This manual is intended to accompany each of the four Model Program Toolkits:

Healthy Changes™
Healthy Moves for Aging Well™
Healthy IDEAS for a Better Life™
Healthy Eating for Successful Living™

It can also serve as an independent publication providing the reader with an overview of the Model Programs Project and the four evidence-based health promotion programs.

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Get Results!
Older adults around the country are eager for new health and wellness programs. Too often, though, agencies rely on activities that when evaluated, may not produce measurable health improvements.

The Center for Healthy Aging at the National Council on the Aging is proud to present four tested, easy-to-implement, community-based programs that you (and your older adults) can depend on:

- **Healthy Moves for Aging Well** (Physical Activity)
- **Healthy Eating for Successful Living** (Nutrition)
- **Healthy IDEAS for a Better Life** (Depression education and support)
- **Healthy Changes** (Diabetes education and support)

This manual describes the history of this exciting project, which translated evidence-based, health promotion research into four practical, results-oriented programs suitable for community-based organizations serving older adults. You will find a summary of each of the programs and its key elements. You will also discover a wealth of information you can use to make the case for the importance of health promotion.

This manual supplements the more detailed program toolkits developed for each program. These are now available through the National Council on the Aging with funding support from The John A. Hartford Foundation.
Table of Contents

NCOA - Model Health Programs Toolkits™

1) The Story Behind the Model Programs Project
2) The Importance of Partnerships
3) Model Programs to Maintain Independence and Health
   a. Los Angeles - Healthy Moves for Aging Well
   b. Houston - Health IDEAS
   c. Boston - Healthy Eating for Successful Living
   d. Portland - Healthy Changes
4) Facts and Figures
   a. Physical Activity
   b. Depression
   c. Nutrition
   d. Diabetes
5) Am I Ready for the Model Health Programs?
The National Council on the Aging (NCOA) has long recognized the importance of strengthening and promoting community service organizations as part of the continuum of chronic care management for older adults. An estimated 29,000 local service organizations such as senior centers, day service centers, faith-based organizations, and Area Agencies on Aging reach nearly 10 million older Americans. Such community agencies provide a valuable but under-used resource for the health promotion related needs of older adults, especially physical activity and chronic disease self-management. Many agencies already offer health promotion programs, but few of the programs appear to be evidence-based. In 2001, with support from The John A. Hartford Foundation, NCOA set out to develop, test, and disseminate evidence-based model programs that can improve the health and quality of life of older Americans. NCOA named this initiative Model Programs Project because at its core the project will “translate” rigorous intervention studies into practical, model programs for community agencies.

The Model Programs Project has two goals: 1) to increase the quality, effectiveness, and convenience of proactive health programs; and 2) to strengthen collaboration between the health care provider and community service sectors. The following objectives support these goals:

- Identify the most promising interventions appropriate for community service organizations to offer to manage chronic conditions and promote health;
- Establish Regional Advisory Panels to translate evidence-based interventions into practical and effective model programs;
- Support early adoption and further refinement of model programs through incentive grants to 14 community organization - health care provider partnerships;
- Disseminate the model programs nationwide.

During the first year of this project, expert review panels (researchers, health care providers, and community agency leaders) studied evidence-based health promotion and risk reduction interventions (e.g. falls prevention, physical activity, depression, anxiety, chronic disease self-
management/self care, nutrition, medication management, diabetes management). A summary report of this work recommended general health topics and specific interventions within each topic that would be most appropriate for translation into model programs. Project advisors reached consensus on four topics they believed had the greatest promise for translation into effective model programs: diabetes self-management, nutrition, depression, and physical activity.

Concurrently, an expert team of health educators, experts in the field of community-based organizations, and NCOA staff developed a template to guide the translation of the evidence-base into comprehensive community-based programs. This model-program template identified common elements (e.g. access, staffing, partnerships) that the development of the individual model programs should address. A review of the relevant literature and real-world best practice experience provided the solid base for the template elements, organized under nine principles including:

- Preparation and Planning
- Communications
- Recruitment and Retention
- Program Administration
- Funding Sustainability
- Program Elements
- Partnering
- Replicability
- Evaluation

The team is continuously updating the template as new information becomes available, and NCOA is working with its advisors to develop the template into a tool that community service organizations can use to strengthen health promotion and chronic disease self-management programming at the local level.

During the second year, four Regional Advisory Panels around the country, under the leadership of selected strong community leaders, worked to translate each of the review panel’s recommended evidence-based interventions into model programs, using the Model Programs Project template. The following leaders headed these efforts:

**Diabetes Self-Management**
Nancy Erckenbrack
Executive Director, Providence Center on Aging
Portland, OR
Nutrition
Robert Schreiber, MD
Medical Director of Geriatric Services, Lahey Clinic
Boston, MA

Depression/Mental Health
Nancy Wilson
Assistant Director, Huffington Center on Aging
Baylor College of Medicine
Houston, TX

Physical Activity
W. June Simmons
President & CEO, Partners in Care Foundation
Los Angeles, CA

Working under the guidance of NCOA staff, each of the Regional Advisory Panels translated evidence-based interventions and research related to their specific health promotion topic into a single model program that emphasizes value-added linkages between health care providers and community organizations. Their work resulted in four comprehensive model programs that provide detailed implementation plans and opportunities for partnerships between community organizations and health care providers. Each of the Panels incorporated the following overarching concepts into the development of their designs:

- The importance of strong linkages among community, primary health care and mental health providers,
- The value of peer-to-peer support,
- An emphasis on empowering participants,
- The importance of provider training, and
- The value of using a health promotion message rather than an illness message.

Two of the developed programs (Depression/Mental Health and Physical Activity) reach community-residing older adults enrolled in long-term supportive service programs that include ongoing, problem-solving relationships with care managers. Client participation requires the ability to communicate verbally and the absence of any significant cognitive impairment. Further, for the physical activity model, clients with the following characteristics may participate: moderate frailty levels, stable home environments in the community, the presence of competent caregivers in the home, and enrollment in the California Multipurpose Senior Services Programs.
The other two model programs serve older adults who can participate in workshops led by lay leaders from local aging service organizations. The diabetes self-management program targets individuals aged 55 and older with diabetes who already have obtained basic diabetes education. The nutrition program, designed primarily for persons age 60 and older with cardiovascular disease or osteoporosis, also emphasizes self-management skills. Both programs are most appropriate for seniors who reside in the community and do not have physical or mental impairments that seriously restrict their ability to participate fully. Both models that utilize lay leaders take place in community settings such as senior centers, senior housing facilities and churches.

All four Advisory Panels designed their model programs for ethnically and socio-economically diverse populations of older adults. One or more of the projects have developed materials in Spanish, Russian and Chinese, and the self-management workshops have used other languages as well.

During the third year of this initiative, the Regional Advisory Panels offered local community-based organizations an opportunity to apply to pilot test these programs under the guidance of the local Advisory Panels and NCOA staff. Selection criteria considered an organization’s abilities to do the following:

- Commit to implementing a model program and preserving program integrity during implementation;
- Commit to recruiting a specified number of participants to take part in the program and to track participation throughout the program;
- Provide, upon the completion of the pilot, a practical assessment of budget implications for further implementation;
- Participate with the health care provider, the Regional Advisory Panel and other pilot programs in a debriefing session at the conclusion of the pilot; and
- Provide insight on barriers to replication and how to overcome them.

Each Advisory Panel selected 3-4 “vanguard agencies” to pilot the intervention, and developed an orientation and training program for each agency’s staff. Over the six month pilot period each model program Regional Advisory Panel implemented its specific program in the local vanguard agencies. Ongoing revisions incorporate feedback from the vanguard agencies and the individual older adult participants.

NCOA is pleased that the Administration on Aging has included three of the model programs in its Evidence-based Prevention Programs for the
Elderly initiative. This initiative will provide the programs with the opportunity to further refine and test their models. Community-based organizations and members of the aging services network can then replicate or adapt these model programs in an expanded effort to help older adults with chronic conditions.

In summary, this project has provided four new, innovative model programs built from strong research evidence and real-world best practices. These model programs, based on broad participation by diverse national and regional experts with research knowledge and practical experience, provide effective responses to the growing demand for health-related programming offered by community organizations.
The Importance of Partnerships

An effective partnership is made up of two or more people or organizations collaborating in a common effort to achieve a common purpose and to make more effective use of resources. Partnerships may vary in structure, size, and level of formality depending upon the need. Partnerships have also been described as “vehicles for structured and purposeful interaction among a defined set of partnering organizations, groups, and individuals (Sofaer, undated). Such collaborations are a logical way of mobilizing power and influence to address community issues, as well as a strategy for pooling resources, enhancing coordination for planning and implementation, and deterring duplication of effort. In an effective collaborative effort, each partner brings different skills, knowledge, expertise, organizational culture and functional networks that can be united within that effort. Sofaer (undated) further outlined a number of important functions served by collaborative activities, including:

- Information exchange and networking
- Increased visibility of participating organizations
- Mobilization of community support and resources
- Implementation of joint programs.

During this time of economic downturn, there is mounting pressure for organizations to participate in collaborative activities. Whether such projects address health, wellness and chronic disease issues, a rapidly aging population, the increasing evidence of benefits of health promotion, or all of these issues, working with multiple partners helps cut costs and workload. However, partnerships and subsequent collaborative activities must be thoughtfully developed. They require close attention to maintain evolving relationships and an action plan. Mattessich, et al. (2001) reviewed the collaboration literature identifying key factors influencing successful community collaborations. These key factors are:

- The importance of membership cohesion
- Mutual trust and respect among the partners
- Having an appropriate mix and stakeholder representation
- Members who value cooperation and who see advantages to participation
- Partners who are able and willing to compromise.
Strategic alliances are generally used to address any problem that is larger than one organization can address. The daunting issue becomes the rallying point for the collaboration and must be well-defined in order to guide the group’s efforts. Networks, partnerships, consortiums, and coalitions can be commonly defined as: organizations working together in a common effort to achieve a common purpose in order to make more effective use of resources.

Key Elements in the Literature/ Citing Program Examples
In their article, Collaboration: What makes it work?, Mattessich, et al. (2001) reviewed research literature on the factors influencing successful collaboration and grouped the results under six headings:

- **Environment**: positive influences include history of community collaboration, legitimacy of the collaboration as a leader in the community, and public support for the objectives.
- **Membership characteristics**: success is positively influenced by mutual trust and respect among the partners, having an appropriate mix and stakeholder representation, members who value cooperation and who see advantages to participation, and partners who are able and willing to compromise.
- **Process and structure**: collaboration is aided by members sharing a stake in both process and structure - how the group works and what it achieves. Collaborating organizations need to involve representation across several of its layers of staffing. The group members need to be flexible, develop clear roles and guidelines, demonstrate adaptable behaviors. The group as a whole needs to maintain an appropriate pace that does not overwhelm other partners.
- **Communication**: A necessity is open and frequent lines of communication through both formal and informal means to facilitate personal connections.
- **Purpose**: Goals and objectives must be both concrete and attainable for the success of any collaboration. The vision must be shared by all members. The mission and goals must differ from those of the member organization to reflect membership contributions to the process.
- **Resources**: Collaborations need adequate funding, staff, materials, and time to support operations. The leader(s) of the collaboration needs to have appropriate interpersonal skills and collaboration management skills without taking control or credit for the outcomes.

Successful partnerships in community-based activities build on strengths, resources and relationships already available in the community. The effort is focused on co-learning and knowledge sharing (mutual benefits
for partners) and may empower partners to address social inequities/health disparities.

The Center for Medicare Education (2001) also laid out a number of imperatives to facilitate effective coalitions:

- Get a firm commitment from members.
- Once the mission and plan of the group are agreed upon, adhere to it.
- Maintain active communication with all members.
- Conduct meaningful meetings at regular, agreed upon times.
- Sustain the group energy through clearly defined expectations, ongoing communication of activities and achievements, group involvement in decision making and focused meetings.
- Maintain good leadership as a facilitator with a strong commitment to the goals of the coalition, respect for members, strong listening skills and neutrality.

