2016

A Guide to Evidence-Based Wellness Practices



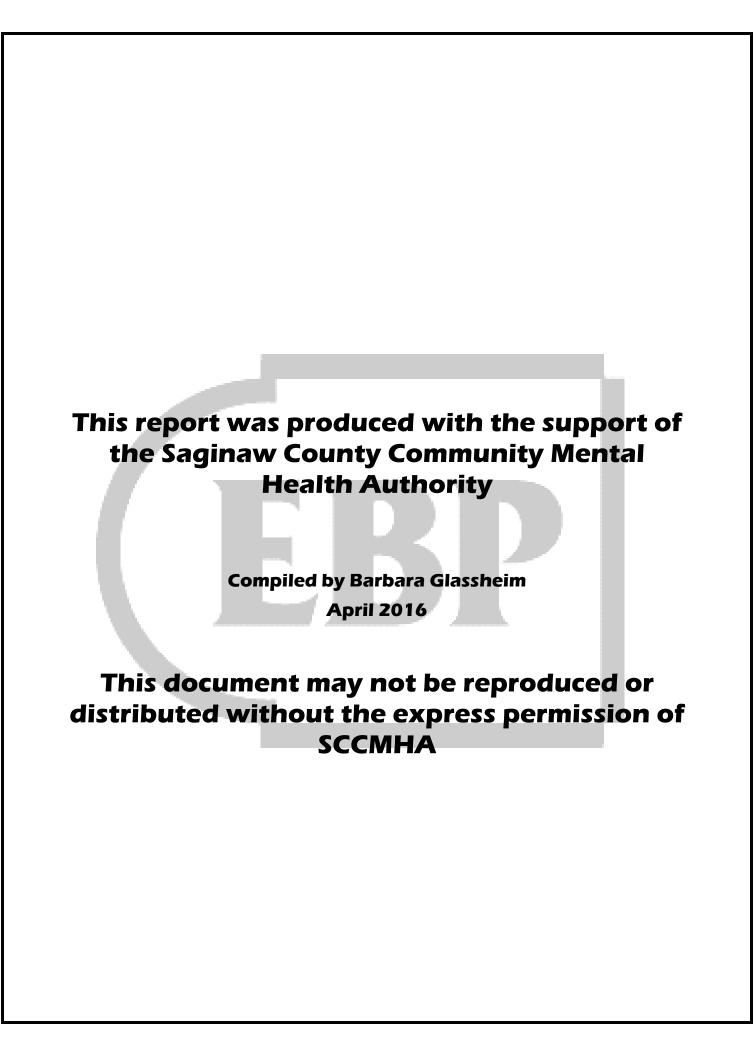


TABLE OF CONTENTS

FORWARD	
Introduction and Overview	2
Defining Wellness	6
SAMHSA Wellness Initiative	
Michigan Health and Wellness 4 x 4 Plan	7
Michigan Health Promotion for People with Disabilities Initiative	9
CHRONIC DISEASE SELF-MANAGEMENT PROGRAMS	10
Chronic Care Model (CCM)	10
Chronic Disease Self-Management Program (CDSMP)(CDSMP)	12
Personal Action Toward Health (PATH)	13
Tomando Control de su Salud (Spanish Chronic Disease Self-Management Program)	15
Arthritis Self-Management Program (ASMP)	
Better Choices, Better Health® for Arthritis (BCBH for Arthritis)	
Chronic Pain Self-Management Program (CPSMP)	18
Cancer: Thriving and Surviving Program (CTS)	
Diabetes Self-Management Program (DSMP)(DSMP)	19
Positive Self-Management for HIV (PSMP)	
PEER-DELIVERED MODELS	
Peer Wellness Coaching	22
Health and Recovery Peer (HARP)	24
Whole Health Action Management (WHAM)	24
Pathways to Recovery (PTR)	26
Wellness Recovery Action Plan (WRAP)	
SHIELD (Self-Help in Eliminating Life-Threatening Diseases)	
Smoking Cessation	
Brief Interventions	34
5 A's Intervention	34
Peer-to-Peer Tobacco Dependence Recovery Program	36
Learning about Healthy Living: Tobacco and You (LAHL)	38
Pharmacotherapy for Tobacco Dependence	
Stress Management	
Mindfulness	41
Mindfulness-Based Stress Reduction (MBSR)	41
Mindfulness-Based Cognitive Therapy (MBCT)	
Meditation	44
The Relaxation Response	
Guided Imagery	47
Qigong	
Tai Chi	
Yoga	49
Creative Outlets	
Wadveadce Wellness	52

Wellness Outreach at Work	_
POPULATION-SPECIFIC WELLNESS PRACTICES	
INDIVIDUALS WITH MENTAL ILLNESSES AND SUBSTANCE USE DISORDERS	55
Diabetes Prevention Program (DPP)	60
Dietary Approaches to Stop Hypertension (DASH)	61
InSHAPE (Self Help Action Plan for Empowerment)	62
Illness Management and Recovery (IMR)	63
Wellness Self-Management (WSM)	65
Healthy Living Project for People Living With HIV	
Life Goals Collaborative Care (LGCC)	67
Team Solutions (TS) and Solutions for Wellness (SFW)	
TEAMcare	
myStrength™	71
Medication Therapy Management (MTM)	73
Beating the Blues (BtB)	
14 Weeks to a Healthier You	75
CHILDREN AND ADOLESCENTS	
CATCH (Coordinated Approach To Child Health)	
ATHENA (Athletes Targeting Healthy Exercise & Nutrition Alternatives).	
Project EX	
Michigan Model for Health	
New Moves	
SPARK (Sports, Play and Active Recreation for Kids)	
INDIVIDUALS WITH INTELLECTUAL AND DEVELOPMENTAL DISABILITIES	
Healthy Lifestyles (HL) for People with Disabilities	
Health Matters Program	
Older Adults	
Brief Intervention & Treatment for Elders (BRITE)	
Medication Use Safety Training (MUST) for Seniors™	
Healthy Moves for Aging Well	
Project Enhance: EnhanceWellness and EnhanceFitness	
EnhanceWellness (EW)	
EnhanceFitness® (EF)	
Wellness Initiative for Senior Education (WISE)	
Active Choices	
Healthy IDEAS (Identifying Depression, Empowering Activities for Senior	
Active Living Every Day (ALED)	
Fit and Strong! (F&S)	
Arthritis Foundation Aquatics Program (AFAP)	
Arthritis Foundation Exercise Program (AFEP)(AFEP)	
Walk With Ease (WWE)	
Healthy Eating for Successful Living among Older Adults	
Healthy Changes	
Strong for Life (SFL)	
Fall Prevention Programs	
Stepping On	108

A Matter of Balance (MOB)	108
Tai Chi	109
Tai Ji Quan: Moving for Better Balance™ (TJQMBB)	109
SELECTED REFERENCES	111
SELECTED RESOURCES	125

FORWARD

This is one of a series of guides on evidence-based practices compiled for the Saginaw County Community Mental Health Authority (SCCMHA). It is hoped that this document, like those that preceded it, will serve to inform policy and practice with respect to promoting the health and well-being of consumers and staff by encouraging continued support for evidence-based wellness activities and programs.

The material in this guide is derived from peer-reviewed journal articles, monographs, manuals, texts, reports, practice guidelines, and expert consensus documents. It covers evidence-based, evidence-informed, promising and emerging practices that are designed to reduce rates of preventable health conditions, lower healthcare costs, reduce health inequities and disparities as well as create environments that promote health and wellness.

The electronic version of this report has hyperlinks (denoted by blue underlined text) embedded within the document so that the reader can find additional information quickly on the Web and within this document. A bibliography and resources are provided for readers who wish to pursue more information on topics of interest. In addition, the reader will find information on evidence-based practices targeted to all of the populations served by SCCMHA on the organization's Web site (https://www.sccmha.org/resources/evidence-based-practices.html). Hyperlinks to web sites for programs and interventions are included where available. Materials and costs for implementing practices are provided when available.

It should be noted that this report is a snapshot in time and depicts information that is currently available. Research findings continuously change as evidence accumulates pursuant to the development and testing of new programs and interventions, and refinements are made to current practices. Furthermore, the practices included herein are not meant to imply that they will be effective for everyone. Finally, the reader needs to be aware of the fact that this guide is selective (due to space and other resource constraints); it does not cover all of the available wellness programs and practices.

This document is intended for SCCMHA's use and may not be reproduced or distributed without the express authorization of SCCMHA. This writer gratefully acknowledges the support and sponsorship of SCCMHA in the production of this guide and commends the organization for seeking to offer only the highest quality services and supports to the community.

Barbara Glassheim, LMSW, ACSW January, 2016

INTRODUCTION AND OVERVIEW

Data indicate that persons with disabilities do not participate in wellness programs or health screening activities at the same level as do persons without disabilities. Yet, health promotion efforts can be of critical importance to persons with disabilities due to their higher-than-average risk for preventable chronic conditions including cardiovascular disease, obesity, diabetes and heart disease.

Studies show that people with disabilities are more likely to experience physical, environmental, programmatic, attitudinal and cultural barriers to accessing health care as well as health promotion and preventive services when compared their counterparts in the general population. Such challenges often result in delays of treatment of chronic conditions and failure to prevent secondary conditions.

People with disabilities often face obstacles to obtaining the information and services needed to achieve and maintain good health including lack of access to high quality, culturally sensitive health care and preventive measures including wellness promotion activities. Moreover, individuals with disabilities tend to be less physically active than people without disabilities due to a lack of accessible places to be physically active (e.g., sidewalks, parks, fitness centers, green spaces). These challenges are compounded by difficulties encountered in access to affordable healthy foods.

People with serious mental health illness die decades earlier than their counterparts in the general population, primarily caused or aggravated by treatable and/or preventable medical conditions (e.g., cardiovascular, respiratory and infectious diseases including HIV as well as diabetes) that arise from modifiable risk factors such as smoking, poor dietary habits, obesity, sedentary lifestyle, substance use, and inadequate access to appropriate medical care. Medication side effects (e.g., secondary weight gain and metabolic changes linked to the use of second generation antipsychotics) also contribute to the high prevalence of medical comorbidities and poor health outcomes in this population. In fact, comorbidity between medical and mental conditions is now seen as the rule rather than the exception. These elevated rates of morbidity and mortality among adults with serious mental illness has been deemed a public health crisis.

Consumers served by the public mental health system have been found to experience significant barriers to effective management of comorbid conditions and their unmet physical health needs are exacerbated by a lack of access to high-quality medical care. The organizational separation of mental and physical health care contributes to this problem. In addition, consumers are underserved by self-management programs that could provide the supports and skills needed to address medical conditions outside the immediate limitations of the health care system.

The Substance Abuse and Mental Health Services Administration (SAMHSA) has identified a number of **modifiable risk factors**¹ for people with mental health and substance use disorders:

 $^{^{1}}$ A risk factor is any physical, social, environmental, or behavioral factor that disposes a person to develop secondary conditions.

- ♦ **Poverty, social isolation, and trauma:** People with behavioral health problems often live in poverty and experience social isolation and trauma, which can lead to higher levels of stress and/or reduce access to quality primary care services that can help prevent and manage these potentially lethal conditions.
- ♦ **Tobacco use:** Seventy five percent of individuals with behavioral health problems smoke cigarettes compared to twenty three percent of the general population. Half of all deaths from smoking occur among individuals with mental health or substance use disorders. According to population-based data extrapolated from the National Comorbidity Survey, smoking kills about 200,000 people who live with mental illnesses every year.
- ♦ **Obesity:** Obesity frequently co-occurs with depression and the two can trigger and influence each other. Studies of persons who are obese people and experience binge eating problems have found that fifty one percent have histories of major depressive disorder.
- ♦ Medication side effects: Individuals with psychiatric disorders have a high prevalence rate of risk factors for cardiovascular disease (CVD) which are partly attributable to unfavorable psychiatric medication side effects, particularly increased metabolic risk factors for CVD. Antipsychotics used to treat schizophrenia and affective disorders have been shown to lead to weight gain in fifteen to seventy two percent of persons taking these medications.
- ♦ Other substance use—alcohol and drugs: A number of health problems have been shown to be associated with heavy and binge drinking including damage to liver cells, inflammation of the pancreas, various cancers, high blood pressure, and psychological disorders.
- ♦ Lack of access to quality healthcare: People with behavioral health disorders lack health insurance coverage at significantly higher rates than members of the general
 - population. In addition, lack of provider knowledge regarding working with persons with behavioral health challenges often results in poorer quality healthcare services.

Adopting a healthy lifestyle through health promotion and disease prevention efforts is universally applicable to people of all ages, irrespective of disability status, and does not differ for persons who experience disabilities versus those who do not. Such efforts range from smoking cessation to obesity control to engaging in regular exercise and eating nutritious meals.

- Achieving optimal health is a goal for everyone.
- Engaging in regular physical activity is one of the most important things that people of all ages and abilities can do to improve their health, well-being, and quality of life.
- To be healthy, all adults should be physically active 30 minutes a day at least 5 days each week; all children should be active for 60 minutes a day, at least 5 days each week.

Studies have shown that health promotion

programs which focus on improving functioning across a spectrum of diagnoses and a range of age groups can reduce secondary conditions and visits to health care providers. Persons with disabilities can lower their risk, prevent additional disability-related losses (e.g., muscle tone, bone density and dexterity), and enhance their overall mental and physical well-being by engaging in healthful behaviors such as exercise to improve strength, flexibility and muscle tone.

Lifestyle interventions that are comprised of structured approaches that help consumers engage in physical activity, manage their weight, eat a balanced and healthier diet, and

engage in health promotion activities have been found to be of benefit. Moreover, these lifestyle or behavioral modification interventions can be implemented during psychiatric care to help manage body weight and improve quality of life. In fact, intensive interventions that include multiple contacts during individual or group sessions over extended periods of time for adult consumers who

Many current health promotion interventions can be easily adapted to meet the needs of persons with disabilities.

are overweight or obese and have known cardiovascular risk factors (hypertension, dyslipidemia, impaired fasting glucose, or the metabolic syndrome) have been proven effective.

The <u>Chronic Disease Self-Management Program (CDSMP)</u> is one of the most widely used programs for people with comorbid physical conditions. There is a robust literature demonstrating its effectiveness in improving health behaviors, health status, self-efficacy and, in some instances, reducing health care utilization. Moreover, the CDSMP has been effectively implemented by Certified Peer Support Specialists in Michigan. Indeed, peer/recovery-coach delivered health and wellness services have been found to be very beneficial and cost effective for consumers served by the public mental health system.

Several self-management programs have also been developed to assist individuals with a serious mental illness. These include <u>Wellness Recovery Action Planning (WRAP)</u> which is perhaps the best known evidence-based practice developed specifically for individuals with SMI. Another recent program, <u>Health and Recovery Peer Program (HARP)</u>, which is based on the CDSMP), addresses specific mental and physical health needs as well as provides one-on-one peer support.

Several decades of advances in science and services along with the civil rights movement,

Statutes, regulations, court decisions and programs have mandated equal opportunity and equal access for persons with disabilities but, alone, they cannot mandate improved quality of life for persons with disabilities.

the deinstitutionalization movement, and other human rights and health policy initiatives of the 1960s and 1970s, helped catalyze the disability rights movement. The voices of persons with disabilities and their advocates have become more influential and have led to equity and opportunities for persons with disabilities in education, employment, health care and participation in all aspects of community life. This has resulted in laws, policies, programs and regulations to

ensure and protect the rights of persons with disabilities, some of which include:

The Rehabilitation Act of 1973 Section 504 specifically prohibits discrimination against a class of individuals, persons with disabilities, by agencies, organizations and employers that are part of the federal government or receive federal funding. Equal opportunity must be provided to persons with disabilities who otherwise would qualify to participate in, receive benefits from and be free from discrimination by any programs conducted or supported by federal dollars. These include programs related to housing, employment, health care and education, among others. Sections 501 and 503 of the act prohibit discrimination against

- persons with disabilities in federal employment practice and by federal contractors, respectively.
- The Americans with Disabilities Act (ADA) of 1990 provides extensive civil rights protections to individuals with disabilities in the areas of employment; government services (including public health agencies and health or wellness programs); public accommodations (including health care facilities and offices as well as exercise and wellness programs and facilities); transportation; and telecommunications.
- In the <u>Olmstead</u> v. L.C. and E.W. decision of 1999, the Supreme Court interpreted Title II of the ADA and its implementing regulations as requiring states to administer their services, programs and activities "in the most integrated setting appropriate to the needs of qualified individuals with disabilities" where professionals have determined placement is appropriate, the person does not object, and the placement can be reasonably accommodated, taking into account the resources available to the state and the needs of others with disabilities. The Court held that unjustified isolation and segregation of individuals with disabilities, primarily in institutions, constitute discrimination based on disability. The decision further recognized that such confinement both perpetuated unwarranted assumptions that people with disabilities were incapable or unworthy of participating in community life and severely curtailed everyday life activities (e.g., family relations, social contacts, work, educational advancement and cultural enrichment).
- The 2001 New Freedom Initiative (NFI) is a comprehensive plan that was designed to help eliminate barriers to community living for persons with disabilities. It focuses on six areas − education, housing, employment, transportation, assistive technologies and access − to ensure that all citizens have the opportunity to learn and develop skills, engage in productive work, make choices about their daily lives and participate fully in community life.
- Private <u>health insurance</u> as well as federal and state health and supportive <u>benefits programs</u>, including Medicaid and Medicare, are critical sources of health insurance for persons with disabilities, older persons and children and mothers. Supplemental Security Income provides a safety net for persons with disabilities who are economically impoverished. Social Security Disability Insurance reduces the economic impact on workers who become disabled.

Unfortunately, despite advances in science and technology as well as advocacy and legislation, disabilities continued to be equated with ill health, incapacity and dependence. Persons with disabilities in general do not benefit from health promotion screening and wellness programs because health care professionals often focus on their disabilities alone, rather than the needs of the whole person. Providers may fail to communicate health promotion messages that are routinely conveyed to persons without disabilities because health care often focuses solely on a person's disability rather than on the full range of health and wellness needs of each person as an individual. In addition, health promotion and illness prevention information, programs and activities are often not tailored to the needs of individuals with specific disabilities.

Healthcare and wellness providers may be unaware of the most effective ways to educate persons who have disabilities that impact mobility, vision, sensation or cognition about

how best to perform breast self-examinations or self-assessments for skin cancer. For example, there is little guidance on the promotion of a healthy diet for persons with disabilities as a target population, and few materials include one or more person with a disability in visuals, or otherwise suggest that diet needs to be a concern to persons with disabilities. Screening programs may not be equipped to examine persons with disabilities appropriately (e.g., lack of universal equipment and screening devices) and screening facilities might not be accessible for examinations. Exercise facilities might not have adaptive equipment.

Health promotion and wellness services and materials often are not adapted for use by persons with disabilities. In addition, the majority of health promotion professionals (e.g., wellness counselors and trainers) lack the knowledge of how best to communicate with individuals with disabilities and how to work with them to meet their specific wellness goals. For example, health promotion instructions might be written at a reading level that is too high for a person with an intellectual disability or may not be available in accessible formats for people with visual impairments (e.g., Braille or interactive technology).

Defining Wellness

The World Health Organization (WHO) defines wellness as "a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity." The National Wellness Institute defines wellness as "a conscious, deliberate process that requires a person to become aware of and make choices for a more satisfying lifestyle" that

includes a self-defined balance of health habits (e.g., adequate sleep and rest, physical activity and exercise, participation in meaningful activities, eating well, and connecting with supportive people, places, and spaces).

It should be noted that the concept of wellness is the same for individuals with disabilities as for those without: achieving and sustaining an optimal level of wellness, both physical and mental, that promotes a fullness of life.

The tools and knowledge needed to promote wellness and awareness of the risk factors that can promote illness and the protective factors that can prevent are the same for everyone, irrespective of the presence of a disability. However, for individuals with disabilities, it also means awareness of conditions secondary to a disability that can be treated successfully. Health also means that persons with disabilities can access

Health is more than the absence of disease; it is a physical and mental state which allows maximum goal achievement and independence. Health is a means to attaining a goal, rather than a goal in itself.

Wellness is a way of living or a lifestyle that achieves a person's potential for health and independence.

Health and wellness are not the same as the presence or absence of a disability; they are broader concepts that directly affect the quality of a person's life experience. Research and clinical experience have shown that persons with disabilities can be both healthy and well.

appropriate, integrated, culturally sensitive and respectful health care that meets the needs of the whole person, not just their disability.

SAMHSA Wellness Initiative

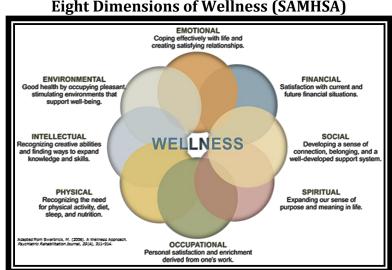
The Substance Abuse and Mental Health Services Administration (SAMHSA) Wellness Initiative defines wellness as the presence of:

- Purpose in life
- Joyful relationships

- ♣ Active involvement in satisfying work and play
- A healthy body and living environment
- Happiness

Wellness also includes having valued roles – as an employee, volunteer, student, co-worker, parent, sister, brother, teacher, friend, or spouse – that are critical to the recovery process.

A wellness lifestyle includes a self-defined (i.e., based on individual needs and preferences) balance of health habits such as adequate sleep and rest, productivity, exercise, participation in meaningful activity, nutrition, productivity, social contact, and supportive relationships.



Eight Dimensions of Wellness (SAMHSA)

The wellness approach offers a philosophy that supports healthy lifestyle habits that have been shown to have positive effects on quality of life. It also focuses on other interventions to improve quality of life.

Michigan Health and Wellness 4 x 4 Plan

Studies indicate that seven out of ten deaths in the United States are due to chronic diseases and more than seventy five percent of healthcare spending is for people with chronic diseases including heart disease, stroke, cancer, diabetes, kidney disease, and dementia.

In 1995, eighteen percent of adults in the state of Michigan were obese. By 2010, the prevalence of obesity increased to thirty two percent, and this is predicted to rise to fifty percent by 2030 if current trends continue. Two and a half million adults are obese and four hundred thousand children currently suffer from obesity in Michigan, Consequences of obesity include Type 2 diabetes, heart disease, arthritis, stroke, and dementia. Obesity is primarily the result of a sedentary lifestyles and unhealthy eating habits.

The Michigan Health and Wellness 4×4 Plan focuses on the adoption of health as a personal core value. It describes the approach that the State of Michigan is undertaking to address wellness and obesity. The 4×4 tool, which can be used to maintain and/or attain health, is central to the plan. The tool recommends the practice of four healthy behaviors and control of four key health measures.

The four healthy behaviors are:

- ① **Healthy diet:** Research shows that healthy eating contributes significantly to overall health and maintaining a healthy weight. According to the <u>Dietary Guidelines for Americans</u>, eating healthy entails consuming a variety of nutritious foods and beverages including vegetables, fruits, low- and fat-free dairy products and whole grains as well as limiting intake of saturated fats, added sugars, and sodium. In addition, trans-fat intake should be as low as possible and caloric intake should be balanced with calories burned in order to manage body weight.
- 2 **Regular exercise:** Reducing sedentary lifestyles and increasing regular physical activity have been shown to have a significant impact on health. Regular physical activity helps achieve and maintain a healthy weight and the health of bones, joints, and muscles, as well as reduces feelings of anxiety and depression. Despite the apparent benefits of physical activity, less than half of adults in Michigan engage in regular physical activity which is defined as at least one hundred fifty minutes or two and a half hours of moderate intensity physical activity per week (e.g., brisk walking, biking or swimming). It is recommended that children and adolescents get one hour (i.e., 60 minutes) of physical activity per day and less than two hours of media time per day (i.e., television, computer, movies, and video games).
- 3 Annual physical examinations: An annual physical exam² may be considered a proactive measure that can confer such benefits as earlier diagnosis and treatment of existing health issues and prevention of future problems through screenings and monitoring four health measures (BMI, cholesterol, blood sugar, and blood pressure which are described below).
- 4 Avoidance of tobacco use: Tobacco use is the leading cause of premature and preventable death in the United States. Avoiding all tobacco use (including cigarettes, cigars, smokeless tobacco, pipes and hookahs) and eliminating exposure to secondhand smoke can lead to significant reductions in the risk of developing heart disease, certain cancers, pulmonary disease, periodontal disease, asthma and other diseases.

The four key health measures are:

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² It should be noted that, while the routine annual comprehensive physical examination (PE) became a fixture in American medical practice in the 1940s, by the 1980s many influential professional groups (including the American Medical Association, the American College of Physicians, the United States Preventive Services Task Force [USPSTF] and the Canadian Task Force on Periodic Health) recommended that this approach be replaced by periodic screening, counseling and PE tailored to a patient's age, sex, risk factors, and symptoms as elicited by the medical history and review of systems. A directed physical exam is sometimes indicated for patients with risk factors for specific conditions. An annual PE is not recommended for healthy asymptomatic adults between the ages of 18 and 65.

① **Body mass index (BMI):** BMI is a measure of body fat based on height and weight. A healthy adult BMI falls within a range of 18.5 to 24.9. A BMI between 25 and 29.9 is considered overweight and a BMI of 30 is classified as obese. Maintaining a BMI within the healthy range can lead to reductions in blood pressure, cholesterol, blood glucose and a lower risk for heart disease, stroke, cancer, diabetes, and kidney disease.

BMI values for children are expressed in percentiles to control for differences in body sizes due to gender and age. The percentile indicates the relative position of the child's BMI number among children of the same gender and age. A child with a BMI percentile between 5% and 84% is considered to be at a healthy weight; 85% to 94% is considered overweight, and above the 95th percentile is considered obese.

Reductions in BMI can lead to significant health benefits including reductions in the risk of developing Type 2 diabetes by more than fifty percent and substantially reducing the risk of heart disease and cancer with a moderate reduction of BMI (five to ten percent).

- ② **Blood pressure:** Uncontrolled hypertension increases the risk of heart attack, stroke and kidney disease. A blood pressure of less than 120/80 is considered healthy or normal. A blood pressure between 120–139/80–89 is considered prehypertension, and a blood pressure of 140/90 or above is considered hypertension.
- ③ Cholesterol level: High cholesterol is a significant factor in cardiovascular disease, which can lead to stroke and heart attacks. Total blood cholesterol should be kept below 200 in order to reduce the risk for cardiovascular disease. A blood cholesterol level of 200 to 239 is considered mildly high, while a blood cholesterol level of 240 or greater is considered high.
- 4 Blood glucose level: Blood glucose levels measure the amount of a type of glucose in the blood. Increased blood glucose levels can be a predictor of diabetes. Fasting blood glucose levels should be below 100mg/dl.

