

**REPORT
of the
ENVIRONMENTAL LABORATORY SURVEY**

**February – May 2005
by the**

**WISCONSIN STATE LABORATORY OF
HYGIENE**

in cooperation with

**THE ASSOCIATION OF PUBLIC HEALTH
LABORATORIES**

Foreword

This survey of Wisconsin Environmental Laboratories was supported by a grant from the Association of Public Health Laboratories (APHL) in cooperation with the U.S. Centers for Disease Control (CDC). The Wisconsin State Laboratory of Hygiene (WSLH) thanks John Ford of APHL for his tolerance and mentoring on this project. WSLH is also grateful to both organizations for their support and guidance.

WSLH is indebted to the Wisconsin Department of Natural Resources (DNR) for use of critical items from their certification and registration database, cooperation on question development and general encouragement and support. This survey could not have been done without the many suggestions and cooperation of the various Wisconsin environmental laboratory associations and individual laboratorians. Special thanks go to Dave Degenhardt of the WSLH-Environmental Health Laboratory and Terry Burk of the WSLH-Occupational Health Laboratory for their many hours of effort.

This survey was prepared under the guidance of Ron Laessig, PhD., Director of WSLH and early proponent of this activity, who has been its advocate both within Wisconsin and nationally. William C. Sonzogni, PhD., Director of the WSLH's Environmental Health Laboratory, has been principle investigator on this grant. John Chapin, Director of the WSLH Informatics Division, provided general administrative support. The Web version of the survey, database, mailed survey and data collection coordination were the contributions of Kris Hable, WSLH Web Administrator. For assistance on survey design and measurement, final data set construction, data analysis and report preparation, WSLH would like to thank its consultant, Judith Witt.

Finally, WSLH thanks the 170 Wisconsin environmental laboratories who took the time and care to thoughtfully fill out the survey. Our hope is that these results will be an important step in the development of a Wisconsin Environmental Laboratory Network for Emergency Response.

Table of Contents

Foreword	i
Introduction	1
Selected Findings	4
Survey Results	
Laboratory Demographics / Descriptors.....	5
Building a Statewide Laboratory Network for Public Emergency and Terrorism Preparedness.....	10
Working in “Partnership” with WSLH	25
Selected Respondent Comments	31
Technical Notes	33
Appendix 1	36
WSLH/WSLH Board Definition of a Partnership	
Appendix 2	37
Survey Questions and Aggregate Answers	
Appendix 3	75
Verbatim Qualitative Question Responses	
Appendix 4	102
Survey Question “No Answer” Statistics	

Introduction

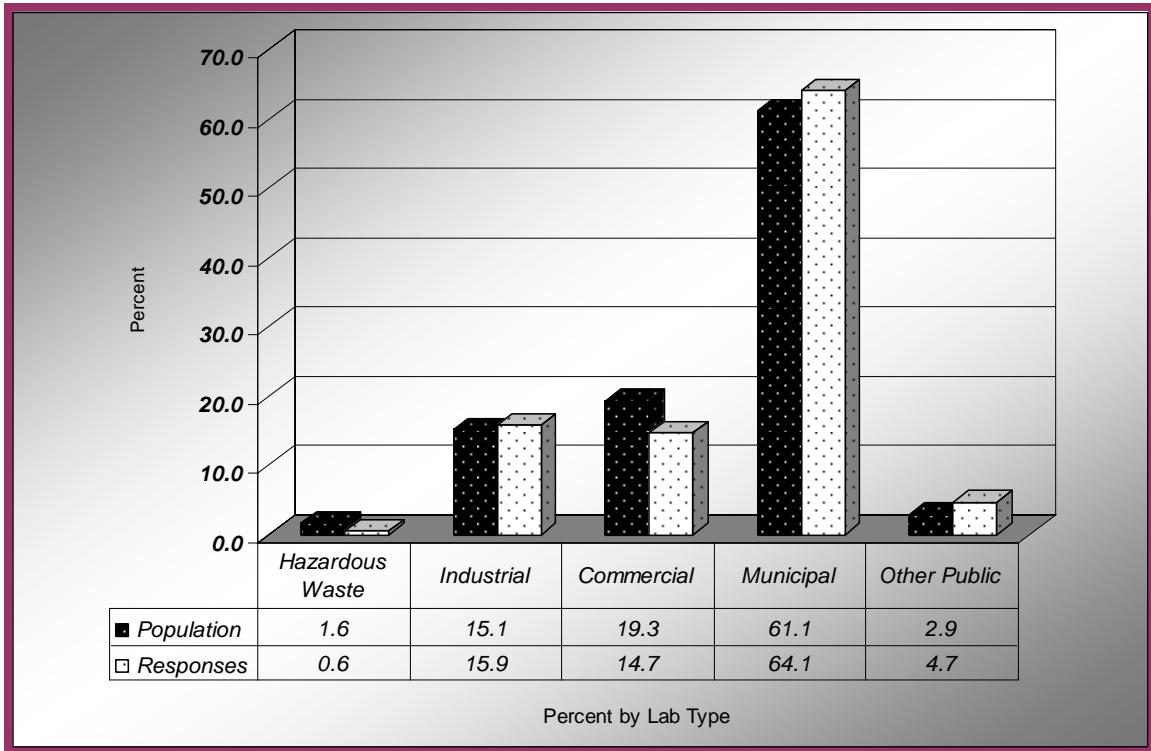
This report presents findings from the 2005 Environmental Laboratory Survey conducted by the Wisconsin State Laboratory of Hygiene (WSLH) in cooperation with the Association of Public Health Laboratories.

The survey collected information about laboratory characteristics, training needs, emergency and bioterrorism readiness, networking, partnerships and other business issues. Laboratories certified or registered by the State Department of Natural Resources (DNR) were invited to participate. Of those 450 labs, 170 (38%) completed the survey.

Respondents were assured by WSLH that they could complete the survey anonymously and that results would be reported in any publications generated by WSLH as grouped data only. In addition, WSLH removed individual laboratory identification numbers from the final stored data set.

The pilot survey, conducted from early February thru mid-May 2005, was exploratory in design, resulting in a "convenience" sample. This means that the findings presented in this report are representative of the 170 responding laboratories, and may or may not be representative of all 450 laboratories in the population surveyed. However, as shown in Figure 1 (page 2), the percentages of labs by type amongst the survey respondents (N=170) are not significantly different, statistically speaking, from the percentages of labs by type in the DNR population (N=450). In the DNR population, approximately 36 percent of labs operate in the private sector while in the respondent group, 31 percent are from the private sector. Only private sector commercial and hazardous waste laboratories appear to be somewhat under represented in the results. The survey findings will provide useful insights into the environmental laboratories serving Wisconsin communities and citizens.

Figure 1: Comparison of Survey Population and Survey Responses by Laboratory Type



Notes:

“Population” refers to the 450 Wisconsin Environmental Laboratories Certified or Registered by the Wisconsin Department of Natural Resources, December 2004. “Responses” refers to the 170 laboratories that responded to the WSLH/APHL survey.

A statistical test indicates the population and responses distributions are not significantly different.

Source: 2005 Environmental Laboratory Survey, Wisconsin State Laboratory of Hygiene (WSLH) in cooperation with the Association of Public Health Laboratories (APHL).

In some tables in this report, percentage statistics may not total 100 percent because all percentages are rounded to the nearest whole number.

A statistical test was used each time a difference between two laboratory groupings is identified in the text. For example, the phrase “*were significantly more likely to*” means that the difference between groupings was tested and found to be a statistically significant difference. Only those differences that are statistically significant at the 0.05 level are mentioned. Chi-square and t-tests for the differences were used to determine statistical significance.

Finally, it is noted that data from seven questions in the final part of the survey could not be used in the analysis because of a Web survey programming error. The seven questions asked about partnerships between the WSLH and other laboratories. Responses to those questions from the 68 paper/mailed surveys are included in this report only in Appendix 2. A much larger percentage of mailed surveys are from public sector laboratories than in the entire data set of 170 responding laboratories (i.e. 79% mailed v. 69% web and mailed combined). Thus, the 68 mailed surveys may not be representative of the entire group of 170 respondents, and data from just the 68 mailed surveys were not used for analysis. However, the thoughtful and numerous responses of all 170 participating laboratories to open ended questions in the final part of survey provide valuable insights that compensate for the lost data. For complete answers written by participants in response to all of the survey's open ended (narrative/qualitative) questions, see Appendix 3 of this report.

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Summary of Findings

Wisconsin environmental laboratories responding to the survey:

- Are very diverse in terms of characteristics/demographics.
- Are significantly different, statistically speaking, by private and public sectors in their responses to many survey questions.
- For the most part, do not think they are prepared to deal with emergencies in terms of planning, communication, training and equipment.
- Are generally interested and willing to learn more about, and participate in, some aspects of an emergency network; but before making a commitment, want to know more specifics as to purpose, need, functions/activities, costs, roles and responsibilities.
- Look to the Wisconsin State Laboratory of Hygiene (WSLH) to provide training, information and laboratory standards, technical assistance and services.
- Believe in “partnerships” with WSLH and other environmental labs; that to a significant degree these partnerships already exist and are positive.
- Indicate that there are issues of trust and competition with a set of laboratories that need to be addressed.
- Summarily indicate that the WSLH should provide on-going leadership in working with environmental laboratories and their associations to create an emergency response network among Wisconsin’s environmental laboratories.

Laboratory Demographics and Descriptors

Of the 170 Wisconsin environmental laboratories responding to the survey, more than two-thirds (69%) are public sector (municipal, public health department, military and academic/research) laboratories. The rest (31%) are private sector (commercial, industrial and hazardous waste) laboratories (Figure 2 and Table 1).

Figure 2. Survey Respondents by Laboratory Type

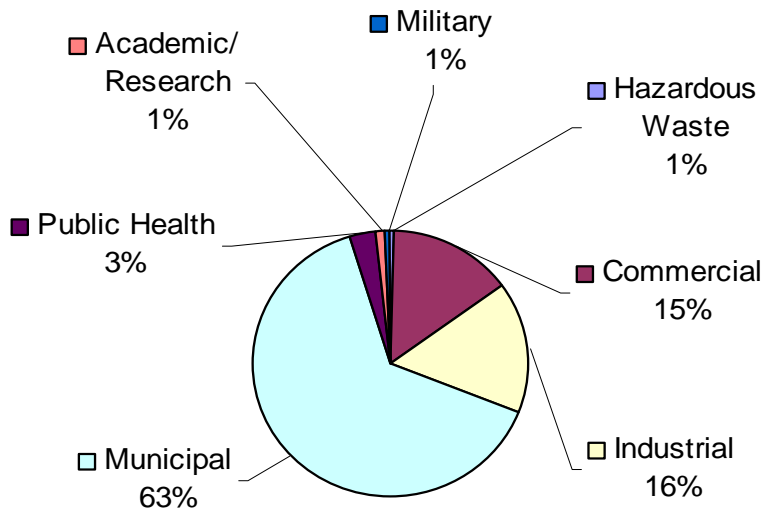


Table 1: Survey Respondents by Sector and Laboratory Type

Laboratory Sector and Type	Number of Labs Responding to Survey	% of Labs Responding to Survey
Total Private Sector Labs	53	31%
Commercial	25	15%
Hazardous Waste	1	1%
Industrial	13	8%
Industrial Waste Water	14	8%
Total Public Sector Labs	107	69%
Municipal Drinking Water	3	2%
Municipal Wastewater	106	62%
Public Health Department	5	3%
Academic/Research	2	1%
Military	1	1%
Grand Total	170	100%

Eight of every ten Wisconsin environmental laboratories responding to the survey (81%) reported having the equivalent of five or fewer full-time employees (FTE) in 2004. Private sector (commercial, industrial and hazardous waste) laboratories were significantly more likely than public sector laboratories to have six or more full-time equivalent employees (49% v. 5%) (Table 2). Public sector laboratories, on the other hand, were significantly more likely to be Wisconsin-based labs (100% v. 74%), to test a higher average percentage of samples collected within the state (100% v. 73%), and to report a higher average percentage of gross annual revenue or budget related to specimens collected in the state (89% v. 64%) (Table 3).

Table 2. Full-time Equivalent (FTE) Employees by Sector, 2004

Laboratory Sector	Number of Labs Responding	Lab Size	
		% 5 or less FTE	% 6 or more FTE
Private Sector	53	51%	49%
Public Sector	116	95%	5%
All	169	81%	19%

Table 3. State of Wisconsin-related Characteristics by Sector, 2004

Laboratory Sector	Number and Percent of Total That Are Wisconsin-Based Labs*		Number of Labs and the Average Percent of Total Annual Tested Samples Collected in Wisconsin**		Number of Labs and Average Percent of Gross Annual Revenue or Budget Related to Specimens Collected in Wisconsin***	
	N	%	N	Ave %	N	Ave %
Private Sector	39	74%	46	73%	47	64%
Public Sector	117	100%	112	100%	97	89%
All Labs	156	92%	158	92%	144	81%

* Among the 170 survey respondents, only 14 (8%) indicated they are not Wisconsin-based. Thirteen (13) are commercial labs and one is an industrial lab; all private sector labs. Percentages were calculated based on 53 private sector, 117 public sector and 170 total labs. ** 158 labs responded to this question and percentages were calculated using data submitted only by those labs. *** 144 labs responded to this question and percentages were calculated using data submitted only by those labs.

Thirty-eight (38) percent of all responding laboratories reported that they tested fewer than 1,000 environmental samples in 2004. Another 40 percent said they tested between 1,000 and 9,999 samples that year. Private sector labs were significantly more likely than public sector labs to report testing 10,000 or more samples in 2004 (48% v. 10%) (Table 4).

Table 4. Total Samples Tested by Sector, 2004

Laboratory Sector	Range							
	Less than 1,000		1,000-9,999		10,000-19,999		20,000 Or More	
	N	%	N	%	N	%	N	%
Private Sector	16	31%	11	21%	8	15%	17	33%
Public Sector	47	41%	57	49%	7	6%	5	4%
All (N=168)	63	38%	68	40%	15	9%	22	13%

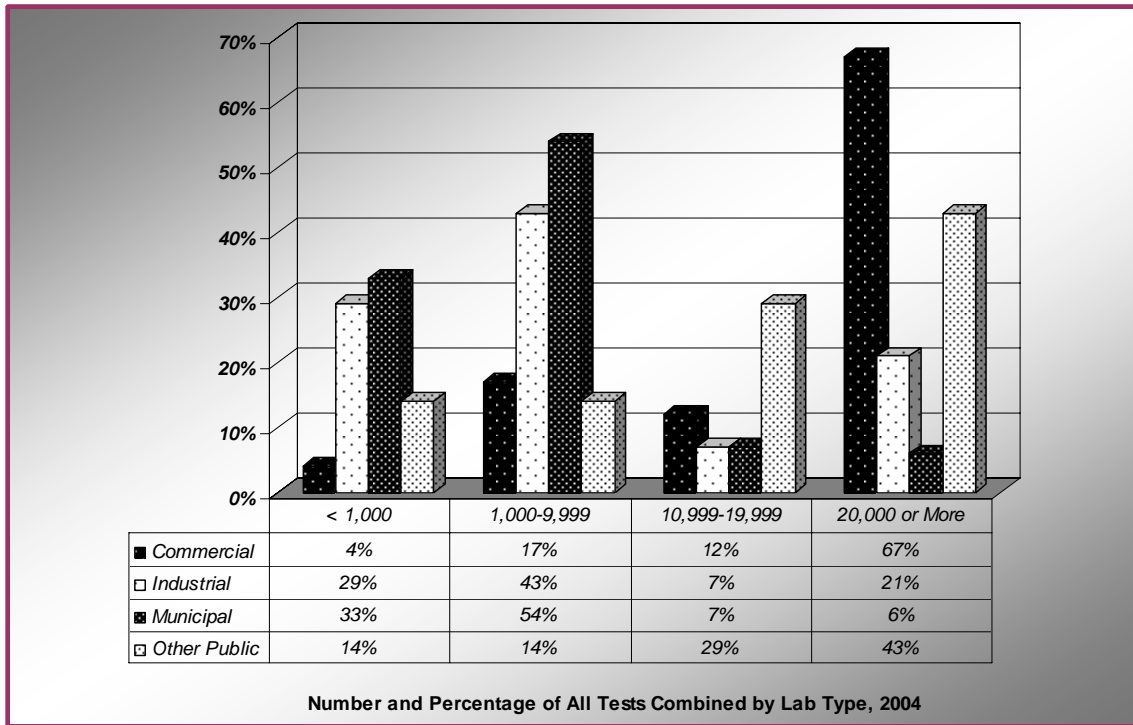
*Laboratories were asked about the following sample matrices: surface water, ground water, air, soil, sediment, municipal and industrial wastewater, food, animal feed, hazardous waste, sludge and "other."

Twenty-eight (28) percent of all responding laboratories reported that they conducted fewer than 1,000 tests from all samples in 2004. Another 45 percent said they conducted between 1,000 and 9,999 tests that year. Private sector labs were significantly more likely than public sector labs to report conducting 10,000 or more tests from all samples combined in 2004 (52% v. 17%) (Table 5). Figure 3 (next page) shows total tests by laboratory type.

Table 5. Total Tests Conducted on All Samples by Sector, 2004

Laboratory Sector	Range							
	Less than 1,000		1,000-9,999		10,000-19,999		20,000 Or More	
	N	%	N	%	N	%	N	%
Private Sector	9	17%	16	31%	5	10%	22	42%
Public Sector	37	32%	59	51%	10	9%	9	8%
All (N=167)	46	28%	75	45%	15	9%	31	19%

Figure 3. Total Tests Conducted on All Samples Combined by Laboratory Type, 2004



Two-thirds (67%) of 149 responding laboratories reported that they operated on gross annual revenue or budgets of less than \$100,000 in 2004. Public sector laboratories were significantly more likely to operate with less than \$100,000 per year (80% v. 38%), while private sector laboratories were significantly more likely to operate on budgets of \$250,000 or more (47% v. 11%) (Table 6).

Table 6. Total Annual Revenue (Private Sector) or Budget (Public Sector) in 2004

Laboratory Sector	Range					
	Less than \$100,000		\$100,000-\$250,000		\$250,000 or more	
	N	%	N	%	N	%
Private Sector	17	38%	7	16%	21	47%
Public Sector	83	80%	10	10%	11	11%
All (N=149)	100	67%	17	11%	32	21%

Public sector laboratories (88%) were significantly more likely than private sector labs (45%) to report membership(s) in one or more professional laboratory associations or organizations (Table 7). Among all 170 responding laboratories, 75 percent reported one or more memberships while more than one-half (56%) reported membership in the Wisconsin Wastewater Operator Association. The next most common membership reported was with the Wisconsin Rural Water Association (38%) followed by the Municipal Environmental Group (19%), the Central States Water Environment Association (11%), the Wisconsin Environmental Laboratory Association (7%), the Wisconsin Laboratory Association (6%), the Wisconsin Paper Council (5%), and the Midwest Water Analysts Association (2%). Twelve (12) laboratories indicated memberships in "other" organizations, most of which were border state organizations.

Table 7: Membership in One or More Professional Laboratory Association or Organization by Sector

Laboratory Sector	Number of Laboratories Surveyed	Reported Membership in One or More Professional Laboratory Association or Organization	
		N	%
Private Sector	53	24	45%
Public Sector	107	103	88%
All	170	127	75%

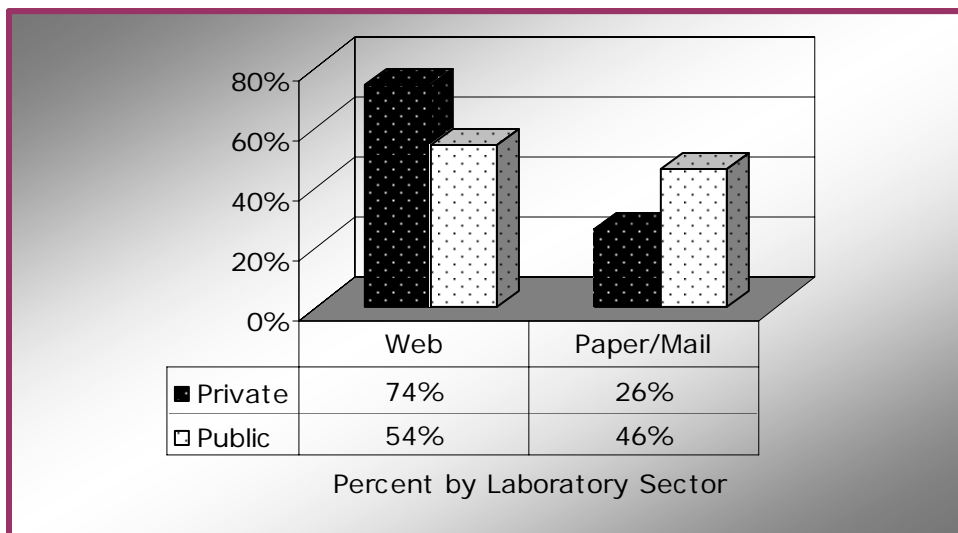
BUILDING A STATEWIDE LABORATORY NETWORK FOR PUBLIC EMERGENCY AND TERRORISM PREPAREDNESS

Of the 170 laboratories responding to the survey, a total of 129 (76%) reported using the Web/Internet for business or agency purposes on a routine basis (Table 8). The most commonly reported Web/Internet uses were to search for business-related information (64%), followed by reporting information to a government agency (54%), communicating with customers via e-mail (42%), E-commerce (39%), sharing test results (37%), and receiving test requests (31%). Although a majority of both private and public sector labs used the WSLH Web site to respond to the survey, private sector labs were significantly more likely to do so (74% v. 54%) (Figure 4).

