Evaluation of Health Promotion Programs for Older Adults: An Introduction

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This article provides an overview of the evaluation of evidence-based health promotion programs for older adults and introduces an upcoming series of related articles in the Journal of Applied Gerontology. *With an aging population, a growing demand for health promotion and chronic disease self-management programs, and limited resources, evaluators must provide leadership to identify positive outcomes for adult older clients, inform program planning, and provide accountability to funders. The article addresses the following topics: the need for assessing the effectiveness of programs; research-based foundations for evaluation, specifically the RE-AIM model; the role of the evaluator; and guiding principles for evaluation and theoretical models that drive measurement. It concludes with the description of a process for conducting program evaluation based on the Center for Disease Control's framework for program evaluation, which actively engages program and community stakeholders in tailoring evaluation to the unique needs, characteristics, and barriers present in a community.*

Keywords: older adults; health promotion; evaluation

Background

As the older population in the United States grows, many older adults will age healthily up to their last years; however, many will not. Life expectancy has increased from 47 years for Americans born in 1900 to 77 years for those born in 2001, and the number of older adults (age 65 years and older) has increased from 3.1 million in 1900 to 35 million in 2000. We can anticipate that by 2030 that number will reach 71 million, or 20% of the population. A major shift in cause of death, from infectious diseases and acute illness to chronic disease and degenerative illness, has accompanied increased life expectancy. Heart disease, cancer, and stroke accounted for 60% of deaths among older Americans in 2000 (Centers for Disease Control and Prevention [CDC] & Merck Institute of Aging & Health, n.d.). Persons with chronic conditions also bear increased risks of functional disability, loss of independence, and reduced quality of life, and society as a whole faces a burden of related increased health care costs and decreased productivity.

We know, however, that many of the risks of chronic disease and its accompanying disability and premature mortality are modifiable, at individual and community levels. The Prevention Research Centers' Healthy Aging Research Network (PRC-HAN), funded by the CDC, stated that healthy aging

> is most easily achieved when physical environments and communities are safe and support the adoption and maintenance of attitudes and behaviors known to promote health and well-being and by the effective use of health services and community programs to prevent or minimize the impact of acute and chronic disease on function. (Healthy Aging Research Network Writing Group, 2006, n.p.)

We, therefore, want to intervene effectively wherever we can to modify risks and improve outcomes and to do so using resources wisely. Accomplishing that goal requires that we implement health promotion interventions with some understanding of the research on which they are based and from which they have been translated and that we evaluate what we do and how we do it.

Researchers (of basic and translation science), program evaluators, and practitioners have unique roles to play in the process of translating intervention research into effective and successful community programs for older adults. Researchers provide the science base from efficacy trials and translation into effective programs. Evaluators provide the link between the original translation research and practice by providing expertise in program evaluation design and methods. Practitioners who serve older adults in the community (e.g., senior center and community center directors, faith community leaders, recreation center personnel, providers of congregate and

home-delivered meals, health care personnel, caregivers, housing managers) contribute knowledge of their specific communities, which helps them adapt the evidence for community programming. Although researchers, evaluators, and practitioners come to the table with different experiences, orientations, and methodologies, it takes collaboration among them to create a vibrant, give-and-take relationship that cycles among research, evaluation, and practice.

This article provides an introduction to a series of articles that *The Journal of Applied Gerontology* will offer throughout the coming year for members of the academic community and others who are interested in the evaluation of health promotion programs for older adults. We begin with an introduction to health promotion and evidence-based health promotion programs and establish the importance of assessing their effectiveness. We then discuss translation research, the bridge between efficacy trials and community program implementation that provides the basis for evaluation, and introduce the RE-AIM framework as an example. Next we define the role of the evaluator working with aging services providers to implement health promotion programs. Focusing on program evaluation, we next provide some guiding principles for program evaluation and describe theoretical frameworks that drive the measurement of health risks and behaviors. Finally, we suggest one process for conducting program evaluation, based on the CDC's guidelines for program evaluation, that actively engages program and community stakeholders to tailor the evaluation to the unique needs, characteristics, and barriers present in a community.