Michigan Health Promotion for People with Disabilities Initiative



The Michigan Health Promotion for People with Disabilities Initiative is a statewide partnership committed to reducing the health disparities between people with disabilities and people without disabilities. It is designed to address health disparities in people with disabilities by improving the access to health care and health screening; promoting health and risk self-management; improving the response of health providers to people with disabilities; and integrating disability and health into existing health promotion activities.

Additional information on this initiative can be found on the

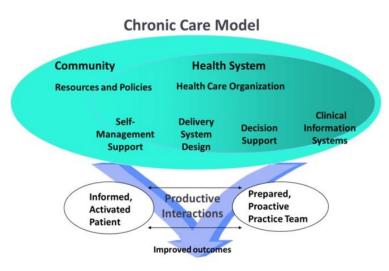
Web at http://www.michigan.gov/mdch/0,1607,7-132-2940 2955 54051---,00.html and http://midisabilityhealth.org/.

CHRONIC DISEASE SELF-MANAGEMENT PROGRAMS

Chronic Care Model (CCM)

The Chronic Care Model is an organizing framework for improving chronic illness care as well as a tool for improving care at both the individual and population level that was developed by Ed Wagner, MD, MPH, et al. The model is based on the assumption that improvement in care requires an approach that incorporates patient, provider, and system level interventions.

The CCM consists of six core components of effective healthcare delivery:



- Clinical information systems to improve care for chronic conditions: A registry (i.e., an information system that can track individual patients as well as populations of patients) is needed when managing chronic illness or preventive care. The entire care team uses the registry to guide the course of treatment, anticipate problems, and track progress. For example, with access to adequate database software, health care teams can use disease registries to contact patients to deliver proactive care, implement reminder systems, and generate treatment plans and messages to facilitate patient self-care. The registry is the foundation for successful integration of all the elements of the Chronic Care Model.
- Organization of health care to improve care for people with chronic conditions: Efforts to improve care need to be woven into the fabric of the organization and aligned with a quality improvement system. Senior leadership must identify the effort to improve chronic and preventive care as important work, and translate that into clear goals reflected in the organization's policies, procedures, business plan, and financial planning. The entire organization must be engaged in the improvement effort. Senior leaders and clinician champions must be visible and committed members of the team. Personnel must be given the resources and support they need.
- **Community support for people with chronic conditions:** To improve the health of the population, health care organizations need to reach out to form effective alliances and partnerships with state programs, local agencies, schools, faith organizations, businesses, and clubs. Relationships with community programs and organizations that have the potential support or expand care for patients with chronic illnesses and provide prevention strategies in a cost-effective manner should be leveraged. Linkages with community resources can facilitate access to

- services not available within the organization (e.g., nutrition counseling, peersupport groups, and data for patient registries).
- **Decision support for people with chronic conditions:** Treatment decisions need to be based on explicit, proven guidelines supported by scientific evidence of efficacy. Health care organizations need to integrate explicit, proven guidelines into the day-to-day practice of the primary care providers in an accessible and easy-to-use manner and providers should receive ongoing education. In addition, primary care clinicians need to be kept up-to-date with information when a patient is referred to a specialist.
 - Incorporating evidence-based practice guidelines into registries, flow sheets, and patient assessment tools can be an effective in helping to alter provider behavior.
- **6** Coordinated delivery system design to improve chronic care: The delivery of care to persons with chronic conditions requires: (1) determining what care is needed; (2) clarifying roles and tasks to ensure patients receive needed care; (3) ensuring that all the clinicians involved in a patient's care have centralized, up-to-date information about the patient's status; and (4) making follow-up a part of standard procedure.
 - In a coordinated delivery system, clinicians plan visits well in advance, based on the patient's needs and self-management goals. During group visits, patients see their clinician and meet with other patients who have similar health problems. Non-physician staff members are cross-trained to provide care via standing orders. For example, delivery system design to coordinate actions of multiple caregivers of patients with diabetes has been found to lead to significant improvements in glycemic control, patient satisfaction, and health care utilization.
- **Self-management support for people with chronic conditions:** Patients with chronic illness need support and information to become effective managers of their own health. In order to meet these needs, it is essential for them to have: (1) basic information about their disease; (2) understanding of and assistance with self-management skill building; and (3) ongoing support from members of the treatment team, family, friends, and community.
 - Individual and group interventions that emphasize patient empowerment and selfmanagement skills have been shown to be effective in the management of diabetes as well as asthma and other chronic conditions.

Although disease management programs vary in design and implementation, almost all promote one or more of the six core elements of the Chronic Care Model (CCM) developed as a framework for guiding specific quality improvement strategies.

There is substantial evidence that chronic disease management strategies achieve better disease control, higher patient satisfaction, and better adherence to guidelines by redesigning delivery systems to meet the needs of patients with chronic illnesses.

Chronic Disease Self-Management Program (CDSMP)

A number of lifestyle interventions have been developed to help consumers engage in physical activity, better manage their weight, eat a more balanced and healthier diet, and engage in health promotion activities. Mounting evidence supports the effectiveness of interventions that are designed to improve self-management of chronic general medical conditions in the general population as well as for consumers of mental health services.

The CDSMP is a six-session peer-facilitated intervention developed by Stanford University that is delivered during two and a half-hour group sessions. It emphasizes training in disease self-management, including action planning, feedback and support from peers, and problem-solving. CDSMP programs are led by two peer educators with chronic medical conditions. Groups typically include participants with a range of chronic conditions such as diabetes, arthritis, asthma and heart disease.

Living Well: Stanford Chronic Disease Self-Management Programs	
Tomando Control de su Salud	Spanish-language, culturally adapted version of Living Well
Positive Self-Management Program (PSMP)	Designed for persons with HIV
Cancer: Thriving and Surviving Program	Designed for individuals who have had cancer
Diabetes Self-Management Program	Designed for people with diabetes
Arthritis Self-Management Program	Designed for people with arthritis
Pain Self-Management Program	Designed for people with chronic pain
Better Choices, Better Health	An on-on version of the Living Well workshop

Group sessions address self-management tasks that have been found to be common across chronic health conditions. The elements of the intervention include regular action planning and feedback, modeling of behaviors and problem-solving by participants, reinterpretation of symptoms, and training in specific disease management techniques. The program focuses on the development of chronic disease management skills including effective decision-making, problem-solving and action-planning and is designed to increase self-confidence as well as physical and psychosocial well-being and motivation to manage chronic disease challenges.

Interactive education is provided including discussion, brainstorming, practicing actionplanning and feedback, behavior modeling, problem-solving techniques and decisionmaking. Symptom management includes exercise, relaxation, communication, healthy eating, medication management and managing fatigue.

The workshop is delivered in small interactive groups of ten to sixteen participants that meet for two to two and a half hours once a week for six weeks by a pair of trained leaders who may be two lay (peer) leaders or one health professional and one peer leader. One of the peer leaders should have a chronic condition. The required four and one half day leader training can be provided at Stanford University or locally by Stanford-certified master trainers.

The CDSMP has shown to improve disease self-management, health services use, and clinical outcomes in multiple studies. Outcome studies have shown that at six months participants demonstrate improvements in health indicators (i.e., fatigue, quality of life, sleep, depression, health distress, and days they rate their health as poor) and health behaviors (i.e., medical adherence and communication with the doctor). The program also appears to be an effective for individuals who have a serious mental illness.

A single Program License for offering ten or less workshops costs \$500 and \$1000 for offering thirty or less workshops per year. Offering more than thirty workshops per year must be negotiated with the Stanford University Office of Technology Licensing. A Multiple Program License for offering up to twenty five workshops per year costs \$1,000 and \$1,500 for offering up to forty workshops per year. Licensing information is available at http://patienteducation.stanford.edu/licensing/.

CDSMP training options include: (1) sending leaders to training held locally and hosted by another organization (costs vary); or (2) sending leaders to training offered at Stanford. Registration fees for training are \$1,600 for each health professional and \$900 for a lay person with a chronic disease; or (3) hosting a leader-training by using local master trainers (costs vary), or (4) bringing Stanford master trainers to the location which costs \$16,000 plus travel costs for training up to twenty six leaders per course.

Leader Materials include Leader manuals which are provided with a license (and may be reproduced). CDSMP books, *Living a Healthy Life with a Chronic Condition* which costs \$10-\$15 each plus CDs which cost \$12 each. Program materials are available from Bull Publishing Company. Required equipment includes a flipchart, flipchart stand, and other training-related items. Participant Materials include a CDSMP book titled *Living a Healthy Life with a Chronic Condition* which costs \$19.00 and a CD which costs \$12.

Each licensed organization is required to submit a yearly report to Stanford that includes the number of workshops offered, dates of each workshop and the number of participants. In addition, if applicable, the number of leader trainings or master trainer trainings conducted is provided.

The Chronic Disease Self-Management program is available in Spanish (Tomando Control de su Salud) and the Arthritis Self-Management Program is also available in Spanish (Programa de Manejo Personal la Artritis).



Personal Action Toward Health (PATH)

The Stanford Chronic Disease Self-Management Program, known as PATH in Michigan, was developed and tested by Stanford University to help people learn techniques and strategies for day-to-day management of chronic or long-term health conditions (e.g., arthritis, heart disease, diabetes, emphysema, asthma, bronchitis and depression). The program is a six-week workshop conducted in two and one half-hour sessions that are held once a week. Workshops are offered in convenient, easily accessible community locations free of charge or at very low cost to

participants. Family members, friends, and caregivers are also encouraged to attend the workshop.

PATH combines peer support with health promotion information and disease self-management concepts. Participants use a self-management workbook titled, *Living a Healthy Life With Chronic Conditions*. Peer support is provided by a trained volunteer (health mentor). Subsequent to the initial meeting, a nurse or social worker monitors each participant's progress toward health goals through follow-up visits and telephone calls and informs the participant's primary care physician of the participant's progress.

Workshops are led by two trained leaders who may, themselves, have a long-term health condition. The content is not disease specific; it focuses on symptoms that are common to individuals with a variety of health conditions in order to help them improve self-management of their conditions. Emphasis is placed on creating personal action plans and setting practical, achievable goals. Participants learn strategies to help them deal with problems such as pain, fatigue, and difficult emotions. Other topics include managing symptoms, managing medications, working with health care providers, relaxation, healthy eating, physical activity, and communicating with family and friends.

	PATH Workshop Topics
Session 1	Identifying common problems
	Acute vs. Chronic disease
	 Using your mind to manage symptoms
	Action Plans
Session 2	 Problem solving
	 Dealing with difficult emotions
	Physical activity and exercise
Session 3	Better Breathing
	Muscle Relaxation
	Pain and Fatigue Management
	Endurance activities
Session 4	Future plans for health care
	Healthy eating
	 Communication skills
	Problem solving
Session 5	Medication usage
	 Making informed treatment decisions
	 Depression management
	Guided imagery
Session 6	 Working with your health care professional
	Planning for future

Outcomes studies of PATH have shown that participation leads to improved symptom management, better communication with physicians, a greater sense of self-efficacy, increased physical activity, and better general health. Additional information on PATH can be found on the Web at: http://www.mihealthyprograms.org/programs-path.aspx.

Tomando Control de su Salud (Spanish Chronic Disease Self-Management Program)

Tomando Control de su Salud is a community-based given two and a half hour workshop that is provided once a week, for six weeks for Spanish-speaking people with different chronic health problems. Workshops are facilitated by two trained certified leaders, one or both of whom are non-health professionals with a chronic disease. All workshops are conducted in Spanish without translators.

While Tomando is very similar to the Chronic Disease Self-Management Program, it is not a translation of that program and was originally developed separately. The topics covered are similar but presented in culturally appropriate ways and include:

- Healthy eating
- Appropriate exercise for maintaining and improving strength, flexibility, and endurance
- Managing depression
- Appropriate use of medications
- Communicating effectively with family, friends, and health professionals
- Relaxation techniques
- Appropriate use of the health care system
- How to evaluate new treatments
- Better breathing

Each participant in the workshop receives a copy of the companion book, *Tomando Control de su Salud: Una guía para el manejo de las enfermedades del corazón, diabetes, asma, bronquitis, enfisema y otros problemas crónicos,* an audio relaxation CD, *Casete de Relajación,* and an audio exercise CD with booklet, *¡Hagamos ejercicio!* All materials are in Spanish.

Like the other Stanford University CDSMP, classes are highly participative, where mutual support and success build the participants' confidence in their ability to manage their health and maintain active and fulfilling lives. And, similar to other CDSMP, participation has been found to lead to improved health status, health behavior, and self-efficacy, as well as fewer emergency room visits.

Organizations interested in offering the program need to purchase a program license (a link for the licensing information page is on the top right side of this page).

Leaders must be fully fluent in Spanish (i.e., reading, writing and speaking) and have a chronic condition. Training for Leaders is four days. However, Stanford University does not offer Leader trainings; licensed organizations may offer Leader trainings. Master Trainers must be fully fluent in Spanish and can be peers or professionals. A four one half day training for Master Trainers is required. Stanford University also offers Web-based cross-training for leaders already been trained in the English Chronis Disease Self-Management Program (CDSMP). All training is conducted in Spanish; participants must speak Spanish (but do not need to read or write Spanish).

Additional information on Tomando Control de su Salud is available from http://patienteducation.stanford.edu/programs.spanish/tomando.html.

Arthritis Self-Management Program (ASMP)

The Arthritis Self-Management Program is an interactive group workshop for ten to sixteen participants who have arthritis that focuses on chronic disease management skills including decision-making, problem-solving and action-planning. Formerly known as the Arthritis Foundation Self-Help Program or the Arthritis Self Help Course, ASMP is designed to increase self-confidence, physical and psychosocial well-being and motivation to manage challenges associated with chronic arthritis.

ASMP consists of a two-hour workshop for eight to fourteen participants that is provided once week for six weeks in community settings (e.g., senior centers, churches, libraries and hospitals). People with different types of rheumatic diseases, such as osteoarthritis, rheumatoid arthritis, fibromyalgia, lupus and others, attend together. Each workshop is facilitated by two trained leaders, one or both of whom are non-health professionals who have arthritis. Each participant in the workshop receives a copy of the companion book, *The Arthritis Helpbook, 6th Edition*, and an audio relaxation tape, *Time for Healing*.

Sessions entail interactive education including discussion, brainstorming, and practice of action-planning and feedback, behavior modeling, problem-solving techniques and decision making, exercise, relaxation, communication, healthy eating, medication management and managing fatigue for symptom management. Subjects covered include:

- Techniques to deal with problems such as pain, fatigue, frustration and isolation
- Appropriate exercise for maintaining and improving strength, flexibility, and endurance
- Appropriate use of medications
- Communicating effectively with family, friends, and health professionals
- Healthy eating
- Making informed treatment decisions
- Disease related problem-solving
- Getting a good night's sleep

Like the other Stanford Chronic Disease Self-Management Programs, classes are highly participative and encourage the development of mutual support and success in order to build the participants' confidence in their ability to manage their health and maintain active and fulfilling lives.

There is a robust evidence base to support the effectiveness of ASMP. Studies show that one year subsequent to participation in the program, consumers continue to report greater confidence in their ability to manage their arthritis, less fatigue, and reductions in depressed mood, anxiety, and frustration or worry about their health. Participants report reductions in pain and disability as well as improved quality-of-life and mobility along with a reduction in the utilization of medical services. These benefits have been shown to endure for at least four years. The Arthritis Self-Management Program has been endorsed and recommended by the Centers for Disease Control, the Arthritis Foundation, and the American College of Rheumatology.

Leaders must complete CDSMP leader training, which consists of four and one half-days of training provided by CDSMP-certified master trainers. Subsequent to the completion of the

training, leaders must complete a one half-day ASMP specific Webinar offered by Stanford University at a cost of \$350 per leader.

A license must be purchased from Stanford University prior to the start of the program and it must be renewed every three years. The license can be purchased specifically to offer ASMP as a single program license or through a multiple program license along with CDSMP and other Stanford Patient Education Research Center Programs. A Single Program License costs \$500 for the provision of ten or fewer workshops per year and \$1,000 for thirty or fewer workshops per year. Offering more than thirty workshops per year must be negotiated with Stanford University Office of Technology Licensing. A Multiple Program License costs \$1,000 for providing up to twenty five workshops per year and \$1,500 for offering up to forty workshops per year.

CDSMP Training Options include: sending leaders to training held locally and hosted by another organization (costs vary); sending leaders to training offered at Stanford (at a cost of \$1,600 for each health professional, and \$900 for a lay person with a chronic disease); hosting a leader-training by using local master trainers (costs vary), or bringing Stanford master trainers to the program location (for \$16,000 plus travel costs for trainer for training up to twenty six leaders per course). A *Leader Manual* is provided with the license and may be reproduced.

A flipchart, flipchart stand, and other training-related equipment are needed. Participant materials include *The Arthritis Helpbook* which is available for \$18.95 from local book stores or on-line.

Every licensed organization must submit a yearly report to Stanford that includes the number of workshops offered, dates of each workshop and the number of participants and, if applicable, the number of leader trainings or master trainings conducted.

Additional information on the Arthritis Self-Management Program can be found on the Web at http://patienteducation.stanford.edu/programs/asmp.html.

Better Choices, Better Health® for Arthritis (BCBH for Arthritis)

BCBH for Arthritis is an Internet-based group workshop using the content from the Arthritis Self-Management Program (ASMP) that focuses on arthritis management skills including decision-making, problem-solving and action-planning. It is being piloted by the National Council on Aging (NCOA) and the Arthritis Foundation (AF).

The subject matter of the online version is very similar to the in-person ASMP workshop and includes teaching the same skills for action planning, problem-solving, brainstorming, relaxation techniques, etc. However, unlike the in-person workshops, the online program does not require a scheduled time commitment. Consumers choose when to participate from week to week and interact through message boards. They set action plans each week and then report on how well they did the following week.

The Internet-based course class size ranges from twenty to twenty five participants who do not need to be online at the same time. They are expected to log-on at their convenience approximately two to three times per week during a designated six-week period. Participants may review previous sessions but may not move ahead of scheduled sessions.

Two trained peer facilitators are required for each six-week workshop (at least one of whom has a chronic condition). Trainers are currently provided by the Arthritis Foundation (AF) and the National Council On Aging (NCOA). The NCOA is licensed to provide the online workshop. Addition information on this Internet-based workshop is available from http://www.ncoa.org/improve-health/chronicconditions/better-choices-better-health.html. Currently, the AF hosts the program. Information on the AF Web site is available at http://www.arthritis.org/.

Chronic Pain Self-Management Program (CPSMP)

The CPSMP was developed for people who have a primary or secondary diagnosis of chronic pain. Pain is considered to be chronic or long-term when it continues longer than three to six months, or beyond the normal healing time of an injury. Examples of chronic pain conditions include chronic musculoskeletal pain (e.g., neck, shoulder, back pain, etc.), fibromyalgia, whiplash injuries, chronic regional pain syndromes, repetitive strain injury, chronic pelvic pain, post-surgical pain that lasts beyond six months, neuropathic pain (often caused by trauma), or neuralgias (e.g., post-herpetic pain, and trigeminal neuralgia), and post stroke or central pain. The CPSMP may also be of benefit to individuals who have conditions such as persistent headache, Crohn's disease, irritable bowel syndrome, diabetic neuropathy, or those who experience severe muscular pain due to conditions such as multiple sclerosis.

The program consists of a two and a half-hour workshop provided once a week for six weeks in community settings (e.g., senior centers, churches, libraries and hospitals). Workshops are facilitated by two trained leaders, one or both of whom are peers who experience chronic pain. Classes are highly participative and provide mutual support and successes in order to build the participants' confidence in their ability to manage their health and maintain active and fulfilling lives. Each participant in the workshop receives a copy of the companion books, *Living a Healthy Life With Chronic Conditions, 4th Edition,* and the *Chronic Pain Workbook*.

Subjects covered include:

- Techniques to deal with problems such as frustration, fatigue, isolation, and poor sleep
- Appropriate exercise for maintaining and improving strength, flexibility, and endurance
- Appropriate use of medications
- Communicating effectively with family, friends, and health professionals
- Nutrition
- Pacing activity and rest
- How to evaluate new treatments

Like the other Stanford self-management programs, the CPSMP has been rigorously evaluated. Research studies have found that, on average, participation in the CPSMP leads to increased energy, reduced pain, less dependence on others, improved mental health and coping skills, more involvement in everyday activities, and improved well-being.

Web-based cross-training is available through Stanford University for leaders trained in the Chronic Disease Self-Management Program (CDSMP). Because the pain program shares many of the basic techniques with the CDSMP, it is recommended that leaders who are new to the Stanford University self-management programs receive in-person training for the CDSMP prior to becoming cross-trained in the pain program. Training locations, dates and application can be found in the <u>Training</u> section of the Stanford website.

Cancer: Thriving and Surviving Program (CTS)

The Cancer: Thriving and Surviving Program is a workshop that is delivered for two and a half hours, once a week, for six weeks in community settings (e.g., senior centers, churches, libraries and hospitals). Workshops are facilitated by two trained leaders, one or both of whom are peers who are cancer survivors.

Subjects covered include:

- Techniques to deal with problems such as frustration, fatigue, pain, isolation, poor sleep and living with uncertainty
- Appropriate exercise for regaining and maintaining flexibility, and endurance
- Making decisions about treatment and complementary therapies
- Communicating effectively with family, friends, and health professionals
- Nutrition
- Setting priorities
- Relationships

Like the other Stanford Chronic Disease Self-Management Programs, classes are highly participative and provide mutual support and opportunities to achieve successes in order to build participants' confidence in their ability to manage their health and maintain active and fulfilling lives. Each participant in the workshop receives a copy of the companion book, *Living a Healthy Life With Chronic Conditions, 4th Edition*, and a relaxation CD, *Relaxation for Mind and Body*. A Spanish translation of the program is also available.

Web-based cross-training is available through Stanford for leaders who have already received training in the Chronic Disease Self-Management Program (CDSMP). Because the program shares many of the basic techniques with the CDSMP, those new to the self-management programs must take in-person training for the CDSMP prior to cross-training for the CTS program. Information on training and other aspects of the program can be found at http://patienteducation.stanford.edu/programs/cts.html.

An online version, the **Cancer: Thriving and Surviving Internet Program** is also available. Information on this version can be obtained from http://patienteducation.stanford.edu/internet/cancerol.html.

Diabetes Self-Management Program (DSMP)

Like the other Chronic Disease Self-Management Programs, the Diabetes Self-Management workshop is delivered to groups of twelve to sixteen participants with type 2 diabetes for two and a half hours once a week for six weeks in community settings (e.g., churches, community centers, libraries and hospitals). The workshops are facilitated from a highly

detailed manual by two trained leaders, one or both of whom are peer leaders who have diabetes.

Subjects covered include:

- Techniques to deal with the symptoms of diabetes, fatigue, pain, hyper/hypoglycemia, stress, and emotional problems such as depression, anger, fear and frustration
- Appropriate exercise for maintaining and improving strength and endurance
- Healthy eating
- Appropriate use of medication
- Working more effectively with health care providers

Classes are highly participative, where mutual support and success build the participants' confidence in their ability to manage their health and maintain active and fulfilling lives. Participants create weekly action plans, share experiences, and help each other solve problems they encounter in creating and carrying out their self-management program. Each participant in the workshop receives a copy of the companion book, *Living a Healthy Life with Chronic Conditions, 4th Edition*, and an audio relaxation recording. Additional information on this program is available from

http://patienteducation.stanford.edu/programs/diabeteseng.html.

Positive Self-Management for HIV (PSMP)

The Positive Self-Management Program is a workshop for people with HIV that is delivered once a week for two and a half-hour sessions over the course of seven weeks in community settings (e.g., senior centers, churches, libraries and hospitals). Workshops are facilitated by two trained leaders, one or both of whom are non-health professionals with HIV. It focuses on providing participants with the skills needed to effectively coordinate all the factors entailed in managing their health, as well as helping them keep active. The program is designed to enhance regular treatment and HIV-specific education and is available in English, Spanish, and Japanese.

PSMP sessions include the following topics:

- How to best integrate medication regimens into daily life so they can be taken consistently
- Techniques to deal with problems such as frustration, fear, fatigue, pain and isolation
- Appropriate exercise for maintaining and improving strength, flexibility, and endurance
- Communicating effectively with family, friends, and health professionals
- Nutrition
- Evaluating symptoms
- Advance directives
- How to evaluate new or alternative treatments

Classes are highly participative during which mutual support is provided and successes are highlighted in order to increase participants' self-efficacy (i.e., confidence in their ability to manage their health and maintain active and fulfilling lives). Each participant may also

receive a copy of the companion book, *Living Well With HIV and AIDS, 3rd Edition*, and a relaxation CD.

Participation in PSMP has been found to lead to improvements in symptoms, adherence to medication regimens, and HIV suppression in the blood after six months.

Trainings for representatives of health care organizations are four and half days in duration. A one-day cross-training is offered at Stanford University for facilitators who have already been trained to deliver the Chronic Disease Self-Management Program. Additional information can be found at

http://patienteducation.stanford.edu/training/index.html.

PEER-DELIVERED MODELS

The Affordable Care Act has generated new models of service delivery leading to an alteration of the historical boundaries between mental health care and primary care. Care is moving from a clinical focus to a population focus, from provider-centric to patient-centered approaches, and from treating mental disorders to treating the full spectrum of needs of persons with mental health disorders. New payment systems and information technology tools are enabling this transformation. The peer workforce and recovery orientation have become increasingly central to the mental health and primary care intersection of health care delivery.

The peer movement eschewed the concept of chronicity and narrow focus on illness, disease and disability and proposed holistic approaches instead including the eight-dimension wellness framework (described above) that was adopted by SAMHSA and promoted as a Wellness Campaign which is a health promotion strategy that is driven by the poor health status and associated disparities experienced by persons are served by the public mental health sector.

Peer-driven wellness-oriented approaches (e.g., whole-health and peer wellness coaching) are now considered to be critical to an integrated care team model that combines the concept and practice of recovery with physical well-being and overall wellness.