Before embarking on the partnering process, it is essential for organizations to reaffirm their own visions and goals. Organizations must establish their own priorities and expectations of themselves and of their partners before investing in a relationship. Each partner should also determine its readiness to collaborate - are they willing to commit the time and energy to making the partnership successful? At the same time, partners should also be aware of the limitations of the partnership. There are certain “places” that some organizations will not be willing to go. Everyone should know these places in advance (Wild Rose Foundation, 2001).

The Wild Rose Foundation in Alberta, Canada (2001) has defined several broad types of partnerships, which have different characteristics and will influence how organizations can move forward. Two of these types of partnerships are:

- Partnerships between two or more non-profit groups. These partnerships are usually based on an overlap of mission and a strong commitment to a joint goal. The partnership generally involves an attempt to maximize the resources of both organizations.
- Partnerships with government agencies or programs. More recently government agencies or programs are increasingly looking to the agencies they fund and work with as partners rather than clients. While the accountability required of government means that partnering with a government agency or program involves some bureaucracy and formality, non-profits are discovering that a partnering attitude has
additional rewards. It not only maximizes the opportunity of the existing program, it often means they are “at the table” when programs are changed or future programs are developed.

The sustainability of a partnership is driven by a shared vision and powerful leadership within the organization or community. Community participation is also crucial to the sustainability planning efforts. Key players in the development of the program should be involved in a cooperative endeavor to sustain the effort. Planning to sustain programming should begin early in the project. Kumpfer et al. (1993) found that partners report more satisfaction and commitment to the collaboration process, as well as the outcomes, when leaders employed the following strategies:

- Encourage and support contributions by all the members of the partnership.
- Use a democratic decision-making process.
- Encourage networking and information exchange.

Although building and sustaining partnerships requires a certain amount of work, the benefits of increased funding and other resources to further a venture far outweigh the effort to collaborate. Partnering allows organizations to find creative ways to tackle issues that lie beyond the scope of any single agency (Mattessich et al., 2001).

References


Healthy Moves for Aging Well
A Community-Based Physical Activity Program

The Los Angeles (CA) Regional Advisory Panel, under the supervision of Partners in Care Foundation, developed the evidence-based model program titled Healthy Moves for Aging Well. This intervention utilizes care managers from community-based care management agencies to teach evidence-based exercises to home-bound, frail, low-income elderly clients. Care managers and volunteer peer coaches assess the clients, teach a variety of safe exercises, and monitor them. The agencies recruit and train these volunteer coaches to contact the senior participants and to conduct telephone coaching and monitoring. Care managers monitor their clients’ participation during their regularly scheduled appointments and formally reassess them at 6-month intervals.

Healthy Moves for Aging Well is part of the Model Programs Project sponsored by the National Council on the Aging (NCOA) with funding from the John A. Hartford Foundation. NCOA provides national leadership, oversight and funding for the Healthy Moves for Aging Well project, which is locally administered by Partners in Care Foundation. Partners in Care Foundation convened a Regional Advisory Panel of experts representing academia, health care and the aging network to provide guidance and technical assistance to their effort to develop the model program and supportive training, nutrition and physical activity expertise and evaluation assistance during the program’s implementation.

Scope of the Problem
Millions of Americans, primarily older adults, have chronic illnesses that regular physical activity can prevent or improve. The Surgeon General’s Report on Physical Activity and Health (CDC, 1996) concluded that Americans of all ages can substantially improve their health and quality of life by including moderate amounts of physical activity in their daily lives. A routine program of physical activity in older adults produces three types of health benefits:

- Reduced risk of developing chronic diseases
- Improved management of active problems such as high blood pressure, diabetes, obesity and high cholesterol
• Improved ability to function and stay independent in the face of active problems such as lung disease or arthritis

National data, however, indicate that few older persons engage in regular physical activity. Only 31% of individuals aged 65 - 74 and only 23% of those aged 75 and older engage in regular physical activity, defined as 20 minutes of moderate activity 3 or more days per week (AHRQ, 2002). In response to a general national decline in activity levels, Healthy People 2010 physical activity goals for adults include both a decrease in the proportion of adults who engage in no leisure-time physical activity and an increase in the proportion who engage regularly in moderate physical activity. Targeted physical activity goals include increases in both the frequency and duration of activities that include cardiovascular, strength, endurance, and flexibility components of fitness (DHHS, 2000). Although scientific consensus has not yet adequately defined or identified the optimal amount of physical activity for improving health and functional benefits in the older population, most experts suggest that maximum benefits will require such a combination of activities (King et al., 1998).

Evidence of Effective Interventions in Physical Activity
This project integrates evidence-based and best practice information from three fields of study: physical activity, behavior change, and care management for frail elderly in the community. The evidence from each of these fields has shaped the model program. New studies focusing on physically frail elderly who live at home will, if appropriate, contribute to ongoing revisions of the model program.

Physical Activity
Although persons with chronic conditions or disabilities account for the majority of community-dwelling older adults, relatively few rigorous studies exist that focus specifically on frail elderly. Two well-designed studies of older adults with arthritis demonstrated the feasibility of designing relevant intervention programs to promote long-term physical activity participation sufficient to reduce disability in this segment of the population (King et al., 1998). A study in 2001 assessed the effects of a multi-component exercise program on basic daily functions and muscle strength in community-dwelling frail older adults. The intervention group demonstrated significant improvement in balance, muscle strength, walking function, and self-assessed functional ability compared to the control group (Worm et al., 2001).

Behavior Change
Behavioral science theory and research have made important contributions to identifying the essential features that optimize success in chronic illness self-management programs including physical activity
programs (Kasl, 1974; Rosenstock et al., 1988). Key program elements (Glasgow et al., 1999) include:

- Assessment and specification of the problem and target behavior
- Collaborative setting of goals
- Identification of barriers and motivators
- Development of personalized coping skills as needed
- Follow-up support

Individually-adapted health behavior change programs teach clients behavioral skills needed to incorporate moderate-intensity physical activity into their daily routines. Constructs from one or more established individual-level health behavior change models including Social Cognitive Theory, the Health Belief Model, and the Transtheoretical Model of Change guide many of these interventions. These interventions incorporate the following sets of skills (Kahn et al., 2002):

- Setting goals and self-monitoring progress
- Building social support for new behavioral patterns
- Behavioral reinforcement
- Structured problem-solving
- Prevention of relapse into sedentary behavior

Success of the Healthy Moves for Aging Well program requires that care managers use the behavior change model to help their clients recognize the importance of increasing physical activity levels and the potential benefits of participating in the program. Clients need to understand program activities and how those activities will help them accomplish program and personal goals. Through participation, clients will build a sense of empowerment as they accomplish the incremental recommendations (Frank, 2002).

Two major reviews of the literature of physical activity interventions described the use of behavioral or program-based strategies aimed at promoting physical activity participation in the well elderly. One review (King et al., 1998) selected 29 studies of community based physical activity interventions targeting adults aged 50 and older. Only 45% of the studies explicitly described specific behavioral, educational, social, cognitive, or program-based (e.g., exercise type, intensity, duration) strategies. Among them, methods to promote participation most frequently incorporated behavioral strategies based on social learning theory and program-based strategies focused on physical activity type or format. The most effective interventions employed behavioral or
cognitive-behavioral strategies; the majority used a combination of behavioral and cognitive tools such as goal-setting, feedback, self-monitoring and relapse training. Less effective interventions relied on health education or instruction alone. Programs that used either a supervised home-based format or a combination of group- and home-based formats typically reported comparable or better physical activity adherence than programs that used a class or group format only. Six studies used ongoing telephone supervision, which provided an effective alternative to face-to-face on-site instruction and resulted in adherence rates over extended periods (up to 2 years) that were as good, or better than face-to-face instruction. Most of the telephone-supervised programs utilized an initial 20-40 minute face-to-face instructional session in combination with 12 to 15 brief staff-initiated telephone contacts over the following year.

Relatively few studies have attempted to clarify determinants of participation among older adults. Studies have, however, identified some barriers: educational level, smoking status, weight, social support, physical activity-related self-efficacy, and motives to improve physical fitness and appearance. Other apparently important factors include transportation problems, medical concerns, fear of injury, physician advice to exercise, negative attitude barriers, and illness and injury (King et al., 1998).

The Task Force on Community Preventive Services, an independent, non-federal Task Force, is developing the Guide to Community Preventive Services. With support from the U.S. Department of Health and Human Services and in collaboration with public and private partners including the Centers for Disease Control and Prevention, the Task Force conducted a systematic review of interventions to increase physical activity. The Task Force reviewed interventions in three categories: informational approaches, behavioral and social approaches, and environmental and policy approaches. The behavioral and social approaches to interventions have most relevance to this project - they focus on increasing physical activity by teaching widely applicable behavioral management skills and by structuring the social environment in ways that provide support for people trying to initiate or maintain behavior change. Interventions of most interest to this project involved individually-adapted health behavior change programs; the Task Force strongly recommended programs of this type for further work. The evidence found them effective in increasing physical activity and improving physical fitness among both adults and children (Task Force, 2002, www.thecommunityguide.org).
Improving levels of physical activity for frail elders poses special challenges. Key issues include:

- Identifying isolated elders who could benefit from physical activity interventions
- Assuring that activities pose no serious health risks
- Making physical activity highly accessible
- Translating the evidence-based principles of behavior change to meet the specific needs of this frail, elderly population

Geriatric care management programs appear to provide effective vehicles to address these issues since they have ready access to frail elderly and already focus on maintaining health status, delaying or preventing institutionalization, and improving linkages with medical and community resources. Thousands of frail elderly are clients of varied types of care management programs in Los Angeles (L.A.) County, including the Multipurpose Senior Services Program (MSSP) with multiple sites in L.A. County, health plan geriatric care management programs such as Kaiser Permanente and Secure Horizons, the county-funded Integrated Care Management Program with 26 sites at community-based agencies, and private care management programs, among others.

Despite the prevalence of care management practice, little evidence exists concerning efficacy in application of these models. Existing studies lack rigor or contain methodological weaknesses that result in questionable findings (Lee et al., 1998). Practice standards have focused on care management procedures including such common elements as intake and referral, assessment, care planning, initiation and coordination of service delivery, ongoing management, reassessment, discontinuation of care, and education and development (Bulger & Feldmeier, 1998). Care management to date, however, has generally failed to incorporate tested, evidence-based interventions or models.

Since many goals of geriatric care management require client behavior change, it seems logical that principles of behavior change can strengthen and advance geriatric care management practice from an unstructured approach to an evidence-based practice model (Enguidanos, 2001). Practitioners in many other clinical and community settings have applied the Transtheoretical Model, or Stages of Change Model (Prochaska, DiClemente & Norcross, 1992), and the Theory of Planned Behavior Model (Ajzen, 1985). The care manager who employs these strategies can provide the necessary support and encouragement for the client to gradually begin to engage in a new behavior, such as following a specific physical activity prescription. Persuading care managers to change their practice, however, can be difficult. According
to the Diffusion of Innovation Theory (Rogers, 1995), achieving successful adoption and practice of innovations requires staging, defined as the flow of information. The following stages have applicability for care management programs (Enguidanos, 2001):

- Providing knowledge - training care managers about models and evidence
- Persuasion - working with care managers to form positive attitudes toward integration of theories into practice
- Decision - gaining commitment of care managers to implement a new approach
- Implementation - practice incorporating methods into care management processes
- Confirmation - reinforcing successful implementation

The availability of only a relatively few model evidence-based programs that focus specifically on improving health outcomes among the frail elderly provides the rationale for the Healthy Moves for Aging Well program. A research-tested approach, Senior Fitness Test, also known as the LifeSpan Assessment, provides the foundation for the physical activity portion of this intervention. To supplement this intervention, the model program incorporates the Brief Negotiation Model of Change in the training of the care managers, who ultimately will deliver the physical activity training, and the volunteer coaches, who will follow-up and help reinforce participants’ behavior change.

