

# Fairfax County Local Environmental Public Health System Assessment

Fairfax County Health Department

November 18, 2010



May 6, 2011

Dear LEnvPHSA Participant:

I am pleased to send you the results of the Local Environmental Public Health System Assessment (LEnvPHSA) that was conducted on November 18, 2010. As you will recall, this assessment reviews the components, activities, competencies, and capabilities of our local environmental health system and provides invaluable information for improving our delivery of the 10 Essential Environmental Public Health Services.

The LEnvPHSA serves two purposes. First, it provides us with an evaluation of how our local system stands in relation to the Model National Local Environmental Health Program Performance Standards that have been established by the Centers for Disease Control and Prevention. It also serves as one component that comprises the Mobilizing for Action through Planning and Partnerships (MAPP) process. In view of unprecedented budgetary challenges and workforce shortages, the importance of a community-driven strategic planning process such as MAPP is more urgent. The findings of the LEnvPHSA will be used to develop a comprehensive action plan to address the system priorities that have been identified. We look forward to working with you in the future as we work through the action plan and its implementation. Again, we thank you for your continued interest and support as we move forward with the process.

Please take a moment to review the report. We appreciate your partnership and invaluable contribution to the development of this document and look forward to your continued commitment and involvement. You may send any comments or questions about the LEnvPHSA to me at [Thomas.crow@fairfaxcounty.gov](mailto:Thomas.crow@fairfaxcounty.gov).

Sincerely,

Thomas E. Crow, R.S., MSEH, Director

Division of Environmental Health

Fairfax County Health Department

## Table of Contents

Executive Summary.....	Page 4
Essential Service 1: Monitor environmental health status to identify and solve community environmental health problems .....	Page 7
Essential Service 2: Diagnose and investigate environmental health problems and health hazards in the community .....	Page 13
Essential Service 3: Inform, educate, and empower people about environmental health issues .....	Page 18
Essential Service 4: Mobilize community partnerships to identify and solve environmental health problems .....	Page 22
Essential Service 5: Develop policies and plans that support individual and community environmental health efforts.....	Page 25
Essential Service 6: Enforce laws and regulations that protect health and ensure safety .....	Page 29
Essential Service 7: Link people to needed environmental health services and assure the provision of environmental health services when otherwise unavailable.....	Page 33
Essential Service 8: Assure a competent environmental health workforce .....	Page 36
Essential Service 9: Evaluate the effectiveness, accessibility, and quality of personal and population based environmental health services .....	Page 41
Essential Service 10: Research for new insights and innovative solutions to environmental health problems and issues .....	Page 44

### APPENDICES

Appendix A: Scoring Summary at a Glance

Appendix B: Scoring Summary

Appendix C: Local Environmental Public Health System

Appendix D: Breakout Groups

Appendix E: Instructions to Breakout Groups

## Executive Summary

The Fairfax County Health Department embarked on a comprehensive strategic planning and community health improvement process, known as the Mobilizing for Action through Planning and Partnership (MAPP) in November 2008. The stakeholders who participated in that assessment were of the opinion that the general assessment failed to adequately measure the environmental health component of the system, and suggested that a separate instrument be used to measure environmental health capacity. The Local Environmental Public Health System Assessment (Assessment) was selected as the instrument that would be used to inform the broader MAPP initiative. The Assessment is based on the Ten Essential Environmental Public Health Services (Essential Services).

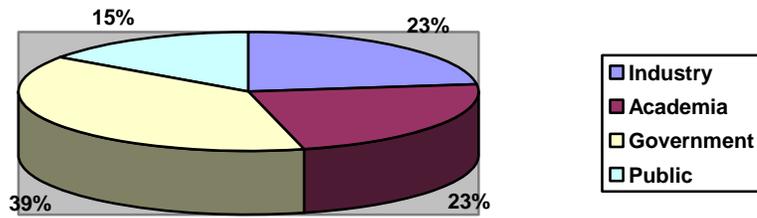
The assessment process was initiated with a preliminary stakeholder meeting in October 2009. The outcome of that meeting was the selection of a set of community environmental health indicators that were used over the course of the next year to build a draft community environmental health profile.

The next step in the process is to conduct the actual Assessment of the entire environmental health system. The Assessment instrument consists of ten model Standards, which are based on the ten Essential Services. Each model standard is evaluated against a set of 3-12 assessment questions that serve as measures of performance. The responses to these questions indicate how well the model standards — which represent the spectrum of environmental public health activities that should be provided by the local environmental health system in any jurisdiction — are being met. Participants scored each question based on the following five levels of activity:

<b>NO ACTIVITY</b>	<b>0% or absolutely no activity.</b>
<b>MINIMAL ACTIVITY</b>	<b>Greater than zero, but no more than 25% of the activity described within the question is met.</b>
<b>MODERATE ACTIVITY</b>	<b>Greater than 25%, but no more than 50% of the activity described within the question is met.</b>
<b>SIGNIFICANT ACTIVITY</b>	<b>Greater than 50%, but no more than 75% of the activity described within the question is met.</b>
<b>OPTIMAL ACTIVITY</b>	<b>Greater than 75% of the activity described within the question is met.</b>

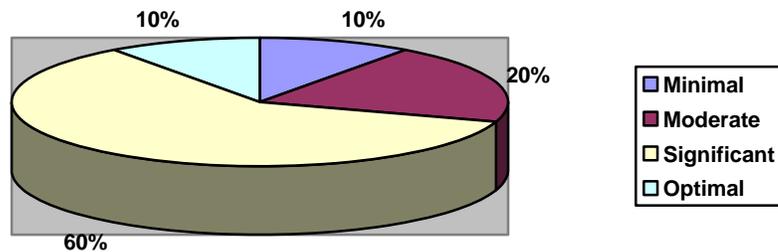
The Assessment was conducted on November 18, 2010. The group included key stakeholders from a wide spectrum of the local environmental public health system (Appendix C), including local health department and other governmental agencies, industry, schools and universities, environmental health professional associations, and the general public (Figure 1). In total, 38 participants representing 13 organizations/agencies participated in the Assessment.

**Figure 1: Local Public Health System Assessment Participation**



Participants were divided into four groups (Appendix D). Each group was assigned a facilitator from NACCHO, who provided the protocol for the discussions and for scoring each question (Appendix E). Each group scored questions for two to three of the ten Standards. An at-a-glance summary of scores received for each question is provided in Appendix A. Based on the data collected, respondents felt that the environmental health system was performing at significant or optimal levels in seven of the ten Standards (Figure 2). This correlates well with the Local Public Health System Assessment (LPHSA) that was conducted by the Health Department in November 2008, which produced identical results.

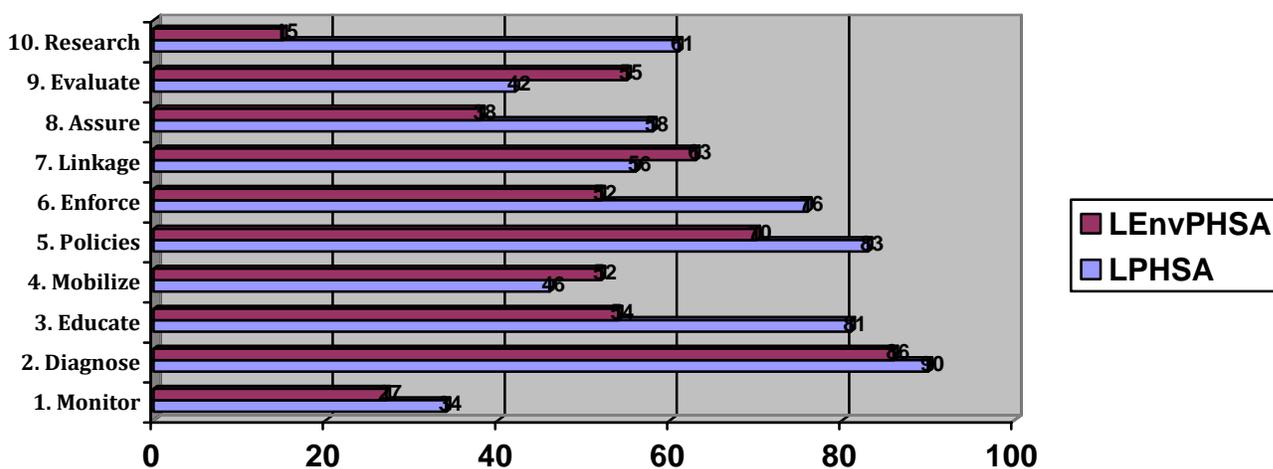
**Figure 2: Percentage of Essential Public Health Services by Activity Level**



## Overall Strengths and Weaknesses

Figure 3 provides a comparison of the relative strengths of the local environmental public health system (LEnvPHS) compared to the local public health system (LPHS) as determined by the respective assessments. Relative to the LPHS, the LEnvPHS does a slightly better job of evaluating program effectiveness and establishing community linkages and partnerships, but scores far lower than the LPHS in encouraging innovative approaches to problem solving, in assuring access to services by all components of the community, enforcing laws and regulations, and public education and empowerment.

**Figure 3: Ranked Essential Public Health Services Performance Scores**



An overview of the scores given to each of the model standards is provided in Appendix B; however a brief summary of the general observations follows:

### Overall Program Strengths

- Participants noted the tremendous number of resources that are available to the local environmental health system in terms of trained staff, skilled leadership, laboratory resources, equipment availability, and area resources outside the governmental structure.
- The environmental health system has a strong network of community stakeholders and technical resources that can be called upon to address specific environmental health concerns, such as drinking water, vector borne disease and food safety.
- By entering into this assessment process, Fairfax County is ahead of many jurisdictions in the United States. Data have been gathered and evaluated for policy makers, which can also be shared with community stakeholders to enhance the shared planning process. The County also has a robust emergency preparedness response plan that is beyond what is available in many environmental health systems around the country.

## Overall Program Weaknesses

- The lack of a comprehensive data collection and management system could be the system's weakest link. Establishing a system to track community environmental health status data was identified as a priority area for future improvement. The county will need to decide if they want to participate in something like the CDC National Environmental Public Health Tracking Network either alone or as part of Virginia, participate in the EPHT with Maryland, or develop their own independent system.
- The system does an outstanding job of addressing problems that arise and of enforcing existing codes and regulations, but there is very little being done to identify segments of the population that might be disproportionately affected by environmental health hazards.
- The system has a process for promoting community involvement around specific events, but there is not a formalized process to empower the community to be more effectively engaged as an active participant in identifying community needs and in the decision making process. Building, broadening, and enriching partnerships should be a high priority moving forward from this Assessment process, particularly with regard to enhancing the relationship between the county and the Cities of Fairfax and Falls Church.
- There is a strong network of technical resources that can be applied toward addressing specific issues; however there is not an effective framework that can be applied toward addressing larger community issues, such as how to improve environmental health conditions at the community level in general.
- The system needs to develop a formal standardized process for reviewing program effectiveness every two to five years. The evaluation should include a periodic review of existing ordinances. The process should include a method for gathering input from as many community stakeholders as possible.
- The system needs to establish a formal system wide process for mentoring and succession planning that takes changing work force demographics into account.

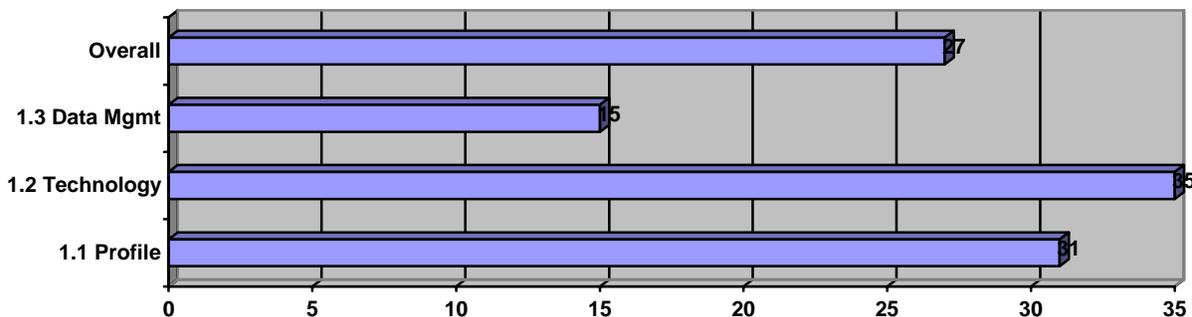
## **Essential Service 1: Monitor health status to identify community health problems**

Essential Service 1 describes the system's ability to monitor community environmental health status and identify community health problems. It evaluates the system's ability to track and manage relevant environmental health data, incorporate the use of current technological resources, and to inform the public through the release of regular community environmental health assessments.

Nine members of the local environmental health system assessed the delivery of Essential Service 1. Roughly half of the questions (4/9) received a score of no activity or minimal activity,

while half of the questions (5/9) received a score of significant activity. Overall, participants felt that the local public health system met 27% of the model standards, which equates to a moderate level of activity for Standard 1 (Figure 4). The overall score of moderate was equal to the score that was given to Service 1 in the LPHSA, but the numerical score of 27% is slightly lower than the overall score of 34% assigned to the LPHSA.

**Figure 4: Standard 1 - Monitor Health Status**



Participants credited the local environmental health system for completing a draft community environmental health profile and applying GIS technology, but recognized shortcomings in the system’s ability to track environmental health status data and share it among various jurisdictions and organizations.

**Summary of Essential Service 1:**

The following summary describes the highlights of the group’s discussion of Essential Service 1. A detailed discussion of each model standard follows this summary.

