G. Quality Improvement/ Quality Assurance

Probably no other area of management has generated more acronyms and buzz words than the effort to assure high-quality products. The practice of quality assurance (QA) in health care has been influenced over the years by the rush of approaches and methods for assuring quality in private industry, ranging from total quality management (TQM), continuous improvement process (CIP) and continuous quality improvement (CQI) to simply quality management (QM) and quality improvement (QI). For the sake of simplicity, the term "quality improvement (QI)" will be used in this chapter to represent all of these various approaches that view quality as an all-encompassing process that is customer-centered and continuous.

What is often confusing for HCH staff is the assumption that quality improvement activities are different from what they may already be doing. The proliferation of acronyms and approaches only makes that activity seem less understandable. The purpose of this chapter is to examine how quality improvement philosophy and activities are an integral part of day-to-day work in HCH projects, sometimes needing only a written plan to clarify intent and process and written reports to document results.

Articles, reports and books are continually being published with new approaches or methodologies for implementing quality improvement plans. Due to the quantity of material, you may want to consider reviewing what is available by visiting one of the Internet websites offering links to resources on quality, such as information on Health Administration and Management Resources at http://www.execpc.com/~stjos/admin.html.

This discussion of quality in HCH projects will address the following questions:

- Why is it important to have a quality improvement plan/process?
- What is the difference between quality improvement and quality assurance?
- How can HCH projects monitor and improve quality?

- What are the special issues regarding quality improvement in HCH projects?

- Who should be involved and responsible for the quality improvement process?

WHY IS IT IMPORTANT TO HAVE A QUALITY IMPROVEMENT PLAN/PROCESS?

Quality must be monitored and continually improved in all aspects of an organization, including the structure, process and outcome of the organization's activities. *Structure,* in the context of HCH projects, would include the organizational arrangements discussed in previous chapters (sponsoring organizations, contracts, etc.), as well as resources (appropriate personnel, equipment, supplies and facilities). *Process* refers to the actual activities of both providers of services and those that support and administer those services. This chapter will focus on the structure and process aspects of quality improvement. *Outcomes,* which are the actual results of the service activities, will be discussed in the following chapter in relation to evaluation.

Many HCH staff members will often (correctly) claim that they are always improving quality by finding better ways to do their work. So what more is needed? It is true that in most conscientious organizations, there is a natural tendency to "make things work better," and an inherent problem-solving that is part of the evolution of any program. The emphasis on quality improvement as a distinct activity is to validate that process of problem-solving by clarifying roles, updating methods used for identifying problems and resolving them, and documenting both the process and results. In very simple terms, it is a way of assuring that the problems identified actually do get resolved, and that the solution is the best possible one.

Continually monitoring the quality of an organization's structure and processes, with ongoing commitment to improving that quality, could be viewed as a fairly obvious goal for its own sake – to improve the care provided to clients who are homeless and their satisfaction with that care. However, HCH projects have other reasons for monitoring and improving quality:

- It can help reduce costs and document value of services.
- It can help improve working conditions for staff by decreasing frustration and burnout, improving morale, and building stronger teams.
- It can help HCH projects assert their capacity to "compete" with other health care providers.
- It is required by most funders, especially public sources.
- It is required for HCH projects involved in managed care contracting.
- It is required to receive accreditation.

Especially considering that quality improvement is an activity that may be occurring in an ad-hoc fashion on a regular basis, having a written plan for how quality will be monitored and improved is necessary to:

- Clarify who is responsible for initiating and guiding the process and who participates in different stages of the process, avoiding both duplication of work and assumptions that someone else is taking care of it when they're not.
- Delineate how problem areas will be identified and how they are prioritized for resolution (when there are too many problem areas to address all at once).
- Describe how data will be gathered to better understand the nature of the problem and to give clues to possible improvement mechanisms.
- Document both the process of improvement through problem-solving (so that it can be replicated in appropriate circumstances), the implementation of the improvement plan and the results of that implementation.

WHAT IS THE DIFFERENCE BETWEEN QUALITY IMPROVEMENT (QI) AND QUALITY ASSURANCE (QA)?

The practice of quality assurance has been a part of health care delivery for some time. Although most previous QA processes were probably broader in their intent, the impression of many in the health care field has been that QA primarily focused on "catching" medical providers who

were providing substandard care or insufficient documentation of that care. The process was often experienced as being punitive in nature, rather than helpful.

The move toward an emphasis on quality improvement, rather than quality assurance, was accompanied by a change in attitude toward the source of the problems and the process for resolving them. The primary characteristics of QI have been described as:[1]

- a focus on processes, rather than people
- defining quality as meeting the needs of the customer
- improving quality to reduce costs
- building quality into the process as a continuous activity
- using a scientific approach to problem solving
- approaching quality as a management strategy

In other words, the QI approach views the source of the problem as located within the process or system being utilized, not the person performing the activity. This removes the punitive nature of the approach. The quality is improved by improving the system or process, not by improving the person.