Peer Wellness Coaching

Peer wellness coaching is an emerging practice that is based on the wellness model and designed to address comorbid medical conditions. Peer Wellness Coaches (PWCs) help consumers explore the <u>eight dimensions of wellness</u> in order to better understand their experiences, motives, and needs as well as focus on areas of physical wellness that can be

challenging, including low levels of physical activity (i.e., a sedentary lifestyle), access to general medical screenings and management of general medical conditions, oral hygiene and dental health practices, sleep and rest, and reduction or elimination of tobacco use and use of other addictive substances.

PWCs are trained and employed to promote health and wellness through approaches based on empowerment, self-direction and self-advocacy, and mutual relationships in order to achieve a positive impact on modifiable risk factors (e.g., diet and exercise) and support improved access to primary

- Peer coaching focuses on informed shared decision-making and selfmanagement to monitor the risk factors for preventable and treatable diseases.
- Peer specialist roles and services are grounded in the wellness framework.
- Coaching strategies can be used to help promote a wellness lifestyle that includes making choices for a healthier and more satisfying lifestyle.

care. They work collaboratively with consumers using effective communication skills and motivational enhancement techniques.

PWCs can be employed in a variety of settings as a member of a larger treatment or support team. Peers modeling wellness strategies can help treatment teams work with a consumer's strengths and capacity to achieve goals (rather than emphasizing limitations which can create barriers to supporting positive change).

It should be noted that wellness coaching stresses collaboration as a means to guiding consumers toward successful and lasting behavioral change through the provision of individualized support and reinforcement. A wellness coach does not offer advice, but instead helps the consumer brainstorm ideas and develop achievable steps. Wellness coaching does not entail offering the solution to the problem, but rather, encouraging the consumer to solve the problem.

Wellness coaching provides support in the form of effective communication skills to help the consumer work through the process of developing a wellness-related goal and assist in identifying steps to take to achieve goals as well as provide structure and support to promote progress and accountability, assist the consumer in strengthening their readiness to actively pursue wellness related goals, and compile and share wellness and healthy lifestyle resources. For example, PWCs can help consumers have conversations with their treatment team about medication side effects that result in weight gain which can increase risk factors for metabolic syndrome.

Roles and responsibilities of a Peer Wellness Coach that have been identified include:

- *Assisting consumers in choosing, obtaining, and maintaining wellness and healthy lifestyle related goals
- **X** Helping consumers work through the process of identifying health and wellness related goals
- **X** Asking facilitative questions to help consumers gain insight into their own personal situations
- **X** Empowering consumers to find their own solutions for health problems and concerns they are facing by asking questions that give them insight into their wellness status
- **X** Assisting consumers in identifying steps to take to achieve a health and wellness related goal
- *Assisting consumers in strengthening their readiness to actively pursue health and wellness

Peer Wellness Coaches use a variety of methods, tailored to the individual, for setting and reaching health/wellness related goals and provide structure and support to promote personal progress and accountability. They also compile and share wellness and healthy lifestyle resources for peers and other staff or supporters. In addition, peer coaches facilitate Chronic Disease Self-Management Program (CDSMP) workshops.

The **Peer Wellness Coaching CDSMP** is provided once a week for eight weeks. The first, second, and final sessions are in-person meetings, while the rest of the sessions take place telephonically. During the first session, peers are oriented to Peer Wellness Coaching and given a Health Assessment to complete before the meeting as well as measurements of weight, waist circumference, BMI, and the time it takes to walk a specific distance. During the second session, peers review their Health Assessment with the Peer Wellness Coach, identify strengths, weaknesses, and areas of change, and establish a weekly Action Plan which focuses on physical health goals, including losing weight, decreasing tobacco use, increasing physically activity, improving nutrition, and improving stress management. The

remaining sessions are used to provide opportunities for accountability, mentoring, support, and continued goal-setting.

Studies show that peers can be effective in assisting other peers in maintaining a healthy lifestyle. Additional information and resources that can be used for Peer Wellness Coaching CDSMP can be downloaded at no cost from http://www.myhealthmychoicemylife.org/.

Health and Recovery Peer (HARP)

HARP, an adaptation of the <u>Chronic Disease Self-Management Program (CDSMP)</u> for mental health consumers, is a manualized, six-session intervention delivered by mental health peer leaders. This peer-led program is designed to help participants become more effective managers of their chronic illnesses.

Several modifications to CDSMP were made to adapt it to the needs and characteristics of mental health consumers. In order to accommodate potential cognitive challenges and gaps in health literacy, the manual was simplified to a sixth grade reading level and a self-management record was added to track disease-specific self-management, medications, upcoming appointments, dietary intake, and physical activity. Each participant is paired with a partner from the group to work together in accomplishing action plans and achieving goals in order to enhance motivation and engagement.

Materials emphasizing the connection between mind and body were added, and a section reinforcing the importance of coordinating information about medications between primary care providers and psychiatrists is included. The section on medical advance directives was expanded to include mental health advance directives, which specify preferences when a consumer is unable to make decisions due to psychiatric symptoms. Finally, the diet and exercise sections were modified to address the socioeconomic challenges (i.e., high rates of poverty and social disadvantage) often experienced by persons with serious mental illness. The diet section provides strategies for purchasing healthy food on a budget (including using food stamps) and strategies for participants to safely exercise in their own homes.

This promising program has been found to lead to improvements in a range of health outcomes for mental health consumers with chronic medical comorbidities including patient activation³ (a measure of an individual's self-management capacity), rates of having one or more primary care visit, physical health related quality of life (<u>HRQOL</u>), physical activity, and medication adherence.

Whole Health Action Management (WHAM)

WHAM is a training program and peer support group model that was developed by the <u>SAMHSA—HRSA Center for Integrated Health Solutions</u> for people with mental illnesses and substance use disorders to promote increased resiliency, wellness, and self-management of physical and behavioral health. It was designed by peers for peers and

³ There has been increasing attention in the medical literature about the importance of patient activation both in guiding clinical care and predicting outcomes. In longitudinal studies, positive changes in patient activation have been found to be associated with improved self-management behaviors, medication adherence, and outcomes, including quality of life.

teaches participants how to set and achieve whole health goals using weekly action plans during the eight-week support groups of the program. WHAM is based on research and programs for chronic disease self-management such as <u>Health and Recovery Peer Program (HARP)</u> and science-based health and resiliency factors including the <u>Relaxation Response</u> which was developed by the Benson-Henry Institute for Mind Body Medicine at Massachusetts General Hospital.

The WHAM training is a two-day, in-person peer support training that guides participants through a person-centered planning process to set a whole health and resiliency goal and teaches peers how to facilitate WHAM groups. Subsequent to the training, participants join a national listserve to foster an online peer support network and share tips and tools for success. This training supports the use of person-centered planning and development of weekly action plans to create new health behaviors. It also teaches basic health screens for prevention and encourages shared decision-making with health professionals. During the training peer leaders learn to:

- Engage in person-centered planning in order to identify strengths and supports in ten science-based whole health and resiliency factors
- Participate in peer support groups to create new health behaviors
- Write a whole health goal based on person-centered planning
- Elicit the <u>Relaxation Response</u> to manage stress
- Create and log a weekly action plan
- Engage cognitive skills to avoid negative thinking

The skills learned in WHAM also help participants engage in self-management and formulate goals to achieve improved health and wellness. In addition, the program can help enhance the peer workforce's role in the delivery of health care services and supports. Finally, WHAM provides a format for the provision of peer support meetings; the eightweek groups offer a venue for mutual support and goal achievement.

There are two major components to the WHAM ten-session training. The first component follows the *Participant Guide* and uses a person-centered planning process in ten health and resiliency factors to help the consumer create a concise whole health goal to begin the self-management process. The guide provides learning skills to enhance self-management, including eight weeks of WHAM peer support groups and a weekly action plan to create new health habits. The whole health goal can also be added to a consumer's treatment plan.

These ten factors are:

- ① Stress Management
- ② Healthy Eating
- 3 Physical Activity
- Restful Sleep
- Service to Others

- **6** Support Network
- Optimism Based on Positive Expectations
- **8** Cognitive Skills to Avoid Negative Thinking
- Spiritual Beliefs and Practices
- A Sense of Meaning and Purpose

The WHAM training also focuses on mind-body resiliency to promote self-management skills. The ten health and resiliency factors included in the training are recommended by the <u>Benson-Henry Institute for Mind-Body Medicine</u> at Massachusetts General Hospital, renowned for decades of research on promoting resiliency through stress reduction using the <u>Relaxation Response</u>. The primary goal of this training is to teach skills to better self-

manage chronic physical health conditions, mental illnesses and substance use disorders in order to achieve whole health.

The program also provides:

- Training Participant Guides on a flash drive
- Weekly Action Plan Pocket Guides on a flash drive
- Pedometers
- Training posters
- Training handouts
- A national listserv to foster an online peer support network and share tips and tools for success

Additional information on WHAM can be found on the Internet at http://www.integration.samhsa.gov/health-wellness/wham. The *Participant Guide* can be downloaded in English at no charge from http://www.integration.samhsa.gov/health-wellness/WHAM Spanish CIHS Participant Guide final press 10 29.pdf.

Pathways to Recovery (PTR)

Pathways to Recovery is a strengths-based group approach to recovery that builds on competencies rather than focusing on managing symptoms or problems. The group assumes that everyone can recover and can exercise self-determination to create a life of their choosing. PTR is not based on solving people's problems but, rather, providing resources and tools for each participant to decide what works and what does not work for them.

The twelve-week groups can be co-facilitated by a mental health clinician and consumer or facilitated solely by consumers. Sessions are used to explore a variety of topics including:

- Motivation
- Living situation
- Career path
- Social support
- Vision for the future

Participation in this promising practice has been found to lead to improvements in self-esteem, self-efficacy, social support, spiritual well-being, and a reduction of psychiatric symptoms.

The Group Facilitator's Manual for PTR can be downloaded at no charge from: http://www.kpchr.org/research/public/common/getdocbyname.aspx?filename=fullfacilitatorsmanualv38.pdf.

Wellness Recovery Action Plan (WRAP)

WRAP is an evidence-based, manualized group intervention for adults with mental illness. The program guides participants through the process of identifying and understanding

their personal wellness resources (wellness tools) and then helps them develop an individualized plan to use those resources on a daily basis to manage their mental illness.

WRAP is typically offered in mental health outpatient programs, residential facilities, and in peer-run programs. And, although it is used primarily by and for people with mental illnesses of varying severity, WRAP also has been used with people coping with other



health issues (e.g., arthritis, diabetes) and life issues (e.g., decision-making, interpersonal relationships), as well as with military personnel and veterans.

WRAP is designed to teach participants how to implement the key concepts of recovery (hope, personal responsibility, education, self-advocacy, and support) in their day-to-day lives as well as help them organize a list of their wellness tools which are comprised of activities they can use to help themselves feel better when they are experiencing mental health difficulties and to prevent these difficulties from arising. WRAP also helps participants create an advance directive that guides the involvement of family members or supporters when the person is unable take appropriate actions on their own behalf. In addition, participants develop an individualized post crisis plan for use as the mental health difficulty subsides in order to promote a return to wellness.

WRAP groups generally range in size from eight to twelve participants and are led by two trained co-facilitators. Information is imparted through lectures, discussions, and individual and group exercises. Key WRAP concepts are illustrated through examples from the lives of the co-facilitators and participants. The intervention is typically delivered over eight weekly two-hour sessions, but can be adapted for shorter or longer times to more effectively meet the needs of participants. Participants often choose to continue meeting after the formal eight-week period to support each other in using and continually revising their WRAP plans.

Studies of WRAP indicate that participation leads to significant reductions in the severity and number of symptoms across time as well as improvements in physical health, hopefulness, and self-advocacy.

The costs involved in implementing WRAP include the following:

- ✓ Facilitator Training Manual, Mental Health Recovery Including Wellness Recovery Action Plan Curriculum: \$129
- ✓ Wellness Recovery Action Plan [book]: \$10
- ✓ Assorted books and videos for facilitators and participants: \$2-\$60 each

- ✓ Online participant materials: provided free of charge
- ✓ Wellness Recovery Action Plan and Peer Support: Personal, Group, and Program Development: \$24.95 each
- ✓ WRAP for Life: \$24.95
- ✓ The Depression Workbook: A Guide for Living With Depression and Manic Depression: \$24.95 each
- ✓ 5-day, off-site facilitator training: \$1,200 per participant
- ✓ 5-day, off-site advanced facilitator training: \$1,400 per participant
- ✓ Correspondence course: \$299 per participant
- ✓ On-site consultation costs: vary depending on the needs of the site

Additional information on WRAP can be found at: http://www.mentalhealthrecovery.com/ and http://www.nrepp.samhsa.gov/ViewIntervention.aspx?id=208.

SHIELD (Self-Help in Eliminating Life-Threatening Diseases)

SHIELD is an HIV prevention intervention that trains adults who are current and former users of cocaine, heroin, or crack to be peer educators which can also be used with people of a wide range of ages and without regard to HIV status. Clients may participate in SHIELD and a support group simultaneously. The program aims to increase condom use during vaginal intercourse, reduce needle sharing, and decrease the frequency of injection drug use.

Peer educators receive training in risk-reduction information and skills and learn communication skills for successful outreach to peers in their social networks (e.g., drug or sex partners, family, friends, and support group members). Participants also use the HIV risk-reduction information and skills that they learn in the SHIELD sessions to alter their own risky behaviors in order to maintain credibility as a peer educator. It should also be noted that the training for the peer educators may facilitate employment opportunities for them as well.

Group sessions focus on a specific curriculum to teach peer education and risk reduction skills. SHIELD groups are led by two trained facilitators. Sessions are from one and a half to two hours in duration with four to twelve participants and consist of facilitated group discussion, skill-building activities, goal-setting, role-plays, and demonstrations, information, referrals, and dissemination of risk-reduction materials. Each session follows a specific structure (homework check-in, present new information, peer educator training activities, homework assignment and practice, and summary).

The sessions teach participants techniques for personal risk reduction, correct condom use, and safer-sex negotiation skills. SHIELD also addresses injection drug use and the avoidance of risky situations. The intervention emphasizes the interrelatedness of HIV risk among people, their sex partners, and their community in order to present HIV risk in a broader community context.

The five core elements⁴ of SHIELD are:

⁴ Core elements are those parts of the intervention that must be conducted and cannot be changed.

- Implementation in a small-group setting in order to offer participants an environment that is conducive to sharing experiences and gaining social support from peers.
- A series of activities that includes pre-program contact and six intervention sessions in a specified sequence. This includes briefing and screening; potential participants should be briefed about the SHIELD intervention and screened to determine if peer education is appropriate for them. Eligible clients will progress through sessions one through six (described below) which are designed to build risk reduction and communication skills, develop the peer educator identity, and establish a supportive environment in which participants can share their experiences.
- Seach SHIELD intervention session follows a specific structure that includes five components that are designed to reinforce risk reduction and communication skills as well as provide participants opportunities to practice their peer outreach:
 - 1. Homework check-in
 - **2.** Presentation of new information
 - 3. Peer educator training activities (e.g., group problem solving and role-plays)
 - 4. Homework assignment and practice
 - **5.** Summary
- SHIELD sessions focus on building three essential peer educator sets of skills:
 - 1. Communication skills for conducting effective peer outreach
 - 2. Techniques to reduce HIV risk related to injection drug use
 - 3. Techniques to reduce HIV risk related to sex

Peer educators are taught four basic communication skills to be used during peer outreach. PEER is an acronym to assist peer educators in recalling the four communication skills:

- 1. Pick the right time and place
- 2. Evaluate their situation
- 3. Explore safer options for their situation
- 4. Use Resources and referrals
- Each session incorporates interactive peer educator training activities that are designed to build peer outreach skills and increase peer educator self-efficacy in order to foster the development of a peer educator identity. Activities include facilitator role models, group problem-solving activities, and role-plays.

SHIELD is comprised of six sessions that can be completed in three to six weeks. One or two sessions for a given SHIELD cycle can be held in a given week; up to two cycles of SHIELD can be offered at different times each week. For example, a group of sessions can be held in the morning, while another can be held in the evening. Thus, two SHIELD cycles will be completed in a three week period. The six SHIELD sessions are as follows:

- Session 1 Introduction to the Peer Educator Role and Peer Outreach: This session does not follow the SHIELD structure because the focus is on introducing concepts of peer educator and peer outreach. The primary activities are brainstorming and group discussion.
- Session 2 Peer Educator Communication Skills (PEER): This session provides support and positive reinforcement for the peer educator's role, reviews basic HIV risk information, and provides opportunities to practice PEER communication skills.

- Session 3 Reducing Sex Risk, Part 1: This session provides support and positive reinforcement for the peer educator's role, reviews sex risk information and risk-reduction options, and provides opportunities to practice PEER communication skills regarding sex risk reduction.
- Session 4 Reducing Sex Risk, Part 2: This session provides support and positive reinforcement for the peer educator's role, reviews male and female condom information, and provides opportunities to practice PEER communication skills regarding the use of condoms and addressing barriers to condoms use.
- Session 5 Reducing Risk Related to Injection Drug Use: This session provides support and positive reinforcement for the peer educator's role, reviews risks related to injecting and sharing drugs, and provides opportunities to practice PEER communication skills regarding safer injection methods.
- Session 6 Graduation and Sustaining Peer Outreach: This session provides support and positive reinforcement for the peer educator's role and focuses on motivating participants to sustain peer educator outreach. This session also provides ways to address barriers to sustainability for individual behavior change and promote a booster session, if applicable.

Evaluations of the program indicate that participation leads to increases in condom use during vaginal sex with casual sex partners and during oral sex with casual sex partners as well as reductions in needle sharing and frequency of injection drug use and cessation of the use of injection drugs.

Implementation requires one project manager (.5 FTE), two facilitators (.5 FTE each), and one recruiter (.5 FTE) who are responsible for recruiting participants, marketing the program, facilitating sessions, and conducting evaluation activities. Each facilitator attends a daylong SHIELD training. Program coordinators and managers who oversee the intervention and supervise the group facilitators are also encouraged to attend a one-day SHIELD training, independent of the training for facilitators.

SHIELD has been packaged by the CDC's Replicating Effective Programs project which offers an intervention package, training, and technical assistance. The intervention package is provided only to participants of the formal Diffusion of Effective Behavioral Interventions SHIELD training conducted by CDC's training and capacity-building assistant partners. Planning and implementation information (including the starter kit and technical assistance guide) can be found at www.effectiveinterventions.org.

The intervention package (which includes a Facilitator's Guide, Project Manager's Guide, Technical Assistance Guide, and Monitoring and Evaluation Plan) are available free of charge. A 2.5-day, off-site facilitator training by CDC Capacity Building Assistance (CBA) Provider, held monthly at various locations is also available free of charge for up to 20 participants. A 2.5-day, on-site facilitator training by program developers costs \$3,000 for up to 8 participants, plus travel expenses. A 2.5-day, off-site facilitator training by program developers, held in Baltimore, MD costs \$3,000 for up to 8 participants but is provided free for agencies that attend the CDC training, plus cost of travel expenses. Phone or email technical assistance from CDC CBA Provider is free for agencies that attend the CDC training. Phone or email technical assistance from program developers costs \$100 per hour

Additional information about this evidence-based program, including planning and implementation materials, a starter kit, and technical assistance guide can be downloaded from

 $\frac{http://www.effective interventions.org/en/High Impact Prevention/Interventions/SHIELD.}{aspx}.$

SMOKING CESSATION

The literature points to an urgent need for effective tobacco cessation treatments for persons with severe mental illness and notes that severe psychiatric illness increases

vulnerability to tobacco addiction and makes quitting harder.

The Substance Abuse and Mental Health Services Administration (SAMHSA) estimates that fifty three percent of adults with serious mental illness currently smoke, whereas eighteen percent of adults in the overall population smoke. Tobacco-related illnesses are one of the primary reasons why individuals with mental illnesses die an estimated twenty five years sooner, on average, than individuals in the general population.

Tobacco use has been shown to be strongly correlated with the development of other substance use disorders and with more severe substance use disorders. Tobacco appears to affect the same neural pathway (the mesolimbic dopamine system) as alcohol, opioids, cocaine, and marijuana. Tobacco use impedes recovery of brain function among consumers whose brains have been damaged by chronic alcohol use and concurrent use of alcohol and/or other drugs is a negative predictor of smoking cessation outcomes during smoking cessation treatment.

Tobacco use has been found to be one of the most important significant risk factors for cardiovascular

disease (CVD); helping consumers with tobacco cessation is a critical component of CVD prevention.

It should be noted that tobacco dependence has been found to be affected by pharmacological regimens for psychosis. Treatment outcomes have been shown to be enhanced with the use of atypical antipsychotics (e.g., clozapine olanzapine, risperidone, and quetiapine) when compared to older, conventional antipsychotic medications (e.g., chlorpromazine, haloperidol, fluphenazine, and thioridazine) which have been associated with increased smoking. It is recommended that consumers entering a tobacco dependence treatment group use an atypical antipsychotic and be on a stable dose of the medication for one month prior to starting the treatment. Also of note is that smoking cessation results in increased blood levels of some antipsychotics and antidepressants. In addition, nicotine withdrawal can mimic akathisia, depression, difficulty concentrating and insomnia all of which are associated with schizophrenia.

Brief psychosocial tobacco cessation interventions, self-help and supportive therapy have all been shown to be effective smoking cessation interventions for individuals the general

Facts about Smoking

- Smoking kills about 200,000 people who live with mental illness every year
- 44.3% of all cigarettes in the U.S. are consumed by individuals who live with mental illness and/or substance abuse disorders.
- People living with mental illness are about twice as likely to smoke as other persons.
- Nearly ½ the cigarettes smoked in the U.S. are smoked by those with psychiatric disorders.
- Overall smoking in the U.S. has decreased but the proportion of smokers with psychiatric disorders has increased.
- 75% of people with either an addictive disorder or a mental illness smoke.
- People who live with mental illness have substantial quit rates. These are almost as high persons in the general population.
- People living with mental illness do not experience worse symptoms after they guit.

population. However, these may not be sufficient for individuals with mental illnesses because such individuals often have fewer social supports and coping skills. Therefore, it is recommended that intensive behavioral therapy be considered for persons with mental illnesses (even in the early quit attempts) provided in a group or individual modality based on the consumer's preference for group or individual therapy.

Smoking cessation interventions for persons with mental illnesses generally combine nicotine replacement therapy (NRT) or other medications with Cognitive Behavioral Therapy (CBT) which typically includes about seven to ten sessions comprised of the following components:

- ◆ An introduction to tobacco history and prevalence of use
- **⇒** Education regarding the properties of nicotine, health effects of tobacco and addictive nature of smoking
- ◆ A review of the reasons why people smoke
- **⊃** Education regarding the ways a person can quit smoking, use of medication and development of a quit plan

Additional sessions may be provided for addressing issues that are pertinent to persons with a mental illness (e.g., developing coping skills for stress and anxiety). It is also recommended that a breath carbon monoxide (CO) monitor be used when possible to help motivate consumers; actually seeing this marker of how tobacco use is affecting the lungs has been shown to have a significant impact on motivation.

Providing treatment in a group setting has shown to be the most cost and time effective method to help smokers quit. Its advantages over individual sessions include opportunities for group members to learn from each other, make new friends who are dealing with similar issues and provide ongoing support to one other.

In addition, group treatment has the potential to enhance treatment effects from the impact of seeing others succeed and by being motivated to keep up with them. This support can be especially helpful to consumers in maintaining the willpower needed to cope with cravings and withdrawal during the first weeks of not smoking. Finally, group treatment can facilitate peer pressure and spontaneous modeling of effective coping practiced by participants.

The **SANE** program (Australia) is an example of an effective short-term group counseling program for persons with schizophrenia that includes teaching problem-solving skills and cognitive-behavioral techniques to support smoking reduction and maintenance of cessation. The group consists of ten sessions led run by two trained facilitators. The content includes the following:

- Introduction to the Program
- Reasons to Quit
- Benefits of Quitting
- Understanding Why We Smoke and Ways of Quitting
- Withdrawal Symptoms
- Social Support
- Dealing with Stress and Anxiety

- Coping with Depression
- Assertiveness Training
- Anger Management
- Smoke-Free Lifestyle
- Dealing with High Risk Situations

Brief Interventions

Brief Interventions focus on the exploration of a potential problem in a short interaction and motivating an individual to begin to do something about the problem. For example, brief interventions for tobacco use focuses on enhancing tobacco users' motivation to change and connecting them with evidence-based resources to help make the next quit attempt a success.

Brief interventions are the second step in a more involved process called **SBIRT** (Screening, Brief Intervention, and Referral to Treatment). The brief intervention can be performed as part of a screening and assessment process and it can be a critical step in supporting a consumer to obtain more specialized treatment needed to successfully make a quit attempt.

5 A's Intervention

The 5 A's Intervention⁵ was developed by the U.S. Public Health Service and is a best-practice guideline supported American College of Obstetricians and Gynecologists and the National Cancer Institute. The 5 A's method brief interventions for has substantial research support for its effectiveness in helping tobacco users across a variety of settings and can be incorporated with motivational strategies in a stepby-step process.

The 5 A's:

ASK about current smoking status

ADVISE to quit and provide information on how beneficial quitting is

ASSESS willingness to quit

ASSIST with finding resources and making a plan to quit

ARRANGE for follow-ups to help the consumer follow through and QUIT for good!

This intervention is designed to take about five to fifteen minutes. It is recommended that it be implemented with EVERY consumer who is smoking or who has recently quit. In addition, information about the dangers of secondhand smoke should be provided to anyone who is being exposed.

ASK: About tobacco use every time.

⁵ Some providers prefer to use abbreviated forms of the 5 A's model, such as Ask Advise Refer, which focuses on referring patients to national tobacco quitlines for assistance.

This is essential for identifying a consumer's tobacco use. Consumers should be asked about their current and past smoking patterns. Inquiring about tobacco use is a viewed as part of vital signs like blood pressure In some settings.

ADVISE: Urge tobacco users to quit.

Consumers should be advised to quit in a clear, strong, and personalized manner. Every tobacco user should be urged to quit. Ambivalence is to be expected; the provider needs to be willing to listen in a non-judgmental manner to the consumer's concerns about quitting tobacco use.

ASSESS: Determine willingness to make a quit attempt.

It is critical to assess how ready the consumer currently is to quit tobacco use. Readiness rulers (i.e., "On a scale of 1 to 10, where 10 is very ready, how ready are you to quit smoking?") and **Stages of Change** assessments (see table below) have been found to be helpful in addressing the extent to which a person is ready to change, which can change from visit to visit.

