacity • Communicate the mission and range of services to all stakeholders (e.g. law enforcement, community leaders and general public) • Assure bidirectional communication and procedure for capacity and sample contingency plans. • Once inventoried, formalize the system (e.g. MOU, IAA or emergency assistance compact) between private and government stakeholders for contingency; create templates (MOW, IAA) that are ready for action if they become necessary 	<ul style="list-style-type: none"> • Mission unknown by all stakeholders • Systems connection to MDH and evaluation of targets • Laboratory has an effective system for capacity and evaluating budgets • Communication for emergency preparedness is clear, but the mission and purpose might not be well communicated or understood at all levels • Capacity for environmental and clinical? • Education opportunities on function and capacity of lab/system • Public and private evaluation (limited activity for accessing private lab data). • Use of technology to track if the patient should be moved or if the sample should be sent to lab (i.e. ethylene glycol) <p>Immediate high priority = inventory of systems</p>
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INDICATOR 9.2: SYSTEM EFFECTIVENESS, QUALITY, AND CONSUMER SATISFACTION

Score: 33.0

PRIORITY NEXT STEPS	KEY THEMES
<ul style="list-style-type: none"> • Establish a system for evaluating policy decisions and implementation (i.e. long term assessment of effects) (high) • Systematically use assessments for policy change (high) • Measure exposures and long term health outcomes • Develop assessments to aid in policy development 	<ul style="list-style-type: none"> • Emergency services and evaluation of effectiveness for clinical, but unsure for Ag/Environmental • Secondary and tertiary outcomes from policy development, implementation and intent • There is an informal evaluation in terms of meetings and informal discussions

<ul style="list-style-type: none"> • Foster policy development across food and environmental labs; may want to model the clinical system for communication and emergency response procedures • Develop a formal evaluation procedure for obtaining feedback from stakeholders and formal procedures for implementing feedback; gather feedback and evaluations on all levels (i.e., include clinicians) • Evaluate cost of systems and responses (e.g. MLS evaluation) 	
INDICATOR 9.3: PUBLIC HEALTH LABPARATORY SYSTEM COLLABORATION Score: 33.0	
PRIORITY NEXT STEPS	KEY THEMES
<ul style="list-style-type: none"> • Define measurement criteria for the establishment of informal and formal partnerships/working relationships among stakeholders • Evaluate collaborative mechanisms and explore procedures for formal and informal procedures; determine who will be evaluated, internally and externally 	<ul style="list-style-type: none"> • Laboratory communication between different sections of the lab is not always effective • Evaluation of working relationships is difficult
ESSENTIAL SERVICE #10: RESEARCH FOR NEW INSIGHTS AND INNOVATIVE SOLUTIONS	
INDICATOR 10.1: PLANNING AND FINANCING RESEARCH ACTIVITIES Score: 52.5	
PRIORITY NEXT STEPS	KEY THEMES
<ul style="list-style-type: none"> • Raise awareness and communicate research activities and opportunities (high) • Establish assessment process for research across PHL system to gain understanding of what research opportunities exist and identify opportunities for collaboration (high) • Encourage expansion of lab missions to include and designate a percentage of time for research (high) • Establish mechanism to ensure research funding and encourage system partners to collectively advocate for that funding (i.e., seed money allocated by legislature; fee adjustments; other funding paradigms from private sector) • Ensure grant writing competencies 	<ul style="list-style-type: none"> • Planning and collaboration good • Monitoring activities keep labs so busy it decreases research – missions differ • Lack of awareness

<p>across system partners</p> <ul style="list-style-type: none"> • Foster exploratory discussions among military, education, MDH and other partners within system to identify opportunities for collaboration 	
<p>INDICATOR 10.2: IMPLEMENTATION, EVALUATION AND DISSEMINATION Score: 25.7</p>	
<p>PRIORITY NEXT STEPS</p>	<p>KEY THEMES</p>
<ul style="list-style-type: none"> • Establish a research committee with diverse perspectives and representation (including non MDH reps) (high) • Encourage expansion of lab missions to include and designate a percentage of time for research (high) • Fund the expanded lab mission via seed money, fee adjustments • Develop a clearing house to collect and share information about research opportunities and possibilities for collaboration (high) • Establish a multi-perspective research committee to provide a forum to identify innovations and collaboration opportunities (high) • Collaborate among system partners to advocate for research activity at the legislative level • Improve funding for health in state generally • Develop incentives/ recognition for staff who innovate, research, publish • Increase number of MDH staff as adjunct faculty at U of M 	<ul style="list-style-type: none"> • Research benefits entire state • Relationship between surveillance and research • Barriers are resources, attitudes r/t research • Research committee should extend beyond MDH; similar to Assessment representation