In addition, the newer generation of approaches to improving quality maintain that the focus should be on the "customer" and that there are many more customers than just those who receive goods or services. In the HCH context, the client is a primary "customer," but funders are also "customers" as purchasers of a service from HCH. The community is a "customer" in that it is being served by the project. Other service providers to people who are homeless are "customers" in that there is an exchange of services and information with HCH. And staff members are themselves "customers" of each other. Although the term "customer" rings of buying and selling, what is really involved here are human interactions and exchanges of services and information. Everyone gives and everyone receives in the HCH world.

Another aspect of QI particularly applicable to the HCH environment is the all-encompassing nature of the approach; all clinical components, as

well as administrative systems are arenas for improvement. The implication is that all systems within an organization are linked, and all have an impact on quality. The goal is not just to meet standards for medical care and stop there, but rather to consider how to continually improve quality in all care provision and in the administrative systems that support that provision of care.

HOW CAN HCH PROJECTS MONITOR AND IMPROVE QUALITY?

There are numerous methodologies for monitoring and improving quality, and no one method that works best for every organization. Like other processes in HCH projects, quality improvement is one where the organization may have to explore different approaches to find what works best. What is most important is that the methodology chosen is understood and supported by staff, so that it will be used.

The following steps are something of a hybrid from different models of quality improvement. They are offered as a basic jumping-off point for developing your own plan.

1. Determine roles and responsibilities – Who will be involved in the QI process?

A QI process can be configured in many ways. You may want to delegate monitoring of the overall process and integrating different pieces to one QI committee with representation from all the different service and administrative areas. Such a committee would also be a good place to get board or advisory committee members with clinical or administrative expertise involved. Or you may decide to have separate committees within each service component, or a combination of both approaches in which sub-committees report to the larger committee. However the process is structured, it should be clear to all staff members how they will interact with committees and have input into the QI process.

2. Convene the committee(s) to set criteria/indicators – How will you know what to improve?

Identifying indicators is basically setting the criteria for knowing when a particular activity needs improvement. Indicators may be based on funding or legal requirements (e.g., compliance with all grant or contract requirements), generally-accepted standards (e.g., clinical standards of care for immunization rates or abnormal lab follow-up), frequently seen problems

(e.g., hypertension, mental illness, alcoholism), or conditions of special concern due to their serious public health impact (e.g., HIV or TB).

3. Review your understanding of the current process followed for the clinical or administrative activity in question – What is the expected result of this activity?

Flow charts or other graphic illustrations may be helpful for clarifying how a current process functions. For example, in a clinical intervention being examined for improvement, how does the client enter into care, who sees them first and what does that person do? Where do they go from there? Who makes decisions about their care and how is it documented, etc.? Focusing on your current understanding of the process will help convey the message that the process is what is in question, not the staff involved (although that could be a side-effect of the discussion, it is not the focal point and therefore may lessen defensiveness or resistance to change).

4. Decide how to track or quantify the issue in question – How will you know when it's improved?

Although some problems are hard to quantify, it is helpful to have a measure with which the improvement can then be compared. A common example is the issue of the amount of time clients spend waiting to see a provider. Before implementing any changes or improvements, you might pick a period of time, such as one week, to actually track how long each client spends waiting. You will need to decide who will do the tracking, how they will do it and who will compile the results. This is your baseline data.

Examples of a few data collection techniques and possible indicators that may be used for tracking include:

- client satisfaction surveys (e.g., to determine if access is improved by changes in scheduling, location, etc.)

- chart audits (e.g., to monitor specific clinical conditions, how they are treated and documented)

- time studies (e.g., to track how long clients wait to be seen in walk-in clinics, or wait to be scheduled for appointments)

- database statistics (e.g., to monitor increase in numbers of children given well-child exams, or numbers of veterans seen or another target population)

- referral tracking (e.g., to monitor number of referrals from a certain shelter, or numbers of referrals to emergency departments, or effectiveness of in-house referrals from one HCH service to another)

- administrative audits (e.g., to check compliance with funding regulations, licensing requirements, provider credentialing, etc.)

5. Review the baseline data and current process – What changes would improve the process to better achieve the desired result?

Those who are closest to the problem and involved in the process in question should meet to review the data so that they can articulate the actual problem and identify the key points in the process that need improvement. They can then begin to develop a specific plan for improvement, including what needs to be changed and who should do it.

6. Implement the plan for improvement and track data to compare with baseline – Did it work?

Choose a reasonable period of time to track progress toward improvement. Compare the new data with the baseline and with the desired results. If it works, maintain the changes and check again a few months or a year later to make sure it's still working. If it doesn't meet your expectations, go back to the previous step and consider other changes. Track data and compare again.

7. Document every step of the process and the results – What did you do and what happened?

From the beginning when you decide what steps you are going to follow, devise a written plan that at least covers the issues and questions listed above. Your plan may look different, but what's important is that you document how you plan to identify areas for improvement on a regular basis, how you will track data, how you determine improvements to be made, and who is involved or responsible for each step. Then as each problem area is chosen for improvement, there should be documentation for why it was chosen, what needs to be changed, what was changed and what the result was.