Goals and Objectives of the Physical Activity Program
Research has shown that increased physical activity improves older adults’ health status. The Healthy Moves for Aging Well program is designed to:

- Improve levels of physical activity in frail elders enrolled in care management programs
- Strengthen and advance geriatric care management practice by teaching care managers principles of behavior change and helping them to apply these principles to motivate clients to enhance the level of physical activity in their daily lives
- Synthesize and refine a cost-effective, culturally sensitive program that a community-based agency can incorporate into its existing care management program without significant additional expense or time demands on staff
- Be widely replicable in care management agencies throughout the country.
The Model Program Description
Care managers attend a training session led by a Behavior Change Educator and a Fitness Expert Consultant to orient them to the project and teach them how to reinforce principles of behavior change for the physical activity intervention. The training teaches both care managers and volunteer peer coaches how to use behavior change techniques to engage clients and encourage them to agree to make lifestyle changes that improve health. The target client population attends an orientation session centered around a functional fitness test administered by the trained care managers. The Behavior Change Educator and Fitness Expert Consultant then conduct regularly scheduled telephone follow-up support sessions with the care management teams.

The core elements of the intervention include the following:

- Assessment of an individual’s baseline abilities in three domains of performance - flexibility, strength, and endurance using the research-validated Senior Fitness Test instrument, which identifies areas of weakness that may lead to a loss of functional ability.
- Goal setting for improvements in physical activity performance and identification of factors that motivate the individual to achieve goals.
- A physical activity prescription to incorporate moderate-intensity physical activity and a modified exercise program (as defined by Senior Fitness Test) into daily routines, developed by a fitness professional.
- Building social support for new behavioral patterns through family and peer support.
- Coaching and problem-solving by care managers and volunteer coaches and caregivers.
- Monitoring changes in physical activity levels in frail, older adults.

Senior Fitness Test
A physical activity expert leads the physical activity portion of the intervention, modeled after the research tested program, Senior Fitness Test (2000). The Senior Fitness Test evolved from a need to assess the fitness levels of older adults. Dr. Jessie Jones and Dr. Roberta Rikli, researchers of kinesiology and health promotion at California State University, Fullerton (1999), developed this program. PacifiCare then funded the research, which developed into a health promotion intervention, but fiscal crisis prevented implementation of the intervention. PacifiCare donated their exercise materials to Partners for this work, along with technical assistance from staff.
Jones and Rikli (1999) designed six simple, in-home exercise assessments suitable for use by older adults over the age of 60, and directly related to an older adult’s ability to remain independent in society. A nationwide study used these assessments to specify average physical functioning for men and women of different ages. The study produced significant results and found that, in general, physical functioning declines an average of about 10% each decade between the ages of 60 and 90. Physically active individuals experienced only half as much loss of functional ability as those who were inactive, suggesting that exercise should constitute a fundamental part of life for older adults.

*Healthy Moves for Aging Well* has as its underlying premise that staying active enables older adults to continue doing the activities that keep them strong and independent, such as getting out of a chair, carrying groceries, walking up and down the stairs, using public transportation and cooking and cleaning. The Senior Fitness Test includes its six specific exercises because developers believe they will increase an older adult’s ability to complete daily errands and chores independently.

**Brief Negotiation Model of Change**
Additionally, the care managers who ultimately deliver the physical activity training, and the volunteers who follow-up and help reinforce participants’ behavior change are trained to implement and teach the Brief Negotiation Model of Change. The Brief Negotiation Model of Change offers an innovative approach to increase physical activity among older adults.

Training leads care managers and volunteers through a sequence of learning activities to explore and shape counseling practice behavior with their clients. This state-of-the-art, evidence-based counseling method evokes a patient’s internal motivation for positive health behavior change in brief clinical encounters. Although motivation provides the key to changing thoughts into actions, care managers find changing lifestyles and exercise patterns and breaking old habits a difficult task. For clients, individually-adapted health behavior change programs teach related behavioral skills needed to incorporate moderate-intensity physical activity into their daily routines.

**Target Population**
The program targets community-residing older adults who have the ability and interest to participate in the program. Specific participant eligibility criteria include:

- Age (65+) and participation in MSSP (dual eligible and Skilled Nursing Facility eligible)
- Need for assistance with 2 - 4 activities of daily living (ADLs)
• Willingness to participate (motivation)
• Attendance in adult day health programming does not exclude participation if client still benefits from enhanced physical activity
• Caregiver in the home not required but permissible
• If client lives alone or has no caregiver available, he/she must have ability to stand unassisted in order to exercise alone safely
• Cognitive status sufficient to follow directions

Settings
*Healthy Moves for Aging Well* is suitable for implementation in the home by care managers with varying support from community-based organizations that focus on the needs and concerns of seniors. Such organizations include, but are not limited to, senior centers, churches, care management organizations and congregate housing. Support from these organizations includes one or more of the following: facilities for orientation, materials and supplies, training and group assessments, volunteer recruitment, training and support for coaching and avenues for marketing/recruitment.

Evaluation and Outcomes
Testing of this physical activity intervention, the first of its kind with the large dually eligible MSSP population in California, occurred in the four MSSP sites. Evaluation had the goal of discovering and exploring issues that arise in introducing an evidence-based physical activity program to frail elderly in care management programs. Developers of the intervention anticipate that addressing concerns about client safety and falls prevention, and teaching care managers how to implement new and simple evidence-based exercises for their older clients will generate further improvements in the health of this vulnerable population.

For evaluation purposes, survey instruments help assess both client and care manager satisfaction with the program. Baseline data collection includes demographics (age, gender, ethnicity, living status, and depression levels), assessment of the physical activity condition of each client, and categorization of clients into three categories according to their level of physical condition (above average, average, and below average).

Following the 6 month intervention period, clients are formally reassessed. At that time, participants also complete client and care manager satisfaction surveys to determine the outcomes, successes, and challenges of implementing the physical activity intervention.
For more information about Healthy Moves for Aging Well, contact:
Jennifer Wieckowski, Partners in Care Foundation, Inc., (818) 526-1780, ext. 115, JWieckowski@picf.org.

References


Healthy IDEAS for a Better Life
A Community-Based Depression Education and Support Program

The Houston (TX) Regional Advisory Panel developed the evidence-based model program, Healthy IDEAS (Identifying Depression, Empowering Activities for Seniors) for a Better Life (Healthy IDEAS), a community program designed to detect and reduce the severity of depressive symptoms in older adults with chronic health conditions and functional limitations. The program incorporates four evidence-based components into the ongoing delivery of care management or social service programs to older individuals in the home environment. The Healthy IDEAS program components include screening and assessment of depressive symptoms, education for clients and family caregivers about depression and self-care, referral and linkages to health and mental health professionals and behavioral activation. Behavioral activation is a brief and uncomplicated approach for reducing depressive symptoms through increased exposure to reinforcing healthy activities.

The Healthy IDEAS program is part of the Model Programs Project sponsored by the National Council on the Aging (NCOA) with funding from the John A. Hartford Foundation. NCOA provides national leadership, oversight and funding for the Healthy IDEAS project, which is locally administered by Huffington Center on Aging at Baylor College of Medicine. The Huffington Center convened a Regional Advisory Panel of experts representing academia, health care and the aging network to provide guidance and technical assistance to their effort to develop the model program and supportive training, to provide expertise in depression, and evaluation assistance during the program’s implementation.

Scope of the Problem
About 20 percent of U.S. adults aged 65 and older experience depressive symptoms. The signs of depression include sadness, inactivity, cognitive deficits and an inability to be attentive; at its best it robs older adults of quality of life, and at its worst it proves life-threatening. Among older adults, women more commonly exhibit severe depressive symptoms than men, but by age 85 symptoms occur equally in both genders (22.5% of men; 23% of women) (FIFARS, 2000). The prevalence of major depression increases as one moves from community settings (1-3 %) to primary care
(5-9 %) and to institutional settings such as nursing homes (12-30 %). In addition to major depression, dysthymia, a chronic depressive syndrome that persists for at least 2 years, and minor depression occurs in between 17 and 25 percent of older primary care patients. Studies of older adults have found that about 50 percent of those with clinically significant depressive symptoms in primary care continue to have symptoms at follow-up intervals ranging from 9 months to 2 years.

In specific subpopulations of at-risk elders, the incidence of depression can soar. One investigation of home health care recipients found that 73 percent met the DSM-IV criteria for major depression (Bruce et al., 2002). Because many losses and changes in older adults’ lives appear as both risk factors for and consequences of depression, providers and older adults may not readily recognize depression as a clinically distinct problem, as they would other medical problems (Charney et al., 2003). The degree to which depression frequently accompanies common diseases of the elderly - heart disease, stroke, cancer, and diabetes - further masks its identification. In such cases, when it co-exists with other medical problems, depression jeopardizes health recovery by impairing the patient’s ability to seek treatment and to adhere to medical advice once secured. Depression can also increase risk for subsequent illness, cognitive and functional impairment, and premature death (Blazer, Hybels, and Pieper, 2001). Such depression often remains undiagnosed and untreated, leading to a loss of physical, social, and mental functioning and increasing levels of disability (Surgeon General’s Report, 1999).

Evidence of Effective Interventions in Depression
Although extensive literature describes effective treatments for depression in older adults, the Healthy IDEAS Advisory Panel focused on effective interventions that incorporate relevant leadership and intervention roles for community organizations and opportunities for strengthening linkages among the aging services, health care and mental health providers. The review of evidence centered around four topics: screening, systems interventions, psychosocial interventions, and outreach and educational interventions.

Screening
Early recognition of depression facilitates treatment and prevents life-threatening outcomes (Fiske, Kasl-Godley and Gatz, 1998). Studies support the predictive accuracy of using two questions to screen for depression; with training, nonprofessionals (receptionists, case aides, community outreach workers) can successfully administer these questions (Whooley et al., 1997; HMO Workgroup on Care Management, 2002). Similarly, developers of Healthy IDEAS chose the Geriatric Depression Scale as a follow-up scale to confirm a positive response to
the questions and to assess severity because of its excellent track record in frail or even mildly demented elderly (Sheikh & Yesavage, 1986). Indeed, the “toolkit” developed by NCOA and the Substance Abuse and Mental Health Services Administration (SAMHSA, 2003) also recommends self-administered versions of this scale. These validated tools for depression have high sensitivity (they rarely “miss” persons with depressive symptoms), although they may not provide diagnostic specificity, they may suggest depressive symptoms in individuals who do not meet diagnostic criteria for depression. Authors of a recent review of case-finding questionnaires for depression noted similar performance across several measures and recommended selection of an instrument based on “brevity, response format, the desire to screen for other psychiatric illnesses and the need to monitor response” (Williams et al., 2002).

Systems Interventions
Although ample evidence shows that either antidepressant medication or specific forms of psychotherapy successfully treat depression in later life, few older adults receive effective treatment. Interventions with the most promising outcomes include what Oxman and Dietrich (2002) and others have termed “systems interventions” involving the integration of primary care and mental health services in a partnership with the patient. Several “generations” of collaborative care models and quality improvement approaches (Callahan, 2001; Oxman and Dietrich, 2002) have highlighted the following key features for effective treatment of depression:

- Self-management/patient education
- Evidence-based provider education and decision support
- Access to psychiatric support/mental health expertise
- Care management and monitoring of patient response

The IMPACT study (the largest study of depression in older adults) found that those older adults assigned to the collaborative care intervention, who received guideline-driven care along with antidepressant medications or therapy, had better outcomes than those assigned to usual care. Specifically, they reported higher satisfaction with their depression care and partial or total remission of depressive symptoms after 12 months (Unützer, et al., 2002).