Stages of Change:	Transtheoretical Model of Intentional Behavior Change	
PRECONTEMPLATION	Current smokers who are NOT planning on quitting within the next	
	6 months.	
CONTEMPLATION	Current smokers who are considering quitting within the next 6	
	months and have not made an attempt in the last year.	
PREPARATION	Current smokers who have made quit attempts in the last year and	
	are planning to quit within the next 30 days.	
ACTION	Individuals who are not currently smoking and have stopped within	
	the past 6 months (recently quit).	
MAINTENANCE	Individuals who are not currently smoking and stopped smoking for	
	longer than 6 months but less than 5 years (former smokers).	

ASSIST: Provide help to move the individual toward a successful quit attempt.

Providers should assist consumers who have successfully quit using tobacco (i.e., those in Action or Maintenance) by affirming their success in order to support self-efficacy as well as discuss any challenges to staying quit and methods to prevent relapse.

Providers should assist consumers who are current tobacco users with high readiness to quit (i.e., those in Preparation or Action) by helping them to develop a personalized quit plan with a quit date as well as offer an array of effective treatment options including medications and nicotine replacement therapy when medically advisable (taking into consideration pregnancy, other medications, allergies, etc.); individual or group smoking cessation programs; or the Michigan Tobacco Quit Line (1-800-784-8669) which offers a personal health coach and participant toolkits to help tobacco users quit.

Providers should assist consumers who are current tobacco users with low readiness to quit (i.e., those in Precontemplation or Contemplation) by enhancing their willingness or motivation and ability or confidence through personalized, relevant feedback about the importance of quitting; exploring the individuals' perceived pros and cons of smoking and quitting; and/or discussing the **5 R's** of quitting tobacco use as follows:

THE 5 R's		
RELEVANCE	Help the consumer identify why quitting tobacco is personally relevant to	
	him/her.	
RISK	Encourage the consumer to verbalize possible negative consequences of	
	tobacco use.	
REWARDS	Help the consumer identify the possible benefits of quitting tobacco use.	
ROADBLOCKS	Help the consumer identify possible obstacles to quitting, including those	
	from his/her past quit attempts.	
REPETITION	It might take more than just one brief intervention before a consumer who	
	uses tobacco becomes ready to quit. The 5 A's should be sued at every visit	
	and consumers who have failed in previous quit attempts should be	
	informed that most people make repeated quit attempts before they are	
	successful.	

ARRANGE: Follow-up contact.

Follow-up has been found to be most effective within the first weeks of a quit date and can be done either in-person or via telephone. During this contact the consumer should be encouraged to remain quit. Obstacles should be identified and ways to overcome those obstacles should be discussed. Successful quitting should be congratulated while continued use tobacco should elicit repeated use of the 5 A's and 5 R's; motivational changes over time to move toward Action for quitting tobacco should be supported.

The 5 A's method for brief interventions has a robust base of evidence demonstrating its utility in helping tobacco users across a variety of settings. In addition, it can be incorporated with motivational strategies in a step-by-step process.

Peer-to-Peer Tobacco Dependence Recovery Program

This emerging practice uses Peer Support Specialists to conduct individual enhancement sessions in a private office by following a scripted interview utilizing motivational interviewing techniques. Short interviews are used to build motivational readiness for change by providing education on the health effects of smoking with immediate biological feedback using a portable hand-held carbon monoxide (CO) monitor. The dangers of carbon monoxide are explained to each consumer and their exhaled carbon monoxide level is measured. Peer Support Specialists then assist consumers to determine the amount of money spent on tobacco every day, week, month, year, and over the course of five years. The consumer and Peer Support Specialist work together to brainstorm other ways that money could be spent and the Peer Support Specialist helps the consumer establish financial goals using the money saved by quitting smoking. Finally, the Peer Support Specialist provides resources and service referrals for tobacco dependence treatment. The motivational interviews thus function as a referral mechanism to peer support groups, as well as other community resources (i.e., state quitline and health providers for cessation medications).

Peer Support Specialists also run a weekly tobacco dependence support group using a curriculum that was designed specifically for persons with behavioral health disorders. The group provides emotional, informational, and social support and functions in a drop-in

capacity; consumers are able to join the group at any time and attend as many sessions as necessary for their own recovery process. Educational handouts, group discussion, role playing, and activities are incorporated into the lesson plans.

The support groups provide wellness education; stress management and behavior change techniques; emotional support around tobacco dependence recovery; and allows clients to build tobacco-free social networks. The Peer Support Specialists are encouraged to share their own tobacco dependence recovery process in order to lead by example throughout the group. The goal is to provide a supportive environment in which Peer Support Specialists help identify and alleviate problems before they disrupt individual recovery efforts.

When consumers are ready to set a quit date, Peer Support Specialists work with them to provide support through the group and through linkages to providers for cessation medications. It should be noted that setting a quit date is not mandatory; the group structure respects consumer diversity and honors different timelines and routes to recovery. After consumers have quit using tobacco, they are invited to continue to attend the group meetings for additional support as well as to provide additional mentoring to others in the recovery process.

The group is comprised of six cycling sessions:

- **Session A Healthy Behaviors:** The objective of this session is to learn about living a healthy lifestyle and ways to make healthier choices. It provides general health and wellness education. The Peer Support Specialists review habits for a Healthy Lifestyle (including sleep, diet, exercise, tobacco cessation etc.). Consumers participate in a group discussion regarding ways to incorporate physical activity and exercise into daily routines and perform a structured exercise aimed at learning to make healthier food choices. Finally, the Peer Support Specialist leads the group in a discussion about the health effects of smoking and of quitting and introduces tobacco cessation as an important step toward a healthier lifestyle.
- Session B The Truth about Tobacco: The objective of this session is to further discuss tobacco cessation or reduction as a step toward healthier living. Consumers are educated about the chemicals and toxins found in tobacco smoke. The Peer Support Specialist leads an activity reviewing common myths and facts about smoking. The consumers participate in an exercise to develop their personal reasons to continue tobacco use and reasons to quit. This activity allows tobacco users to recognize personal barriers to and motivations for tobacco dependence recovery. Finally, consumers develop a list of their top five reasons to quit using tobacco.
- Session C Changing Behaviors: The objective of this session is to help consumers recognize patterns of tobacco use and learn ways to change behaviors. Consumers participate in an exercise to identify tobacco use triggers by reviewing their reasons for and key times of use. The Peer Support Specialist then leads a discussion regarding potential replacement behaviors. Consumers participate in another exercise to discover enjoyable activities that do not involve tobacco use and are encouraged to start incorporating more of these activities into weekly routines.

- Session D Coping with Cravings: The objective of this session is to review cravings and determine methods for coping with cravings. Consumers are educated about nicotine and nicotine addiction and review the physical and behavioral addictive properties of nicotine. The Peer Support Specialist gives consumers a tool for raising craving awareness by scoring cravings on a ten-point scale. The group then participates in a discussion regarding healthy ways to cope with cravings and the Peer Support Specialist provides education on available medications to help nicotine withdrawal.
- **Session E Managing Stress:** The objective of this session is to give consumers stress management tools, other than tobacco use. Consumers discuss stress and current management techniques. The Peer Support Specialist then leads an exercise encouraging consumers to think of stressful situations in which they used tobacco, and develop alternative techniques to managing those situations. Finally, the Peer Support Specialist instructs consumers in a deep breathing exercise and encourages them to start practicing deep breathing to help manage stress.
- Session F Planning Ahead: The objective of this session is prepare consumers for potential future relapse situations and to discuss the importance of planning ahead for high risk situations, even before a quit attempt is made. The Peer Support Specialist instructs consumers in a visualization activity to picture life as a non-smoking person. This activity is designed to help consumers identify their recovery goals and vision. The group then participates in a discussion regarding difficult situations and developing coping strategies. Then the Peer Support Specialist leads the group in a role-playing exercise to practice "saying no" when tobacco is offered in social situations. Consumers are encouraged to start employing these strategies, even prior to making a quit attempt.

The Behavioral Health & Wellness Program of the University of Colorado (http://www.bhwellness.org/) provides a two-day site start-up training session for Peer Support Specialists. After the training, peers are encouraged to immediately begin providing services. Ongoing continuing education is provided to supplement the initial training.

Learning about Healthy Living: Tobacco and You (LAHL)

LAHL is a twenty-session group treatment approach that is designed for all types of smokers with different mental health problems. It is typically provided in outpatient behavioral health treatment settings but has also been used in state hospitals. The program has been implemented by peers as well as professionals. It is designed to increase consumers' awareness about the risks of tobacco use and treatment options, enhance motivation to address tobacco, and to begin by making other healthy life choices.

All consumers who smoke are seen individually by the group facilitator in order to assess the consumer's current smoking level, past history of quit attempts and nicotine withdrawal symptoms, and current thoughts about quitting in order to determine which group will be most effective.

Group I: Learning about Healthy Living

All consumers with a serious mental illness who smoke are potential candidates for this group intervention as long as they are psychiatrically stable (although not necessarily asymptomatic), not currently experiencing a psychiatric crisis, and (ideally) not actively abusing substances other than tobacco.

Smokers at all motivational levels are included in this group (unlike other groups, which typically include participants of the same motivational level/stage of change) so a group may include members who are ambivalent about quitting and some who may not even express a desire to quit as well as those who are ready to quit. This is because the intervention is motivating and designed to increase each consumer's desire to quit smoking through successive sessions.

Group II: Quitting Smoking

Group II is for consumers with a desire to try to quit smoking in the next month as evidenced by a strong desire to stop smoking completely, previous quit attempts, a willingness to use tobacco treatment medications, and a willingness to commit to attending all group treatment sessions.

The group meets once a week for twenty consecutive weeks on the same day and time each week in order to maintain consistency. The group is typically integrated into other community mental health programs which use other curriculum-based treatment approaches.

The *Learning about Healthy Living: Tobacco and You* program manual emphasizes addressing tobacco use and it also includes sections on other aspects of healthy living including improving diet, increasing activity and managing stress. It can be downloaded free of charge from

http://hd.ingham.org/Portals/HD/Home/Documents/eh/Tobacco/Tobacco%20and%20You/Maunal_LearningAboutHealthyLivingNJDental2012.pdf.

Pharmacotherapy for Tobacco Dependence

Tobacco dependence treatment medications are a considered first-line treatment for smoking cessation and quitting other tobacco products. Some of these medications are available over-the-counter while others require a prescription. Most treatment guidelines indicate that all smokers who are trying to quit should use tobacco dependence medications whenever possible in order to attenuate nicotine withdrawal symptoms and enhance their success in a quit attempt. Since mental health consumers who smoke tend to be heavy smokers and are more addicted to nicotine than other smokers it is likely that they will need a tobacco medication treatment to help them quit smoking.

The Food and Drug Administration (FDA) has approved different types of nicotine replacement therapies (NRTs): nicotine gum, nicotine transdermal patch, nicotine lozenge, nicotine inhaler, the nicotine nasal spray, and non-nicotine treatments: bupropion SR⁶,

⁶ Bupropion-SR has been demonstrated to be the most effective for consumers with depression. However, relapse rates are high following the discontinuation of treatment.

(marketed both as Zyban and Wellbutrin) and varenicline⁷ (Chantix). These treatments are considered first-line medication treatments with established safety and efficacy.

The literature indicates that nicotine replacement therapies tend to be under-utilized or used incorrectly, even in the general population. Moreover, there are no well-accepted algorithms to guide optimal selection among the first-line pharmacotherapies for tobacco cessation; consumer preference, side effects and cost are considerations.

Because the optimal dosing of some nicotine medication products require ingestion at frequent intervals (about once an hour) throughout the day and failure to use enough nicotine medication will result in unpleasant nicotine withdrawal symptoms which could lead to smoking relapse, encouraging the proper use of NRT is recommended. NRT can be incorporated into group treatment to allow consumers to become familiar with the products.

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⁷ Varenicline has been shown to help individuals with schizophrenia and bipolar disorder remain abstinent from smoking. Varenicline is a partial agonist at the same receptor to which nicotine binds, interacting with the receptor in a manner similar to, but more weakly than, nicotine. It reduces nicotine reward and cravings by occupying the receptor so that nicotine cannot access it, and by stimulating the receptor less. A standard treatment course with varenicline consists of twelve weeks of the medication to establish abstinence, followed by an additional twelve weeks to secure long-term abstinence. It should be noted that, although varenicline has been associated with adverse psychiatric effects in smokers without mental illness, studies have failed to show any exacerbation of schizoid and bipolar symptoms and the medication does not appear to produce new psychiatric symptoms.

STRESS MANAGEMENT

Many disorders have been linked to stress including pain, depression, auto immune diseases, skin conditions (e.g., eczema), digestive problems, sleep problems, weight problems, and others. A number of ways to help manage stress have been identified. These include meditation, exercise, engaging in a hobby, and others.

Mindfulness

Mindfulness entails remaining aware and conscious of one's experiences. It is a mental

state in which one attends to and purposefully manages one's awareness of what is happening in the moment.

Studies show that area shows

Mindfulness techniques have been demonstrated to produce positive cardiovascular benefits.

Studies show that even short periods of mindful attention can have a positive impact on health and well-being and that practicing mindfulness meditation

leads to reductions in stress, alters brain structure and function, and has a positive effect on the immune system. Mindfulness meditation can be learned from yoga, meditation classes, and mindfulness-based stress-reduction programs.

It should be noted that while there is a dearth of research on the use of meditation for psychiatric diagnoses, there is a broad consensus that mindfulness can be very helpful in developing the emotional resilience to cope with stress and mitigate depression.

Mindfulness-Based Stress Reduction (MBSR)

Mindfulness-Based Stress Reduction is a form of psychoeducational training for adolescents and adults with emotional or psychological distress resulting from medical conditions, physical pain, or life events. The intervention is designed to reduce symptoms of stress, anxiety, depression and negative mood-related feelings as well as increase self-esteem and improve general mental health and functioning. It is based on the principle of mindfulness (described above). MBSR helps participants to develop a mindful cognitive state and incorporate it into everyday life as a coping resource to deal with intense physical, emotional, and situational stressors.

MBSR is an eight-week intensive training held on a once weekly basis that combines mindfulness meditation and yoga. The goal of mindfulness practice is the cultivation of a greater awareness of the unity of mind and body as well as of the ways that unconscious thoughts, feelings, and behaviors can undermine emotional, physical, and spiritual health. Meditation has been shown to positively affect a range of autonomic physiological processes (e.g., lowering blood pressure and reducing overall arousal and emotional reactivity).

MBSR is offered as a complement to traditional medical and psychological treatments (not as a replacement). It has been found to be of benefit for anxiety; gastrointestinal distress; coping with work, family, and financial stress/grief; asthma; headaches; heart disease; chronic illness and pain; hypertension; depression; panic attacks; eating disturbances;

posttraumatic stress disorder (PTSD); fatigue; skin disorders; fibromyalgia; and sleep problems.

MBSR is available on-line free of charge from

http://palousemindfulness.com/selfguidedMBSR.html. The MBSR Standards of Practice can be downloaded from

https://www.umassmed.edu/contentassets/24cd221488584125835e2eddce7dbb89/mbs r standards of practice 2014.pdf.

Mindfulness-Based Cognitive Therapy (MBCT)

MBCT is designed to help adults with recurring depression who are currently in recovery prevent a relapse by changing the way they identify and respond to symptomatic thoughts, feelings, and bodily sensations. Participation is limited to individuals who are not currently exhibiting symptoms of major depression while those who are

MBCT sessions and mindfulness exercises help participants determine how to effectively respond to sad feelings to prevent them from leading to recurrent depression.

using prescription medication to treat depression are eligible to receive MBCT.

This evidence-based, manualized intervention combines concepts of cognitive therapy with meditative practices and attitudes about the cultivation of mindfulness and is based in part on components of Mindfulness-Based Stress Reduction (MBSR) which is described above. A core principle of both MBSR and MBCT is mindfulness, which is generally defined as a mental state in which one attends to and purposefully manages awareness of what is happening in the moment.

The MBCT program consists of:

- An initial one-hour, one-on-one assessment/orientation session during which material explaining aspects of depression and MBCT that was sent to the participant in advance is reviewed. The session focuses on learning about individual factors that are associated with the onset of depression as well as the work required to participate in MBCT in order to determine whether the participant is likely to benefit from the program.
- Eight 2-hour core sessions that are delivered weekly in groups of nine to fifteen participants with homework assignments between sessions. The primary work is done at home between classes using CDs with guided meditations that support the development of the practice outside of the class. A mixture of activities including the formal practice of mindfulness meditation and discussion of relevant issues and assigned homework are provided during each session. The first four sessions focus on learning to pay attention:

Session 1: Automatic Pilot – An introduction to the practice of mindfulness and recognition of the tendency to be on automatic pilot

Session 2: Dealing with Barriers – Further focusing on the body to begin to show the participant their mind chatter more clearly and how it tends to control reactions to everyday events

Session 3: Mindfulness of the Breath – Learning to intentionally focus on the breath with a greater awareness of how the mind can be busy and scattered

Session 4: Staying Present – Learning mindfulness to stay present to widen their perspective on how they relate to experiences

Sessions five through eight focus on teaching participants to handle mood shifts by employing cognitive approaches as well as mindfulness:

Session 5: Allowing/Letting Be – Participants practice allowing experience or emotion to just be without judgment or trying to make it different in order to allow the person to see things more clearly and to decide what, if anything, needs to change

Session 6: Thoughts Are Not Facts – Participants learn to recognize thoughts as merely thoughts, not reality (and gain awareness of the fact that negative thoughts can restrict the ability to relate differently to experience)

Session 7: How Can I Best Take Care of Myself – Participants learn specific, individual strategies that can be done when depression threatens; each participant learns his/her unique warning signs of relapse and help others make plans for how best to respond to those signs

Session 8: Using What Has Been Learned To Deal With Future Moods – Participants learn that maintaining a balance in life is helped by regular mindfulness practice

Up to four 2-hour group-based reinforcement sessions provided four to twelve months following completion of the eight core sessions. These reinforcement sessions are designed to review mindfulness and cognitive techniques learned during the core sessions, identify any obstacles to practicing MBCT, and develop strategies for continued skill reinforcement.

The effectiveness of MBCT has been evaluated in numerous studies, including comparative effectiveness research⁸ (CER), where it has been compared to alternative treatments for depression such as usual clinical care and the use of antidepressant medication. Studies indicate that MBCT can be compatible with other treatments for depression and, when combined with usual care, produces better treatment outcomes than usual care alone.

Participation in MBCT has been found to lead to reductions in symptoms of anxiety in individuals diagnosed with other psychiatric disorders (e.g., bipolar disorder, general anxiety disorder) and may be as effective as maintenance antidepressant medication for individuals with recurrent major depressive disorder who are at risk of relapse, particularly those with a history of three or more previous major depressive disorder episodes. MBCT has also been found to be effective for adults with other medical conditions including hypochondriasis, Parkinson's disease, and cancer as well as for those who are undergoing cardiac rehabilitation.

⁸ CER studies compare the benefits and harms of different interventions and strategies to prevent, diagnose, treat, and monitor community health and the nation's health care system. The Agency for Healthcare Research and Quality defines CER as a way to develop, expand, and use a variety of data sources and methods to conduct research and disseminate results in a form that is quickly usable by clinicians, clients, policymakers, and health plans and other payers.

MBCT is provided in community-based settings, mental health clinics, primary care centers, and general hospitals. The materials for MBCT have been translated into French, Italian, and Spanish.

A five-day intensive training is required and provided by the developer. Individual supervision is also available to support clinicians. Clinicians are required to establish their own mindfulness practice in order to have firsthand experience of this essential element of MBCT. It is recommended that they use mindfulness in their daily lives prior to teaching it to consumers. In addition, clinicians are required to have at least one year of experience working with consumers who have a mood disorder, have an advanced degree in a mental health-related field (e.g., psychology, social work, or counseling); prior training in mindfulness-based meditation techniques (e.g., Vipassana or Insight Meditation) and a personal commitment to an established daily meditation practice; familiarity with cognitive behavioral therapy techniques; experience with and an understanding of models of depression; and experience facilitating group process.

The MBCT treatment manual provides structured session content to facilitate success in maintaining intervention fidelity. The MBCT Adherence Rating Scale is intended for rating audio or video recordings of MBCT treatment for fidelity to the treatment protocol as outlined in the manual. Adherence ratings for MBCT treatment are intended to assess the extent to which the therapist conveys the core themes of MBCT treatment to patients through specific interventions and through his or her manner during the session.

Costs of MBCT Dissemination Components

	-
Item	Cost
Mindfulness-Based Cognitive Therapy for	\$46.75
Depression (2nd ed.)	
The Mindful Way Through Depression:	\$35, includes book and audio CD
Freeing Yourself From Chronic Unhappiness	
Mindfulness meditation audio files for	Free
personal practice	
Five-day offsite training	\$1,000 to \$1,250 per participant*
Individual implementation supervision	\$100-\$150 per hour, depending on the
	consultant
Adherence Rating Scale	Free
Adherence Scale Rating Form	Free

Additional information on MBCT can be found on the Web at www.mbct.com.

Meditation

In general, meditation refers to the many ways to achieve a state of relaxation. Meditation is a mindfulness practice that allows a person to be present in the moment. This can be helpful in reducing high levels of anxiety or constantly racing thoughts. Meditation, or sitting quietly in the present moment, that can be practiced for as little as five minutes or, if time permits, for several hours. Meditation takes practice; retraining one's mind to let go does not happen immediately, but with practice once a day or a few times a week, it becomes increasingly easier to achieve a meditative state. Making meditation a part of daily

life has been found to lead to lower levels of stress and anxiety and a greater level of personal connectedness. Studies show that it can also lead to reductions in levels of depression and anxiety, as well as help with the management of chronic pain and symptoms of asthma, cancer, heart disease, high blood pressure, pain, and sleep problems.

There are numerous meditation techniques and they often work in combination with one another. Different types of meditation can include different features to help an individual meditate. These may vary depending on the teacher or the guidance followed. Some of the most common features of mediation include:

- Focused attention, generally considered one of the most important elements of meditation, helps free the mind from distractions that cause anxiety and stress. Attention can be focused on such things as a specific object, an image, a mantra, or ebreathing.
- Relaxed breathing is a technique that involves deep, even-paced breathing using the diaphragm muscle to expand the lungs. The purpose is to slow breathing, increase the intake of oxygen, and reduce the use of shoulder, neck and upper chest muscles while breathing in order to breathe more efficiently.
- A quiet setting with few distractions (no television, radios or cellphones, etc.) can be particularly helpful for beginners to practice meditation. Improvements in meditative skills can lead to practicing it anywhere, especially in high-stress situations where the greatest benefit can be derived (e.g., a traffic jam, a stressful work meeting or a long line at the grocery store).
- A **comfortable position**, whether sitting, lying down, walking, or in other positions or activities, helps with deriving the greatest benefit from meditation.

There are also numerous types of meditation. Some of these are described below.

Basic meditation entails the following steps:

1. A quiet place to be alone and away from distractions (e.g., conversations of others, television or radio).

- 2. Sitting down on the floor or on a cushion, grass or chair, keeping the shoulders back, head upright and back straight if sitting in a chair. (An alternative is to lie on one's back.) The person needs to make sure they are comfortable.
- 3. Resting the hands flat on the legs or clasping them together, laying them on the waist (whichever is most comfortable).

⁹ Focusing on breathing during meditation is an important component of the practice because it helps the meditator to remember to breathe while meditating, teaches them to breathe with their diaphragm and can be an effective way to clear the mind. The process entails finding a quiet place to be alone and away from distractions (e.g., conversations of others, the television or the radio). The person may also find it helpful to rest a hand on their stomach or chest to feel the air entering and leaving their body. Deep breathing starts with taking a slow and deep inhalation and then exhaling at the same speed of the inhalation, silently counting breaths upon each exhalation. For example, "breath in, breath out, one" is repeated through ten and then restarted. Or, the person can inhale for five counts and then exhale for five counts and repeat this. The person can also use a repeating word in their head upon each exhalation instead of a number (i.e., thinking "out" during each exhalation, or selecting a positive word such as "love") can help set a pace. When the deep breathing exercise has been completed, the person remains seated for a couple of minutes to reduce the chance of becoming lightheaded when standing due to the increased intake of oxygen.

- 4. Remaining still and closing the eyes or lowering the gaze, letting the eyes defocus on the tip of the nose or an inch or two in front of the face.
- 5. Focusing on one's breathing, feeling the surroundings, feeling the air brushing against the person, the ground or the object the person is sitting on.
- 6. Clearing one's thoughts by letting the thoughts go and returning back to the meditative focus and correct body position when the mind wanders.

Practice has been found to enhance the ease of getting into and remaining in a meditative state. It is recommended that basic meditation start with five-minute sessions and the amount of time set aside to meditate increased as the comfort level with the process increases.

Sometimes called guided imagery or visualization, **guided meditation** the person forms mental images of places or situations they find relaxing. The person tries to use as many senses as possible, such as smells, sights, sounds and textures. A guide or teacher may lead the person through this process.

- In mantra meditation the person silently repeats a calming word, thought or phrase to prevent distracting thoughts.
- Mindfulness meditation is based on being mindful, or having an increased awareness and acceptance of living in the present moment. In mindfulness meditation, the person broadens their conscious awareness. The person focuses on what they experience during meditation, such as the flow of their breath. The person can observe their thoughts and emotions, but let them pass without judgment.

Research conducted over the past three decades suggests that mindfulness meditation may be of benefit for insomnia, chronic pain, psoriasis, fibromyalgia, and some psychiatric disorders. It has been shown to alter aspects of the immune, nervous, and endocrine systems as well as produce changes in areas of the brain associated with memory, learning, and emotion. Studies indicate that it may be of particular help in assisting individuals to adhere to medical treatment and cope with pain and reduce anxiety and depression associated with illness.

In **transcendental meditation (TM)**, a personally assigned mantra (e.g., a word, sound or phrase) is silently repeated in a specific way. This form of meditation allows the body to settle into a state of profound rest and relaxation and the mind to achieve a state of inner peace, without needing to use concentration or effort. Numerous research studies on TM have found positive effects from the practice of this stress reducing technique including faster recovery from stress and reductions in anxiety, insomnia, substance abuse, depression, and hypertension.

The Relaxation Response

Herbert Benson's 1975 book, *The Relaxation Response*, is a simple version of Transcendental Meditation (TM). According to Dr. Benson, eliciting the relaxation response entails the following steps:

- 1. Sit quietly in a comfortable position.
- 2. Close your eyes.