**Strengths:**

The availability of a highly motivated and educated workforce within the department is a great strength. This makes for a very good foundation and excellent leaders.

**Weaknesses:**

The biggest challenge is the lack of a comprehensive data tracking system that different departments can tap into. Need to work on sharing data across jurisdictions.

The system has an excellent resource in technical support personnel, but challenges exist with regard to succession planning. For example, what happens when the GIS or web experts are gone?

**Opportunities for Improvement:**

Interdepartmental and inter-jurisdictional relationships need to be improved. A lot of good work is being done across the system, but it is not being shared among the various stakeholders.

The draft profile is very good, but there are obvious areas for improvement, to begin with vetting the data with others outside the main groups. There seems to be some question about the numbers and data in the draft so make sure to check with others before proceeding too far. The vetting process should be completed as quickly as possible so the information can be distributed to the public.

There is a lot of data available on the web site, but it is not easily identifiable. You need to know what you're looking for and where to find it. You must be familiar with the topic. For individuals who do not know much about the topic, finding information can be very difficult. Information on the websites should be displayed more conveniently.

There has been no direct benchmarking. A lot of benchmarks have already been established in other areas of state, but the information is not being generally shared. The health department should seek to access and utilize these resources.

### **Priority Areas:**

Establishing a system to track community environmental health status data was identified as a priority area for future improvement. The county will need to decide if they want to participate in something like the CDC National Environmental Public Health Tracking Network either alone or as part of Virginia, participate in the EPHT with Maryland, or develop their own independent system.

## **Model Standard 1.1: Community Environmental Health Profile**

### **1.1A: Has a community environmental health assessment been completed?**

Model Standard 1.1A Score: **Significant Activity**

#### **Discussion regarding the question:**

The Community Environmental Health Profile should be used to engage others and strengthen environmental health by promoting dialogue and activity among the various components of the environmental health system.

Information provided in the profile should be more widely vetted with others outside the main groups. There seems to be some question about the numbers and data in the draft so make sure to check with others before proceeding too far. The vetting process should be completed as quickly as possible so the information can be distributed to the public.

Significant work needs to be done to determine what data is needed and what priorities to set so that the information can be used to impact policy and decisions.

**1.1B: Is the community environmental health assessment updated at least every 3 years?**

Model Standard 1.1B Score: **No Activity**

Discussion regarding the question:

How many jurisdictions will be able to meet this model standard? Fairfax County is very progressive and forward thinking. If they haven't done it, who has?

**1.1C: Are existing and potential environmental health trends identified by comparing analysis results to relevant benchmarks?**

Model Standard 1.1C Score: **Moderate Activity**

Discussion regarding this question:

Baseline data are being gathered, but trends have not yet been established.

There has been no direct benchmarking. A lot of benchmarks have already been established in other areas of state, but the information is not being generally shared. The health department should seek to access and utilize these resources.

Opportunities to assist in bringing data and benchmarks together exist. Contact the Metropolitan Washington Area Council of Governments, counterparts in Alexandria, Northern Virginia Regional Commission, etc.

**1.1D: Have the data from the community environmental health assessment been compiled into an updated profile?**

Model Standard 1.1D Score: **Moderate Activity**

Discussion on this question:

The draft Profile has data on environmentally related illness, disease and injury, but it hasn't been validated and the plan hasn't been adopted. We are still in the very early stages and need to improve.

The draft Profile has a lot of information on environmental factors contributing to health problems, such as air and water quality indicators, but it's somewhat short on the frequency of code violations for other program activities such as food safety and onsite wastewater treatment systems.

The draft profile would benefit from the inclusion of a statement of the community perception of environmental health status.

**1.1E: Are environmental health data prepared in a format that allows for the clear communication and interpretation by the public and policy makers?**

Model Standard 1.1E Score: **Moderate Activity**

Discussion on this question:

There is a lot of data available to the public, though it is not necessarily in the draft profile. If a member of the community needed information, could they get it?

Just about anything can be found, but is it good data? Is it usable? Can you trust the source? The health department must improve this data collection and make it easily available.

**1.1F: Is information about the community environmental health status easily available to individuals, community groups, and other organizations in a printed and web-based version?**

Model Standard 1.1F Score: **Minimal Activity**

Discussion regarding this question:

There is great information on smoking on the website, including reports, executive summaries, visual fact sheets, time-series data, etc. However, this is not the vigorous level of data that the panel of information points to. In the areas where information is available, there is a high level of presentation. For a significant portion of the data, there isn't anything.

There must be concern about what the data will show, especially the data's impact on property values. Are people opposed to publishing information on county property values? Perhaps it is purposefully difficult to find.

Data is available but not easily identifiable. You need to know what you're looking for and where to find it. You must be familiar with the topic. For individuals who do not know much about the topic, finding information can be very difficult. Websites are not convenient.

## **Model Standard 1.2: Current Technology for Data Collection, Storage, and Analysis (e.g. GIS, surveys and databases)**

### **1.2A: Are appropriate tools, such as GIS, used to support the profile databases?**

Model Standard 1.2A Score: **Moderate Activity**

Discussion regarding this question:

The Health Department makes extensive use of GIS to collect, manage, and analyze data. Examples are the use of GIS to locate and track the status of onsite water and sewage systems and the distribution of various environmentally-related diseases such as elevated blood lead levels, Lyme disease and West Nile virus.

The status of GIS utilization by other components of the environmental health system outside the Health Department is not known. Integration of data across departments and organizations is a challenge due to differences in equipment and formatting.

## **Model Standard 1.3: Enhanced Environmental Health Databases and Plan**

### **1.3A: Are data collected from a range of sources involved in environmental and public health protection (e.g., epidemiology, disease registries, tracking partners, local and state departments of environmental quality)?**

Model Standard 1.3A Score: **Minimal Activity**

Discussion regarding the question:

We are not sure about how much data is collected across different agencies. This could be the weakest link. The current method for collecting reliable data often depends more on knowing the people who can get it for you than on having a reliable system that can naturally retrieve it for you.

### **1.3B: Have plans been made to address gaps in information and data needed?**

Model Standard 1.3B Score: **Minimal Activity**

Discussion regarding this question:

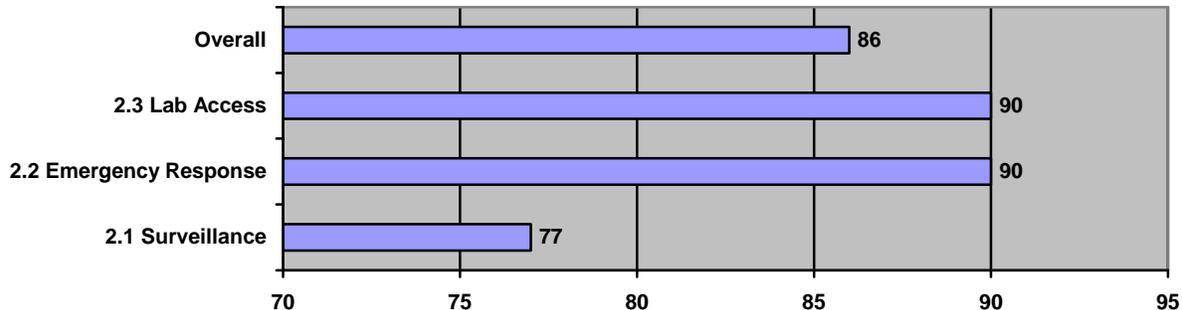
There has been enough work to identify that there are definitely gaps, but relatively little has been done to address those gaps.

## Essential Service 2: Diagnose and Investigate Environmental Health Problems and Health Hazards in the Community

Essential Service 2 describes the system’s ability to diagnose and investigate environmental health problems. It evaluates the system’s ability to use timely surveillance data and investigative protocols to anticipate health problems, respond to public health emergencies, and the availability of epidemiology expertise and laboratory support.

Nine members of the local public health system assessed the delivery of Essential Service 2. The participants found this to be the strongest aspect of the local environmental health system, giving significant or optimal scores to all eight questions. Overall, participants felt that the local public health system met 86% of the model standards, which equates to an optimal level of activity for Standard 2 (Figure 5). The overall score of optimal was equal to the score that was given to Service 2 in the LPHSA, and the numerical score of 86% is roughly equal to the overall score of 90% assigned to the LPHSA.

**Figure 5: Standard 2 – Diagnose and Investigate Environmental Health Problems and Environmental Health Hazards**



Establishing a system to track environmental health status data was identified as a priority area for improvement. Participants felt that the independent components did a good job of identifying and monitoring specific environmental health issues, but communicating and exchanging this information could be better. The entire local environmental health system received high marks for integrating environmental health into the all hazards emergency response activity and for the excellent level of laboratory support.

### **Summary of Essential Service 2:**

The following summary describes the highlights of the group’s discussion of Essential Service 2. A detailed discussion of each model standard follows this summary.

### **Strengths:**

The system's strength is the level of available resources, good leadership and well-executed plans.

This system is outstanding. You see differences all over the country and Fairfax is great.

The county does an excellent job of integrating the local environmental health system into the all hazards emergency response activity.

The service provided by the county's public health laboratory is a model for the rest of the state.

### **Weaknesses:**

Not all services are well funded. Need to do risk-based analysis to see if some areas should be better funded than they are.

As a system, we don't have our act together as much as we should. Surveillance data and epidemiological resources are available from a variety of sources, but their use is sporadic and not used consistently across the environmental health system.

### **Opportunities for Improvement:**

The capabilities within the Health Department in the identification and surveillance of environmental health threats should be more effectively communicated throughout the local environmental health system.

### **Priority Areas:**

Establishing a system to track community environmental health status data was identified as a priority area for future improvement. The county will need to decide if they want to participate in something like the CDC National Environmental Public Health Tracking Network either alone or as part of Virginia, participate in the EPHT with Maryland, or develop their own independent system.

Enhance interdepartmental and inter-jurisdictional communication and outreach.

## **Model Standard 2.1: Identification and Surveillance of Environmental Health Threats**

### **2.1A: Does the EH System or program operate or participate in an environmental health surveillance system that uses timely information from a variety of sources?**

Model Standard 2.1A Score: **Significant Activity**

Discussion regarding this question:

As a system, we don't have our act together as much as we should. Surveillance data is available from a variety of sources, but its use is sporadic and not used consistently across the environmental health system.

The local system makes excellent use of locally derived sources of data, such as Communicable Disease/Epidemiology (CD/EPI) investigations and GIS derived data, but statewide and national data are not being used consistently.

### **2.1B: Does the EH System or program use protocols to investigate patterns and/or outbreaks of environmentally-related illness, disease, injury, environmental hazards, and risk factors?**

Model Standard 2.1B Score: **Optimal Activity**

Discussion regarding this question:

The Health Department has a separate CD/EPI program that works closely with environmental health staff to investigate patterns and/or outbreaks of environmentally-related illness, environmental hazards, and risk factors. One environmental health specialist is physically assigned to the CD/EPI unit and is dedicated to doing blood lead, rabies, and indoor air quality investigations. In addition, one member of the Food Safety program is specifically assigned to work with CD/EPI on food borne disease outbreaks.

### **2.1C: Does the EH System or program have access to expertise in epidemiology and statistics such as Masters and/or Doctoral level statistical and epidemiological expertise?**

Model Standard 2.1C Score: **Significant Activity**

Discussion regarding this question:

The Health Department employs a full time physician epidemiologist, who provides a high level of statistical and epidemiological expertise to assess, investigate, and analyze environmental health threats and hazards.

The epidemiological resources available in the Health Department are not well known across the local environmental health system.

**2.1D: Is key environmental health staff trained in the application of epidemiology and statistics?**

Model Standard 2.1D Score: **Optimal Activity**

Discussion regarding this question:

All environmental health staff completes mandatory modules within the first year of their employment that provide them with basic training in the application of epidemiology and statistics. Periodic in-service sessions are also conducted to provide refresher training.

**Model Standard 2.2: Investigation and Response to Environmental Health Threats and Emergencies**

**2.2A: Are roles and responsibilities of the local environmental health staff integrated into the all hazards emergency response plan?**

Model Standard 2.2A Score: **Optimal Activity**

Discussion regarding this question:

Environmental health staff is integrated into the Health Department Incident Management Team. Many staff is assigned roles in the Command and General staff, and those that aren't are assigned to a specialty response team based on their individual area of expertise.

Environmental health staff played key roles in a wide range of capacities in implementing the H1N1 mass vaccination clinics that were conducted in 2009-2010.

**2.2B: Are written protocols available to guide immediate investigation of and response to public health threats and emergencies?**

Model Standard 2.2B Score: **Optimal Activity**

Discussion regarding this question:

The Health Department has a comprehensive all hazards response plan that includes specific roles for environmental health staff. The agency also participates as an active partner in the County all hazards response plan.

**2.2C: Does the EH System or program regularly update the roster of personnel with technical expertise to respond to potential natural disasters, biological, chemical or radiological public health emergencies?**

Model Standard 2.2C Score: **Optimal Activity**

Discussion regarding this question:

The environmental health program maintains a matrix that identifies the specific areas of expertise for every member of the staff, which is updated annually.

In addition to the skills of environmental health program staff, the County also maintains a formal Medical Reserve Corps that consists of more than 7,000 members who are also available to respond as needed in the event of a natural disaster or environmental health emergency.

