

# Technology in Environmental Programs

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## Executive Summary

The Jefferson County Health Department's Division of Environmental Health and Protection is comprised of seven program areas, which regulate up to thirty health services. The daunting task of providing service to the community is a daily challenge. Moreover, with an ever-growing and diversified community our challenges continue to expand. The community and its citizens expect prompt and courteous service and set the benchmark to which we strive to achieve. Therefore, in this changing age, it is imperative that we also change to meet client demands. A need for upgrading the division's technological status is clear. The private sector, as well as other health departments, has set a good precedent.

Formulating a plan to implement the project was one that would take some time. After selecting this change master project, group members were faced with the task of clearly defining the scope. A streamlined focus was essential to ensure results. The knowledge that public health information is neither easily available nor readily disseminated acted as a catalyst in the decision making process. Therefore, creating a Jefferson County Environmental Health Website was chosen as the group project. The website would allow anyone to access health information anytime and provide the division with a forum for disseminating sound and accurate information. The site was also intended to act as a model for other communities to utilize when establishing a website.

Stakeholder identification is imperative to any project, because their buy-in is crucial to the success. Therefore, the group began a process of listing individuals and/or positions that would influence the project. The identified stakeholders are Information Systems personnel, inspectors, medical personnel, administrators, citizens, politicians, schools, etc.

Following stakeholder identification, the group decided that assessing the client need was necessary. A non-scientific survey was prepared and administered to a cross section of the public. Individual respondents ranged from those that work closely with the health department to others who could not recall any interaction with the health department. The results from the survey were queried and utilized to establish material to be included on the website. A client need for the information was also confirmed through application of the survey. Without disagreement, an overall buy-in was gained from the surveyed stakeholders.

Through further research, the group discovered that an existing website is in place. However, little attempt has been made to update information. Administrators agree that the project is worthwhile and have expressed a buy-in, but a limitation of resources (personnel and monetary) was identified as an obstacle to project implementation.

With proper marketing a website can be utilized and viewed as necessary. An evaluation tool will allow the group to show substantiated results confirming usefulness. The use of the website will be evaluated by the number of visitors who log on and feedback from a voluntary survey.

# Technology in Environmental Programs

## Introduction/Background

**Overview:** The Jefferson County Health Department provides numerous Public Health services to Louisville and Jefferson County, KY. As with most urban communities, Jefferson County demographics are widely diverse. The city and county consists of many age, economic, ethnic and racial communities spread over 385 square miles. The 2000 US Census shows a population of 693,616, or 1,801.6 persons per square mile. There are both urban and rural neighborhoods. The diversity and geographical separation of the community limits immediate access to public health information for the public, businesses, establishments regulated by the JCHD, medical personnel, and government employees.

**Purpose:** Improve health, by expanding immediate access to public health services and environmental health information in Jefferson County, by means of a website that can be used as a model in other Kentucky communities.

**Significance:** An expanded website for Jefferson County, including all aspects of public health service and environmental health information at a single website, will greatly facilitate informing and educating the public. Posting of regulations and rules, restaurant and pool inspection scores, food and other product recalls, boil water advisories, hazardous material spills and other public health notices will be available 24 hours per day, seven days per week. Class dates and registrations, dates of rabies clinics, job requirements and listings and permit applications available on the website would save countless physical trips to the health department for both residents and businesses within the county.

**Problem Statement:** All people who need public health services and information do not have computer skills or internet service. Existing limited site is not maintained or marketed.

A national health report has as one of its goals, by the year 2010, the use of communication to strategically improve health. The report states, to achieve this goal, the proportion of households with access to the internet at home must be increased from a baseline of 26% in 1998 to 80%.

A US Census survey taken in August 2000 determined the number of households now having internet access at home was 42%. The number of households with computers has passed 50%. Schools and colleges, public libraries, and places of employment provide additional access to the internet. The 80% goal of in home access to the internet has not yet been reached, but if growth remains constant, it could be reached by 2005.

The LHD follows model community standards to link people to personal health services and assure the provision of health care when otherwise unavailable. Populations

identified who may not have access to the internet include the aged, those with mental health issues, small children, those with low income or education levels.

### **Data and Literature Review:**

- “Healthy People 2010 report, Goal 11, Health Communication, Objective 11-1”
- “Essential Public Health Services, #3 Inform, Educate, and Empower, Indicator 3.1 Health Education, Public Health Functions Project”
- “Essential Public Health Service, #7 Provide Linkage to Personal Health Services & Assure Provision of Health Care, Populations with Barriers to Public Health Care, Public Health Functions Project”
- U.S. Department of Commerce, Bureau of the Census, “Computer and Internet Use Supplement to the Current Population Survey, August 2000”
- U.S. Department of Commerce, Bureau of the Census, “Current Population Survey, 2000”
- “Survey of Public Health, 1999”

### **Project Description**

Create a mock website for the environmental division of the Louisville and Jefferson County Health Dept. Prepare a model for our Information Systems staff and other Kentucky health departments to follow. Provide proof that a quality website is essential to the community and health department staff. Update our current website. Market public health and local health department services.

