

***GUIDE
TO
DEVELOPING
LABORATORY
NETWORKS***



CREDITS & TABLE OF CONTENTS

CREDITS

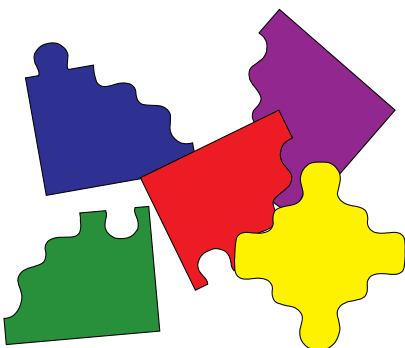
The Wisconsin State Laboratory of Hygiene (WSLH) wishes to thank the members of Wisconsin’s laboratory networks. We could not accomplish any of our network building and surveillance activities without their support.

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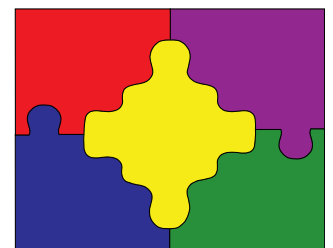
Outreach to partners has been a longtime function of the Wisconsin State Laboratory of Hygiene (WSLH).

Outreach activities have included a guide to specimen collection in the 1950s, workshops for clinicians and laboratorians during the 1960s, publication of the first public health laboratory newsletter in the United States in 1962, vendor and user-group meetings initiated during the 1970s, and annual meetings and data-sharing with virology and mycobacteriology laboratories initiated during the 1990s.

Later in the 1990s, the concept of a statewide laboratory system to support public health needs became firmly established among leadership at the WSLH, driven by the need for a coordinated statewide laboratory response to emergencies. The terrorism events of 2001 were the impetus to transform the concept of a statewide laboratory system into a reality.

Given the unique situation of each state public health laboratory, it may seem presumptuous for one public health laboratory to tell others how to develop laboratory networks. However, it is not our intent to presume knowledge of all circumstances, but rather to share perspectives based on our experiences, lessons learned and, at the very least, advance a discussion of laboratory networks and their importance in public health.

This document is intended to provide step-by-step guidance to aid public health laboratories in the development of networks with clinical microbiology laboratories. While we certainly encourage cover-to-cover reading, we invite readers to pick and choose the information that may be useful from the material provided.



INTRODUCTION

Each state public health laboratory operates within the parameters of its mission and the boundaries of its jurisdiction. Most public health laboratories are not distinct entities, but exist within the organizational hierarchy of the state's public health department. The role, structure and even funding of public health laboratories is so variable that the phrase "If you've seen one public health laboratory, you've seen one public health laboratory" is often used to describe their uniqueness.

Despite the differences among them, all public health laboratories share certain roles and responsibilities, as described in the document "Core Functions and Capabilities of State Public Health Laboratories: A Report of the Association of Public Health Laboratories" (published in 2000).

Among the core functions that relate directly to networks with clinical laboratories are those involving emergencies ("Emergency Response"), outreach ("Partnerships & Communication"), reference testing ("Reference & Specialized Testing"), surveillance ("Disease Prevention, Control & Surveillance"), laboratory data ("Integrated Data Management"), and training ("Training & Education").

The most fundamental role of public health laboratories, as with all laboratories, is to provide laboratory test data. These data, in the form of individual or summarized test results, can be acquired through on-site testing at the public health laboratory or through the collection of test data and samples from other laboratories.

It is in the second of these options – the collection of test data and samples from other sites – that laboratory networks can provide the most concrete benefits to "everyday" public health. To gain access to the data and samples needed for public health programs, public health laboratories must maintain communication with health-care providers and clinical laboratories, where the data and samples originate.

At least as important as the data or sample collection is establishing the public health laboratory as a "liaison" between public health and clinical laboratories. This role enables the public health laboratory to facilitate communications and strengthen relationships between public health and clinical microbiology laboratory staff.



The public health philosophy of “give us the earliest warning of a potential critical result” and the laboratory science approach of “don’t say anything until you have confirmed an unusual result” present a fundamental conflict that can be resolved through ongoing communication.

When retracing the steps in the development of laboratory networks in Wisconsin, it is tempting to mold the activities into a uniform, consistent timeline. In actuality, however, development of laboratory networks in Wisconsin has not proceeded on such a measured course, but in more of a “hop-scotch” pattern. As one would expect, retracing those steps revealed some things that worked well, and some that we would likely do differently now.

Finally, we confess that if we had been required to establish a deliberately planned course, the development of a laboratory network may have proceeded even more slowly than it did in Wisconsin.

There is something to be said for taking advantage of opportunities as they present themselves, especially if you acknowledge early that this will be a “learn as you go” process, and make corrections as needed.