**Model Standard 2.3: Laboratory Access**

**2.3A: Does the EH System or program have established agreements and/or procurement processes to access (24 hours-per-day/7 days-per-week) approved laboratories capable of supporting investigations of environmental health problems, hazards and emergencies?**

Model Standard 2.3A Score: **Optimal Activity**

Discussion regarding this question:

The Health Department has a robust internal public health laboratory that is capable of performing most tests necessary to support investigations of environmental health problems, hazards and emergencies. The County has agreements with other laboratory facilities and consulting firms to provide the services that cannot be provided by the Health Department's lab.

**2.3B: Are guidelines or protocols in place to address handling of laboratory samples and reporting of findings?**

Model Standard 2.3B Score: **Optimal Activity**

Discussion regarding this question:

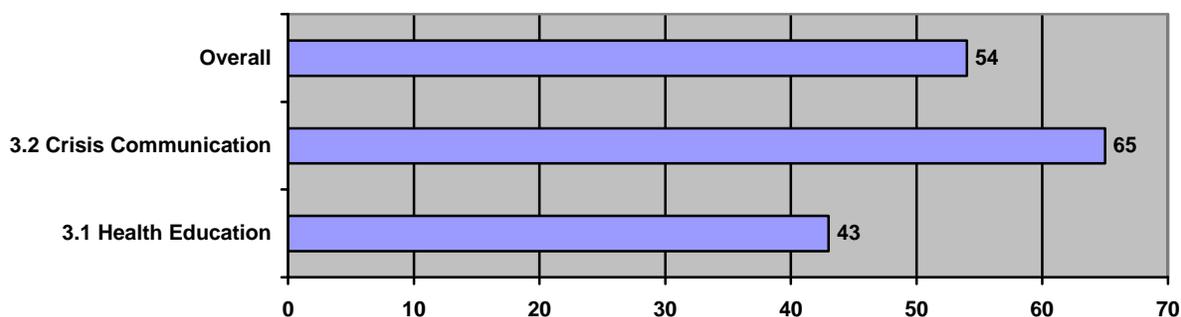
Protocols to guide the handling of laboratory samples, including chain of custody guidance, and the reporting of findings are in place.

## Essential Service 3: Inform, Educate and Empower People and Communities about Environmental Health Issues

Essential Service 3 describes the system’s ability to effectively utilize the resources within the community to disseminate health based information. It evaluates the system’s ability to engage the community in identifying health needs and develop standard and emergency communication plans to develop appropriate targeted messages.

Ten members of the local public health system assessed the delivery of Essential Service 3. Participants rated half the questions (3/6) at the significant level. Overall, participants felt that the local public health system met 54% of the model standards, which equates to a significant level of activity for Standard 3 (Figure 6). The overall score of significant was lower than the overall score of optimal that was given to Service 3 in the LPHSA, and the numerical score of 54% was significantly lower than the overall score of 81% assigned to the LPHSA. Both systems are comparable in their ability to inform and educate the public, but the LPHSA was felt to do a much better job of overall risk communication and community empowerment.

**Figure 6: Standard 3 – Inform, Educate, and Empower People and Communities**



The need to broaden outreach efforts to the cultural communities and other organizations within the environmental health system were identified as priority areas. Participants acknowledged that the health department has taken a leadership role in many environmental health education outreach campaigns and bringing together other partners, but didn’t believe that the same level of activity was shared throughout the system. They also acknowledged the system’s ability to share information among key responders and the public in the event of potentially serious environmental health threats, disease outbreaks and other emergencies.

### **Summary of Essential Service 3:**

The following summary describes the highlights of the group’s discussion of Essential Service 3. A detailed discussion of each model standard follows this summary.

### **Strengths:**

The environmental health program has developed a variety of outreach materials in multiple languages, targeted to multiple cultures. The multi-cultural make-up of the environmental health staff enhances the cultural competency and sensitivity of the outreach program.

### **Weaknesses:**

The cultural diversity of Fairfax County presents challenges to communication that need to be addressed; for example approximately 30% of the population of Fairfax City is non-English speaking.

The unique status of the Cities of Fairfax and Falls Church are frequently not recognized when conducting program planning and development activities.

Some parts of the overall environmental health system don't recognize their role in environmental health or how they can positively impact the system's outreach (specific example cited of the untapped resources available in the INOVA system).

The overall environmental health system is fragmented among multiple entities, which sometimes results in turf issues creating barriers to health education and outreach.

There is a countywide communications plan, but the messaging guidance provided in the plan is not well known throughout the system.

### **Opportunities for Improvement:**

Empower the community more effectively as an active participant in the identification of community needs and in the decision making process by enhancing the level of dialogue between the community and the environmental health system. This will encourage a more reasoned approach toward identifying program objectives that will help the program to become more proactive and reduce the "crisis du jour" mentality that results when people are uninformed about the real issues.

### **Priority Areas:**

Get the county and environmental health system on the same page through the standardization of messaging formats across the system to conform to the county communication plan.

Reach out to those elements of the system that don't see their role in environmental health in order to broaden the system's outreach across the community.

Continue to explore innovative ways to involve the community more effectively in the decision making process, especially with regard to the Cities of Fairfax and Falls Church.

## **Model Standard 3.1: Health Education, Health Promotion and Health Communications**

### **3.1A Does the EH System or program have a health communications plan that routinely provides the community (general public, policy makers, and public and private stakeholders) with EH information to enable effective individual, community and policy action?**

Model Standard 3.1A Score: **Moderate Activity**

Discussion regarding this question:

Participants were generally unaware if a systemic health communications plan exists and if it “routinely provides the community with EH information.” Participants generally believe there’s a lot of activity, but there is no way to determine if it is effective or if a system can even be set up to assess this.

Clearly the system is capable of getting information to the public to inform decision making around an emergency situation, such as a food outbreak, but the general sense was that the routine element is lacking.

### **3.1B Does the EH System or program work with the community to identify health education needs of different segments of the community?**

Model Standard 3.1B Preliminary Score: **Moderate Activity**

Discussion regarding this question:

Health department resource staff stated that they respond to specific requests for information, but no formal process exists to proactively identify the needs. The general impression is that there are “pockets of engagement” but there are also a lot of areas not receiving attention and that the health department could be more proactive in working with the community to identify the health education needs. One glaring area that requires closer attention is the relationship between the county and the Cities of Fairfax and Falls Church. Program planning and development activities are generally carried out without consideration being given to the unique status of the two cities.

It would be helpful if the health department had the capacity to meet on regular basis with various stakeholders in the community (volunteer work, restaurants, football concession stands, and dry cleaning owners).

**3.1C Does the EH System or program develop appropriate and targeted messages for various segments of the community (e.g., vulnerable, sensitive or disproportionately impacted populations)?**

Model Standard 3.1C Score: **Significant Activity**

Discussion regarding this question:

The environmental health system does this particularly well. The system beyond the Health Department is increasingly being improved, for example within the school system, parks department, etc. The level of participation by members of the community isn't well defined, but the general sense of the group is that a lot of work has been done and major efforts exist to reach out to everyone in the community in terms of language and cultural point of view, particularly in food handling and understanding the political/enforcement process.

**3.1D Are broad-based partners (such as health department, planning and zoning, public works, building, environmental advocacy groups, and the media) working together on environmental health education and promotion activities?**

Model Standard 3.1D Score: **Significant Activity**

Discussion regarding this question:

In general, the Health Department is exceptional with regards to community outreach, working with restaurants, pools, and offering multiple languages in outreach. Two programs (Food Safety and Disease Carrying Insects) have individuals who are dedicated specifically to outreach and community education. The Health Department has also established an Environmental Health Ambassador program, which consists of a designated cadre of individuals who devote time after hours and on weekends to attend community events to provide information on environmental health issues. However, there is a breakdown system-wide for application of the items in the model standard. The Environmental Coordinating Council provides a venue for broad-based partners to discuss environmental health issues, but their primary focus is in the policy development area. Examples of these collaborative efforts include county wide programs to address the hoarding issue, blight abatement, the Community Readiness Initiative (CRI), the H1N1 initiative, and the Strengthening Neighborhoods, Building Communities (SNBC) Initiative. All of these initiatives involved a measure of health promotion/outreach, but that was not the primary focus.

**3.1E Does the communications plan provide guidance on creating messages and materials appropriate to the differing communication channels (e.g., Internet, print, radio, and television)?**

Model Standard 3.1E Preliminary Score: **Minimal Activity**

Discussion regarding this question:

Fairfax County has a robust communication infrastructure and there is a countywide communications plan, but the messaging guidance provided in the plan is not well known throughout the system and the utilization of the different communication channels isn't consistent across the environmental health system.

**Model Standard 3.2: Crisis Communication**

**3.2A Does the EH System or program have emergency communication plan(s) to share information among key responders and the public in the event of potentially serious environmental health threats, disease outbreaks and other emergencies?**

Model Standard 3.2A Score: **Significant Activity**

Discussion regarding this question:

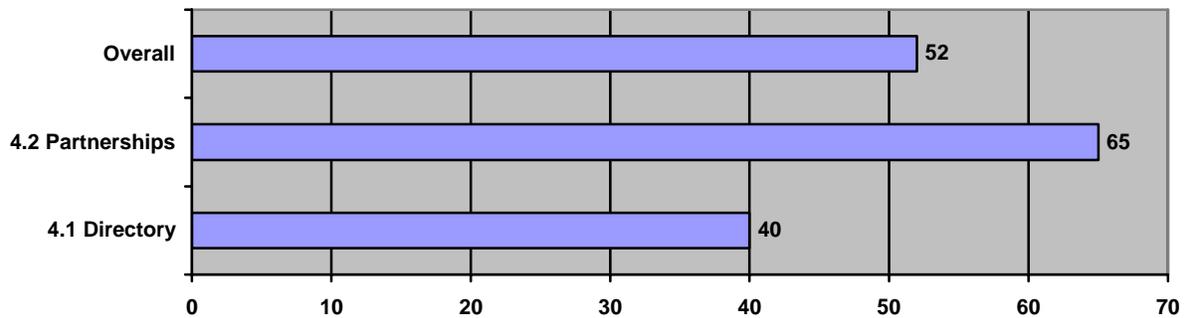
The environmental health system makes effective use of a variety of methods for information sharing during crisis, such as blast fax, the daily County News Wire, and a strong local media presence. One significant “hole” in the system is the Cities of Fairfax and Falls Church, which frequently fall off the communication grid because software used by the cities is incompatible with county software.

**Essential Service 4: Mobilize Community Partnerships to Identify and Solve Environmental Health Problems**

Essential Service 4 describes the system's ability to effectively form and utilize public/private partnerships to address and solve environmental health problems. It evaluates how well the system identifies and engages potential partners in the environmental health program.

Ten members of the local public health system assessed the delivery of Essential Service 4. There were only three model standards under this service, which participants rated two at the significant level and one at the moderate level. Overall, participants felt that the local public health system met 52% of the model standards, which equates to a significant level of activity for Standard 4 (Figure 7). The overall score of significant was higher than the overall score of moderate that was given to Service 4 in the LPHSA, and the numerical score of 52% is was slightly higher than the overall score of 46% assigned to the LPHSA.

**Figure 7: Standard 4 – Mobilize Community Partnerships**



Participants acknowledged that the health department has established effective relationships with official partners, such as the Health Care Advisory Board and the Environmental Quality Advisory Council, and effective partnerships have also been established with certain program specific groups, such as the Restaurant Association of Metropolitan Washington and the Virginia Onsite Wastewater Recyclers Association. Effective relationships have also been established with various community groups and homeowner’s associations. A significant amount of work needs to be done, however, toward establishing a closer working relationship with the Cities of Fairfax and Falls Church and in developing a formal constituent directory.

There is a strong network of technical resources; however there is not an effective framework that can be applied toward addressing larger community issues, such as how to improve environmental health conditions at the community level in general.

**Summary of Essential Service 4:**

The following summary describes the highlights of the group’s discussion of Essential Service 4. A detailed discussion of each model standard follows this summary.

**Strengths:**

The environmental health system has a strong network of community stakeholders and technical resources that can be called upon to address specific environmental health concerns, such as drinking water, vector borne disease and food safety.

**Weaknesses:**

There is a strong network of technical resources; however there is not an effective framework that can be applied toward addressing larger community issues, such as how to improve environmental health conditions at the community level in general.

Participants observed that governmental agencies are sometimes resistant to share problem solving and policy making decisions with the community in general or with other agencies.

The system has not established a comprehensive directory of community organizations and agencies with an interest in environmental health issues and services.

**Opportunities for Improvement:**

Establish collaborative relationships with a wider range of community partners, particularly in the Cities of Fairfax and Falls Church.

**Priority Areas:**

Establish a directory of key stakeholders and constituents.

Expand collaboration and networking with stakeholders in the cities of Fairfax and Falls Church, i.e., the Fairfax Area.

Establish formal stakeholder groups to seek their input into program activities.

**Model Standard 4.1: Constituency Development**

**4.1A Does the EH System or program maintain an up-to-date directory of key constituents and stakeholders for environmental health?**

Model Standard 4.1A Score: **Minimal Activity**

Discussion regarding this question:

There is no formal up-to-date directory of key constituents and stakeholders for environmental health.

**4.1B Does the EH System or program have a plan and process that employs a variety of methods to involve constituents in key decisions and policy development for environmental health issues?**

Model Standard 4.1B Score: **Significant Activity**

Discussion regarding this question:

Fairfax County has a policy enforced by the Board of Supervisors that requires agencies to hold meetings with community members and stakeholders before they will authorize hearings to consider adoption of new ordinances or changes to existing ordinances. The Health Department will be following this process as it moves forward with proposing changes to its food safety, onsite sewage and water, and swimming pool ordinances in the near future.