WHAT ARE THE SPECIAL ISSUES REGARDING QUALITY IMPROVEMENT IN HCH PROJECTS?

One of the first issues regarding quality improvement in HCH projects is the lack of control HCH staff have over many of the factors that affect quality. For example, care that is provided in shelters or under bridges cannot be provided in the same way as care provided in a well-equipped clinic setting. Inadequate material resources or staff to address the health care needs of clients who are homeless as completely as staff would like is a common complaint heard in HCH projects.

Other issues concerning quality relate to the extensive use of volunteers or contracts for provision of services. The work of volunteers may be harder to monitor and changes more difficult to make, due to their lack of daily involvement in the project, as well as the perceived inability of supervisory staff to enforce policies and procedures. Projects might want to consider developing written "contracts" or job descriptions for their volunteers to sign, indicating their agreement with project expectations related to quality improvement.

Monitoring quality of contract providers is also difficult. Special attention must be paid to including the expectations of quality improvement in the written contract.

Another obstacle many HCH projects face is the inadequacy of systems to collect data for monitoring. Both manual and computerized information systems are crucial for monitoring and maintaining quality.

We believe that the expectations for quality should be no different for the care of homeless persons from that of others. This does not necessarily mean that the process of care should be identical. Indeed, to treat homeless clients the same as others may indicate poor-quality care, if, for example, an antihypertensive medication that must be taken four times a day is prescribed when one that can be taken once daily would be equally safe and effective. To ignore the realities of homelessness is as potentially serious a cause of poor-quality care as to fail to offer the same opportunities for treatment to clients simply because they are homeless and therefore assumed unable to understand instructions or adhere to a regimen.[2]

Rita Altamore, Maureen Mitchell
and Carol Martinez Weber
"Assuring Good-Quality Care"
Under the Safety Net: The Health and Social Welfare of the Homeless in the U.S.

Because of these many obstacles, a question that is often raised is "Given the circumstances within which HCH projects deliver health care, should they be held to different standards than other health care providers?" Although the challenges are many, the commitment to quality is essential, as expressed by Altamore, Mitchell and Weber (see sidebar).

In addition to the challenges HCH projects face in monitoring and improving quality, various aspects of the HCH approach may actually ease the introduction of QI activities into daily work. The strong commitment of HCH staff to making a difference in the lives of people who are homeless translates into a commitment to finding what works best for their clients. HCH staff are creative in their problem-solving approaches, devising innovative solutions to seemingly overwhelming problems. HCH projects tend to operate democratically, involving all levels of staff in the problem-solving process. These attributes are conducive to effective implementation of the quality improvement process. Sometimes the only piece missing is the documentation of the process and the results.

WHO SHOULD BE INVOLVED AND RESPONSIBLE FOR THE QUALITY IMPROVEMENT PROCESS?

The general answer to the question of who should be involved is "all HCH staff." The specific answer to the question is "leaders with the responsibility to assure that the process is in place and functioning effectively." While all staff may be involved at some point, HCH leadership have the responsibility for guiding the process. This includes the executive director, program coordinator, or administrator in charge of operations. It includes the clinical director and managers or team leaders for each of the service components. It includes advisory committee members or board members with necessary expertise in clinical or administrative areas.

HCH projects sponsored by larger organizations may be integrated into that organization's quality improvement system. If that is so, the HCH staff will want to understand the process sufficiently to assure that the issues and concerns of particular significance to services for homeless people are appropriately and effectively addressed. If the larger organization's plan does not adequately address the HCH issues, it may be necessary to set up a parallel quality improvement system specifically for the HCH project.

When contracts are used to provide services, it is essential that the contract specify how quality will be monitored and improved. It should be

clear from the contract whether the HCH project will guide that process for the contractor, or whether the contractor will be responsible for conducting QI activities independently and reporting on the process and results to the HCH project.

Whatever arrangements are made for quality improvement, the key is to write it all down. Document who, what, how, why and when for all aspects of your quality improvement plan.

NOTES

1 S.L. Andrews. QA vs. QI: The Changing Role of Quality in Health Care. *JQA*, January-February 1991, p. 14.

2 R. Altamore, M. Mitchell and C.M. Weber. Assuring Good-Quality Care. In P.W. Brickner (Ed.), *Under the Safety Net: The Health and Social Welfare of the Homeless in the U.S.* New York: W.W. Norton, 1990, p. 382.

H. Program Evaluation

The quality of the services you provide may be excellent, but how do you know they are the right services? Are the people receiving the services those you wanted to reach? Are the clients satisfied with the services received? Does the program work equally well with all people who are homeless? Would another less-costly service intervention produce the same or better results? Were the stated goals achieved for a particular part of the program? What difference did the program make in the lives of the people served? What were the unanticipated results of the program?