Promoting Health and Well-Being Through Evidence-Based Programs

When we speak of "the adoption and maintenance of attitudes and behaviors *known* to promote health and well-being" for older adults, we are talking about evidence-based health promotion programs tailored to a particular community's needs and context. Health promotion includes not only activities that help individuals gain skills to maintain and improve their health by adopting beneficial health behaviors but also community-level programs and policies to improve environments and encourage healthy, safe lifestyles. This social ecological approach encompasses multiple levels of risk factors and health determinants—individuals, families and social networks, cultural characteristics including social and cultural norms and cultural differences, communities, systems of services, the built and natural environments, laws and political processes—and the interactions and reciprocal influences among them (McLeroy, Bibeau, Steckler, & Glanz, 1988).

Effective programming depends on the best-available population-based evidence. The term *evidence* refers to a body of facts or information that establishes the existence of something as fact—for instance, reports of the health risks or conditions of older adults in a community or findings that demonstrate the positive outcomes of a particular health-related program. Evidence-based health promotion takes interventions that are efficacious in certain controlled settings and applies them as programs that address the needs and contexts of the individuals or groups whom service providers serve (Altpeter, Bryant, Schneider, Whitelaw, & Beattie, 2004). Researchers consider randomized controlled trials the "gold standard" for assessing the efficacy of an intervention; valuable information about effectiveness also may come from nonrandomized observational and quasi-experimental studies as well as rigorously examined best-practice programs. The process of developing evidence-based health promotion programs includes a systematic process of planning, implementation, and evaluation that considers population health issues in the social-ecological context and derives from models or interventions tested through efficacy trials (Altpeter et al., 2004).

Importance of Assessing Effectiveness

Community providers often find it difficult to prove that their health promotion programs are efficient and effective and make tangible, positive differences in the lives of their clients. It is relatively straightforward to report survey results and anecdotes about participant satisfaction and to document impressive enrollment numbers. It also is tempting to fall back on intuition with the approach that "I've been working with my population for years and I can tell what's working." These measures do not, however, get to the heart of the issue—does the program truly benefit the population the providers are trying to serve? Are the providers sure that the program does not cause harm or waste limited resources? If the providers use untested or unproven approaches and evaluation measures, how can they determine the causes of success or lack of it? Did the program planners choose the wrong type of program targeting a population that did not need or could not benefit from the intervention, or did they use the wrong measures to evaluate the program? In addition, more positively, can providers prove the excellence of a program to identify and promote best practices? To be able to conduct useful and valid evaluations to answer these questions, community-based aging services' providers will benefit from an understanding of the frameworks and approaches that underlie the transition from efficacy research to effective programs. Although program evaluators likely may never conduct efficacy research (or translation research,

as described below), the results of that research can help identify the characteristics of programs and settings that a program evaluation should include. Providers need this kind of information, to implement programs based on what has been shown to work (best practices) and to evaluate how their programs work and how they may be sustained in their specific communities so that they can provide quality services to clients while using program resources wisely.

From Intervention to Program: Translation Research

The complementary process of moving beyond controlled trials in idealized settings to larger scale evidence-based health promotion programs in real-world settings occurs through translation research. Translation research focuses on key factors that also provide the basis for evaluation, such as effectiveness (demonstrating the program works under conditions of existing resources and constraints), generalizability (demonstrating that the intervention benefits the majority of people who have the health condition the intervention is designed for), and transferability (demonstrating that the intervention can be successful in diverse settings). Translation research also extends the concept of *intervention quality* from the immediate focus of individual-level health outcomes to the multiple dimensions and contexts of intervention that include providers, resources, systems of care, and environmental conditions (Narayan et al., 2000).