Psychosocial Interventions
The Houston Advisory Panel reviewed studies of various psychosocial interventions with older adults including cognitive-behavioral, interpersonal, psychodynamic, life review, family and group interventions. The strongest empirical support exists for cognitive-behavioral and interpersonal psychotherapies. However, these studies
mostly involved well-educated populations of white younger old adults (Karel and Hinrichsen, 2000). The Regional Advisory Panel focused most carefully on selecting practical interventions that they believed to be usable in an individual, rather than family or group format and adaptable to culturally diverse populations with different education levels. Behavioral interventions have been successfully adapted to work with older adults and require less mental health expertise than other interpersonal approaches.

Behavior therapy has a long history of efficacy for the treatment of depression. The behavioral activation approach derives from behavioral theories that suggest that changes in the environment, in particular decreases in pleasant events or increases in aversive events, have an association with depression onset. Social learning theory anchors interventions based on this model, which focus on the need for individuals to increase the amount of positive reinforcement in their environment by increasing the frequency of pleasant events (Lewinsohn and Graf, 1973). This behavioral intervention has been adapted for use in several formats with a wide range of populations (Hollon, 2002), including older adults, and requires less mental health expertise than other behavioral approaches. Recent findings from the PEARLS (Program to Encourage Active, Rewarding Lives for Seniors) Project, conducted by the University of Washington Health Promotion Research Center with funding from the Centers for Disease Control and Prevention, support the use of behavioral activation approaches with frail older adults who receive services through community agencies. This CDC-funded study investigated an innovative community-based approach - focusing on problem solving, counseling and planning physical, social, and other pleasant activities - to improve the health and well-being of seniors with symptoms of minor depression. Results showed that the PEARLS intervention improved depressive symptoms, functional well-being and emotional well-being.

Behavioral activation provides a relatively simple treatment for both providers and patients, and as such, may be particularly useful for older adults seen in primary care and community settings. Pilot data have suggested a positive impact of behavioral activation on depressive symptoms in younger and middle-age patients (Lejuez et al., 2001), and recently reported findings from a larger clinical trial comparing behavioral activation, cognitive therapy and pharmacotherapy (Jacobson et al., 2001) support the efficacy of using behavioral activation independently with older adults. The rationale for its use as an intervention in the Healthy IDEAS model program includes:

- It seems particularly well suited for the treatment of late-life depression in community settings.
• Community care service providers with limited mental health backgrounds and experience can readily learn this simple method.

• It has grounding in both theoretical and empirical literatures, and it serves as a major component of other more complex, psychosocial interventions that research has found effective for treating depression in late-life (e.g., Cognitive-Behavioral Therapy), including a recent successful in-home treatment program (Ciechanowski et al., in press).

Outreach and Education Interventions
Community-based aging service organizations have developed education and outreach programs aimed at improving detection and treatment of depression and substance abuse. In April 2002, SAMHSA released a guide developed by NCOA called Promoting Older Adult Health: Aging Network Partnerships to Address Medication, Alcohol and Mental Health Problems (Substance Abuse and Mental Health Administration, 2003). The Houston Regional Advisory Panel considered the following operational lessons from these programs:

• The importance of strong linkages among community, primary health care and mental health providers
• The value of peer-to-peer support
• The needed emphasis on client empowerment
• The importance of provider training
• The value of using a health promotion message rather than a mental illness message.

Goals and Objectives
The goal of the Healthy IDEAS model program is to reduce the severity of depressive symptoms in older clients of community agencies and their in-residence caregivers who are older adults. Specific objectives include:

• Improve recognition and understanding of depression among older adults and their families
• Assure that the program is appropriate for, and highly satisfying to, culturally diverse clients and caregivers
• Improve the knowledge and skills of community providers regarding recognition and treatment of depression
• Assure that the program is replicable and sustainable
• Strengthen the working relationships among older adults and providers of social, health and mental health services
• Reduce barriers to successful treatment of depressive symptoms
Model Program Description
Program Elements
The components of the program include:

- Screening for symptoms of depression
- Performing basic assessments for severity of depressive symptoms
- Educating older adults and primary caregivers about depression, effective treatment and self-care

The presence and severity of depressive symptoms will determine the scope and duration of the intervention. For older adults with depressive symptoms, the program also involves:

- Referral to and follow-up with primary care and mental health service providers
- A behavioral activation intervention

The Healthy IDEAS toolkit provides specific protocols, detailed scripts for participating providers and forms for clients and care managers.

Screening and Enrollment
Care managers or other frontline outreach workers, screen both new and ongoing clients of vanguard pilot agencies for depressive symptoms. They administer the two-question depression screening at the initial assessment interview with a new client, or during a follow-up interview with an existing client. This screening interaction is scripted and incorporated into the established assessment and follow-up record-keeping system of the pilot agencies. Care managers also ask older adult caregivers who reside with the agency client to respond to the two-question screening. If some concern exists about the client’s cognitive status, care managers ask the caregiver or the most readily available key informant to answer the screening questions about the client (separately from the client). In the absence of a readily available key informant, the care manager can respond to the questions if s/he knows the client well.

Assessment of Symptom Severity
If the client (or proxy respondent) responds positively to one or both of the screening questions (yes to either question), then care managers ask the older client and/or older caregiver to complete the Geriatric Depression Scale (GDS) to assess the severity of the depressive symptoms. As appropriate, the care manager uses cards with the response categories printed in large type in the client’s preferred language.
**Education about Depression and Treatment**
In order to expand awareness of the symptoms of depression, and increase the understanding of ways to prevent and treat depression, all older adults receive some printed information about depression self-care strategies and local treatment resources. Interested clients or family members also may view videos about late-life depression. At this initial stage, care managers also provide family members residing in the home with the information and encourage them (with the elder’s consent) to participate in the individual’s self-management program.

**Referral Linkages to Treatment for Depressive Symptoms**
*Healthy IDEAS* has taken several steps to improve linkages and communication among social, health, and mental health services. The Houston Advisory Panel reviewed the list of aging and mental health service providers maintained by the local mental health association, augmented by the pilot agencies. The resultant detailed inventory of mental health services provides the vanguard agencies with key information needed to link older adults to mental health providers.

**Behavioral Activation Intervention**
This phase of the program actively engages older adults with mild to moderate symptoms of depression, an interest in learning more about depression, and the desire to decrease depressive symptoms. After the initial assessment and education visit, the intervention typically involves two or three face-to-face visits and five or more telephone contacts related to depression self-care typically over a period of three or four months.

Building on carefully established rapport with clients, care managers help clients understand the connection between behavior and mood. Using a problem-solving approach and knowledge of a client’s overall abilities and needs, care managers help clients select goals to add some pleasurable or satisfying activities back into their lives and identify the steps and other support needed to achieve the client’s chosen goal(s). In some instances, a client may choose taking steps to obtain further evaluation and treatment for depressive symptoms as the first “activity goal.” Other goals may involve taking action to avoid something negative such as problematic interactions with a family member or resuming an “old activity” such as social contact with lost friends. Through follow-up telephone and in-person support, care managers monitor progress on goals, help clients adjust goals as needed and reinforce positive behavior. Activities in behavioral activation vary and may change over time depending on what a client finds important to help alleviate a depressed mood, as assessed with repeat administration of the Geriatric Depression Scale.
The presence and severity of depressive symptoms determine the scope and duration of the program for each client. The needs of the older person with depressive symptoms, his or her ability to participate in the intervention, and the change in symptom severity over time determine the number of contacts. If at any time a client’s symptoms become severe, the intervention then refocuses to help a client obtain treatment.

**Settings**

Suitable settings for this intervention include community aging agencies with ongoing service delivery in the home environment via care managers, outreach personnel, or social service staff members. Appropriate agencies are those that serve older adults at risk for depression, including older adults with chronic illness, immigrants to the U.S., and socially isolated elders. Agencies must have existing assessment and follow-up procedures around identified client needs and a willingness to improve the quality of care for persons with depression. These settings can include community-based agencies, as well as congregate housing settings with social services, such as assisted living residences.

To implement this program, agencies need personnel capable of establishing ongoing, problem-solving relationships with older adults who may have multiple problems and may be socially isolated. Agencies need to have established procedures for linking older adults to other health providers and maintaining contact in person and by telephone.

**Target Population**

The Houston Regional Advisory Panel designed the *Healthy IDEAS* model program for ethnically and socio-economically diverse populations of older adults living in the community at high risk for depressive symptoms. Common psychosocial risk factors for older adults with depression include death of a spouse or loved one, co-morbid conditions, disability, loss of functioning, and social isolation. Furthermore, the design of the program for older adults (60+) requires the participant’s ability to understand and communicate verbally, the cognitive skills to participate, and current enrollment in a long-term supportive services program.

**Training and Coaching**

Mental health professionals from academic or health partners provide depression training for agency workers and also serve as “coaches” to enable supervisors and workers to acquire skills needed for this evidence-based intervention. Although limits of the pilot program made this approach impossible, the Regional Advisory Panel envisions training
clinically qualified agency supervisors or program directors to serve as “coaches” and trainers for ongoing sustainable programs.

**Evaluation and Outcomes**
The planned evaluation of Healthy IDEAS included basic process and outcome measures, including the development of tools to measure the change in perceived skills and knowledge of providers, as well as the satisfaction of the client with the program. The proposed client outcomes included an assessment of depression and of success in obtaining recommended medical/consultant follow-up. Finally, for a subset of clients, vanguard agency providers were asked to complete a few summative questions on the client’s overall participation. Program personnel designed tracking forms to obtain information about the total number of older adults whom care managers approached, screened, and entered into the Behavioral Activation Intervention, as well as reasons for client refusal or withdrawal. As designed, the evaluation plan was too ambitious to implement fully during a short-term pilot with limited time to embed the measures into agency forms and procedures. However, these measures will provide appropriate and useful tools for ongoing programs.

As implemented, the evaluation of the model program pilot included the most critical process and outcome measures to help determine the factors that facilitated or impeded the successful integration of the program into the ongoing care management or supportive services role, and identify potential improvements to the model program. The evaluation focused on basic intervention fidelity and completeness of implementation, agency satisfaction, and client self-report of depressive symptoms.

In regularly scheduled meetings, coaches and agency workers reviewed the progress of participants using both unstructured discussions and formal review of the intervention tracking forms the agency providers were asked to complete after each client contact. Coaches also observed care managers as they provided the intervention and used a rating scale to assess global provider knowledge, adherence, and competence in administering the intervention. The rating scale also included items that evaluate intervention fidelity more specifically across different intervention components (e.g., assessment and screening, patient education, referral/linkage, behavioral activation). Although the pilot experience supported only limited evaluation in this area, coaches could make ratings using this tool and provide feedback to the worker and agency. The information gained from this process supported program refinement, as well as increased skill development of the front-line workers.
Clients who participated received a final post-test Geriatric Depression Scale assessment to determine changes in depressive symptoms, and the Regional Advisory Panel completed case studies on a subset of clients to document the program delivery. These client specific findings indicated improvement in depressive symptoms and in some instances successful linkage to medical treatment.

An overall evaluation summary and report of lessons learned will integrate all of the process and outcome information. Themes identified to date include the following:

- Increased staff confidence in ability to help with depression
- Increased staff knowledge
- Increased client awareness, knowledge, and comfort
- Improved case management services

Agencies view Healthy IDEAS as an effective prevention program for their clients, as well as an important approach to decreasing the stigma of mental illness in older adults. All four participating pilot agencies have integrated one or more components of the program into their ongoing service delivery.

For more information about Healthy IDEAS, contact: Nancy L. Wilson, Huffington Center on Aging at Baylor College of Medicine, (713) 798-5804, nwilson@bcm.tmc.edu

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The Boston (MA) Regional Advisory Panel, under the supervision of the Lahey Clinic, developed the evidence-based model program for seniors who want to be better educated in nutrition in order to live a healthier lifestyle. *Healthy Eating for Successful Living in Older Adults (Healthy Eating)* focuses on the combination of heart healthy and bone healthy nutrition and stresses self-management strategies with behavioral modification approaches. The intervention uses peer support to concentrate on behavior change as a core component.