These and other similar questions are best answered through some type of program evaluation. Although there is an overlapping relationship between quality improvement and evaluation, the time frame, the process and the people involved may all be different. As discussed in the previous chapter, quality improvement is an ongoing activity of program implementation and management, carried out by the staff who are doing the work in order to identify problem areas and solutions for improvement. On the other hand, evaluation is often performed by people outside the organization, or at least not directly involved in implementation of the program, occurring within a predetermined time period for the purpose of answering specific questions for funders or for decision-making within your own organization.

With so many questions to be answered for so many purposes and with so many ways to go about it, it is no wonder that the field of program evaluation sometimes seems confusing and overwhelming. There are many good reasons to do evaluation, but also several obstacles stand in the way of doing it well in HCH projects.

This chapter provides a brief overview of the types and purposes of program evaluation that have relevance for HCH projects, with special emphasis on one of the most problematic types – evaluation of outcomes. The following questions will be used to guide this discussion:

- Why evaluate HCH programs?
- What are the different kinds of program evaluation?
- What are the obstacles to evaluation in HCH projects?

- What work is currently in process related to HCH outcomes evaluation?
- Who should do the evaluating?
- What external oversight/evaluation should HCH projects expect?

WHY EVALUATE HCH PROGRAMS?

HCH staff frequently rely on intuition to tell them if a particular intervention or approach is working. A lot of subjective and objective data feed that intuition, including feedback from clients or observation of change in clients' status. Although intuition and observation are valuable tools, there are clearly some disadvantages to evaluating the success of your program in this way. First, you may not know for sure if the same intervention would result in the same outcome for another kind of homeless person. For example, do the same approaches work for single men that work for families? How do you know if it's really your effort that is making the difference? Is there a less expensive or more effective way to provide the service? Finally, you will have a very hard time trying to make

Well-conceived, well-designed, and thoughtfully analyzed evaluations can provide valuable insights into how programs are operating, the extent to which they are serving their intended beneficiaries, their strengths and weaknesses, their cost-effectiveness, and potentially productive directions for the future. By providing relevant information for decision making, evaluation can help to set priorities, guide the allocation of resources, facilitate the modification and refinement of program structures and activities, and signal the need for redeployment of personnel and resources. And it can serve such functions for policymakers, administrators, and implementers at all levels, from the individual program provider, to program managers at various levels, through the highest-level policymakers, helping them to assess and improve the quality of their programs and policies.[1]

Joan L. Herman, Lynn Lyons Morris and Carol Taylor Fitz-Gibbon
The Evaluator's Handbook

your case for continuing funding for your program based on staff testimony that "it feels like it's working."

Although it can be time-consuming and sometimes costly, careful evaluation of different aspects of your programs can provide information that will be useful to staff in refining their interventions, and will answer many of the questions necessary for HCH planning and program development. Results of evaluations are useful for making the case to funders and policymakers about the value of your work. In addition, as many HCH projects are thrust into the competitive health care marketplace, it becomes even more critical to demonstrate the efficiency, effectiveness and impact of HCH services in comparison to other health care providers that serve people who are homeless, including managed care organizations.

Some of the specific reasons for doing program evaluation include:[2]

- To demonstrate improvements in clients' health status, level of functioning, and quality of life.
- To know what works and what doesn't, and to be able to make appropriate interventions more effective.
- To assist with and assess internal quality improvement efforts.
- To assess cost-effectiveness and efficiency.
- To assist in resource allocation.
- To identify successful strategies that can be shared with others.
- To build support for specific interventions that are effective with homeless people.
- To increase client and staff satisfaction.
- To demonstrate positive impact on public health and social issues.

WHAT ARE THE DIFFERENT KINDS OF PROGRAM EVALUATION?

As with many academic fields that bridge theory and practice, the field of evaluation is full of differing definitions, preferred methodologies and conflicting vocabulary. Evaluators, academics and program staff often

Evaluation incorporates a broad range of activities with different objectives, procedures, and expectations. Because of the multiplicity of these activities, there is often a tendency to make evaluation more complex and mysterious than it need be. Although evaluation uses various methodological strategies and procedures borrowed from the social and management sciences, its basic thrust is central to the managerial process and its application is often intuitive in nature. For our purposes, we shall define evaluation as the collection and analysis of information by various methodological strategies to determine the relevance, progress, efficiency, effectiveness, and impact of program activities." [3]

James E. Veney and Arnold D. Kaluzny
Evaluation and Decision Making for Health Services Programs

speak different languages. Frequently, the concepts are the same, but the semantics differ, resulting in confusion caused by the use of incomplete frameworks and half-understood vocabulary. To bring some order to the jumbled understanding of evaluation that exists in many organizations, the following discussion offers a framework that categorizes evaluation by function, based on the writing Veney and Kaluzny[4] with some modifications.

Evaluation Questions by Function

Relevance refers to whether the program is needed. Questions that evaluate program relevance ask:

- What problem does the program address?
- Does that problem need attention?
- Is the program appropriate to address that problem?
- Does the mission make sense?
- Do the goals relate to the mission?

Progress refers to the tracking of program activities and is an integral part of the management process. Questions that evaluate program progress ask:

- Is the program being implemented according to design?

- Are appropriate personnel, equipment, supplies and financial resources available in the right quantity, in the right place and at the right time to meet program needs?