Table 8: Use of the Web or Internet for Routine Business Purposes, by Sector

Laboratory Sector	Total Labs Surveyed	Use the Web/Internet Routinely for Business or Agency Purposes	
		N	%
Private Sector	53	42	79%
Public Sector	117	87	74%
All	170	129	76%

Figure 4. Laboratories Using the WSLH Web Site or Paper/Mail to Respond to the WSLH/APHL Survey, by Sector



Forty-three (43) percent of private sector laboratories and 38 percent of public laboratories reported that they would like to be a registered member of the Wisconsin Web-based Health Alert Network (HAN) (see Figure 7, page 20).

When asked about eight specific HAN services or information, labs most often indicated that *"a means for secure reporting of lab information to state agencies"* would be very or somewhat useful. For five of the HAN services or information asked about, public sector labs were significantly more likely to indicate that those services or information would be very or somewhat useful to their work and mission (Table 9).

Table 9. Laboratories Indicating HAN Service or Information Would Be Very or Somewhat Useful, by Sector

Overall Rank	Laboratory Sector				HAN Service or Information Type
	Private Sector		Public Sector		
	N	%	N	%	
1	29	55%	88	75%	* A means for secure reporting of lab information to state agencies
2	27	51%	78	67%	Technical laboratory information on dealing with an emergency
3	22	42%	78	67%	* A means of secure communication with WSLH
4 [†]	20	38%	71	61%	* Federal/state emergency alerts/announcements
4 [†]	25	47%	66	56%	Access – links to national emergency Web sites for information
6	18	34%	66	56%	* Secure communication with local/county/state emergency partners
7	17	32%	58	50%	* A means for secure requests for assistance needed by state/county
8	18	34%	45	38%	Mobilization of lab volunteers in an emergency. (The HAN can store data on labs and employees willing to volunteer.)

* Denotes a statistically significant difference between sectors. [†]=tie.

For each of four public emergency preparedness measures, a minority of the 170 responding laboratories indicated that they are very well or somewhat equipped, prepared or trained to respond. In each of the four measures, a higher percentage of private than public sector labs indicated they were very well or somewhat prepared (Table 10).

Nearly one-half of private sector labs (47%) and 28 percent of public labs indicated they are very well or somewhat equipped to respond to a chemical or biological accident or emergency. Thirty-eight (38) percent of private labs and 21 percent of public labs indicated they are very well or somewhat trained and prepared to respond to a chemical or biological accident or emergency. Fewer than one in four private labs and fewer than one in five public labs indicated they are very well or somewhat equipped, trained or prepared to respond to an environmental terrorist event (Table 10).

Table 10. Laboratories Very Well or Somewhat Prepared for Public Emergencies, by Sector

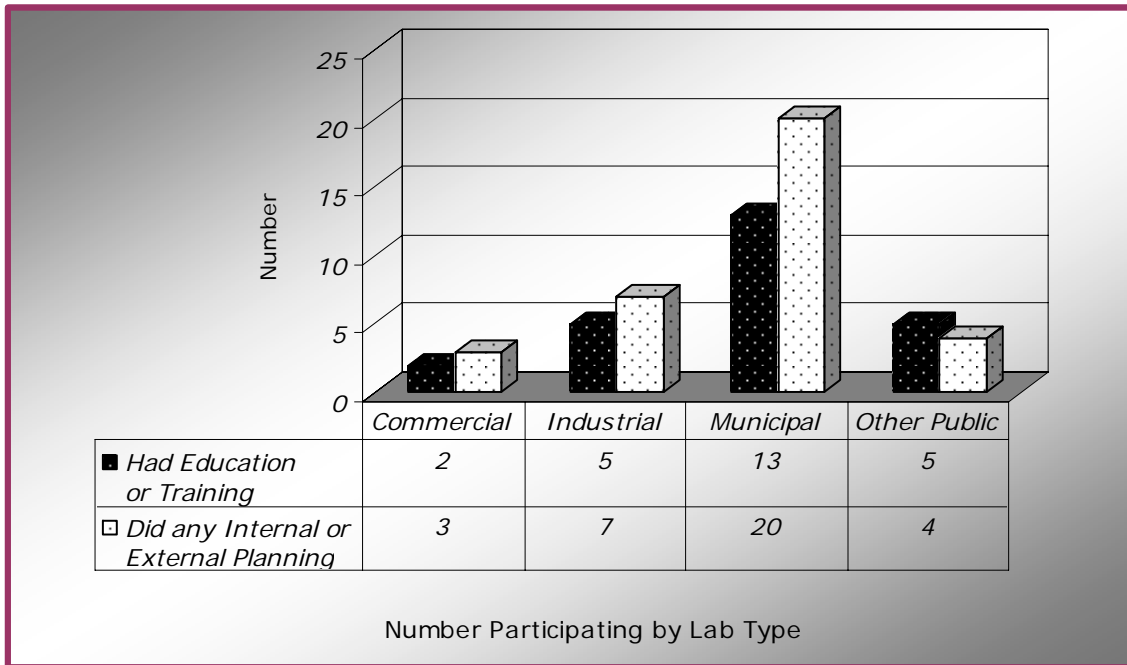
Laboratory Sector				Public Emergency Preparedness Measure
Private Sector		Public Sector		
N	%	N	%	
25	47%	33	28%	Equipped to respond to a chemical or biological accident or emergency
12	23%	18	15%	Equipped to respond to an environmental terrorist event
20	38%	24	21%	Trained and Prepared to respond to a chemical or biological accident or emergency
9	17%	12	10%	Trained and prepared to respond to an environmental terrorist event

Only 15 percent of all responding laboratories reported that their employees had any educational or training opportunities in 2004 to learn about the roles, expectations and operations of labs in response to a chemical or biological accident, or terrorist attack. Fifteen (15) percent of all respondents reported that their labs had discussions or internal planning activities, while 9 percent reported that their lab participated in local, regional or state emergency government operational meetings to plan a response to a biological or chemical accident or terrorist event (Table 11, next page). Figure 5 (next page) shows the numbers of laboratories, by type, that reported participation in public emergency preparedness activities during 2004.

Table 11. Emergency Response Preparedness Activity by Sector, 2004

Laboratory Sector	Public Emergency Preparedness Activity					
	Employee Education or Training		Internal Discussions or Planning		Participation in External Planning	
	N	%	N	%	N	%
Private Sector	7	13%	8	15%	3	6%
Public Sector	18	15%	17	14%	12	10%
All	25	15%	25	15%	15	9%

Figure 5: Participation in Public Emergency Preparedness Activities by Laboratory Type, 2004



Seventy-eight (78) percent of all responding laboratories indicated that they would like to learn more about at least one topic pertaining to the Wisconsin State Emergency Preparedness Plan (PHEP). A majority also indicated an interest in training related to “*emergency notification*” (55%) and “*laboratory procedures*” (54%). Public sector labs were significantly more likely than private labs to indicate an interest in the topic of emergency notification. Table 12 and Figure 7 (page 20), give statistical breakdowns of PHEP training topic interests by sector.

Table 12: Laboratories Interested in State Emergency Preparation Plan (PHEP) Training Topics, by Sector

Overall Rank	Laboratory Sector				State Emergency Preparedness Plan (PHEP) Topics
	Private Sector		Public Sector		
	N	%	N	%	
1	22	42%	72	62%	* Emergency Notification
2	31	58%	61	52%	Laboratory Procedures
3	25	47%	56	48%	Environmental Health Risks
4	18	34%	53	45%	Protective Personal Equipment
5	22	42%	35	30%	Managing Hazardous Materials
6	20	38%	32	27%	Disposable Waste, Chemical
7	15	28%	34	29%	Disposable Waste
8	15	28%	31	26%	Legal Background To Laboratory Response to Emergency/ Terrorism
9	11	21%	33	28%	Disposable Waste, Biological
10	8	15%	28	24%	Surveillance
11	6	11%	26	22%	Isolation Policy
12	9	17%	21	18%	Decontamination
13	10	19%	17	15%	Integrated Communication
14	10	19%	13	11%	Transport

* Denotes a statistically significant difference between sectors.

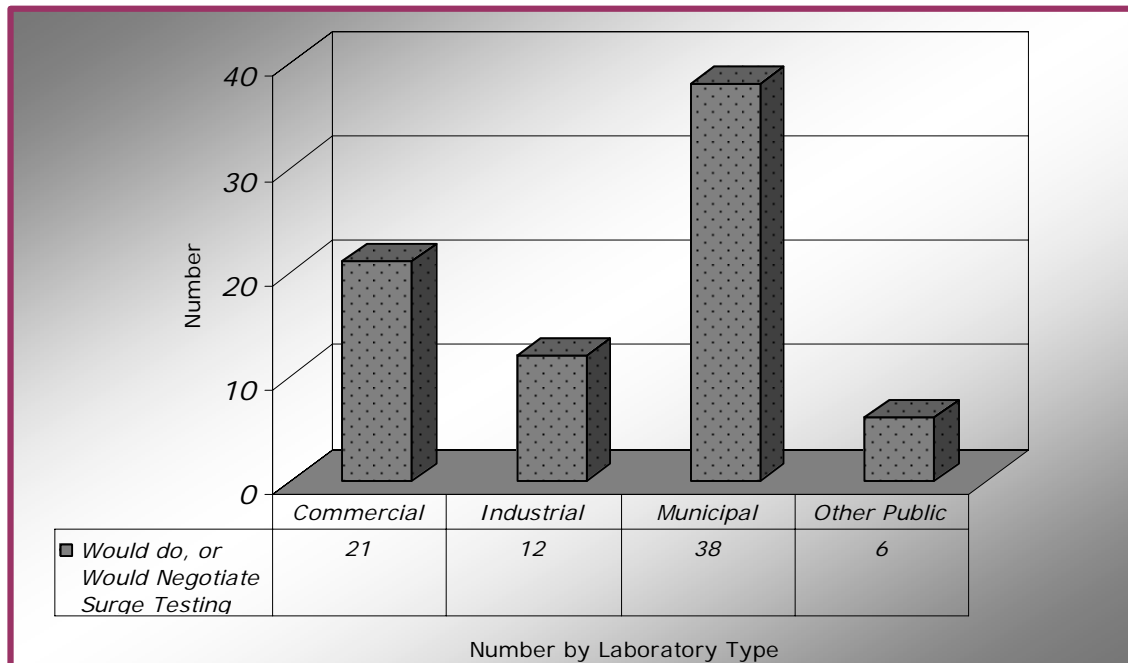
Private sector laboratories (62%) were significantly more likely than public sector laboratories (38%) to report that they would be willing, or willing to negotiate with WSLH, for the provision of surge capacity testing in the event of a public emergency (Table 13, next page). Figure 6 (next page) shows the number of laboratories, by type, that indicated willingness to, or would negotiate with the WSLH, to provide surge capacity testing in the event of a public emergency.

Table 13. Laboratory Positions on Surge Capacity Testing, by Sector*

Laboratory Sector				Surge Capacity Testing Position
Private Sector		Public Sector		
N	%	N	%	
19	36%	23	20%	Laboratory would be willing to provide WSLH with surge capacity testing
21	40%	25	21%	Laboratory would agree to negotiate with WSLH the provision of surge capacity testing as described above, but only if certain conditions were met
7	13%	35	30%	Laboratory could not negotiate the provision of surge capacity testing because it has no excess capacity that could be diverted
10	19%	23	20%	Laboratory would not defer its regular business to provide for surge capacity testing as described above

* For this survey question, more than one item could be checked.

Figure 6. Number of Laboratories Willing, or Would Negotiate with WSLH, to Provide Public Emergency Surge Capacity Testing, by Lab Type



Laboratories were asked about certain conditions that might increase their willingness to provide surge capacity testing for routine (non-emergency) samples from the WSLH in the event of an environmental health emergency or terrorist attack. The most common condition indicated was: *"If WSLH defined the required test methods."* Private sector laboratories were significantly more likely than public labs to select this condition (62% v. 44%). There were significant differences between private and public sector labs for five of the ten conditions listed (Table 14). In volunteered comments, eight labs indicated they would be willing, but felt their facilities were too small to provide surge testing; three labs indicated they would have political problems attaining authorization.

Table 14. Conditions That Would Increase a Laboratory's Willingness to Provide Surge Capacity Testing

Overall Rank	Laboratory Sector				Condition
	Private		Public		
	N	%	N	%	
1	33	62%	52	44%	* If WSLH defined the required test methods
2	33	62%	50	43%	* If your lab could specify the volume of surge testing which it would be willing to undertake
3	29	55%	50	43%	If there were assurance that State certification status would not be harmed
4	33	62%	41	35%	* If at the time of the emergency your laboratory would not be testing at full capacity with standard customers
5	24	45%	48	41%	If surge testing fits into the regular sample run
6	28	53%	42	36%	* If a contract exists with WSLH or a State agency that clarifies the financial arrangement to pay for the testing
7	23	43%	43	37%	If WSLH provided technical assistance in attainment of federally defined methods
8	28	53%	23	20%	* If there were compensation for regular business your lab might have to defer
9 ^t	16	30%	30	26%	If there were statutory authority for non-WSLH testing
9 ^t	17	32%	29	25%	If there were provisions for electronic data linkage to the State

* Denotes a statistically significant difference between sectors. ^t =tie.

Respondents were also asked about possible services they might provide in the event of a terrorist attack or chemical or biological accident affecting the general public. Overall, more than one-half (N=90 or 53%) of the 170 responding laboratories said they might provide use of their facility and equipment in such emergencies. But, public sector laboratories were significantly more likely to indicate that they might do so (60% v. 38%). One-half of all respondents (N=85) said they might consider providing service if employees were paid per a pre-emergency agreement. There was no difference between sectors for this potential service (Table 15).

Table 15. Possible Laboratory Services in the Event of a Terrorist Act or Chemical or Biological Accident Affecting the General Public, by Sector

Overall Rank	Laboratory Sector				Possible Laboratory Services in a Public Emergency
	Private Sector		Public Sector		
	N	%	N	%	
1	20	38%	70	60%	* Use of facility and equipment
2	32	60%	53	45%	Paid employee time per a pre-emergency event agreement
3	31	58%	45	38%	* Paid testing of emergency samples per a pre-emergency event agreement (other than the surge of non-emergency testing)
4	26	49%	45	38%	Voluntary electronic communications or data sharing services
5	25	47%	32	27%	* Paid electronic communications or data sharing services per a pre-emergency event agreement
6	13	25%	30	26%	Voluntary, unpaid employee time
7	14	26%	26	22%	Voluntary testing of emergency samples (other than the surge of non-emergency testing)

* Denotes a statistically significant difference between sectors.

In volunteered comments, two respondents raised important qualifications:

- *It would not be our intent to become and maintain trained personnel for the purposes of analyzing samples from a chemical or biological accident. We would be prepared to offer our lab facility and have our personnel work under the direction of someone from WSLH. I doubt that our lab would have the analytical devices necessary to do significant testing; these*

devices would have to be obtained through the incident command structure.

- *Again, it is difficult to answer these yes/no. It would depend on the scope of the emergency and the need. I think attempting to answer these yes or no sets us up to either look unpatriotic and greedy or puts us in a position to be taken advantage of. I feel that it is the duty of any business person, as a citizen, to make his resources available in the event of an actual national emergency, but private business should not be held to a standard of generosity/patriotism that the public sector is not also willing to meet.*

Seventy-six (76) percent of all responding laboratories (N=130) answered the question concerning *“the one thing your laboratory needs most to be better prepared for a chemical or biological accident or terrorist act.”* Thirty-nine (39) reported a need formal training. Nineteen (19) gave varying descriptions of the need for resources including equipment, funding and staff. Fifteen (15) described planning and 14, communication/information sharing needs.

About two-thirds of all responding laboratories indicated that they would be willing to participate with the WSLH in one or more emergency and non-emergency network or networking activities. By sector, the overall interest level was very similar (68% private, 66% public). Of seven networking possibilities listed, private and public laboratories were significantly different in their response for only one activity: *“share only non-confidential or non-identifiable proprietary data that can’t be used for enforcement, but is used only for understanding (surveillance and epidemiology) what is happening in an emergency event.”* This activity ranked second overall (Table 16, next page, and Figure 7, page 20).

Table 16: Willingness to Participate with WSLH in Emergency and Non-Emergency Network or Networking Activities, by Sector

Overall Rank	Laboratory Sector				Emergency and Non-Emergency Network or Networking Activity
	Private Sector		Public Sector		
	N	%	N	%	
1	30	57%	67	57%	Share any laboratory test information from laboratories that would be useful to the State in an emergency event such as bioterrorism
2	31	58%	48	41%	* Share only non-confidential or non-identifiable proprietary data that can't be used for enforcement, but is used only for understanding (surveillance and epidemiology) what is happening in an emergency event
3	22	42%	45	38%	Establish regular communications through the HAN or the WSLH Web site
4	20	38%	43	37%	WSLH establish and publish a regular Environmental Newsletter
5	19	36%	39	33%	Share expertise by having lab and staff do training at professional laboratory workshops, seminars or conferences
6	18	34%	30	26%	Attend a Quarterly business meeting of a statewide environmental laboratory network
7	14	26%	30	26%	Contribute articles or opinion pieces to environmental laboratory association or State agency newsletters

* Denotes a statistically significant difference between sectors. †=tie.

Just over one-half of all respondents (51%) indicated that general education and training by WSLH or other government agencies on the broad disciplines of environmental or public health would be useful to their laboratory employees. Forty-seven (47) percent of private and 53 percent of public sector labs indicated that this education and training would be useful to their employees (Figure 7, next page).

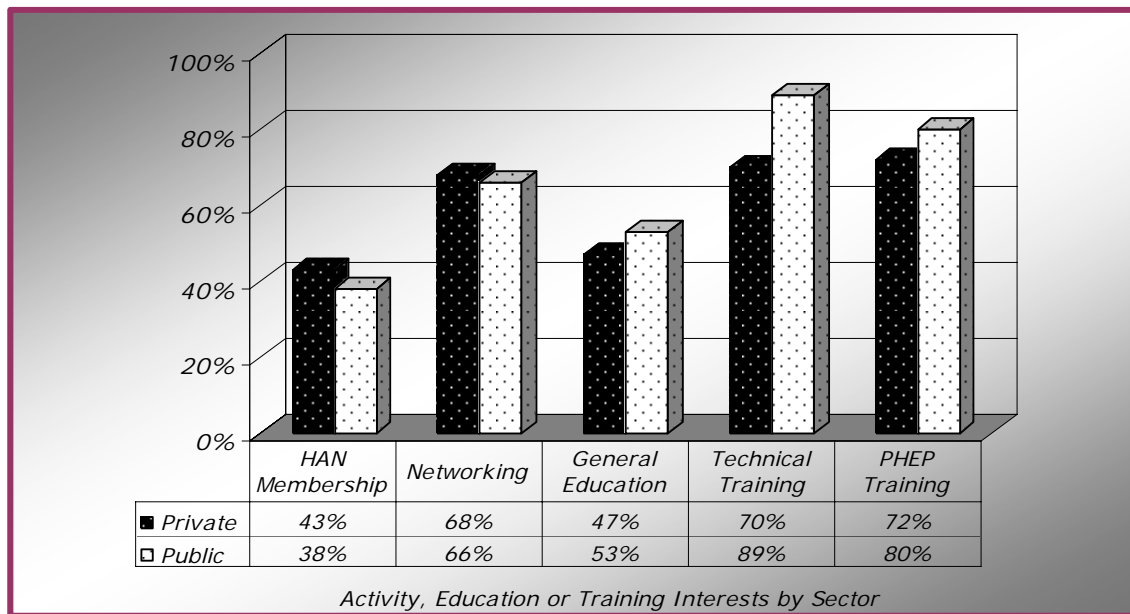
More than four of every five laboratories (83%) indicated that they would be interested in enrolling their employees in technical training or classes offered by the WSLH. Public sector laboratories were significantly more likely than private sector labs to indicate an interest (89% v. 70%). There were significant differences between sectors for one-half of the eight items shown in Table 17. But, labs in both sectors ranked the same training topics as their top five choices: 1) *quality standards*, 2) *new technology/methods*, 3) *lab employee safety*, 4) *proficiency testing*, and 5) *state/federal agency reporting requirements* (Table 17).