*Healthy Eating* is an educational and hands on program using the Food Guide Pyramid as a framework. The overall goal is to encourage individuals to view nutritional strategies in a positive proactive manner and to understand the control they have over diet. The main components of the program include:

- Self-assessment and management of dietary patterns by each participant
- Goal-setting, problem-solving, and group support
- Education, relying on both group interaction and the expertise of a Registered Dietician/Nutritionist when needed
- Behavior change strategies

*Healthy Eating* is part of the Model Programs Project sponsored by the National Council on the Aging (NCOA) with funding from the John A. Hartford Foundation. NCOA provides national leadership, oversight and funding for the *Healthy Eating* program, which is locally administered by Lahey Clinic. The Lahey Clinic convened a Regional Advisory Panel of experts representing academia, health care and the aging network to provide guidance and technical assistance to Lahey’s effort to develop the model program and supportive training, nutrition expertise, and evaluation assistance during the program’s implementation.

**Scope of the Problem**

The importance of nutrition in the older adult population is specifically critical in the prevention of development and progression of chronic disease. Both heart disease and osteoporosis are common problems that can have devastating effects on functional capacity and quality of life.
Healthy eating and moderate physical activity are key promotion behaviors that can reduce the burden of heart disease, a leading cause of death in the older adult population. Osteoporosis, a disease that thins and weakens bones, is the cause of 1.5 million fractures each year. It affects about 10 million Americans over age 50, while another 34 million are at risk (U.S. Surgeon General, 2004). Osteoporosis is largely preventable through eating a diet rich in calcium and vitamin D and following a lifestyle that includes regular weight-bearing exercise.

The report, “Malnutrition in the Elderly, A National Crisis” (Cope, 1996), described the scope of poor nutrition among older adults in detail. According to this report, one in four elderly in the community is malnourished. Malnutrition refers to any disorder of nutrition and can result from an unbalanced, insufficient or excessive diet, or from impaired ability to absorb nutrients. Obesity often masks malnutrition. The signs of poor nutrition can mimic effects of aging, therefore older adults and health care providers often under-recognize them. Poor nutrition can occur in all segments of the older adult population, but common risk factors include poverty, social isolation, polypharmacy, chronic disease, and poor oral health. Poor nutrition is associated with many adverse health events, including increased risk for chronic disease, infection, disability, longer hospital stays and hospital readmission.

Evidence of Effective Interventions in Nutrition
NCOA charged the Boston Regional Advisory Panel with identifying evidence-based interventions to improve the nutritional status of older adults. An earlier review of the literature conducted by NCOA staff found very little published on interventions with successful outcomes in aging and nutrition. The limited published evidence for nutrition interventions appropriate for community-based programs narrowed the search for effective interventions.

An independent literature review on community-based nutrition interventions by Nadine Sahyoun R.D., Ph.D., of the University of Maryland confirmed this finding. Sahyoun identified 128 original articles, only 24 of which met criteria of being community-based, outcome-oriented and original research (Sahyoun 2002, and personal communication). Only half of the 24 articles focused on the 55-and-over population, and some of these studies were over ten years old.

Approximately half of the 24 articles that were reviewed by Sahyoun and met criteria pertaining to community-based nutritional interventions, centered around diabetes, hypertension, and hyperlipidemia. Only a few addressed osteoporosis prevention. Eleven studies had fewer than 100 participants, and articles did not always specify targets or delineate ethnicity. The rest of the studies referred to "healthy and mobile"
individuals without a more specific definition. The types of outcomes measured included nutrition knowledge, behavior change, and both anthropomorphic (Body Mass Index) and biochemical markers (Sahyoun—personal communication).

Essentially, these studies found that nutrition education that targeted peoples’ problems, rather than more generic education, had significantly greater success in reaching measured outcomes. The more effective programs had a behavior focus based on appropriate behavioral theory and personal change research (Contento et al., 1995). Dietitians played a key role in most of these studies, as seen particularly in the Colson (1991) article. This study, which involved 41 adults aged 60 and over in an unspecified setting, had an experimental design with hypertensive and normotensive treatment and control groups. Pre, post and follow-up tests measured knowledge about nutrition. Weekly nutrition education classes (in an informal group discussion format) on sodium status and health occurred over 8 weeks. The results showed greater change in the hypertensive group than the normotensive group, suggesting that medical need stimulates dietary change. This program was somewhat effective in influencing dietary habit and very effective in increasing nutrition knowledge.

The largest number of studies done in community-based settings concerned lipid lowering. Doshi et al. (1994) studied a multidisciplinary nutrition education and fitness training program that met twice a week for a total of 20 classes, to gauge its effectiveness in lowering lipid profiles for 31 elderly clients. Results included significant decreases (p<0.05) in waist circumference, total cholesterol, low-density lipoproteins, and cholesterol/HDL ratios for those in the program.

Saturated fat intake plays a key role in an individual’s ability to lower cholesterol levels through nutritional interventions. Another study found that saturated fat intake decreased in patients with ischemic heart disease one year after comprehensive counseling (two individually tailored 50- minute sessions held three months apart) compared to standard practice counseling in a randomized control trial of 37 patients in a cardiac rehabilitation program (Dalgard et al., 2001).

A nutrition education program for patients with peripheral vascular disease incorporated patient participation in goal setting and practical "how to" guidelines tailored to the patient's individual needs. Patients (N=18), a nutritionist, and a nurse collaborated in an 18-month intervention to initiate patient involvement to make positive dietary changes. Targeted changes included lower cholesterol and saturated fat intake, increased fiber and complex carbohydrate intake, and weight loss. Thirteen of the 18 patients achieved these goals (Grace, 1994).
The Boston Regional Advisory Panel had special interest in osteoporosis screening and interventions because of the impact of osteoporosis on functional independence in elders who fall. The literature offers little regarding interventions in the community that have a positive impact on bone mass. Heaney et al. (1999), however, showed that dietary change increased calcium and vitamin D intake and favorably affected bone remodeling in older adults. Barr et al. (2000) demonstrated that older adults could successfully increase calcium intake when dietitians played a key role in the dissemination of this advice.

Across all these studies, several features seem to be associated with successful programs. The studies that focused messages on a limited number of topics had greater success, although the studies reviewed contained many different messages. Studies that used “hands on” methods seemed to have more successful outcomes. Adults had greater success with nutritional behavioral change when actively involved in analyzing their own diets, setting goals and monitoring progress towards goals (Hackman et al., 1990; Kupka-Schut et al., 1992). A common theme through most of the studies concerned teaching people how to read labels.

Personalized self-assessment of nutritional status or food-related behaviors with feedback in relation to recommendations contributed to success. Interpersonal and personalized counseling and education, whether individually or in small groups, effectively facilitated behavioral change (Contento et al., 1995). Communication and education strategies for enhancing awareness and motivation also were critically important. Successful programs focused on changing behavior and active contact with people. Conversely, programs that only passively provided information materials and messages had less success. Interest in maintaining health and opportunities for social interaction motivated older adults (Ho et al., 1991). Studies across population groups generally documented the importance of social support such as family and peers.

Point of choice interventions in grocery stores and eating establishments showed limited effectiveness (Contento et al., 1995). Studies indicated that these changes lasted only during the intervention and affected specific food choices rather than total nutritional quality of a meal or overall diet.

In general, across all studies, the frequency of interventions varied and did not necessarily correlate with success. Some occurred once a week, others less often or more often, so we cannot draw a clear consensus about an optimal number of sessions. “The Role of Nutrition in Maintaining Health in the Nation’s Elderly: Evaluating Coverage on Nutrition Services for the Medicare Population” (2000), a report drawing
attention to dyslipidemia and osteoporosis prevention, supplemented findings from these studies. Substantial evidence from observational studies and randomized trials supports the use of nutrition therapy to improve lipid profiles and thereby prevent cardiovascular disease in the elderly. Regarding osteoporosis, the report consensus found a considerable body of evidence, including multiple randomized controlled trials to support enhanced intake of calcium and vitamin D for both prevention and treatment of osteoporosis in the at-risk elderly population.

Goals and Objectives
The overall goal of the Healthy Eating program is to improve nutrition and activity among participating seniors, focusing on a heart healthy and bone healthy diet and supportive physical activity. The program developed by the Boston Regional Advisory Panel intends to foster improvement in nutritional aspects of lifestyle by focusing on all the components of nutrition - food, exercise, behavior change, and social support. Program design goals include cultural adaptability for diverse populations, ability to be replicated, and perceived value by the participants. Additionally, the Advisory Panel emphasizes the importance of communicating the program’s successes to health care entities in order to develop and improve linkages between the Aging Services Network and the health care community.

The Model Program Description
At the core of the Healthy Eating program is an educational program with a behavior change focus. The program stresses heart and bone healthy nutrition strategies to help maintain older adults’ wellness and independence and to prevent chronic disease development or progression.

Using published evidence, the Boston Regional Advisory Panel designed the intervention to meet the nutritional needs and concerns of seniors and to serve a diverse population. The Panel also sought to put an intervention into practice at community-based organizations that are linked with the medical community via health enhancement clinics and programs. Education is woven throughout the program, relying on both the group interactions and the expertise of a Registered Dietician/Nutritionist when needed. Using the Food Guide Pyramid as a framework, it stresses the importance of heat healthy and bone healthy food choices. The program intends to inspire a self-selected, individualized healthy eating way of life for each participant.

Program Elements
A support group with a behavior change focus forms the core of Healthy Eating. The program utilizes group discussion and education, starting
from the bottom of the Good Guide Pyramid (i.e. the importance of eating breads, cereals, rice, pasta, etc.) and ascending through the top tier of limiting fats and sweets. Healthy Eating also includes recommendations and support for physical activity as part of sound nutrition practices. The educational sessions address this support with goal setting and problem solving to develop a process by which individuals will avail themselves of existing physical activity programs. Either the host organization or the community at large may offer these physical activity programs.

The Healthy Eating program focuses on specific food groups while promoting the importance of eating a healthy and a well balanced diet. Central components of the program include behavior change, self-management, and control by each participant of his/her diet. The program comprises six sessions of a workshop of 2.5 hours each and a restaurant outing to test knowledge and skills.

Week #1 Introduction, Food Guide Pyramid, Seven Dietary Guidelines, Water and Exercise
Week #2 Grains, Vegetables, Fruits and Exercise
Week #3 Meats, Milk and Exercise
Week #4 Milk, Sweets, Fats and Exercise
Week #5 Label Reading and Grocery Shopping
Week #6 Putting It All Together - Meal Preparation or Cooking Demonstration

Healthy Eating Luncheon (one month after Week #6)

Participants are expected to attend all sessions, as well as the Healthy Eating Luncheon. Each session is organized to maximize interaction, with the peer leaders facilitating the process.

Sessions are highly participatory and include distinct activities: education, support, and resource connection.

- Education: Expert professionals from the nutrition and behavior change/self management fields have prepared educational materials to use in this program. Goal setting is part of the educational process.

- Hands-on Activities: The program includes a variety of “hands on” activities such as going to the grocery store, learning to read food labels, and making a healthy choice at a restaurant or in meal preparation.

- Support: Problem-solving techniques help participants address problems and overcome barriers. The group acts to support
members by applauding each other’s successes when goals are met, and helping to find alternatives when goals are elusive. Participants keep a checklist of food choices for a limited time to monitor changes in their eating habits.

- Resource Connection: A Registered Dietician/Nutritionist is available as needed to answer technical questions and make appropriate referrals to printed materials. Useful community resources such as availability of exercise programs and different sources for healthy food, can be shared by group members.

Peer Leaders
The facilitators of the program are two peer leaders from the community with no formal training in nutrition or health, who receive training to foster the group dynamic. Following a detailed script, they guide the process so that group members take the information presented and learn from each other about various ways to incorporate behavior changes into their daily lives. The leader also demonstrates how to be a supportive group member by helping people assist and support each other. The peer leader therefore needs to be willing to participate as a group member in each session and provide leadership when needed.