- Are services being provided as expected, both in terms of quality and quantity?

- Does the implementation plan make sense and has it been implemented as intended?

Efficiency involves comparing the costs of the program to the benefits. Questions that evaluate program efficiency ask:

- Are program benefits more or less expensive per unit of outcome than benefits gained from other similar programs?

- Is there a less costly way to obtain the same benefit?

- Does the budget make sense?

Effectiveness refers to whether program results meet the predetermined objectives. Emphasis is on program outputs or the immediate results of program efforts. Evaluations of effectiveness are aimed at improving program formulation and thus have a relatively short-term perspective. Questions that evaluate programs effectiveness ask:

- Did the program meet its stated objectives?

- Were targets met for short-term outputs?

- Are program providers and program beneficiaries satisfied with program activities?

Impact refers to long-term implications of the program. The issue of impact is concerned with changes observed over time that the program is ultimately designed to influence. While evaluation of effectiveness focuses on program outputs, impact evaluation considers whether these outputs have had the desired effects on the problems that the program is designed to solve. It is possible that a program may prove both efficient

and effective in producing short-run outputs and yet have minimal long-term impact. Questions that evaluate program impact ask:

- Did the program accomplish its goals for long-term outcomes?
- Did the particular program being evaluated cause the observed effect?
- Could the observed effects occur in the absence of the program or in the presence of some alternative program?

Formative and Summative Evaluation

Other terms that are helpful in discussion of evaluation are **formative** and **summative. Formative evaluation** is evaluation that occurs while the program is in process, with results used to make improvements to the program. It is actually quite similar to the quality improvement process in that it is designed to identify how programs can be improved, resulting in changes made in staffing, services offered, organization of the program or program materials. While quality improvement is a continuous process involving staff in identifying and solving problems, formative evaluations might tend to be more time-limited, examining a particular aspect of the program in depth, and are more likely to be carried out by outside evaluators. Formative evaluation is especially useful for new programs that are just starting up, to do a reality check on what elements may need to be fine-tuned.

Summative evaluation occurs when a program is complete, with results used to determine whether the program should be replicated, continued in a different form, or discontinued. It is especially useful in time-limited programs, for example, an eight-week smoking cessation program, to examine whether the specific goals and objectives of the program were met.

Outcome Evaluation

Outcome studies look specifically at whether the program is meeting its stated long- and short-term goals. In recent years, more emphasis has been placed on demonstrating successful outcomes for health and social service programs – in other words, evaluating the impact of the program. This type of evaluation begins to overlap with what is considered "evaluation research." Although there is not a clear dividing line between outcome evaluation and evaluation research, some of the differences are that evaluation of program outcomes often incorporates the evaluator's judg-

ment and is used primarily for making decisions regarding a specific organization (by program staff, policy-makers or funders).

Evaluation research, in contrast, is dependent on the scientific method of proving cause and effect. It is more rigorous and is used more to contribute to knowledge in a particular field, often through publication of results. Although evaluation research regarding impact or outcomes of a particular program can certainly contribute to decisions within an organization or to policy-makers or funders deciding whether or not to support additional such programs, it is not as "user-friendly" or immediately accessible as other evaluation approaches due to the many obstacles discussed below.

Evaluation Instruments

The tools or "instruments" used for measurement in evaluations will depend on the nature of the evaluation question. For example, if the question concerns attitude – such as client satisfaction with the program – a satisfaction survey, individual interview or focus groups might be used. If the question concerns a cognitive goal – such as increase in knowledge or skills – tools such as pre- and post-tests may be used. If the evaluation concerns clients' performance improvement or behavior change – such as maintenance of housing or employment, or recovery from substance abuse – an interview instrument might be devised to capture that information as part of ongoing program implementation.

Standardized instruments may be useful when trying to compare results to other groups. For example, the SF-36 offers a self-report on health status, and the Addiction Severity Index (ASI) is used in many substance abuse programs, allowing for comparison among different programs or geographic locations. However, many standardized instruments have not yet been proven valid with the population of people who are homeless, and HCH projects will frequently have to design their own instruments specific to their evaluation question(s) and population characteristics.

As more HCH projects engage in evaluation work, it is hoped that instruments will be developed that can be replicated in other HCH settings.

WHAT ARE THE OBSTACLES TO EVALUATION IN HCH PROJECTS?

In terms of general program evaluation in HCH projects, the primary obstacles are the likely culprits – lack of expertise, time and money. Expertise is needed to be able to sort out the specific questions that need

answers and to determine what kind of evaluation would result in those answers. Expertise is also needed to then design the evaluation and to interpret the results. Time is needed from staff, whether it is staff actually doing the evaluation or staff providing information to an outside evaluator. Money is needed to either pay an outside evaluator and/or to cover the costs of the staff working on the evaluation.

Some of the related logistical problems identified by the Working Group on Homeless Health Care Outcomes apply to any kind of evaluation in an HCH setting:[5]

Personnel. Health care clinicians, particularly those who work with people who are homeless, are torn between the conflicting demands of caring for patients and filling out the forms necessary to document their work. Short on time and money, most will choose patient care because the rewards of treating patients' health problems are more tangible and immediate than those of data collection.