- 3. Deeply relax all your muscles, beginning at your feet and progressing up to your face. Keep them relaxed.
- 4. Breathe through your nose. Become aware of your breathing. As you breathe out, say the word, "one" or any soothing, mellifluous sound, preferably with no meaning. or association, to avoid stimulation of unnecessary thoughts.), silently to yourself. For example, breathe in... out..., "one", in... out... "one", etc. Breathe easily and naturally.
- 5. Continue for 10 to 20 minutes. You may open your eyes to check the time, but do not use an alarm. When you finish, sit quietly for several minutes, at first with your eyes closed and later with your eyes opened. Do not stand up for a few minutes.
- 6. Do not worry about whether you are successful in achieving a deep level of relaxation. Maintain a passive attitude and permit relaxation to occur at its own pace. When distracting thoughts occur, try to ignore them by not dwelling upon them and return to repeating "one." 10

Dr. Benson advises readers to practice the technique once or twice daily, but not within two hours after any meal, since the digestive processes seem to interfere with the elicitation of the relaxation response.

Guided Imagery

Guided imagery can be an effective tool for stress reduction. The process relies on visualization and mental imagery to promote a state of relaxation which can lead to lower blood pressure. Guided imagery is can also be used to help achieve health-related goals (e.g., weight loss or smoking cessation), manage pain, or prepare for a potentially stressful event (e.g., public speaking or athletic meet).

A trained mediator (or recording of one) talks the person through a mental journey. Some mediators focus on helping the person to imagine themselves without stress or worry, while others aim to transport the person's mind to a quiet and positive place such (e.g., a lake or a beach).

Studies conducted over the past twenty five years have demonstrated that the practice of guided imagery can confer a positive impact on health, creativity and performance. Research shows that a few as ten minutes of guided imagery can lead to reductions in blood pressure, cholesterol and blood glucose levels as well as enhance short-term immune cell activity. It has also been found to lead to significant reductions in blood loss during surgery, post-operative use of morphine and the aversive effects of chemotherapy, especially nausea, depression and fatigue.

Qigong

Qigong is part of traditional Chinese medicine that combines meditation, relaxation, physical movement and breathing exercises to restore and maintain balance. Qigong integrates of physical postures, breathing techniques, and focused intentions.



¹⁰ Benson, Herbert and Klipper, Mariam. (1975). *The Relaxation Response.* HarperCollins. New York. Pages 162-163.

Qigong teaches psychophysiological self-regulation; the practitioner becomes aware of bodily functions conventionally considered involuntary (e.g., blood pressure, respiratory rate, the flow of blood and nutrients to internal organs) and learns to restore a healthier balance.

The word Qigong is comprised of two Chinese words. Qi (pronounced chee) is usually translated to mean the life force or vital-energy that flows through all things in the universe. The second word, Gong (pronounced gung) means accomplishment, or skill that is cultivated through steady practice. Together, qigong means cultivating energy and is a system practiced for health maintenance, healing and increasing vitality.

There are thousands of styles of Qigong. Some are designed for general health and well-being and may be practiced every day for a lifetime whiles others are therapeutic and targeted to address specific problems. Qigong can be done while sitting, lying down, standing, or moving.

Qigong is often used as an adjunct to conventional allopathic medical treatment. For example, individuals with hypertension who take medication and practice Qigong have been found to maintain improved blood pressure and manage their hypertension better than individuals who only take the medication. Similarly, there is some evidence that indicates the practice of Qigong can lead to improvements in immune function and mental health, and prevent some impairments associated with aging. Taiji Quan (described in the section on falls prevention below), a form of Qigong, has been shown to be effective in preventing loss of balance and falling injuries among older adults as well as help reduce high blood pressure.

Some research studies suggests that Qigong may be beneficial for asthma, arthritis, cancer, cardiovascular disease, chronic fatigue, fibromyalgia, headaches, pain, and a variety of common ailments. Additional information on this practice is available from the <u>Qigong Institute</u> and the <u>National Qigong Association</u>.

Tai Chi

Tai Chi (Chinese), or Grand Ultimate (English) depicts a philosophical and theoretical concept which describes the natural world (i.e., the universe) in a spontaneous state of dynamic balance between mutually interactive phenomena including the balance



of light and dark, movement and stillness, waves and particles in Chinese culture. The exercise known as Tai Chi is named after this concept and was originally developed as both a martial art (<u>Tai Chi Chuan</u> or taijiquan) and as a form of meditative movement. The practice of Tai Chi as meditative movement is designed to elicit internal functional balance for healing, counteracting stress, longevity, and personal serenity.

Tai Chi is a form of gentle Chinese martial arts in which a self-paced series of postures or movements are performed in a slow, graceful manner while practicing deep breathing. It is typically carried out as a highly choreographed, lengthy, and complex series of movements in contrast to health enhancement Qigong which is usually a simpler, easy to learn, and

more repetitive practice. However, the longer forms of Tai Chi incorporate many movements that are similar to Qigong exercises. Often, the more complex Tai Chi routines include Qigong exercises as a warm-up, and emphasize the same basic principles for practice (i.e., the three regulations of body focus, breath focus and mind focus). Qigong and Tai Chi are considered to functionally equivalent within the context of health promotion and wellness.

Outcome studies of Tai Chi and Qigong indicate that practice leads to a significant reduction in blood pressure, heart rate and heart rate variability, and improved pulmonary function. Both have also been shown to lead to improve self-efficacy and a reduction in falls. In addition, Tai Chi practice has been found to result in improved bone health (including a deceleration of bone loss and reduction in number of fractures) in post-menopausal women.

Additional information on <u>Tai Chi</u> can be found in the section of this guide on <u>falls</u> <u>prevention</u> as well as from the <u>American Tai Chi and Qigong Association</u>.

Yoga

Developed in India thousands of years ago, yoga has become an increasingly popular form

of exercise in the United States. Yoga entails the performance of a series of postures and controlled breathing exercises in order to enhance physical flexibility and mental calmness. It is designed to unite the mind and body through different poses and controlled breathing.



While there are more than one hundred different types,

or schools of yoga, most are typically comprised of breathing exercises, meditation, and assuming postures (sometimes called *asana* or poses) that stretch and flex various muscle groups.

While some of the research on yoga is methodologically weak, studies indicate that practicing yoga for five or ten minutes per day can help promote relaxation and effective stress management. The practice of various yoga techniques may also help lead to reductions in chronic pain (e.g., lower back pain, arthritis, headaches and carpal tunnel syndrome), blood pressure and insomnia as well as increased flexibility, muscle strength and tone; improved respiration, energy and vitality; maintenance of a balanced metabolism; weight reduction; improved cardiovascular and circulatory health; improved athletic performance; and protection from injury.

On the other hand, like all exercise programs, yoga can trigger asthma attacks, result in pulled muscles, or exacerbate existing medical conditions as well as lead to a number of serious medical conditions (e.g., thoracic outlet syndrome¹¹, degenerative arthritis of the

¹¹ A condition whereby symptoms are produced from compression of nerves or blood vessels, or both, because of an inadequate passageway through an area (thoracic outlet) between the base of the neck and the armpit. Symptoms include neck pain, shoulder pain, arm pain, numbness and tingling of the fingers, impaired circulation to the extremities (causing discoloration).

cervical spine, spinal stenosis, retinal tears, and damage to the common fibular nerve, which is known as yoga foot drop).

In addition, pregnancy, uncontrolled hypertension, a recent heart attack or serious heart disease, seizure disorders, migraine headaches, chronic obstructive pulmonary disorder (COPD), asthma, and physical injuries are all contraindications for rapid or forceful yoga breathing. Slow, gentle yoga breathing practices are recommended for safety and effectiveness. Physical injuries and disabilities may limit the asanas that can be practiced or sustained and will require more careful preparation and practice.

Studies on the positive benefits yoga may confer on consumers with depression, ADHD, anxiety, schizophrenia and PTSD have been inconclusive and often yield mixed results. Moreover, the rapid breathing in more strenuous types of yoga may have an adverse effect on consumers with bipolar disorder, psychosis or anxiety and caution is advised for consumers with these symptoms.

Yoga can trigger mania in individuals with bipolar disorder, particularly Bhastrika, Kapalabhati, Kundalini, or rapid-cycle breathing. Even slow Ujjayi or alternate nostril breathing has been found to induce mania in some people. However, persons with bipolar disorders can earn to slow down their breath rate whenever they become aware of impending agitation. Individuals being treated with lithium alone are advised not to use yoga because rapid yoga breathing can lower serum lithium levels; people taking lithium with other mood stabilizers need to be sure that their lithium levels are checked and adjusted to take into account any effects from rapid yoga breathing

Caution is also advised for people with severe character disorders and psychosis which may make group yoga practice inadvisable. Finally, rapid yoga breathing can further alter consciousness during psychotic states. While careful yoga techniques have been found to help with stress reduction during inpatient psychiatric hospitalization and lessen the symptoms of schizophrenia, the pace and scope of yoga practice needs to be individually tailored or even avoided in instances of severe mental illness.

Creative Outlets

Creative outlets can be used to reduce stress and enhance a sense of well-being. These include the following activities:

- Writing can be an effective way to sift through and make more sense of an individual's thoughts and feelings by making them tangible. Writing includes poetry, comedy, fiction, and nonfiction, as well as journaling or blogging. Wordpress (https://wordpress.com/) offers a free blog for people to share their writing with an online community.
- Art can entail going to a museum or creating art to relieve stress. Art includes drawing, painting, sculpting or crafting. Taking art classes and attending exhibitions are options. Art supplies do not have to be expensive; the artist can start to create with a piece of paper and a pencil.
- Music can promote relaxation or can be used to accompany physical exercise. One online resource for music is Pandora.com, a free Internet radio station that allows users to enter a song or artist and to create a personalized radio station that

- automatically plays the artist and similar artists. Other options for using music creatively to reduce stress include playing an instrument, singing, or writing music.
- Free dance can include taking a dance class or going out dancing to reduce stress and promote enjoyment.
- **Creating a sanctuary** or special space (e.g., bedroom, nook, staircase or a favorite chair) to promote relaxation or to stimulate a creative outlet can help with stress reduction.

WORKFORCE WELLNESS

A healthy lifestyle has been shown to lead to a significant reduction in the risk of developing chronic disease and succumbing to a premature death; two thirds of premature deaths in the U.S. are due to poor nutrition, lack of physical activity, and tobacco use.

Prevention measures include appropriate screening and control of risk factors to reduce the incidence of premature death and disability as well as reduce healthcare costs.

Chronic diseases (e.g., depression and hypertension) can lead to a decline in the overall health of employees, contribute to increased health-related expenses for employers and employees, and lead to lower productivity and/or days of work missed.

Many businesses now offer workplace health programs that include health promotion activities and/or organization-wide policies which are designed to support healthy behaviors and improve health outcomes while at work. Programs typically include activities such

- According to the CDC, effective workplace programs, policies, and environments that are healthfocused and worker-centered have the potential to be of significant benefit to employers, employees, their families, and communities.
- A high level of employee whole health and wellness has a positive impact on employee retention and results in increased productivity.
- The health, wellness, and productivity of staff can help an organization meet its goals and provide better care to consumers.

as health education and coaching, weight management, medical screenings, on-site fitness and others. Workplace health programs commonly screen employees (and, sometimes, their dependents) for health risks using health risk assessment (HRA) surveys and biometric screening. They may also provide interventions to address health risks and manifest disease as well as promote healthy lifestyles. The popularity of wellness programs has been primarily driven by employers' expectations that such programs will improve employee health and well-being, lower medical costs, and increase productivity.

Workplace health program policies are intended to facilitate employee health. These can include allowing time for exercise, providing on-site kitchens and eating areas, offering healthful food options in vending machines, holding "walk and talk" meetings, and offering financial and other incentives for participation in employee health initiatives.

It should be noted that, while the Affordable Care Act (ACA) created incentives designed to promote employer wellness programs and encourage opportunities to support healthier workplaces, employers may be impacted by rules and regulations promulgated by the Equal Employment Opportunity Commission (EEOC) as well as numerous state and federal laws¹² that apply to employer-sponsored wellness programs. These include the Health Insurance Portability and Accountability Act (HIPAA), the Patient Protection and Affordable Care Act (PPACA), the Americans with Disabilities Act (ADA), and the Genetic Information Nondiscrimination Act (GINA).

52

¹² Additional information on this topic is available from the Society for Human Resource Management at https://www.shrm.org/legalissues/federalresources/pages/wellness-programs.aspx as well as from the EEOC (http://www.eeoc.gov/).

Services Offered Within Wellness Program Components		
Program Component	Services	
Screening	Health risk assessment (HRA)	
	 Blood glucose 	
	 Blood pressure 	
	Body weight/body mass Index (BMI)	
	Body fat percentage	
	Bone density	
	Cancer screening	
	Cholesterol/lipids	
	 General physical exam 	
	Psychological stress	
	 Tobacco use 	
	Vision	
	Hearing	
	Others	
Lifestyle or Risk Factor	 Alcohol and/or drug abuse counseling 	
Management	 Blood sugar management 	
	 Cholesterol/lipid management 	
	Fitness program	
	 Healthy eating program 	
	 Health education classes 	
	 Smoking cessation program 	
	Stress management program	
	 Weight/obesity management 	
	• Others	
Disease Management	 Asthma 	
	• Cancer	
	 COPD/emphysema 	
	 Coronary artery disease (CAD) 	
	 Depression 	
	• Diabetes	
	Heart failure	
	Low back pain	
	 No disease specified 	
	Others	

Sources: RAND Employer Survey 2012, Mattke et al., 2013

Data indicates that the majority of eligible employees do not participate in workplace wellness programs although employers that offer comprehensive programs report the highest participation rates in wellness programs and financial incentives have been found to have an immediate effect in motivating more employees to participate.

Studies show that employee participation in lifestyle management programming can be associated with a reduction of health risks (e.g., smoking and being overweight), but not necessarily with lower cost as they tend to have had minimal impact on the overall health status or health care utilization of a given workforce. Nonetheless, a few notable exceptions

have been cited, the most successful of which been shown to yield a return on investment estimated to be in the range of 1.88–\$3.92 saved for every dollar spent.

The Centers for Disease Control and Prevention offers free tools for employers to use to promote workplace health and wellness at

http://www.cdc.gov/workplacehealthpromotion/. Another resource is the National Alliance for Nutrition and Activity (NANA)'s <u>Healthy Meeting Toolkit</u> which was produced to help organizations hold healthy meetings, conferences, and events.

Wellness Outreach at Work

Wellness Outreach at Work provides comprehensive risk reduction services to employees and includes cardiovascular and cancer risk screening and personalized follow-up health coaching that addresses alcohol and tobacco use. The program begins with outreach to all employees through voluntary, worksite-wide health risk screening, including biometric measures of health status, delivered as near to workstations as is practical. The screening focuses employees' attention to health issues and their own health risks. It also provides baseline information about the health risks of the entire workforce.

Screening takes approximately twenty minutes per employee and includes immediate feedback on health risks and the initial steps that can be taken to mitigate those risks. Subsequent to the screening, employees are triaged for follow-up based on the number and severity of health risks identified. Personalized, one-on-one coaching for cardiovascular health improvement and cancer risk is provided by wellness coaches who offer employees education and counseling on alcohol use, tobacco use, weight control, and health management. Employees attend one to four 20-minute individual sessions per year thereafter.

Employees track their own health status through computerized records and access tools and information designed to help them sustain their progress. The program includes long-term support for employees on an individualized basis and through the corporate environment (e.g., alcohol-free public functions, peer encouragement of health promotion). Individual employees' health information is confidential, but profiles of changing risk factors for the workforce as a whole are made available periodically to employees and management.

Participation in Wellness Outreach at Work has been found to lead to reductions in alcohol consumption, increases in smoking cessation and improvements in blood pressure and cholesterol control as well as weight loss.

Protocols and intervention materials are provided free of charge. Licensing for use of program database, with computer support costs \$25,000 plus \$2 per employee per month entered into database. A two-day, on-site or off-site training is provided at a cost of \$12,000 for up to twenty participants.

More information on this evidence-based program can be found on the Web at http://www.ilir.umich.edu/wellness/ and the SAMHSA NREPP website at http://www.nrepp.samhsa.gov/ViewIntervention.aspx?id=56.

POPULATION-SPECIFIC WELLNESS PRACTICES

This section covers wellness and health promotion programs and practices that are targeted specifically to populations served by the public mental health system including adults and older adults with mental illnesses and substance use disorders, individuals with intellectual and development disabilities, and children and adolescents with serious emotional disturbances.

INDIVIDUALS WITH MENTAL ILLNESSES AND SUBSTANCE USE DISORDERS

Approximately three percent of adults in this country have a serious mental illness (SMI),

including schizophrenia, schizoaffective disorder, treatment refractory depression, schizophrenia and bipolar disorder. While the lifespan of persons in the general population has improved, the lifespan of individuals with a serious mental disorder has lagged behind resulting in a widening disparity that affects millions of people.

The co-occurrence of chronic medical disorders and complex health needs has become an expectation, not an exception, for people with mental health and substance use disorders.

The average life span for someone with a serious mental illness is twenty five years shorter on average than that of a member of the general population. In fact, reduced life expectancy for adults with a serious mental illness has been cited as one of the most significant health disparities experienced by any subgroup in the United States. Moreover, this population has also been found to be least likely to utilize preventive medicine and self-care measures.

Wellness is especially important for people with mental health and/or substance use disorders because it is directly linked to their quality of life and longevity.

Persons with SMI experience higher morbidity and mortality rates of cardiovascular disease than the general population as well as higher than expected rates of infectious diseases, non-insulin-dependent diabetes¹³ (including related conditions such as kidney failure), respiratory diseases (including pneumonia, influenza), some forms of cancers, and infectious diseases (including HIV/AIDS). People with mental health and substance use disorders also have a higher prevalence of liver disease, hypertension, and dental disorders than the general population. This population has also been found to experience inadequate weight management, poor nutrition, and do not engage in adequate levels of physical inactivity.

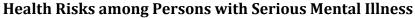
The leading cause of death in this population is cardiovascular disease associated with modifiable lifestyle factors and health behaviors including obesity, poor dietary habits

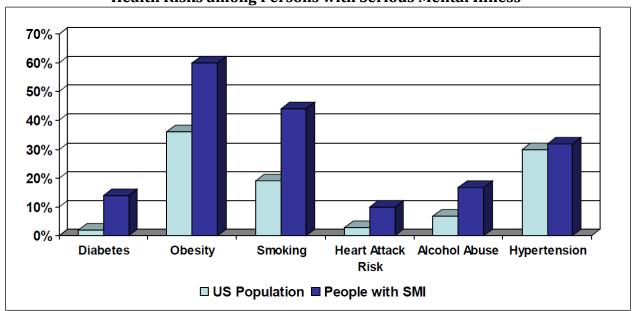
¹³ The association between schizophrenia and diabetes was first observed in the 1800s by the famous British Psychiatrist Henry Maudsley. Increased rates of insulin resistance and glucose dysregulation have also been observed in patients with psychiatric disorders since the 1920s.

(including a high-fat and high-calorie diet), sedentary lifestyle (i.e., lack of exercise), alcohol and substance use (including IV drug use), smoking, and unsafe sexual behavior. Over forty two percent of adults with a serious mental illness have been found to be obese. Less than twenty percent of persons with schizophrenia engage in regular moderate exercise on a weekly basis and nearly forty percent are physically inactive. People with schizophrenia have been found to consume fewer fruits and vegetables and fiber along with more calories and saturated fats than the general population.

Individuals with a diagnosis of mental illness have been disproportionately affected by the country's obesity epidemic. Many psychiatric medications, specifically antipsychotics, increase appetite and food intake. This problem is compounded by socioeconomic challenges experienced by persons with SMI who often have difficulty finding affordable options for healthy food choices and physical activity. In addition, obesity has psychiatric and social consequences including depression, increased stigma, and reduced social functioning.

These risk factors combine with the metabolic side effects of second generation antipsychotic medications (SGAs), also known as atypical antipsychotics, to produce high rates of diabetes, heart disease, and obesity. SGAs have been found to be associated with weight gain, diabetes, dyslipidemia, hypertriglyceridemia, insulin resistance and metabolic syndrome¹⁴. However, with the exception of clozapine, SGAs have not been shown to result in a superior clinical response when compared to first generation antipsychotics (FGAs). Routine metabolic screening and physical evaluations are recommended in mental health settings due to this association of SGAs with metabolic changes.





Source: University of Illinois at Chicago Center on Psychiatric Disability and Co-Occurring Mental Conditions

http://www.cmhsrp.uic.edu/download/A Public Health Concern.pdf

¹⁴ Persons with schizophrenia have a three to six times higher risk of developing metabolic syndrome than persons without a previous psychiatric history.

Additional vulnerabilities that contribute to increased risk of cardiovascular disease and other preventable conditions stem from victimization/trauma, social isolation, unemployment, poverty, incarceration, residing in group facilities and homeless shelters (where there is exposure to tuberculosis and other infectious diseases as well as less opportunity to modify individual nutritional practices) and lack of access to high quality, culturally competent health care services.

When compared to the general population, persons with SMI receive substandard medical care which contributes to excess morbidity and mortality. Moreover, people with mental illnesses and substance use disorders have been found to be less likely than their counterparts in the general population to receive preventive services such as immunizations, cancer screenings, and smoking cessation counseling.

Common psychiatric comorbidities (e.g., depression) often go undetected and undiagnosed in primary care settings. Many common mental disorders (e.g., depression and anxiety) present with somatic symptoms such as headaches, fatigue, pain or gastrointestinal problems that overlap with those of general medical disorders, making diagnosis of these conditions challenging and few health care settings offer systematic screening designed to detect them. Moreover, even if diagnosed, providers face time constraints in managing multiple conditions due to competing demands that may prevent them from being able to address psychosocial issues during brief office visits.

While poor physical health and obesity are common in people with SMI, conventional

services focus on psychiatric symptoms and functioning; few programs target physical fitness. Despite the adverse outcomes and increased costs associated with the combination of mental illness and poor physical health, scant attention has historically been paid to the development of health promotion interventions targeted this high-risk population.

Currently there is a lack of consensus regarding the most optimal type and frequency of physical health assessment and monitoring that are most effective for in people with a serious mental illness. Nonetheless, there are a number of guidelines that may inform practice. A review of the literature indicates that essential routine monitoring should include weight, body mass index (BMI) and waist circumference, blood pressure, lipid profiles, screening for insulin

resistance and diabetes, dental checks, and eye health checks.

Improved access to preventive services, diet and exercise programs, and high quality primary care have the potential to help narrow the mortality gap for persons with mental illnesses.

Studies suggest that lifestyle interventions that combine exercise, dietary counseling, and health promotion show promise in addressing a number of the physical health needs of people with serious mental disorders. These interventions can be integrated into health and wellness efforts to improve the health and well-being of individuals living with serious mental illness, enhance their recovery, and ultimately reduce premature mortality.

A review of the literature reveals that, similar to the approaches that have been proven to be effective in the general population for reducing weight and decreasing risk factors for chronic medical conditions (e.g., hypertension and diabetes), most interventions for persons with mental illness include dietary counseling and an exercise regimen of light-to-moderate physical activity (e.g., walking) and incorporate common behavioral techniques (e.g., problem solving, goal setting, and self-monitoring) into the interventions.

Implementing effective health promotion programs in settings where adults with SMI seek and receive services is deemed critical to reducing the risks associated with preventable medical conditions. The literature suggests that effective, culturally appropriate, and sustainable lifestyle interventions¹⁵ are critical to helping to improve the physical health of adults with SMI and have the potential to reduce the risk and morbidity associated with preventable medical conditions (e.g., obesity, cardiovascular disease, and diabetes).

A growing body of research on the effectiveness of health promotion programs for persons with SMI shows that intervention strategies which include exercise programs, diet-only interventions, and combined exercise and diet programming delivered via a variety of modalities including group-based programs, individualized sessions, and combined group and

The promotion of healthy lifestyles and wellness among individuals living with serious mental illness is an integral part of their recovery process

individual sessions can be effective in reducing excess morbidity and mortality.

It should be noted that while there is a limited but growing body of research on the effectiveness of health promotion programs for people with serious mental illness aimed at addressing obesity and improving physical fitness, there is a robust body of research on the general population that supports the benefits of weight loss and fitness interventions on improving health outcomes and longevity.

A five percent or greater weight loss for individuals who are overweight or obese has been demonstrated to be clinically significant and result in reduced risk factors for metabolic disorders and cardiovascular disease. In addition, improving cardiorespiratory fitness by just one metabolic equivalent per day is associated with a reduced mortality risk of ten to seventeen percent, independent of weight loss. Moreover, improving cardiorespiratory fitness has been found to confer substantial health benefits independent of weight loss.

In general, studies indicate that lifestyle interventions appear to be inconsistently successful in achieving clinically significant weight loss for persons with SMI who are overweight, and, when successful, result in clinically significant weight loss for only a minority of participants. While the reasons why some individuals participating in lifestyle interventions achieve significant weight loss while others do not are currently unknown, some characteristics of programs that tend to produce better results have been identified. These include program duration and design. For example, research shows that more successful programs last three months or longer and incorporate both educational and activity-based approaches.

To summarize the literature, interventions targeted to individuals with SMI should take into consideration the following recommendations:

Program format: Lifestyle health promotion programs of longer duration (three or more months) that combine a manualized educational and activity-based approach, and incorporate both nutrition and physical exercise, are likely to be the most effective in reducing weight and improving physical fitness, psychological

¹⁵ Lifestyle interventions are structured approaches that help individuals engage in physical activity, manage their weight, eat a balanced and healthier diet, and engage in health promotion activities.

symptoms, and overall health. On the other hand, programs that are less likely to be successful include briefer duration interventions; general wellness, health promotion or education-only programs; those that are non-intensive, unstructured, or non-manualized; and programs limited to nutrition only or exercise only (rather than combined nutrition and exercise).