The RE-AIM model for translation research provides one framework for the translation and dissemination of evidence-based interventions into community programs, with attention to multiple levels of evaluation and sustainability of effective programs. The Workgroup to Evaluate and Enhance the Reach and Dissemination of Health Promotion Interventions, funded by the Robert Wood Johnson Foundation, developed the RE-AIM framework to "implement and evaluate an explanatory framework to measure intervention impact" (re-aim.org, n.d., n.p.). They originally created the framework to provide a comprehensive guide to the uniform reporting of translation research studies. The application of the RE-AIM framework since then has extended to understanding the implementation of interventions in community settings with diverse populations in which methods for addressing needs must be adjusted to be salient for the target population (Glasgow, McKay, Piette, & Reynolds, 2001; Klesges, Estabrooks, Glasgow, & Dzewaltowski, 2005).

The RE-AIM framework focuses on dimensions of translation that have previously received little attention—issues of robustness, translatability, and public health impact. RE-AIM identifies the following five critical components of programs:

1. Reach: the number of individuals who participate in a given program and the degree to which they have characteristics that reflect those of the target population (representativeness).
2. Efficacy or effectiveness: the degree to which an intervention has an impact on important outcomes at individual, organizational, and population levels.
3. Adoption: the number and representativeness of settings and staff willing to provide the program. No matter how effective a program may be for individual participants, no community will profit from it if the target population does not participate or the essential providers will not or cannot deliver it.
4. Implementation, at two levels

   - At the program level, *implementation* refers to the provider's fidelity to the intervention's protocol and core or essential components, such as number of sessions, session content, instructional and group methods. By *fidelity* we mean the faithful and accurate reproduction of the intervention's core elements in the design and implementation of the translated program.
   - At the individual level, *implementation* refers to the older adult's actual use of the intervention strategies and activities.

5. Maintenance, also at two levels

   - At the program level, the extent to which an aging services agency incorporates or institutionalizes a program (or policy) into routine practices and policies.
   - At the individual level, the extent to which older adults incorporate behavior change or other beneficial activities into routine practices for at least 6 months.

A number of translation research studies described in the literature provide examples of the application of the RE-AIM framework to reporting findings (Eakin, Brown, Marshall, Mummery, & Larsen, 2004; Glasgow, Marcus, Bull, & Wilson, 2004). The framework also is now being applied directly to the evaluation of health promotion problems such as Well-Integrated Screening and Evaluation for Women Across the Nation (WISE-WOMAN), a program to reduce the risk of cardiovascular disease among women age 40 to 64 years who are under- or uninsured (re-aim.org, 2006).

As this model has been applied, further refinements have occurred. For example, practice with aging services providers has identified another component, *P* (PRE-AIM), that emphasizes the critical nature of the partnership-building and planning tasks. To implement and sustain effective evidence-based health promotion and aging programs, aging services providers will increasingly need to look to health partners, academic researchers, and

program evaluators to select interventions and models that are (a) appropriate for targeted conditions or risk factors, (b) suitable for targeted populations and locations, (c) feasible to implement by a variety of agencies and staff with different skills, and (d) feasible to evaluate for effectiveness.

The Role of the Evaluator

The RE-AIM model for translation research also offers a useful framework to guide evaluators as they help providers conduct program evaluation. *Program evaluation* is defined as "the systematic collection of information about the activities, characteristics, and outcomes of programs to make judgments about the program, improve program effectiveness, and/or inform decisions about future programs" (U. S. Department of Health & Human Services, 2005, p. 1). Like translation research, program evaluation is conducted within real-world constraints and, therefore, must be feasible and efficient within the confines of resources. Differing from translation research, however, program evaluation focuses on producing accurate findings to support administrative decisions. Rather than determining the effectiveness of a program that has already been proven, program evaluation aims to provide evidence about a program's success (outcomes) and efficiency (processes) in addressing individual- and community-specific health issues. Program providers need this information to justify the use of existing resources and to gain ongoing resource support.

