Monograph: Evidence-Based Programs and Resources for Changing Behavior in Older Adults
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Background

The aging of the population will pose significant challenges to the U.S. health care system and accelerate a shift in focus from acute and communicable conditions to chronic diseases.\(^1\) Between 2010 and 2050, it is anticipated that the U.S. population aged 65 and older will double from 40 million to more than 88 million, and the percent of older adults will rise from 13% to 20%.\(^2\) With baby boomers reaching age 65 at the rate of 10,000 a day through 2030, chronic disease will reach epidemic proportions, with 91% of older adults having at least one chronic condition and 73% having at least two. Many of these individuals also experience functional limitations.\(^3\) More than 1.7 million Americans die of a chronic disease each year, with four chronic diseases—heart disease, cancer, stroke, and diabetes—causing almost 2/3 of all deaths annually.\(^4\) Chronic conditions are also a major contributor to health care costs, representing 75% of the $2 trillion in U.S. annual health care spending.\(^4\)

Chronic conditions enfold a wide range of symptoms and outcomes and are typically treated with medications that have their own inherent risks and can result in poor adherence. Other associated symptoms include pain, functional losses, physical inactivity, fatigue, and depression. People with chronic conditions may also be affected by a myriad of issues including addiction, dementia, mental illness, or developmental disabilities, any of which can further complicate effective management.\(^5\)

The good news is that chronic conditions can be managed, especially when the health care team, the older adult, family members, and other caregivers work in concert. New models of health care delivery that call for an engaged and empowered patient are helping to define new roles and responsibilities for older adults in the day-to-day management of chronic conditions. The outcome can result in more effective management of chronic conditions by informed, educated, and supported consumers.

More than 40% of avoidable, premature deaths result from behavioral causes—the single most common among the broad categories of causes of death. The daily choices we make with respect to diet, physical activity, and sex; the substance abuse and addictions to which we fall prey; our approach to safety; and our coping strategies in confronting stress are all important determinants of health. Lowering these behavioral risks can reduce risk from other factors.\(^6\) As age increases, behavioral factors become increasingly more important in lowering mortality risk and health care costs. Better self-management and behavior risk management can also mean reduced injuries among older adults, especially falls and fall-related injuries and deaths in this vulnerable population.

Evidence-Based Programs and Resources for Changing Behavior in Older Adults

Learning new skills and changing long-held behaviors can be difficult. But there are effective support services and programs available to help older adults learn to better manage their conditions and improve their overall health and well-being. Health promotion and disease prevention have proven to work for older adults to increase length and quality of life, reduce disability and delay disease onset, improve

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\(^6\) McGinnis JM, Williams-Russo P, Knickman JR. The case for more active policy attention to health promotion. Health Affairs (Millwood) 2002; 21(2): 78-93.
mental health, maintain functionality, delay loss of cognitive function, and lower health care costs. A growing number of evidence-based disease and disability prevention (EBDDP) programs have been tested in randomized-controlled trials resulting in positive, measurable results. These programs are standardized and implemented with consistency and fidelity across sites and include tools that measure satisfaction and outcomes. Well-designed EBDDP programs are proven strategies to provide a return on investment in both economic and health status benefits. Of particular value are those programs designed to provide the support and assistance necessary to change health behaviors.

There is strong evidence that people at any age who do not smoke, get regular exercise, and who eat a healthy diet can significantly reduce their risk of developing many of the chronic conditions found in older adults. Making these healthy choices and understanding the role and responsibilities of self-management can help to improve existing conditions and delay or prevent the onset of new or worsening conditions.