- **Weight management:** The nutritional component is critical to weight loss as a primary goal. Programs are more likely to be successful if they incorporate active weight management (i.e., participant and program monitoring of weight and food diaries), rather than nutrition education alone.
- **O Physical fitness:** Activity-based programs that provide intensive exercise and measurement of fitness (e.g., six-minute walk test or standardized physical activity monitoring) are more likely to be successful if physical fitness is a primary goal, in contrast to programs that provide only education, encouragement, or support for engaging in physical activity.
- Integrated services: Evidence-based health promotion consisting of combined physical fitness and nutrition programs should be an integrated component of services seeking to provide overall wellness and recovery for persons with serious mental illness.
- **Measurement and monitoring:** Lifestyle behaviors (i.e., nutrition, physical activity, and tobacco use), physical fitness, and weight outcomes as well as evidence-based program fidelity should be objectively and reliably measured and monitored both as a component of providing effective health promotion programming and as core indicator of quality mental health services.
- Fitness mentor: Participation in a fitness and nutrition intervention involving a fitness mentor has been shown to lead to significant improvements in cardiovascular health among overweight adults with SMI.
- Cultural congruence: Cultural and linguistic adaptations¹⁶ have been shown to be essential to making lifestyle interventions relevant and effective for persons from racial and ethnic minority groups. Such adaptations include linguistic accessibility (achieved by providing the intervention and materials in the dominant language of the target group).

The approach and content of the lifestyle intervention need to be congruent with Key cultural elements that have an impact on lifestyle intervention (e.g., diet, exercise, body image, and health promotion) need to be carefully considered in order to make interventions culturally appropriate. This can also enhance treatment engagement. retention, and ultimately, physical health outcomes.

participants' cultural norms, values, and preferences so that the intervention is culturally inappropriate and ineffective. For example, a lifestyle intervention that presents dietary options which conflict with participants' cultural traditions and their socioeconomic capability with regard to food choices and meal preparation will most likely result in resistance to dietary changes and dropout from the

¹⁶ The literature is relatively sparse with regard to identifying which intervention elements require cultural adaptation. In addition there is a paucity of evaluations of the efficacy of lifestyle interventions with minority populations.

program. In addition, it should be noted that ideal body image varies across cultures; some African-American and Hispanic groups favor a fuller body ideal. If this is not addressed, the lifestyle intervention may be perceived by the participants as insensitive or even racist.

Diabetes Prevention Program (DPP)

The CDC (Centers for Disease Control and Prevention) Diabetes Prevention Program is an evidence-based lifestyle change program that is designed to prevent type 2 diabetes. The program teaches participants strategies for incorporating physical activity into their daily



lives and eating healthy foods. Participants work with a lifestyle coach in a group setting and receive a one-year lifestyle change program that includes sixteen core sessions which are delivered once a week over the course of sixteen weeks, followed by six post-core sessions delivered on a once monthly basis. The intervention lasts for one year, including the sixteen weekly core

sessions and six monthly post-core sessions.

The lifestyle coach works with participants to identify feelings and situations that can interfere with their success. The group process encourages participants to share strategies for dealing with challenging situations. The sessions are designed to help participants make modest and attainable behavior changes (e.g., improving food choices and increasing physical activity) by focusing on the process of adopting lifestyle changes for healthy eating and physical activity. The aim of the sessions is to help participants develop lifelong skills for healthy living and reinforce step-by-step change.

Following the core phase, participants attend one-hour post-core sessions on a monthly basis. These post-core sessions are designed to provide additional support and learning opportunities to participants, as well as help them transition to independently maintaining their lifestyle changes.

The following materials are used in the program:

- Participant Notebook (Core): contains worksheets and handouts for participants to use in each of the 16 core sessions of the lifestyle intervention
- Participant Notebook (Post-Core): contains worksheets and handouts for participants to use in the post-core phase of the lifestyle intervention
- ☐ Lifestyle Coach Facilitation Guide (Core): a step-by-step guide assists lifestyle coaches in facilitating each of the sixteen core sessions of the lifestyle program
- △ Lifestyle Coach Facilitation Guide (Post-Core): an annotated version of the post-core participant notebook that includes additional facilitation tips for lifestyle coaches

Additional materials used by participants during the lifestyle intervention include the *Food* and *Activity Tracker* log books for participants to write down daily food intake, physical activity, and weight, which the lifestyle coach reviews to provide feedback to the participant, and the *Fat and Calorie Counter* guides which support the participants' ability to track their daily fat grams and calorie consumption/intake.

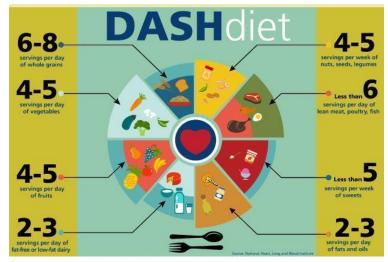
Participation in this lifestyle change program has been shown to lead to significant reductions in risk of developing type 2 diabetes for individuals who are at high-risk,

including those with pre-diabetes or a history of gestational diabetes. Studies show that the program can help people reduce their risk of developing type 2 diabetes by half¹⁷.

Additional information on the Diabetes Prevention Program can be found at www.cdc.gov/diabetes/prevention/about.htm and a copy of the curriculum and additional resource materials can be downloaded at free of charge in English and Spanish from http://www.cdc.gov/diabetes/prevention/recognition/curriculum.htm.

Dietary Approaches to Stop Hypertension (DASH)

The DASH eating plan is rich in fruits, vegetables, fat-free or low-fat milk and milk products, whole grains, fish, poultry, beans, seeds, and nuts. It also contains less salt and sodium; sweets, added sugars, sugar-containing beverages: fats; and red meats than the typical American diet. This heart healthy way of eating is also lower in saturated fat. trans fat. cholesterol and rich in nutrients that are associated with lowering blood pressure. primarily potassium,



magnesium, and calcium, protein, and fiber.

The DASH eating plan is lower in sodium (mostly from salt) than the typical American diet based on research demonstrating that an eating plan that contains 2.300 milligrams of sodium per day lowers blood pressure and an eating plan that contains only 1,500 mg of sodium per day lowers blood pressure even further.

DASH has been found to help prevent and control high blood pressure and. because it is rich in lower calorie foods such as fruits and vegetables, it can be used to promote weight loss. Studies have shown that the DASH diet reduces the risk of many diseases, including some kinds of cancer, stroke, heart disease, heart failure, kidney stones, and diabetes.

Information about the DASH diet is available from the National Heart, Lung, and Blood Institute and the Dash eating plan can be downloaded free of charge from http://www.nhlbi.nih.gov/files/docs/public/heart/new dash.pdf.

61

¹⁷ Research indicates that even modest behavior changes helps participants lose 5% to 7% of their body weight (i.e., 10 to 14 pounds for a person who weighs 200 pounds) and that these lifestyle changes reduce the risk of developing type 2 diabetes by almost sixty percent (58%) in people with pre-diabetes.

InSHAPE (Self Help Action Plan for Empowerment)

InSHAPE is a motivational health promotion and physical fitness program that is designed



to help adults who have a serious mental illness improve their dietary habits and physical fitness. The program is delivered to individual participants in a single session of approximately thirty minutes in duration. It can be provided as a standalone intervention, as a supplement to other program, or as a continual booster session.

The key components of InSHAPE include: (1) a self-administered fitness behavior-image screen measuring targeted health habits and self-images; (2) a fully scripted and standardized one-on-one consultation using Microsoft PowerPoint slides to provide brief, tailored feedback to participants and highlight key positive image content; and (3) a goal plan that provides fitness recommendations and facilitates commitment to setting goals and achieving positive change across several health habits, leading to a desired future self-image.

Key Elements of InSHAPE		
Eligibility	Participants must obtain a medical clearance from their physician	
	and pay a \$5 monthly membership fee.	
Health Mentor	Personal trainers with experience in exercise, fitness, and dietary	
	programming serve as personal health mentors to participants	
	throughout the program.	
Individualized Fitness	At the beginning of the program, the health mentor assesses the	
Assessment	participant's fitness and lifestyle. Participants complete a	
	questionnaire regarding dietary intake and exercise habits, and the	
	health mentor conducts a number of health and physical fitness tests	
	(including a treadmill walk test, blood pressure screening, strength	
A Di	test, and measurement of weight and body mass index).	
Action Plan	Based on the findings from the initial assessment and an assessment	
	of the participant's readiness for change, the health mentor assists in	
	setting achievable nutrition and physical fitness goals and incorporates them into an individualized Self Health Action Plan for	
	Empowerment (SHAPE). The plan also includes health-related goals,	
	such as blood sugar and cholesterol control and setting or keeping	
	appointments with a physician. Participants keep journals to record	
	physical activity and monitor progress toward achieving their goals.	
Weekly Meetings	Participants meet weekly with the health mentor, who monitors	
	progress and provides encouragement. During these meetings, the	
	health mentor and participant create and/or modify an exercise	
	routine, exercise together, talk about achievements and obstacles,	
	and revise goals as needed. The health mentor provides feedback	
	and observations to help the participant remain motivated.	
Nutrition-Related Education	The program emphasizes diet and nutrition; healthy eating is as	
and Activities	important as regular physical exercise in helping participants	
	develop healthier behaviors and become healthier. While the health	
	mentors have basic knowledge about nutrition and healthy eating,	
	participants who require additional education are usually referred	
	to a nutritionist. In addition, nutritionists hold individual and group	
	cooking classes, conduct healthy eating tours at local supermarkets	

	to discuss food nutrition content and use of fresh foods, and hold group education sessions. Area chefs may also be called upon to host cooking classes. Participants are provided with monthly program
	calendars to help them identify activities of interest.
Fitness Center Vouchers	To promote social inclusion, the program uses already established fitness facilities; clients receive membership vouchers to local fitness centers (e.g., the YMCA, a dance/exercise center, or a women's fitness center). The program pays these facilities a discounted fee for the vouchers.
Smoking Cessation	Participants who smoke can take part in smoking cessation
Programs	programs.
Access to Primary Care Physicians	A primary care physician monitors the consumer's health status while they participate in the program.
Group Celebrations	Quarterly lunch celebrations are held to reinforce participants' progress. During the lunch, program staff members recognize participants' achievements, while consumers share their stories, develop exercise partnerships with other participants, and win prizes/rewards (e.g., t-shirts, water bottles, and hand weights) for meeting fitness goals.

Participation in InSHAPE has been found to lead to increased exercise capacity and flexibility, enhanced readiness to change (e.g., limiting food quantity, eating a low-fat diet, eating fruits and vegetables, and exercising regularly), as well as improvements in mental health (e.g., lower levels of depression and reductions in negative symptoms including lack of socialization). Studies indicate that participants demonstrate increased levels of activity, more satisfaction with their physical fitness level, increased social confidence, fewer depressive symptoms and reductions in blood pressure and waist circumference.

The program includes two full-time and four part-time health mentors, a full-time program manager, and a part-time administrative assistant. Major program expenses include staffing, exercise program membership/activities, and quarterly celebrations and prizes. The approximate cost per participant is \$1,400 per year. Additional information on InSHAPE is available from http://www.kenjue.com/inshape/.

Illness Management and Recovery (IMR)

IMR is an evidence-based practice that is designed to empower consumers to manage their illnesses, discover their own goals for recovery, and make informed decisions about their treatment by teaching them the necessary knowledge and skills. The practice targets consumers who have experienced symptoms of schizophrenia, bipolar disorder, or depression and is appropriate for those in various stages of the recovery process. Sessions are held with consumers either individually or in a group and are typically offered on a once weekly basis for forty five to sixty minutes. The duration of the IMR program varies 18 between three and ten months. During the sessions, practitioners help consumers set and achieve their personal goals throughout the IMR program.

¹⁸ The duration depends on participants' prior knowledge and skill level; the problem areas that participants would like to work on; and the presence of either cognitive difficulties or severe symptoms that may slow the learning process.

Advantages of the individual format include teaching material that can be more easily paced to meet each consumer's needs and more time that can be devoted to addressing the consumer's specific concerns. Advantages of the group format include providing consumers with more sources of feedback, motivation, ideas, support, and role models. Teaching IMR in a group format may also be more economical.

Core Components of Illness Management and Recovery

- **Psychoeducation:** provides basic information about mental illnesses and treatment options
- **Behavioral tailoring:** helps consumers manage daily medication regimes by teaching them strategies that make taking medication part of their daily routine
- **Relapse prevention:** teaches consumers to identify triggers of past relapses and early warning signs of an impending relapse as well as helps them develop plans for preventing relapse
- **Coping skills training:** identifying consumers' current coping strategies for dealing with psychiatric symptoms and either increasing their use of these strategies or teaching new strategies

Empirically supported strategies are incorporated into the program including psychoeducation about mental illness and its treatment, cognitive-behavioral approaches to medication adherence (e.g., incorporating cues for taking medication into daily routines), developing a relapse prevention plan, strengthening social support through social skills training, and coping skills training for the management of persistent symptoms. These are organized into curriculum topic areas that are taught using a combination of educational, motivational, and cognitive-behavioral teaching strategies, with weekly or biweekly individual or group sessions for three to ten months.

		•		
IMR Curriculum Topics				
Topic 1:	Recovery Strategies			
Topic 2:	Practical Facts About Mental Illnesses			
	Topic 2a:	Practical Facts About Schizophrenia		
	Topic 2b:	Practical Facts About Bipolar Disorder		
	Topic 2c:	Practical Facts About Depression		
	Topic 2d:	Strategies and Resources for Responding to Stigma		
Topic 3:	The Stress-Vulnerability Model and Treatment Strategies			
Topic 4:	Building Social Supports			
Topic 5:	Using Medication Effectively			
	Topic 5a:	Antipsychotic Medications		
	Topic 5b:	Mood-Stabilizing Medications		
	Topic 5c:	Antidepressant Medications		
	Topic 5d:	Antianxiety and Sedative Medications		
	Topic 5e:	Coping with Side Effects		
Topic 6:	Drug and Alcohol Use			
Topic 7:	Reducing Relapses			
Topic 8:	Coping with	Coping with Stress		
	Topic 8a:	Relaxation Techniques		

Topic 9: Coping with Problems and Persistent Symptoms

Topic 10: Getting Your Needs Met by the Mental Health System

Participation in IMR has been found to lead to improvements in active engagement in recovery, available natural supports, and coping skills as well as reductions in relapses and hospital readmissions.

The <u>SAMHSA</u> (Substance Abuse and Mental Health Services Administration) IMR toolkit can be downloaded in English and Spanish from:

http://store.samhsa.gov/product/Illness-Management-and-Recovery-Evidence-Based-Practices-EBP-KIT/SMA09-4463.

Wellness Self-Management (WSM)

Wellness Self-Management is a curriculum-based clinical practice that is designed to assist



adults to effectively manage serious mental health problems. The topics covered include a number of research-informed approaches that are organized into a

comprehensive and coordinated set of practices.

WSM emphasizes and reinforces principles of recovery including shared decision-making as well as choice and hope; recognizing the role of cultural beliefs and values; highlighting the connection between mental and physical health; and addressing the challenges of providing wellness self-management services in a group modality. It focuses on identifying, reinforcing, and applying the consumer's strengths to support their recovery.

The program is based on <u>Illness Management and Recovery (IMR)</u>, the nationally recognized evidence-based practice for adults with serious mental health problems described above. In addition to IMR-related topics such as recovery, mental health wellness, and relapse prevention, WSM includes lessons that emphasize the connection between physical and mental health.

The curriculum is organized into a fifty seven-lesson personal workbook that includes the following topics:

- Understanding what helps and what hinders recovery
- Understanding how having goals helps recovery
- Understanding how cultural and family background affects decisions about mental health services
- Practical facts about mental health symptoms, treatment, and causes
- How social support and using community resources help recovery
- How family and friends can support work in WSM
- Developing and using a relapse prevention plan
- Knowing and using strengths to support recovery
- Finding and using coping strategies that work
- Understanding the connection between physical and mental health

WSM is typically delivered in a group format, but, like IMR, can be used in individual treatment as well. Sessions are held a minimum of once weekly, with variations that

include back-to-back and multiple sessions per week. Although the duration of the program varies, it typically takes a year or more to complete the entire curriculum. Programs with shorter lengths of stay (e.g., inpatient hospitals) can select specific lessons from the curriculum that most closely match the needs of consumers.

WSM groups are closed in order to provide members with a secure environment in which they can build a sense of trust and camaraderie. However, some programs have been successfully conducted in open groups. In fact, the workbook facilitates the entry of participants at various points throughout the program.

Each group ideally consists of eight to ten members and is led by two group facilitators; peer facilitation is strongly encouraged. The program also assists participants with involving family and friends who may be able to support their work by assisting with action steps, giving encouragement, providing needed information, and discussing topics of interest.

The WSM workbook is available in English, Spanish, Korean, and Chinese. Electronic copies of program materials can be downloaded free of charge from http://practiceinnovations.org/CPIInitiatives/WellnessSelfManagementWSM/Library/tabid/69/Default.aspx.

Healthy Living Project for People Living With HIV

Data shows a high seroprevalence of HIV infection among individuals with serious persistent mental illnesses. In fact, persons with depression and other mental illnesses comprise a growing proportion of individuals living with HIV. The prevalence of HIV among individuals with mental illness is estimated to be at least seven times greater than in the general population.

Individuals with mental illness are particularly vulnerable to infection with HIV due to several factors including a higher prevalence of poverty, homelessness, high-risk sexual activities, drug abuse, sexual abuse, and social marginalization. Nonetheless, individuals with mental illnesses are often not screened for HIV and may not be appropriately targeted for HIV prevention efforts. In addition, despite widespread access to antiretroviral treatment, HIV outcomes among persons with a mental illness continue to be poor. This disparity is the result of a number of interrelated issues, including lower rates of highly active antiretroviral therapy (HAART) utilization and adherence to HAART as well as immunologic changes associated with mental illness itself.

Healthy Living Project for People Living With HIV is a manualized, cognitive-behavioral intervention that is delivered by life coaches in individual sessions to help consumers make beneficial changes in their health behaviors, become active participants in their ongoing medical care, and achieve personal goals. The program is designed to promote protective health decision-making among adults with HIV in order to reduce substance use and the risk of transmitting HIV. It targets interactive psychosocial domains: the community environment, internal affective states, and self-regulation.

The program consists of fifteen sessions that are ninety minutes in duration, presented in three modules:

- ① Stress, Coping, and Adjustment
- ② Safer Behaviors
- 3 Health Behaviors

The consumer is encouraged to identify a life project and work with the coach to set attainable goals in order to build self-confidence, self-esteem, and motivation to increase protective health behaviors. Intervention strategies include psychosocial education, skills building to improve coping, and problem-solving training involving role-play exercises.

Participation in this evidence-based program has been shown to lead to fewer days of substance use (including alcohol, marijuana, methadone, inhalants, MDMA, stimulants, sedatives, barbiturates, steroids, heroin, cocaine/crack, and speedballs) as well as reductions in unprotected sexual acts and fewer sexual partners who are HIV-negative or of unknown serostatus.

The intervention manual and other implementation materials are provided at no cost. The cost for onsite two-week training is \$1,300 per participant plus travel expenses. Thirty-minute phone consultation is provided free of charge prior to training or implementation. Quality assurance materials are also available at free of charge. Technical assistance and consultation are available for \$50 per hour by phone. The estimated cost for delivering the program is \$412 per consumer. Implementers are required to have a bachelor's degree, and program trainers must be experienced in behavioral management approaches.

Additional information on Healthy Living Project for People Living With HIV can be found on the program's Web site at http://chipts.ucla.edu/projects/healthy-living-project-hlp-multi-institutional-collaborative-research-project and on SAMHSA's NREPP Web site at http://www.nrepp.samhsa.gov/ViewIntervention.aspx?id=169.

Life Goals Collaborative Care (LGCC)

Life Goals Collaborative Care is an evidence-based, manualized intervention for adults with chronic psychiatric and physical health problems that is based on the Chronic Care Model (CCM) described above, which identifies six areas of improvement necessary for health care systems to provide high-quality chronic disease care:

- Health system organizational support
- Self-management support
- Provider decision support
- Delivery system redesign
- **6** Clinical information systems
- **6** Access to community resources

LGCC is designed to help organizations and practices adopt a collaborative approach to treatment in which consumers are engaged in setting their own personal wellness goals. Providers facilitate access to evidence-based clinical practice guidelines to support decision-making, and medical and psychiatric services are coordinated to enhance access and continuity of care.

Originally developed to help consumers manage the symptoms of bipolar disorder, LGCC has been adapted for use with mood disorders, including unipolar depression; serious

mental illness, with a focus on physical health wellness; and substance use disorders. It also has been adapted for veterans, including those receiving telehealth services. Intervention materials for LGCC for bipolar disorder have been translated into Spanish and French.

The intervention employs a combination of health behavior change, psychotherapy, and motivational enhancement to improve health outcomes. It addresses co-occurring illnesses that affect quality of life including cardiovascular disease, diabetes, anxiety, and substance use, in addition to its primary focus on affective symptoms (mania and depression).

LGCC typically includes four to six weekly self-management sessions followed by wellness maintenance sessions. However, the duration of the intervention can vary. Sessions can be provided in small group or individual formats and are led by a trained health specialist such as a social worker, counselor, nurse, psychologist, or a professional with a mental health or chronic disease background.

During the initial self-management sessions, consumers work on identifying personal values and goals and learning how to manage mental health symptoms. Educational content focuses on constructing a personal symptom profile, linking a consumer's choices to mental and physical health symptoms, identifying symptom triggers, and optimizing responses to symptoms and adversity. Sessions also address positive lifestyle changes to support overall wellness in areas such as nutrition, exercise, sleep, and substance use. During the maintenance sessions, consumers meet with the health specialist to discuss symptoms, track progress toward goals, troubleshoot obstacles, and provide ongoing motivation for goal attainment.

The implementation costs are as follows:

- ✓ LGCC Implementation Manual = Free
- ✓ LGCC Provider Manual = Free
- ✓ LGCC Consumer Workbook = Free
- ✓ 1-day, off-site Health Specialist training = \$200 per person, maximum of 30 people
- ✓ 2-day, on-site Health Specialist training and consultation = \$1,000 plus travel expenses
- ✓ 2-hour in-service for administrators and staff = \$275
- ✓ Post-training technical assistance by email and phone (for up to six months as needed) = Free
- ✓ Fidelity measures = Free

A Microsoft Access-based patient registry is also available at no cost for sites that would like to use it instead of or in addition to their current documentation process.

Additional information on LGCC can be found on SAMHSA's NREPP Web site at http://www.nrepp.samhsa.gov/ViewIntervention.aspx?id=349.

Team Solutions (TS) and Solutions for Wellness (SFW)

Team Solutions (TS) and Solutions for Wellness (SFW) are complementary psychoeducational interventions for adults with a serious mental illness. TS teaches life and illness management skills, while SFW focuses on physical health and wellness. These interventions are designed to address a number of modifiable risk factors for medical

morbidity, mortality, and relapse including obesity, diabetes, high cholesterol, hypertension, and physical inactivity which, in addition to substance use and lack of effective illness management skills, may be induced or exacerbated by medications used to treat mental illness.

TS and SFW can be used in numerous treatment settings (e.g., inpatient, residential, outpatient, and private offices) and in a variety of session formats (e.g., group, individual, family, and family group).

TS emphasizes imparting knowledge to help consumers understand their illness and how to manage it. Consumers learn about the disease state, diagnosis and treatment planning, medications, and the effects of stress on mental illness. Program materials include ten workbooks that are used during one hundred twenty three sessions of approximately one hour each.

SFW emphasizes eating healthy foods and getting physical activity as well as maintaining a healthy lifestyle through improvements in tobacco use, sleep, stress, and access to health care. It focuses on facilitating improvements in weight, blood pressure, and cholesterol and other health measures. Materials include two workbooks implemented during the course of thirty nine sessions of approximately one hour in duration.

TS and SFW can be implemented together (either sequentially or concurrently) or separately as independent, stand-alone interventions. All of the workbooks, or a selection of them, can be used in any order in accordance with the needs of the participants. Each session follows a structured, nine-step progression that incorporates a variety of educational, motivational, and cognitive-behavioral techniques including personalized practice options. Facilitators can include peer mentors, paraprofessionals, and individuals with undergraduate and graduate degrees.

Studies have reviewed implementations of TS only, SFW only, and both TS and SFW. The majority of outcomes reviewed reflect physical health factors that may be affected by medications deemed necessary as part of the treatment protocol. Evaluations show that participation leads to a significant reduction in weight over time and a significant decrease in BMI over time.

Team Solutions Workbooks 1-10 (includes implementation guide), Solutions for Wellness Workbooks 1 and 2 (includes implementation guide), one-hour to full-day training online (via video or live broadcast), technical assistance, and program support by phone and email are all available free of charge.

Additional information on these evidence-based practices can be obtained from SAMHSA's NREPP website at http://www.nrepp.samhsa.gov/ViewIntervention.aspx?id=290 and on the Eli Lilly and Company's website at: http://www.treatmentteam.com.

TEAMcare

TEAMcare is designed to enhance the quality of mental and physical health care for adults with comorbid depression and poorly controlled diabetes and/or coronary heart disease. The intervention combines support for patients through

self-care with pharmacotherapy to manage depression and improve blood pressure, glycemic, and lipid control by integrating a treat-to-target program for diabetes and coronary heart disease with collaborative care for depression.

TEAMcare uses a team-based approach to establishing individualized clinical and self-care goals. The consumer works collaboratively with a registered nurse who manages their care under the supervision of a primary care physician (who is not the consumer's primary care physician) and a psychiatrist.

The TEAMcare nurse uses motivational and encouraging coaching techniques to help each consumer address their health problems and set goals for improved adherence to medication, diet, and exercise regimens as well as improved self-care (e.g., self-monitoring of blood pressure and glucose levels) during a structured visit at the consumer's primary care clinic every two to three weeks. The nurse tracks the consumer's medication adherence, depression symptoms, and laboratory and clinical values of glycated hemoglobin (HbA1c), systolic blood pressure, and low-density lipoprotein cholesterol (LDL-C).

The nurse meets with physician supervisors once a week (i.e., primary care physician and psychiatrist) to review each consumer's case and discuss recommendations for medication adjustments which are provided to the consumer's primary care physician who writes prescriptions. These weekly systematic case reviews are designed to enhance care coordination and help ensure accountability through team-based follow-up to guideline-level disease management and achievement of clinical goals. Once a consumer has achieved targeted levels for relevant measures, the nurse and the consumer develop a maintenance plan that includes stress reduction, behavioral goals, continued use of medications, and identification of symptoms associated with worsening depression and glycemic control. The nurse continues to follow up with the consumer by telephone every four to six weeks thereafter for the duration of the program.

Each consumer receives approximately ten in-person contacts, as well as ten telephone contacts with the nurse over a twelve-month period. The consumer's clinic also can choose to provide the consumer with self-care materials, including the *Depression Helpbook*, materials on chronic disease management, and self-monitoring devices (e.g., blood pressure monitor, blood glucose meter) appropriate to the consumer's condition.