Appendix B: Pre- and Post-Assessment Surveys

**Minnesota Public Health Laboratory Assessment: June 15, 2010—
Pre Assessment Survey**

Please answer the following questions:

- ___ 1. Which is an essential service of public health?
 - a. Ensure transportation to emergency services
 - b. Link people to needed personal health services
 - c. Provide accurate diagnosis and treatment
 - d. All of the above
 - e. Do not know
- ___ 2. Which is a core function of a state public health laboratory?
 - a. Environmental health and protection
 - b. Funding of ancillary services
 - c. Clinic services
 - d. All of the above
 - e. Do not know
- ___ 3. A state public health laboratory **system** includes:
 - a. The state public health laboratory only
 - b. All the organizations and individuals that are involved in or support laboratory testing, whether directly or indirectly
 - c. All private laboratories, transport agencies, epidemiologists that engage in direct laboratory testing
 - d. All of the above
 - e. Do not know
- ___ 4. A state public health laboratory:
 - a. Supports laboratory testing directly
 - b. Provides leadership to develop and promote a state public health laboratory system
 - c. Provides leadership to assure that clinical laboratories that perform public health testing on reportable infectious diseases submit results to the public health surveillance system using national guidelines
 - d. All of the above
 - e. Do not know

Please rate your level of understanding of the following areas using the following scale: 1 =

Low level of understanding 2 = Moderate level of understanding 3 = High level of understanding

- ___ 5. The general purpose of a public health laboratory system.
- ___ 6. The 11 core functions of a state public health laboratory.
- ___ 7. Your (or your agency's) role in a public health laboratory system.
- ___ 8. The difference between a public health laboratory and a public health laboratory **system**.

**Minnesota Public Health Laboratory Assessment: June 15, 2010—
Post- Assessment Survey**

Please answer the following questions:

- ___ 1. Which is an essential service of public health?
- f. Ensure transportation to emergency services
 - g. Link people to needed personal health services
 - h. Provide accurate diagnosis and treatment
 - i. All of the above
 - j. Do not know
- ___ 2. Which is a core function of a state public health laboratory?
- f. Environmental health and protection
 - g. Funding of ancillary services
 - h. Clinic services
 - i. All of the above
 - j. Do not know
- ___ 3. A state public health laboratory **system** includes:
- f. The state public health laboratory only
 - g. All the organizations and individuals that are involved in or support laboratory testing, whether directly or indirectly
 - h. All private laboratories, transport agencies, epidemiologists that engage in direct laboratory testing
 - i. All of the above
 - j. Do not know
- ___ 4. A state public health laboratory:
- f. Supports laboratory testing directly
 - g. Provides leadership to develop and promote a state public health laboratory system
 - h. Provides leadership to assure that clinical laboratories that perform public health testing on reportable infectious diseases submit results to the public health surveillance system using national guidelines
 - i. All of the above
 - j. Do not know

Please rate your level of understanding of the following areas using the following scale:

1 = Low level of understanding 2 = Moderate level of understanding 3 = High level of understanding

- ___ 5. The general purpose of a public health laboratory system.
- ___ 6. The 11 core functions of a state public health laboratory.
- ___ 7. Your (or your agency's) role in a public health laboratory system.
- ___ 8. The difference between a public health laboratory and a public health laboratory **system**.
- ___ 9. From what you've discussed today, how accurate was your initial perceptions of a public health laboratory system?
1=Very Accurate 2=Moderately Accurate 3= Not Accurate

Appendix C: Evaluation Survey

L-SIP ASSESSMENT PROCESS EVALUATION

Thank you for taking a moment to complete the following evaluation. We appreciate your feedback and take your input seriously.

Utility of Meeting:

Stated objectives of meeting were met.....	_____ yes	_____ no
Dialogue was useful.....	_____ yes	_____ no
I support the efforts being made.....	_____ yes	_____ no
Next steps are clear.....	_____ yes	_____ no
Meeting was a good use of my time.....	_____ yes	_____ no

Flow of Meeting:

Good flow and timing of work throughout the day.....	_____ yes	_____ no
Clear objectives for meeting.....	_____ yes	_____ no
Facilitation was effective.....	_____ yes	_____ no
The “right” people were at the meeting.....	_____ yes	_____ no

Comments:

What worked?

What could be improved?

Do you see this as a helpful tool and process? _____ yes _____ no

The Minnesota Department of Health recently received a grant to design an improved state public health laboratory system? Would you be willing to participate in this process between September 2010 and January 2011? If so, please give us your name and email and we will contact you with details. Thank you again for your participation.

Name and contact information