One of the key behavior changes that people can engage in to manage their chronic conditions is regular physical activity. Well-established research highlights the many benefits of increasing physical activity as one of the most important things one can do for their health, including:

- Control weight
- Reduce risk of cardiovascular disease
- Reduce risk for type 2 diabetes and metabolic syndrome
- Reduce risk of some cancers
- Strengthen bones and muscles
- Reduce the risk for falls
- Improve mental health and mood
- Improve ability to do daily activities and prevent falls
- Increase chances of living longer

**Community Resources for Health Centers**

Community-based organizations are playing an increasingly important role in state and local efforts to promote and sustain healthy behaviors and healthy choices in our aging population. The last decade has seen growth in the availability of EBDDP and injury prevention programs and services that help older adults maintain healthy, active lifestyles and better manage chronic conditions. These programs and services can and should supplement clinical services and target geographical areas of risk through coordination and collaboration with health care providers and public health officials.

Currently there is a national infrastructure for EBDDP programs, specifically targeted to older adults and people with disabilities. EBDDP programs such as Stanford University’s Chronic Disease Self-

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Management Education Program (CDSMP), as well as physical activity programs (EnhanceFitness, Fit & Strong!), falls management programs (A Matter of Balance, Stepping On, Tai Chi), nutrition programs, (Healthy Eating for Successful Living in Older Adults), behavioral health programs (PEARLS and Healthy IDEAS), and medication management programs (HomeMeds). In addition to the generic CDSMP, which is appropriate for anyone with any type of chronic condition, there are also versions for people with specific conditions (diabetes, arthritis, chronic pain, HIV/AIDS), a Spanish program called Tomando Control de su Salud, and an online format. In addition to increasing access to these programs, the state aging and public health departments, along with other state and local partners, are building sustainable service delivery systems.

Chronic Disease Self-Management Program: Evidence of Effectiveness
Stanford University’s Chronic Disease Self-Management Program (CDSMP) and its disease-specific variants have been proven effective through decades of research, including a number of randomized controlled trials. More recently, the CDSMP National Study examined more than 1,100 participants who enrolled in a CDSMP workshop from 2010-2011. Sociodemographic, health status, and behavioral data were collected at baseline, 6-months, and 12-months with 825 participants providing 12-month data (71%). The CDSMP National Study found positive, significant improvements that meet the Institute of Healthcare Improvement’s Triple Aims of better health, better care, and lower cost. Aggregate improvements from baseline to twelve months include:

Better Health
- **Active lives.** 41% improvement in time spent engaged in moderate physical activity.
- **Less depression.** 21% improvement in depression.
- **Fewer sick days.** 15% improvement in unhealthy physical days and 12% improvement in unhealthy mental days.
- **Better quality of life.** 6% improvement on health-related quality of life.
- **Feel healthier.** 5% improvement in self-reported health. Improved symptom management in 5 indicators: fatigue (10%), shortness of breath (14%), pain (11%), stress (5%), and sleep problems (16%).

Better Care
- **Medication compliance:** 12% improvement in medication compliance.
- **Communication.** 9% improvement in communication with doctors.
- **Health literacy.** 4% improvement in confidence filling out medical forms.

Lower Health Care Cost
- 32% reduction in emergency room visits.
- $740 per person saving in emergency room visits and hospital utilization.
- $390 per person net savings after considering program costs at $350 per participant.
- Potential saving of $4.2 billion by reaching 10% of Americans with one or more chronic conditions.

The national rollout of CDSMP demonstrated benefits similar to those found in earlier randomized clinical trials and demonstrated the effective translation of research to practice. Not only were significant, measurable improvements in the health and quality of life of people with chronic conditions achieved, but CDSMP also appears to save enough through reductions in health care expenditures to pay for itself within the first year. Stronger linkages between medical and community care should be established to facilitate greater access to CDSMP workshops to incorporate CDSMP as part of routine care for individuals with chronic disease.

**Patient-Centered Medical Homes (PCMH) and CDSMP**

As the Consortium for Older Adult Wellness (COAW) in Colorado has seen, CDSMP provides an opportunity for clinics to improve clinical outcomes by increasing the self-management skills of patients. Once involved in a CDSMP workshop, providers and patients can work together to set measurable, achievable goals that result in improved health. Clinics that partner with community-based organizations to provide CDSMP workshops see real benefits to the practice, including: reinforcement and feedback, documentation of patient self-management in PCMH terms, documented shifts in patient interaction, attainment of required quality measures, and patients who are activated and engaged and report increased confidence levels for managing their chronic conditions.