Studies show that participation in TEAMcare leads to improvements in A1c, LDL cholesterol, blood pressure and depression outcomes as well as overall health status, quality of life, satisfaction with diabetes/coronary heart disease care and depression care, along with increased physical activity and improved functioning. In addition, compared to usual care, the TEAMcare intervention has been found to lead to a total twenty four-month outpatient cost savings of about \$600 in capitated populations and about \$1100 savings in fee-for-service care.

Implementation of TEAMcare requires:

▲ A 2-day, off-site training in Seattle, WA (includes slides, training handouts, and continuing education credit) at a cost of \$445 per participant

- ▲ 2-day, on-site training (includes slides, training handouts, and continuing education credit) at a cost of \$40,000 for up to 40 participants and \$54,000 for 41-60 participants, with costs varying by location
- ▲ A 1-day, on-site booster training at a cost of \$24,000 for up to 60 participants, plus travel expenses
- ▲ A 2-hour booster training via Webinar at a cost of \$5,800 for up to 25 participants
- ▲ A 3-hour, self-paced introductory or refresher course (includes continuing education credit) at a cost of \$150 per person
- ▲ A 1-hour implementation consultation calls (monthly, for up to 1 year) at a cost of \$1,322 per hour for up to 50 participants
- A computerized patient data registry

Additional information on this evidence-based program can be found on the Web at http://www.teamcarehealth.org/.

myStrength™

myStrength™ (https://www.mystrength.com/) is an on-line, self-help mental health wellness portal that offers evidence-based resources for individuals experiencing mild or moderate depression and anxiety. It includes personalized eLearning programs, interactive coping tools, resources, daily inspiration to enhance motivation, weekly action plans and step-by-step learning modules to provide ways to improve mental health



and overall well-being on a daily basis that can be used to augment treatment for depression and anxiety in between therapy visits as well as provide a relapse management tool after therapy ends.

The program's evidence-based digital resources are offered through a HIPAA-compliant platform. Each user's Home Page includes a short personal profile based on answers to a questionnaire that enables the site to select relevant resources to share each day. Access to the site requires the user to enter their email address and password as well as current energy level. Based on the user's level of motivation, a message acknowledging how the user is feeling and resources to meet their current needs is offered. Each user's Strength Page is tailored to that user based their Personal Profile, Wellness Assessment and daily motivation level.

myStrength™ includes the following features:

- 24/7 online availability in a highly secure and private setting; the user's privacy is always protected by their myStrength Alias
- A personalized home page with daily refreshes
- ☐ Clinically based programs centered in cognitive-behavioral therapy and adapted from the depression and anxiety self-help literature
- Cost and time savings through a shortened course of treatment for consumers who are already in therapy and benefit from myStrength's complementary programs and support in between sessions
- ☐ Content for physical, mental, and spiritual health

- Engaging, individualized programs based on an initial client assessment
- Regular feedback on mood improvement to reinforce ongoing use
- <u>Wellness Assessment:</u> The first step is completing a quick Wellness Assessment using the DASS-21 which rates depression and anxiety and is used to help select that eLearning programs and daily resources for the user.
- <u>Multidimensional Profile:</u> A short Personal Profile that works hand-in-hand with the Wellness Assessment results in the selection of the most relevant resources.
- Personal My Home Page: Each user's myStrength membership includes a personal Home Page where the user can access all of their mental wellness resources including their eLearning programs and favorite tools that is updated daily with new resources tailored to the user's personal profile.
- <u>eLearning Programs</u>: There are nine step-by-step online modules for depression and eight for anxiety (and programs in addiction, self-esteem, anger management, and obsessive compulsive disorder are planned).
- Mood Tracker tool: This tool provides the user a way to track what the user is doing each day and how it affects their mood and it can reveal significant trends to the user over time.
- Today's Workout: Today's Workout appears at the top of the user's home page and features a new set of activities and inspirations selected based on the user's interests and motivation each time they log into myStrength. A library of proven content can be searched by condition or life situation.
- <u>myJourney:</u> The user can view everything they have accomplished on the myStrength site in the myJourney area. Here the user can review or set new goals and record how they have been feeling in the Mood Tracker. Over time, badges are added to remind the user of their accomplishments. Users can also add a personal image or two into their Inspirations area so that each time they log in the image will rotate and provide ongoing encouragement.
- <u>myStrength Community:</u> In this section the user can share their own as well as view other users' inspirational images (which they can add to their Inspirations).
- Resources: Articles and tips are selected for each user based on their personal profile (The site offers interactive tools to help users track and work with what they are learning that can be downloaded, saved and reused for daily support.)
- Practical Action Plans: Structured steps and focused guidance that can be used to help the user when they are feeling overwhelmed. Each user's personal page offers an action plan with suggested To Do's tied to their current eLearning module. These action plans provide daily reminders of simple steps that can be taken to feel better and are designed to help the user apply what they have been learning as well as provide motivation.

The site can be used to expand and/or complement the services offered by behavioral health care providers through a scalable health improvement program. It can also be used to help with consumer engagement as well as for consumers who are on a waiting list for services, and it can offer enhanced support to consumers who only receive psychopharmacological intervention. In addition to being compliant with all HIPAA security standards, the site can offer customized pages by agency or practice.

Users have been found to experience reduced levels of depression. Clinicians indicate that $myStrength^{m}$ can be effective in helping to manage waitlists, reach consumers who reside in rural areas, and provide effective relapse management for consumers subsequent to the termination of therapy.

Medication Therapy Management (MTM)

MTM¹⁹ is an emerging model of care for individuals with chronic physical illnesses and is becoming recognized as critical for people with a serious mental illness because adults with chronic mental illnesses often have multiple chronic diseases that require them to take multiple medications thereby placing them at higher risk for adverse medication events.

It is designed to address the high incidence at which medications are prescribed at less than therapeutic levels for medical conditions such as hypertension, cardiovascular disease, hyperlipidemia, and diabetes.

Core Components of MTM		
•	Comprehensive medication review	
•	Personal medication list	
•	Patient education	
•	Help with adherence to prescriptions	
•	Determining patterns of prescription drug use	
•	Detecting adverse drug events	

During an MTM session, a specially trained pharmacist meets individually with consumers to review current prescriptions, potential drug interactions, side effects, and issues specific to each consumer. Consumers are encouraged to discuss potential medication adherence issues. Each session includes medication and wellness education for consumers and family members. In addition, the pharmacist sends a written report to the consumer and all treating physicians with recommendations for medication adjustments, changes, and laboratory work when indicated.

Studies of MTM indicate that it is effective in reducing the incidence at which medications have been prescribed at less than therapeutic levels for medical conditions. It has also been found to be cost effective by recommending that current medication dosages be increased for therapeutic benefit.

MTM is considered an essential component in the provision of integrated care for persons with a chronic mental illness

Additional resources on MTM are available from: http://www.amcp.org/MTMResources/.

¹⁹ The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) included a drug benefit and required that prescription drug plans and Medicare Advantage plans offering prescription drug coverage have a medication therapy management (MTM) program for those beneficiaries who meet certain risk criteria. The law describes MTM as "a program of drug therapy management that may be furnished by a pharmacist and that is designed to assure, with respect to targeted beneficiaries that covered part D drugs under the prescription drug plan are appropriately used to optimize therapeutic outcomes through improved medication use, and to reduce the risk of adverse events, including adverse drug interactions". Pharmacies, managed care organizations, state Medicaid programs, disease-specific clinics, and third-party insurers have all successfully employed various forms of MTM.

Beating the Blues (BtB)



Beating the Blues US™ (https://www.beatingthebluesus.com/) is the American version of Beating the Blues®, an evidence-based, Internet-based cognitive behavioral therapy (CBT) program for adults with mild to moderate depression and/or anxiety, who have been screened by a clinician using a

standardized Instrument. It is designed to help individuals learn to effectively cope with anxiety, stress and depression using cognitive and behavioral strategies. It can be used as a cost-effective alternative or adjunct to face-to-face treatment.

The program is delivered online in eight personalized fifty-minute sessions that are typically accessed on a once weekly basis. Consumers learn about depression and anxiety and how to identify their own symptoms and set goals for therapy during the early sessions. Clients learn how to identify and change their thoughts, inner beliefs, and attributional styles (i.e., ways for explaining the causes of an event or behavior) that are exacerbating their problems in the subsequent sessions.

Sessions incorporate interactive multimedia techniques including video vignettes that depict individuals modeling the session content as well as interactive tools such as a risk assessment, symptom tracker, and goal tracker; and printable homework assignments. In addition, consumers select behavioral techniques (e.g., activity scheduling, problem solving, sleep management) to apply to their problems. Demographic and evaluation questionnaires are administered online. Consumers are provided with printable notes and worksheets throughout sessions. Homework assignments are generated for practicing new skills and the system assesses how assignments have been carried out. Consumers receive a session review email following each session that describes the content covered, projects for the week, and the content to be addressed in the next session.

The first 50-minute session reviews the symptoms of depression and anxiety and offers an overview of CBT including an explanation of how emotions are not simply results of events but, rather, of interpretations of events (i.e., distorted thoughts), which can, with proper training, be changed to be more helpful or realistic.

The second session focuses on the teach participant to record their thoughts in order to foster learning to change them and developing positive, realistic and measureable goals. The participant is taught to become conscious of automatic thoughts which can become distorted and lead to anxiety and depression.

The third session focuses on behavior and offers suggests self-distraction in response to feeling upset by engaging in physical activity (e.g., taking the dog for a walk, or focusing on breathing). Common Thinking Errors are reviewed. These include Black and White Thinking, in which everything is viewed in only two categories – all or nothing (e.g., if a person thinks they have not done something perfectly then they have failed, or if their clothes are less than immaculate they view see themselves as a wreck). Other thinking errors include Jumping to Conclusions (i.e., drawing a negative conclusion in the face of little or no evidence), Catastrophizing (i.e., exaggerating problems), Overgeneralizing (i.e., thinking that if an unpleasant thing happened before it will recur, and Should Statements (i.e., being a fierce task master who sets very high standards for oneself and others).

The fourth session offers tools to counter these thinking errors. The participant is asked to find evidence both for and against their negative automatic thoughts (NATs). Empty positive thinking is discouraged; any challenge to NATs must be based on evidence. During session five, concepts of automatic thoughts are reviewed and tools to help uncover those beliefs are suggested. Consumers are asked to write down successes on a weekly basis.

During the final sessions, consumers are taught about how to recognize their attributional styles (i.e., how their world view is constructed including whether they see the glass half-full or glass half-empty). The program then instructs the consumer to train themselves to tailor their interpretations according to whether what is happening to them is negative or positive. For example, if the person wins a game of tennis, it is because "my serve is strong, I play well on all types of courts"; while a person with depression might just say "I was lucky," or that they just had a "good day".

Studies of BtB have found that the majority of consumers derive benefit from it and show reductions in symptoms of depression or anxiety. In fact this online intervention is considered to be as effective as face-to-face CBT. Finally, consumer satisfaction with BtB has been found to be positive.

Implementation fidelity is enhanced by the automation of the program. Consumer access to each session is contingent upon completion of the previous session. In addition, clinical measures are built into the program to support ongoing outcome monitoring. Staff access individual consumer progress reports and an overall summary to evaluation implantation.

An administrator manual provides guidance regarding the set-up and use of the program. An unlimited number of consumers can use the online program at one time, and the program automatically sends out reminder emails to those who have not logged into the system each week to complete a session. Consumers need access to an Internet connection and a printer.

Staff members (e.g., peer support specialists, health coaches) can be trained to provide additional support to consumers over the course of the program. A training workbook for paraprofessional staff provides guidance on how to support consumers as they progress through program sessions and maintaining consumer confidentiality. Initial training for administrators and other staff (e.g., peer support specialists, health coaches, etc.) is required. This training is provided from the perspective of a consumer progressing through each of the sessions.

The one-day, on-site training for staff costs \$5000 plus travel expenses. Costs for Internet access vary in accordance with the number of users and range from .six to twenty five cents per month per client or about \$30 - \$150 depending upon the number of sessions. Technical assistance is provided free of charge by phone.

14 Weeks to a Healthier You

14 Weeks to a Healthier You, from the National Center on Physical Activity and Disability (http://www.nchpad.org/14weeks/), provides users with tools for being more active in their own homes by working out and exercising regularly. It is a fourteen-week, free, personalized, web-based physical activity and nutrition program that is designed for

persons with mobility limitations, chronic health conditions and physical disabilities. The program is intended to incorporate physical activity into daily life.

Users register for the program and give information about themselves that results in the provision of personalized resources and exercises that meet their individual needs. New material is provided each week that builds on the material from the previous week. This information includes personalized weekly exercises, physical activity and nutrition tips, motivational resources, weekly recipes, features that help users track their activity and what they eat, optional reminders and alerts, opportunities to connect with other participants, and access to 14-Week coaches.

CHILDREN AND ADOLESCENTS

During the past two decades childhood obesity has been increasing at significant rates in the United States. Today, one in every three children in this country is overweight or obese. Children who are obese experience increased risk for chronic illness, miss more school days, and have poorer academic outcomes than their peers who are normal-weight.

Other health conditions that affect increasing numbers of children in this country include asthma, ADHD, and diabetes.

Establishing healthy behaviors during childhood is easier and more effective than trying to alter unhealthy behaviors during adulthood.

CDC (Centers for Disease Control and Prevention)

Eating healthy foods along with regular physical activity are known to be key factors in maintaining children's overall well-being. The American Heart Association recommends that all children who are two years and older participate in at least thirty minutes of enjoyable, developmentally appropriate and varied moderate-intensity physical activities every day.

Schools play a critical role in promoting the health and safety of children and youth and helping them to establish lifelong healthy behavior patterns. Moreover, research has demonstrated a link between the health outcomes of children and youth and their academic success. According to the CDC, government agencies, community organizations, schools, and other community members need to work together through a collaborative and comprehensive approach in order to produce the most positive impact on the health outcomes of children and youth.

The majority of wellness-focused programs for children and adolescents are delivered via schools. The following are examples of programs and approaches to addressing health and well-being for this population.



CATCH (Coordinated Approach To Child Health)

CATCH is an evidence-based coordinated school health program that is designed to promote physical activity and healthy food choices as well as prevent tobacco use in school-aged children. It is based on the CDC's Whole School, Whole Community, Whole

<u>Child</u> model which brings schools, families and communities together to support youth in developing a healthy lifestyle.

CATCH offers programming and a cirrciulum targeted to four age groups: preschool (CATCH Early Childhhod), elemary school (CATCH K-5), middle school (CATCH 6-8), and afterschool (CATCH Kids Club).

The program incorporates educational classroom curriculum components as well as school physical education, school food service, and family involvement in order to improve a set of environmental influences to support behavior change. CATCH emphasizes reducing the consumption of high-fat foods and increasing levels of physical activity both inside and outside of school. The early childhood version also includes sun protection.

CATCH Modules include the following:

Cafeteria: CATCH stresses key lessons about the nutritional value of various food groups and uses a stoplight model to break foods out into three groups: GO, SLOW, and WHOA foods. The goal is to eat more GO foods than SLOW foods, and to eat WHOA foods only in very small amounts. GO describes foods that are whole grain, unprocessed fruits and vegetables, lowest in fat, contain no added sugar, and can be eaten daily. SLOW describes foods that are slightly processed and may have some added salt, fat or sugar. WHOA describes foods that have the highest fat and sugar.



- ⇒ Family & Community: Parent materials encourage parents to learn about teaching their children healthy living skills, becoming healthy living role models, and teaching other parents how to reinforce in-school learning. CATCH Coordination Kits provide letters to send home to parents, agenda items for PTA meetings, and guides to selecting a CATCH champion on each campus.
- → Physical Education (PE): This component focuses on increasing the amount of moderate-to-vigorous activity (MVPA) children engage in during their PE time. CATCH PE encourages and supports the national standards for physical education guideline of fifty percent MVPA as well as encourage students to receive sixty minutes of physical activity every day. CATCH PE programs guide teachers through the whole school year (or summer, in the case of CATCH Kids' Club), establishing themes and lessons that teachers can utilize directly, or build upon in accordance with the needs of their specific schools.
- Classroom: CATCH provides a classroom curriculum for each grade level that focuses on nutrition and physical activity. The CATCH Coordination Kit encourages teachers to declare their classrooms "healthy zones," asking parents and students to provide healthy, GO snacks through. The "healthy zone" applies to teachers as well; CATCH encourages teachers to role model healthy behaviors in front of the students.
- **UV Protection:** CATCH provides an evidence-based sun protection curriculum to pre-K and early childhood programs.

Participation in CATCH has been shown to lead to reductions in overweight and obesity. The program has been found to be effective in producing dietary and physical activity changes that persist into early adolescence including increases in MVPA and healthy eating

habits. In addition, implementation of the program model has shown to result in improved nutritional content of school lunches. A cost-effectiveness study found the cost-effectiveness ratio for CATCH, or the intervention costs per quality-adjusted life years (QALY), to be \$889.68.

Additional information on CATCH can be found at http://catchinfo.org/programs/.

ATHENA (Athletes Targeting Healthy Exercise & Nutrition Alternatives)

ATHENA is a school-based, team-centered, multi-component, gender-specific, peer-led, interactive intervention that is designed to provide healthy sports nutrition and strength-training alternatives to the use of alcohol, illicit and performance-enhancing drugs among middle and high school female athletes.

The program is implemented by coaches in conjunction with Squad Leaders designated by their coach during the sport season. It includes an objective presentation regarding the consequences of substance use and other unhealthy behaviors and the beneficial effects of appropriate sport nutrition and exercise training. ATHENA also incorporates cognitive restructuring appropriate to a sport team setting to address mood-related risk factors for diet pill use. Participants practice goal setting and self-monitoring of nutritionally healthy behaviors.

ATHENA consists of eight 45-minute classroom sessions scheduled once a week during the season on light practice days and integrated into a team's standard practice activities. Each session is led by a squad leader using scripted lessons in small learning groups. Program materials are completely scripted and easy to follow; little or no preparation is required. Coaches facilitate the program, keep athletes on task, and introduce and wrap up student-led activities; squad leaders provide the majority of the instruction for the small groups.

Session activities include playing didactic interactive games; establishing goals for healthy behaviors; role-plays to practice refusal skills; discussing and deconstructing, and student-created campaigns or public service announcements remaking magazine advertisements for cigarettes, alcohol, and nutritional supplements; as well as creating public service campaigns to discourage drug use and disordered eating practices.

Studies of this evidence-based program indicate that participation leads to:

- Reductions in the use of diet pills
- Reductions in the use of steroids, amphetamines and sport supplements
- Improved nutrition
- Less riding in a car with a drinking driver
- Less new sexual activity
- Fewer injuries
- Reductions in long term use of diet pills, alcohol and marijuana

The cost of the program includes:

- ▲ A coach package with background materials, coach and squad leader training DVDs, sample workbook, and athlete's guide: \$280 each
- Squad leader package with squad leader manual and athlete's guide: \$11 each

- Athletic package with workbook and athlete's guide: \$11 each
- Five-hour, on-site coach and squad leader training for multiple schools at a central site: \$3,000 for three trainers, plus travel expenses
- Four-hour, on-site coach and squad leader training for one or two schools at a single site: \$2,000 for two trainers, plus travel expenses
- Two-hour coach and squad leader training by phone or Skype: \$250 for up to 10 participants
- Phone and email consultation are provided free of charge along with pre-test and post-test surveys

Additional information about this evidence-based program can be found on the Web at http://www.athenaprogram.com and http://www.ohsu.edu/hpsm/.

Project EX

Project EX is a school-based, tobacco-use cessation program for high school students aged fourteen to nineteen that is delivered in a clinic setting during schools hours. Each clinic group can accommodate eight to fifteen students. To be eligible for the EX clinic, a student must have used tobacco during the thirty days prior to the first session and must join the clinic on or before the fourth session. The program is implemented by classroom teachers or health educators who are non-smokers and who have attended a one or two-day Project EX Facilitator training.

Project EX consists of eight forty to five-minute sessions delivered over the course of six weeks in accordance with the following schedule: two sessions a week for two weeks, followed by one session a week for four weeks. The first four sessions are intended to prepare students for an attempt at quitting smoking, which should take place between sessions 4 and 6. During the first four sessions, students are not asked or required to quit immediately but are reinforced for their attempt to quit, which occurs between sessions 4 and 6. The remaining sessions are designed to maintain quit status and enhance quit attempts. The last four sessions, held once a week, concentrate on helping students maintain their nonsmoking status and to enhance their quit attempt.

The curriculum includes strategies for coping with stress, dealing with nicotine withdrawal, and avoiding relapses. Engaging and motivating activities such as games and yoga are employed to help with reducing or stopping smoking and teach self-control, anger management, mood management, and goal-setting techniques. Participants are provided with accurate information about the social, emotional, environmental, and physiological consequences of tobacco use.

Project EX is based on a **motivation-coping skills-personal commitment** model of tobacco cessation:

• Motivation entails generating reasons to quit tobacco use (Session 1), discussion of information on the many dangers of tobacco use (Session 3), and use of games and talk shows that help teens see the effects of their tobacco use on others (Session 1: talk show), that tobacco use may increase, not decrease, one's stress level over time (Session 2: talk show), that there are many negative effects of passive smoking (Session 3: game), that the longer one quits the easier it is to stay stopped (Session

- 4: talk show), and that it is easier and better to quit now rather than waiting until one is older (Session 8 talk show).
- **Coping Skills** instruction includes information and practice on selecting a quit approach (Session 4), how to get through withdrawal symptoms (Sessions 1, 4, and 5), how to cope with stress (Session 2: coping skills and Healthy Breathing exercise), how to get around cognitive barriers to quitting (Sessions 4 and 5), how to relax (Session 5: Floating Relaxation Exercise, Session 6: Yoga), achieving good nutrition (Sessions 5 and 6), assertiveness training (Session 7), anger management (Session 7: coping skills and Meditation), and avoiding relapse (Session 8).
- In Session 4, students make a **Personal Commitment** to quit, and in Session 8 they review the commitment.

Each Project EX clinic group can include from eight to fifteen students and up to four clinics can operate simultaneously in one school. Clinics are held during school hours rather than after school.

A number of strategies are used to recruit students to Project EX clinics. These include visits to classrooms by program facilitators to make a short presentation about the forthcoming groups, offering elective class credits and class release time, and/or referrals made by teachers or student smokers themselves.

The Project EX curriculum guide and student workbook must be adhered to and all eight sessions must be delivered.

Project EX has been identified as a model program by the Substance Abuse and Mental Health Services Administration (SAMHSA) and the U.S. Office of Juvenile Justice and Delinquency Prevention. Participation has been found to lead to significant increases motivation to quit smoking as well as quit rates.

Each Project EX facilitator participates in a training workshop conducted by a certified Project EX trainer that is designed to provide facilitators with an understanding of the theoretical basis, content, approach, and objectives of the program as well as build the skills that are needed to deliver the clinic sessions with fidelity.

Implementation costs include a teacher's manual with audio CD (\$60 each), a student workbook (\$35 for five copies) as well as \$1,100-\$1,300 for up to 25 participants, plus travel expenses for a one-day, on-site training and \$1,800-\$2,000 for up to 25 participants, plus travel expenses for a two-day, on-site training. Student surveys are available free of charge. Sites that implement Project EX are encouraged to conduct their own evaluation of program outcomes. The pre-test and post-test student survey files and suggestions for their use (including the answers to the knowledge questions) can be downloaded from http://tnd.usc.edu/ex/index.php?sub flag=7.

Additional information about Project EX can be found at http://tnd.usc.edu/ex.

Michigan Model for Health

The Michigan Model for Health²⁰ is a comprehensive and sequential health education curriculum that is designed to give students in grades K-12 the knowledge and skills needed to practice and maintain healthy behaviors and lifestyles. The intervention provides age-appropriate lessons that address issues commonly faced by students, including use of alcohol, tobacco, and other drugs; prevention of HIV/AIDS; proper nutrition; physical activity; and other wellness and safety issues.

The program is delivered in twenty to forty five-minute lessons implemented by classroom teachers. Lessons include extension ideas for core subjects such as language arts and social studies, as well as ways to use the intervention outside of the classroom. Information for parents regarding the content that students are learning in the classroom and suggestions for related activities that can be done at home is also provided.

The intervention can be implemented in public, private, or alternative schools. It is designed to facilitate learning and skill development through a variety of interactive teaching and learning techniques, including demonstration and guided practice. Materials are packaged for each grade from kindergarten through 6th grade, for 7th and 8th grade, and for 9th through 12th grade. Teacher training, a requirement in Michigan, provides grade-specific information, including an understanding of the curriculum and the application of skills-based instruction.

The Michigan Model for Health was first implemented in 1985 when multiple Michigan State agencies collaborated to create a coordinated program providing school-aged children with information and skills related to health promotion and disease prevention. According to the results of a 2008 survey of schools, approximately eighty percent of Michigan schools have implemented the Michigan Model for Health, and seventy two percent of all Michigan students (1.2 million) receive the lessons annually. Michigan has a network of regional school health coordinators who conduct required teacher trainings on the intervention and provide ongoing technical assistance in their respective school districts. The Michigan Model for Health has been implemented in forty states.

The teacher's manual and program materials for each grade, K-6, includes introductory sessions, lessons, student worksheets, handouts, family resource fact sheets, slide masters, Teacher Resources CD, and curriculum framework. The costs for these materials are as follows:

- **▲** Grade 1: \$570 (\$525 for Michigan residents)
- **▲** Grade 2: \$365 (\$325 for Michigan residents)
- **▲** Grade 3: \$290 (\$255 for Michigan residents)
- **▲** Grade 4: \$460 (\$410 for Michigan residents)
- **▲** Grade 5: \$565 (\$515 for Michigan residents)
- **▲** Grade 6: \$1,100 (\$1,000 for Michigan residents)

²⁰ The Michigan Model for Health is based on the Adapted Health Belief Model, which merges several behavior change theories and maintains the principle that a health education program is more likely to impact behavior change if it incorporates knowledge, skills, self-efficacy, and environmental support.