Evaluators who have expertise about standard program evaluation methods and knowledge about the specific evidence base for the original intervention trial and its translation into community settings can assist health promotion program providers to build program evaluation from this comprehensive base. Frameworks such as RE-AIM provide a roadmap to guide process and outcome assessment. For example, at the beginning of the program planning phase, the evaluator can help identify problems and target populations ("reach") by helping to locate and review surveillance data and other epidemiologic survey data of health conditions and risk factors for older adults in the community. In addition, the evaluator can help to identify barriers to, and facilitators of change—for example, the degree to which older adults and their families and caregivers perceive their health status, assess health risks, believe in their capabilities, and anticipate rewards for establishing healthy lifestyle behaviors—that will affect the choice of programs and methods of translation (formative evaluation). The evaluator can further assist by reviewing studies of proven, effective interventions or models to identify core components of effective programs and determine which specific program components contributed

to the positive results. The evaluator may assist with decisions concerning the degree to which the weight of evidence is sufficient to warrant replication. The evaluator also may help analyze the degree to which the proposed program providers have sufficient program personnel and can meet logistic needs required to undertake the program implementation ("adoption" in the RE-AIM framework). During implementation, the evaluator can help to assess the resources used (e.g., human, fiscal), the activities conducted, programmatic barriers encountered, and short-term impacts achieved (process evaluation). Finally, the evaluator can help monitor important outcomes in terms of health status and quality of life of participants; health status of communities; and satisfaction of participants, staff, and partnering agencies (effectiveness or outcome evaluation). Ultimately, this scope of evaluation can help inform decisions program planners and policy makers need to make about institutionalizing effective programs (maintenance).

Guiding Principles for Program Evaluation

The implementation of even the most rigorously tested evidence-based interventions as community-based programs does not guarantee benefit to participants or optimal use of resources. Program providers may need to conduct formative evaluations to develop and improve activities, programs, and policies as well as outcome evaluations to assess effectiveness, resource use, acceptability, and sustainability. Although the Evaluation Working Group of the Centers for Disease Control and Prevention identified evaluation in public health as an essential organizational practice, they found that public health program providers have not conducted evaluation consistently or integrated it well into their day-to-day management (CDC, n.d.). The same is true for aging services program providers such as senior center, meal service, housing, and recreation program personnel.

We describe here one framework, developed by the CDC Evaluation Working Group, to assist providers with the evaluation process. The Appendix lists other relevant and useful resources.

The CDC framework builds on four guiding principles: utility, feasibility, propriety, and accuracy. *Utility* refers to the degree to which an evaluation serves the information needs of all of the intended users. It requires identifying stakeholders involved in or affected by the evaluation, such as program planners, community partners, funders, and program participants. Utility also encompasses the tasks of establishing the credibility and acceptability of the evaluators, defining the scope of the intervention to address pertinent questions, describing the bases for value judgments, providing and disseminating clear and timely reports, and encouraging

follow-through by stakeholders. *Feasibility* means conducting an evaluation in a realistic, prudent, diplomatic, and frugal manner, with attention to practical procedures, political viability, and cost-effectiveness. *Propriety* demands that evaluators behave legally and ethically, with regard for the welfare of those involved and those affected. An evaluation conducted with propriety will have the following attributes: an orientation that assists program providers to address and serve the needs of the targeted participants; formal written agreements among all principal parties; attention to the rights of human participants; respect for others associated with the evaluation, especially program participants; complete and fair assessment of program strengths and weaknesses; full disclosure of findings, including limitations of the evaluation process; processes to handle conflicts of interest openly and honestly; and an attention to prudent and responsible fiscal management. *Accuracy* concerns the degree to which an evaluation assembles and conveys technically accurate information. Accurate evaluation requires the following components: program documentation, detailed examination of the context in which a program exists, description of evaluation purposes and procedures, enough detail about sources of information to assess its adequacy, valid interpretation, reliable and systematically reviewed information, appropriate quantitative and qualitative analysis, justification for conclusions, impartial reporting procedures, and an assessment of the quality of the evaluation processes and procedures that allows stakeholders to examine its strengths and weaknesses (CDC, n.d.).