**Case Study: The Harrisonburg Community Health Center – Catherine C. Galvin, Director of Program Development**

The Harrisonburg Community Health Center (HCHC) is a nonprofit health care organization that provides primary health care services in the Virginia counties of Harrisonburg and Rockingham. HCHC and its partners provide CDSMP, the Diabetes Self-Management Program (DSMP), and Tomando Control de su Salud (the Spanish Chronic Disease Self-Management Program).

HCHC works closely with the local Area Agency on Aging (AAA) offering these evidence-based self-management programs. HCHC collaborates on trainings with the cardiac staff at the local hospital, Woodrow Wilson Rehabilitation Hospital, who are also using the program as part of their rehabilitation curriculum. HCHC offers space for the workshops and provides evening sessions for their clients.

The program schedule of self-management workshops through HCHC and their partners is ongoing. Nursing faculty from James Madison University, practitioners from the hospital, RNs, nurse practitioners, and leaders from the AIDS network all volunteer to lead workshops in the area. Participants are referred to the programs through HCHC, area physicians, local hospitals, community partners, churches, and senior centers.

HCHC staff noted they have seen an increase in clients with diabetes and an increase in obesity as a diagnosis. Although participants in the self-management workshops are generally older, younger populations are starting to attend and HCHC hopes this will lead to health care cost savings over the long term by reducing inappropriate visits to the emergency departments.
Case Study: The Consortium for Older Adult Wellness (COAW) and Colorado Community Health Network (CCHN) – Lynnzy McIntosh, Vice President of COAW and Jessica Sanchez, Chief Quality Officer at CCHN

The Consortium for Older Adult Wellness (COAW) offers CDSMP and DSMP to patients of Federally Qualified Health Centers (FQHCs) in conjunction with the Colorado Community Health Network (CCHN). This collaboration is funded by the Colorado Department of Human Services and the Colorado Health Foundation. Area Agencies on Aging have also used some of their Older Americans Act funding to support programs at health centers and some health centers have had success in getting their own funding. COAW also has been offering fall prevention programs in the community since 2006 (A Matter of Balance and N’Balance), and is beginning the work of clinical referrals into fall programming classes.

The project between CCHN, Colorado’s primary care association, and COAW works state-wide with 12 health centers to support the process of self-management for health center patients. Some are urban and others are frontier. Close to 60% of the health centers with which COAW is working have already received PCMH recognition and the CCHN is assisting health centers reach that recognition by providing practice facilitation with the goal of having all sites recognized as PCMHs.

A CCHN goal is access to CDSMP at each health center site, and COAW works with the health centers on referrals and enrollment, provides stipends to community leaders who often lead the classes at the centers, and provides feedback to the practice about the result of the referral. COAW also works with health centers on training their own on-staff leaders and helps them develop active referral processes in which the provider or a medical assistant talks to the patient about the self-management classes and encourages them to enroll. COAW follows up on the CDSMP referral in the same way as they do for a referral to any other therapy.

At these health centers, more participants are in their 40s and 50s compared to classes that are offered in the community, such as at senior centers where the majority of the participants are age 60 or older. The retention rate (participants completing at least four of six sessions) is sometimes lower for those coming to health centers, since participants at health centers have multiple challenges—health, transportation, behavioral, and work. Many are medically indigent, vulnerable, and/or low-income. These participants have many chronic conditions, including arthritis, hypertension, and diabetes being the most frequent, along with depression, long-term physical disabilities, and behavioral health issues.