Table 17: Interest in WSLH Technical Laboratory Training or Classes, by Sector

Overall Rank	Laboratory Sector				Interest in Enrolling Employees
	Private Sector		Public Sector		
	N	%	N	%	
1 ^t	27	51%	89	76%	Quality standards
1 ^t	31	58%	85	73%	* New technology/methods
3	27	51%	87	74%	* Lab employee safety
4	25	47%	88	75%	* Proficiency testing
5	32	60%	75	64%	State/Federal agency reporting requirements
6 ^t	20	38%	56	48%	Chain of evidence
6 ^t	16	30%	61	52%	* Available laboratory (LMS) computer systems
8	22	42%	46	39%	Sample transport issues

* Denotes a statistically significant difference between sectors. ^t = tie.

Figure 7: Laboratories Interested in HAN Membership, Networking, Education and Training, by Sector



When asked about considerations and training delivery methods, laboratories in both sectors again ranked the same items as their top five choices:

1) *quality of training*, 2) *course topics or curriculum*, 3) *trainer expertise, reputation*, 4) *required training content (certification/PT, etc.)*, and 5) *direct cost of training (registration, tuition, etc.)*. Laboratories in the two sectors had different views on only one of the 15 considerations and methods: public laboratories were significantly more likely to indicate a preference for face-to-face regional training sessions for their employees (Table 18).

Table 18. Considerations or Training Delivery Methods as to Their Importance in Decisions to Receive WSLH Sponsored Training, by Sector

Overall Rank	Laboratory Sector		Considerations and Training Delivery Methods
	Private Sector	Public Sector	
	Average Rating*	Average Rating*	
1	1.6	1.6	Quality of training
2	1.6	1.8	Course topics or curriculum
3 ^t	1.9	2.1	Trainer expertise, reputation
3 ^t	2.1	2.0	Required training content (certification/PT, etc.)
5	2.0	2.1	Direct cost of training (registration, tuition, etc.)
6	2.4	2.1	** Face-to-face: your employees go to regional training sessions
7 ^t	2.3	2.4	Indirect cost of training (transportation, overtime, etc.)
7 ^t	2.6	2.4	Video, CD or DVD
9 ^t	2.4	2.5	Face-to-face: trainer comes to your lab or town
9 ^t	2.4	2.6	Face-to-face: your employees go to Madison (WSLH, UW or other state agency headquarters)
9 ^t	2.4	2.6	Institution or organization offering training
9 ^t	2.6	2.5	Distance learning via the internet in the work setting in your lab
13	2.5	2.6	Distance learning with audio (conference call/radio) and written material
14	2.6	2.8	Distance learning via cable television in your lab
15	2.8	3.0	Distance learning via the internet in your home environment, on a home computer

* Rating on a scale of 1 to 4 with 1 being the highest importance.

** Denotes a statistically significant difference between sectors. ^t =tie.

Compared to the services or activities they had received or participated in during the past year, significantly more laboratories said they would like WSLH to provide a service or activity in the future (51% v. 69%) (Table 19; Table 20, page 24, and Figure 8, next page). Forty-three (43) percent of private sector and 55 percent of public sector laboratories indicated that they had received or participated in some WSLH service or activity in the past year. The most common service or activity laboratories received or participated in during the past year (28%) was *“timely, useful, appropriate and complete responses to questions or concerns on various topics,”* (Table 19).

Table 19. Laboratory Received a WSLH Offered Service or Activity in Past Year, by Sector

Overall Rank	Laboratory Sector				WSLH Service/Activities
	Private		Public		
	N	%	N	%	
1	13	25%	34	29%	Timely, useful, appropriate and complete responses to questions or concerns on various topics
2	13	25%	33	28%	Workshops, information sessions or seminars 8
3	14	26%	31	26%	Regular points of contact to whom laboratories can address questions or concerns on various topics
4	7	13%	19	16%	Information about new procedures or technologies
5	6	11%	17	15%	A newsletter
6	4	8%	15	13%	Procedures, guidelines, manuals or protocols in hard copy, electronically or via its Web site
7	2	4%	14	12%	Regional conferences
8	4	8%	9	8%	Assistance to laboratories to enable participation in a laboratory network
9	2	4%	10	9%	Survey(s) to obtain contact or capability information about your laboratory
10	3	6%	9	8%	Alerts about topics of importance
11	4	8%	6	5%	A site visit to your laboratory
12	4	8%	5	4%	Grouped data (survey or agency information) about Wisconsin laboratories
13	2	4%	7	6%	Information about new or emerging environmental public health threats
14	3	6%	3	3%	Evidence of an understanding of the capabilities of your laboratory
15 ^t	1	2%	3	3%	A laboratory network Web site
15 ^t	1	2%	3	3%	Train the trainer workshops
15 ^t	0	0%	3	3%	Set up teleconferences

^t =tie.

Figure 8: Comparison of Laboratories That Received a WSLH Service or Activity in the Past Year with Laboratories That Would Like to Have a Service or Activity in the Future, by Sector

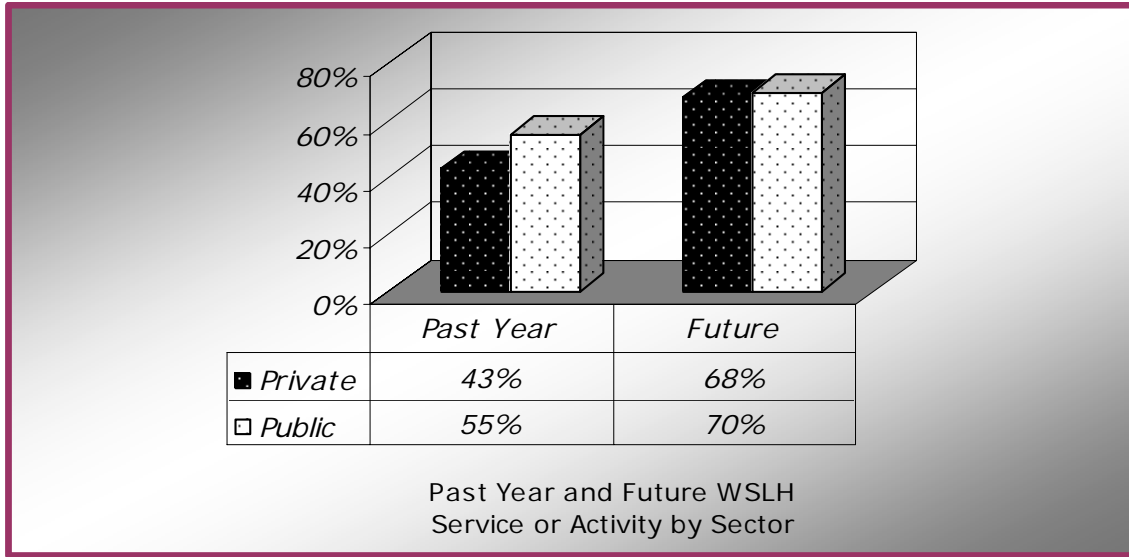
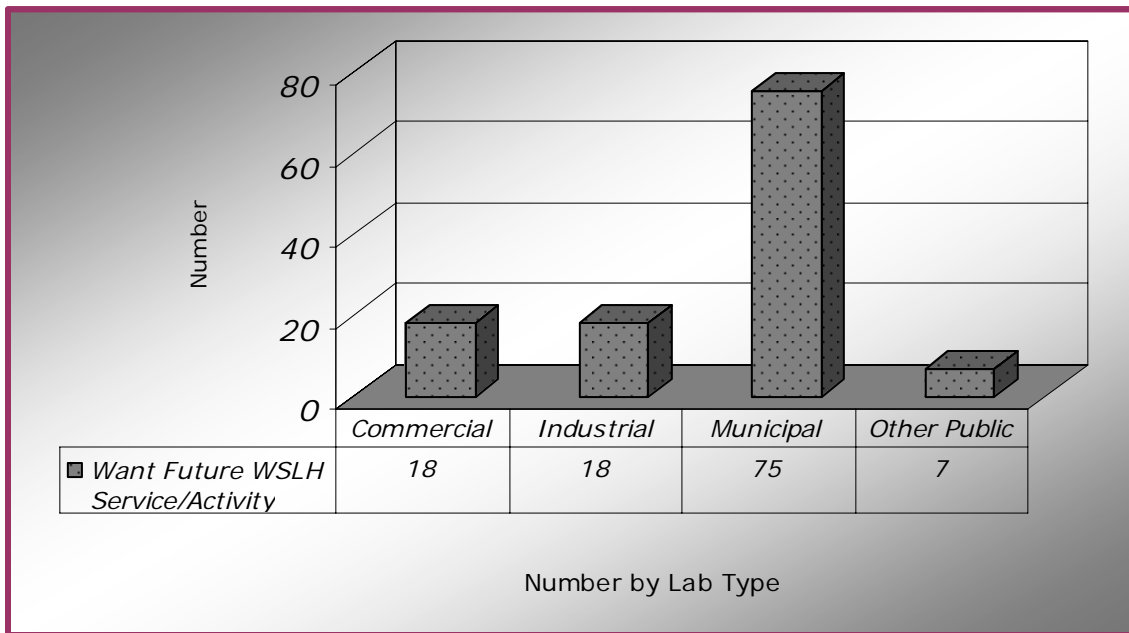


Figure 9: Laboratories That Would Like a WSLH Service or Activity in the Future, by Laboratory Type



Sixty-eight (68) percent of private and 70 percent of public sector laboratories indicated that they would like to have, or participate in, the same WSLH services or activities at some time in the future (Table 20, below, and Figure 9, previous page). The most common WSLH service or activity laboratories would like to receive or participate in some time in the future is *“information about new procedures or technologies”* (44%). Laboratories were significantly different by sector on only two of the 17 services or activities listed in Table 20. Public labs were significantly more likely to want 1) *regional conferences* and, 2) *evidence regarding a greater understanding of their capabilities on the part of WSLH*.

Table 20. Laboratory Would Like WSLH Provided Service or Activity to Laboratory in Future, by Sector

Overall Rank	Laboratory Sector				WSLH Service/Activities
	Private		Public		
	N	%	N	%	
1	20	38%	54	46%	Information about new procedures or technologies
2	20	38%	50	43%	A newsletter
3 ^t	18	34%	48	41%	Information about new or emerging environmental public health threats
3 ^t	22	42%	45	38%	Alerts about topics of importance
5	21	40%	43	37%	Procedures, guidelines, manuals or protocols in hard copy, electronically or via its Web site
6	17	32%	43	37%	Regular points of contact to whom laboratories can address questions or concerns on various topics
7 ^t	13	25%	45	38%	A laboratory network Web site
7 ^t	18	34%	39	33%	Workshops, information sessions or seminars
9	11	21%	42	36%	* Regional conferences
10	13	25%	34	29%	Timely, useful, appropriate and complete responses to questions or concerns on various topics
11	8	15%	36	31%	* Evidence of an understanding of the capabilities of your laboratory
12	14	26%	28	24%	Assistance to laboratories to enable participation in a laboratory network
13	10	19%	31	26%	Train the trainer workshops
14 ^t	10	19%	27	23%	Set up teleconferences
14 ^t	11	21%	27	23%	Grouped data (survey or agency information) about Wisconsin laboratories
16	10	19%	24	21%	Survey(s) to obtain contact or capability information about your laboratory
17	8	15%	26	22%	A site visit to your laboratory

* Denotes a statistically significant difference between sectors. ^t =tie.

WORKING IN “PARTNERSHIP” WITH WSLH

In this part of the survey, there were several “open ended” questions, meaning respondents were free to describe their perspectives on partnership-related topics rather than select one response from a predetermined “closed” list of replies. The majority of responses fell into six topical categories which are used in several tables below. Brief descriptions of the six categories are as follows:

1. **Laboratory Quality:** services associated with proficiency testing, reference testing, certification, standards, regulations, interpretations
2. **Communication:** frequency, availability, openness, helpfulness
3. **Information Sharing:** data exchange, information outreach and technical assistance
4. **Formal Training:** conferences, meeting, presentation, video conferencing
5. **Understanding and Trust:** do labs and WSLH understand each other, know about each other and have relationships of mutual trust
6. **Formal Agreements:** do formal and pre-existing agreed to conditions of partnership exist regarding contracts, standards, business volumes, payments

Respondents were asked to describe the “*key elements of an ideal ‘productive partnership’ between your lab and the WSLH.*” Among the 88 written responses, the most common responses pertain to a need for communication (N=27), followed by needs for technical information sharing (N=16), specifications of formal agreements (N=16), training (N=14), understanding and trust (N=12), and lab quality (N=11) (Table 21). There were also ten negative responses calling into question the conditions of an “ideal partnership.”

Table 21: Key Elements of an Ideal Productive Partnership Between Laboratories and the WSLH

(1) Lab Quality	(2) Communi- cation	(3) Information Sharing	(4) Formal Training	(5) Understand /Trust	(6) Formal Agreements
11	27	16	14	12	16

Respondents were next asked to describe the “most important first step toward developing or strengthening” an “ideal public-private or public-public partnership between laboratories like yours and the WSLH.” Comments about establishing information sharing networks and systems (N=14) were most common followed by training (N=10), communication (N=10), formal agreements (N=6), understanding and trust (N=5) and laboratory quality issues (N=3) (Table 22). The concepts of talking, planning and meeting together were other common themes in the responses.

Table 22: Most Important First Step in Developing or Strengthening Partnerships Between Laboratories and the WSLH

(1) Lab Quality	(2) Communi- cation	(3) Information Sharing	(4) Formal Training	(5) Understand /Trust	(6) Formal Agreements
3	10	14	10	5	6

Eighty-three (83) percent of public sector and 74 percent of private sector laboratories responding to the survey indicated agreement with the current WSLH/WSLH Board definition of a “Partnership” as a “collaboration between WSLH, private sector laboratories, other public sector laboratories and other public health partners” (for exact wording, see Appendix 1). Overall, four of every five survey respondents indicated agreement with the definition (Table 23).

Table 23. Agreement/Disagreement with WSLH/WSLH Board Definition of a Partnership*

Laboratory Sector	Agree		Disagree	
	N	%	N	%
Private Sector	39	74%	2	4%
Public Sector	97	83%	5	4%
All	136	80%	7	4%

* 16% of the 170 survey respondents did not answer this question.

The laboratories that disagreed with the WSLH/WSLH Board definition of partnership were asked to explain their disagreement. Of the seven labs that disagreed (see Table 23, previous page), six made a comment. Rather than reflecting a disagreement, the responses were more about perceptions regarding what is lacking in the relationship between WSLH and other environmental labs. Therefore, Table 24 mostly reflects respondents' doubts concerning partnership potential.

Table 24. Reasons for Disagreement with WSLH/Board definition of a "Partnership"

(1) <i>Low Lab Quality</i>	(2) <i>No Communication</i>	(3) <i>No Information Sharing</i>	(4) <i>No Formal Training</i>	(5) <i>No Trust</i>	(6) <i>No Formal Agreements</i>
1	1	2	0	2	3

Laboratories were asked if they perceive an existing partnership with the WSLH. The respondents who indicated that such a partnership exists were asked to rate the strength of this partnership. On a scale of 1 to 7 with "1" being strong and "7" being weak, the average rating by 64 laboratories was 4.1. Compared to public sector labs, private sector laboratories indicated a somewhat weaker partnership (4.6 v. 3.9).

Respondents, who said they were very or somewhat satisfied *"with the partnership that has existed between their lab and the WSLH over the past three years,"* were asked to describe *"the most substantive satisfactory aspects"* of their laboratory's current partnership with WSLH. As shown in Table 25 (next page), services associated with laboratory quality (N=23) was mentioned most often as the most substantive satisfactory aspect. This was followed by communication (N=11), training (N=6), information sharing (N=6), and understanding and trust (N=1). Formal agreements were not mentioned.

Table 25. Most Substantive Satisfactory Aspects of Current Partnership with WSLH

(1) Lab Quality	(2) Communi- cation	(3) Information Sharing	(4) Formal Training	(5) Understand /Trust	(6) Formal Agreement
23	11	6	6	1	0

Respondents, who said they were very or somewhat dissatisfied “with the partnership that has existed between their lab and the WSLH over the past three years,” were asked to describe “the most substantive unsatisfactory aspects” of their laboratory’s current partnership with WSLH. There were only eight comments and four of them indicated that there were no unsatisfactory aspects. Among the four comments regarding unsatisfactory relations, two each concerned poor communication, little formal training and no understanding/trust (Table 26).

Table 26. Most Substantive Unsatisfactory Aspects of Current Partnership with WSLH

(1) Lab Quality	(2) <i>Poor</i> Communi- cation	(3) Information Sharing	(4) <i>Little</i> Formal Training	(5) <i>No</i> Understand /Trust	(6) Formal Conditions
0	2	0	2	2	0

A total of 133 laboratories (39 private, 94 public sector) selected at least one reason for the notable consolidation or reduction in the number of commercial environmental and public sewage treatment plant laboratories in the past decade in Wisconsin. The most common reason cited was “consolidation of the industry to fewer, but larger labs.” Forty-eight (48) percent of all responding labs indicted this as a reason. Public sector labs were significantly more likely to select “reduction in municipal or county funding and personnel” as a reason. Almost one-half (49%) of all public sector labs gave this as a reason (Table 27, next page).

Table 27: Laboratories Perspectives on Reasons for Reduction in Business or Activity in Past Decade, by Sector

Overall Rank	Laboratory Sector				Reason for Reduction in Business or Activity
	Private Sector		Public Sector		
	N	%	N	%	
1	31	58%	50	43%	Consolidation of industry to fewer but larger labs
2	8	15%	57	49%	* Reduction in municipal or county funding and personnel
3	10	19%	25	21%	New technology that has greater capacity and capability
4 ^t	11	21%	22	19%	Slowing of Wisconsin economy
4 ^t	10	19%	23	20%	Other**
6	12	23%	13	11%	* Competition from out-of-state commercial labs
7	8	15%	11	9%	Reduction in required number of DNR-regulated tests
8	7	13%	7	6%	Weakening in EPA required regulations
9	10	19%	3	3%	Competition from the Wisconsin State Lab of Hygiene
10	5	9%	6	5%	Reduction in general environmental awareness in population regarding need for testing

Note: For this survey question, more than one item could be checked.
 * Denotes a statistically significant difference between sectors. ^t=tie.

Thirty-three (33) laboratories offered additional comments on the factors they believe contributed to the reduction in environmental laboratory business or activity in the state over the past decade. The responses cluster into four major categories: economic factors of declining prices and increased costs driving out the small facilities (N=13), DNR requirements (N=10)¹, low quality of small labs (N=4), and municipalities facing increased other work and reduced funding (N=3) (Table 28).

Table 28. Other Perspectives on the Reduction in Environmental Laboratory Business or Activity in the Past Decade

Low-Lab Quality	DNR Requirements	Economic Factors: Costs/Prices	Workload Pressure/ Reduced Funding
4	10	13	3

¹ Test volumes, policy requirements and increased regulation.

Twelve laboratories indicated at least one reason they believe the WSLH conducts an activity or has some institutional structure that results in “unfair competition.” Among all 12 labs, the most commonly selected reasons for “unfair competition” are 1) *WSLH provides tests commercially available to citizens*, 2) *WSLH provides tests commercially available to private firms*, and 3) *WSLH receives exclusive state government contracts* (Table 29). Characteristics of the 12 laboratories are shown in Table 30.