The county employs an informal process for involvement of constituents in key decisions and policy development for environmental health issues, but the process is informal and applied inconsistently across the environmental health system. Participants cited the establishment of advisory boards for food safety and hotel/motels as a good starting point to formalize the stakeholder involvement process. Conducting a stakeholder analysis through the use of baseline surveys was also suggested as methods to engage groups and retain institutional knowledge around specific issues.

## **Model Standard 4.2: Community Partnerships**

### **4.2A Are partnerships among government agencies and the private sector used to enhance environmental health program effectiveness?**

Model Standard 4.2A Score: **Significant Activity**

Discussion regarding this question:

Recent budget reductions have necessitated that the Health Department engage more actively in establishing partnerships with other government agencies. Formal agreements exist with the State Department of Environmental Quality to provide air and other environmental monitoring services and with the Hazardous Materials program in the Department of Fire and Rescue to provide hazardous materials response support. The County also has formal relationships with the Federal Emergency Management Administration and with the Department of Health and Human Services to build its emergency response infrastructure.

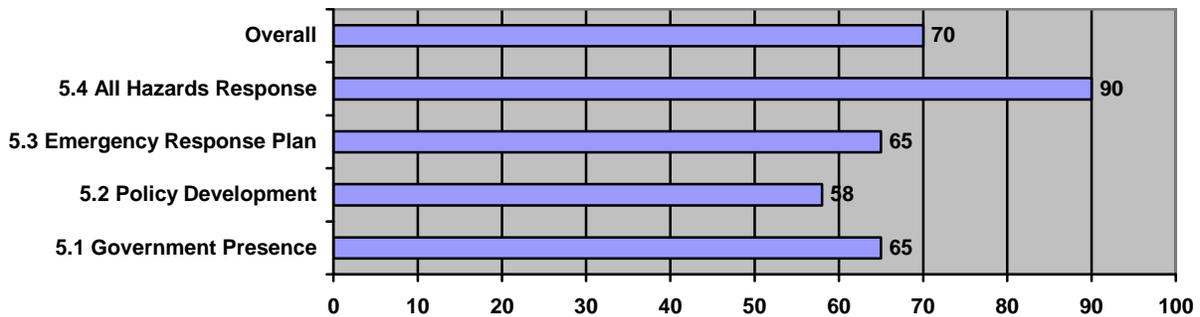
Partnerships with the private sector do exist, for example with the INOVA hospital system, but private sector partnerships are not as well developed as with the public sector agencies.

## **Essential Service 5: Develop Policies and Plans that Support Individual and Community Environmental Health Efforts**

Essential Service #5 describes the system's ability to support individual and community health efforts through the development of plans and policies. It evaluates the system's ability to establish plans and policies that ensure that environmental health resources and strategies are aligned with the environmental health needs of the community.

Nine members of the local public health system assessed the delivery of Essential Service 5. Participants rated approximately 80% (5/6) of the questions at a level of significant or optimal activity. Overall, participants felt that the local public health system met 70% of the model standards, which equates to a significant level of activity for Standard 5 (Figure 8). The overall score of significant was less than the overall optimal score that was given to Service 5 in the LPHSA, and the numerical score of 70% was significantly lower than the overall score of 83% assigned to the LPHSA. Participants of the two assessments felt that the LPHSA is generally doing a better job of policy development than the LEnvPHSA.

**Figure 8: Standard 5 - Develop Policies and Plans that Support Individual and Community Efforts**



The need to develop a systematic process for evaluating policies and procedures every two years was identified as a priority area. Participants identified the availability of resources to assist it in supporting environmental health efforts as the program’s greatest strength.

**Summary of Essential Service 5:**

The following summary describes the highlights of the group’s discussion of Essential Service 5. A detailed discussion of each model standard follows this summary.

**Strengths:**

By entering into this assessment process, Fairfax is ahead of many jurisdictions in the United States. Data have been gathered and evaluated for policy makers, which can also be shared with community stakeholders to enhance the shared planning process. The county also has a robust emergency preparedness response plan that is beyond what is available in many environmental health systems around the country.

**Weaknesses:**

The county has collected a lot of information, but they are not making the best use of it. A formal program assessment is underway, but there has not been a systematic review process employed to date.

Certain components of the environmental health system are doing a good job of community outreach, but the application is not consistently applied across the system. This is primarily evidenced by the lack of a systematic plan for identifying disproportionate mortality and access to services that might exist in certain segments of the population.

**Opportunities for Improvement:**

This assessment process has opened a door to building bridges to the community in general and to potentially undersized populations specifically. The county should take advantage of this opportunity to develop a standardized process for reviewing program effectiveness every two to five years and for opening up the planning process to the various community stakeholders.

### **Priority Areas:**

Develop a formal standardized process for reviewing program effectiveness every two to five years. The evaluation should include a periodic review of existing ordinances. The process should include a method for gathering input from as many community stakeholders as possible.

### **Model Standard 5.1: Governmental Presence at the Local Level**

#### **5.1A Does the environmental health system provide a governmental environmental health entity (i.e. local environmental health department or local office of a state health or environmental health department) to assure the delivery of the Essential Environmental Health Services to the community?**

Model Standard 5.1A Score: **Significant Activity**

Discussion regarding this question:

Clearly Fairfax has a governmental entity present, but does that assure that services are being provided? There was a general acknowledgement that Fairfax has a better resourced and funded health department than other counties in the State of Virginia, but there is currently no way to evaluate if those resources are being effectively applied to assure the delivery of services to all segments of the population. The fact that the Health Department is undertaking this step is evidence of a willingness to provide an objective way of assuring that services are provided.

### **Model Standard 5.2: Public Health Policy Development**

#### **5.2A Has the EH System or program developed a community environmental health improvement process in which environmental health policy needs are identified?**

Model Standard 5.2A Score: **Optimal Activity**

Discussion regarding this question:

The group had an extensive discussion of what comprises a “community environmental health improvement process.” The group discussed such concepts as providing an ongoing effort to promote broad-based community participation to encourage ownership of the system and accountability. They acknowledged that, although some work remains to be done, Fairfax is ahead of many jurisdictions in this regard and rated the level of activity as Optimal based on the direction of the current process.

**5.2B Does the system/program advocate for prevention and protection policies for those in the community who bear a disproportionate burden of mortality or morbidity, or that are particularly sensitive to some environmental health issues?**

Model Standard 5.2B Score: **Significant Activity**

Discussion regarding this question:

It was acknowledged that Fairfax does a very good job of addressing targeted issues, such as food safety, childhood blood lead, and promoting improvements in water and sewer services. The community profile could also provide a platform for looking at advocacy from a holistic way rather than narrowly focused individual issues, which is a much more efficient approach for looking at the community as a whole.

**5.2C Is a process in place to review existing policies every two years?**

Model Standard 5.2C Score: **Minimal Activity**

Discussion regarding this question:

This assessment process represents a formal program review, but there has not been any formal review undertaken to date so it is difficult to rate the program above minimal.

**Model Standard 5.3: Community Environmental Health Improvement Process and Strategic Planning**

**5.3A Has the EH System or program developed a community environmental health assessment and stakeholder input into a community environmental health improvement plan which identifies environmental health priorities, policies, and resources?**

Model Standard 5.3A Score: **Significant Activity**

Discussion regarding this question:

A participant posed the question “If George Washington University wasn’t involved in this, would it be going on?” There was agreement that resources are difficult to come by for these evaluations, which provides a clear demonstration of why an effort such as this requires the participation of all of the resources available to the local environmental health system. It was recognized that the Health Department attempted to include many stakeholders in this meeting but barriers prevented many who were invited from participating. The question of how to convince those people that their opinion is important is a difficult one, which will make final development of the plan difficult.

**Model Standard 5.4: Plan for Environmental Health Emergencies**

**5.4A Does the EH system or program have an all-hazards emergency preparedness and response plan?**

Model Standard 5.4A Score: **Optimal Activity**

Discussion regarding this question:

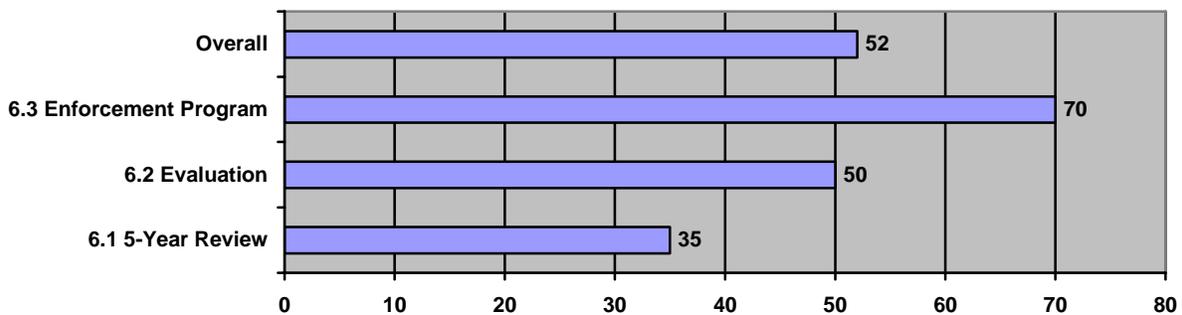
There was general agreement within the group that Fairfax County has developed a model all-hazards emergency preparedness and response plan, as evidenced by the system wide response to the recent H1N1 situation.

## Essential Service 6: Enforce Laws and Regulations that Protect Health and Ensure Safety

Essential Service 6 describes the system’s ability to enforce laws and regulations. It evaluates the system’s ability to enforce local ordinances and educate those obligated to comply with the ordinances.

Nine members of the local public health system assessed the delivery of Essential Service 6. Participants rated approximately 60% (4/6) of the questions at a level of significant or optimal activity. Overall, participants felt that the local public health system met 52% of the model standards, which equates to a significant level of activity for Standard 6 (Figure 9). The overall score of significant was less than the overall score of optimal that was given to Service 6 in the LPHSA. The numerical score of 52% was significantly lower than the overall score of 76% assigned to the LPHSA. Participants of the two assessments felt that the LPHSA is doing a better job across the board in reviewing, evaluating, and enforcing the laws than the LEnvPHSA.

**Figure 9: Standard 6 – Enforce Laws and Regulations that Protect Health and Ensure Safety**



The need to establish a systematic enforcement review process was identified as a priority area. Participants identified the county’s ability to identify enforcement issues quickly and reach workable solutions as a positive aspect. They also recognized the county’s use of online tracking systems to aid in the enforcement process as a major strength.

## **Summary of Essential Service 6:**

### **Strengths:**

The county does a good job of educating the regulated community so that businesses and individuals can understand what to do in order to comply.

### **Weaknesses:**

There is an informal review process, but the process appears to be demand driven rather than driven by a systematic process of review. The reviews also appear to be driven by the prevailing opinions of program staff without a clear understanding of the opinions and viewpoints of the regulated community.

Fragmentation of the environmental health system presents difficulty in conducting comprehensive reviews of the overall system. Whose responsibility is it to determine if the system as a whole is working and how does the system collectively address gaps?

### **Opportunities for Improvement:**

This process has opened a door to get the various components of the local environmental health system together to collectively evaluate the various statutory authorities that drive the enforcement processes. The evaluation should consider other laws that could have an impact on environmental health and not just those regulations that directly relate to the individual programs.

Although procedures are in place to encourage the equitable enforcement of the laws and regulations, there is not a system in place to ensure that equitable enforcement is actually taking place. There is a need for templates and manuals to provide a quality assurance component to the enforcement process to monitor enforcement equity.

### **Priority Areas:**

A formal process for evaluating the effectiveness of the environmental health system's enforcement process should be initiated and conducted at least every five years.

There is a need for templates and manuals to provide a quality assurance component to the enforcement process to monitor enforcement equity.

## **Model Standard 6.1: Review Evaluation of Current Laws, Regulations, and Ordinances**

**6.1A Are state and local laws, regulations, and ordinances reviewed, at least once every five years, to assess their impact on the environmental health of the community and determine whether they need updating?**

Model Standard 6.1A Score: **Moderate Activity**

Discussion regarding this question:

Current laws, regulations, and ordinances are reviewed periodically when events draw attention to a shortcoming in the law, but there is no systematic process to routinely review statutory authorities. The group acknowledged that a lack of available resources to dedicate to such an effort and Virginia's status as Dillon Rule state present challenges to periodically updating the authorities, but it is an effort worth undertaking.

Reviews should be done in collaboration with community stakeholders to ensure that their opinions are heard and understood. One example that was cited by the group was the issue of airport noise associated with Dulles airport that is a concern to communities in the vicinity of the airport but has not been addressed by the local system.

## **Model Standard 6.2: Involvement in Improvement of Laws, Regulations and Ordinances**

### **6.2A Are gaps identified in public health and environmental laws, regulations, or ordinances?**

Model Standard 6.2A Score: **Moderate Activity**

Discussion regarding this question:

The group acknowledged that Fairfax has been ahead of the curve on this relatively speaking, but very few programs nationally are doing a very good job of identifying gaps in laws and regulations. The fragmentation of the local environmental health system and the lack of available resources to devote to this activity make it difficult to do on a routine basis.