THE SEVEN STEPS

Steps to Building a Statewide Laboratory Network of Public Health and Private Sector Microbiology Laboratories

1. Identify the team who will lead the development of the laboratory network.
2. Define the purpose, preliminary short-term goals, long-term vision, and potential benefits of the network.
3. Develop a broad proposal for your administration.
4. Plot your course.
5. Identify the potential needs and resources for the development of the laboratory network.
6. Make contact with your potential partner laboratories.
7. Select and conduct your network development activities.



You must begin by building the infrastructure to develop the laboratory network. That is what we will discuss in Steps One through Three.

STEP ONE: Identify the team who will lead the development of the laboratory network.

We recommend you identify a team of people to plan and lead the effort. If you rely on a single individual, you are vulnerable to retirement, sickness, vacations, etc., and the lone individual is left without consistently engaged staff with whom to share ideas or tackle problems.

The quality and diversity of ideas will be much greater with the right team members. Although each team member has a specific role, each should be attuned to others' roles and to the "big picture" – no "silos" allowed. Following are team members and roles that we recommend:

◆ **Laboratory Network Coordinator/Laboratory Outreach Coordinator**

This individual will lead the effort and communicate with or coordinate communications with the laboratories. S/he should be a laboratorian with strong people skills, especially communication and listening skills. S/he should be familiar with the diagnostic/clinical laboratory perspective and language, and must be open to others' ideas and creative approaches. This individual should also have a clear understanding of the role of the public health laboratory (in the context of the Core Functions) in carrying out the state's public health priorities. Perhaps most importantly, this individual must have a vision of the fully developed network and be an advocate for it.

◆ **Laboratory Training Coordinator**

The Training Coordinator is a valuable adjunct to the team and resource for the team, but should not be expected to encompass the full responsibilities of a Laboratory Network/Outreach Coordinator. The Training Coordinator may already have contacts with microbiology laboratories that could be useful as you move forward. This individual should have experience in clinical microbiology, so s/he is aware of laboratory issues, can assess the relevance of topics to the clinical laboratorian, and can bring ideas about methods to



STEP ONE

TRUE CONFESSIONS!

Having made these recommendations, we confess that this is not exactly how we started, but how we wish we had started.

We started with two individuals, one of whom was largely responsible for communication with the laboratories, the other for communication with administration.

We quickly added a person who provided a combination of clerical support, information system skills, and general back-up and have sought consultation and support from others as needed.

assess laboratory needs and present learning opportunities. The Training Coordinator also makes arrangements for meetings, teleconferences, workshops, etc., unless delegated to another individual.

◆ Technical Representatives

The team needs the perspective and expertise of representatives in the technical areas of your laboratory to help direct its efforts. These representatives must “buy in” to the concept of a laboratory network and must appreciate the role of the clinical laboratories. These team members provide information to communicate to laboratories, act as faculty for training opportunities, and also provide expertise for survey development.

◆ Liaison to Administration

Success of the effort requires support from the public health laboratory’s administration and/or leadership body. A direct communication line to the laboratory’s leadership should be established. This individual should also communicate with other staff at the public health laboratory to engage them in the effort and establish “buy-in”. In our institution, communications flowed from the Laboratory Network Coordinator to the Communicable Disease Division Director (acting as the liaison to administration) and then to the Laboratory Director. The liaison position could be the Laboratory Network Coordinator if s/he has a direct communication line to administration.

◆ Clerical Support

All of the efforts of the team will require clerical support for meeting minutes, mailings, data entry, database and spreadsheet maintenance, etc. This can be a pool of clerical support staff, but there must be some accommodation to provide continuity and to ensure that there is ownership and follow-through on tasks.

◆ Epidemiologist

(This position may be added after the initial planning and/or could be a consultant to the team.)

An epidemiologist, preferably with a laboratory background, provides a valuable perspective when planning



and implementing the collection of laboratory data for surveillance purposes. This person brings the additional perspective of the needs of the public health system in your state and can advocate for development and use of the laboratory network in epidemiologic studies.

◆ Information Management

(This position may be added after the initial planning and/or could be a consultant to the team.)

A representative who can advise on the systems and capabilities required to manage a database of information gathered from laboratories, from surveys to surveillance data, should also be part of the team. Input from this person will be especially valuable as you seek the most effective mechanisms to communicate with laboratory partners and accumulate and share data. This team member can also advocate for your information systems needs.

It may also be useful to identify colleagues in other states, so that you can share lessons learned, materials, etc. Unfortunately, there is currently no standard title, national listserv or meeting for this purpose, but there is a national listserv and meeting for State Training Coordinators.

A starting point may be to simply contact each state laboratory's State Training Coordinator or microbiology/communicable disease group and ask for contact information of anyone working on communications or networking with clinical laboratories. These contacts could be very valuable resources to share ideas, provide support, and troubleshoot issues.