The peer leaders may come from the community-based organization’s staff, volunteers, or seniors. Suggested criteria for selection of peer leaders include interest in the subject matter, commitment to trust the process, and ability to embrace change. Training of the peer leaders follows a “train-the-trainer” format with detailed training instructions found in the Trainer’s Manual of the Healthy Eating toolkit. The training requires two eight-hour sessions and follow-up as needed via e-mail or telephone. Most effective training enrolls 6-8 trainees in the 2-day module designed specifically for this project. Training can be held on site or at a centralized location as a collaborative activity among area community-based organizations.

Settings
The Healthy Eating program is suitable for any community-based organization focusing on the needs and concerns of seniors, including but not limited to, senior centers, churches, congregate housing, and congregate meal sites.

Target Population
Adults age 60 and older who want to gain knowledge about healthy eating and exercise are eligible for the program. They must be cognitively intact and able to participate in group discussions. Participants do not have to be committed to making behavioral changes.
when they join the program, but should be willing to take part in the process. They must also have ready access to the community-based organizations hosting Healthy Eating.

Evaluation and Outcomes
The design of the Healthy Eating programs suggests the following outcomes:

Participants in the program will have:
- Increased knowledge about heart and bone healthy diet choices and physical activity
- The ability to set reasonable goals and solve problems related to common nutrition self-management issues.
- A new set of community resources and the knowledge on how to use them.

A survey completed at the start of the program and 2-3 months after completion of the workshop, or at the time they drop-out, measures these outcomes pre and post participation.

For more information about Healthy Eating for Successful Living, contact: Margie Doyle, MBA, Lahey Clinic, (781) 744-5364, Margherita.Doyle@lahey.org

References


Healthy Changes
A Community-Based Diabetes Education and Support Program

The Portland (OR) Regional Advisory Panel, under the supervision of the Providence Center on Aging, developed the evidence-based model program titled Healthy Changes. The program provides both education and support to assist older adults in the day-to-day self-management of diabetes by focusing on the roles that nutrition and physical activity play in the management of the disease. The program offers weekly group meetings in which participants learn about nutrition, exercise, and physical activity as they relate to diabetes; have an opportunity to discuss their personal goals and achievement of those goals; receive problem-solving and support from other group attendees; and learn about community resources available to help them. An important component of the program educates participants to set reasonable goals, problem solve, and establish sources of peer support.

Healthy Changes is part of the Model Programs Project sponsored by the National Council on the Aging (NCOA) with funding from the John A. Hartford Foundation. NCOA provides national leadership, oversight and funding for the Healthy Changes program, which is locally administered by Providence Center on Aging. The Providence Center convened a Regional Advisory Panel of experts representing academia, health care and the aging network to provide guidance and technical assistance to Providence’s effort to develop the model program and supportive training, nutrition and physical activity expertise, and evaluation assistance during the program’s implementation.

Scope of the Problem
Diabetes is a chronic disease in which the body does not produce or properly use insulin, the hormone that converts food into energy. With diabetes, the body doesn’t get the energy it needs, and glucose (unmetabolized sugar) builds up in the blood causing damage to the body (American Diabetes Association, 2002; National Institutes of Health, 2002).

Approximately 17 million Americans, or about 6% of the population, have diabetes. Each of the three major types of diabetes -- Type 1, Type 2, and Gestational -- has slightly varying symptoms and treatments, but they all have serious consequences if left untreated. About 90-95% of people with diabetes have Type 2, the most common form of diabetes.
and the one that typically affects adults over age 40 (American Diabetes Association, 2002; National Institutes of Health, 2002).

The chance of developing diabetes increases with age. An estimated 18% of the U.S. population over 65 years old has diabetes. Diabetes occurs more frequently in some populations, including African Americans, Latinos, Native Americans and Pacific Islanders (American Diabetes Association, 2002; National Institutes of Health, 2002).

The better a person with diabetes maintains glycemic control, the less chance he/she has of developing complications such as heart disease, stroke, blindness, kidney disease, nerve damage, and amputations. Much of the responsibility for managing diabetes falls on the individuals themselves. Self-management regimens include blood glucose monitoring, diet, physical activity, and medication management (American Diabetes Association, 2002; National Institutes of Health, 2002; LifeScan Diabetes Care, 2002).

Marrongiello and Gottlieb identified the following three types of barriers to self-care among older persons (Marrongiello & Gottlieb, 2000):

- Informational-knowledge based: “They must have the knowledge about when and how to engage in a self-care behavior.”
- Motivational-attitudinal based: “They need to believe in their capacity for self-care and the potential efficacy of engaging in the self-care activity, and they need to want to engage in the self-care activity.”
- Resource based: “They need the personal skills and community resources required to engage in self-care activities.”

Therefore, construction of the Healthy Changes program addressed each of these barriers by including an educational component, a motivational component, and a resource component.

Evidence of Effective Interventions in Nutrition

Education has long been recognized as an important part of diabetes care. Formal diabetes education programs meeting specific criteria require a physician’s order; Medicare, as well as many other health plans, reimburse these programs’ expenses (Mensing, 2002). These programs have time limits, contain a prescribed content, and are taught by professionals. Reimbursement limits how often an individual can attend. Developers of Healthy Changes have not intended to design a replacement for formal diabetes education programs, but an adjunct such classes.
The content of the educational component of an intervention can include topics such as general information about diet and physical activity, effects of diet and physical activity on diabetes, and methods to develop an individual activity or meal plan. A review of numerous studies and meta-analyses discussing effective interventions for diabetes self-management showed that interventions focusing on diet or physical activity had positive outcomes for several types of indicators such as decreased fat intake, decreased caloric intake, improved glycemic control, and increased exercise (Rotter, 1998). A community needs survey (Oregon Health Department, 1999) suggested that community members with diabetes have special interest in diet and physical activity. The information provided needs to be accurate and reliable; the model program design, therefore, includes an evidence-based core curriculum of topics and content.

The literature suggests that becoming a self-manager relies less on learning facts about a particular condition and more on learning how to set reasonable goals, problem solve, and establish a source of peer support (Clark et al., 1998; Lorig et al., 1999; Task Force on Community Preventive Services, 2002). Kate Lorig at Stanford University has documented this well, and the emphasis on personal self-management skills serves as the backbone of Stanford’s Chronic Disease Self-Management Program. These activities are designed to improve the individual’s self-efficacy, the confidence one has that he/she can master a new skill or affect his/her own health. Therefore, the intervention will take place in a group setting in order to take advantage of peer support, which Lorig found helps people problem solve and establish realistic goals.

The Healthy Changes program addresses a final self-care barrier to providing adequate resources by establishing community linkages. Little information exists to support this element of the intervention. The literature does, however, note that other studies have sorely lacked this component (Strycker & Glasgow, 2002). Collaboration with community resources, therefore, plays a key role in this diabetes self-management model program.

In 1999, the Oregon Diabetes Program, a program of the Oregon Health Division, sponsored a survey of commercially-insured adults (age 18+) with diabetes from four major health plans in the Portland metro area. They asked this question: “Over the last 12 months, has a doctor or other health care provider explained or shown you [the following]?”

- How to care for your feet?
- How to take your medications?
- What to do for symptoms of low blood sugar?
- How to make appropriate food choices?
- How and when to test your blood sugar?
- What your target blood glucose values should be?
- How to exercise appropriately?

A very high percentage of patients reported positively that they had received information and that they understood it.

The same survey also asked the following question: “Over the last 12 months, how difficult has it been for you to do each of the following exactly as the doctor or other health care provider who takes care of your diabetes suggested?”

- Taking medications as prescribed
- Exercising regularly
- Following your recommended eating plan
- Checking your blood for sugar
- Checking your feet for wounds and sores

Respondents stated they could follow instructions for medications, checking blood glucose, and checking feet. Conversely, the majority of respondents reported that they found it difficult or very difficult to exercise regularly and follow a recommended eating plan. So it appears that individuals do receive information about diabetes from their health care providers, but find it difficult to put information about diet and physical activity into practice.

Although the survey gathered information from a commercial population, two reasons support generalizing the information to an older population. First, the survey included people with Type 2 diabetes, most of whom we can assume are older than age 40. Second, all the health plans in this survey had Medicare plans in addition to a commercial insurance product. The benefits and services available for people with diabetes differed little between commercial and Medicare members.

Health plans and service providers have conducted many activities and programs related to improving diabetes management over the last five years in Oregon. All the health plans in Oregon use a single approved diabetes management guideline. A statewide coalition of health care providers, social service providers, diabetes educators, state agencies, and consumers developed a diabetes plan. The state senior service agency awarded small grants to stimulate innovative programs designed to improve diabetes management for seniors in the long term care system. The local medical professional review organization has worked with hospitals and clinics to improve adherence to the guidelines.
The lack of available programs still limits access to formal diabetes education in many areas, especially very rural areas. No reimbursement mechanism other than private pay exists to provide on-going community-based support for individuals with diabetes, so most agencies cannot afford to offer this service.

**Goals and Objectives**

This intervention has the overall goal to support older adults with diabetes in the day-to-day self-management of their disease. Specific objectives include the following:

**Participant objectives:**

- Increase knowledge about diet and physical activity and their relationship to diabetes self-management
- Learn how to set reasonable goals and solve problems related to common diabetes self-management issues
- Become better prepared to work with health care providers

**Program Objectives:**

- Provide participants with community resource information
- Implement the program as designed
- Obtain information from pilot sites and participants to understand barriers to and enhancers of success for the program

**The Model Program Description**

A Regional Advisory Panel of senior service providers, health care providers, diabetes and geriatric experts, under the leadership of the Providence Center on Aging, developed The Healthy Changes program. The Advisory Panel used evidence-based findings to design the model diabetes self-management program.

As noted earlier, research has shown the importance of education to the management of diabetes. In addition, research has identified the linkage between self-management and the setting of reasonable goals, problem solving, and having peer support. Healthy Changes incorporates all these aspects into each session. Finally, Healthy Changes addresses the barrier of inadequate resources by linking participants with community resources such as exercise programs and nutritional classes.

**Program Elements**

To respond to the need for education, the Healthy Changes program has as a core component a brief educational presentation on a variety of topics related to nutrition and physical activity important for people with diabetes. Program topics include the following:
• Making Healthy Food Choices
• Meal Planning Methods
• Shopping Tips
• Managing Diabetes and Exercise Safely
• Parts of an Exercise Program

The core curriculum for this intervention does not include instruction on home blood glucose monitoring and medication management because of the technical knowledge and expertise needed by an educator to provide that type of instruction. Program personnel refer individuals needing specific instruction about these two areas to their physicians for follow-up, which might include attending a formal diabetes education program.

*Healthy Changes* includes a number of activities related to setting reasonable goals, problem solving, and acquiring peer support. Participants develop a written action plan to help them identify a health goal they want to achieve, the actions they will take during the week to help them achieve that goal, any barriers they anticipate that may prevent them from completing the weekly actions, ways to overcome these barriers and supports to increase confidence in completing the intended actions. Participants share their action plans with the group, first when they develop the plans and then after they attempt to accomplish what they have developed, typically the following week. Group members provide feedback and support about newly developed plans, making suggestions and helping the participant problem solve solutions for any anticipated barriers. When a participant reports back after working on his/her action plan, the group offers congratulations for his/her success or offers encouragement and brainstorms possible solutions if the participant did not achieve the anticipated or desired level of success.

Finally, *Healthy Changes* addresses the barrier of inadequate resources by linking participants with community resources. Research has shown that people often have greater success making health changes if they have connections with a variety of resources. Group discussions often identify resources, which can include things such as exercise programs and nutritional classes. The group leader also shares resources with the group either through his/her own knowledge, or by connecting with other community resource people whom they may invite to the group as guest speakers. The program benefits from its residence in community organizations because such organizations serve as key providers of community programs and know about services provided by other community agencies.