Administrative/economic. Most programs that work with people who are homeless have little in the way of human or financial resources to commit to data collection. They have restrictions on the amount of funds they spend for administrative purposes, and there may be limited support for data collection activities among top-level personnel.

Data/MIS. The ability to collect good data on program outcomes, and to use this information to compare one program to another, is seriously hampered by a lack of (1) common definitions (e.g., encounter, engagement), (2) common data systems, (3) "user-friendly" software, and (4) up-to-date hardware.

Much of the information that is available, particularly in medical records, may be incomplete or inaccurate, and the use of such material raises the question of client confidentiality. Where data depend on client response, there may be some concern about the reliability of the information; this is especially true, for example, of self-reported substance use.

Finally, providers worry about the potential misuse of such data, for example, to deny care to individuals who are shown to be high service users.

Population characteristics. As previously discussed, the fact that people who are homeless make up such a heterogeneous, mobile group with mul-

tiple and complex needs makes any attempt to categorize their progress problematic. In addition, although health care consumers are the most important factor in the equation, their views on program outcomes are largely unknown.

Even more obstacles appear when the purpose of evaluation is to determine impact of the program by measuring success of outcomes. Unfortunately, the need for scientific rigor in order to "prove" cause and effect is antithetical to the true nature of how human beings live and change. Human beings do not usually behave like chemistry experiments, where the same input always produces the same output. Scientific-based research may assume that social programs are "discrete and easily prespecified in terms of process and outcomes [while in fact] social and other programs often are complex, amorphous mobilizations of human activities and resources that vary significantly from one locale to another, embedded in and influenced by complex political and social networks. Rare is the program… which exists in hermetically sealed isolation, perfectly appropriate for scientific measurement and duplication."[6]

One of the first hurdles to measuring outcomes is simply being able to define success. A common source of frustration for those involved in providing health care to homeless people is when successful outcome is defined as ending homelessness in the lives of their clients. Although this is clearly the desirable long-term goal, HCH projects do not have control over the availability of all the necessary resources for ending homelessness, such as affordable housing or livable income or other needed health or social services. The HCH program intervention cannot control for all of the other intervening variables in the person's life that could affect the outcome, for example, personal support systems, low self-esteem or self-efficacy, etc.

Defining success as decreased utilization or costs is also problematic for HCH projects, since increased access to services may actually result in higher utilization and greater costs (for more lab tests, medications, specialty referrals and hospitalizations), as problems are screened for and identified that previously went untreated.

The multiplicity of problems that face people who are homeless is another major obstacle to measuring successful outcome. Progress made in one area, such as employment, housing or health status, may be sabotaged by slips or setbacks in another, such as substance abuse or mental illness.

Isolating specific outcomes to measure them diminishes the ability to capture the whole picture of what is happening with certain clients. For example, a project may choose to measure immunization rates of children and determine "success" in increasing those rates, while at the same time the living situation of those same families may be worsening.

Other specific obstacles to research-based evaluation of outcomes include:

Difficulties in getting control or comparison groups – Research methods used to prove cause and effect require the use of control groups (equivalent groups that receive no intervention) or comparison groups (equivalent groups receiving a different intervention). But systematically denying an intervention to a group of people who are homeless has clear ethical implications. Using comparison groups that receive different interventions requires randomization of participants into the groups to avoid bias. Unfortunately, it also prevents the possibility of matching clients with the intervention that they would prefer or that might work better for them. For example, in substance abuse programs different modalities work for different kinds of people, and the clients' ability to choose the modality they are willing to commit to has an effect on the probability of success.

Lack of baseline data – Research that focuses on improving the status of a particular population of people requires a comparison between baseline and post-intervention data. First of all, there is little data describing health status indicators of homeless people before HCH projects existed. In addition, because the homeless population is constantly changing, any attempt to use pre- and post-program measurements of health or other status is confounded by the fact that the population changes during the course of many program interventions. For example, research to show a decrease in prevalence of a particular medical condition, such as hypertension or HIV, in the homeless population would end up measuring one population before the intervention and another population afterwards.

Finding validated instruments – Programs often want or need to compare their data with other similar programs, which calls for use of a standardized evaluation instrument. Unfortunately, few instruments have been validated for use with homeless people, especially those who are severely mentally ill or multiply diagnosed. It is also difficult to find instruments that are short enough to not create a burden for overworked service providers and that do not intimidate or irritate the respondents.

Difficulty tracking – To measure long-term outcome it is necessary to track the program participants over time. This is extremely difficult with people who are homeless and who frequently have to move around, including to other cities or regions of the country, to acquire the resources they need. Even those who become housed and employed may be hard to find, or may not necessarily want to be reminded of their old lives.