### **6.2B Does the EH system or program participate in the updating and/or modification of existing, or the formulation of new laws, regulations, and ordinances designed to assure and improve the public's health and the quality of the environment that may impact human health?**

Model Standard 6.2B Score: **Significant Activity**

Discussion regarding this question:

The local Food Safety ordinance is reviewed and updated every four years when the FDA revises the national model standard. There are also plans to update the onsite sewage ordinance and the swimming pool ordinance to accommodate changes in technology in those industries. County policy further requires that any agency that wishes to revise one of their ordinances must coordinate the changes with other agencies that might be impacted by the change, which fosters a

minimal amount of collaboration. Although this significant amount of activity is taking place, there is still a lot of room for improvement as cited in the preceding paragraphs.

### **Model Standard 6.3: Enforcement of Laws, Regulations, and Ordinances**

#### **6.3A Does the EH system or program provide timely, consistent and equitable enforcement of environmental health protection laws, regulations, ordinances, and policies within all segments of the jurisdiction?**

Model Standard 6.3A Score: **Significant Activity**

Discussion regarding this question:

The Health Department enforcement protocols have built-in procedures to ensure that all laws and regulations are enforced equitably within all segments of the jurisdiction. State and local laws also identify mandatory processing times to ensure the timeliness of enforcement actions. The group noted that, although procedures are in place to encourage the equitable enforcement of the laws, there is not a system in place to ensure that equitable enforcement is actually taking place. There is a need for templates and manuals to provide a quality assurance component to the enforcement process to monitor enforcement equity.

#### **6.3B Does the EH system or program provide information about the meaning and the purpose of public and environmental health laws, regulations and ordinances to the individuals and organizations that are required to comply with them?**

Model Standard 6.3B Score: **Optimal Activity**

Discussion regarding this question:

The Health Department has a robust outreach program that attempts to get the message out to the regulated community regarding the meaning and the purpose of environmental health laws and how they can comply with them. Examples are the work that has been done in the past and continues to be done with Youth Athletic Associations and the Asian restaurant community.

#### **6.3C Has the compliance and responsiveness of regulated organizations and entities been evaluated in the past five years?**

Model Standard 6.3C Score: **Significant Activity**

Discussion regarding this question:

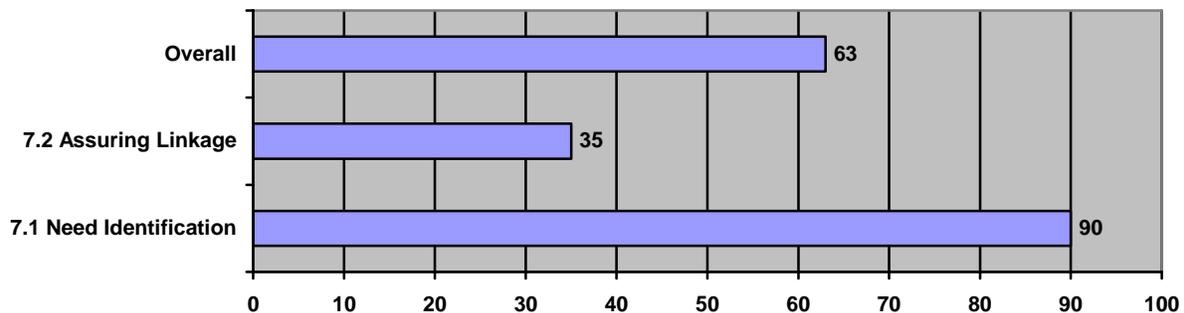
The Food Safety program did a baseline survey five years ago of the items that were cited most frequently as being out of compliance with the food code. A follow up surveys was conducted recently to determine if there had been any changes in responsiveness or improvement in practices. The Fairfax Inspection Database Online (FIDO) was fully implemented in every section of the Health Department last year that will allow each technical section to track compliance within their individual programs.

## Essential Service 7: Link People to Needed Environmental Health Services and Assure the Provision of Environmental Health Services When Otherwise Unavailable

Essential Service 7 describes the system’s ability to link people to needed environmental services. It evaluates the system’s ability identify populations with limited access to services and to identify the barriers that exist to providing services to all segments of the population.

Ten members of the local public health system assessed the delivery of Essential Service 7. Participants rated approximately 30% (1/3) of the questions at a level of significant or optimal activity. Overall, participants felt that the local public health system met 63% of the model standards, which equates to a significant level of activity for Standard 7 (Figure 10). The overall score of significant was equal to the overall score that was given to Service 7 in the LPHSA. The numerical score of 63% was slightly higher than the overall score of 56% that was assigned to the LPHSA.

**Figure 10: Standard 7 – Identification of Environmental Public Health Needs**



Participants felt that the fragmentation of environmental health services throughout the local environmental public health system is one factor that contributes to gaps in service delivery. They also cited the need to develop a formal process for identifying unmet needs and barriers as a priority area. Participants identified the county’s ability to produce informational brochures in multiple languages and their outreach efforts among ethnic communities as a major strength.

### **Summary of Essential Service 7:**

#### **Strengths:**

The entire environmental health system has a high level of cultural competency, as evidenced by the cultural diversity of the staff and the ability of the system to produce targeted outreach materials in wide variety of cultural contexts and languages.

The Multicultural Advisory Council provides an excellent source of information regarding barriers to providing equitable services as well as a conduit through which the environmental health system can work with the county's ethnic communities to address those barriers.

**Weaknesses:**

The County does a good job of providing cultural relevant materials, but the process is generally reactive rather than proactive. Things happen after the fact to correct identified problems, but there is not a proactive system to actively recognize areas where the needs of specific segments of the population are not being met and to develop program emphases to address those areas of inequity.

The environmental health system has not taken full advantage of the resources offered by the Multicultural Advisory Committee to build bridges to the county's ethnic communities.

The fragmentation of the overall environmental health system complicates any effort to build a comprehensive approach for identifying the barriers that exist to providing services to all segments of the population.

The environmental health system has deployed considerable resources toward addressing the ethnic communities, but very little has been done with regard to recognizing senior adults as a potential needs population and seeking to determine if they are impacted disproportionately by certain environmental health factors.

**Opportunities for Improvement:**

The Multicultural Advisory Council should be engaged more fully as a partner in reaching out to the county's ethnic communities to identify barriers to service equity and to develop plans to overcome those barriers.

The county is blessed with a robust GIS resource that can be used to identify areas where service gaps exist and identifying communities that bear a disproportionate share of specific adverse environmental health conditions.

The Health Department has an active Adult Day Health Care (ADHC) program that can provide a conduit for exploring the unique environmental health needs of senior adults.

**Priority Areas:**

Expand the relationships between the environmental health system and the Multicultural Advisory Committee and the ADHC network and use those resources to build stronger linkages to the county's underserved communities.

Make better use of the GIS resources to identify areas where service gaps exist and identifying communities that bear a disproportionate share of specific adverse environmental health conditions.

## **Model Standard 7.1: Identification of Environmental Public Health Service Needs of the Population**

### **7.1A Are populations with limited access or barriers to a coordinated environmental public health services identified?**

Model Standard 7.1A Score: **Optimal Activity**

Discussion regarding this question:

The county has done an excellent of identifying those populations that could have limited access or barriers to environmental health services and have taken steps to address those needs. The cultural diversity of the staff and the ability to produce a variety of culturally relevant outreach materials was identified as a major strong point. Examples were the multitude of food safety brochures that have been translated in at least five different languages and the use of local Hispanic radio stations to distribute of public boil water notices and vector borne disease prevention messages in Spanish. The county also worked with the Arabic community to assist the hookah bars to comply with the 2009 statewide smoking ban to allow those establishments to remain in operation.

## **Model Standard 7.2: Assuring the Linkage of People to Environmental Public Health Services**

### **7.2A Does the EH System or program have an active outreach and referral mechanism in place to link constituents to environmental public health and protection services?**

Model Standard 7.2A Score: **Moderate Activity**

Discussion regarding this question:

Certain components of the environmental health system have an active outreach program, but it is not consistent across the system. Some components have a highly formalized process, while others do it on a very informal, case-by-case basis.

The system has put a lot of effort into trying to build linkages to the ethnic communities, but not a lot has been done to address potential outreach mechanisms to link senior adults to services. The group discussed some specific issues that need to be addressed including differences in how the elderly use high tech television and internet options compared to the general population and

how that might affect their access to information. There was also some discussion about how GIS capability could be more effectively applied to identify barriers and hazard-specific issues that might affect senior adults.

**7.2B Are there memorandums of understanding, or some other written agreements, among the entities with responsibility for aspects of environmental health protection within the EH System or program?**

Model Standard 7.2B Score: **Moderate Activity**

Discussion regarding this question:

There are written agreements between various county departments to coordinate the delivery of environmental health services. Notable examples are the agreement between the Health Department and the Department of Public Works and Environmental Services for mutual support in the enforcement of the Health or Safety Menace Code, and the basic agreement between the county and the state for the provision of basic environmental health and air monitoring services. Although there is some activity in this area, the group generally felt that there are other areas that would benefit from the use of formal agreements, particularly with regard to the Department of Consolidated Code Compliance to manage potential turf wars and areas of uncertainty.

**7.2C Does the EH System or program periodically convene the multiple agencies with responsibility in areas of environmental health in order to assure a program delivery system that is coordinated, timely and responsive to all constituents?**

Model Standard 7.2C Score: **Minimal Activity**

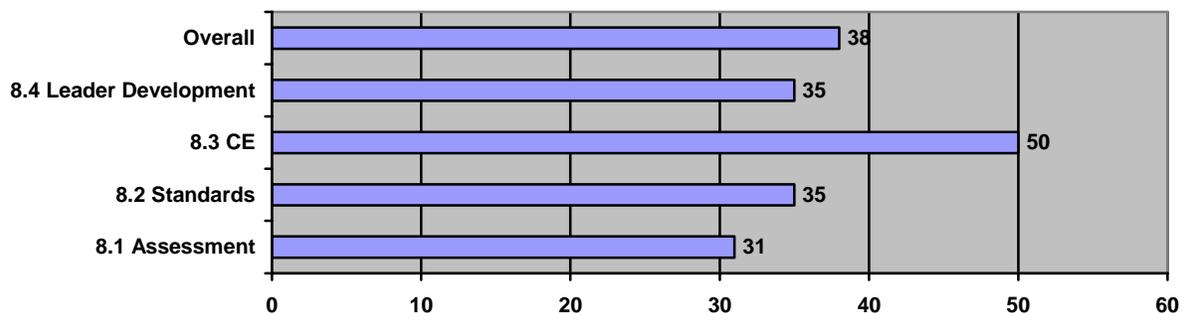
The Environmental Coordinating Council (ECC) has been chartered by the County Executive to provide a vehicle to be used to provide interagency coordination in addressing environmental health and protection issues; however the ECC was not established to serve as a service delivery system.

## **Essential Service 8: Assure a Competent Environmental Health Workforce**

Essential Service 8 describes the system's ability to provide adequate training and developmental experiences to assure a competent workforce. It evaluates the system's ability to assess workforce needs, develop efficient processes for licensing/credentialing of staff, and adopt continuous improvement and life long learning programs to maintain staff competencies.

Ten members of the local public health system assessed the delivery of Essential Service 8. Participants rated approximately 10% (1/12) of the questions at a level of significant or optimal activity. Overall, participants felt that the local public health system met 38% of the model standards, which equates to a moderate level of activity for Standard 8 (Figure 11). The overall score of moderate was less than the overall score of significant that was given to Service 8 in the LPHSA. The numerical score of 38% was significantly lower than the overall score of 58% that was assigned to the LPHSA. Participants of the two assessments felt that the LPHSA generally does a better job of mentoring and setting workforce standards than the LEnvPHSA.

**Figure 11: Standard 8 – Assure a Competent Environmental Health Workforce**



Participants acknowledged the county’s effort to provide staff training, but felt that the system needs to do a better job of mentoring and succession planning.

**Summary of Essential Service 8:**

**Strengths:**

The Health Department provides performance standards for environmental health positions and provides opportunities for training and individual staff to obtain professional credentials.

**Weaknesses:**

It is unknown if similar opportunities exist for workforce in other components of the environmental health system. The Health Department staff is competent, but lack of knowledge about other stakeholders makes it difficult to assess the system in its entirety.

The Health Department is doing a good job of offering staff training, but activity in mentoring and succession planning is lacking.

### **Opportunities for Improvement:**

This assessment activity opens a door to pursue convening a taskforce charged with the task of taking a comprehensive look at the staffing needs of the entire environmental health system long term and integrating those plans into a comprehensive workforce plan.

### **Priority Areas:**

Establish a formal system wide process for mentoring and succession planning, taking changing work force demographics into account.

## **Model Standard 8.1: Workforce Assessment, Planning and Development**

### **8.1A Are gaps within the workforce relative to the needs of the community identified?**

Model Standard 8.1A Preliminary Score: **Moderate Activity**

Discussion regarding this question:

The Health Department has done some preliminary work in identifying gaps in the workforce, particularly with regard to recruitment and retention issues. However there has not been a comprehensive evaluation of the overall needs of the environmental health workforce, particularly with regard to how the changing demographics of the county will affect the needs of the workforce.

### **8.1B Is a workforce development plan in place to address gaps in workforce?**

Model Standard 8.1B Score: **Minimal Activity**

Discussion regarding this question:

The environmental health program participates in the Health Department Workforce Planning effort, and some planning has been done to address specific needs; however a comprehensive workforce plan for environmental health has not been developed.