Table 29: Laboratories Perspectives on the Reasons for “Unfair Competition” by the WSLH

Overall Rank	Laboratory Sector				WSLH Activity or Institutional Structure/Reason for Unfair Competition
	Private Sector		Public Sector		
	N	%	N	%	
1 ^t	8	15%	3	3%	WSLH provides tests commercially available to citizens
1 ^t	8	15%	2	2%	WSLH provides tests commercially available to private firms
1 ^t	8	15%	2	2%	WSLH receives exclusive state government contracts
4 ^t	7	13%	2	2%	WSLH provides tests commercially available to local government
4 ^t	7	13%	2	2%	WSLH price structure
4 ^t	6	11%	3	3%	WSLH is supported with state funds to do government regulated and financed testing
4 ^t	5	9%	3	3%	WSLH is affiliated with the University of Wisconsin
8 ^t	4	8%	3	3%	WSLH receives research grants from federal government (CDC/EPA/OSHA) that support testing
8 ^t	4	8%	3	3%	WSLH’s approach to informing its customers about its products
8 ^t	4	8%	2	2%	WSLH bids on out-of-state business

Notes: Depending on their answer to two previous questions, most laboratories *were not* asked to respond to this question. ^t=tie.

Table 30: Characteristics of Laboratories That Perceive “Unfair Competition” by the WSLH

Laboratory Sector		Laboratory Type			Wisconsin Based Lab		LTE Equivalent Employees	
Private	Public	Commercial	Municipal	Other Public	Yes	No	5 or Less	6 or More
9	3	9	2	1	9	3	4	8

SELECTED RESPONDENT COMMENTS

A majority of the written comments made throughout the survey are supportive of a partnership between the WSLH and the laboratories surveyed. However, some raised issues they have with such a partnership; for example, WSLH competition and leadership, mutual trust, and the need for a better understanding of the needs of a diverse set of labs. Although quantitative data from seven questions regarding partnerships cannot be analyzed due to data collection programming errors, all qualitative (written, narrative) responses were recorded. All of those written comments can be read in Appendix 3 of this report. Here are a few examples of respondents' comments from across the survey, selected for diversity of topics and laboratory characteristics:

- *SLH needs to perform research. Performing a large number of routine sample analyses in no way prepares SLH for any sort of emergency event. The routine analyses should be done by the private sector, and SLH should be staffed and supported in a manner to be a research facility.*
- *Managements' lack of recognizing that state government should not compete with the private sector. If the capability for testing is available in the private sector, the WSLH should not be doing the analysis. The WSLH doesn't need to dwell on early twentieth century concepts, but should move forward with a new and progressive role for the WSLH in the 21st century.*
- *Any general agency that is in the private sector testing business is an unfair competition. It does not have to make money to survive. And no matter how you spin, it gets money support from the public sector.*
- *Although I have been told to the contrary by a parade of bureaucrats, the SLOH board is constructed so that there is no way for them to control unfair competition practices.*
- *1) To develop criteria that would allow the private sector laboratories to participate in a transition for eliminating the analysis of routine samples at the WSLH. 2) To address the issue of capacity and capability of private laboratories and how can they be utilized as part of a network. Contractual criteria need to be developed and of the millions available, what comes down to us?*

- *We have zero knowledge about anything related. If WSLH wants participation from us they should let us know what we would be expected to do and how to do it. We are a small WWTP lab able to do limited testing. We would help in an emergency to our capabilities. If more is needed or wanted WSLH should assist labs to prepare.*

As above, readers might wish to review all of the approximately 500 narrative comments made by respondents across all survey questions in order to comprehend the spectrum of opinions, views and suggestions, as well as, the depth of knowledge and commitment to environmental health and ecosystem protection that exists within the Wisconsin environmental laboratory community. Again, all of the narrative comments are available, verbatim, in Appendix 3.

ACKNOWLEDGMENT

The WSLH would again like to thank the 170 laboratories that responded to this survey for their cooperation, time, effort, sincerity and frankness. With this information and the subsequent discussions with environmental labs about the meaning of this data, the WSLH will continue to work toward an emergency response network for environmental laboratories. The planning, details and activities must be developed collaboratively; but this survey indicates that the effort needs to be, and should be made. This effort needs to focus not only on the development of such a network, but also on the resolution of environmental laboratories' concerns about the WSLH and its role and function within the environmental laboratory community of Wisconsin.

Technical Notes

Wisconsin Environmental Laboratory Survey Design

The Wisconsin Environmental Laboratories Survey was conducted from early February through mid-May, 2005. The entire population of 450 environmental laboratories registered or certified by the Wisconsin Department of Natural Resources in December 2004 was invited to participate.

The survey was first made available to respondents on the WSLH Web site. After the survey was “on-line” for approximately six weeks, paper surveys were mailed to the laboratories that had not yet responded. A total of 170 laboratories (38% of all invited) responded via the Web (N=102) or by mail (N=68). This included 53 private sector and 117 public sector laboratories. Four (4) occupational health labs, which are not DNR certified or registered, were also invited to participate at the request of a WSLH Board member. None returned a completed survey to WSLH. Additional technical information regarding characteristics of the final survey sample is included in the Introduction to this report.

Table 31 shows the roles of the 170 respondents in their respective laboratories as indicated in response to a survey question.

Table 31: Wisconsin Environmental Laboratory Survey Respondents, by Sector

Role in Laboratory	Laboratory Sector			
	Private Sector		Public Sector	
	N	%	N	%
Owner	6	11%	0	0%
Director	11	21%	24	21%
Manager	18	34%	68	58%
Analytic Supervisor	6	11%	4	3%
Other*	12	23%	19	16%
No Answer	0	0%	2	2%
All Respondents	53	100%	117	100%

* The 31 respondents, who described their roles as “other,” said their job titles include combinations of the above, “wastewater superintendent, treatment plant operator, laboratory supervisor, waste water operator/lab tech, operator/lab analyst, plant manager, head operator, client services representative 13 years with the company, EVN and Safety MGR, lab technician, environmental and safety specialist for site, administrative manager, senior plant chem. tech, contracts officer, quality assurance director, client services/sales, laboratory QA/QC chemist, QA officer, wastewater utility superintendent, wastewater supt. (who) oversees and holds license for plant, and wastewater operator in chief for this one man operation.”

The survey questions were designed by the contracted survey consultant and WSLH staff, who incorporated many suggestions from the Wisconsin environmental laboratory associations and individual laboratorians. The complete questions with “quick answers” from all 170 participating laboratories are available in Appendix 2 (page 37); verbatim qualitative question responses in Appendix 3 (page 75), and a list of all “no answer” responses to individual survey questions is available in Appendix 4 (page 102).

Mail survey data were hand entered on the Web survey and a combined data set was created by the WSLH Webmaster. This data set was edited by the survey consultant, who prepared the final data set for analysis. It was noted that a small number of laboratories did not answer demographic questions about 1) whether or not they are a Wisconsin-based laboratory, and 2) whether they are a private or public sector laboratory. To assure that all laboratories were coded on those two key analytic variables, the consultant worked with the DNR staff and its registration/certification data base to classify all 170 laboratories by those two characteristics.

Respondents were assured by WSLH that they could complete the survey anonymously and that results would be reported in any publications generated by WSLH as grouped data only. In addition, individual laboratory identification numbers were deleted from the final stored data set.

Definitions of Terminology Used in This Report

For purposes of this report, the following definitions apply:

Private Sector includes 25 commercial, 14 industrial wastewater, 13 industrial laboratories, and one hazardous waste laboratory(s).

Public Sector includes 106 municipal wastewater, three municipal drinking water, five public health departments, two academic or research laboratories and one military laboratory. All are Wisconsin-based labs.

Commercial includes private sector laboratories whose predominant business is general environmental testing. All but 13 commercial labs are Wisconsin-based labs. Commercial laboratories currently do not have an emergency response role unless already under contract with some entity for that function.

Industrial includes industrial, industrial waste water and, except for Table 1, Table 2 and Figure 1, the one hazardous waste water laboratory in the data set. All but one industrial lab are Wisconsin-based labs. Industrial labs are generally laboratories within a company that have a DNR permit for wastewater discharge. As such, these laboratories perform functions similar to the public wastewater treatment labs, i.e., making sure their

facility is in compliance with their permit. Hazardous waste laboratories also do work for their own company, or for their company's "customers" in determining the hazardous characteristics of waste so the waste can be disposed of and/or stored. The company with the laboratory would generally store/dispose of waste for the customer. As such, industrial and hazardous waste laboratories have interests in common with public laboratories. While they are all classified as "private sector" laboratories, their "missions" are different than those of commercial laboratories. Industrial/hazardous waste facilities are required under the federal Clean Air Act to have emergency response plans developed and on file with the Environmental Protection Agency, primarily to handle emergencies arising from their own operations.

Municipal includes both municipal wastewater treatment plants and municipal drinking water facilities ranging from very small, one-person plant operations to facilities in some of the state's largest communities.

Other Public laboratories include public health departments, military and academic/research laboratories. All are Wisconsin-based labs.

A Sample means the collection of a single specimen upon which multiple tests may be performed. This is usually indicated by a single laboratory specimen number.

Test(s) refers to one or more laboratory tests for analytes that may have been conducted on a given sample.

Tables in This Report

All data presented in this report are from the 2005 Wisconsin Environmental Laboratory Survey. All percentages used in tables, notes or narrative are rounded to the nearest whole number.

Statistical Tests

A statistical test was used each time a difference between two groups is identified in tables, notes, or in the narrative of this report. Only those differences that are statistically significant at the 0.05 level using Chi-square and t-tests are mentioned in this report.

APPENDIX I

WSLH/WSLH BOARD PARTNERSHIP DEFINITION

A Public Health Laboratory System Partnership is collaboration between the WSLH, private sector laboratories, other public sector laboratories, and other public health partners. Its purpose is to assure the capacity and capability of the System to carry out one or more of 11 Core Functions of a State Public Health Laboratory: Food Safety; Training and Education; Public Health Related Research; Emergency Response; Policy Development; Laboratory Improvement and Regulation; Partnership and Communication; Environmental Health and Protection; Reference and Specialized Training; Disease Prevention, Control and Surveillance, and Integrated Data Management.

The focus of the partnership is a mutual concern for the health of the public and its environment, and a willingness to contribute knowledge, skills and resources to foster healthy people in healthy Wisconsin environments (January 23, 2001).

APPENDIX 2

SURVEY QUESTIONS AND QUICK ANSWERS

PART I: SURVEY ACCESS AND CONFIDENTIALITY

All environmental laboratories certified or registered by the State of Wisconsin Department of Natural Resources are invited to complete this survey. Taking this survey is completely voluntary. The WSLH assures individual laboratories that their survey answers will remain confidential and anonymous. Your laboratory's answers will be grouped with results from all participating laboratories and will be reported only as grouped data. Your answers will not be stored, analyzed or associated with your laboratory in any WSLH database, presentation or publication that uses these survey results.

To access or complete the survey, each laboratory must provide its DNR certification identification (ID) number. This is to ensure that only authorized laboratories gain access to the survey. This also enables the WSLH to maintain a record of which laboratories participated. Your laboratory's DNR Certification ID number will not be attached to your answers in any way that could associate your answers with your laboratory, or to identify your laboratory.

Please enter your Wisconsin DNR laboratory certification identification (ID) number. Again, this number is used only to ensure that only authorized laboratories gain access. Your ID number will be removed once you are identified as a valid laboratory eligible to answer the survey.

QUESTION P1Q1: Please enter your Wisconsin DNR Laboratory Certification ID Number.

Number of Responses	
170	Laboratories responded to the survey

QUESTION P1Q2: Is your laboratory a DNR certified laboratory or a (DNR) registered laboratory?

N	%	Response
27	40%	DNR Certified
39	57%	DNR Registered
2	3%	No Answer
68	100%	Total

Notes:

Data in this table are from 68 paper surveys. Data from 102 Web surveys are not available due to a Web survey computer program error.

According to the DNR, among the 450 labs invited to participate in the WSLH/APHL survey, about 37 percent are certified labs; 60 percent, registered labs; and 3 percent are registered or certified by reciprocity agreement with another state.

QUESTION P1Q3: Do you view your laboratory as a Wisconsin-based laboratory?

N	%	Response
156	92%	Yes
14	8%	No
170	100%	Total

PART II: LABORATORY DEMOGRAPHICS / DESCRIPTORS

Your responses to Part II questions will assist the WSLH in understanding the needs and views of laboratories of different types and size, etc., according to their responses given in other parts of the survey.

QUESTION P2Q1

Question P2Q1 Part 1: The person answering survey questions should be a laboratory administrator or equivalent who has overall knowledge of your facility's testing capabilities, training needs, and business perspectives. What is your role in this laboratory?

N	%	Response
6	4%	Laboratory Owner
35	21%	Laboratory Director
86	51%	Laboratory Manager
10	6%	Analytic Supervisor
31	18%	Other (Please Specify)
2	1%	No Answer
170	100%	Total

Question P2Q1 Part 2: Specify "Other" (see above). Qualitative question. See verbatim responses in Appendix 3.

QUESTION P2Q2: How would you best characterize your laboratory's work?

Question P2Q2 Part 1: Please check one option from the list below.

N	%	Response
25	15%	Commercial Lab
1	1%	Hazardous Waste Lab
13	8%	Industrial Lab
14	8%	Industrial Waste Water Lab
3	2%	Municipal Drinking Water Lab
106	62%	Municipal Wastewater Treatment Lab
0	0%	Occupational Health Lab
5	3%	Public Health Department Lab
2	1%	Academic/Research Lab
1	1%	Military Lab
170	100%	Total

Question P2Q2 Part 2: Please characterize your business. Qualitative question. See verbatim responses in Appendix 3.

QUESTION P2Q3: Which of the following best describes the average number of full-time equivalent (FTE) employees at your laboratory during 2004?

2004 Average		Number of Full Time Employees (FTEs)
N	%	Response
137	81%	1-5
5	3%	6-10
6	4%	11-20
10	6%	21-50
8	5%	51-100
3	2%	101-250
1	1%	No Answer
170	100%	Total

QUESTION P2Q4: Which category best describes your laboratory?

N	%	Response
53	31%	Private Sector
117	69%	Public Sector
170	100%	Total

QUESTION P2Q5: For the purposes of this question a sample refers to the collection of a single specimen upon which multiple tests may be performed. This is usually indicated by a single laboratory specimen number.

Question P2Q5 Part 1: Table A below shows a list of sample matrices for which many environmental laboratories conduct tests. If all samples from the matrices listed were combined, what is your best estimate of the total number of samples your laboratory tested in 2004? In Table B, please indicate the range that includes the total (combined) number of all samples your laboratory tested in 2004.

TABLE A	TABLE B		
Sample Matrices	Check One		Range of Total (Combined) Number of Samples Tested in 2004
	N	%	Response
Surface Water	63	37%	Less than 1,000
Ground Water	68	40%	1,000 - 9,999
Air	15	9%	10,000 - 19,999
Soil	7	4%	20,000 - 29,999
Aquatic Sediment	2	1%	30,000 - 39,999
Waste Water (municipal and industrial)	2	1%	50,000 - 59,999
	2	1%	60,000 - 69,999
Food	1	1%	80,000 - 89,999
Animal Feed	4	2%	90,000 - 99,999
Hazardous Waste	1	1%	100,000 - 149,999
Sludge	1	1%	200,000 - 249,999
Other	1	1%	500,000 - 749,999
	1	1%	750,000 - 1,000,000
	2	1%	No Answer
	170	100%	Total

Question P2Q5 Part 2: What percent of the samples reported above in Part 1 (above) were collected in Wisconsin?

Statistic	Statistical Category
1-100%	Range of Percentages Reported
158	Total Number of Labs Reporting
92%	Average Percentage Reported

QUESTION P2Q6: For each sample matrice listed, please give your best estimate of the annual percentage of the total (combined) number of samples tested by your laboratory in 2004.

Percentage of Total 2004 Samples Tested			Sample Matrices
N Labs Reporting	Range of Percents Reported	Ave. % Among Those Labs	
62	1-99%	24%	% Ground Water
44	1-51%	9%	% Surface Water
12	1-90%	15%	% Air
26	1-60%	18%	% Soil
10	1-10%	4%	% Aquatic Sediment
160	1-100%	76%	% Waste Water (municipal and industrial)
11	2-97%	28%	% Food
3	1-10%	4%	% Animal Feed
26	1-96%	14%	% Hazardous Waste
74	1-45%	9%	% Sludge
25	1-95%	24%	% All Other

QUESTION P2Q7: Question 5 was about samples received by the laboratory. This question refers to the total number of tests (assuming multiple tests may be done on some samples) done by your laboratory. Please estimate the total number of tests that your laboratory conducted in 2004.

In the table below, please indicate the range that includes the total (combined) number of tests for analytes that your laboratory conducted in 2004.

Check One		Range of Total (Combined) Number of Tests in 2004
N Checks	% of all Labs	Response
46	27%	Less than 1,000
75	44%	1,000 - 9,999
15	9%	10,000 - 19,999
5	3%	20,000 - 29,999
1	1%	40,000 - 49,999
4	2%	50,000 - 59,999
1	1%	60,000 - 69,999
1	1%	70,000 - 79,999
1	1%	90,000 - 99,999
5	3%	100,000 - 149,999
3	2%	150,000 - 199,999
1	1%	200,000 - 249,999
1	1%	250,000 - 299,999
2	1%	300,000 - 399,999
2	1%	400,000 - 499,999
4	2%	More than 1,000,000
3	2%	No Answer
170	100%	Total

QUESTION P2Q8: For each general category of testing listed below, please give your best estimate of the total annual 2004 percentage of:

- a. business revenue if yours is a private sector/commercial lab, or
- b. budgeted cost if yours is a public sector/government lab.

Percentage of Total Annual Business Revenue or Budgeted Cost in 2004			General Category of Testing
N Labs Reporting	Range of Percents Reported	Ave. % Among Those Labs	
33	1-60%	14%	% Solid waste landfill
67	1-100%	43%	% Water quality, such as well testing
14	1-91%	11%	% Safe home / workplace, such as lead or asbestos
13	2-80%	18%	% Underground storage
82	1-100%	57%	% Industrial / business output, such as effluent
27	2-95%	29%	% Industrial / business input
14	1-30%	6%	% Air quality
6	1-100%	21%	% Toxicology
10	1-91%	13%	% Agriculture, including pesticides
50	1-100%	64%	% All Other

QUESTION P2Q9: Which of the following annual revenue or budget amount best describes your laboratory in 2004?

Question P2Q9 Part 1: For private sector/commercial labs, please indicate the approximate amount of your lab's gross annual business revenue in 2004. For public sector/government labs, please indicate the amount of your lab's total budget in 2004.

Check One		2004 Gross Annual Revenue/Budget
N Checks	% of All Labs	
100	59%	Less than \$100,000
17	10%	\$100,000 to \$250,000
12	7%	More than \$250,000 to \$1 million
10	6%	More than \$1 million to \$2.5 million
4	2%	More than \$2.5 million to \$5 million
5	3%	More than \$5 million to \$10 million
1	1%	More than \$10 million to \$20 million
21	12%	No Answer
170	100%	Total

Question P2Q9 Part 2: What is your best estimate of the percentage of your annual revenue or budget amount was related to specimens collected in Wisconsin?

Statistic	Statistical Category
1-100%	Range of Percentages Reported
144	Total Number of Labs Reporting
81%	Average Percentage Reported

QUESTION P2Q10: Your laboratory may belong to one or more professional laboratory organization or association. Please check Yes or No to indicate whether your laboratory belongs to the following organizations/associations.

N "yes"	% of All Labs	Organization/Association
12	7%	Wisconsin Environmental Laboratory Assn.
64	38%	Wisconsin Rural Water Association
10	6%	Wisconsin Laboratory Association
96	56%	Wisconsin Wastewater Operator Association
9	5%	Wisconsin Paper Council
33	19%	Municipal Environmental Group
3	2%	Midwest Water Analysts Association
19	11%	Central States Water Environment Association
12	7%	Other

Question P2Q10_10: Specify "Other" (see above). Qualitative question. See verbatim responses in Appendix 3.

PART III: BUILDING A STATEWIDE LABORATORY NETWORK FOR PUBLIC EMERGENCY AND TERRORISM PREPAREDNESS

Your answers in this part will help the WSLH develop a statewide environmental laboratory network to address local, state and national emergencies.

QUESTION P3Q11: Does your laboratory use the Internet or the World Wide Web on a routine basis for any of the following business or agency purposes?

Please check Yes or No for each use listed.

N "yes"	% of All Labs	Internet or Web Use
67	39%	E-commerce (billing, ordering, etc.)
52	31%	Receiving test requests
72	42%	Communicating with customers via e-mail
63	37%	Sharing test results
109	64%	Searching for business-related information
100	59%	Reporting information to a government agency
5	3%	Other
129	76%	Indicated using the Web/Internet for 1 or more of the above purposes.