Evaluating new programs – A common approach to overcoming some of these obstacles is to implement new programs as research/demonstration projects. In this way baseline data can be acquired before the program starts, the population participants can be controlled and research protocols can be rigorously applied from the beginning. However, the funding provided for these pilot projects is usually only one to three years, hardly enough time for a program to mature to the point where it is ready to be evaluated. Most programs are not successful immediately. They need time to do the formative evaluation and quality improvement activities to fine-tune the program elements. What gets evaluated in these short-term pilot projects is the start-up phase of the program, which will undoubtedly result in mixed outcomes.

WHAT WORK IS CURRENTLY IN PROGRESS RELATED TO HCH OUTCOMES EVALUATION?

Acknowledging both the need for information on HCH outcomes and the difficulties involved in evaluating outcomes in an HCH setting, the Bureau of Primary Health Care/Division of Special Populations convened a work group in April 1996 to begin to develop a set of outcome measures specific to health care programs that serve people who are homeless.

The summary that follows reflects initial discussions of the outcomes work group as documented in the "Meeting Proceedings from the Working Group on Homeless Health Outcomes."[7] (Available from the National Clearinghouse for Primary Care Information – see Appendix B for contact information.) The group was especially interested in identifying what outcomes were appropriate to measure in HCH projects and what specific performance indicators could be used for measurement.

Because of the many obstacles mentioned above, the Working Group recommended that HCH projects measure only those outcomes in which HCH services have a clear influence. Many of the outcomes suggested for evaluation (listed below) could actually be considered "intermediate outcomes." The ultimate outcome in any client's life is too far removed from

the HCH intervention, so the more immediate or intermediate effect is all that is truly measurable in most circumstances. The group also noted the difficulty doing research that involves control or comparison groups of people who are homeless. Should individuals be compared to all HCH clients, to all homeless people, or to all low-income, housed people at-risk for homelessness? In the end, it may be possible only to show how people who are homeless have improved relative to their own progress over time. This is reflected in many of the outcome areas and performance indicators listed below.

The group also noted that, given the HCH goal of increasing access to services for people who are homeless, system-level outcomes are just as valuable as client-level outcomes to determine the effectiveness of HCH work. The 14 system- and client-level outcomes that follow are those recommended by the Working Group. (Further description of each of the outcome areas is given in the document mentioned above.[8]) Examples of performance indicators that could be used are included for some of the outcomes areas to illustrate the level of specificity needed for measurement.

Systems-Level Outcomes

"The seven systems-level outcomes described below are interrelated. HCH (projects) provide *access* for homeless people to a *range of comprehensive services*. They offer *continuity of care* within an *integrated system* to help *contain costs* and *prevent* new or recurring problems. Ideally, *client involvement* is evident in every step of this process."

- Access
- Availability of comprehensive services
- Continuity of care
- Systems integration
- Cost-effectiveness
- Prevention
- Client involvement

Some examples of performance indicators to evaluate systems integration would be: the number and type of formal interagency agreements; the number of joint activities between and among providers; the degree to which application procedures have been streamlined and exclusionary program rules have been waived; or the extent to which the system offers "no wrong door" access. Examples of performance indicators for cost effectiveness might include: reduction in emergency room use; reduction in inpatient visits; or reduction in specialty referrals.

Client-Level Outcomes

"Each of the following seven client-level outcomes, though closely related, can be measured independently of one another. For example, improvement in a client's quality of life may, or may not, depend on his or her involvement in treatment. Similarly, improvement in an individual's health status may have little, if any, impact on his or her social functioning. All of these outcomes taken together, however, are important indices of the extent to which an HCH project has helped clients recover their physical and mental functioning and improve their quality of life."

- Involvement in treatment
- Improved health status
- Improved level of functioning
- Disease self-management
- Improved quality of life
- Client choice
- Client satisfaction

Performance indicators that could be used to demonstrate improved health status for a disease such as TB might include: decrease in the conversion rate; increase in treatment completion for active cases; or increase in compliance with prophylactic measures for inactive cases.

To demonstrate improved level of functioning for people with mental illness, some possible performance indicators are: decrease in psychiatric symptoms; improvement in housing and community tenure; increase in

employment stability; improved social networks; decreased substance abuse; or decreased involvement with the criminal justice system. Improved level of functioning for people with addictions might include performance indicators such as: improvement or stabilization in physical symptoms; decrease in trauma; decrease in depression; decrease in anxiety; increase in self-esteem; increase in measures of self-satisfaction; increase in housing stability; resolution of family issues; reconnection with social networks; or increase in job/income stability.

There are several considerations to keep in mind when deciding which performance indicators to use. First, it is important to look at particular subgroups of people who are homeless, (for example, attached vs. unattached youth; selected age, gender or ethnic groups; urban vs. rural populations, etc.) to identify outcomes that may be successful for one group, but not another.