### **8.1C Has the EH System or program established requirements for licensure, registration and certification of the environmental health workforce for relevant areas of environmental public health services such as the requirement for the REHS or RS credential?**

Model Standard 8.1C Score: **Moderate Activity**

Discussion regarding this question:

Approximately 50% (25/45) of current environmental health staff possess a professional credential, such as the REHS/RS, Certified Professional in Food Safety (CP-FS), Alternative Onsite Sewage System Evaluator (AOSSE), or Certified Professional Soil Scientist (CPSS). Approximately 30% (15 of 45) of the staff possess a current REHS/RS credential.

The possession of a professional credential as either a Registered Environmental Health Specialist (REHS) or Registered Sanitarian (RS) is encouraged by management; however existing county personnel regulations will not allow the system to require licensure. Staff who wish to take the registration exam are granted time during work hours to prepare for the exam, and the County will pay the cost for staff to take the certification exam one time.

**8.1D Does the plan encourage and/or give preference to graduates of accredited undergraduate and/or graduate programs of environmental health or public health and/or to candidates with RS or REHS credentials?**

Model Standard 8.1D Score: **Moderate Activity**

Discussion regarding this question:

Job descriptions can identify possession of a professional environmental health credential as a preferred qualification, but it cannot be required. Current personnel regulations do not allow the system to require a degree in environmental health or public health or to grant preference to graduates of accredited graduate or undergraduate environmental/public health programs.

**8.1E Are gaps within the workforce (including but not limited to workforce training and staffing needs) communicated to key stakeholders including governing bodies, advisory groups, academic institutions, and public and private agencies?**

Model Standard 8.1E Score: **Moderate Activity**

Discussion regarding this question:

The environmental health program participates in the Health Department Workforce Planning initiative, which communicates workforce needs to senior management within the Health Department as well as within the Fairfax County Department of Human Resources.

**Model Standard 8.2: Environmental Health Workforce Standards.**

**8.2A Are environmental health workforce standards linked to job performance through clearly written position descriptions?**

Model Standard 8.2A Score: **Moderate Activity**

Discussion regarding this question:

The group recognized that the Health Department has clearly written job descriptions that link job performance with recognized environmental workforce standards, but they weren't sure about other components of the system, such as the Division of Consolidated Code Compliance, the Department of Public Works and Environmental Services, and Fairfax County Public Schools.

### **8.2B Is workforce performance routinely evaluated?**

Model Standard 8.2B Score: **Moderate Activity**

Discussion regarding this question:

The group acknowledged that individual performance is pretty well evaluated across the system, but the effectiveness of the environmental health workforce as a whole in achieving its overall purpose has not been evaluated. This is particularly the case when it comes to evaluations of the performance of the environmental health programs themselves and the effectiveness of their partnerships.

### **8.2C Are specific plans made to enhance individual skills and competencies?**

Model Standard 8.2C Score: **Moderate Activity**

Discussion regarding this question:

A presentation was made to all environmental health staff by the Fairfax County Department of Human Resources in the summer of 2010 on the Individual Development Plan and how it can be used to enhance individual skills and competencies. Staff members are encouraged to complete an IDP in consultation with their supervisors, but it is not mandatory.

## **Model Standard 8.3: Life-Long Learning through Continuing Education, Training, and Mentoring**

### **8.3A Are there continuing education opportunities available that address the specific needs of the environmental health workforce?**

Model Standard 8.3A Score: **Significant Activity**

Discussion regarding this question:

Budget reductions have impacted the ability to provide continuing education opportunities for staff, but the Health Department is attempting to provide a minimum level of training through providing continuing education opportunities in conjunction with regular staff meeting and periodic Breakfast Club offerings.

The group acknowledged that some components of the system are attempting to offer effective mentoring opportunities, but mentoring is lacking across the system.

### **8.3B Are there incentives provided (e.g., improvements in pay scale, release time, tuition reimbursement) for the workforce to pursue education and training?**

Model Standard 8.3B Score: **Moderate Activity**

Discussion regarding this question:

The Health Department provides time during work hours for staff to form study groups to prepare to take the registration exam and will pay the cost to take the exam one time. The program used to fund up to two staff per year to attend the NEHA Annual Education Conference, but that was stopped three years ago when the budget reductions began.

## **Model Standard 8.4: Environmental Health Leadership Development**

### **8.4A Are there formal or informal opportunities for leadership development?**

Model Standard 8.4A Score: **Moderate Activity**

Discussion regarding this question:

The group acknowledged that the Health Department is making progress in this area. An environmental health budget development team was used during the last two budget cycles that gave two Environmental Health Seniors (EHS III) the opportunity to work with senior program managers to compile the environmental health program budget. Similar opportunities are given to EHS III during the course of the year, but opportunities for more junior staff (EHS II) are more limited.

### **8.4B Does the EH system or program actively identify and invest in future environmental health leaders?**

Model Standard 8.4B Score: **Moderate Activity**

Discussion regarding this question:

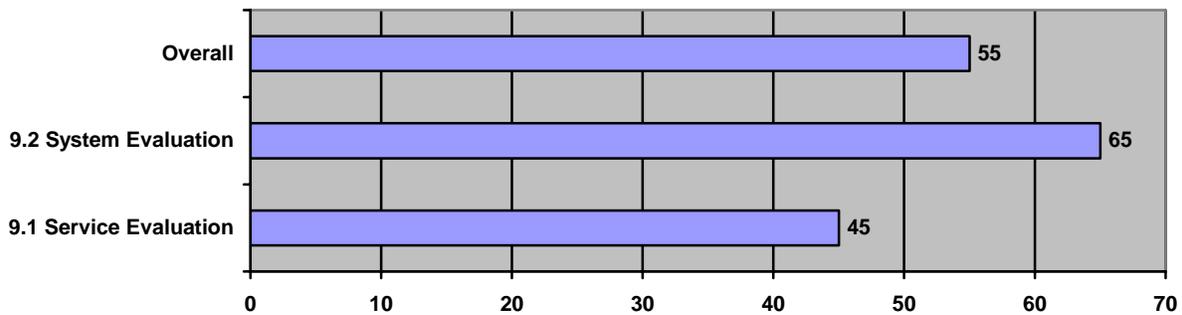
Some effort is made to identify and invest in future environmental health leaders, but actual leadership opportunities are somewhat limited. Staff are given the opportunity to participate in leadership opportunities when possible (such as the budget development process mentioned previously, and as resource staff for this assessment exercise), but there are not currently enough of those opportunities being made available to all staff that should receive them.

## **Essential Service 9: Evaluate the Effectiveness, Accessibility, and Quality of Personal and Population Based Environmental Health Services**

Essential Service 9 describes the system's ability to evaluate the effectiveness of the program in meeting its objectives and its responsiveness to community needs. It evaluates the system's ability to assess the accessibility and quality of services and to allocate or reshape resources as necessary to meet community needs.

Nine members of the local public health system assessed the delivery of Essential Service 9. Participants rated 50% (2/4) of the questions at a level of significant or optimal activity. Overall, participants felt that the local public health system met 55% of the model standards, which equates to a significant level of activity for Standard 9 (Figure 12). The overall score of significant was higher than the overall score of moderate that was given to Service 9 in the LPHSA. The numerical score of 55% was significantly higher than the overall score of 44% that was assigned to the LPHSA. Participants of the two assessments felt that the LEnvPHSA generally does a better job of evaluation of the overall system than the LPHSA.

**Figure 12: Standard 9 – Evaluate the Effectiveness, Accessibility, and Quality of Environmental Health Services**



Participants gave the program credit for making a good start in conducting a formal evaluation process, but acknowledged that much work remains to be done.

**Summary of Essential Service 9:**

**Strengths:**

The Local Environmental Public Health System Assessment is an excellent start to the process of system evaluation. The County is encouraged to continue the process and make it a recurrent part of the program.

**Weaknesses:**

Service and systems that have been done historically focus on what is done in terms of reaching objectives, but there has never been an evaluation of how effective the system has been in identifying and meeting community needs, particularly with regard to underserved populations and high risk groups.

**Opportunities for Improvement:**

An effort should be made to incorporate community stakeholders in the evaluation process.

**Priority Areas:**

Building, broadening, and enriching partnerships should be a high priority moving forward from this assessment process.

Establish a comprehensive routine evaluation of program services with a focus on accomplishments and achievement of program goals in the following areas:

- Health outcomes
- Environmental quality
- Environmental indicators
- Frequency of violations (other than the number of inspections)
- Targets for effectiveness
- Goals for access to services
- Quality standards for service (e.g., state licensure)

**Model Standard 9.1: Evaluation of Environmental Public Health Services**

**9.1A Are environmental public health programs and services routinely evaluated with a focus on accomplishments and achievement of program goals?**

Model Standard 9.1A Score: **Significant Activity**

Discussion regarding this question:

The Health Department does an evaluation of environmental health program accomplishments as part of the annual budget process. That process entails looking at how well the program was able to meet the performance measures for each program, which includes measures of health outcomes, effectiveness against a limited set of indicators, and frequency of violation for each technical program. The evaluation does not consider access to services or measures of environmental quality.

**9.1B Is an assessment completed that measures the satisfaction to stakeholders and residents with environmental public health services?**

Model Standard 9.1B Score: **Moderate Activity**

Discussion regarding this question:

The Health Department conducted a customer satisfaction survey in 2009 to evaluate customer satisfaction with environmental services received. Survey respondents indicated a 98% level of satisfaction with services provided. Participants suggested that it might be a good idea to follow up that survey with another survey that queried the community as a whole to discover their attitudes toward the program and not just those that had been the immediate recipient of a direct service.

Participants acknowledged the value of the 2009 customer survey, but suggested that the methodology used (i.e. only querying people who had received a service) left out certain high risk groups that tend not to access services. The survey as designed gave a good indication of the program's ability to respond to complaints but it didn't provide an evaluation of the system's ability to proactively identify the general needs of the community, particularly with regard to underserved populations.

**9.1C Is an action plan in place and implemented to address needed improvements to services and policies identified through evaluations?**

Model Standard 9.1C Score: **Moderate Activity**

Discussion regarding this question:

The Health Department has developed extensive action plans for emergency response activities and certain components of the general environmental health program, but there is no comprehensive action plan to speak of.

**Model Standard 9.2: Evaluation of Local Environment Health System**

**9.2A Has the EH system or program evaluated the effectiveness of the multiple agencies with responsibility in areas of environmental health in terms of their coordinates and timely responses to all constituents?**

Model Standard 9.2A Score: **Significant Activity**

Discussion regarding this question:

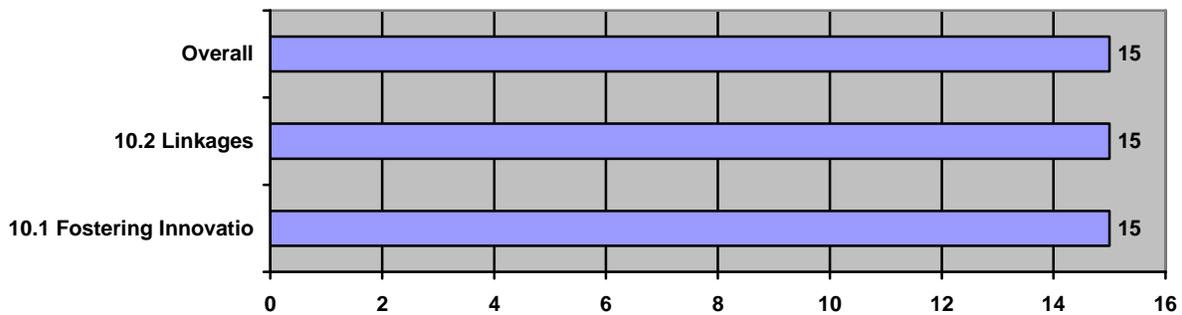
Fairfax has several areas of coordination and collaboration for the agencies with responsibility for environmental health, but there are no formal mechanisms to evaluate the effectiveness of those activities. There was an effort initiated two years ago to develop a Balanced Scorecard for the Environmental Coordinating Council to evaluate the system's effectiveness in communication, coordination, linkage among the agencies, and efficient use of resources, but it was sidetracked due to the budget crisis and was never reinstated.

**Essential Service 10: Research for new insights and innovative solutions to environmental health problems and issues**

Essential Service 10 describes the system's ability to improve environmental health services through conducting research to discover innovative solutions to environmental health issues. It evaluates the system's capacity to identify research needs and establish linkages with institutions of higher learning and research to conduct the research to develop best practices of environmental health services.

Ten members of the local public health system assessed the delivery of Essential Service 10. Participants rated all 5 of the questions at a level of minimal activity. Overall, participants felt that the local public health system met 15% of the model standards, which equates to a minimal level of activity for Standard 10 (Figure 13), which made this the lowest rated Service of all. The overall score of minimal was lower than the overall score of significant that was given to Service 10 in the LPHSA. The numerical score of 15% was significantly lower than the overall score of 61% that was assigned to the LPHSA. Participants of the two assessments felt that the LPHSA generally does a better job across the board in establishing research linkages with academic institutions and industrial groups than the LEnvPHSA.

**Figure 13: Standard 10 – Research for New Insights and Innovative Solutions**



Participants gave the program credit for establishing the relationship with George Washington University that produced this assessment, but felt that much more needs to be done to develop partnerships with industry and other institutions.

**Summary of Essential Service 10:**

**Strengths:**

There Washington D.C. area is blessed with a plethora of untapped resources and potential partners that could make the local environmental public health system one of the most effective in the entire United States.