Theories and Models That Drive Measurement of Modifiable Health Risks and Behaviors

With these guiding principles providing the overall context for conducting evaluation of health promotion programs, we next consider how an evaluator might measure the value of relevant program characteristics. Value generally involves three interrelated concerns: merit, or quality; worth, or cost-effectiveness; and significance, or importance (CDC, n.d.). To assess success toward attaining program goals related to these concerns, the evaluator needs to identify measures at the individual, program, organizational, and population levels. The social-ecological perspective described earlier provides an overarching umbrella that spans individual, community, and environmental components of potential programs. A number of theories and models identify characteristics of health behaviors at the individual level, and, to varying degrees, they also encompass social, programmatic, and community influences. These theories and models include the health belief model, the theory of planned behavior, the stages of change or transtheoretical model, and social cognitive theory.

The health belief model proposes that individuals do or do not modify health behavior based on their perceptions of the severity of a disease or condition, their likelihood of becoming ill, the risks they face, and personal factors (e.g., age, sex, ethnicity, socioeconomic status, knowledge and information, specific symptoms). The influence of their perceptions of benefits and barriers to behavior change determines the likelihood of behavior change (Rosenstock, 1974). This model suggests interventions that include knowledge and information about risks and severity of a disease or condition and about benefits of behavior change. Program evaluation measures congruent with this model would include an assessment of the change in the older adult's perceptions of the severity of disease, the likelihood of getting the disease, barriers to the health-behavior change in question, benefits from engaging in the behavior, and the identification of reinforcers for behavior (Elder, Ayala, & Harris, 1999).

The theory of planned behavior adds cognitive factors such as attitudes, beliefs, and norms (Azjen & Fishbein, 1980). According to this theory, the intention to engage in healthier behavior depends on attitude (the beliefs that a behavior will lead to a particular outcome and that the outcome has value), subjective norms (the belief that important other people approve of the behavior and the desire or motivation to comply with their opinions), and perceptions of behavior control (beliefs about the presence of barriers or supportive resources and the amount of control those barriers or resources have on the individual's responses). This theory suggests that interventions should address social norms specific to the individual (e.g., "My children don't want me to exercise because they are afraid I'll fall") and accurate information about resources and barriers. Evaluation of programs based on this model would determine change in the older adult's attitudes and beliefs about the behavior change and the outcomes it would bring; whether the older adult thinks family members and friends endorse the behavior; absence or presence of social pressure, and the presence of knowledge and skills acquired to make the desired behavior change (Elder et al., 1999).

The stages of change model, or transtheoretical model, addresses psychological differences among individuals in terms of their readiness to change behaviors. Stages include the following: Precontemplation, the absence of intention to take action within the next 6 months; Contemplation, the presence of intention to take action within the next 6 months; Preparation, intention to act within the next 30 days, accompanied with some behavioral steps in that direction; Action, behavior change that has lasted fewer than 6 months; and Maintenance, behavior change that has lasted at least 6 months. Movement through the stages of change involves decisions about benefits and costs of changing, the belief that one can adopt healthy behavior (self-efficacy), and various processes that include increasing awareness, conducting

self-evaluation, identifying impacts on social and physical environments, seeking and receiving social support, removing negative cues and increasing positive ones, and acknowledging changing social norms toward healthier behaviors. Interventions based on this model would tailor activities and information to the individual's stage of readiness (Prochaska, 1991). Areas of program evaluation built on this model would include assessment of (and changes in) the older adult's stage of change, awareness of consequences for not engaging in health-behavior change, ambivalence about or motivations for engaging in the health-behavior change, identification of what can serve as supportive rewards for appropriate behavior, and acquisition of stress-management techniques.