QUESTION P3Q12: The Wisconsin Health Alert Network (HAN) is a Web-based information sharing system funded by the federal Centers for Disease Control (CDC). The Wisconsin Department of Health and Family Services in cooperation with the DNR, WSLH and the Department of Agriculture, Trade and Consumer Protection (DATCP) directs its operation in Wisconsin. The system, operated by the University of Wisconsin's Division of Information Technology, connects public health departments, clinics, emergency rooms, laboratories, law enforcement, fire services, the federal government, and other entities. It is a secure communication system that requires registration and authorization.

If the Wisconsin HAN's scope were extended to include environmental laboratories, how useful would the following types of information and services be to your laboratory's work and mission? Please rate each item listed as to its usefulness to your lab.

Question P3Q12, continued*				
HAN Service or Information Type	How Useful to Your Lab			
	1	2	3	4
	Very Useful	Somewhat Useful	A Little Useful	Not Useful
Secure communication with local/county/state emergency partners	N	N	N	N
	26	58	35	34
	%	%	%	%
	15%	34%	21%	20%
Federal/State emergency alerts/announcements	N	N	N	N
	36	55	35	27
	%	%	%	%
	21%	32%	21%	16%
Access – links to national emergency Web sites for information	N	N	N	N
	21	70	32	30
	%	%	%	%
	12%	41%	19%	18%
A means for secure requests for assistance needed by State/county	N	N	N	N
	25	50	42	36
	%	%	%	%
	15%	29%	25%	21%
Technical laboratory information on dealing with an emergency	N	N	N	N
	43	62	28	21
	%	%	%	%
	25%	36%	16%	12%
Mobilization of lab volunteers in an emergency. (The HAN can store data on labs and employees willing to volunteer.)	N	N	N	N
	19	44	46	45
	%	%	%	%
	11%	26%	27%	26%
A means for secure reporting of lab information to State agencies	N	N	N	N
	46	71	16	20
	%	%	%	%
	27%	42%	9%	12%
A means of secure communication with WSLH	N	N	N	N
	36	64	28	26
	%	%	%	%
	21%	38%	16%	15%
Other	N	N	N	N
	0	0	1	14
	%	%	%	%
	0	0	1%	8%

* Percentages for these questions may not total 100% because missing/no answer responses are omitted from this table. About 10 percent of respondents did not answer this question.

QUESTION P3Q13: Would your laboratory like to be a registered user of the Wisconsin Web-based Health Alert Network (HAN)?

N	%	Response
67	39%	Yes
84	49%	No
19	11%	No Answer
170	100%	Total

QUESTION P3Q14: In the context of having the proper equipment, how well prepared is your laboratory to respond to an environmental terrorist event, or a biological or chemical accident / emergency?

1 Very Well	2 Somewhat	3 Slightly	4 Not at all	5 Not sure	Questions*
N	N	N	N	N	P3Q14 Part 1 Emergency
11	47	39	36	21	
%	%	%	%	%	
6%	28%	23%	21%	12%	P3Q14 Part 2 Terrorism
N	N	N	N	N	
16	14	45	51	28	
%	%	%	%	%	
9%	8%	26%	30%	16%	

* 9 percent of respondents did not answer these two questions.

QUESTION P3Q15: How well trained and prepared do you think your laboratory is to respond to an environmental terrorist event, or a biological or chemical accident / emergency?

1 Very Well	2 Somewhat	3 Slightly	4 Not at all	5 Not sure	Questions*
N	N	N	N	N	P3Q15 Part 1 Emergency
9	35	42	48	20	
%	%	%	%	%	
5	21	25	28	12	P3Q15 Part 2 Terrorism
N	N	N	N	N	
3	18	34	73	26	
%	%	%	%	%	
2%	11%	20%	43%	15%	

* 9 percent of respondents did not answer these two questions.

QUESTION P3Q16: During 2004, did you or other employees of your laboratory participate in any educational or training opportunities to learn about the roles, expectations and operations of laboratories in response to a chemical or biological accident or terrorist act?

N	%	Response
25	15%	Yes
129	76%	No
16	9%	No Answer
170	100%	Total

QUESTION P3Q17: During 2004, did your laboratory do any internal planning or have any discussions regarding your laboratory's potential roles and responsibilities for emergency response to a chemical or biological accident or a terrorist act?

N	%	Response
25	15%	Yes
129	76%	No
16	9%	No Answer
170	100%	Total

QUESTION P3Q18: During 2004, did your laboratory participate in any local, regional or state emergency government operational planning meeting held to plan a response to a biological or chemical accident or terrorist act.

N	%	Response
15	9%	Yes
139	82%	No
16	9%	No Answer
170	100%	Total

QUESTION P3Q19: The Wisconsin State Emergency Preparedness Plan (PHEP) has been prepared by several cooperating state agencies. Which of the PHEP topics listed would your laboratory like to learn more about either through informational publications or laboratory training sessions? Please check all that apply.

Check all that apply		Wisconsin State Emergency Preparedness Plan (PHEP) Topics
N "yes"	% of All Labs	
94	55%	Emergency Notification
32	19%	Isolation Policy
49	29%	Disposable Waste
44	26%	Disposable Waste, Biological
52	31%	Disposable Waste, Chemical
27	16%	Integrated Communication
23	14%	Transport
30	18%	Decontamination
71	42%	Protective Personal Equipment
36	21%	Surveillance
81	48%	Environmental Health Risks
92	54%	Laboratory Procedures
57	34%	Managing Hazardous Materials
46	27%	Legal Background To Laboratory Response to Emergency/ Terrorism

QUESTION P3Q20: For this survey, the surge capacity of an environmental laboratory network means the ability to manage a sudden unexpected increase in the volume of sample tests due to an environmental public health emergency or terrorist act. If WSLH were engaged in such a federal, state or local emergency situation and is 1) already at capacity, and 2) unable to do all of its normal, non-emergency testing, the WSLH would consider surging (sending) that routine non-emergency work to outside certified environmental laboratories. This would enable WSLH to focus on the emergency testing.

Would your laboratory be willing to provide and/or negotiate with WSLH for the provision of surge capacity testing for WSLH’s routine (non-emergency) samples in the event of an environmental emergency or terrorist attack? Please check a response or responses that best represent your laboratory’s position at this time.

Check all that apply		Laboratory’s Position on Surge Capacity Testing
N “yes”	% of All Labs	
42	25%	Your laboratory would be willing to provide WSLH with surge capacity testing as described above
46	27%	Your laboratory would agree to negotiate with WSLH the provision of surge capacity testing as described above, but only if certain conditions were met
42	25%	Your laboratory could not negotiate the provision of surge capacity testing because it has no excess capacity that could be diverted
33	19%	Your laboratory would not defer its regular business to provide for surge capacity testing as described above

QUESTION P3Q21: Which of the following conditions, if met, would increase your laboratory's willingness to provide *surge capacity* testing for routine (non-emergency) samples from the WSLH in the event of an environmental health emergency or terrorist attack? Please check Yes or No for each condition listed.

N "yes"	% of All Labs	Condition
74	44%	If at the time of the emergency your laboratory would not be testing at full capacity with standard customers
70	41%	If a contract exists with WSLH or a State agency that clarifies the financial arrangement to pay for the testing
72	42%	If surge testing fits into the regular sample run
85	50%	If WSLH defined the required test methods
46	27%	If there were statutory authority for non-WSLH testing
66	39%	If WSLH provided technical assistance in attainment of federally defined methods
79	46%	If there were assurance that State certification status would not be harmed
46	27%	If there were provisions for electronic data linkage to the State
51	30%	If there were compensation for regular business your lab might have to defer
83	49%	If your lab could specify the volume of surge testing which you would be willing to undertake
6	4%	Other

QUESTION P3Q22: In the event of a terrorist act or a chemical or biological accident affecting the general public, which of the following might your laboratory be able and willing to provide? Please check Yes or No for each item listed.

N "yes"	% of All Labs	Possible Laboratory Services in a Public Emergency
43	25%	Voluntary, unpaid employee time
85	50%	Paid employee time per a pre-emergency event agreement
71	42%	Voluntary electronic communications or data sharing services
57	34%	Paid electronic communications or data sharing services per a pre-emergency event agreement
40	24%	Voluntary testing of emergency samples (other than the surge of non-emergency testing)
76	45%	Paid testing of emergency samples per a pre-emergency event agreement (other than the surge of non-emergency testing)
90	53%	Use of facility and equipment
5	3%	Other

QUESTION P3Q23: Would your laboratory be willing to participate with the WSLH in any of these emergency and non-emergency network or networking activities? Please check Yes or No for each activity listed.

N "yes"	% of All Labs	Network or Networking Activity with WSLH
79	46%	Share only non-confidential or non-identifiable proprietary data that can't be used for enforcement, but is used only for understanding (surveillance and epidemiology) what is happening in an emergency event
97	57%	Share any laboratory test information from laboratories that would be useful to the State in an emergency event such as bioterrorism
44	26%	Contribute articles or opinion pieces to environmental laboratory association or State agency newsletters
48	28%	Attend a Quarterly business meeting of a statewide environmental laboratory network
58	34%	Share expertise by having lab and staff do training at professional laboratory workshops, seminars or conferences
67	39%	Establish regular communications through the HAN or the WSLH Web site
63	37%	WSLH establish and publish a regular Environmental Newsletter
1	1%	Other
113	66%	Laboratory is interested in participating in 1 or more of the above networking activities.

QUESTION: P3Q24: If WSLH or any other government agency were to provide introductory, general education and training to your employees on the broad disciplines of environmental health or public health, would this be useful to your laboratory? (Examples: What is the State Health Plan all about? How is epidemiology done in Wisconsin using lab data?)

N	%	Response
87	51%	Yes
58	34%	No
25	15%	No Answer
170	100%	Total

QUESTION P3Q25: If the following general technical laboratory training or classes (not necessarily related to emergency situations) were offered by WSLH, please indicate whether your laboratory would be interested in enrolling its employees. Please check Yes or No for each training topic listed.

N "yes"	% of All Labs	Training Topic
114	67%	Lab employee safety
116	68%	Quality standards
116	68%	New technology/methods
77	45%	Available laboratory (LMS) computer systems
107	63%	State/Federal agency reporting requirements
68	40%	Sample transport issues
113	66%	Proficiency testing
76	45%	Chain of evidence
5	3%	Other

QUESTION P3Q26: Please rate each of the following considerations or training delivery methods as to their importance in your decision to receive WSLH-sponsored training. Rate 1 to 4 with 1 being the highest importance.

Rate 1 to 4 with 1 being highest importance			Considerations and Training Delivery Methods
Rating Rank	Ave. Rating	N Labs Rating	
5	2.1	147	Direct cost of training (registration, tuition, etc.)
7	2.4	146	Indirect cost of training (transportation, overtime, etc.)
1	1.6	147	Quality of training
3	2.0	144	Required training content (certification/PT, etc.)
9	2.5	146	Institution or organization offering training
3	2.0	147	Trainer expertise, reputation
2	1.8	145	Course topics or curriculum
13	2.6	147	Distance learning with audio (conference call/radio) and written material
14	2.8	147	Distance learning via cable television in your lab
9	2.5	146	Distance learning via the internet in the work setting in your lab
15	3.0	147	Distance learning via the internet in your home environment, on a home computer
7	2.4	148	Video, CD or DVD
9	2.5	146	Face-to-face: trainer comes to your lab or town
6	2.2	146	Face-to-face: your employees go to regional training sessions
9	2.5	148	Face-to-face: your employees go to Madison (WSLH, UW or other state agency headquarters)
16	3.4	9	Other

QUESTION P3Q27: The table below shows a list of services and activities that have been, or could be provided in the future, by the Wisconsin State Laboratory of Hygiene.

In column "a," please indicate the services or activities that WSLH has offered or provided to your laboratory in the past year.

In column "b," please indicate the services or activities that you would like the WSLH to provide to your laboratory in the future.

Check all that apply		WSLH Service/Activities
(a) WSLH has offered or provided in the past year to your lab	(b) Would like WSLH to provide to your lab in the future	
P3Q27A1	P3Q27B1	Assistance to laboratories to enable participation in a laboratory network
N	N	
13	42	
%	%	
8%	25%	
P3Q27A2	P3Q27B2	Regular points of contact to whom laboratories can address questions or concerns on various topics
N	N	
45	60	
%	%	
26%	35%	
P3Q27A3	P3Q27B3	Timely, useful, appropriate and complete responses to questions or concerns on various topics
N	N	
47	47	
%	%	
28%	28%	
P3Q27A4	P3Q27B4	Information about new procedures or technologies
N	N	
26	74	
%	%	
15%	44%	

QUESTION P3Q27, continued		
Check all that apply		WSLH Service/Activities
(a) WSLH has offered or provided in the past year to your lab	(b) Would like WSLH to provide to your lab in the future	
P3Q27A5	P3Q27B5	Information about new or emerging environmental public health threats
N	N	
9	66	
%	%	
5%	39%	
P3Q27A6	P3Q27B6	Evidence of an understanding of the capabilities of your laboratory
N	N	
6	44	
%	%	
4%	26%	
P3Q27A7	P3Q27B7	A laboratory network Web site
N	N	
4	58	
%	%	
2%	34%	
P3Q27A8	P3Q27B8	Workshops, information sessions or seminars
N	N	
46	57	
%	%	
27%	34%	
P3Q27A9	P3Q27B9	Train the trainer workshops
N	N	
4	41	
%	%	
2%	24%	
P3Q27A10	P3Q27B10	Set up teleconferences
N	N	
3	37	
%	%	
2%	22%	

QUESTION P3Q27, continued		
Check all that apply		WSLH Service/Activities
(a) WSLH has offered or provided in the past year to your lab	(b) Would like WSLH to provide to your lab in the future	
P3Q27A11	P3Q27B11	Survey(s) to obtain contact or capability information about your laboratory
N	N	
12	34	
%	%	
7%	20%	
P3Q27A12	P3Q27B12	Grouped data (survey or agency information) about Wisconsin laboratories
N	N	
9	38	
%	%	
5%	22%	
P3Q27A13	P3Q27B13	Alerts about topics of importance
N	N	
12	67	
%	%	
7%	39%	
P3Q27A14	P3Q27B14	A site visit to your laboratory
N	N	
10	34	
%	%	
6%	20%	
P3Q27A15	P3Q27B15	Procedures, guidelines, manuals or protocols in hard copy, electronically or via its Web site
N	N	
19	64	
%	%	
11%	38%	
P3Q27A16	P3Q27B16	Regional conferences
N	N	
16	53	
%	%	
9%	31%	

QUESTION P3Q27, continued		
Check all that apply		WSLH Service/Activities
(a) WSLH has offered or provided in the past year to your lab	(b) Would like WSLH to provide to your lab in the future	
P3Q27A17	P3Q27B17	A newsletter
N	N	
23	70	
%	%	
14%	41%	
P3Q27A18	P3Q27B18	Other
N	N	
1	1	
%	%	
1%	1%	
1 or More of the Above (Column A)	1 or More of the Above (Column B)	Respondent checked 1 or more of the above items.
N	N	
87	118	
%	%	
51%	69%	

QUESTION P3Q28: What is the one thing your laboratory needs most to be better prepared for a chemical or biological accident or terrorist act? Please indicate your response in the box below.

Qualitative question. See verbatim responses in Appendix 3.

PART IV. WORKING IN “PARTNERSHIP” WITH WSLH

Your answers to this part of the survey will help the WSLH understand the issues involved in the development of “partnerships” within a Wisconsin environmental laboratory network.

QUESTION: P4Q29: Wisconsin’s public sector environmental laboratories and the WSLH have been working together for some time on a public-public “partnership.” Currently WSLH has begun to talk with Wisconsin’s commercial environmental laboratories concerning the development of a mutually beneficial public-private “partnership”.

From your laboratory’s perspective, please briefly describe the key elements of an ideal “productive partnership” between your lab and the WSLH. Please indicate your response in the box below.

Qualitative question. See verbatim responses in Appendix 3..

QUESTION P4Q30: Please consider the things you described in your response to the previous question (29). From your laboratory’s perspective, what is the most important first step toward developing or strengthening that ideal public-private or public-public partnership between laboratories like yours and the WSLH? Please indicate your response in the box below.

Qualitative question. See verbatim responses in Appendix 3.

QUESTION P4Q31: The WSLH and its Board have developed a definition of “partnership” as follows:

A Public Health Laboratory System Partnership is collaboration between the WSLH, private sector laboratories, other public sector laboratories, and other public health partners. Its purpose is to assure the capacity and capability of the System to carry out one or more of 11 Core Functions of a State Public Health Laboratory: Food Safety; Training and Education; Public Health Related Research; Emergency Response; Policy Development; Laboratory Improvement and Regulation; Partnership and Communication; Environmental Health and Protection; Reference and Specialized Training; Disease Prevention, Control and Surveillance, and Integrated Data Management.

The focus of the partnership is a mutual concern for the health of the public and its environment, and a willingness to contribute knowledge, skills and resources to foster healthy people in healthy Wisconsin environments (January 23, 2001).

As the representative of your laboratory, do you agree or disagree with the WSLH and Board definition of “partnership?” (Please check one. If you disagree, please explain in the box below.)

P4Q31 Part 1

N	%	Response
136	80%	Agree
7	4%	Disagree
27	16%	No Answer
170	100%	Total

P4Q31 Part 2, if you disagree, please explain. Qualitative question. See verbatim responses in Appendix 3..

QUESTION P4Q32: From your laboratory’s perspective, does there need to be a “partnership” between your laboratory and the WSLH as defined (in question 31) by the WSLH Board?

N	%	Response
29	43%	Yes
34	50%	No
5	7%	No Answer
68	100%	Total

Note: Data in this table are from 68 paper surveys. Data from 102 Web surveys are not available due to a Web survey computer program error.

QUESTION P4Q33: This is a two part question regarding partnerships.

P4Q33 Part 1: From your laboratory's perspective, does a partnership exist between your lab and the WSLH?

N	%	Response
32	47%	Yes
34	50%	No, skip to Question P4Q37.
2	3%	No Answer
68	100%	Total

Note: Data in this table are from 68 paper surveys. Data from 102 Web surveys are not available due to a Web survey computer program error.

P4Q33 Part 2: On a scale of 1 to 7 where 1 equals “strong” and 7 equals “weak,” from your laboratory’s perspective how would you describe the status of the “partnership” that currently exists between your laboratory and the WSLH?

1 Strong Partner- ship exists	2	3	4	5	6	7 Weak partner- ship exists
N	N	N	N	N	N	N
6	11	10	12	9	3	13
%	%	%	%	%	%	%
4%	6%	6%	7%	5%	2%	8%

Note: Sixty-four (64) of 170 survey respondents (38%) answered this question. The average rating among the 64 respondents was 4.1.

QUESTION P4Q34: How satisfied is your laboratory with the partnership that has existed between your laboratory and the WSLH over the past three years?

N	%	Response
22	32%	Very satisfied. Go to next question (35).
10	15%	Somewhat satisfied. Go to next question (35).
34	50%	Skip this question per survey instruction.
2	3%	No answer
68	100%	Total

Note: Data in this table are from 68 paper surveys. Data from 102 Web surveys are not available due to a Web survey computer program error.

QUESTION P4Q35: Given your answer to question 34, from your laboratory's perspective please briefly describe the most substantive "satisfactory" aspect of the current "partnership" with the WSLH. Please indicate your response in the box below; then skip to question 37.

Qualitative question. See verbatim responses in Appendix 3.

QUESTION: P4Q36: Given your answer to question 34, from your laboratory's perspective please briefly describe the most substantive "unsatisfactory" aspect of the current "partnership" with the WSLH. Please indicate your response in the box below.

Qualitative question. See verbatim responses in Appendix 3.

QUESTION P4Q37: Compared to three years ago, which of the following best describes the status of your laboratory's scope or scale of operations today?

For private sector/commercial labs, please answer comparing the differences, if any, in your sales volume and/or revenues. For public sector/government labs, please answer comparing the differences, if any, in your budget and/or number of tests performed. Please check one.

N	%	Response
4	6%	It has grown substantially
14	21%	It has grown moderately
41	60%	It has remained stable
7	10%	It has declined moderately
2	3%	It has declined substantially
68	100%	Total

Note: Data in this table are from 68 paper surveys. Data from 102 Web surveys are not available due to a Web survey computer program error.

