Research Article

Staff Recommendations Concerning the Delivery of Hepatitis-Related Services in County Health Departments

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ABSTRACT

Background: *This paper describes a portion of a larger evaluation project of a state hepatitis prevention program.* ***Purpose:*** *The study explored the suggestions of key informants related to the delivery of hepatitis services in the state.* ***Methods:*** *Researchers conducted key informant interviews lasting 30 to 45 minutes.* ***Results:*** *Important findings included: (1) administrative support of the hepatitis program was critical to staff perception of its importance; (2) outreach and public education as well as marketing were seen as important components of the program; (3) continued resources and investments in staff training and development were important to creating a supportive environment for staff and clients and providing for program institutionalization.* ***Discussion:*** *Staff education concerning the program's mandate, expectations, and outcome measures would aid in the institutionalization process. The addition of interorganizational support from partner agencies that can provide access to high-risk populations and treatment will facilitate further institutionalization of the state hepatitis program within the individual counties.* ***Translation to Health Education Practice:*** *Specific findings that fit with health education practice are (1) outreach and public education should be expanded, and (2) senior administrative support for the hepatitis program is critical to its success.*

BACKGROUND

Hepatitis C is a serious chronic bloodborne infection. Identification of persons infected with the hepatitis C virus (HCV) provides them with the opportunity to potentially avoid liver damage, avoid spreading HCV to others, receive hepatitis A and B vaccine, and access medical evaluation/treatment.

Additionally, hepatitis A and B cause significant morbidity and mortality for those who are infected. Hepatitis A continues to be one of the most frequently reported vaccine-preventable diseases in the United States. In response to this identified problem, the Florida legislature appropriated $2.5 million in 1999 for a state hepatitis program. Each subsequent year, the program has been funded at the level of $3.5 million.

The Florida hepatitis program began by funding six counties for local prevention and control measures. The program also provided statewide education and awareness activities, as well as a statewide hepatitis C hotline. Since early 2001, the program has made hepatitis A and B vaccines and hepatitis A, B, and C testing available to all counties in Florida. These services are available to adults at increased risk for infection or the serious consequences of infection at no cost.[1,2] In 2004, a comprehensive evaluation of the state hepatitis program was conducted. Staff interviews with key informants from the county health departments were part of the larger program evaluation.

Key informant interviews were conducted in six counties in Florida during February and March 2004. The counties were selected by the hepatitis program evaluation steering committee based on their location, size, and funding status. Three of the selected counties had a program coordinator funded by the state hepatitis program, while the other three did not. Counties were matched by size, so that there were two classified as small, two as medium, and two as large. One county in each size category was a funded county. The participating counties were Alachua, Collier, Palm Beach, Miami-Dade, Polk, and Volusia (Figure 1).

The use of personal interviews with key informants was selected as the data collection methodology to allow for exploration of the current operation of the hepatitis program and to investigate the processes

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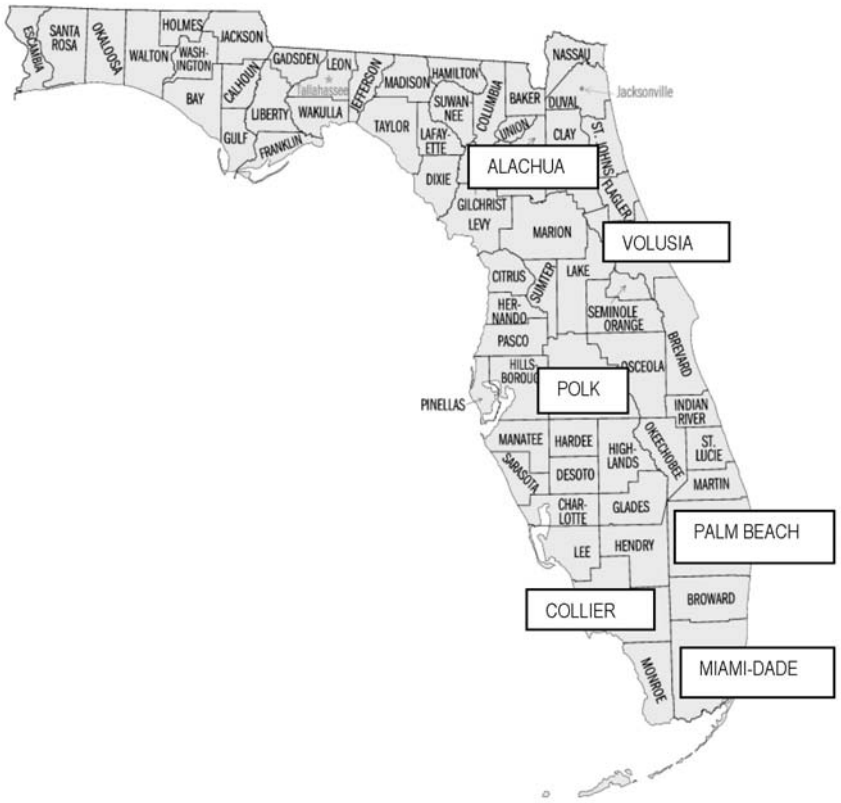
Figure 1. Map of Florida with Participating Counties



