

Diffusion Brief

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Staff Roles in Diffusing PVRC

Many respondents stated that they played a role in diffusing PVRC within their health center and to other sites. A sample of these responses follows:

- Educated others on an informal basis while rotating to other sites within the organization
- Gave presentations to staff at other sites who will lead redesign efforts at their clinic, and offered to be a contact person for support and information
- Met with managers of other clinics within the region and recommended trying parts of the concept to slowly introduce the process to clinic staff
- Applied for (and received) grants to purchase additional equipment, to continue to improve the redesign process at their site, and to move the model to other clinics within the organization

Secondary Sites

To evaluate instances of diffusion to other health centers, staff were asked to assist with the “snowball sampling method” of identifying other sites, if any, that have either adopted PVRC or stated their intention to try it.

- Thirty-four staff members and eight CEOs stated they were aware of at least one of these ‘secondary sites.’ Unfortunately, several health centers identified as ‘secondary’ had actually participated in a regional collaborative (thus are not secondary sites) or were part of the respondents’ umbrella organization.
- However, staff and CEO respondents identified 12 actual secondary sites, which were the result of diffusion from original participants.

Health Center

- Hope Clinic
- East Liberty Family Health Care Center
- Sunset Park Family Health Center
- Codman Square Health Center
- Family Christian Health Center
- Health First Family Center
- Lamprey Health Care
- Manchester Community Health Center
- Lincoln Heights Medical Center
- U.S. Air Force Reserve 94th ASTS Medical Squadron
- Western New Mexico Medical Group
- “All Community health center”

Location

- Pennsylvania
- Pennsylvania
- New York
- Massachusetts
- Illinois
- New Hampshire
- New Hampshire
- New Hampshire
- Ohio
- Georgia
- New Mexico
- Rhode Island

As part of the comprehensive evaluation, each of these twelve secondary sites was contacted to determine if (1) they had actually implemented PVRC or were interested in trying it, and (2) they had progressed far enough to complete our web-based survey. Only one secondary site responded to the survey; most other sites felt it would not apply to them as they were just beginning the redesign process or are interested in trying it sometime in the future.

Final Thoughts

While diffusion was a major goal for the Quality Center, this may not have been effectively communicated to the PVRC program planners. Consequently, some participants commented that they remember hearing about diffusion at the very end of the collaborative, but felt there was not a big push for participants to play an active role in diffusion.

Introduction

The Patient Visit Redesign Collaborative (PVRC), an initiative of the Bureau of Primary Health Care’s Quality Center, is an innovative approach to improving the quality of today’s health care. All participating health centers are given the same goal: to dramatically reduce cycle time for patient visits while increasing productivity. What makes the Patient Visit Redesign Collaborative so innovative and unique is the opportunity for staff to share their ideas, test these ideas, make decisions, and solve problems that may have existed for years within the organization.

Seventy-nine health centers from five regions of the United States participated in PVRC between 1998 and 2001. Community health centers, migrant health centers, federally-qualified health centers, National Health Service Corp sites, Public Housing grantees, Black Lung clinics, and HIV and Homeless sites were eligible to apply for one of five regional collaboratives.

Diffusion of Innovations

Diffusion of innovations theory is a useful framework with which to analyze the spread of innovative programs. The terms *diffusion* and *dissemination* are often used interchangeably, however they have distinct meanings.

One of the Quality Center’s major goals for the redesign collaborative was to disseminate the learning and knowledge that result from this innovation to the larger audience of health centers and health care organizations for adoption and replication. Using a variety of methods, including a web-based survey and in-depth interviews, the Center for Collaborative Research in Health Outcomes and Policy (CRHOP) conducted an evaluation to determine, in part, how PVRC diffused to other sites within multi-site centers and beyond. The results provide useful knowledge that may be used to enhance training materials and procedures, redirect future recruitment of participants (in particular, identification of opinion leaders), and encourage the continued spread of knowledge throughout the health care industry.

Diffusion involves the communication of an innovation (an idea, practice, or object that is perceived as new) through various channels over time among members of a social system. *Dissemination* refers to the actions taken along the way to influence diffusion.

Innovation Attributes

Several characteristics of the innovation itself are associated with the rate at which the innovation is adopted and implemented, both within an organization and beyond. These characteristics (innovation attributes) include *relative*

advantage, compatibility, result demonstrability, complexity, image, trialability, and observability. Overall, respondents rated the characteristics of PVRC positively.

- Staff and CEOs identified (1) *obvious results*, (2) *superior to other patient satisfaction efforts*, and (3) *compatible with job* as the three most important attributes of new practices being considered for their organization. "The idea of empowering staff was very exciting."
- Responses to the question, "*Because of my participation in PVRC, others saw me as a more valuable employee.*" were highly positive, indicating that staff believe their image within the organization changed due to PVRC.