**Weakness:**

The current model is not working. Environmental health is fragmented among at least five agencies, and not all environmental health agencies are working together. Similarly, there is no real sense of partnership between the public and private stakeholders with an interest in or responsibility for environmental health. Finally, there are no measuring devices in place to evaluate the effectiveness of the system even if all stakeholders were working together.

### **Opportunities for Improvement:**

The local environmental health system should take advantage of the significant resources available in the area for building partnerships in environmental health. Explore relationships with other academic institutions and private industry.

### **Priority Areas:**

Explore building formal relationships with other academic institutions, corporate entities, and non-profit organizations.

## **Model Standard 10.1: Fostering Innovation**

### **10.1A Are environmental health staff encouraged and supported to identify new or innovative solutions to environmental health problems?**

Model Standard 10.1A Score: **Minimal Activity**

#### **Discussion regarding this question:**

The Local Quality Council (LQC) has done some work in looking at improving efficiencies in the plan review process and in making more efficient use of Microsoft Outlook, but very little else is being done. The group was aware that the Health Department has lost multiple positions over the past two years due to budget shortfalls, and understands the effect this has on the ability to find time to conduct studies or original research. However the group also noted the importance of making time to do the research that will in the end save time by developing more efficient methods and processes.

### **10.1B Is environmental health staff encouraged and supported in identifying areas needing additional research to improve services and conditions?**

Model Standard 10.1B Score: **Minimal Activity**

#### **Discussion regarding this question:**

The group acknowledged that seeking innovative approaches to problems is extremely difficult to do for an implementing organization due to the demands on their time to complete legislatively mandated services. However program management clearly can do more to promote activities that encourage staff to seek innovative approaches to solving problems.

### **10.1C Are best practices for environmental public health services routinely identified and applied to program activities?**

Model Standard 10.1C Preliminary Score: **Minimal Activity**

Discussion regarding this question:

The Food Safety program has been pursuing compliance with the FDA Model Voluntary Food Protection Standards for the past five years, and is currently in compliance with 6 of the 9 Standards. The general program has recently undertaken pursuit of the CDC Local Environmental Public Health Program Standards by initiating this process.

**10.1D Does the Environmental Health system or program initiate and/or participate in research that contributes to improved environmental health system performance?**

Model Standard 10.1D Score: **Minimal Activity**

Discussion regarding this question:

Some research is being done by the Disease Carrying Insects Program, but very little else is being done in the rest of the program.

**Model Standard 10.2: Linkage with Institutions of Higher Learning or Research**

**10.2A Does the EH system or program partner with institutions of higher learning or research organizations as well as the public to conduct research related to environmental health?**

Model Standard 10.2A Score: **Minimal Activity**

Discussion regarding this question:

The group acknowledged that legislatively mandated responsibilities make it difficult for regulatory programs to engage in a lot of research, but a lot could be done if the governmental system worked in collaboration with the academic and private resources that are available in the region. The group gives the county credit for making a good start with their collaboration with George Washington University in this assessment process, and encourages the effort to be broadened to include more partnerships with other academic institutions, health care institutions, private entities, and non-profit/community organizations.

## Appendix A: Scoring Summary at a Glance

Performance Standard	Score	Rating
1. Monitor environmental and health status to identify and solve community environmental health problems.	27	Moderate
2. Diagnose and investigate environmental health problems and health hazards in the community.	86	Optimal
3. Inform, educate, and empower people about environmental health issues.	54	Significant
4. Mobilize community partnerships and actions to identify and solve environmental health problems.	52	Significant
5. Develop policies and plans that support individual and community environmental health efforts.	70	Optimal
6. Enforce laws and regulations that protect environmental health and ensure safety.	52	Significant
7. Link people to needed environmental health services and assure the provision of environmental health services when otherwise unavailable.	63	Significant
8. Assure a competent environmental health workforce.	38	Moderate
9. Evaluate the effectiveness, accessibility, and quality of personal and population based environmental health services.	55	Significant
10. Research for new insights and innovative solutions to environmental health problems and issues.	15	Minimal
<b>Overall</b>	<b>51.2</b>	<b>Significant</b>

## Appendix B: Scoring Summary

Essential Service	Model Standard	Question	Rating
1. Monitor Health Status	1.1 Community Environmental Health Profile	1.1A: Has a community environmental health assessment been completed?	Significant
		1.1B: Is the community environmental health assessment updated at least every 3 years?	None
		1.1C: Are existing and potential environmental health trends identified by comparing analysis results to relevant benchmarks?	Moderate
		1.1D: Have the data from the community environmental health assessment been compiled into an updated profile?	Moderate
		1.1E: Are environmental health data prepared in a format that allows for the clear communication and interpretation by the public and policy makers?	Moderate
		1.1F: Is information about the community environmental health status easily available to individuals, community groups, and other organizations in a printed and web-based version?	Minimal
	1.2: Current Technology for Data Collection, Storage, and Analysis	1.2A: Are appropriate tools, such as GIS, used to support the profile databases?	Moderate
	1.3: Enhanced Environmental Health Databases and Plan	1.3A: Are data collected from a range of sources involved in environmental and public health protection?	Minimal
		1.3B: Have plans been made to address gaps in information and data needed?	Minimal

Essential Service	Model Standard	Question	Rating
2: Diagnosis and Investigate Environmental Health Problems and Hazards	2.1: Identification and Surveillance of Environmental Health Threats	2.1A: Does the EH System or program operate or participate in an environmental health surveillance system that uses timely information from a variety of sources?	Significant
		2.1B: Does the EH System or program use protocols to investigate patterns and/or outbreaks of environmentally-related illness, disease, injury, environmental hazards, and risk factors?	Optimal
		2.1C: Does the EH System or program have access to expertise in epidemiology and statistics?	Significant
		2.1D: Is key environmental health staff trained in the application of epidemiology and statistics?	Optimal
	2.2: Investigation and Response to Environmental Health Threats	2.2A: Are roles and responsibilities of the local EH staff integrated into the all hazards emergency response plan?	Optimal
		2.2B: Are written protocols available to guide immediate investigation of and response to public health threats and emergencies?	Optimal
		2.2C: Does the EH System or program regularly update the roster of personnel with technical expertise to respond to potential public health emergencies?	Optimal
	2.3: Laboratory Access	2.3A: Does the EH System or program have established agreements and/or procurement processes to access approved laboratories capable of supporting EH investigations?	Optimal
		2.3B: Are guidelines or protocols in place to address handling of laboratory samples and reporting of findings?	Optimal

<b>Essential Service</b>	<b>Model Standard</b>	<b>Question</b>	<b>Rating</b>
3: Inform, Educate and Empower People and Communities	3.1: Health Education, Promotion and Communications	3.1A Does the EH System or program have a health communications plan that routinely provides the community with EH information?	Moderate
		3.1B Does the EH System or program work with the community to identify health education needs of different segments of the community?	Moderate
		3.1C Does the EH System or program develop appropriate and targeted messages for various segments of the community?	Significant
		3.1D Are broad-based partners working together on environmental health education and promotion activities?	Significant
		3.1E Does the communications plan provide guidance on creating messages and materials appropriate to the differing communication channels?	Minimal
	3.2: Crisis Communication	3.2A Does the EH System or program have emergency communication plan(s) to share information among key responders and the public in the event of potentially serious environmental health emergencies?	Significant
4: Mobilize Community Partnerships	4.1: Constituency Development	4.1A Does the EH System or program maintain an up-to-date directory of key constituents and stakeholders for environmental health?	Minimal
		4.1B Does the EH System or program have a plan and process that employs a variety of methods to involve constituents in key decisions?	Significant
	4.2: Community Partnerships	4.2A Are partnerships among government agencies and the private sector used to enhance environmental health program effectiveness?	Significant

<b>Essential Service</b>	<b>Model Standard</b>	<b>Question</b>	<b>Rating</b>
5: Develop Policies and Plans that Support Environmental Health Efforts	5.1: Governmental Presence at the Local Level	5.1A Does the environmental health system provide a governmental environmental health entity (i.e. local environmental health department or local office of a state health or environmental health department) to assure the delivery of the Essential Environmental Health Services to the community?	Significant
	5.2: Public Health Policy Development	5.2A Has the EH System or program developed a community environmental health improvement process in which environmental health policy needs are identified?	Optimal
		5.2B Does the system/program advocate for prevention and protection policies for those in the community who bear a disproportionate burden of mortality or morbidity, or that are particularly sensitive to some environmental health issues?	Significant
		5.2C Is a process in place to review existing policies every two years?	Minimal
	5.3: Community Environmental Health Improvement Process and Strategic Planning	5.3A Has the EH System or program developed a community environmental health assessment and stakeholder input into a community environmental health improvement plan which identifies environmental health priorities, policies, and resources?	Significant
5.4: Plan for Environmental Health Emergencies	5.4A Does the EH system or program have an all-hazards emergency preparedness and response plan?	Optimal	

Essential Service	Model Standard	Question	Rating
6: Enforce Laws and Regulations that Protect Health and Ensure Safety	6.1: Review Evaluation of Current Laws, Regulations, and Ordinances	6.1A Are state and local laws, regulations, and ordinances reviewed, at least once every five years, to assess their impact on the environmental health of the community and determine whether they need updating?	Moderate
	6.2: Involvement in Improvement of Laws, Regulations and Ordinances	6.2A Are gaps identified in public health and environmental laws, regulations, or ordinances?	Moderate
		6.2B Does the EH system or program participate in the updating and/or modification of existing, or the formulation of new laws, regulations, and ordinances designed to assure and improve the public's health and the quality of the environment that may impact human health?	Significant
	6.3: Enforcement of Laws, Regulations, and Ordinances	<b>6.3A Does the EH system or program provide timely, consistent and equitable enforcement of environmental health protection laws, regulations, ordinances, and policies within all segments of the jurisdiction?</b>	Significant
		6.3B Does the EH system or program provide information about the meaning and the purpose of public and environmental health laws, regulations and ordinances to the individuals and organizations that is required to comply with them?	Optimal
		6.3C Has the compliance and responsiveness of regulated organizations and entities been evaluated in the past five years?	Significant

<b>Essential Service</b>	<b>Model Standard</b>	<b>Question</b>	<b>Rating</b>
7: Link People to Needed Environmental Health Services and Assure the Provision of Environmental Health Services When Otherwise Unavailable	7.1: Identification of Environmental Public Health Service Needs of the Population	7.1A Are populations with limited access or barriers to a coordinated environmental public health services identified?	Optimal
	7.2: Assuring the Linkage of People to Environmental Public Health Services	7.2A Does the EH System or program have an active outreach and referral mechanism in place to link constituents to environmental public health and protection services?	Moderate
		7.2B Are there memorandums of understanding, or some other written agreements, among the entities with responsibility for aspects of environmental health protection within the EH System or program?	Moderate
		7.2C Does the EH System or program periodically convene the multiple agencies with responsibility in areas of environmental health in order to assure?	Minimal

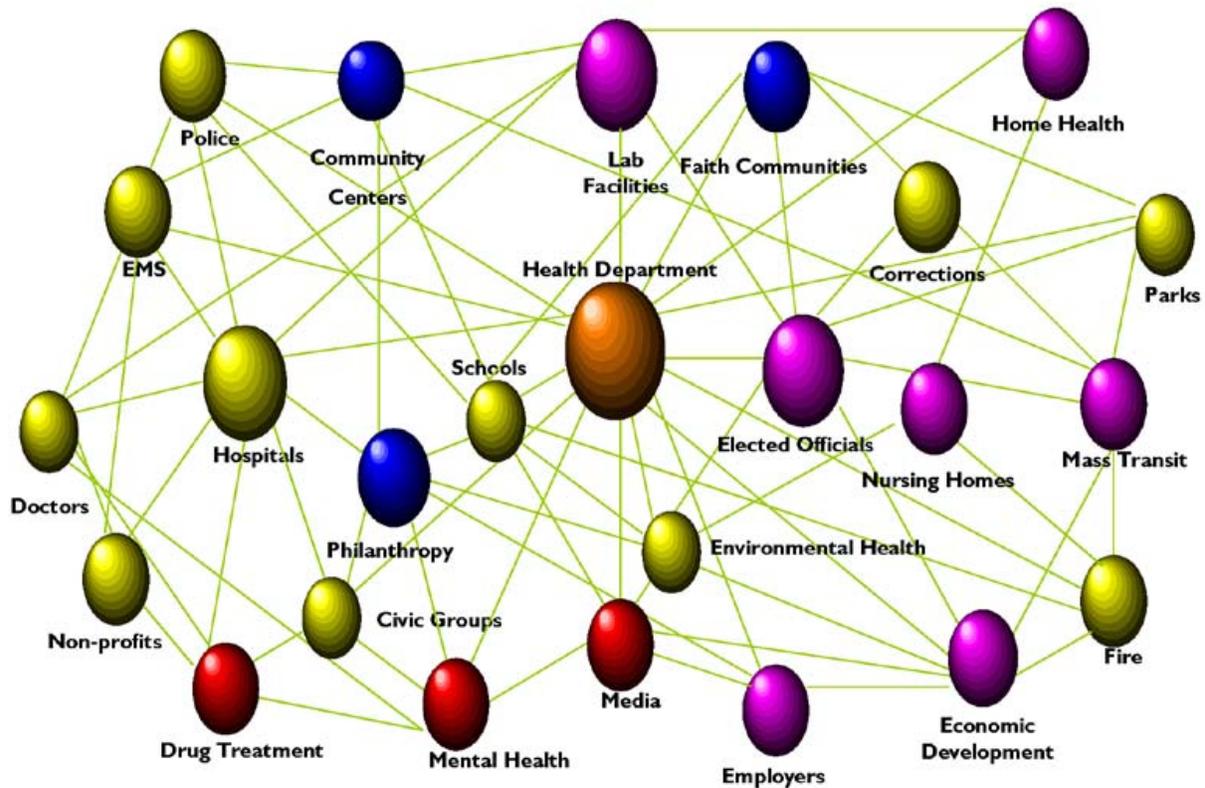
Essential Service	Model Standard	Question	Rating
8: Assure a Competent Environmental Health Workforce	8.1: Workforce Assessment, Planning and Development	8.1A Are gaps within the workforce relative to the needs of the community identified?	Moderate
		8.1B Is a workforce development plan in place to address gaps in the workforce?	Minimal
		8.1C Has the EH System or program established requirements for licensure, registration and certification of the environmental health workforce for relevant areas of environmental public health services such as the requirement for the REHS or RS credential?	Moderate
		8.1D Does the plan encourage and/or give preference to graduates of accredited undergraduate and/or graduate programs of environmental health or public health and/or to candidates with RS or REHS credentials?	Moderate
		8.1E Are gaps within the workforce communicated to key stakeholders including governing bodies, advisory groups, academic institutions, and public and private agencies?	Moderate
	8.2: Environmental Health Workforce Standards	8.2A Are environmental health workforce standards linked to job performance through clearly written position descriptions?	Moderate
		8.2B Is workforce performance routinely evaluated?	Moderate
		8.2C Are specific plans made to enhance individual skills and competencies?	Moderate