Social cognitive theory proposes that interactions among personal factors, the environment, and the characteristics of the behavior itself affect changes in health behavior. The primary personal factor, self-efficacy, refers to one's confidence in the capacity to change or perform a certain behavior that, in turn, will lead to a desired and valued outcome. This theory builds on the belief that performance mastery, modeling provided by role models who evoke trust and respect and demonstrate the desired behavior, reinterpretation of symptoms, and social persuasion can enhance self-efficacy (Bandura, 1977). Popular group-based chronic disease self-management programs have effectively applied this theory, incorporating key program components that include group member skill building, feedback to and between participants, modeling of desired behaviors and strategies, social support, and guidance for self-management efforts (Lorig et al., 2001; Lorig et al., 1999). Evaluation of this type of program assesses increased self-efficacy, mastery of smaller components of self-management tasks, successes with behavior change, knowledge about chronic disease and symptoms, changes in emotional and physical functioning, and self-reported or observed changes in medical care use.

A growing literature reports on clinical efficacy trials of health promotion interventions that encompass parts or all of these theoretical models and were either specifically designed for older populations or have been tested successfully with older adult participants. Some examples of these interventions that are currently being rolled out into community settings by aging services providers include the Chronic Disease Self-Management Program (Lorig et al., 1999); the EnhanceFitness program (Wallace et al., 1998); a multifactorial intervention for falls risk reduction (Tinetti et al., 1994); the Matter of Balance falls prevention program (Tennsdedt et al., 1998); the Program to Encourage Active, Rewarding Lives for Seniors (PEARLS) program for home-based depression treatment (Ciechanowski et al., 2004); and the Women Take Pride program for older women with heart disease (Clark et al., 2000). Further information about

the original research testing these interventions and the adaptations made by aging services providers to adapt these programs to diverse settings can be found at the National Council on the Aging's Center for Healthy Aging Programs Web site available at www.healthyagingprograms.org.

Evaluation in Practice

Although the RE-AIM framework helps evaluators and program providers to identify the core components of a program that evaluation might assess, the CDC's (1999) framework for program evaluation in public health provides a series of practical steps for conducting a program evaluation. This model incorporates and operationalizes the guiding principles, or "standards," of utility, feasibility, accuracy, and propriety.

Figure 1 provides an overview of CDC's program evaluation framework with the following series of steps, which begin at the top of the circle and proceed clockwise:

1. Engage stakeholders and partners to ensure that the evaluation addresses important elements of the program. Stakeholders and partners may include (a) people involved in program operations (e.g., sponsors, coalition partners, funding sources, administrators, managers, staff), (b) people served or affected by the program (e.g., older adult clients, specific ethnic communities, family members, neighborhood organizations, academic institutions, elected officials, advocacy groups, professional associations, skeptics, opponents, staff of related or competing organizations), and (c) primary users of the evaluation.
2. Describe the program clearly enough to convey its mission and objectives. Relevant components may include assessed need, expected effects, program activities, available resources, stages of program development and provider readiness, and social-ecological context.
3. Establish a clear focus and evaluation design by identifying users and uses, developing questions and methods, and making formal agreements among stakeholders to ensure that the evaluation assesses issues of greatest concern to stakeholders while using time and resources efficiently.
4. Gather credible evidence from reliable sources, maximizing the quality of the evidence while striving for parsimony and keeping logistics as uncomplicated and resource efficient as possible.
5. Justify conclusions and recommendations, linking them to the gathered evidence and judging them against agreed-on values or standards set by stakeholders. Recommendations require not only judgments about a program's effectiveness but also information about the context in which stakeholders will make program decisions.
6. Ensure the use of the results and share the lessons learned. These processes do not automatically follow from an evaluation. They require inclusion of
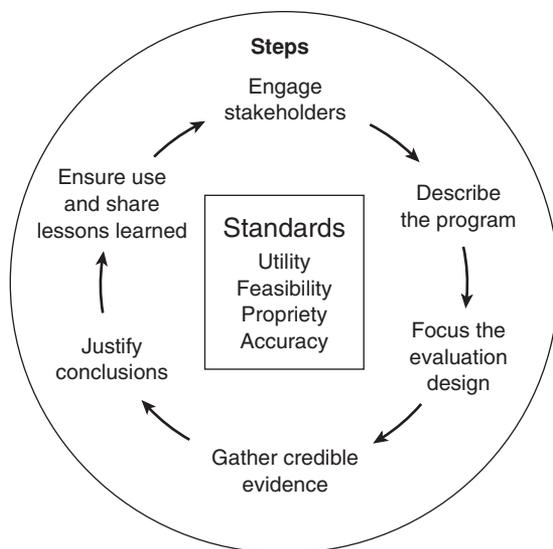
Figure 1.   Recommended Framework for Program Evaluation
SOURCE: Centers for Disease Control and Prevention (1994, p. 4).

preparation of feedback and follow-up, and appropriate dissemination in the design of the evaluation.