CHECK YOUR ATTITUDE!

Lesson learned the hard way — Before you contact laboratories, develop a clear view of the role and mission of your public health laboratory in comparison to the role and mission of clinical laboratories.

Get a clear understanding of how your roles mesh; try to understand the reasons for any overlaps.

Recognize the value of the clinical laboratories. Clinical laboratories fill a role that your laboratory likely cannot fill, producing the vast majority of test data and isolates.

Remember that clinical laboratorians are your colleagues, not your adversaries. Check your "attitude" and adjust your perspective accordingly.

We confess that our attitude and perspective were quickly adjusted and the roles of the private sector and public health laboratories, which seem so obvious now, were clarified *during* the development of the laboratory network, not before it.



STEP TWO

STEP TWO: Define the purpose, preliminary short-term goals, long-term vision, and potential benefits of the network.

Don't be frustrated by the documentation – take this opportunity to open your mind to all the possibilities. When you complete this step, you will have the information to move forward and develop your proposals and plans.

One note: the purpose, goals, and vision must be consistent with the mission, vision and plans of your public health laboratory.

Purpose: Laboratory networks should generally fill one or more of four basic functions: communications, training, diagnostic testing, and/or data-sharing. The purpose of your laboratory network can be stated in very broad terms (example one) or can list specific functions (example two).

Example One: The purpose of the XYZ laboratory network is to provide laboratory support for public health needs.

Example Two: The purpose of the XYZ laboratory network is to provide inter-laboratory communications, reference diagnostic testing capabilities, sharing of laboratory data, and laboratory-related training in support of public health needs.

Our laboratory networks started with the purpose of information-sharing (the initial network of virology laboratories) and ensuring a coordinated response to emergencies (the network of Sentinel Laboratories).

In both cases, the purpose and/or the activities related to it have expanded to encompass training, communications, etc.

Preliminary Short-term Goals: You must identify what you hope to accomplish with the laboratory network before you can even define which laboratories to contact and what to tell them.

These are *preliminary* goals, however, because you will adjust them, add to them, and even delete them, as your network develops and as you receive input from your network partners.

TRUE CONFESSIONS!

No, we did not formally and explicitly share the purpose and vision for our networks, but we would if we were starting now.

We did have the purpose and vision in mind and we believe we discussed them, but we didn't formally present it to our partners, except during the formation of the Mycobacteriology Laboratory Network.



What is it you want to accomplish within the next two years? We suggest you establish realistic goals for the two year time frame, with the aim of producing a concrete outcome. The types of goals you set will determine your first steps and your expected benefits.

Short-term goals may be to “establish a communication network”, or “meet with clinical laboratorians and develop a proposed structure for the network”, or “establish a data-sharing plan for selected pathogens of public health importance”.

- One of our initial laboratory networks in Wisconsin was established to “develop a virology reporting network”.

Long-term Vision: In contrast to the short-term goals, we suggest that you “reach for the moon” in describing the long-term vision. This will be your “grand dream” that could help others see the potential of the laboratory network and may help market the network to others.

The vision should motivate you and your colleagues and will ensure that everyone has a parallel, if not identical, view.

Benefits: Next, describe how this network will potentially benefit the clinical laboratories, your public health laboratory, and the public health system. These ideas should all be documented, as you may need to “sell” the network to other laboratories and to budgeting partners.

The short-term goals you have listed will determine the benefits to expect. For example, if one of your goals is to “provide inter-laboratory communications”, a benefit could be “rapid notification to clinical laboratories of outbreaks or other public health events”; or “increased submission of samples and/or data in response to requests”; etc.

- Some of these potential benefits must be concrete, like “an increase in number of isolates of pathogen x submitted to the State Laboratory”, but you can also include some of the less measurable benefits, like “increased collaboration”, “establish the foundation”, etc.
- Note that the concrete benefits also will define the benchmarks you can use to document (and celebrate!) your progress and accomplishments.

HELPFUL HINT!

Face reality – don’t let your short-term goals outpace your capabilities by making promises you can’t keep and setting yourself up for early disappointment or failure.

BRAINSTORM!

One method to capture the vision is to conduct face-to-face meetings with others in your organization or creative thinkers in some of the clinical laboratories and “brainstorm” what each person’s ideal laboratory network would be or do. This vision can be modified later.

LOOKING AHEAD!

Steps Three and Four are very closely related and overlap each other.

You need to develop a preliminary plan to develop budget estimates and the proposal, but you don’t want to invest a large amount of time and detail until you know you have the support of your administration.