<b>Essential Service</b>	<b>Model Standard</b>	<b>Question</b>	<b>Rating</b>
8: Assure a Competent Environmental Health Workforce (continued)	8.3: Life-Long Learning through Continuing Education, Training, and Mentoring	8.3A Are there continuing education opportunities available that address the specific needs of the environmental health workforce?	Significant
		8.3B Are there incentives provided (e.g., improvements in pay scale, release time, tuition reimbursement) for the workforce to pursue education and training?	Moderate
	8.4: Environmental Health Leadership Development	8.4A Are there formal or informal opportunities for leadership development?	Moderate
		8.4B Does the EH system or program actively identify and invest in future environmental health leaders?	Moderate
9: Evaluate the Effectiveness, Accessibility, and Quality of Environmental Health Services	9.1: Evaluation of Environmental Public Health Services	9.1A Are environmental public health programs and services routinely evaluated with a focus on accomplishments and achievement of program goals?	Significant
		9.1B Is an assessment completed that measures the satisfaction to stakeholders and residents with environmental public health services?	Moderate
		9.1C Is an action plan in place and implemented to address needed improvements to services and policies identified through evaluations?	Moderate
	9.2: Evaluation of Local Environment Health System	9.2A Has the EH system or program evaluated the effectiveness of the multiple agencies with responsibility in areas of environmental health in terms of their coordinates and timely responses to all constituents?	Significant

<b>Essential Service</b>	<b>Model Standard</b>	<b>Question</b>	<b>Rating</b>
10: Research for new insights and innovative solutions to environmental health problems and issues	10.1: Fostering Innovation	10.1A Are environmental health staff encouraged and supported to identify new or innovative solutions to environmental health problems?	Minimal
		10.1B Is environmental health staff encouraged and supported in identifying areas needing additional research to improve services and conditions?	Minimal
		10.1C Are best practices for environmental public health services routinely identified and applied to program activities?	Minimal
		10.1D Does the Environmental Health system or program initiate and/or participate in research that contributes to improved environmental health system performance?	Minimal
	10.2: Linkage with Institutions of Higher Learning or Research	10.2A Does the EH system or program partner with institutions of higher learning or research organizations as well as the public to conduct research related to environmental health?	Minimal

## Appendix C: Local Environmental Public Health System

The local environmental public health system refers to all of the organizations and entities in a community that contribute to the environmental health of the people who live and work there. To many, “environmental health” implies only the local health department. While the role of the local health department is critical to the environmental health of the community, it is but one part of the system.



The above graphic describes a broader system and identifies groups that contribute to all of the 10 Essential Services of Environmental Public Health. Both the MAPP (Mobilizing for Action through Planning and Partnership) process and National Environmental Public Health Performance Standards Program look at the efficacy of the system, rather than merely the contribution of the Health Department.

## Appendix D: Breakout Groups

### Group 1: Forces of Change

**Essential Service #5** - Develop policies and plans that support individual and community environmental health efforts.

**Essential Service #6** - Enforce laws and regulations that protect health and ensure safety.

**Essential Service #9** - Evaluate the effectiveness, accessibility, and quality of personal and population based environmental health services.

Name	Organization/Expertise
Julia Joh Elligers	<ul style="list-style-type: none"> <li>• NACCHO Facilitator</li> </ul>
Nadia Farooqi	<ul style="list-style-type: none"> <li>• George Washington University MPH Graduate Student Recorder</li> </ul>
Tahra Johnson	<ul style="list-style-type: none"> <li>• George Washington University MPH Graduate Student Recorder</li> </ul>
Robert Hicks	<ul style="list-style-type: none"> <li>• Director of Environmental Health Services, Virginia Department of Health (Richmond)</li> </ul>
Rebecca Parkin	<ul style="list-style-type: none"> <li>• Fairfax County Resident, Former Associate Dean for Research and Public Health Practice, George Washington University</li> </ul>
Pamela Pruitt	<ul style="list-style-type: none"> <li>• President, Virginia Onsite Wastewater Recycling Association</li> <li>• Former Employee of the Fairfax County Health Department, Sewage and Waste Specialist</li> </ul>
Marty Thompson	<ul style="list-style-type: none"> <li>• Fairfax County Health Department; Environmental Health Supervisor and resource person</li> </ul>
Jessica Firestone	<ul style="list-style-type: none"> <li>• Fairfax County Health Department; Senior Environmental Health Specialist and resource person</li> </ul>
Shannon McKeon	<ul style="list-style-type: none"> <li>• Fairfax County Health Department; Senior Environmental Health Specialist and resource person</li> </ul>

## **Group 2: Community Themes and Strengths**

**Essential Service #3** - Inform, educate, and empower people about environmental health issues.

**Essential Service #4** - Mobilize community partnerships to identify and solve environmental health problems.

**Essential Service #7** - Link people to needed environmental health services and assure the provision of environmental health services when otherwise unavailable.

<b>Name</b>	<b>Organization/Expertise</b>
Mary Kate Allee	<ul style="list-style-type: none"><li>• NACCHO Facilitator</li></ul>
Alexandra Hart	<ul style="list-style-type: none"><li>• NACCHO Representative and George Washington University MPH Graduate Student Recorder</li></ul>
Nrupa Jani	<ul style="list-style-type: none"><li>• George Washington University MPH Graduate Student Recorder</li></ul>
Louise Armitage	<ul style="list-style-type: none"><li>• City of Fairfax, Human Services Coordinator</li><li>• Training: licensed clinical social worker—spent majority of time in hospital system</li></ul>
Marlene Blum	<ul style="list-style-type: none"><li>• Chairperson, Fairfax County Health Care Advisory Board</li></ul>
Doug O’Neill	<ul style="list-style-type: none"><li>• Fairfax County Public Schools</li></ul>
Kevin Crisler	<ul style="list-style-type: none"><li>• Fairfax County Health Department; Environmental Health Supervisor and resource person</li></ul>
Ron Campbell	<ul style="list-style-type: none"><li>• Fairfax County Health Department; Senior Environmental Health Specialist and resource person</li></ul>
Carl Sivertsen	<ul style="list-style-type: none"><li>• Fairfax County Health Department; Senior Environmental Health Specialist and resource person</li></ul>
Amanda Turowski	<ul style="list-style-type: none"><li>• CDC Fellow: Observer</li></ul>

### **Group 3: Community Health Status**

**Essential Service #1** - Monitor environmental health status to identify and solve community environmental health problems.

**Essential Service #2** - Diagnose and investigate environmental health problems and health hazards in the community.

<b>Name</b>	<b>Organization/Expertise</b>
Michelle Chuk	<ul style="list-style-type: none"><li>• NACCHO Facilitator</li></ul>
Julia Baker	<ul style="list-style-type: none"><li>• George Washington University MPH Graduate Student Recorder</li></ul>
Dmitry Vishniakov	<ul style="list-style-type: none"><li>• George Washington University MPH Graduate Student Recorder</li></ul>
Victoria Decker Griffith	<ul style="list-style-type: none"><li>• Director of Quality Assurance for Clyde's restaurants</li><li>• President, National Capital Area Environmental Health Association</li></ul>
Peggie J. Maddox	<ul style="list-style-type: none"><li>• Chair of the Department of Health Management Policy at George Mason University</li></ul>
Jeff Smithberger	<ul style="list-style-type: none"><li>• Director, Division of Solid Waste Collection and Recycling, Department of Public Works and Environmental Services</li></ul>
John Yetman	<ul style="list-style-type: none"><li>• Fairfax County Health Department; Environmental Health Supervisor and resource person</li></ul>
Adrian Joye	<ul style="list-style-type: none"><li>• Fairfax County Health Department; Senior Environmental Health Specialist and resource person</li><li>• Health Department GIS specialist</li></ul>
David Lawrence	<ul style="list-style-type: none"><li>• Fairfax County Health Department; Senior Environmental Health Specialist and resource person</li></ul>

**Group 4: Staff Development**

**Essential Service #8** - Assure a competent environmental health workforce.

**Essential Service #10** - Research for new insights and innovative solutions to environmental health problems and issues.

Name	Organization/Expertise
Jacques Colon	<ul style="list-style-type: none"><li>• NACCHO Facilitator</li></ul>
Andrew Elligers	<ul style="list-style-type: none"><li>• NACCHO Facilitator</li></ul>
Syed Shabab Wahid	<ul style="list-style-type: none"><li>• George Washington University MPH Graduate Student Recorder</li></ul>
Michael Valladares	<ul style="list-style-type: none"><li>• George Washington University MPH Graduate Student Recorder</li></ul>
Cynthia Bailey	<ul style="list-style-type: none"><li>• Assistant County Attorney, Fairfax County Attorney's Office</li></ul>
Maureen Renault	<ul style="list-style-type: none"><li>• Citizen of Fairfax County</li><li>• Member of MAPP process Steering Committee</li></ul>
Welford Roberts	<ul style="list-style-type: none"><li>• Past President, National Environmental Health Association</li><li>• Community resident</li></ul>
Kevin Wastler	<ul style="list-style-type: none"><li>• Fairfax County Health Department; Environmental Health Supervisor and resource person</li></ul>
Cassandra Mitchell	<ul style="list-style-type: none"><li>• Fairfax County Health Department; Environmental Health Supervisor and resource person</li></ul>
Sara Mattie	<ul style="list-style-type: none"><li>• Fairfax County Health Department; Senior Environmental Health Specialist and resource person</li></ul>

## **Appendix E: Instructions to Breakout Groups**

### **Process**

- Consensus process, not majority rules.
- Process is structured to allow for reflection, discussion, and decision- making.
- Each essential service is divided into model standards. Each model standard describes major activities or practice areas related to each essential service as they would be provided under ideal/optimal circumstances. For each model standard, there is a list of questions, the answers to which help measure how well the system is meeting those model standards.

### **Voting Options (The facilitator should explain the different options for voting)**

- NO ACTIVITY: 0% or absolutely no activity.
- MINIMAL ACTIVITY: Greater than 0%, but no more than 25% of the activity described within the question is met within the public health system.
- MODERATE ACTIVITY: Greater than 25%, but no more than 50% of the activity described within the question is met within the public health system.
- SIGNIFICANT ACTIVITY: Greater than 50%, but no more than 75% of the activity described within the question is met within the public health system.
- OPTIMAL ACTIVITY: Greater than 75% of the activity described within the question is met within the public health system.

### **Ground Rules**

- Completing the instrument requires input from everyone.
- Please turn off cell phones/blackberries.
- Discussion should focus on objective statements about what does or does not exist in the system, without judgment about any particular organization or agency or individual.
- All perspectives are valued.
- The facilitator will try to allow all who have something to say to do so.
- The facilitator will maintain a balance between discussion time and completing the instrument.
- In the interest of time, the facilitator may determine discussion is over and move to voting.
- Voting will be by consensus, i.e. clear agreement.

- Participants should vote according to how the public health system performs on the county level. This is not an agency assessment or an assessment of any one particular part of the county.
- Ask the group if they would like to add to the list of ground rules.

**Basic parameters to reiterate in thinking about how well the environmental public health system is functioning.**

- Isolation: If one system partner indicates that his or her organization provides a particular public health service, but no one else in the system is aware of the activity, should the group score the question as “significant” or “optimal” activity?”
- Participation among many system partners: Is the service provided in one sector of the public health system and not in others (e.g. provided in hospitals, but not by governmental public health agencies)? Should the service be provided by other sectors, that is, are there service gaps? Or, are several sectors providing the same service creating redundancies in the system?
- Dispersion: Is the activity in the question disseminated/dispersed across the state or locality geographically, or does it exist in only one area? Is the activity dispersed among programs or only addressed in one area of public health. For example, health promotion activities might occur in maternal and child health programs, but not in areas of chronic disease, infectious disease, or injury prevention.
- Frequency: Is the activity in question done routinely or on an ad hoc basis?
- Quality: Is the activity in the question done in a high quality manner, or is it a new activity that still needs quality improvements?