Organizations wishing to implement *Healthy Changes* may obtain a leader’s manual, which covers the core components of the program,
provides information for sites getting ready to implement the program, and provides a weekly class guide to assist the group leader in conducting the sessions. Several other essential elements of the Healthy Changes program are discussed below:

**Group Leaders**

Healthy Changes group leaders organize, coordinate and lead the weekly classes using a defined curriculum and format. The lay leaders can supplement the curriculum with diabetes educators or other knowledgeable professionals as guest speakers. The leader also models how to be a supportive group member and how to help people empower each other. A leader, therefore, must participate as a group member in each session and provide leadership as needed. Other group members eventually may share leadership tasks (for example, recruiting a guest speaker, finding a specific community resource).

The success of the Healthy Changes program depends on the group leader. The organization planning to implement the program has an important responsibility to identify the right person or persons to act as the group leader. A successful Healthy Changes leader will have the following attributes:

- Some previous experience leading or facilitating groups
- Ability to relate to group participants
- Ability to give participants a sense of ownership of the group
- Good listening skills
- Not extensive diabetes experience, but good problem solving skills in order to find other resources that have the answer
- Some experience living with diabetes, either because the leader has diabetes or he/she lives with or cares for someone who does
- If the leader has diabetes, then modeling good care with access to regular medical care (for example, at least one medical visit a year related to diabetes)
- If the leader has diabetes, even if not in perfect “control,” then modeling good care with knowledge of his/her desired A1c number and willingness to work on getting closer to that number
- Knowledge of the correct answers to the Diabetes Self Knowledge Test (found in the Appendix of the Healthy Changes toolkit) and ability to lead a discussion about them
- Ability to avoid advocating within the group for his/her own beliefs and opinions about diabetes care and treatment
Class Format

*Healthy Changes* provides participants with on-going diabetes support, and education about nutrition and physical activity issues. Therefore, the program allows people to join, leave and re-join the group as their personal needs change. Organization of each class permits group members to participate fully even if they have not attended any previous classes.

*Healthy Changes* groups meet once a week as long as interest in the group continues. New members can join at any time as long as space allows. Program developers recommend a group size between 12 and 15 people in order to keep the class size manageable - fewer members dilute the purpose of building support, and larger groups disrupt the effectiveness of the learning experience.

Class Content

The first five “introductory” sessions provide an overview of diabetes, identify the relationships between blood sugar levels and healthy eating and physical activity, establish individual baselines for current eating and physical activity behaviors, and make action plans to improve those behaviors. Leaders should repeat these first five sessions when all the sessions have been covered or when new members need the information.

After the introductory sessions, the *Healthy Changes* group becomes “topic oriented.” Leaders can arrange 21 specific topics in any order or sequence for sessions 6-27. The topics all relate to healthy eating and physical activity. For some of them, leaders might invite a guest speaker to present. For others, the group leader or another group member might present. The members will discuss the topic and related issues during the meeting. The group leader announces the coming week’s topic at the end of each meeting; and should repeat introductory sessions during an ongoing *Healthy Changes* program when all the members are new and have not previously heard the materials, or when the group would benefit from having the sessions repeated.

Each meeting lasts approximately 1½ hours and follows a similar agenda. Group members first report on their action plans. The group then helps problem solve barriers that anyone had in achieving his/her action plan. The presenter then presents and guides discussion of the week’s topic. Finally, group members develop their action plans for the next week and receive any homework assignments.

Settings

*Healthy Changes* is designed to be conducted in community settings such as senior centers, community centers, congregate meal sites, or churches. The research used to develop *Healthy Changes* found that
programs held in medical settings, business locations, or individual homes had less success than classes held in community locations.

**Target Population**

Group members are people over the age of 55 who have diabetes, with no restrictions as to type of diabetes (1 or 2), insulin-dependence, or time or duration of diabetes diagnosis.

Members should live in the community and not in an institutional setting such as a nursing home. Individuals must be able to participate actively in the group; therefore, conditions such as serious memory loss or behavior problems may prevent people from joining the *Healthy Changes* program.

Members may or may not have made a commitment to making healthy changes in their diabetes self-care when they join the program. They must have a willingness to participate in the classes. Group members do not have to have attended a formal diabetes education program prior to joining *Healthy Changes*, although attending *Healthy Changes* does not substitute for a formal diabetes education program. Those who have little knowledge about management issues such as taking medications or insulin, or managing complications are encouraged to follow-up with their health care providers.

**Evaluation and Outcomes**

Evaluation of the effectiveness of the program utilizes the information collected from participants during the pilot phase concerning the degree to which they achieved their health goals and their impressions of the program. The results of this evaluation will be available when analysis has been completed.

Evaluators have used a number of tools to gather information. The Participant Information Survey was designed to get information about participants in the *Healthy Changes* program, such as their health concerns, their self-care practices, and their use of supportive resources to manage their diabetes. The survey is administered to each individual twice: first, when the participant first joins the group and, second, six months later. In the two follow up surveys participants are asked to rate their satisfaction with the program.

Attendance records at each session document participation. Analysis of the attendance log determines the average number of people who attend each *Healthy Changes* session and the average length of time a participant takes part in the *Healthy Changes* program.
When a group member misses a session, leaders make a follow-up phone call to determine why they missed the Healthy Changes program and if they will be returning. Evidence shows that people will likely continue in support groups if they establish a personal connection with others in the group. The follow-up shows that the leader cares about participants and also helps determine the reasons participants miss Healthy Changes sessions.

An important part of the evaluation includes determining the degree to which people achieve their weekly action plans. Participants fill out progress charts during several of the sessions. The progress chart (found in the Appendix of the Healthy Changes toolkit) identifies the extent to which participants believe they have achieved their goals and, if so, what has helped or, if not, what barriers they have encountered.

For more information about Healthy Changes, contact: Cindy Klug, Providence Center on Aging, (503) 513-8505, Cindy.Klug@providence.org.

References


Physical Activity and Older Adults: Facts and Figures

“For many adults, growing older seems to involve an inevitable loss of strength, energy, and fitness. But it need not be so. The frail health and loss of function we associate with aging, such as difficulty walking long distances, climbing stairs, or carrying groceries, is in large part due to physical inactivity. When it comes to our muscles and physical fitness, the old adage applies: ‘Use it or lose it.’”

You may find the following information below useful as you address physical activity and older adults in your community. A list of helpful resources follows the facts and figures.

- Few factors contribute as much to successful aging as physical activity.  
- Among people aged 65 years or older, 36.8% get their daily recommended exercise (30 minutes of moderate activity most days); 34.9% do not get a sufficient amount of exercise; 28.3% are inactive; and 34.2% participate in no leisure-time physical activity.
- Research has shown that virtually all older adults can benefit from regular physical activity. In particular, regular physical activity can improve the mobility and functioning of frail and very old adults. Even the very old (90+ years of age) respond to exercise with a marked and rapid improvement in fitness and function. Many people 90+ who have become physically frail from inactivity can more than double their strength through simple exercises in a fairly short amount of time.
- Physical activity can reverse loss of physical capacity. By the time many people reach 80, they have lost half the aerobic capacity they had at age 20. For those who remain physically active, this decrease diminishes significantly.
- Physical inactivity contributes to 300,000 preventable deaths per year in the US.
• In one study, researchers found:
  - By age 75, 42% of women could not stand for more than 15 minutes, 20% were unable to climb stairs, and 33% were unable to lift a weight over 10 pounds.
  - By age 85, about 50% of older adults required assistance with their activities of daily living (ADLs) such as walking, bathing, eating, dressing, and using the toilet.6

• There has been no improvement in the levels of physical activity among older adults over the past decade in the United States.

• Physical inactivity and unhealthy eating are responsible for at least 400,000 deaths each year.

• Regular physical activity performed on most days of the week reduces the risk of developing or dying from some of the leading causes of illness and death in the United States. Regular physical activity improves health in the following ways:
  - Reduces the risk of dying prematurely
  - Reduces the risk of dying from heart disease
  - Reduces the risk of developing diabetes
  - Reduces the risk of developing high blood pressure
  - Helps reduce blood pressure in people who already have high blood pressure
  - Reduces the risk of developing colon cancer
  - Reduces feelings of depression and anxiety
  - Helps control weight
  - Helps build and maintain healthy bones, muscles, and joints
  - Helps older adults become stronger and better able to move about without falling
  - Promotes psychological well-being

• Physical activity need not be strenuous to be beneficial. Walking, square dancing, swimming and bicycling are all recommended activities for maintaining fitness into old age. The 30 minutes of moderate activity can be broken up into shorter periods; you might spend 15 minutes working in the garden in the morning and 15 minutes walking in the afternoon. It all adds up.

• Reduced physical activity in part causes the loss of strength and stamina attributed to aging.
• Social support from family and friends has a consistent and positive relationship with regular physical activity.\textsuperscript{7}

• Keeping your muscles in shape can help prevent falls that cause broken hips or other disabilities. Additionally, strong muscles and weight-bearing exercise help make bones stronger too.

• Fewer than 50\% of older adults report ever having received a suggestion to exercise from their physicians.\textsuperscript{8}

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\begin{itemize}
\item \textsuperscript{1} Agency for Healthcare Research and Quality \hfill [http://www.ahrq.gov/ppip/activity.htm]
\item \textsuperscript{3} National Institute on Aging (2003). Exercise: A Guide from the National Institute on Aging. \hfill [http://www.nia.nih.gov/exercisebook/intro.htm]
\item \textsuperscript{4} National Institutes of Health (2002). \hfill [http://www.nih.gov]
\item \textsuperscript{5} President's Council on Physical Fitness & Sports (2003). \hfill [http://www.fitness.gov]
\item \textsuperscript{6} American Federation for Aging Research. \hfill [http://www.infoaging.org]
\end{itemize}
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Department of Health and Human Services
http://aspe.hhs.gov/health/reports/physical/activity/
http://www.os.dhhs.gov/

The President’s Council on Physical Fitness and Sports (PCPFS)
Dept. W
200 Independence Avenue, SW
Room 738-H
Washington, DC 20201-0004
Phone: 202-690-9000
Web site: www.fitness.gov

50-Plus Fitness Association
P.O. Box 20230
Stanford, CA 94309
Phone: 650-323-6160
Web site: www.50plus.org
Older Adults and Depression: Facts and Figures

Many older adults in the community experience depressive symptoms (national estimates range from 8 to 20% of adults 65 and older). Older adults who are socially isolated or experience physical health problems have higher rates of depressive symptoms and have an ongoing risk for major depression. Successful treatments exist for depression, but depression in older adults is often under-recognized and under-treated.

You may find the following information useful as you address depression in older adults in your community. A list of helpful resources follows the facts and figures.

- Depression is NOT a normal part of aging.\(^1\)
- Depression has a significant negative effect on both function and quality of life in older adults and has an association with increased use of health care services.\(^2\)
- Depression can be more interfere with activities of daily living more than diabetes, angina, lung problems, or back ailments.\(^2\)
- Depression increases risk of physical disability by 67%.\(^3\)
- Older persons who suffer from both depression and other chronic medical conditions have worse greater difficulty managing their conditions than those without depression.\(^2\)
- Depressed older patients incur significantly higher inpatient and outpatient medical costs than patients without depression.\(^2\)
- Estimates for the prevalence of major depression by treatment settings:
  - 5-10% of community-residing outpatients
  - 30-40% of persons recently hospitalized
  - 15-30% of older persons residing in long-term care facilities

The prevalence of minor depression is believed to be greater although the epidemiology is less well developed.\(^2\)
• Predominant symptoms of depression in older adults may include a lack of interest in activities or a loss of energy rather than depressed mood, which is more common in younger adults.\(^2\)

• One study showed that health care practitioners detected only half of depression self-reported by patients. Even when primary care physicians do diagnose depression, they only infrequently provide treatment in accordance with evidence-based practice.\(^2\)

• Older adults with the following risk factors have an elevated risk for depression:
  - Socially isolated with little informal social support
  - Experiencing either a change in their ability to function in prior roles or a decline in physical independence
  - Making transitions between sites of care
  - Loss of a spouse, family member, close friend, or a pet
  - Experiencing chronic pain
  - Alcohol and substance abuse
  - Terminal illness and approaching the end of life
  - Experiencing chronic medical conditions or a recent stroke or heart attack
  - Prior history of depression\(^2\)

• Older adults respond to treatment for depression and are as likely as younger adults to improve with early interventions.\(^2\)

• One study showed that physicians who diagnosed depression and anxiety at higher rates than their peers had lower per capita costs, ordered fewer unnecessary tests, had lower rates of patient referral to specialists, and were less likely to admit their patients to the hospital for potentially avoidable reasons.\(^2\)

• Research suggests 83% of older adults want to be treated for their depression.\(^1\)

• Barriers to appropriate treatment for older adults include:
  - Lack of adequate coverage for mental health services by private insurance and Medicare
  - Poor diagnosis and referral services in primary care
  - Insufficient geriatric mental health work force.\(^1\)
2 HMO Workgroup on Care Management. February, 2002. *Improving the Care of Older Adults with Common Geriatric Conditions.* American Association of Health Plans Foundation.