QUESTION: P4Q38: In the last decade in Wisconsin, there has been a notable consolidation and/or reduction in the number of commercial environmental and public sewage treatment plant laboratories. From your laboratory's perspective, what are the reasons for the reduction and/or consolidation of the environmental laboratory activity in Wisconsin? Please check all that apply.

Check all that apply		Reason for Reduction in Business or Activity
N "yes"	% of All Labs	
81	48%	Consolidation of industry to fewer but larger labs
14	8%	Weakening in EPA required regulations
35	21%	New technology that has greater capacity and capability
19	11%	Reduction in required number of DNR-regulated tests
33	19%	Slowing of Wisconsin economy
65	38%	Reduction in municipal or county funding and personnel
25	15%	Competition from out-of-state commercial labs
11	6%	Reduction in general environmental awareness in population regarding need for testing
13	8%	Competition from the Wisconsin State Lab of Hygiene
33	19%	Other

QUESTION P4Q39: The next questions ask about your laboratory's perspectives on the competition that may or may not exist between your lab and the WSLH.

Does your laboratory regard the WSLH as a competitor for environmental laboratory business?

N	%	Response
4	6%	Yes
62	91%	No, skip to Question P4Q43.
2	3%	No Answer
68	100%	Total

Note: Data in this table are from 68 paper surveys. Data from 102 Web surveys are not available due to a Web survey computer program error.

QUESTION P4Q40: Does your laboratory regard the Wisconsin State Laboratory of Hygiene (WSLH) as an “unfair competitor”?

N	%	Response
3	4%	Yes
2	3%	No
62	91%	Skip this question per survey instruction
1	1%	No Answer
68	100%	Total

Note: Data in this table are from 68 paper surveys. Data from 102 Web surveys are not available due to a Web survey computer program error.

QUESTION P4Q41: You indicated in your response to question 40 that from your laboratory’s perspective the WSLH is an “unfair competitor.” From this perspective, please indicate which of the following activities or structure constitutes or contributes to this “unfair competition.” Please check Yes or No for each item.

N “yes”	% of All Labs	WSLH Activity or Institutional Structure
11	6%	WSLH provides tests commercially available to citizens
10	6%	WSLH provides tests commercially available to private firms
9	5%	WSLH provides tests commercially available to local government
9	5%	WSLH is supported with state funds to do government regulated and financed testing
9	5%	WSLH price structure
10	6%	WSLH receives exclusive state government contracts
6	4%	WSLH bids on out-of-state business
7	4%	WSLH receives research grants from federal government (CDC/EPA/OSHA) that support testing
8	5%	WSLH is affiliated with the University of Wisconsin
7	4%	WSLH’s approach to informing its customers about its products
5	3%	Other

QUESTION P4Q42: From your laboratory's perspective, please indicate which of the following best describes the seriousness of business or financial threat to your laboratory as a result of the Wisconsin State Laboratory of Hygiene's environmental testing:

N	%	Response
0	0%	WSLH is an extremely serious threat
1	1%	WSLH is a serious threat
0	0%	WSLH is somewhat of a threat
1	1%	WSLH is a slight threat
0	0%	WSLH is not a threat
65	96%	Skip this question per survey instruction
1	1%	No Answer
68	100%	Total

Note: Data in this table are from 68 paper surveys. Data from 102 Web surveys are not available due to a Web survey computer program error.

QUESTION P4Q43: Is there anything that hasn't been asked about in this survey that you would like to relay to the WSLH and its Board? Please feel free to use this space to elaborate on your answer to any previous question, but if doing so, please include that question number in your response.

Qualitative question. See verbatim responses in Appendix 3.

That was the last question. Thank you very much for your time and cooperation. Please keep in mind that the anonymous grouped responses to these questions will be reported at the WSLH environmental laboratory regional meetings in 2005 and appear in state and national reports.

APPENDIX 3

VERBATIM QUALITATIVE QUESTION RESPONSES

Twenty survey questions offered respondents the opportunity to write their own narrative responses, comments, or elaborations on certain answers. Responses that identified an individual lab by name were edited only to remove the name because WSLH assured confidentiality. All other responses are presented verbatim, without editing. The following are all of those responses as recorded in the data set.

<p>Question P2Q1_1: The person answering survey questions should be a laboratory administrator or equivalent who has overall knowledge of your facility's testing capabilities, training needs, and business perspectives. What is your role in this laboratory? Note: Comments that follow are from Question P2Q1_2 (Specify an "other" response to Question P2Q1_1).</p>
<p>Private Sector</p>
Quality Assurance Director
QA Officer
Contracts Officer
Client Services/Sales
Laboratory QA/QC Chemist
Client Services Representative 13 years with the Company
QA Officer
Environmental & Safety Specialist for site.
EVN & Safety MGR
Certified operator
<p>Public Sector</p>
Laboratory Supervisor
Water/Wastewater Superintendent
Waste water Operator/Lab Tech
Lab Technican
Plant operator
Operator/Lab Analyst
Wastewater Supt. oversees and holds license for plant.
Wastewater Utility Superintendent
Wastewater Superintendent
Operator
Laboratory Manager/Analytic Supervisor
Treatment Plant Operator
treatment plant administrative manager
Laboratory Director/Laboratory Manager
chief operator
Wastewater Treatment Plant Supervisor

This is a small wastewater treatment plant and I am the operator in charge.
Laboratory Chemist
Wastewater Operator in Chief for this one man operation.
Lab Techician
Laboratory Director/Eric Nysse
Sr. Plant Chem. Tech.
Laboratory Tech
Plant Manager

Question p2q2_1: Please characterize your business.
Private Sector
We are a commercial laboratory, focused on Drinking Water analyses. We are certified in over 40 states nationwide fo
Environmental analysis of wastewater, groundwaters, soils, products, etc.
We are a full service commercial environmental laboratory. Our company has a separate laboratory located in Wisconsin. Our location provides back-up capability and additional capacity when needed.
SDWA water analysis, mainly serving well drillers, private well owners. Industrial water treatment support.
Environmental testing
Full service commercial environmental laboratory service state federal and industrial clients.
Analytical Testing Services for the environmental industry, agricultural industry, food and pharmaceutical industries, energy industry, pet food and feed industry
Industrial hygiene and Enviromental analyses (air, water, soil, hazardous waste)
An environmental consulting laboratory that analyzes water, wastewater, soils, sediment sludges, etc for the private and public scetor.
Analytical laboratory specializing in dioxin/furan and PCB analyses.
Focus on serving the small system public drinking water secter
Environmental Testing Facility
Commercial lab providing samples and analysis of environmental samples. The most typical sample matrices include solid waste and wastewater. Our facility has the analytical capabilities to provide chemical and microbiological analysis.
environmental, metalurgical, microbiology
Environmental and Agricultural Analytical Laboratory
Private testing lab providing results to public and private clients nationwide in environmental (water, waste water, bio-solids, bioassay), microbiology, food chemistry, and investigative consulting disciplines.
Food and Environmental
Environmental testing
Food milk, and water microbiology laboratory
Full service environmental laboratory; serving both commercial and private clients; DW, WW, solids; multi-state certified

Full service environmental compliance laboratory - groundwater, drinking water, wastewater, waste characterization, and other matrices
Paper
power generation
Coal fire electric energy generating facility
Electric Utility
Paper Mill
Industrial Solvent Recycle Fuel Blend
We Energies: Multi-faceted energy company: Electric, Natural Gas, Steam
Analytical Service for a large Industrial Manufacturer.
Electric Utility
Public Electric and Natural Gas Utility
Paper mill
Paper production
Dairy Plant
Centralized Waste Treatment Facility
Paper mills
Resort & Spa
Recycled Paperboard Producer
Pulp and Paper Manufacturer
Pulp/Paper
Electrical Generation
Paper Mill
We are an animal feed manufacturer with an onsite Waste Water Treatment Plant.
Recycled paper mill
Generate electricy
Public Sector
Test DNR required parameters for our plant and other plants when their lab staff is on vacation.
Wastewater treatment facility.
Municipal Wastewater Treatment Lab
Wastewater facility for villages of Fontana/Walworth and Kikkoman foods.
Wastewater laboratory
Wastewater treatment
Municipal Wastewater Treatment plant
Wastewater Plant
Wastewater Treatment plant
Wastewater, Facility run BOD, SS, PHos, CL RES, pH
Wastewater treatment plant
Wastewater Lab
Municipal Wastewater treatment plant
Perform wastewater sampling & testing.
City operated treatment plant
Wastewater treatment plant

Wastewater testing of municipal wastewater: TSS, BOD, pH, fecals, NH3, P
Public Service
Municipal wastewater treatment plant
Sewage treatment from residential, commercial and small industrial plants.
Testing of municipal and industrial wastes
Wastewater Treatment Plant in - house laboratory.
Wastewater treatment plant
Wastewater Treatment Plant
Municipally owned Water and Wastewater Utilities
Treating waste water
Small wastewater treatment facility and a water test lab for bacteriological safe water test
in-house certified laboratory for the generation of permit related analyses, monitoring collection system and industrial pretreatment industries as well as research support for plant projects.
we are a municipal wastewater treatment plant laboratory
Municipal Sewage treatment facility
Testing of Treatment Plant Influent and Effluent for BOD, Total Phosphorus, Ammonia, pH, Total Suspended Solids, Chlorine Residual(Seasonal), Fecal Coliform (Seasonal)
Municipal Water & Sewer Utility
Routine analysis of samples daily for regulatory and process testing
Wastewater and other treatment plant samples, surface water, industrial waste pretreatment, groundwater, sludge, stormwater, Milorganite testing
wastewater plant
recycling water
City owned and operated wastewater treatment plant
wastewater
We conduct testing related to wastewater treatment, which includes BOD, TSS, TS, Alkalinity, pH, TP, TKN, NH3-N, NO2-N, NO3+NO2, Ortho-Phosphorus, NO3-N, Cl, SO4, Hg, and Metals.
municipal permit, process, surcharge and pretreatment testing
Local government
Municipal Wastewater Treatment Plant
Wastewater
Municipal
Municipality
wastewater treatment
City Government
Municipal WW Lab, self monitoring and testing, certified in BOD, TSS, Total Phos, and Solids. Conduct analysis for the WW Treatment Plant and IPP monitoring.
City laboratory used for landfill wells, drinking water and wastewater monitoring.
Wastewater Lab for permit compliance
Small municipality wastewater treatment
wastewater treatment
Wastewater treatment plant

Our laboratory is a small one that analyzes for TSS, BOD and pH only.
wastewater treatment lab that tests TSS, BOD
government bacteriological lab for private wells and transient non community water systems and limited chemical analysis
We are certified to perform coliform & E coli testing on drinking water, recreational water and sewage effluents. We also are certified to test nitrate in drinking water. In addition we run fluoride tests, pH and total alkalinity and some screening tests for iron & copper but are not certified in those areas.
Microbiological and chemical analyses of groundwater, surface water, wastewater, clinical specimens, dairy products and other foods.
We are a public health lab providing services consistent with the state rules. The lab's focus is on environmental testing, including food, water and limited clinical testing.
Conduct analysis of air, water, soil, foods and other solids for contaminants of public health significance.
State University lab involved in environmental research and monitoring.
non-profit university
Army Wastewater Treatment Lab
Municipal Wastewater treatment facility for pop 3000
Municipal Wastewater Treatment Lab - UWTP lab that runs tests for DMR Permit. BOD, SS, pH, phosphorus, ammonia, Fecals, chloride, chlorine

Question P2Q10: Your laboratory may belong to one or more professional laboratory organization or association. Please check Yes or No to indicate whether your laboratory belongs to the following organizations/associations. Note: Comments that follow are from P2Q10_10 (Specify an "other" response to Question P2Q10).

Private Sector
American Council of Independent Laboratories (ACIL)-via associate member WELA
American Society for Microbiology
International Assn of Food Protection
Illinois Environmental Association of Testing Labs
NELAC
(Michigan Environmental Laboratory Association)
Note: All of above close to useless!
Michigan Environmental Laboratory Association
Public Sector
Wisconsin Water Association
American Chemical Society
ACS, IAGLR, AWRA, Fox-Wolf Watershed Alliance, WEF
Wi DNR registered lab
Village of Junction City
Natl Env. Health Assn
WPHA

QUESTION P3Q11: Does your laboratory use the Internet or the World Wide Web on a routine basis for any of the following business or agency purposes? Please check Yes or No for each use listed. Note: Comments that follow are from P3Q11_8 (Specify an "other" response to Question P3Q11).

Private Sector

marketing services

No computer

Public Sector

(its coming)

Do not have computer.

Product information

General sources for technical resources

Research information, technical papers and articles.

QUESTION P3Q12: The Wisconsin Health Alert Network (HAN) is a Web-based information sharing system funded by the federal Centers for Disease Control (CDC). The Wisconsin Department of Health and Family Services in cooperation with the DNR, WSLH and the Department of Agriculture, Trade and Consumer Protection (DATCP) directs its operation in Wisconsin. The system, operated by the University of Wisconsin's Division of Information Technology, connects public health departments, clinics, emergency rooms, laboratories, law enforcement, fire services, the federal government, and other entities. It is a secure communication system that requires registration and authorization.

If the Wisconsin HAN's scope were extended to include environmental laboratories, how useful would the following types of information and services be to your laboratory's work and mission? Please rate each item listed as to its usefulness to your lab. Note: Comments below are responses to P3Q12_10 (Specify "other" response to Question P3Q12).

Public Sector

We are a municipal lab devoted to the necessary testing needed for operation and compliance of our wastewater treatment facility. The information available from the HAN would be valuable from an awareness standpoint. We do not envision working as a primary lab in the event of any emergency. We would be operating under an Incident Command System under our local Emergency Government Agency. Our tabletop exercises have always assumed that any information needed or being provided would be through the incident command system that would be put in place.

The current HAN format is not very useful resource. Many other sites have more useful and timely information for use in emergencies

No internet available

QUESTION P3Q21: Which of the following conditions, if met, would increase your laboratory's willingness to provide *surge capacity* testing for routine (non-emergency) samples from the WSLH in the event of an environmental health emergency or terrorist attack? Please check Yes or No for each condition listed. Note: Comments below are responses to P3Q21_12 (Specify "other" response to Question P3Q21).

Private Sector

It is difficult to determine exactly what would NEED to be in place. We would certainly do everything possible to use our capacity and capabilities for the protection of human health in a time of emergency.

If we were given legal immunity from any liabilities, and would not have assume the liability for the testing in our own errors and omissions coverage.

On-site training provided

Public Sector

Not a certified lab

Our lab has minimal capabilities

We are a regional facility governed by a commission of several communities. This could be a policy issue that may require a ruling. Our willingness may be hindered by commission decisions.

Although I am lab manager I would be overrideen in the event WSLH's request was made.

Our utility lab is not certified

Not a full-time lab!

This is a part time lab. We work at lab about 3 hours a day.

We are just a wastewater Lab

Unable to answer without more information.

We are only a registered Lab.

Don't believe standard Wastewater tests would be useful in the even of a biological or chemical attack

Lab is not a certified lab, testing mostly done for process control all other samples are sent to a certified lab.

As a public health lab we see our role as providing surge capacity testing for the SLH in the same way that we turn to the SLH for assistance. Obviously, we would need to be reimbursed for supplies, etc as our budget does not have much leeway

Question P3Q22: In the event of a terrorist act or a chemical or biological accident affecting the general public, which of the following might your laboratory be able and willing to provide? Please check Yes or No for each item listed. Note: Comments below are responses to P3Q22_9 (Specify "other" response to Question P3Q22).

Private Sector

Under certain conditions, staff that could be provided to use other private and public lab facilities around the State, including WSLH.

Again, it is difficult to answer these yes/no. It would depend on the scope of the emergency and the need. I think attempting to answer these yes or no sets us up to either look unpatriotic and greedy or puts us in a position to be taken advantage of. I feel that it is the duty of any business person, as a citizen, to make his resources available in the event of an actual national emergency, but private business should not be held to a standard of generosity/patriotism that the public sector is not also willing to meet.

Public Sector

Paid with city funds initially. Reimbursement by state?

(some of these questions are relevant to what would be required and or asked for depending on the situation)

It would not be our intent to become and maintain trained personnel for the purposes of analyzing samples from a chemical or biological accident. We would be prepared to offer our lab facility and have our personnel work under the direction of someone from WSLH. I doubt that our lab would have the analytical devices necessary to do significant testing; these devices would have to be obtained through the incident command structure.

Not a certified lab

Environmental sample collection and handling

Very little excess room in Incubators, ovens phos - Amonia - coliform testing to accomodate additional samples.

Question P3Q23: Would your laboratory be willing to participate with the WSLH in any of these emergency and non-emergency network or networking activities? Please check Yes or No for each activity listed. Note: Comment below is the only response to P3Q23_9 (Specify "other" response to Question P3Q23).

Private Sector

I don't think a regular meeting is necessary unless it is done in conjunction with another meeting. Many of us are a long ways from Madison and have a very busy meeting schedule already. I think that we can be kept in the loop with updates at other meetings and electronic information exchange.

QUESTION P3Q25: If the following general technical laboratory training or classes (not necessarily related to emergency situations) were offered by WSLH, please indicate whether your laboratory would be interested in enrolling its employees. Please check Yes or No for each training topic listed. Note: Comments below are responses to P3Q25_10 (Specify "other" response to Question P3Q25).

Private Sector

I think the state lab and the regulatory community needs to tell us what WE NEED rather than asking us what we want. WE KNOW NOTHING ABOUT THIS!!! I don't want to end up in a situation where we didn't ASK for something so now we're in a bind.

We are out of State and most likely would not attend these in WI. Might do these if they we offered on-line

Public Sector

(this depends on the locations of the educational classes and time of year)

Proper sampling procedures in the storm or sanitary sewers. All training oportunities are welcome.

Specific analytical techiques (ICP, ICP/MS,PCR,IC)

QUESTION P3Q26: Please rate each of the following considerations or training delivery methods as to their importance in your decision to receive WSLH-sponsored training. Rate 1 to 4 with 1 being the highest importance. Note: Comments below are responses to P3Q26_17 (Specify "other" response to Question P3Q26).

Private Sector

time costs money

Virtual laboraatory excercises

QUESTION P3Q27: The table below shows a list of services and activities that have been, or could be provided in the future, by the Wisconsin State Laboratory of Hygiene. In column "a," please indicate the services or activities that WSLH has offered or provided to your laboratory in the past year. In column "b," please indicate the services or activities that you would like the WSLH to provide to your laboratory in the future. Note: Comment below is the only response to P3Q27_19 (Specify "other" response to Question P3Q27).

Public Sector

Blind/Reference sample sets

QUESTION P3Q28: What is the one thing your laboratory needs most to be better prepared for a chemical or biological accident or terrorist act? Please indicate your response in the box below.

Private Sector

Not sure.

training

Understanding of what might be required.

Training

INFORMATION on what we need to be better prepared for a chemical or biological accident!!!!

An organizational plan to follow.

specific training and economic protections to stay in business during and after an event.