STEP THREE

STEP THREE: **Develop a broad proposal for your administration.**

- List the purpose, short-term goals, and vision of the network.
- Describe the potential members of the network – not a detailed list, but a description of the membership, e.g., all microbiology laboratories that perform cultures or all Sentinel Laboratories. It will be useful to name some specific names of laboratories as examples of members to make the description more concrete.
 - Be sure to name the laboratories that are potential members and that may have extensive influence in your state or organization, but also name some smaller laboratories – ***be aware of the politics!***
- Describe the potential benefits of the network – for the clinical laboratories, for the public health laboratory, and for the public health system.
- Include an estimate of the funding and other support required. At this point, you should make it clear that this is a very rough estimate, based on planning so far. Be sure to include the specific personnel involved, estimated personnel time, travel expenses, meeting costs, potential information systems resources, etc.
- After you have shared the proposal with your administration and have their support, a representative of administration should inform your colleagues at the public health laboratory of your plans and keep them informed of your progress. It is important to get the “buy-in” of other staff - you will need them, their expertise, and their support as you proceed.



STEP FOUR: Plot your course.

This is where you lay out your “road map” based on the purpose and goals you already defined for the laboratory network. Your plan should begin by defining the membership and making the initial laboratory contacts, then implementing what you said you wanted to accomplish.

Define the Membership: You already provided a description of the laboratories you would include in your network. Now, define that further – for the short-term goals, do you need to engage all microbiology laboratories, or just those that perform testing in certain subspecialties, e.g., those that perform bacterial culture, mycobacteriology, viral culture, molecular diagnostics, etc.?

If you are selecting laboratories that perform certain subspecialties, e.g., bacterial culture, do you include laboratories that perform blood cultures, enteric cultures, throat cultures,...? Do you include only laboratories that meet the LRN definition of a Sentinel Laboratory? This will define the initial members of your network.

List the Membership: Develop a list of the laboratories that meet your definition for inclusion based on the short term goal. If you are using the LRN Sentinel Laboratory definition, your public health laboratory should already have a listing of these laboratories, which you may be able to get from your laboratory’s Bioterrorism Coordinator or Laboratory Training Coordinator.

Other resources you can use to develop a list are:

- Get a list of hospitals from your state’s hospital association, then contact each to ask if they have a microbiology laboratory, then contact the microbiology laboratory, to determine if they meet the specific criteria you are using.
- Brainstorm with other staff to develop a list.
- Ask the laboratories that you are aware of to identify other laboratories.
- Contact your state’s CLIA program office and ask for a listing – you may be able to define the volume of testing, type of testing, etc.
- Contact the Division of Laboratory Systems at the



STEP FOUR

Centers for Disease Control, where the development of a national database of laboratories is underway.

Identify Contacts within each Laboratory: This can be completed by telephone or by questionnaire/letter.

- Before you start, define which contacts you want – do you want contacts for emergency response, bacteriology, virology, mycobacteriology, molecular diagnostics, training opportunities, or a contact for each of them?
- We recommend you start with one level of contact based on your short-term goals (e.g., emergency response) and gather other contacts when you have a specific need or plan for them.

We suggest gathering name and title, phone, fax, e-mail and mailing address; we also suggest you ask whether their *preferred* method of communication is email or fax.

- Although e-mail may be easiest and fastest for you, we have found that some laboratory staff, supervisors, and managers only check e-mail daily or weekly.

We also suggest at least two contacts for each of the laboratories.

- Many Wisconsin laboratories have listed one person's e-mail and another's fax number for emergency response contacts; some also list a third contact of "microbiology laboratory" with the fax number, in case the first two contacts are not available.

Expectations for Network Laboratories: Now, define what you expect of the laboratories – are they expected to provide reports, isolates, completed surveys? Are they expected to provide training or meeting facilities? Ask for what you need, but remember that the more you ask for that will cost them time or money, the less likely you are to get buy-in. Choose your requests carefully!

Don't forget to include what can be expected of *your* laboratory. Will your laboratory provide reports, meeting or training facilities, funding support, etc.? Arranging meetings, keeping minutes, and all those other tasks can really add up, so be sure to include them.

DECISION POINT!

What level of the laboratory are you going to use as your initial contact?

Our experience has been with the Laboratory Supervisor or Manager, or the "lead bench tech", and then asking them to keep their administration informed.



Define the structure of the network: Is your vision of the network a voluntary collaboration of equal partners, a voluntary collaboration with the State Laboratory at the center, a formal network with contracts or memoranda of agreement or understanding? As the network matures, this structure may need to be redefined to reflect changes in the membership or the environment.

It is important that laboratories are “engaged” and feel a sense of ownership and inclusion in the network. Smaller laboratories should feel that they are equally as important as the large laboratories are to the network and/or the state public health laboratory.