Tips from Harrisonburg Community Health Center
- Patients who participate in CDSME gain a sense of control.
- Having the provider network involved for the referrals is very important. If they aren’t making the referrals, you can’t serve the people.
- Getting CDSMP to catch on takes a while, but when that first participant says “you’ve changed my life” those comments make it all worth it.
- Have a newsletter or tip sheet to keep people aware of new developments and workshop schedules.

Tips from the Consortium for Older Adult Wellness:
- Live, active referrals are critical, as well as activating the medical practice and the patient.
- Collaboration between community organizations and health centers is a good way to scale the program.
- Share expectations, so everyone knows what can and can’t be done since the reality is that not everyone referred is going to come to the class.
- Work with community organizations to activate patients since health care changes and increasing patient loads are faced by health centers.
Case Study: Hudson River HealthCare (HRHCare), Peekskill, NY – Allison DuBois, Chief Operating Officer and Elizabeth Phillips, Director of Health Education Services

Hudson River HealthCare (HRHCare) is a network of FQHCs that is committed to improving the health status of their patients and the community. Consistent with that commitment, HRHCare has a focus on building community partnerships and providing high-quality, evidence-based health programs. Currently, these programs include the CDSMP and Positive Self-Management Program for HIV (PSMP).

HRHCare has incorporated evidence-based programs into its ongoing operations. It is licensed by Stanford University to offer CDSMP and PSMP. Through a regional partnership with the New York State Quality & Technical Assistance Center (QTAC), it will also provide the Diabetes Self-Management Program. The director of health education services, clinical staff, HIV case managers, and dieticians have been cross-trained and certified as workshop facilitators. In addition, HRHCare staff plays a pivotal role in disseminating the programs throughout the organization and within the community, engaging community partners and workshop sites, recruiting leaders and conducting trainings, marketing to participants, and facilitating workshops.

HRHCare is able to extend its program reach by partnering with a variety of community-based agencies, including faith-based, public housing, and local CBO’s (subcontractors) working as part of a NY State Rural Health grant. In addition to offering workshops at its community centers, other workshop sites include a senior center, hospital, church, libraries, mental health agency, apartment complex, and an adult day care center. Workshops are facilitated by HRHCare staff as well as community agency staff and volunteers.

HRHCare uses diversified funding streams to support the programs. They absorb some administrative expenses and use some rural grant, private foundation, and other funding. Partner sites also cover some expenses, paying for books, supplies, and sometimes snacks. To reduce expenses, many are moving towards putting the books that accompany the workshop on loan or asking for small donations if participants want to keep the books. “Challenge awards” from the QTAC help pay for toolkits, meeting refreshments, training supplies for workshop leaders, and incentives for workshop participants to encourage individuals to complete the workshops.

HRHCare and its partners use a variety of methods to promote workshops and refer patients into the program. It has both a paper system and an electronic referral system through its Electronic Health Record system. Participants for the PSMP are directly recruited by case managers. Word of mouth from former participants is particularly effective. Other marketing methods are open houses where people are encouraged to bring a friend, press releases, agency newsletters, email blasts, flyers, and social media (e.g., the partnering library places a flyer on their Facebook page). The workshop outreach fliers are also posted on the health center’s website for the general public as appropriate.

“The addition of CDSMP at HRHCare has been tremendous! It is a robust program that supports patient engagement and improves health outcomes. The program provides both concrete strategies and a support structure that really addresses the needs of our patients.” Allison DuBois, HRHCare Chief Operating Officer

“CDSMP has provided HRHCare with a vehicle that is evidence-based to improve self-management skills of our patients. Although it is a significant commitment of effort, for both staff and patients, the results are impressive.” Katherine Brieger HRHCare Executive Director
Participants of workshops sponsored by HRHCare are primarily female (81%) and over 60 years of age (52%). The majority of participants reported having multiple chronic conditions (59%), with the most common conditions being hypertension (41%), diabetes (35%), arthritis (30%), and depression (21%). Many of the participants in the PSMP workshops not only have HIV/AIDS but also other chronic conditions including diabetes, hypertension, and depression.