of program institutionalization within the county health departments. A key informant was identified as someone who worked with the hepatitis program in the county office and could provide information on its daily operation. Key informants were recruited from all aspects of the program.

The purposes of the key informant interviews were to evaluate the staff's acceptance of the program and to investigate their views related to the delivery of hepatitis prevention and control services within the state. Specifically, the objectives of the interviews were to determine the perceived effectiveness of the program, the methods of client education and staff professional development employed, the perceived community needs, and suggestions for program improvement and best practices.

The four-stage approach to organizational change theory as described by Nutbeam and Harris[3] and Goodman, Steckler, and Kegler[4] was used to develop the open-ended questions used in the interviews. The program aspects leading to institutionalization of the program within the county health departments were of particular interest to the evaluation. The individual hepatitis programs in the counties vary to some extent, but at minimum they all include the delivery of the following services: hepatitis A, B, and C testing, hepatitis A and B vaccination, in-house client and community hepatitis education, and public outreach of selected hepatitis services.

METHODS

Qualitative inquiry was used to collect and analyze the data for this evaluation study. The first step in this inquiry involved the creation of an interview guide. The available literature was reviewed and potential questions and methods were identified in research conducted on the institutionalization of the CATCH-ON program.[5] Additionally, hepatitis program evaluation documents were supplied by the Multnomah County Health Department, Oregon (written communication, January 2004). Based on these sources, as well as consultation with hepatitis program practitioners, a draft interview guide was developed and shared with several experts in the area of patient care and public health research. After incorporating their suggestions, the final version of the interview guide was developed and then presented to the program evaluation steering committee for review and validation.

There were four questions in the interview guide that addressed participants' background/job description information. The next three questions addressed the hepatitis program history at that health department. The next eight questions addressed the current program operations (staffing, strengths and limitations, program evaluation measures, program priorities, community needs, and suggestions for best practices). The final three questions related to education of the clients and staff concerning hepatitis, and the relationship of the staff with the hepatitis program state office.

The hepatitis program contact person in each county coordinated the key informant interviews. The selection of the key informant staff members was left up to the hepatitis program contact person. The contact person was told to recruit staff members for the interviews who could contribute valuable information concerning the operation of the hepatitis program in the county health department. All interviews were conducted in the county health department facilities. The interviews lasted approximately 30 to 45 minutes each. This research protocol was approved by a university Institutional Review Board prior to data collection.

Data Collection

The key informant interviews were led by two trained interviewers who asked the questions on the guide and kept the discussion focused on information relevant to the investigation. The discussions were recorded by an audio recorder and a typist, and the interviewers took written notes of their own. All three sources of data were then transcribed and combined across the transcripts

of each interview. Thematic codes were used to analyze the transcribed interviews. Three researchers read each transcript and compared coding for inter-rater consistency. Based upon the codes, recurring themes were identified. Passages that represented the sentiments of the participants were identified. These methods were based on the constant comparison technique described by Glaser[6] and the methods used by the CATCH-ON key informant research project.[5]

Participants

Key informant interviews were conducted with 42 health department staff and 1 affiliate (a social worker). Informants included 4 physicians, 7 program administrators, 14 nurses, and 13 others. The "other" category included job titles such as case investigator, outreach and counseling specialist, and epidemiologist. The overall length of service in the county heath department reported by these informants was from 1 to 23 years.

RESULTS

To begin the interviews, informants were asked about their job position and responsibilities related to the hepatitis program. Time committed to the hepatitis program ranged from 1 to 100%. The physicians indicated they spent from 10 to 40% of their time working in the hepatitis program, while almost half of the nurses reported spending 100% of their time with the program. One of the administrators worked with the program full time, while the majority reported spending less than 10% of their time with the program. The respondents whose job titles made up the "other" category worked with the program from 35 to 100% of the time.

Most of the respondents had no knowledge of the history of the program. They were unaware of how or when it began. Those informants that did remember the program's beginnings believed it had been created by a directive from the health department administrator or the state office, or that someone had written a grant to initiate it.