An innovation's degree of *observability*, the degree to which innovation ideas are seen or communicated to staff, is positively related to its rate of adoption. In other words, the more a person sees or hears about an innovation being used by others, the more likely he/she is to adopt the innovation.

- Only 19% of respondents indicated that they had seen or heard of PVRC being used outside their organization.

CEOs were asked to identify reasons why they or another known person were interested in PVRC.

- Responses included (1) the need to increase productivity, (2) to improve services, and (3) to increase staff efficiency and satisfaction.
- Others mentioned that PVRC was useful in meeting existing healthcare standards, such as requirements from the Joint Commission on Accreditation of Healthcare Organizations (JCAHO).

"[PVRC was] an opportunity to get staff to move forward (thinking outside the box) and to learn techniques for problem solving, data collection, and decision making."

Opinion Leadership

Most individuals evaluate an innovation based on information conveyed to them from other individuals like themselves who have previously adopted the innovation. These influential persons, called *opinion leaders*, do not earn this title through their formal position or status, but through more informal means, such as technical competence or social accessibility. The opinion leader's most striking characteristic is his or her position in the center of interpersonal (face-to-face) communication, which has shown to be an effective channel for persuading individuals to accept new ideas. Thus, opinion leaders are influential in both diffusion and adoption of innovations and the Patient Visit Redesign Collaborative was designed, in part, with opinion leaders in mind.

To measure opinion leadership, the evaluation team used the *sociometric* method, a highly valid measure that has been used by researchers for several decades. Respondents were asked a series of questions about whom they seek for information or advice. Persons who were named most frequently (those who have the most network links) are considered opinion leaders. Using survey responses, the evaluation team was able to identify several opinion leaders in each region.

As prior research has shown, the identified opinion leaders were considered by other employees as sources for personal and job-related advice and information about new technology and procedures. Furthermore, the identified opinion leaders were not all formal leaders in the organization, but representatives of all levels of employment, from administration, to support staff, to nursing staff and physicians.

Adoption

According to health innovations literature, the better the organizational climate, the more likely health centers are to become aware of, adopt, implement, and institutionalize the disseminated PVRC information.

- More than half of the CEO respondents agreed that PVRC fulfilled the goals they had for it, and 60% agreed that their

staff members wished to continue using PVRC. These results indicate a high level of success in at least half of the responding health centers.

- PVRC has been institutionalized in 60% of the 17 health centers where a CEO responded to the survey.
- Often the organizational climate is constrained financially. Many of the health centers report implementing the PVRC model in segments or spurts. Due to budget constraints, they are unable to implement the entire model.

Methods of Diffusion

Interpersonal communication was clearly the strongest channel for initially spreading PVRC to others.

- Forty-four percent of CEOs identified a friend (outside of the organization) as their first source of information about PVRC.
- In addition, 44% of CEO respondents said they had been approached by someone outside their organization requesting information or expressing interest in PVRC.
- Nearly 60% of CEO respondents stated that they had encouraged others to try PVRC.
- One CEO stated that he/she would recommend PVRC to others even though his/her center was not currently using the model.

Barriers to Diffusion

Prior to beginning the redesign process, all participating health centers were given the same goal as well as a set of requirements by which to abide and a series of pre-planned steps to follow during the process. However, the initiative was not intended to diffuse in the exact same way in every center because the centers varied considerably by number of staff, services performed, geographical location, office size, and financial resources. Furthermore, patient characteristics, such as ethnicity, nature of visit, age, and socioeconomic status, varied significantly between centers.

The unique structure of a social system (for example, a participating health center in a larger multi-site health system) may positively affect diffusion or, on the other hand, present *barriers* to diffusion. Factors that may influence diffusion include such things as organizational climate, willingness to change, and prior success. Level of organizational support may also effect whether or not an innovation is adopted and then successfully diffused to secondary sites.

- According to over half of the respondents, neither CEOs nor PVRC team leaders clearly encouraged staff to move the PVRC model to other sites, indicating a fairly low level of support for diffusion.
- However, results from the CEO survey indicated that two-thirds of CEOs believe they had encouraged their employees to help move the PVRC model to other sites. These findings do not confirm whether or not external communication actually occurred, or the extent of diffusion, if any.

To determine their level of external communication (external network links), respondents were asked whether or not they discuss their organization's progress with people in other organizations similar to theirs.

- Forty-three percent of respondents disagreed with this statement, indicating weak network links to staff at other similar health care organizations. Weak external ties can be considered a barrier to successful diffusion of PVRC or other similar innovations.
- Also a barrier to diffusion, some respondents from organizations that are part of a larger health system indicated that they had little, if any, communication with other members of their regional health system.
- These results support the need for administrators and supervisors to encourage their staff to communicate regularly with other health care workers, both *formally* (e.g., attending or giving presentations at regional conferences) and *informally* (e.g., sharing new ideas over lunch with friends who are employed at other clinics).