### **Objectives**

- Expand environmental health website
- Inform and educate community
- Promote customer service
- Facilitate inter-agency cooperation
- Ease the bureaucratic process
- Improve compliance to regulations
- Market environmental health in Kentucky
- Improve health in Kentucky
- Promote business growth
- Update public on emerging issues

## Methodology

The group developed a survey to assess the client need. A sample survey is provided. The survey was compiled from written and verbal comments in Jefferson County.

### HELP YOUR HEALTH DEPT.HELP YOU

Gender      Male       Female   
Age          0-24     25-50     50+   
Occupation \_\_\_\_\_  
Where do you access the internet?    Home     Office     Other   
How often?                                  Daily     Weekly     Monthly

What information would interest you on an Environmental Health website?

Classes, registrations	
(Food manager, lifeguards) <input type="checkbox"/>	Complaints <input type="checkbox"/>
Fee schedules <input type="checkbox"/>	Food recalls <input type="checkbox"/>
Hazardous materials <input type="checkbox"/>	Inspection scores of
Jobs <input type="checkbox"/>	(restaurants, pools, hotels, etc.) <input type="checkbox"/>
Ky. Regulations <input type="checkbox"/>	Lead poisoning prevention <input type="checkbox"/>
Mosquito control <input type="checkbox"/>	Onsite applications <input type="checkbox"/>
Public health notices <input type="checkbox"/>	Rabies information <input type="checkbox"/>
Plans process and applications <input type="checkbox"/>	

Please rate your last experience with the Health Dept.  
(Unsatisfactory-Satisfactory)  
1 - 2 - 3 - 4 - 5

Suggestions:

## Essential Public Health Services

Essential Public Health Services #3:

*Inform, educate, and empower people about health issues.*

An environmental health website would inform people of environmental information at their convenience. This would enable people to educate themselves on current issues, services, and employment opportunities.

Essential Public Health Services #7:

*Link people to needed personal health services and assure the provision of health care when otherwise unavailable.*

People would have access to environmental health information and services.

## Essential Public Health Services #8:

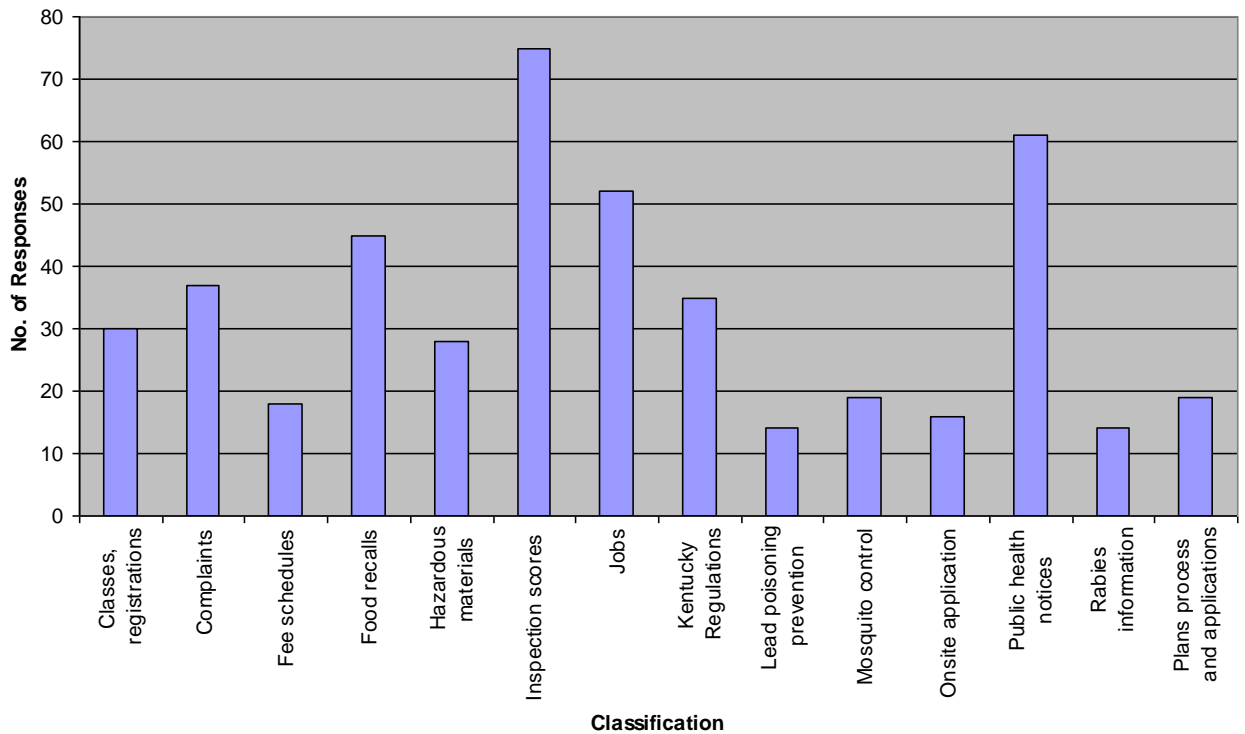
*Assure a competent public health care workforce.*

Public health care workers could improve their job performance by referring customers to needed information in a fast and convenient manner.