Our network experience has been that of a loose, voluntary collaboration of equal partners, with the State Laboratory as the central driving force, at least in part because the State Laboratory could identify funding and staffing resources. The clinical laboratories that we have been in contact with have been very cooperative and collaborative with no need for formal contracts or memoranda. Establishing formal agreements could cause delays in network development, as the agreements may require legal reviews.

What is your first step? It seems logical that identifying laboratories and contacts at each laboratory is necessary regardless of whether you intend to collect test data, conduct meetings, initiate a communications network, etc.

The preliminary short-term goals you identified previously will determine what your *next* steps will be. Do you need to:

- Conduct a meeting with all or some laboratory representatives?
- Visit some of the key laboratories to build a core group and establish relationships?
- Collect a specific set of data?
- Survey laboratories to identify capabilities and needs?

Some one-on-one contact, taking the initiative to visit laboratories, can provide a real boost in relationship building and sends a signal that you are genuinely interested in their opinions. The steps you select here will determine which of the elements in Step Seven of this guide will be of most use to you.



STEP FIVE

STEP FIVE: Identify the resources needed and available to implement the proposal you developed in Step Three and take the “next step” you identified in Step Four.

This is the point where you provide the details for the next step you will take in developing the network. The details will vary according to the action you have identified in your proposal. Based on the plan and proposal you have developed, what are the logistical needs required to move forward in developing the laboratory network? Do you need:

- Meeting rooms
- Laboratory training facilities and instructors
- Audioconference capabilities
- Messaging capabilities
- Mass mailing and survey capabilities
- Funding for staff and activities
- Website development

What can your organization contribute to the network?

- Can you collate and analyze reports and surveys?
- Can you provide meeting facilities, training facilities, training faculty?
- Can you provide fee-exempt testing?
- Can you provide no-cost specimen transport?
- Can you provide refreshments for meeting or workshop participants?
- Do you have staff who can make meeting arrangements with facilities?
- Do you have the capability to provide a large number of FAX or email messages in a short period of time?
- What Information Technology resources are available or needed?

What are other potential sources for the resources you need?

- Would participating laboratories provide meeting rooms?
- Can you get financial support from grants or vendors?

PLANT THE SEEDS!

Find opportunities to build your constituency by talking about your plans and the network concept to possible network participants, public health partners and agencies, professional organizations, etc.

It is okay not to have everything planned in detail, but share what you can so you “plant the seeds” gradually.

This will also help you to identify contacts and supporters and define what the main questions and concerns will be.

- Can you work with state professional organizations to hold meetings, workshops, presentations, or break-out sessions in conjunction with their meetings?

The following table provides a format you may find useful as you begin this stage of the planning.

EXPECTED NEEDS AND RESOURCES FOR LABORATORY NETWORK DEVELOPMENT ACTIVITIES

Network Function	Potential Logistical Need for Laboratory Network Activities	Status				
		Not Applicable	Available at PHL	Can Acquire	Need to Address	Possible Source
Communications	Group Email Capability		√			
	Blast Fax Capability			√		Commercial
	Laboratory Contacts			√		Laboratory Calls
Data-Sharing	Data Management Staff					
	Information Systems Support					
	Data Receiving -Fax -Electronic					
Training	Teleconference Capability -Quiet Room -Telephone Equipment -Teleconference service provider -Funding					
	Meeting Capability -Facility -Refreshments -Audiovisual equipment -Materials production -Communications -Funding					
	Workshop Capability -Facility -Materials production -Faculty -Communications -Funding -Refreshments					
Reference Testing	Sample Collection Supplies					
	Sample Transport Courier					
	Fee-Exempt Testing					



STEP SIX

DECISION POINT!

Should you begin by contacting all of the laboratories in your network or start with a smaller “focus group” as a test group?

You must decide this based on your readiness and your sense of the receptiveness of the laboratories in your area.

If you are uncertain, select a “test” group to discuss it and develop the approach plan.

STEP SIX: Make contact with your potential partner laboratories.

We recommend a “one-on-one” contact by telephone, which can be followed by an in-person visit. Even if you will be visiting the laboratory in person, you will need to make the phone call to set up an appointment and you will need to explain the purpose of the visit. It may be important to stress that this visit has no regulatory or inspection connotations.

Who is going to make contact and how? The person making the contact from your laboratory will be marketing the network concept and encouraging interest and participation by the laboratory, so this should be the Laboratory Network Coordinator.

If you are planning to send a letter to gather contact names and/or other information:

- Include a cover letter explaining who you are and why you are asking for the information.
- Include your contact information.
- Include what they can expect in return – a summary of data, communications within a month, etc.

Who will you contact at the laboratory?

- Lead technologist level vs. laboratory management/administration level vs. institution administration level.
- Our contacts have largely been with laboratory supervisor or manager or lead bench staff. We often address mailings to “Microbiology Laboratory Supervisor or Manager” if we don’t have a specific contact name.
- Do you currently have contacts in laboratories that would be appropriate?