These steps, and their underlying principles, reflect the participatory nature of good evaluation. Given the interdisciplinary and social-ecological nature of health promotion programs for older adults, staff and stakeholders need to be drawn into the process to make it less threatening, enhance the likelihood of collecting complete data, and ensure that the analysis of the findings is considered from all viewpoints and in a meaningful way. The responsibility of the evaluation effort and the determination of its scope and inclusiveness ultimately lie in the hands of the program management. However, the evaluator has professional and ethical responsibilities to urge program management to take the time to conduct a good evaluation effort as systematically as possible, with attention to the health promotion frameworks, principles, and processes that we described. The likelihood of producing useful information that can sustain successful health promotion program efforts for older adults and help staff and partners do their jobs better will more likely result by the participation of management, staff, and stakeholders.

Conclusion

The Journal of Applied Gerontology will offer articles throughout the coming year that target the evaluation of health promotion programming for older adults. This overview has provided justification for the journal's focus on this area. With an aging population, a growing demand for health promotion and chronic disease self-management programs, and limited resources, evaluators increasingly must provide leadership to identify positive outcomes for older adult clients and provide accountability to funders. We described the role of the evaluator, illustrated the multiple levels of components and factors and their theoretical underpinnings, and provided principles of good evaluation and steps to guide evaluation processes. An evaluator needs this knowledge and these skills to address the many different kinds of evaluation questions that arise from the variety of programs and the diversity of target audiences and providers. We also noted that this diversity requires that an evaluator actively engage program personnel and community members in the evaluation design, data gathering, and analysis to tailor the evaluation to the unique needs, characteristics, barriers, and factors present in any community (Gordon, 2004).

We anticipate descriptions of real-world applications and more in-depth information about evaluation terminology, models, and methods. As Shadish (2006) told us

> Evaluators benefit from knowledge of how programs come into being, change, end, and function in their environment . . . if we aim to create sustainable public health programs, we must know the economic, social, political, and psychological factors that make programs sustainable. Similarly, if we believe that individual, family, health system, community, and societal factors all contribute to the rise of chronic disease, then we have to do research on those factors to know how to change them. (p. 3)

Topics, therefore, will include descriptions of methods, criteria, and measures used to identify best-practice programs offered to older adults as well as real-world evaluations of the effectiveness of specific community-based programs for older adults.

Appendix
Sources of Additional Information

The Center for Healthy Aging (The National Council on the Aging). Learning modules, manuals, guides, and toolkits for program evaluation. Available at www.healthyagingprograms.org/content.asp?sectionid=67

The Centers for Disease Control and Prevention (CDC). (2005). *Introduction to program evaluation for public health programs: A self-study guide*. Available at: www.cdc.gov/eval/evalguide.pdf. The CDC Evaluation Working Group has compiled a list of additional resources for program evaluation available at the Working Group's Web site at www.cdc.gov/eval/index.htm.

The Community Toolbox (CTB), an Internet resource for health promotion and community development that uses the CDC framework for program evaluation in public health. Available through the University of Kansas at http://ctb.ku.edu/.

Practical Evaluation of Public Health Programs (Course no. VC0017), a 5-hour distance-learning course that uses the CDC framework for program evaluation in public health. It consists of two videotapes and a workbook, which can be used by individuals for self-study or by small groups. Additional information is available at the Public Health Training Network Web site at www.phppo.cdc.gov/phtn/default.asp. The workbook can be viewed at www.cdc.gov/eval/workbook.pdf.

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