Perceptions of the Program

The perceptions of the informants concerning the success of the hepatitis program depended heavily on the environment created by the health department administration. If the administrator communicated the value of the program and clearly delineated roles and responsibilities, the program was seen as an integral part of the health department. For example, some respondents were very committed to the program. Others, however, felt that it was an added duty and reported varied commitment to it due to the amount of paperwork, lack of training, and time and staff requirements. The major difference between these groups of respondents was the environment created by the administration. In those health departments where the staff perceived the administration to be supportive of the hepatitis program, the attitudes of the entire staff were consistently favorable toward the program, regarding it as part of the department's mission and procedures.

In terms of the program's success, most of the informants did not know how to evaluate this factor. Suggestions included the number of patients tested or vaccinated, the number of referrals to the program, the amount of educational material distributed, and client feedback such as no complaints.

Informants identified staff as well as client issues related to why a patient might not receive services. Scheduling issues were noted as a service limitation, as well as the perception of some staff that testing for hepatitis C should not be done unless treatment was available. These individuals felt it was not ethical to test for hepatitis C if treatment could not be provided. The program had funding for education, testing, and vaccination. State funds were not provided for hepatitis C treatment through this program. However, many of the county health departments coordinated the provision of treatment services for their clients with community providers. Client issues that were seen to limit access to services were primarily related to the client's perception of risk. Clients who declined testing did not recognize hepatitis as a risk.

Suggestions for Best Practices

Key informants were asked what they considered to be best practices for the delivery of services. Suggestions on how to effectively implement a hepatitis program included educating health department employees; standardizing health department training and providing time for training; integrating hepatitis screening into all clinics; working with county leaders to integrate hepatitis into their existing services; creating an effective outreach program, including qualified outreach personnel; and generating a high level of administrative support for the program.

The key informants believed that staff who worked in a hepatitis program should be nonjudgmental, comfortable going into the field, and cross-trained to perform a number of duties, and that their assignments should be rotated. They also believed that administrators should be flexible, demonstrate program commitment, and make time for staff training.

The major priorities for hepatitis services that the informants identified centered on education and outreach. Informants felt there was a need for continuing education of staff and community health care providers. Primary care providers needed to know about testing/vaccination and the services the health department could provide. Staff needed continuing education, particularly in light of turnover. Informants also identified a need for community education and marketing through mass media. They felt that ads should be designed to reach high-risk populations in order to increase their perception of the risk of hepatitis, in addition to including information about the services the health department could offer. In addition, the informants valued the existing outreach services and felt that outreach into jails and homeless centers should be a program priority. One individual stated, "We need more places, more hours; health education is not out there like it used to be."

Finally, participants were asked what the state office could do to help them deliver hepatitis-related services. Suggestions from respondents included developing a hepatitis video that could be used in waiting rooms, developing a network of providers for patient referral, streamlining and standardizing paperwork at the state level, identifying

model outreach programs that could be shared with other counties, and including county health department staff suggestions for changes in the delivery of services. For a more detailed description of the themes and comments by the informants, the complete evaluation report is available from the Florida Department of Health website.[1]

DISCUSSION

The organizational change theory was used to guide the hepatitis program evaluation, characterizing the mechanisms by which the program had evolved and which it should employ to continue becoming institutionalized within the county health departments. The four-stage approach to organizational change theory follows the same principles of the stages of change in the Transtheoretical Model. The Transtheoretical Model focuses on individual behavior change, while the organizational change theory focuses on larger systems. Both approaches involve the creation of awareness, preparation for taking action or adoption of the program, actual action or implementation of the program, and maintenance of the new behavior or program.[3,4]

An awareness of the program's expectations and history is part of the first stage in organizational change theory. The lack of program history being recognized by many of the staff may indicate a lack of critical understanding of the program's expectations and limitations. This may be a function of the way in which the program originated or evidence of staff turnover. If turnover is the issue, an understanding of the program's origins, expectations, and limitations (e.g., that the hepatitis program is funded by state mandate to provide vaccine and testing, not treatment) would be important to include in the new employee orientation program.

This first stage, awareness-raising, is similar to the precontemplation and contemplation stages in the Transtheoretical Model of individual behavior change.[7] The importance of a new program is determined during this stage. Senior managers and administrators are critical to fostering buy-in among the rest of the organization. The findings from the key informant interviews were consistent with this concept. In those health departments where the staff perceived the administration to be very supportive of the hepatitis program, the attitudes of the entire staff were consistently favorable toward the program as well. The staff did not view the program as an extra burden; rather, it was viewed as part of the department's mission and procedures.[3]

In the second stage, adoption, the resources necessary for implementation of the program are determined. All of the interviewed counties were provided free vaccine and testing as part of the state hepatitis program. Half of the counties interviewed were funded for at least one staff position to work in the hepatitis program. The additional funding did not improve the staff's perceptions of the hepatitis program. Some staff members from funded and unfunded counties were committed to the program while others within the same county viewed it as a burden.