If you are planning to contact laboratories by telephone:

- **Develop a sample script**
 - Introduce yourself and your role.
 - Define the purpose of the call.
 - Ask if this is the most appropriate contact or if they recommend that you speak with someone else.



- Make it clear that your role has no association with any regulatory or inspection purpose.
- What is the outcome you want from the contact?
- Query their interest and recruit their participation.
- Query their needs, e.g., training, information sharing, guidelines, etc., if that is appropriate for this call.
- Explain the next step in the process.
- Summarize your understanding of the conversation.
- Thank them for their time and feedback.
- Provide your contact information in case they want to discuss anything further.

Follow up your telephone calls/visits/letters with a summary of “visits” and the information gathered.

- Don't name names; provide summaries without attributing specific statements to individuals or laboratories.
- Reiterate the proposed purpose of the network.
- Summarize what you learned about their needs and/or capabilities.
- Describe the next steps you will take.
- Ask your contact to share the information with the laboratory manager/director and/or hospital administrator.

What about in-person visits? Again, taking the initiative to visit laboratories, providing one-on-one contact, can provide a real boost in relationship building and sends a signal that you are genuinely interested in their opinions. You may need to clarify the purpose, so they can decide who needs to be present from their organization.

- In Wisconsin, laboratories that are relatively distant from the state capital (which is also the location of the State Laboratory) have been particularly pleased with our willingness to visit them at their site and our interest in their circumstances.



STEP SIX

Suggestions if you are planning to conduct meetings with clinical laboratories

- **What is the purpose of the meeting?**
 - Make it clear what you hope to accomplish from the meeting when you invite attendees.
- **Which laboratories and how many laboratories will you invite?**
 - The entire network membership or a focus group/pilot group of selected laboratories?
 - If you can manage it, it may be advisable to invite all laboratories, so you don't risk a sense of exclusion or elitism among non-invited laboratories.
- **How many representatives from each laboratory can attend?**
 - It may be difficult for smaller laboratories to send more than one person, but if you only have facilities for two people per laboratory, include that information in the invitation.
- **How long will the meeting last?**
 - Be sure to allow travel time in your estimate of the length of the day for attendees; if attendees must travel 1-2 hours each way, your meeting should not last longer than 5-6 hours.
- **Will you hold one statewide meeting or several regional meetings?**
 - If you are in a large state, regional meetings may increase attendance, as less travel time will be required. Regional meetings also emphasize that you are willing to come out to their region to meet attendees.
- **What will be the format of the meeting?**
 - Lectures and presentations? Roundtable discussion?
 - ◆ We usually spend part of the day with short presentations; we have found an interactive case study helps to engage attendees, and we include an open question-answer



session. Be prepared to ask questions of the attendees to stimulate discussions if they do not have questions for you.

- Interactive case studies and question-answer sessions are great opportunities to not only share information, but demonstrate interest in their processes and their concerns - more relationship building.
- It is much easier to conduct informal, interactive meetings if the number of attendees at each meeting is less than 50.
- Be sure that someone takes notes for comments and feedback.

• **Where and when will you conduct the meeting?**

- Can/should you conduct the meeting in conjunction with a professional organization meeting (e.g., ASCLS)?
 - ◆ This is a particularly good idea if you have a very active professional organization in your state.
 - ◆ One advantage of this arrangement is that it may allow you to get a discount on meeting facilities and/or to conduct a two-to-four hour meeting as a break-out session, with no facility cost to you.
 - ◆ Another advantage is developing the connection with your professional organization and taking advantage of the fact that laboratorians will already be attending.
- If the cost of facilities is a concern, can you find less expensive facilities at some of the laboratories, at regional technical colleges, or state universities?
- Will you or can you include the cost of lunch or break refreshments? This may not be allowed by some state rules.

• **Who will set the agenda for the meeting?**

- The agenda sets the tone for the beginning of the network.



STEP SIX

- The agenda defines the meeting's purpose, but should also create interest in attending.
 - The agenda should be distributed prior to the meeting, preferably in a mailing sent to laboratories as an invitation.
 - ◆ Even if the agenda is posted on a website, it should also be mailed or e-mailed directly to laboratories, to provide a direct reminder to potential attendees.
 - Be sure to distribute the invitations and agendas early enough to allow laboratory scheduling adjustments.
- **What is the expected outcome of the initial meeting?**
 - You want to have a concrete outcome, so that everyone leaves feeling that it was time well-spent. Possible outcomes are:
 - ◆ Gathering ideas for development of the network
 - ◆ Approving initial plans and goals for the network
 - ◆ Sharing plans that you have already developed for the network
 - ◆ Developing a plan for inter-laboratory communications
 - ◆ Developing a plan to gather and disseminate surveillance data
 - **Share the outcome of the meeting.**
 - After completing the meeting(s), compile a summary of the highlights of the meeting(s) and the proposed next steps and send it to meeting participants. We suggest that you also send this summary to network members who did not attend, as a means of getting them involved.
 - **Identify any to-do's based on the feedback you received – you will want to prioritize them and keep a running list of "someday" ideas.**



STEP SEVEN: Laboratory Network Activities

This section includes suggestions for activities that were listed previously as likely to be conducted during laboratory network development (communications, training, diagnostic testing, collecting and disseminating laboratory data).