Second, the definition of what constitutes success will vary. "For clients with serious mental illnesses or substance abuse disorders, recovery may be incremental and long-term, with numerous flare-ups and relapses along the way. People with chronic physical and mental conditions may never fully recover their former health; for them, success will be measured by how well they manage their symptoms and function independently on a daily basis."[9]

Third, don't expect to find sufficient data on performance indicators in information that is gathered routinely, unless specific questions have been included in that routine for the purpose of measuring outcomes. For example, the first place many people might look to see if they can retrospectively evaluate a program intervention is the client chart or medical record. Cousineau and Shostak[10] describe several limitations to using chart reviews for determining clinical outcomes in HCH projects. They found that it was very difficult to measure health status outcomes through chart reviews, since the data usually reflected only intermediate outcomes or process measures, such as what treatment was prescribed, but not if the client completed the course of treatment or the results of the treatment. Also, the wide scope of services offered by HCH projects presented difficulties when client records were not centralized, and measurement of clinical outcomes across the different service components was not standardized.

Fourth, don't discount the value of direct input from clients. Especially given the limitations of evaluating outcomes based on what is documented in the client record by the provider, indications of level of satis-

faction and subjective report of improvement in health status or access to services may provide relevant information that can be used in conjunction with other data. Client interviews, satisfaction surveys and focus groups are just a few of the methods that can be used to obtain HCH clients' contribution to the evaluation effort.

Please note that the preceding discussion has served as a foundation for 20 BPHC-funded HCH outcome evaluation projects around the country, each looking at a different aspect of HCH services and testing approaches to doing outcomes evaluation. Results of those outcome studies, including potential strategies and evaluation instruments appropriate for HCH outcomes evaluation, should be available in 1998.

WHO SHOULD DO THE EVALUATING?

One of the differences between quality improvement and evaluation is that quality is improved by involving those who are closest to the work in question, and evaluation is usually performed by people outside the work being evaluated, either external evaluators or internal managerial staff. Deciding whether to hire externally or use internal resources is mostly dependent on the type of evaluation being undertaken.

Veney and Kaluzny[11] note that when the evaluation involves examining relevance and progress of a program, managerial staff are more appropriately involved, with some assistance from outsiders who have evaluation expertise. Evaluation of efficiency and effectiveness requires a fairly even collaboration between managerial staff and evaluators, while evaluation of outcomes is more appropriately performed by external evaluators, with assistance from managerial staff.

The reason for this "manager-evaluator collaboration" continuum arises from the need for different levels of expertise and of objectivity. Evaluation of relevance and progress are more focused on the internal workings of a program and require the manager's clear understanding of those, and a lesser degree of objectivity. On the other end, evaluation of outcome calls for more sophisticated methodological approaches and technique, as well as more objectivity to increase the validity and credibility of the final evaluation report.

WHAT EXTERNAL OVERSIGHT/EVALUATION SHOULD HCH PROJECTS EXPECT?

A special form of external evaluation is performed by funders of HCH projects in the form of oversight. Like any nonprofit organization, HCH projects are expected to demonstrate accountability in their programmatic and financial operations. Because projects frequently have multiple funders, the number of site visits, inspections and reporting requirements can be somewhat overwhelming, albeit necessary.

Federally-funded projects report their activities annually through the Uniform Data System (UDS), as well as submitting progress reports and plans with annual applications for funding. In addition, these projects are reviewed by the Bureau of Primary Health Care through a site-visit process called the Primary Care Effectiveness Review (PCER), which can involve a day or more, depending on the size of the project. Other federal programs which fund HCH projects, including HUD and SAMHSA, have their own review processes, as do public funders at the state and local level, frequently involving both written reports and site visits. Private foundations often make a site visit before granting funds, and usually expect written progress reports on a regular basis.

Those projects that decide to seek accreditation, such as from the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) or other accrediting organizations, or are sponsored by a larger accredited organization, can expect a major review process. Involvement in membership organizations may also entail documentation of meeting a certain level of standards.

And, of course, all HCH projects should be involved in an annual audit, whether as a free-standing organization or as part of their sponsoring organization.

NOTES

1 J.L. Herman, L.L. Morris and C.T Fitz-Gibbon. *Evaluator's Handbook*. Newbury Park, California: 1990, p. 11.

2 DPSP/BPHC. *The Working Group on Homeless Health Outcomes: Meeting Proceedings*. Washington, DC: BPHC, 1996, p. i.

3 J.E. Veney and A.D. Kaluzny. *Evaluation and Decision Making for Health Services Programs*. Englewood Cliffs, New Jersey: Prentice-Hall, 1984, p. 2.

4 J.E. Veney and A.D. Kaluzny. 1984, pp. 2-3.

5 DPSP/BPHC. 1996, p. 19.

6 J.L. Herman, et. al. 1990, p. 9.

7 DPSP/BPHC. *The Working Group on Homeless Health Outcomes: Meeting Proceedings*. Washington, DC: BPHC, 1996.

8 DPSP/BPHC. 1996, pp. 6-10.

9 DPSP/BPHC. 1996, p. 17.

10 M. Cousineau and S. Shostak. *Using Chart Reviews to Determine Clinical Outcomes in Health Care for the Homeless Outcomes Programs*. Los Angeles: UCLA Center for Health Policy Research, 1996.

11 J.E. Veney and A.D. Kaluzny. 1984, pp. 7-8.