During the adoption stage of organizational change theory, changes to the program may be necessary. These adaptations are needed to make the program compatible with the unique characteristics of the organization in which the program resides. Consistent with this stage, many of the counties expressed a desire for autonomy in decisionmaking concerning how to use funding, record data, and allocate staff resources.

Stage three involves the actual implementation of the program. Training and material support are critical during this stage.[3] This capacity-building was seen as a need by many of the informants in the form of additional training, continuing education, and outreach of services to the community. Similar to our findings, the lack of training was seen as a barrier to institutionalization in the CATCH-ON school health program evaluation.[5]

The final stage in organizational change theory is institutionalization. This phase is concerned with the long-term maintenance of a program. Administrative support is again critical for this stage of program development. Establishment of mechanisms for evaluating and monitoring the program's success are useful strategies at this stage to ensure continual improvement and maintenance of the program.[3] The participants' inability to clearly articulate program expectations and measures of program efficacy would be considered barriers to program institutionalization.

In spite of these barriers, most of the counties in which the informants were interviewed were in the later stages of organizational change, largely due to support for the program from the county health department administration, continuing education for the staff, and material support from the state. Staff education concerning the program's mandate, expectations, and outcome measures would aid in the institutionalization process. The addition of interorganizational support from partner agencies that can provide access to high-risk populations and treatment will facilitate further institutionalization of the state hepatitis program within the individual counties.

Health education can aid in this institutionalization as well. Staff training and development as well as patient and community education were seen as important to creating a supportive environment for the delivery of hepatitis-related services. Health educators are the ideal candidates to deliver these supportive services.

Finally, the study's limitations should be noted. First, given that the interviews were conducted with selected counties in a single state, the informants' responses may not be representative of other hepatitis programs. Moreover, the questions being assessed in these interviews were single-item questions; therefore, measures of reliability and validity were not assessed as would be done for quantitative data. The data is qualitative in nature, and generalizability of the specific findings to other programs may therefore be limited. However, the question guide was pilot tested, reviewed, and approved by the evaluation steering committee, and the results were verified through rich description of the data and member checks.

TRANSLATION TO HEALTH EDUCATION PRACTICE

The data suggests there is a great opportunity for health educators to work with health care practitioners to deliver effective educational programs to high-risk populations. The recommendations for overall program delivery can be applied to a variety of health education programs. Specific findings that fit with health education practice are:

1. Outreach and public education were seen as important components of the program that should be expanded.

2. Senior administrative support for the hepatitis program in the county was seen as critical to the program's success.

3. Clear performance indicators should be provided to all staff involved with any program.

4. Periodic training and staff development were seen as important by almost all of the informants.

Finally, the organizational change theory provided a useful framework in which to evaluate this public health program. Health educators can apply this theory to enhance program institutionalization within their organizations.

ACKNOWLEDGEMENTS

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REFERENCES

1. Florida Department of Health. *Hepatitis Program Evaluation, 2005.* Available at: http://www.doh.state.fl.us/disease_ctrl/aids/hep. Accessed July 25, 2006.

2. Rainey J. An evaluation of a state hepatitis prevention and control program: focus group interviews with clients. *Health Promot Pract*. In press.

3. Nutbeam D, Harris E. *Theory in a Nutshell: A Guide to Health Promotion Theory*. Roseville, Australia: McGraw Hill; 1999:35-39.

4. Goodman R, Steckler A, Kegler M. Mobilizing organizations for health enhancement: Theories of organizational change. In: *Health Behavior and Health Education: Theory, Research and Practice*. 2nd ed. San Francisco, CA: Jossey-Bass: 1997: 287-311..

5. Lytle L, Ward J, Nader P, Pedersen S, Williston BJ. Maintenance of a health promotion program in elementary schools: results from the CATHC-ON study key informant interviews. *Health Educ Behav*. 2003;30:503-518.

6. Baumgartner T, Hensley L. *Conducting and Reading Research in Health and Human Performance*. 4th ed. Boston, MA: McGraw Hill; 2006:203.

7. Prochaska J, Redding C, Harlow L, Rossi J, Velicer W. The transtheoretical model of change and HIV prevention: a review. *Health Educ Q*. 1994;21:471-486.