Select the topics that are relevant to the activities you will be conducting.

Collecting and Disseminating Laboratory Data

- Identify the information you need. *Don't ask for information just for curiosity – you must have a purpose for any information you request.*
 - Laboratory contact information
 - Laboratory capabilities
 - Laboratory training needs assessment
 - Laboratory test data for surveillance
- How frequently do you need to collect the information?
 - Once, with updates as needed? Weekly? Monthly? Annually?
- Ask several people to proof-read or pilot the survey to be sure all questions are clear, before you make the survey available to others.
- What's the best mechanism to collect the information?
 - Paper survey to mail/FAX back
 - ◆ This may be the most cumbersome for you, but most effective in collecting the data. Be sure to identify staff who will enter the data when it is received.
 - ◆ We have found more than 50% of laboratories complete surveys on paper, if they have a choice between on-line or paper.
 - Electronic survey
 - ◆ This would be the easiest for you, if you



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have electronic survey capabilities. However, if you limit responses to electronic only, you may lose most of your survey responders.

- Telephone call
 - ◆ We suggest this *only* if it is a very brief survey, and the contact is likely to have all of the information requested, without needing to check with others or collect data.
- In-person survey
 - ◆ This is a terrific idea, combining an on-site visit with the survey, but may not be practical for all laboratories.
- Be sure to include explicit instructions to return the survey and a deadline of when the survey response is due.
- How will you follow up with non-responders?
 - We have developed a “habit” of providing a specific deadline of when the survey should be returned, then re-sending it with a new cover letter, then providing a postcard or phone call to those who have not responded to the re-send.
- What about analysis of the data?
 - Who will enter the data? Who will compile and analyze the data?
 - How will the data be analyzed?
 - ◆ We have found Excel spreadsheets and Access databases to be most workable, but you may have more sophisticated capabilities.
 - Will you be able to maintain the data and update it as necessary?
- How will you share results?

We do recommend that you share a summary with laboratories, to reinforce that you are doing something with the data and to provide them with a sense of inclusion.



- Can you provide a summary report of the highlights to the laboratories to whom you provided the survey?
 - Will you provide a summary report of the highlights on a website? If so, how do you inform laboratories of where to find it?
 - Be very careful not to share laboratory-specific information that could impact their relationships with customers or competitors. We generally share only aggregate or summarized data.
- Don't forget to share the data with others in your own organization who may find it useful: technical areas, epidemiology, etc.

Establishing a Communications Network

- How many contacts do you want or need at each laboratory?
 - We started by asking for two contacts at each laboratory. The contacts themselves often designated one to be an email contact and one to be a FAX contact. Some laboratories additionally listed "Microbiology Laboratory" as a third contact with a FAX number.
- What will be the format of your communications network – a listserv, periodic newsletters, or e-mail/FAX messages?
- What is the intended purpose of your communications network – emergency notifications, training opportunities, any communications?
- Are there limitations on participating in the communications network – limited to laboratories, limited number of contacts at each laboratory?
- Who will maintain the communications network? What resources will be required? How will you ensure that your contacts are current?

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Providing Training Programs

There are many decisions to make before offering training programs for clinical laboratories. Below are some planning suggestions.

- How have you verified the need for the training event you are planning?
- Have you also completed a preliminary assessment of interest in attending the program you are planning?
- What is the best mechanism or format for this training program? Can it be provided as an audioconference or webconference? Does it require a “hands-on” workshop? Is a series of in-person presentations the best format?
- What funding is necessary or available for the program? Would laboratories be willing to pay to attend, and if so, how much? Can you identify grant or vendor resources to provide the program?
- Have you checked to see if this training is available elsewhere or do you need to develop the program?
- Who will be the faculty for this program? Are staff at the state public health laboratory subject matter experts in the area, available and willing? Are staff in some of the clinical laboratories experts, available and willing? Are there national experts who are available?
- Where will you provide the program if it is not an audioconference? Does your laboratory have facilities or can you use facilities at technical colleges, state universities, hotel meeting facilities?
 - Who will make the program arrangements? Who is authorized to make arrangements with other facilities?
- Will you hold the program in one location or at several locations around the state?
- If you are planning a “hands-on” or “wet” workshop, where will you find the materials to use?
- How will you advertise the program?