Staff involved in offering PSMP noted they were able to engage patients in their care in a more personal way. PSMP participants reportedly have better attendance at their subsequent medical and mental health appointments. They’re also active in health center priorities such as the Consumer Advisory Committee for persons with HIV and have taken on leadership roles, such as helping out with the UPWORDS project, an HIV support program.

HRHCare cites many benefits of offering self-management programs. The programs reaffirm HRHCare’s mission and goals and are aligned with the focus of multiple grants. They are quality, standardized programs that can be offered across the organization and in a variety of community locations. In addition, HRHCare is certified as a level 3 PCMH by the National Committee for Quality Assurance (NCQA) and the programs help to support the PCMH self-management standards. Benefits to the patients who participate in the programs are also numerous. Participants experience peer support and an opportunity for “air time” to share in a supportive, empathic environment. Many find the program very helpful in goal setting, problem solving, and other self-management skills, allowing them to be more proactive partners in their care. Participants report better health, renewed interest in aspects of life, decreased depression, increased adherence to preventative treatment, and a sense that the program has really helped them improve their lives. In collaboration with the QTAC, HRHCare collects participant satisfaction surveys while the QTAC conducts six-month follow-up surveys to track patient outcomes.

Tips from Hudson River HealthCare:
- Explore a variety of workshop site options, including libraries, senior centers, and other community locations.
- Provide CDSMP training as a valuable patient service and as a professional development tool to build a pool of well-trained staff/peer leaders who are knowledgeable about self-management support.
- Build adequate time in your work plan timeline to get the program established.
- Be strategic about who to partner with, what you bring to the table, and what you expect your partners to provide.
- To recruit participants, work with your partners using multiple methods to promote the programs, e.g. spreading the word through participants who’ve had positive experiences and are willing to share this perspective.

Resources for evidence-based health promotion/disease prevention self-management programs

For more information about program results:
- The Case for Chronic Disease Self-Management (CDSMP) in the Aging Public Housing Population, The National Center for Health and the Aging
- Findings from the CDSMP National Study, National Council on Aging
- Articles about the Chronic Disease Self-Management Program, Stanford University School of Medicine
- A Meta-Analysis of Health Status, Health Behaviors, and Health Care Utilization Outcomes of the Chronic Disease Self-Management Program, Centers for Disease Control and Prevention
The National Council on Aging offers:

- **Tools and resources** to help implement a CDSMP program,
- Information on **local contacts and workshops**
- **Evidence-based disease and disability prevention programs (EBDDP)**

For more information about programs and services for older adults and their caregivers:

- Administration for Community Living Programs and Services
  [http://www.acl.gov/Programs/Index.aspx#Adults](http://www.acl.gov/Programs/Index.aspx#Adults)

Stanford University provides information on:

- **Training for instructors**, including information on cost for training
- **Licensing**, including fees

Physical activity guidelines for older adults:

- CDC recommended physical activity guidelines for older adults

Marshall University's Robert C. Byrd Center for Rural Health developed a [toolkit for rural communities](http://www.ncoa.org/CDSMEmap) interested in implementing CDSMP.

How to get involved:

Offering evidence-based health promotion and disease prevention programs is an effective, important component of contributing to the effective management of chronic health conditions. The aging services network and their community partners can assist health centers in helping their older adult patients better manage their chronic conditions, enhance their level of physical activity, and modify their risk of falls and injury. Use the online map to find where self-management workshops are offered near you [www.ncoa.org/CDSMEmap](http://www.ncoa.org/CDSMEmap).

This monograph was prepared by Emily Dessem, Mary Walsh, Bonita Beattie, Kristie Kulinski, Sue Lachenmayr – National Council on Aging and Michele Boutaugh U.S. Administration for Community Living.

For questions or comments regarding this report, please contact the National Center for Health and the Aging at 703.812.8822 or via email at communications@namgt.com

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