### Results

Data Assessment was calculated using an Excel spreadsheet and an Access database. The graph below illustrates the information gathered.

**Survey Respondents Chart**



Survey results determined that the public does not understand Environmental Health terminology. The public wants and needs definitions to understand environmental services and acronyms. Inspection scores of public facilities received the most popular response. Next in popularity were public health notices and job information. Most likely, the posting of inspection scores would be the last item added to our website due to continuous upkeep and funding.

## **Conclusions**

In conclusion, an early group decision to modify our project goal was the culprit to any success enjoyed. Like most projects, the initial exuberance to change the world was curbed by the realization that only so much can be done in one year. A slow start did not deter the ability to reach our stated goal. The day and age has arrived which makes an organizational website imperative for conducting daily business. A model website for the Jefferson County Division of Environmental Health was completed. With this accomplishment, the primary goal of educating and informing consumers by expanding access to Environmental Health information should soon be realized. Unfortunately, we have not yet achieved the implementation phase. However, our Information Systems personnel verbalized complete buy-in and will oversee site development. A final and critically important point occurred through gaining support for the project from the Division's Administration. Their agreement with the group as to the benefit and necessity of an updated website was crucial. With this concurrence comes a commitment of resources to ensure the project comes to fruition.

## **Leadership Development Opportunities**

*Matthew T. Rhodes B.S., R.S:* To the casual observer, Public Health leadership might appear to be an oxymoron. Most think that we as a public health system act only after an incident or outbreak has occurred. Often times this is true, but to the contrary the public health system is a very proactive entity. With limited funding and personnel, we continue to excel in protecting the public's health. Immunizations and mandated inspections are the obvious tasks that are completed daily, but the unseen work such as this institute, act as a catalyst to propel the Kentucky public health system. By identifying leaders and creating a statewide network for those leaders to communicate and discuss emerging issues, this institute strengthens the fibers that bind the Kentucky public health system.

Upon entering the Kentucky Public Health Leadership Institute, I considered myself a leader within the public health field. This leadership institute experience validates my career choice and has motivated me to strive for advancement within the field of public health. A desire to facilitate positive change within my organization precipitated my participation in this course. The Change Master Project fulfilled that goal by creating the groundwork for an Environmental Health website. The knowledge gained from this course will not only serve me well, but will also benefit Kentucky's Public Health System.

*Daniel A. Roller B.B.A., R.S.* My 13 years prior to coming to the Cabinet for Health Services were with the Kentucky Department for Social Insurance. I have not worked for a Local Health Department. The contact through the Kentucky Public Health Leadership Institute with employees of local health departments and other branches and divisions of the state health department have increased my understanding of the complexity of the jobs required to accomplish public health goals. Our detailed study of the 10 Essential

Public Health Services, which I had never heard of before, greatly expanded my knowledge of those services and how my job interrelates to several of those services.

For the last 15 years, first as an inspector and now as section supervisor, I have not had the exposure to the wide range of technology the Kentucky Public Health Leadership Institute explored. As part of a team that designed and field-tested a Mobile Milk Inspection Project, I used email, mobile computers and printers, and modems to submit inspections for the last 2 years. Distance Learning Centers, Electronic Blackboards, and Virtual Classrooms, on-line assignments are all new to me. Each could be a valuable tool to the statewide personnel of our branch.

Working in a group with others with backgrounds of dissimilar work experiences, but still being able to accomplish our stated goal, has been the most rewarding experience of the Institute. We divided the project along individual lines of interest, skills, geographic locations and availability. The finished project reflects the unity of purpose of a diverse group with a single goal. We each can take the skills learned and apply them to other group projects at work and in our communities.

**Gary E. Coleman, Jr., REHS:** During my tenure within Public Health, I have worked in both the medical and the environmental field. I had also worked in health education along the way. I came to KPHLI realizing that public health is made up of many different facets. I did not realize how integral each of the programs were to the other. The opportunity to interact with a multi-disciplinary group of public health professional has been truly an enlightening experience. I will take away many great memories. The study of the 10 Essential Services of Public Health has also helped me find where my job fits in and has shown me that my job does have value in public health.

I feel that through the summits and our work on the Change Master Project, I have gained several needed skills and identified several, which I need to improve upon. I certainly have gained much more respect for people who develop web sites for a living. As I have struggled through the learning process to learn html. I have also improved my skills with MS PowerPoint. I would also credit the program for helping me learn to work in groups more efficiently. Bringing together people who normally would not work with each other and definitely added to the experience. I have also learned that I need to work to improve several skills, some of which include my organizational and management skills. I feel that the skills gained though Kentucky Public Health Leadership Institute will serve me well through out the rest of my life.

**Heather L. Egan, RS:** I have been in Public Health for five years. This was my first opportunity to attend leadership training. This project gave me a chance to develop and enhance my leadership skills. I was able to form a positive relationship with our Information Systems personnel along with a better understanding of what the public wants and needs. I will be leaving the institute with more self-confidence and increased enthusiasm in pursuing a management position.