INTRODUCTION

The delivery of essential public health services depends on the effective use of relevant information by public health employees [1, 2]. Yet, despite the importance of information to the practice of public health, the complex information needs of the public health workforce are not well met [3–8]. This paper describes how the New York Medical College Health Sciences Library and School of Public Health (NYMC) and the New York Academy of Medicine (NYAM) successfully collaborated in collecting data for two separate projects that addressed the information needs of employees in the Dutchess County Department of Health (DCDOH) in New York's Hudson Valley. NYAM additionally partnered with researchers at Columbia University in the Department of Biomedical Informatics and School of Nursing.

Each project required all DCDOH employees to fill out a lengthy survey, and some data elements were common to both surveys. Both projects were funded by the National Network of Libraries of Medicine with the charge that the projects "collaborate when appropriate" because they targeted the same population. DCDOH welcomed the collaboration because it reduced the response burden for its employees.

TARGET POPULATION AND RESEARCH GOALS

The NYMC project aimed to measure and enhance the informatics competencies of public health workers by completing a needs assessment and tailoring a training program to meet the determined needs. It utilized a pretest and posttest survey based on public health informatics competencies from the Centers for Disease Control and Prevention and a Vanderbilt benchmarking instrument [6, 9]. The unit of analysis was the individual employee.

The NYAM project aimed to assess the feasibility of modeling the relationship between information use by a health department's employees and the organizational effectiveness of the department using organizational network analysis. The unit of analysis was the organization.

In 2004, NYMC and NYAM independently solicited health officers of the 7 counties in New York's Hudson Valley to participate in their respective projects.

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organizational roles and relationships. This methodological problem was resolved by defining a unique identifier for each employee (using birth month and day and four digits of the social security number) and putting it on both surveys to allow post-collection data matching, while preserving the anonymity required by NYMC’s pretest/posttest research design. Employees were informed of human subjects’ protections for both studies through an information sheet developed in consultation with the DCDOH Human Resources Department.

The surveys were jointly administered between May 20 and June 7, 2005. Data collection presented logistical challenges. Scheduling required close collaboration with DCDOH staff in Poughkeepsie and two other sites fifteen to twenty miles away. To encourage a high response rate, nominal gifts were given to all employees who completed the NYMC survey, and a chance to win one of ten $25 gift certificates was offered to all employees who completed both surveys. Survey administration was planned around coffee breaks or lunch with food provided by the research team to minimize disruption of work routines. Figure 1 shows a snapshot of a survey being administered to Dutchess County Department of Health employees.

The surveys were administered six different times on four dates. NYMC and NYAM researchers ran as integrated relay teams, with one team giving out the survey and moving on to the next site and the other team picking up the completed surveys and handing out the incentives.

**Intellectual property**

Discussions between the researchers resolved issues of intellectual property resulting from the intermingled projects. A formal subcontract between NYAM and NYMC was executed, giving NYAM a limited subset of NYMC’s data elements and its data dictionary. The researchers agreed to publish results separately but to acknowledge data sources and collaborating partners.

**RESULTS**

The collaboration (1) reduced the response burden for DCDOH staff, (2) allowed NYMC to add a third county to its project, and (3) enabled NYAM to acquire data for secondary analysis, producing a win-win-win situation for all. The joint administration of surveys was successful as demonstrated by the high response rates (Table 1).

The NYMC project found that public health employees both desire and need informatics training that is relevant to their jobs, but that many public health informatics competencies have no relevance for them [12–15]. The data collected by NYMC led to the development of specialized training programs conducted in targeted sessions. All sessions were hands-on in computer labs, were problem based, and encouraged team interactions. The sessions were highly rated by the participants [13].

The NYAM study demonstrated that organizational network analysis indeed has potential for public health information management [16–22]. These network insights helped DCDOH managers understand how information flowed in their units as well as throughout the entire organization and supplied evidence they could use to plan for improved performance.

**FUTURE DIRECTIONS**

Both NYMC and Columbia are independently continuing the work that started in the projects described in this paper. Columbia’s organizational network analysis research has expanded to a national focus, while NYMC’s work continues its service focus in the Hudson Valley, a target area for both institutions. The willingness of health officials in the seven Hudson Valley counties to participate in joint projects has led to continuing collaboration. The strategic partnership that began with this collaboration continues to focus on ways to achieve public health information outreach.

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