Protocol or SOP on what needs to be done
Need to understand expectations of our lab by WSLH, what certs, methods and required QC and how WSLH would like the information reported.
Training regarding employee health & safety, and an assessment of what types of testing would likely be required.
Without knowing what the act is, it's impossible to answer. As a commercial environmental lab, we don't involve ourselves in research projects.
Education
Understanding what testing will be required.
Training...we hear about this a lot from MN, IA and WI, but no one gives any details or information except asking for commercial laboratories to be available.
Access to the Laboratory network
Business resumption plan
ADEQUATE WARNING
Awareness training
Network Training
This laboratory is set up for handling normal Industrial solvents. We have safety equipment and a well trained staff for such things, but we are not set up for biological, nor for many chemicals outside the industrial solvent area.
Our emergency response and chemical hygiene plans are comprehensive but frequency of training and rehearsals should be increased.
Proper personal protective equipment and the associated training.
Notification of event
Chain of command for procedures
Training on biological emergencies.
A purpose or role
We are just an industrial wastewater lab. we are not able to handle biological or terrorist acts.(type response here)
Nothing - We only perform BOD & TSS testing on a non-commercial basis
Public Sector
Clear procedure for how/where/when/whom to drop off and deliver suspected contamination samples.
Education, training.
More capacity
Education - What do we do? What can we do? What could be expected of us?
new and better equipment
What to do? How to do it? And equipment & training to do it.
Information as to what our little wastewater lab could do. We have a registered lab that does, PH, BOD, SS, and chlorine residual testing only. I don't know what use our lab would be in any situation.
More employees
Security
I have know idea what to be ready for.
Money

An incentive for some terrorist to actually attack a redneck hick town, otherwise there is no risk. We have probably 2 gallons of acid in the lab at any given time.
Better organization
Coordination with local government concerning what role or potential role our lab might have.
Training, Equipment
A procedure on what to do in response to such an act.
Information
Training
Don't feel a need of anything. (Too small)
Proper training on responsibilities and ensuring safety of our employees.
Training & equipment
Minimal training in this area. We are a small wastewater/water municipality.
Training
We have zero knowledge about anything related. If WSLH wants participation from us they should let us know what we would be expected to do and how to do it. We are a small UWTP lab able to do limited testing. We would help in an emergency to our capabilities. If more is needed or wanted WSLH should assist labs to prepare.
Our lab is not large enough to run many chemical or biological testing. Bacti & nitrates on drinking water plus standard wastewater tests.
More Staff
Training & Equipment
Information and training
To protect the health & safety of those in the lab providing testing.
Training
I more full time, trained operator/Lab tech.
Norhing, we are nor prepared or willing to do testing we are not qualified for!
training
Since we only test for BoD, TSS, Plt & fecal. I really do not know how it would affect us or what we need to prepare for.
(type response here) Training
N/A - Small WWTP lab.
Group training session or material
we're just a small wastewater lab, we would not have the appropriate test procedures and/or instrumentation needed for this kind of testing.
Better trained employees, more employees, more dollors to pay those employees
Proper training
Money
training
at this point - more information!
information
Training and equipment
(training and more staffing)
We are to small a lab to do any of this.
step by step directions on how to procede

Money Lab person qualified for other than wastewater education
How it would effect are plant - wastewater
A emergency response plan and practise it in a dramatization way.
an understanding of what our role would be in such a situation
Training on what test requirements will be.
A plan for how to handle our workload if employees or facilities were lost or not available.
we need everything
Proper equipment and detailed training
Clearly defined lines of communication so that we would know who to call, contact in the event of an emergency
Emergency Management Training
Laboratory emergency plan.
Understanding how to deal with situation. Provide likely scenarios for training.
A Plan
a plan of what to do in the event of a attack.
More personnel.
Training to know chemical or biological accident
Training and certification
(type response here)We would need to find a Certified Lab and hope we could be of assistance there.
we are a very small lab , would need some sort of training
Additional training on proper handling, packaging, transportation and/or analyses of dangerous chemical and biological specimens
Training and exercises pertinent to potential situations
(type response here)
training
(A written plan detailing how our lab would fit in with the overall state lab plan for handling a public health emergency.
training and equipment
A belief that an event could happen nearby & that testing phos, Amonia Bod & pH would be of some help.
Training
larger capacity and analyst time
Information on tests likely to be run.

QUESTION: P4Q29: Wisconsin's public sector environmental laboratories and the WSLH have been working together for some time on a public-public "partnership." Currently WSLH has begun to talk with Wisconsin's commercial environmental laboratories concerning the development of a mutually beneficial public-private "partnership". Note: From your laboratory's perspective, please briefly describe the key elements of an ideal "productive partnership" between your lab and the WSLH. Please indicate your response in the box below.

Private Sector

Scope and role

Both state and labs "learn" from each other.

Not applicable, we are out of state.

Both parties gain. Both should be happy with the arrangement. WSLH would gain confidence in the data quality of their partnered labs.

The partnered labs would gain from the training and expertise of the WSLH.

The community as a whole gains. The WSLH would become better equipped to respond to emergencies.

Equal partnership respecting each others laboratory abilities.

My definition of a partnership is an agreement to use the resources of each party involved for the mutual benefit of all parties and the clients they serve. I do not feel that the State Lab is interested in establishing such a partnership. I feel that the word "network" should be used in order to avoid the confusion that has plagued this process for over a decade. I think this "network" will act to benefit (potentially greatly) our clients - the public and their health - but it will not benefit my business. I believe that appropriate information exchange is a realistic goal and I believe that several other core functions of the Lab, as they apply to the private environmental lab community, should be refined and improved, but I think the concept of a "partnership" as I see it is a lost cause.

The key elements are

1. Develop a network for data input so that regional labs can be established for routine analysis.
2. The WSLH phase out routine analysis and give to the private sector meeting WSLH criteria for analysis and reporting.
3. Enhance steps to prevent unfair competition.
4. Provide peer review and training on new techniques, etc.

information exchange.

The ideal partnership would include WSHL serving as a source of technical information and training.

The partnership needs to be formally documented as to what would be expected from the other party. If emergency capacity is needed, we would be willing to help within reason. We are not a huge lab and therefore would not be able to handle thousands of samples a day for analysis. This partnership explanation would document capacity among other things.

Absolute trust, mutual risk-sharing on the same rules of the playing field, open and frequent communication, and an ability to accept and resolve differences.

Currently it seems that WSLH only communicates with the commercial labs when they "want something", like setting up this network. It seems more logical to me that WSLH should be involved with method development, sub'ing out the small routine analyses. Why does WSLH need to perform so many standard analyses to maintain proficiency? WSLH continues to grow while the commercial labs continue to shrink, many times at our expense. Is that the defination of partnership? Ideally WSLH needs to quit the excessive growth. DNR's attitude that WSLH is "their lab and only WSLH can perform DNR work (for the most part)" is detrimental to developing this partnership.
A partnership between labs involves the willingness to share samples/analyses between the two. The SLH's reluctance to let go of its market share, regardless of whether it is work that requires certification or not, is an indicator that there is no partnership. SLH has the resources to get any piece of equipment that they want, without regard to how that might affect the private sector.
Mutual respect would be nice.
Set up a partnership where our laboratory could send samples for testing we currently are unable to do
Partnership currently is for certification.
Knowledge of lab capabilites on our part and how we might be able to serve. Assistance in training and communication with WSLH.
Good communication is key to making this work especially for the out of State labs like ours.
Communication
more information newsletters on issues present and future on line discussion groups email correspondence
The WSLH sould clearly communicate its role/function.
Define the elements and the scope of the partnership then negotiate a mutually receptable agreement. Define expectations!
Enough help and guidance to help the lab produce accurate testing without too much red tape
they can help us in understanding and complying with the regulatory requirements.
We are just a small in-house lab, a partnership probably would not benefit us much.
Communication
Doesn't apply to our lab situation.
This laboratory would make a poor partner in terms of what WSLH is looking for.
Public Sector
The issues raised in this survey would help (espically pages 16-20)
A fast communication process and a cost-effective training program.
Maintain quick response time to questions and concerns. This could be via phone calls or email.
Down to earth training classes, where your trainer doesn't talk over our heads.

Newsletter with changes and updates.
WSLH give us information and education on issues. So if they come up we are prepared to help.
In case of emergency, I think it is important to know that we could count on WSLH or other labs for assistance, and that we should be able to assist others in the same circumstances. To do so, I think all elements of the partnership need to be in place first; procedures, costs, turn around time and reporting. Also a disclaimer or protection against legal action.
Having personal contact at WSLH who knows the tests I perform or can perform with our equipment and can help with problems with these tests or new tests. Possibly they could even come and walk through a certain procedure with us to help us better understand our labs capabilities.
Cost, accurate exchange of information, timely response
Training and information sharing pertaining to specific scenarios. What types of chemical or biological accidents or attacks can reasonably be expected. What role do we play at the treatment plant/Lab - How can we help, start with basics info & training.
Passing on the Regulations or Requirements
money and bodies
Good communication
I believe a partnership already exists between labs and WSLH.
As a Municipal UWTP Lab we require information on continuing to produce quality data in an efficient (time/cost) way. Any shared information to that end would be helpful.
We are a small wastewater lab that needs blind/reference samples. You always deliver the goods.
From a wastewater laboratory point of view, I would like answers to questions concerning test procedures and documentation from technical support people who actually work in a WW lab (or side by side with someone who is working in a WW lab) who can give a simple practical answer to my questions.
Open and available lines of communication.
WSLH should know our labs limitations and if they need us, help to bring us up to speed.
Communication
Communication: Internet and phone.
Defined boundaries of responsibility in partnership role
Do not know
I think that a productive partnership is one that facilitates the sharing of knowledge about new technology, present "best" laboratory practices, and a willingness to help solve problems or answer questions.
good communication via phone,mail or email
Since we are a public lab, our needs would focus primarily on communication (rather than a business focus). Both the WSLH and public labs should have an open dialog (or other means of communication) to exchange information on technical issues, regulatory and laboratory standards, problems and capabilities.
Strong Communication is key!

Being a small Registered WW laboratory we could provide limited testing. But are willing to help.
Cost and time of personnal and equipment training
frequent communication through meetings
Continue/expand as a source of training and information to muni labs and provide testing services for those not well served by muni and commercial labs.
Information and training. As a smaller, lower tech POTW laboratory, the greatest benefits to our operation have been in these areas. Support and advice concerning current methods and problems, warnings about upcoming regulatory changes and help in preparing to meet new requirements are all valuable.
the ability to utilize the WSLH as an "authoritative source" for training and issues of interest to the environmental lab community. The overall goal should be to protect the environment and public health by producing data of the highest quality.
The impotance of communication,new ideas and more training.
Our personel could only hope to be asked to assist in a Certified Lab should there be a need.
communication between WSLH and our lab
Clear definition of roles played by all participants
Good communication and smooth access and disbursal of data and other information between cooperating entities
Not interested in responding
I would like to see WSLH do a better job of communicating the services and expertise they have available to help the POTW labs.
To help simplify procedures and show new testing tech. To make labs more efficent.
get the lab auditors involed. They are the people we deal with the most.
Offer training courses and seminars to teach and update. Also distribute newsletters with information to help labs, ie: helpful hints, checklists, answers to common questions.
WSLH supplies us with QC samples, more iformation about the procedure or problems with program.
Sharing of knowledge and equitable funds dispersion.
Information, Information, Information
Not sure
WSLH should continue to serve as a resource for materials and methods required by the lab
I don't think we will be useful in this process. If there are tests that we do that can be useful then we need training in sample handling, preparation, disposal and reporting

A Public Health Laboratory System Partnership is collaboration between the WSLH, private sector laboratories, other public sector laboratories, and other public health partners. Its purpose is to assure the capacity and capability of the System to carry out one or more of 11 Core Functions of a State Public Health Laboratory: Food Safety; Training and Education; Public Health Related Research; Emergency Response; Policy Development; Laboratory Improvement and Regulation; Partnership and Communication; Environmental Health and Protection; Reference and Specialized Training; Disease Prevention, Control and Surveillance, and Integrated Data Management. The focus of the partnership is a mutual concern for the health of the public and its environment, and a willingness to contribute knowledge, skills and resources to foster healthy people in healthy Wisconsin environments (January 23, 2001).
good communications
Make sure all labs are on the same page regarding testing requirements.
Secure, user-friendly, communication network. Budget reciprocity. Established sample handling protocol. Provision of on-going, easily accessible training for local laboratory staff.
Good communication between partners Adequate understanding of the role of each side in the partnership Willingness/ability for information sharing
contact info for laboratory heads for each lab
WSLH helps monitor that lab quality is good. (testing & procedures) They keep us updated on quality control, new lab tests & equipment.
Open communication between this lab and WSLH for the purpose of training and information sharing. A contract or letter of agreement regarding the limited analysis of surge samples in order to assist the WSLH in the event of an environmental emergency.

QUESTION P4Q30: Please consider the things you described in your response to the previous question (29). From your laboratory's perspective, what is the most important first step toward developing or strengthening that ideal public-private or public-public partnership between laboratories like yours and the WSLH? Please indicate your response in the box below.

Private Sector

The most important step is the initial discussion of expectations.
The best first step is to forget about a "partnership" and define, ACTUALLY DEFINE, what we ALL expect out of whatever it is that we are planning to end up with (a network??)
I have never understood why a government agency is in competition with the private sector.
Talking about what kind of options your laboratory could offer private laboratories

SLH needs to perform research. Performing a large number of routine sample analyses in no way prepares SLH for any sort of emergency event. The routine analyses should be done by the private sector, and SLH should be staffed and supported in a manner to be a research facility.
DNR's attitude that WSLH is "their lab and only WSLH can perform DNR work (for the most part)" is detrimental to developing this partnership.
Establishing genuine trust.
not sure
1. To develop criteria that would allow the private sector laboratories to participate in a transition for eliminating the analysis of routine samples at the WSLH. 2. To address the issue of capacity and capability of private laboratories and how can they be utilized as part of a network. Contractual criteria needs to be develop and of the millions available, what comes down to us?
Knowledge of the project
More seminars so we can get to know each other and each others abilities.
I believe this survey is the first step.
Education, scope and role we would have.
Joint committee's on lab/cert issues
The most important first steps involved for WSLH would involve developing additional technical and training content, then developing the appropriate delivery channels such as web/internet to make the technical information and training more widely available.
Identify possible needs for response to CHEM, BIO or Terrorist attack.
To launch or participate in such a program here will be primarily a political and image thing. Being a good business citizen, as we are, I don't think the concept of this will be difficult sell.
Gathering info on what each lab tests.
Accurate and timely dissemination of technical information. Communicate what the WSLH is specifically looking for from private labs.
The definition of partnership in question 31 is EXCELLENT!
more information
As I stated before, communication is key especially for the out of State labs that may not know what is happening in WI
None
Training in BOD's and TSS
Communication
Doesn't apply to our lab situation.
Public Sector
More comprehensive, related lab info at meetings & conferences like WWOA. Not, for instance discussions about the advantages of automatic pipets, HACH instrument calibration (such inferior equipment)etc. More chemistry, biology information and definitely more encouragement to educate the public on wastewater processes and their importance.
If an answer is not immediately available then indicated that your received the call/email. Indicate when you may have an answer.

A newsletter or email list that communicates this information.
Pre-approved agreement
Informational meetings at regional levels, mailings and internet contact
Accurate answers
Open information sharing - newsletters, regional meetings, seminars.
Maybe a Annual or Semi-Annual newsletter.
Regional training sessions.
List regulations on each
Planning
A convenient way to share information (relevant information) on test methods, QC/QA, computer software.
We need internet access. I must do my on-line research and communication at home and on my own time.
More information about the role WSLH.
Currently there is not a good way for labs to meet and discuss current issues. I think that a annual conference of environmental laboratories would work to meet this need.
communication, training
Some sort of regular communication vehicle. This could be a newsletter (ok), section of the website (also ok), or meeting (best if its topical and convenient).
Have access through internet or printed contact information.
I believe we'd have to get certified and get a approval from the Village Board.
Information of what is required and how this lab could help in an emergency situation.
Finding the right time and place to initially get together and talk.
Assess training needs especially re lab registration/certification.
Expanding the amount of information available that relates to wastewater treatment plant laboratory operations, and educating the POTW lab community as to the benefits that WSLH can offer.
A better understanding of the public needs when it comes to well testing. I sure would like to see more local training and fine tuning skills.
Some preparation should be made for a plan to mobilize our personel if needed.
More effective communication through some media such as Internet live chat, or e-mail access
WSLH to understand small labs like ours spends more time doing QC than tests itself.
we work more with the d.n.r. than wslh need them very involed.
Face-to-face communication throught training classes and seminars.
Discussion on model.
budget considerations
Not sure
have a meeting between both labs
Training
people available to answer questions
Secure sites
Not interested in responding

email address, mailing address
Training local laboratory staff about the expected analytical methods and related activities if we were to be used as a "surge capacity" laboratory.
Establishment and sustainment of communication
Just trust that our lab is doing it's best to provide quality lab analyse for our customers and the DNR.
Communication via an electronic, not necessarily secure route.

<p>QUESTION P4Q31: The WSLH and its Board have developed a definition of "partnership" as follows:</p> <p>A Public Health Laboratory System Partnership is collaboration between the WSLH, p sector laboratories, other public sector laboratories, and other public health partners purpose is to assure the capacity and capability of the System to carry out one or mo 11 Core Functions of a State Public Health Laboratory: Food Safety; Training and Education; Public Health Related Research; Emergency Response; Policy Development Laboratory Improvement and Regulation; Partnership and Communication; Environm Health and Protection; Reference and Specialized Training; Disease Prevention, Cont and Surveillance, and Integrated Data Management.</p> <p>The focus of the partnership is a mutual concern for the health of the public and its environment, and a willingness to contribute knowledge, skills and resources to foste healthy people in healthy Wisconsin environments (January 23, 2001).</p> <p>As the representative of your laboratory, do you <u>agree or disagree</u> with the WSLH and Board definition of "partnership?" Please check <u>one</u>. <u>If you disagree, please explain box below</u>. Note: Six of seven respondents who checked "disagree" commented as follows:</p>
<p>Private Sector</p> <p>While it's a grand statement, the SLH belief (and its preaching in various places) that only SLH can serve the needs of DNR shows that there is no belief in "partnership".</p> <p>But this definition is VERY broad. It is management's interpretation of this definition and their view that will ultimately determine whether this will be taken to a new level. Not under current management will this go anywhere.</p> <p>I don't disagree, I just want to comment. This is a fine definition but it has existed for several years, contains NO details and nothing has been done to actually put it in motion. (Until now, I guess.) It has been 3 1/2 years since 9/11 and NOBODY has yet to ask me what my actually capabilities and capacities are, nobody has provided me with any information on how my staff or facility could be useful in the time of a national emergency. My family and my staff have a STRONG committment to human and environmental health, but WE do not have the resources to start the collaboration process on our end. If a real committment to the "partnership" as defined above existed, this would have been done before the end of 2001!</p>

Public Sector

am not qualified to give an answer

The WSLH and the DNR encountered problems with labs working outside the state of Wisconsin primarily MN and Ill and certain standards or lab anylisis quality could not be standardized. That was very unforunate for the Municipalities along our boarders and now efforts are being made to standardize the private and public programs. In the event of an emergency this could be a major issue and how would the certification in these areas be managed?

The definition is fine, however I'm not sure that a "partnership" is necessary for the above to occur. Would those who don't formally adopt a partnership be excluded from the extraneous benefits that could result?

QUESTION P4Q35: Given your answer to question 34, from your laboratory's perspective please briefly describe the most substantive "satisfactory" aspect of the current "partnership" with the WSLH. Please indicate your response in the box below; then skip to question 37.

Private Sector

Our laboratory has been certified in the state of Wisconsin for environmental laboratory analyses for a number of years. As a result, the state of Wisconsin has provided a number of on site audits for our laboratory that have been beneficial. In addition, we utilize the Wisconsin Occupational Health Laboratory as a subcontract laboratory for tests that we are not able to perform.

Worked together to achieve cert.

Answering technical questions that come up

Training and technical assistance by staff when requested.

Proficiency testing program.

We do not have a partnership, and we are satisfied with that.

We can call and get information when needed. This works well. I do not see much material other than us making a call.

they have provided testing as needed in a timely manner. seminar on bacteria and chlorine was very good.

The ability to call the WSLH for guidance on analytical methods and future purchases of instrumentation. Clarification on laboratory certification requirements.

Has supplied us with quailty service and products.

QA/QC samples on time

Public Sector

Both Lab Analytical Services and data reporting/submitted to WI-DNR.

Timely and accurate reporting of results of blind samples and references.

The timely manner in which they respond to our needs.

Drinking water bacteriological sampling and testing.

Help with PT standards.

Our PT testing
When to call for blind standars & prof. testing questions my call is returned promptly.
I can call WSLH and ask questions. The WSLH will answer the question directly or will help me to find the answer elsewhere.
We are able to contact WSLH and ask for clarification and advice. They understand DNR regulations/requirements.
Very prompt sending out blind and reference sample. Results sent back in a timely manner.
Would like to see more classes for lab - Test, Safety, Technology, Regulations
Proficiency testing
Can usually answer question on demand.
Immediate response to questions about the Reference Studies/Proficiency testing.
They provide Blind standard & Reference samples when needed on an organized basis for QA purpose.
Registration Samples & QA & QC Samples
The regulatory compliance aspect with regards to the DNR QC requirements.
We have provided information when asked. We have received information on test methods and participated in some training opportunities.
we have a strong professional relationship with George Bowman and have contacted several chemists at the WSLH over the years for assistance with technical problems. We have also attended several seminars put on by the WSLH, the most recent was on ICP.
Were always confident when were going to receive are proficiency tasting program samples on time. It's a excellent program.
Training by George Bowman with Rick Mealy of DNR to WWTP labs.
We request Environmental Reference Samples and Quality Assurance samples, and WSLH sends them.
Personel of WSLH.
Always available to answer any of my questions throughly.
We request blind/reference samples. We receive blind/reference samples.
all samples show up on time. Results back in time.
The training sessions that have been provided, especially those developed by George Bowman and Rick Mealy from WDNR. These have been greatly beneficial, and I have attended them whenever and wherever possible.
Provide blind standards and refference samples at a reasonable cost.
Well run and thought out training seminars.
Past questions and concerns have been very well addressed.
access to a real person to talk to.George Bowman is a great asset to WSLH
Partnership does not expect much from us.
Accurate & good communication with testing
The WSLH has provided good leadership for the LRN spearheading the activities for preparedness in areas that have long been neglected or not perceived as necessary
The rapid and professional response with our laboratory in dealing with the multiple potential anthrax samples during the Fall of 2001.
WSLH willing to help us with any questions we have

I know I can call on the State Lab for information and for testing when we have problems with our equipment.
Laboratory quality control and proficiocy testing.
Laboratory Improvement & Regulation

QUESTION: P4Q36: Given your answer to question 34, from your laboratory's perspective please briefly describe the most substantive "unsatisfactory" aspect of the current "partnership" with the WSLH. Please indicate your response in the box below.