- Do you have a mechanism and staffing to handle registrations?
- Do you have access to conference and meeting planners at your state health department?
- How will you decide which registrants are accepted? First-come or one per laboratory? How will you notify registrants if they are accepted or not?
- Will you provide continuing education credits for attendees?
 - You may be able to contact your state professional organization or state university to learn about the requirements to provide continuing education credits.

Reference Testing

If you are planning to provide reference diagnostic testing for the network, most of the details to be determined are concerned with the level of services that you will be able to provide.

- For which agents will you provide testing?
- What are the requirements for sample submission – original patient samples or isolates?
- Who can submit samples for this testing?
- Will there be a fee for the testing?
- Can you provide fee-exempt specimen collection and transport supplies?
- Can you provide fee-exempt transport or courier service?
- How will you announce the availability of the services?
- Will results be reported and if so, to whom and by what method? When can results be expected?
- How will these services be funded?
- What testing capability and capacity is available at your laboratory, i.e., do you have molecular capability and how many samples can you handle?



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- Have you verified the need for this testing either by public health or by the clinical laboratories?
- Will there be additional data management requirements?



ISSUES: What are the Issues in Developing and Sustaining Laboratory Networks?

From our perspective, the primary issue is and will be **funding**. The costs incurred for meetings, mailings, staffing, training activities, reference testing, and data management continue to be a concern. Emergency preparedness funding may have provided initial funding, but is likely now to diminish. Is there a sufficient commitment from your laboratory or public health department to maintain the network?

Beyond funding, **staff turnover, at both the public health laboratory and the clinical laboratories**, will have a significant impact on sustainability. How do you plan to replace the coordinator staff if they leave or retire? How do you plan for changing staff at the clinical laboratories, to ensure that your contacts remain current and committed to the network? How does this turnover affect the sense of connection between the clinical laboratories and the public health laboratory – the personal connections/relationships that have been built?

An issue that appears increasingly important is **training needs**. How do we assist laboratories with the training needs we identify? Is it sufficient to identify national resources, knowing that many laboratories cannot afford to access them? Do we have the need or responsibility to fulfill those needs for laboratories? Can we help laboratories maintain proficiency in procedures or agents that are rarely encountered? How do we fulfill our own training needs, not only for technical skills and knowledge, but for laboratory outreach activities?

As laboratory networks develop and mature, how do we build in sufficient **flexibility** to ensure that we can meet the “everyday” needs of public health, respond to public health emergencies, and adapt to the changing purpose of the network?

How do we adjust to the **changing technology** in the laboratory? How will changes that may occur in clinical laboratories and perhaps in non-traditional testing sites or even home testing affect data collection for public health surveillance? How will it affect training needs and communication needs?



How do we find the balance between the need for these ongoing *assessments of laboratory needs and capabilities* versus the burden of the assessments on the laboratories?

Finally, *how do we keep laboratories engaged in the network?* How do we ensure that laboratories remain engaged in the network and that the public health laboratory and its staff remain engaged? How do we overcome the complacency that is almost destined to occur?

The challenges facing the development and maintenance of laboratory networks, now and in the future, are many. The rewards of meeting these challenges, however, are and will be visible as improvements in our public health systems.

In Wisconsin, we have already noted increased involvement of testing sites in influenza surveillance and increased submission of isolates to monitor for foodborne disease outbreaks. Less quantifiable, but just as important, we have heard anecdotes from laboratories that they are now more closely connected to public health and that they feel more connected to the State Laboratory. Perhaps most gratifying, we have received notes of appreciation for our efforts.



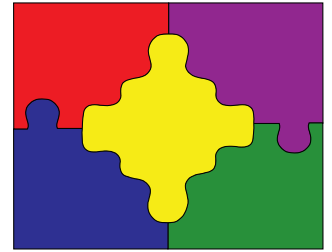
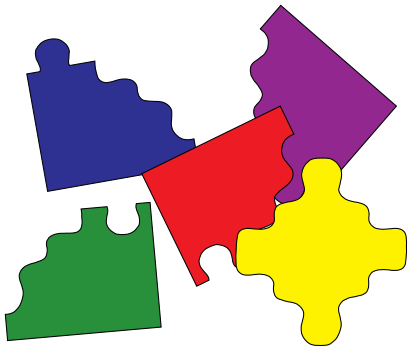
A laboratory network is a continuous journey, not a final destination. As you develop your laboratory networks, be patient, but maintain a sense of urgency. And be ever grateful for all the support and collaboration you receive from your colleagues in the clinical laboratories.

And remember to celebrate your accomplishments!



NOTES





GUIDE TO DEVELOPING LABORATORY NETWORKS

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