Resources

American Association for Geriatric Psychiatry (AAGP)
7910 Woodmont Avenue, Suite 1050
Bethesda, MD 20814-3004
301-654-7850
http://www.aagpgpa.org/

American Psychiatric Association (APA)
1000 Wilson Blvd., Suite 1825
Arlington, VA 22209-3901
703-907-7300
http://www.psych.org/

American Psychological Association (APA)
750 First Street, NE
Washington, DC 20002-4242
1-800-374-2721 (toll-free)
202-336-5500
http://www.apa.org/

National Institute of Mental Health (NIMH)
National Institutes of Health (NIH)
6001 Executive Blvd., MSC 9663, Room 8184
Bethesda, MD 20892-9663
1-866-615-6464
301-443-4513
http://www.nimh.nih.gov/

National Mental Health Association (NMHA)
2001 N. Beauregard Street, 12th Floor
Alexandria, VA 22311
1-800-969-NMHA (6642) (toll-free) (National Mental Health Information Center)http://www.nmha.org/
The report, “Malnutrition in the Elderly, A National Crisis”\(^1\), described the scope of poor nutrition among older adults in detail. According to this report, one in four elderly in the community is malnourished. Malnutrition refers to any disorder of nutrition and can result from an unbalanced, insufficient or excessive diet, or from impaired ability to absorb nutrients. Obesity often masks malnutrition. The signs of poor nutrition can mimic effects of aging; therefore older adults and health care providers often under-recognize them. Poor nutrition can occur in all segments of the older adult population, but common risk factors include poverty, social isolation, polypharmacy, chronic disease, and poor oral health. Poor nutrition is associated with many adverse health events, including increased risk for chronic disease, infection, disability, longer hospital stays and hospital readmission.

You may find the following information useful as you address nutrition and older adults in your community. A list of helpful resources follows the facts and figures.

- As primary prevention, nutrition promotes health and function and affects the quality of life in older adults.\(^2\)
- Nine of 10 people with chronic disease have a condition that a nutrition intervention could improve.
- Studies have shown that good nutrition can delay the onset and reduce the severity of diabetes and other chronic diseases.
- The American Dietetic Association estimates that nutrition intervention could save $52 to $168 million for older adults with hypertension, $54 to $164 million for high cholesterol and other lipid levels, and $132 to $330 million for diabetes.
- Each year, malnutrition costs over $33 billion in medical costs and $9 billion in lost productivity due to heart disease, cancer, stroke, and diabetes.
- People are more likely to make dietary changes when facing a chronic disease. People, especially older adults, are more likely
to adopt these dietary changes if their doctor tells them to. Physicians, however, seldom discuss nutrition with patients due to limited time, lack of knowledge about nutrition, and tools.

- Physiological, social, family, environmental, economic and other factors affect older adults’ nutrition, positively and negatively. Changes in circumstances may diminish attention to and resources for nutrition.

- Between 35% and 85% of long-term care residents are at risk for malnutrition and dehydration. About 75% of nursing home residents fail to finish 75% of their meals - a major determinant of mortality.

- As we age, our tastes change, our energy needs change, and our desire to eat may change. Sometimes this makes it hard for older adults to consume all the nutrients their bodies need.

- The Recommended Daily Allowances (RDAs) established in 1941 have several limitations:
  - They are based on the known needs of adults under 50
  - Older adults do not have uniform needs
  - The RDAs are based on healthy populations and do not take into account the nutritional needs of those who are ill or taking medications.
  - RDA levels are not adjusted for drug-diet or nutrient-diet interactions.

- Development of Dietary Reference Intakes (DRIs), established by Canadian and American scientists through a review process overseen by the National Academy of Sciences, provide better dietary guidelines because they include minimum recommendations by age group - including 50-70 and over 70 years of age - as well as maximum allowable quantities of nutrients. The DRIs emphasize nutritional needs to optimize health and decrease risk of chronic diseases.

- In 2002, 82% of adult men and 72% of adult women reported eating fewer than the recommended 5 servings of fruits and vegetables per day.

- The very old, minority, and low income persons consume less than one-third of the recommended intakes for key nutrients.

American Dietetic Association [http://www.eatright.org/public](http://www.eatright.org/public)


**Resources**

**American Dietetic Association (ADA)**
216 West Jackson Boulevard
Chicago, IL 60606-6995
1-800-877-1600 (toll-free)
http://www.eatright.org/

Centers for Disease Control and Prevention
http://www.cdc.gov/nccdphp/bb_nutrition/

**Food and Drug Administration (FDA)**
HFE88
5600 Fishers Lane
Rockville, MD 20857
1-888-INFO-FDA (463-6332) (toll-free)
http://www.fda.gov/

**Food and Nutrition Information Center (FNIC), Department of Agriculture**
Agricultural Research Service/National Agriculture Library
10301 Baltimore Avenue, Room 105
Beltsville, MD 20705-2351
301-504-5719
http://www.nalusda.gov/fnic

**National Association of Nutrition and Aging Services Programs (NANASP)**
1612 K Street, NW
Washington, DC 20006
202-682-6899
http://www.nanasp.org/

**National Policy and Resource Center on Nutrition and Aging**
Department of Dietetics and Nutrition
Florida International University (FIU)
University Park, OE200
Miami, FL 33199
305-348-1517
http://www.fiu.edu/~nutreldr
Older Adults and Diabetes: Facts and Figures

Diabetes, a chronic disease, occurs when the body does not produce or properly use insulin, the hormone that converts food into energy. With diabetes, the body doesn’t get the energy it needs, and glucose (unmetabolized sugar, that is, sugar that the body could not convert to energy) builds up in the blood and causes damage to the body.¹,²

Well-maintained levels of glucose (glycemic control) reduce the chance of complications such as heart disease, stroke, blindness, kidney disease, nerve damage, and amputations. Individuals with diabetes themselves carry much of the responsibility for managing their disease. Self-management regimens include blood glucose monitoring, diet, physical activity, and medication management.¹,²,³

Research has identified the following three types of barriers to self-care among older persons:⁴

- **Informational-knowledge based:** “They must have the knowledge about when and how to engage in a self-care behavior.”

- **Motivational-attitudinal based:** “They need to believe in their capacity for self-care and the potential efficacy of engaging in the self-care activity, and they need to want to engage in the self-care activity.”

- **Resource based:** “They need the personal skills and community resources required to engage in self-care activities.”

You may find the following information useful as you address diabetes in older adults in your community. A list of helpful resources follows the facts and figures.

- One in five adults over age 65 has diabetes.

- Diabetes has its greatest effects on the elderly, women, and certain racial and ethnic groups.
• Type 2 Diabetes, also called adult-onset diabetes, accounts for 90% to 95% of all diagnosed cases of diabetes and most often occurs in people older than 40.

• Characteristics associated with Type 2 Diabetes include older age, obesity, family history of diabetes, history of gestational diabetes, impaired glucose metabolism, physical inactivity, and race/ethnicity.

• Research studies have found that lifestyle changes can prevent or delay the onset of Type 2 Diabetes among high-risk adults. Lifestyle changes include diet and moderate-intensity physical activity (such as brisk walking 30 minutes on most days).

• Diabetes was the sixth leading reported cause of death in 2000; it likely has been underreported as a cause of death.

• Overall, the risk for death among people with diabetes is about twice that of people without diabetes.

• Adults with diabetes have heart disease death rates 2 to 4 times higher than adults without diabetes.

• The risk for stroke is 2 to 4 times higher among people with diabetes.

• Diabetes is the leading cause of new cases of blindness among adults aged 20-74 years.

• Diabetes is the leading cause of end-stage renal disease, accounting for 44% of new cases.

• More than 60% of non-traumatic lower limb amputations occurs among people with diabetes.

• Diabetes costs the nation nearly $132 billion/year -- $92 billion in direct medical costs and another $40 billion in indirect costs due to lost productivity.

• People who take steps to control their diabetes can make a big difference in their health.\textsuperscript{5}

Resources

American Diabetes Association (ADA)
1701 North Beauregard Street
Alexandria, VA 22311
1-800-DIABETES (342-2383) (toll-free)
703-549-1500
http://www.diabetes.org/

Food and Nutrition Information Center (FNIC), Department of Agriculture Agricultural Research Service/National Agriculture Library
10301 Baltimore Avenue, Room 105
Beltsville, MD 20705-2351
301-504-5719
http://www.nalusda.gov/fnic

National Diabetes Information Clearinghouse (NDIC)
National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)
National Institutes of Health (NIH)
1 Information Way
Bethesda, MD 20892-3560
1-800-860-8747 (toll-free)
301-654-3327
http://www.diabetes.niddk.nih.gov/

The National Diabetes Education Program (NDEP)
National Institutes of Health and Centers for Disease Control and Prevention
1-800-438-5383
http://www.ndep.nih.gov
Am I Ready for the Model Health Programs?

Self-Assessing Readiness for Implementing Evidence-based Health Promotion and Self-Management Programs

This tool provides a framework for discussions within a community aging service provider organization, or more appropriately among partnering organizations, interested in offering evidence-based health promotion and self-management programming. The tool focuses specifically on how to assess “readiness” to proceed with implementation. There are four key questions that should be addressed when determining whether your agency/partnership is “ready” to begin implementing evidence-based health programs. The answers to these questions will help you estimate potential for success with these types of projects. Ideally, your organization and partners will have a positive response to each question before moving forward with implementation. If not, you can work on enhancing readiness by addressing those areas that still need attention.

1. Is the agency/partnership willing to do evidence-based health programs and stay true to the model(s) being implemented?
   • Can distinguish between evidence-based health programs and other programs
   • Can build off existing health programming experience
   • Can gain and keep the support of health care organizations
   • Can preserve fidelity to key interventions and provide quality control while making necessary modifications

2. Is there funding for the program? New funding and/or willingness to reallocate current resources to support evidence-based health programming.
   • Can secure sustainable funding for evidence-based health promotion and self-management programs
   • Can engage a variety of funders in the importance of evidence-based health programs
   • Can reallocate current funds to support new evidence-based health programs
   • Can meet the demands of continuously increasing numbers of program participants

3. Is there access both to personnel with the expertise to do these programs, and to the population that needs these programs?
   • Can recruit and retain staff or contractors who have knowledge of specific health promotion and self-management topic(s) and/or behavior change methods
   • Can recruit and retain lay leaders, peer supporters and other “volunteers”
   • Can draw upon appropriate experts to offer introductory and follow-up training and guidance
   • Can attract the target population and continue to recruit on an on-going basis
   • Can offer programming at times and places that are convenient for the target population

4. Is there buy-in from senior leadership and key partners as reflected in both programmatic and financial support?
   • Can ensure that programs receive necessary time and attention by knowledgeable staff and agency leaders
   • Board is aware of move to evidence-based health programming and is supportive
   • Partners can commit existing funds or have identified new funding to build and sustain the program

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