Private Sector

Managements' lack of recognizing that state government should not compete with the private sector. If the capability for testing is available in the private sector, the WSLH should not be doing the analysis. The WSLH doesn't need to dwell on early twentieth century concepts, but should move forward with a new and progresssive role for the WSLH in the 21st century.

Response time is sometimes lengthy.

If you don't pass a QA/QC sample test. I was not told the next step.

Public Sector

NONE

I wouls like to see more local training on the physics of drinking water.Example: Some one calls you about there water problem it would be better if we were trained on a high level to answer some of these complicated questions that come up (Example Giardia,Crptosporidium,E-coli)

Do not consider any aspect of our relationship as unsatisfactory.

Have never had a problem.

Sometimes takes a while to get results back

The increase in sample costs.

I think we need more training.

Unless I worked in the wastewater field I would not know WSLH existed. My experience of asking for technical support from them has not been very satisfacoty. I don't deal with WSLH very often.

We have not, in our role, have had oppourtunities for two-way contributions in this partnership. Also, the oppourtunities for all lab staff to participate in meetings and training has been rather limited.

We can't think of any substantive unsatisfactory aspects.

I think the terrorism issue is blown out of proportion.

QUESTION: P4Q38: In the last decade in Wisconsin, there has been a notable consolidation and/or reduction in the number of commercial environmental and public sewage treatment plant laboratories. From your laboratory's perspective, what are the reasons for the reduction and/or consolidation of the environmental laboratory activity in Wisconsin? Please check all that apply. Note: Comments that follow are from P4Q38_11 (Specify an "other" response to Question P4Q38).

Private Sector

Less testing is being done. PECFA is a joke.

Lack of good business knowledge and practices by labs, and commoditization of environmental testing (vs. a value proposition)

cost of testing is rising, but the revenue from testing is dropping

Wisc DHLR requireing 3 bids for lab services has made laboratory analysis a commodity sold at low cost price. Labs have been sheep to go along with this ENGR Firms and WDNR have help to push the sheep in the same direction. All entities involved in lowering price and quality have acted counterproductively.

The "lowest bid wins" mentality that was created as a result of the PECFA program has driven the market to lower prices without regard to data quality. It's not financially responsible to be in this business in many instances.

Too many laboratories are certified that do not have competent directors, and the result is failure.

Increasing tendency to view our industry as a commodity rather than a professional service.

Prices for performace of environmental tests have declined dramatically in Wisconsi, forcing consilidation to larger, more efficient operators, or operators that have substantial portions of their operations outside of Wisconsin, where prices are better.

Natural competition. The strong have survived and flourished while the weak have disappeared. Prices have gone down or held steady making labs rely on niche markets or sheer sample volume.

Not caused by weakened regulations and less regulations. The oposite is true. Many labs are getting out of the area. It is easier to contract samples out.

Public Sector

A. Increased costs for lab certif fees.

B. Increased costs/scrutiny of local staff and lab personnel

In my opinion there has not been any weakening or reduction in any regulations or required testing by The State, DNR or EPA. The opposite is true. Everything including the cost has expanded greatly!!

The growing complexity of DNR's quality control regulations.

Don't know.

Liability issues

Cost savings per test/cheaper to send out

Municipalities are letting Private Labs do their work for a couple reasons. Financial if they think they can save money. Some operators just don't want to mess with lab work period.
The current quality assurance program requires having a full time lab tech. Small communities can not afford this. When samples are sent to a commercial lab, operational control is lost because you see your sample results in a monthly report not as they are completed.
Again from a WW point of view - WW operators and staff are far too busy with maintenance/ operations to do all that is required to run a good lab. There are many one or two-man operated plants in the state. Lab work is sent out or done hit and miss.
More stringent requirements for QC enforced by DNR
Cost savings from consolidation.
In smaller facilities with fewer tests, it may be far more cost effective to outsource the sample analyses rather than have an employee conduct onsite testing.
Much stricter standards from DNR
(cost to municipalities of employees. The stoppage of testing at the WWTF and outsourcing can mean the reduction in manpower required thereby reducing overhead.)
Regulations are forcing small and large labs out
QA/QC requirements of Lab certification & registration program puts small low output labs at a disadvantage. Will become even more of an issue with new proposed NR149 rule.
Smaller or weaker laboratories that cannot meet quality standards have decided to go out of business; lower profit margins due to intense price competition at the commercial level
More stringent lab certification and QA requirements
unsure
Additional Quality control tests required take more time. Cheaper to sub out lab work.

QUESTION P4Q41: You indicated in your response to question 40 that from your laboratory's perspective the WSLH is an "unfair competitor." From this perspective, please indicate which of the following activities or structure constitutes or contributes to this "unfair competition." Please check Yes or No for each item. Note: Comments that follow are from P4Q41_12 (Specify an "other" response to Question P4Q41).

Private Sector

lack of business and profit oriented perspective on capital and process use (ie, cost accounting price structures, operations and labor/fringe costs, investment payback analysis and return on investment approaches) and no risk

They should not be able to compete in the commercial market

Although I have been told to the contrary by a parade of bureaucrats, the SLOH board is constructed so that there is no way for them to control unfair competition practices.

WSLH is a tax supported entity which puts it at an advantage
Any general agency that is in the private sector testing business is an unfair competition. It does not have to make money to survive. And no matter how you spin it gets money support form the public sector.
Public Sector
Does not pay property taxes, funded by taxes

QUESTION P4Q43: Is there anything that hasn't been asked about in this survey that you would like to relay to the WSLH and its Board? Please feel free to use this space to elaborate on your answer to any previous question, but if doing so, please include that question number in your response.
Private Sector
While I don't feel that SLH is a competitor in environmental analyses to my business, that doesn't mean that I agree that SLH isn't an unfair competitor. Private samples that are analyzed by SLH don't offer any training toward emergency response. These samples could easily be analyzed by the private sector, which would lower all of our taxes. SLH could also get off their high horse and realize that there are many capable labs in the state that aren't publicly financed - each of which is capable of providing information that DNR requires.
Most private labs have no business being in the anti-terrorism support "market". We are ill set-up for this role. Only the largest (ie Lancaster/Pace) single site facilites can offer the type of quality/turnaround that a major terror incident would entail.
Thanks for trying to reach out. Hope it works for everyone in the lab industry in Wisconsin.
No
We want WSLH out of the commercial market
My feelings on weather or not the WSLH is competition are mixed. My market sector is small public water supplies with the bulk of my revenue coming from bacteria analysis. The state provides this service for free.
Why is this process so far behind schedule? Why was WELA's input on the inappropriateness of the question structure in section one not addressed before the survey came out? How will this information be presented since the opportunity to do it at the meetings has been missed? How come the individual private labs were not ACTUALLY involved in the development of this survey as we were told that we would be?
Our base of work does not include a substantial amount of work from Wisconsin, so we would not be a typical respondent compared to a laboratory actually located in Wisconsin.
Must simplify certification process, reduce costs, and maintain the high quality that the lab produces.
Our lab is 1 to 2 years old and we have enjoyed our interaction with the WSLH and would enjoy persuing a stronger relationship with WSLH.

Buisness questions do not relate to our lab that is just doing the testing for us to comply with our regulatory compliance.
I do not believe that much of this applies to our lab.
Public Sector
None - Good Job - Just about covers everything.
This is a very small lab. We only test BOD & SS, PH, DO
Some of the questions are hard to understand what is needed to answer them. I have tried to answer to the best of my ability.
Seeing that you sent, this survey out I filled it out. I don't think our little lab would be of much use in any emergency situation as stated above. If we could help I would do whatever I could but I doubt it would be much.
Some of the questions were difficult to answer because I am not the person responsible to join the partnership. #11-Limited Access #20, #21, #22, #23, #24, #32
Question 31 Part IV Is WSLH too big to actually commit to its "partnership" with the public sector? Wastewater needs to be explained to the public more. In the event of a terrorist act at our facility - no one knows what we do or who we are.
Most seminar so far deal with larger labs. Many wastewater labs only perform basic testing. Should develop basic screen tests for chemical or biological threats that small labs could perform.
There does not seem to be good communication or understanding (staff, activites, responsibilities, etc.) between the two WSLH locations (Henry Mall & Agriculture drive)
No
As a POTW registered lab, our testing is highly site specific, very narrowly focused, and heavily regulated. I don't think "partnering" with WSLH offers much to us because our work is so heavily controlled by other State and Federal agencies. WSLH has provided valuable services in the past, which I hope are continued.
Satisfied with the way things are done to operate the lab at this point in time. Don't like change!
None
I would like to make it be known that this laboratory is a very small one, as previously noted in this survey, and therefore many questions did not apply, hence the lack of answers in some cases. Regarding the budget questions, this is beyond our scope, as we are part of a state agency, with a business director handling all of the monetary affairs of this lab.
The Municipality I work at does not have a full time laboratory staff so for our facility to say that we can help is a daunting proposition, but we will do what we can to help.
Our lab is a small part time operation in a small village of about 455 people. We do not have the time or resources to get involved in this program. Thank you
When we have new people entering the field it would be better for for more local training, than have to travel a long distance for the training needed. Also different levels of training.

we are strong supporters of the continuing need for the state lab of hygiene.
Past WSLH presence on rule-making efforts, especially by Dr. Sonzoni (sp?) and Mr. Bowman on NELAP NR149 and CSRC, have be helpful and appreciated by the municipal WWTP community. These efforts will continue to be of importance in the future.
The WSLH is not price competitive. We are obtaining great service and pricing from NSI for our lab's needs.
No
this lab in non-for-profit and too small to be of any real consequence in most emergency/terrorism threat situations.

APPENDIX 4

SURVEY QUESTION "NO ANSWER" STATISTICS

Survey Question Number	ALL Responding Laboratories		Laboratory Sector			
	N	%	Private		Public	
			N	%	N	%
^a P1Q2	-	-	-	-	-	-
P1Q3	0	0%	0	0%	0	0%
P2Q1_1	2	1%	0	0%	2	2%
^b P2Q1_2	-	-	-	-	-	-
P2Q2_1	0	0%	0	0%	0	0%
^b P2Q2_2	-	-	-	-	-	-
P2Q3	1	1%	0	0%	1	1%
P2Q4	0	0%	0	0%	0	0%
P2Q5_1	2	1%	1	2%	1	1%
P2Q5_2	12	7%	7	13%	5	4%
P2Q6_1	108	64%	24	45%	84	72%
P2Q6_2	126	74%	24	45%	102	87%
P2Q6_3	158	93%	42	79%	116	99%
P2Q6_4	144	85%	29	55%	115	98%
P2Q6_5	160	94%	44	83%	116	99%
P2Q6_6	10	6%	7	13%	3	3%
P2Q6_7	159	94%	45	85%	114	97%
P2Q6_8	167	98%	50	94%	117	100%
P2Q6_9	144	85%	29	55%	115	98%
P2Q6_10	96	56%	29	55%	67	57%
P2Q6_11	145	85%	37	70%	108	92%
P2Q7	3	2%	1	2%	2	2%
P2Q8_1	137	81%	28	53%	109	93%
P2Q8_2	103	61%	26	49%	77	66%
P2Q8_3	156	92%	42	79%	114	97%
P2Q8_4	157	92%	41	77%	116	99%
P2Q8_5	88	52%	19	36%	69	59%
P2Q8_6	143	84%	37	70%	106	91%
P2Q8_7	156	92%	40	75%	116	99%
P2Q8_8	164	96%	50	94%	114	97%
P2Q8_9	160	94%	46	87%	114	97%
P2Q8_10	120	71%	37	70%	83	71%
P2Q9_1	21	12%	8	15%	13	11%
P2q9_2	26	15%	6	11%	20	17%
P2Q10_1	55	32%	19	36%	36	31%
P2Q10_2	37	22%	17	32%	20	17%
P2Q10_3	55	32%	20	38%	35	30%

Survey Question Number	ALL Responding Laboratories		Laboratory Sector			
	N	%	Private		Public	
			N	%	N	%
P2Q10_4	24	14%	11	21%	13	11%
P2Q10_5	54	32%	16	30%	38	32%
P2Q10_6	53	31%	21	40%	32	27%
P2Q10_7	58	34%	21	40%	37	32%
P2Q10_8	55	32%	22	42%	33	28%
P2Q10_9	105	62%	38	72%	67	57%
^b P2Q10_10	-	-	-	-	-	-
P3Q11_1	19	11%	9	17%	10	9%
P3Q11_2	23	14%	11	21%	12	10%
P3Q11_3	21	12%	10	19%	11	9%
P3Q11_4	20	12%	9	17%	11	9%
P3Q11_5	15	9%	9	17%	6	5%
P3Q11_6	16	9%	9	17%	7	6%
P3Q11_7	135	79%	48	91%	87	74%
^b P3Q11_8	-	-	-	-	-	-
P3Q12_1	17	10%	9	17%	8	7%
P3Q12_2	17	10%	8	15%	9	8%
P3Q12_3	17	10%	8	15%	9	8%
P3Q12_4	17	10%	8	15%	9	8%
P3Q12_5	16	9%	8	15%	8	7%
P3Q12_6	16	9%	8	15%	8	7%
P3Q12_7	17	10%	9	17%	8	7%
P3Q12_8	16	9%	8	15%	8	7%
P3Q12_9	155	91%	51	96%	104	89%
^b P2Q12_10	-	-	-	-	-	-
P3Q13	19	11%	9	17%	10	9%
P3Q14_1	16	9%	8	15%	8	7%
P3Q14_2	16	9%	8	15%	8	7%
P3Q15_1	16	9%	9	17%	7	6%
P3Q15_2	16	9%	8	15%	8	7%
P3Q16	16	9%	8	15%	8	7%
P3Q17	16	9%	8	15%	8	7%
P3Q18	16	9%	8	15%	8	7%
^c P3Q19_1 thru P3Q19_14	-	-	-	-	-	-
^c P3q20_1 thru P3q20_4	-	-	-	-	-	-
P3Q21_1	40	24%	11	21%	29	25%
P3Q21_2	43	25%	11	21%	32	27%
P3Q21_3	40	24%	11	21%	29	25%

Survey Question Number	ALL Responding Laboratories		Laboratory Sector			
	N	%	Private		Public	
			N	%	N	%
P3Q21_4	38	22%	11	21%	27	23%
P3Q21_5	49	29%	13	25%	36	31%
P3Q21_6	44	26%	11	21%	33	28%
P3Q21_7	45	26%	12	23%	33	28%
P3Q21_8	48	28%	13	25%	35	30%
P3Q21_9	48	28%	12	23%	36	31%
P3Q21_10	37	22%	10	19%	27	23%
P3Q21_11	139	82%	47	87%	92	79%
^b P2Q21_12	-	-	-	-	-	-
P3Q22_1	35	21%	15	28%	20	17%
P3Q22_2	34	20%	12	23%	22	19%
P3Q22_3	33	19%	13	25%	20	17%
P3Q22_4	45	26%	14	26%	31	26%
P3Q22_5	40	24%	16	30%	24	21%
P3Q22_6	39	23%	12	23%	27	23%
P3Q22_7	31	18%	15	28%	16	14%
P3Q22_8	146	86%	50	94%	96	82%
^b P2Q22_9	-	-	-	-	-	-
P3Q23_1	30	18%	11	21%	19	16%
P3Q23_2	27	16%	12	23%	15	13%
P3Q23_3	32	19%	12	23%	20	17%
P3Q23_4	29	17%	11	21%	18	15%
P3Q23_5	29	17%	11	21%	18	15%
P3Q23_6	33	19%	12	23%	21	18%
P3Q23_7	33	19%	12	23%	21	18%
P3Q23_8	152	89%	51	96%	101	86%
^b P2Q23_9	-	-	-	-	-	-
P3Q24	25	15%	9	17%	16	14%
P3Q25_1	26	15%	13	25%	13	11%
P3Q25_2	28	16%	12	23%	16	14%
P3Q25_3	24	14%	12	23%	12	10%
P3Q25_4	28	16%	14	26%	14	12%
P3Q25_5	29	17%	13	25%	16	14%
P3Q25_6	34	20%	14	26%	20	17%
P3Q25_7	23	14%	13	25%	10	9%
P3Q25_8	29	17%	13	25%	16	14%
P2Q25_9	143	84%	47	87%	96	82%
^b P2Q25_10	-	-	-	-	-	-
P3Q26_1	23	14%	13	25%	10	9%
P3Q26_2	24	14%	13	25%	11	9%
P3Q26_3	23	14%	13	25%	10	9%
P3Q26_4	26	15%	14	26%	12	10%

Survey Question Number	ALL Responding Laboratories		Laboratory Sector			
	N	%	Private		Public	
			N	%	N	%
P3Q26_5	24	14%	14	26%	10	9%
P3Q26_6	23	14%	13	25%	10	9%
P3Q26_7	25	15%	13	25%	12	10%
P3Q26_8	23	14%	13	25%	10	9%
P2Q26_9	23	14%	13	25%	10	9%
P3Q26_10	24	14%	13	25%	11	9%
P3Q26_11	23	14%	13	25%	10	9%
P3Q26_12	22	13%	12	23%	10	9%
P3Q26_13	24	14%	13	25%	11	9%
P3Q26_14	24	14%	12	23%	12	10%
P3Q26_15	22	13%	12	23%	10	9%
P3Q26_16	161	95%	50	94%	111	95%
^b P2Q26_17	-	-	-	-	-	-
^c P3Q27A1 thru P4Q27B18	-	-	-	-	-	-
^b P4Q27_19	-	-	-	-	-	-
^d P3Q28	-	-	-	-	-	-
^d P4q29	-	-	-	-	-	-
^d P4q30	-	-	-	-	-	-
P4q31_1	27	16%	12	23%	15	13%
^e P4Q31_2	-	-	-	-	-	-
^e P4q32	-	-	-	-	-	-
^e P4q33_1	-	-	-	-	-	-
^f P4q33_2	106	62%	37	70%	69	59%
^e P4q34	-	-	-	-	-	-
^d P4Q35	-	-	-	-	-	-
^d P4Q36	-	-	-	-	-	-
^e P4q37	-	-	-	-	-	-
^c P4q38_1 thru P4Q38_10	-	-	-	-	-	-
^b P4Q38_11	-	-	-	-	-	-
^e P4q39	-	-	-	-	-	-
^e P4q40	-	-	-	-	-	-
^f P4q41_1	89	52%	23	43%	66	56%
^f P4q41_2	89	52%	23	43%	66	56%
^f P4q41_3	90	53%	24	45%	66	56%
^f P4q41_4	90	53%	24	45%	66	56%
^f P4q41_5	90	53%	24	45%	66	56%
^f P4q41_6	90	53%	24	45%	66	56%
^f P4q41_7	90	53%	24	45%	66	56%

Survey Question Number	ALL Responding Laboratories		Laboratory Sector			
			Private		Public	
	N	%	N	%	N	%
^f P4q41_8	90	53%	24	45%	66	56%
^f P4q41_9	90	53%	24	45%	66	56%
^f P4q41_10	90	53%	24	45%	66	56%
^f P4q41_11	90	53%	24	45%	66	56%
^e P4q42	-	-	-	-	-	-
^d P4Q43	-	-	-	-	-	-

^a Data not available due to a computer program error in the Web survey. The DNR data base is an alternative source for this data: among the 450 labs invited to participate in the survey, about 37 percent are DNR certified labs; 60 percent, DNR registered labs; and 3 percent are DNR registered or certified by reciprocity agreement with another state.

^b Specify or describe "other" question.

^c "Check all that apply" question

^d Qualitative (open ended) question

^e Data not available due to a computer program error in the Web survey.

^f Includes "no answer" responses and no response due to a survey instruction to skip this question (based on an answer to a previous question).