The costs for the modules and program materials for grades 7-8 and 9-12 which include introductory sessions, lessons, student worksheets, handouts, family resource fact sheets, slide masters, Teacher Resources CD, and curriculum framework are as follows:

- **る** Grades 7-8: \$1,040 (\$850 for Michigan residents)
- **る** Grades 9-12: \$1,190 (\$1,020 for Michigan residents)

Student workbooks for each grade, K-6, cost \$0.90 - \$3.75 each, depending on the grade level and state of residence. The three-day national training of trainers in Michigan, with online component which includes teacher's manuals and training materials costs \$950 per participant. The three-day, on-site training of trainers, with online component which does not include teacher's manuals or training materials costs \$1,700–\$2,000 per day for up to 35 participants, depending on customization needed, plus travel expenses. On-site teacher training, which does not include teacher's manuals and training materials, costs \$1,700-\$2,000 per day for up to 35 participants, depending on customization needed, plus travel expenses. On-site consultation costs \$1,500 per day plus travel expenses. Phone or email consultation is provided free of charge.

All teacher's manuals, modules, and program materials also can be purchased separately. In addition, program materials can be purchased as a grade-level kit for use with the corresponding manual for each grade, K-6, or as a kit for use with the grades 7-8 nutrition and physical activity module. Other modules have too few materials to warrant kits, but special packaging of materials is available by request.

Additional information on The Michigan Model for Health can be obtained from http://www.emc.cmich.edu/mm/.

New Moves

New Moves is a school-based physical education (PE) intervention targeted to adolescent girls that is designed to prevent weight-related problems by increasing levels of physical activity, improving body image, self-worth, and diet. The primary component of New Moves is an all-girls PE class that provides participants with a noncompetitive, supportive environment in which they are encouraged to be physically active regardless of size, shape, or skill level. The intervention addresses a combination of socio-environmental, personal, and behavioral factors.

New Moves is typically implemented over a two-semester, nine-month school year but can be used over quarters or trimesters. During the first semester, the curriculum is delivered by a teacher during fifty-minute classes that are held each weekday and target eight behavioral objectives:

- 1. Aim to be physically active for at least 1 hour per day
- 2. Limit sedentary time to no more than 1 hour per day
- 3. Increase intake of fruits and vegetables (up to at least five servings per day)
- 4. Limit intake of sugar-sweetened beverages
- 5. Eat breakfast daily
- 6. Pay attention to portion sizes and personal signs of hunger and fullness,
- 7. Avoid unhealthy weight control behaviors
- 8. Focus on personal positive traits

The class consists of nutrition or social support lessons, which alternate weekly for a total of eight lessons, each of which is held on one day each week; on the other four days, participants attend a girls-only PE class. During the second semester, the group participates in maintenance activities, such as "lunch bunches" which are weekly gettogethers held over lunch during which the participants are served healthy food and engage in informal discussions on New Moves topics.

Each participant also schedules five to seven individual counseling sessions with a New Moves coach (i.e., a teacher, a guidance counselor, or a student who completed New Moves in a prior year) throughout the entire school year. During these fifteen to twenty-minute sessions, each participant sets personal goals for behavioral change on the basis of the eight objectives; explores how to best achieve her goals; and, if ready for change, makes an action plan. The coach uses motivational interviewing strategies to assist each participant in moving toward change. (New Moves coaches receive training and ongoing support in motivational interviewing techniques.) The curriculum is reinforced through parent outreach activities during the school year. For example, six postcards are sent home with each participant for discussion with her parents, and a parent-daughter retreat day is held at a local community center.

The cost for the *Teacher Guidebook* is \$12 per hard copy but is free of charge for the online electronic file. *Girl Pages* is available free of charge for the online electronic file, or \$33 per hard copy. The Interview Session Observation Checklist is provided free of charge. One-day implementation training at the University of Minnesota (which includes the teacher guidebook and student curriculum, i.e., *Girl Pages*, reproducible worksheets, and resources for teachers) costs \$1,200 per group of eight to twelve participants. Assistance via phone or email is provided free of charge. In addition, depending on the site, implementation may include guest instructor fees and costs for exercise equipment, t-shirts, pedometers, magazines, craft supplies, assorted prizes, water bottles, beverages, snacks, and a parent-daughter event. These costs are estimated to be \$2,200 per year.

Additional information on New Moves can be found on the Internet at http://www.newmovesonline.com.

SPARK (Sports, Play and Active Recreation for Kids)

SPARK is an evidence-based physical activity program that focuses on the development of healthy lifestyles, motor skills and movement knowledge, and social and personal skills. The SPARK curriculum and staff development program are designed to help pre-K through 12

teachers provide quality physical education in order to ensure students participate in substantial amounts of physical activity. SPARK encourages maximum student participation during class time, as well as promotes regular physical activity outside of school. It also encourages individual improvement, and students are encouraged to monitor their own progress. The program can be implemented by trained specialists and classroom teachers.

The SPARK Physical Education Program curriculum classes are taught for a minimum of three days per week throughout the school year. The yearly plan is divided into

instructional units that are typically four weeks (twelve lessons) in duration. A standard thirty-minute lesson has two parts: Type I Activities that focus on developing health-related fitness and locomotor skills and Type 2 Activities that focus on developing generalizable motor skills. The SPARK Self-Management Program classroom curriculum teaches behavioral skills that are important for maintaining physical activity. It emphasizes behavior change skills rather than knowledge alone. The Teacher Training Program is designed to develop teachers' commitment to health-related physical education; help them understand SPARK curricular units and activities; and develop management and instructional skills for effective implementation.

Outcome studies indicate that participation leads to significant improvements in cardiorespiratory fitness, muscular strength and endurance measures as well as sport skills. In addition, teachers implementing SPARK have been found to provide significantly improved quantity and quality of physical education as evidenced by increased frequency and duration of classes, fitness activities, skill drills, and the minutes children engage in moderate to vigorous physical activity.

The costs of implementing SPARK depend upon location, number of teachers trained, amount of on-site follow-up desired, and available physical education supplies. Materials include a SPARK Program video; physical education curriculum; self-management curriculum; black-line masters for student materials; and evaluation materials. Awareness materials are available at no cost. In-service training is provided on-site. Costs include the Physical Education and the Self-Management curricula, trainer's honorarium, and travel expenses. Follow-up services for classroom teachers are strongly recommended.

Additional information on SPARK can be found on the Internet at http://www.sparkpe.org/

INDIVIDUALS WITH INTELLECTUAL AND DEVELOPMENTAL DISABILITIES

Demographic analyses show that, despite increases in the life span for individuals with intellectual/developmental disabilities (I/DD) due to improvements in health care and assistive technologies, there is a growing disparity in health status between individuals with I/DD and the general population. For example, data indicates that individuals with I/DD experience poorer overall health and a higher incidence of obesity than individuals of similar age in the general population. Moreover, individuals with I/DD develop secondary conditions that often accompany obesity (e.g., hypertension, hypercholesterolemia, and

diabetes) at a higher rate than individuals without developmental disabilities.

Individuals with I/DD have been found to be at increased risk for coronary heart disease, elevated serum cholesterol, Type 2 diabetes, hypertension, pulmonary difficulties and reduced life expectancy. In addition to greater rates of co-occurring conditions, persons with

Individuals with I/DD experience poorer health, shorter lifespans, have less access to professional health care, and are often excluded from health promotion and prevention initiatives.

I/DD are more likely to experience increased rates of sensory impairment, epilepsy,

psychiatric disorders, limited mobility, and gastrointestinal disorders than their counterparts in the general population. These individuals are also more likely to experience multiple chronic conditions.

Aging has been found to confer additional risks for persons with I/DD including elevated rates of dementia, particularly for people with Down syndrome (DS); it is estimated that more than half of the population of people with DS over the age of fifty will experience dementia. Women with DS appear to enter menopause earlier than their peers, thereby increasing their risk for dementia and early mortality. Individuals with I/DD who have neuromuscular disorders (e.g., cerebral palsy) are more likely to experience a range of problems as they age, including increased pain levels, sarcopenia (muscles loss), osteoporosis, and arthritis. Osteoporosis is further exacerbated by medications often prescribed to people with I/DD (e.g., phenytoin, SSRIs) which can lead to increased bone loss when coupled with a sedentary lifestyle and poor nutrition.

Risk factors associated with health disparities in this population include unhealthy eating habits and lack of regular physical activity. However, unlike their counterparts in the general population, persons with I/DD have fewer opportunities for physical exercise and athletic achievement and they are typically not targeted for or included in public health prevention efforts or other health promotion activities. Individuals with I/DD have been found to participate in physical activities at a rate that falls below the level that is recommended in public health guidelines.

Compounding these factors is difficulty with access to high quality medical care primarily due to inadequate preparation of health care providers to meet the of this population. Persons with I/DD have been found to be more likely to receive inappropriate and inadequate treatment, or to be denied health care altogether across the life span. Studies indicate individuals with I/DD receive fewer routine health examinations, fewer immunizations, less mental health care, and less prophylactic oral health care than their

counterparts in the general population. In addition, those with communication difficulties have been found to be at significantly greater risk for poor nutrition, overmedication, injury, and abuse.

It should be noted that, while there has been an increased effort made over the past decade to both identify and address these health disparities through a variety of activities (e.g., programs that address

Caregivers are important in the lives of individuals with developmental disabilities; their support is critical in helping individuals with I/DD participate in health promoting activities on a regular basis.

healthy lifestyles and training of health care providers), there are still significant gaps in the literature. These include the lack of intervention trials, replications of successful approaches, and data that allow for better comparisons between people with I/DD and those without I/DD living in the same communities.

In sum, additional effort is needed to reduce health disparities among people with I/DD including improved monitoring and treatment for chronic conditions common in the general population that are also experienced by people with I/DD; a better understanding of how to promote health among persons with I/DD who are aging; addressing the health needs of people with I/DD who are not part of the disability service system; developing a

better understanding of how to include people with I/DD in health and wellness programs; and improving methods for addressing the health care needs of persons with I/DD in an efficient and cost-effective manner through better access to general medical care or in specialized programs.

Individuals with developmental disabilities can benefit from the same physical activities as the general population with the aid of assistive devices or equipment, if needed. They can exercise at home or use exercise facilities that are available in the community. The <u>Americans With Disabilities Act (ADA)</u> provides detailed guidelines for entities regarding requirements needed to make both indoor and outdoor facilities inclusive. Nonetheless, individuals with disabilities, especially those who use wheelchairs, still face barriers to fitness and recreational facilities due to lack of compliance with all of the ADA standards.

A number of approaches to addressing health behavior for persons with I/DD have been implemented. These include interventions aimed at improving health-promoting behaviors in order to reduce obesity and improve cardiovascular health. Another is utilizing individuals with I/DD as co-trainers in wellness programs that provide nutritional supports to people with I/DD and their staff and teaching them the knowledge and skills that lead to improved health self-advocacy and health behaviors. Evaluations of these programs have shown that participation leads to a number of positive outcomes.

In general, health and wellness interventions for persons with IDD have been shown to lead to increases in self-efficacy for exercise and reductions depression as well as improvements in cardiovascular health, muscular strength and endurance, weight status, gastrointestinal health, nutritional quality and adequacy of available food as well as decrease maladaptive and increase adaptive behavior. Many participants have also shown overall improvement in knowledge and health-related behavior.

Results for programs that target lifestyle change have shown modest outcomes for both the general population as well as for people with I/DD, but evaluations have rarely measured change longer than one year following program completion. It should be noted that there are relatively few health and wellness interventions that include the training of support staff and the creation of health-promoting environments in residential and vocational settings. Physical fitness interventions are often built into health and wellness interventions rather than in exercise-specific interventions. Nonetheless, there is some evidence that a regular schedule of cardiovascular and strength training can improve the fitness of individuals with developmental disabilities.

Healthy Lifestyles (HL) for People with Disabilities

Healthy Lifestyles for People with Disabilities is an evidence-based program wellness that is designed to address health and wellness issues for persons with developmental and intellectual disabilities. The original curriculum was developed by a group composed of people with disabilities and professionals from the Institute on Disability and Development at Oregon Health & Science University (OHSU and revised and implemented by staff at the Oregon Office on Disability and Health (OODH) and Centers for Independent Living.

The Healthy Lifestyles workshop is a three-day wellness workshop that takes a holistic approach to health and provides participants with opportunities to explore the meaning of

wellness; set wellness goals; learn from peers and make new friends; experience <u>yoga</u>, low impact exercise and massage; and benefit from on-going support for up to six months after completing the workshop. The program aims to give participants tools to evaluate their current life situations, identify areas in their lives they would like to improve, and make positive changes in those areas over the course of four sessions.

Participants define a "healthy lifestyle" and identify values that are important to them during the first two sessions. In the third session participants learn about the components of a healthy lifestyle and identify the areas that they would like to change in order to progress towards a healthier lifestyle. During session four participants learn how to make positive changes in these areas by using a goal-planning process.

The Healthy Lifestyles workshop focuses on helping participants understand and examine their personal values, choices, and health; gain knowledge about five components of a healthy lifestyle; and develop and follow a self-determined healthy lifestyle strategy. The areas of a healthy lifestyle are embodied in a *Healthy Lifestyles Wheel*, a learning tool that is used in the workshop and described below.

The five areas of a healthy lifestyle are defined in the Healthy Lifestyles workshop as:

- ① Emotional Health
- ② Social Health
- 3 Physical Health
- Spiritual Health/Living One's Values
- S Health through Meaningful Activities

Healthy Lifestyles workshops are typically conducted over the course of three consecutive days. However, an alternate format allows trainers to conduct the workshop in any format (i.e., modules, weekly, etc.,) and use any schedule that best meets the needs of the participants and trainers.

It should be noted that holding monthly support groups for a minimum of six months after the workshop has been completed has been found to be critical to the overall success of each participant because the support groups provide participants with educational opportunities, a forum to discuss their goals, and a chance to meet with the friends they made during the workshop.

The Healthy Lifestyles curriculum includes a training guide that was written for people with disabilities and provides a script, many hands-on activities and lists and suggestions to help prepare for the activities. Handouts for participants' notebooks, appendices (including tips on planning a successful workshop and support groups), an unscripted training guide with citations and nutrition FAQs, and a CD with sample promotional materials, optional Microsoft PowerPoint presentations, participant handouts in regular print, large print, and Braille, and other necessary materials are provided.

The Health Lifestyles sessions are as follows:

Session 1: What is a Healthy Lifestyle?

Session one serves as a foundation for the concept of living a healthy lifestyle.

Key Goals:

- Participants understand the meaning of a healthy lifestyle
- Participants begin the journey to self-discovery

Key Activities:

- Participants learn about the different parts of a healthy lifestyle via the Healthy Lifestyles Wheel
- Participants apply the concepts of the Healthy Lifestyles Wheel to their own lives

Emotional Health Health Through Meaningful Activities Connecting With Others Spiritual/Living Your Values

Session 2: Knowing Who You Are

This session encourages participants to develop their understanding of the underlying foundation of, and a component of, the Healthy Lifestyles Wheel: "Spiritual Health/Living One's Values." Each participant also looks at their needs as a person living with a disability.

Key Goals:

- Define and identify personal values
- Realize personal needs for health as a person with a disability

Key Activities:

- Participants identify three to five personal values
- Participants engage in a guided visualization exercise to identify what they personally need to lead a healthy lifestyle

Session 3: Knowing What You Need

This session includes many hands-on activities directed at making learning fun, exciting, and memorable. Participants engage in in-depth learning about the parts of a healthy lifestyle.

Key Goals:

- Learn in detail about the additional four components of the Healthy Lifestyles Wheel:
 - o Physical Health
 - Emotional Health
 - Social Health
 - Meaningful Activities
- Apply "Staying Active" with non-impact exercise and guest yoga instructors

Key Activities:

- <u>Staying Active</u>: This section examines the value of physical activity as both a stress reducer and a way to maintain physical health. A guest exercise instructor demonstrates exercise methods geared for people with disabilities.
- <u>Emotional Health:</u> This section focuses on understanding and coping with stress, self-acceptance, and comfort with feelings. A guest yoga instructor demonstrates breathing exercises and yoga techniques.
- <u>Healthy Eating:</u> This section emphasizes the value of eating the right foods and balancing daily meals. An educational and fun activity is included.

- Preventing Illness: This section focuses on disease prevention. A self-discovery activity exploring the effects of personal choices on health is included.
- Social Health: This section includes small group discussions about the importance of relationships in a healthy lifestyle. Health through Meaningful Activity: The roles of meaningful activities in a healthy lifestyle are explored.

Session 4: Making it Happen

In this session, participants have the opportunity to apply the knowledge they gained in first three sessions. They learn to use a goal-making process that encourages thoughtful goal development and the identification of community supports and resources.

Key Goals:

- Develop specific goals
- Design a healthy lifestyle "game plan" with specific activities and resources
- Decide how to stay motivated in the quest for a healthy lifestyle

Key Activities:

- Participants use a process to turn their dreams into goals
- Participants look at what they need to achieve their goals
- Participants identify community resources and supports that will help them achieve their goals
- Participants and trainers brainstorm about factors that hinder and/or strengthen motivation

Participation in Healthy Lifestyles for People with Disabilities has been found to lead to increases in healthy behaviors (including nutrition, physical activity, stress management, health responsibility, and interpersonal relationships) and reductions in circulatory problems, pain, and anxiety. The program is available in English and Spanish. OODH offers Train-the-Trainer events for implementing the Healthy Lifestyles curriculum. The cost of the three-day training is \$2,000 plus travel and program materials. There are Certified Healthy Lifestyles Trainers in several states throughout the United States, including Washington, Virginia, Michigan, New York, Florida, Connecticut, Ohio, North Dakota, Rhode Island, Maryland, Massachusetts, Minnesota, Arkansas and Utah.

Additional information on Healthy Lifestyles for People with Disabilities can be found on http://www.ohsu.edu/xd/research/centers-institutes/institute-on-Internet the development-and-disability/public-health-programs/healthy-lifestyles.cfm.

Health Matters Program

Health Matters: Exercise and Nutrition Health Education Curriculum for People with Developmental Disabilities is for persons with a developmental/intellectual disability that



consists of up to fifty nine one-hour sessions HealthMatters™ Program

that can be delivered in any setting (home, community, office) in classes of six to ten participants. The program is designed to help

consumers select optimal choices regarding health, exercise, and nutrition. The sessions include discussions and activities that aim to increase participants' commitment to exercise

and to healthy nutrition by learning about the benefits of physical activity, exercise, and healthy food choices.

Participants are helped to:

- Develop clear exercise and nutrition goals and adhere to them
- Master the practical aspects of an exercise routine, including dressing appropriately, using proper breathing techniques, and doing cool-down exercises
- Learn how their medications may affect their body, physical activity, and eating habits
- Monitor their heart rate and blood pressure during exercise
- Identify foods that make up a well-balanced diet
- Locate places to exercise and use equipment safely
- Improve their self-advocacy and self-esteem so they can make good choices and stay healthy
- Create a group exercise video they can use at home after the program is over

Additional information on this evidence-based curriculum can be found on the Web at http://www.healthmattersprogram.org/products/. Information on Trainer-the Trainer workshops for implementing Health Matters can be found on the Internet at http://www.rrtcadd.org/training/health-promotion/health-matters.html.

OLDER ADULTS

Brief Intervention & Treatment for Elders (BRITE)

BRITE is a substance abuse screening and intervention program for community-dwelling older adults who are at-risk for and/or are experiencing substance abuse problems (e.g., abuse of alcohol, prescription medication, over-the-counter medication and illicit drugs) that can be provided during home visits. The program implements the **Brief Intervention**, and **Referral to Treatment (SBIRT)** initiative of the SAMHSA Center for Substance Abuse Treatment and focuses on helping adults aged fifty five and older to identify nondependent substance use or prescription medication issues, and to provide effective service strategies that can prevent substance abuse and prior to the need for more extensive or specialized substance abuse treatment. The program also screens for depression and suicide risk.

This evidence-based program has been shown to lead to reductions in the use of alcohol, medications, and illicit drugs, symptoms of depression, and the identification of strategies and services to meet the need of extensive and specialized assistance for this population.

Additional information on BRITE can be found on the Web at http://brite.fmhi.usf.edu.

Medication Use Safety Training (MUST) for Seniors™

MUST for Seniors is an online educational campaign and workshop that is designed to promote safe and appropriate medication use by enabling participants to avoid medication

misuse as well as recognize and manage common side effects and improve their knowledge of medication use. The program is designed to foster:

- An understanding of the importance of adhering to recommended treatment plans
- Avoidance of medication misuse
- Recognition, reporting and management of common side effects
- Prevention of medication errors and potentially dangerous interactions with other medications, food or alcohol
- Feels of increased confidence the ability to safely use medications

The program targets community-dwelling, ambulatory older adults who take multiple medications. MUST for Seniors can also be used by caregivers and healthcare professionals for self-education and to present this information in their communities (e.g., at senior centers, churches, libraries, pharmacies or doctor's offices).

The interactive Web site includes fact sheets, a ready-to-use Microsoft PowerPoint presentation with presenter notes and handouts, tips for taking medications safely, feature articles, videos with experts, booklets, participant worksheets and links to external resources at http://www.mustforseniors.org.

Healthy Moves for Aging Well

Healthy Moves for Aging Well is a one-on-one, home-based physical activity intervention that is designed to enhance the activity level of high-risk seniors with multiple functional losses and chronic conditions who are frail and lead sedentary lives. The program utilizes care managers from community-based case management agencies to teach the program's exercises to older clients in their homes. Healthy Moves can also be used by adult day health care centers, senior housing sites, churches, Meals on Wheels programs and health plans.

The program is comprised of two components: a physical activity component and a behavioral change component. The physical activity component includes a simple and safe, in-home physical activity intervention to enhance physical activity level. The counseling component helps participants sustain physical activity behaviors developed during the program. During brief clinical encounters, the Brief Negotiation method²¹ is used for increasing participants' intrinsic motivation for making and sustaining changes in physical activity.

Motivational phone coaches are recruited from the community and local universities and receive training in motivational interviewing. Their role is to complement that of care managers by reinforcing behavior change through motivational interviewing techniques, the provision of social support and motivation for participation in the physical activity program, as well as monitoring client participation. Phone coaches contact participants on a weekly or biweekly basis throughout a three-month period to reinforce new behavior change.

²¹ Brief negotiation is a collaborative, patient-centered counseling method for enhancing consumers' motivation to consider health behavior change in brief clinical encounters. The method integrates a number of potentially effective strategies, and provides a structure for engaging consumers in constructive conversations about health behavior change - especially those who are in the lower stages of change.

Care Managers conduct a fifteen-minute session with each participant to identify the personal goals needed to motivate clients to incorporate movement into their daily routines. They monitor clients' participation through monthly phone calls and at regularly scheduled appointments.

Healthy Moves is officially designated as an evidence-based health promotion program by the Federal <u>Administration on Aging</u>, and is part of a series of healthy aging programs described on the <u>National Council on Aging</u> Web site. Studies of Healthy Moves indicate that participation results in significant reductions in the number of falls experienced, fear of falling, depression, and pain.

The Partners in Care Foundation Web site offers a number of resources to aid in implementing this program including guidance on chair-bound and advanced exercises that can be taught (with handouts provided in seven different languages) and tools for evaluating program outcomes. Additional information can be found on the Internet at http://www.picf.org/landing pages/22,3.html.

Project Enhance: EnhanceWellness and EnhanceFitness²²

EnhanceWellness (EW)

EnhanceWellness is a six-week individualized, community-based wellness intervention for



older adults with chronic health conditions (e.g., heart disease, high blood pressure, and arthritis) who are at risk for functional decline. The program is designed to help

older adults better manage their illnesses and minimize associated problems including unnecessary use of prescription psychoactive medications, physical inactivity, depression, and social isolation. EnhanceWellness is delivered through health care providers at senior centers and other community locations. It is intended to complement medical interventions provided by each participant's primary medical team.

Participants meet with an EnhanceWellness provider, most often a registered nurse (RN) or social worker, who has been trained in motivational interviewing and transtheoretical behavior change. The provider coaches the participant in developing a tailored health action plan that identifies risk factors the participant has chosen to work on as well as goals for making changes in those risk factors. Participants are encouraged to enroll in any or all of the three core offerings:

- © EnhanceFitness (formerly the Lifetime Fitness Program and described below), an evidence-based exercise class provided in various community locations including senior centers. As an alternative, participants may elect to follow an exercise regimen at home or with another group.
- ② The <u>Chronic Illness Self-Management Course</u>, a series of two and a half-hour classes offered once per week for six weeks. The course combines peer support with health promotion information and disease self-management concepts. Participants use an

²² Enhance Wellness and Fitness can be used together, but this is not required.

accompanying self-management workbook titled *Living a Healthy Life With Chronic Conditions*.

<u>Peer support</u> provided by a trained volunteer (health mentor).

Following an initial meeting, the provider (nurse or social worker) monitors the participant's progress toward health goals through follow-up visits and telephone calls. The provider also informs the consumer's primary care physician about their progress. EnhanceWellness participants typically remain in the program for six months and graduate once they reach the goals outlined in their health action plan.

An EnhanceWellness license costs \$6,000 for the first year and \$300 for annual license renewals. The license includes: staff manuals for the nurse, social worker, and health mentor; the administrative manual; marketing materials; a two and one half-day on- or offsite training for up to ten participants per training; technical assistance; a WellWare account; and a user guide. Information on this program can be found on the Web at http://www.projectenhance.org/.

EnhanceFitness® (EF)

EnhanceFitness is a low-cost, evidence-based group exercise program that is designed to



help older adults at all levels of fitness increase their activity and energy levels, and encourage them to maintain their independence. EnhanceFitness exercise classes can be provided in various community locations (e.g., senior centers) or

participants can elect to follow an exercise regimen at home or with another group.

The program focuses on increasing strength, improving flexibility and balance, boosting activity levels, and elevating mood. Classes include stretching, flexibility, balance, low impact aerobics, and strength training exercises. It consists of three weekly one-hour classes of up to twenty five participants (who are either peers in terms of level of fitness or of varying levels of fitness) taught by certified instructors who have completed the EnhanceFitness training with special training in working with older adults. Each class incorporates:

- Y A five-minute warm-up to get the blood flowing to the muscles
- A twenty-minute aerobics workout that gets participants moving, or a walking workout to lively music that the class chooses
- Y A five-minute cool-down
- A twenty-minute strength training workout with soft ankle and wrist weights (from zero up to twenty pounds)
- Y A ten-minute stretching workout to keep the muscles flexible
- Y Balance exercises throughout the class

Each participant's progress is measured with fitness checks completed at the time the individual joins EnhanceFitness, again at four months, and then as often as needed.

Studies have shown that participation leads to increases in strength, improvements in balance and agility as well as increases in activity levels, and elevated mood.

Instructors are required to attend a one and a half day training provided by an Enhance Fitness® Master Trainer as well as have a nationally recognized Fitness Instructor Certification and CPR certification. Implementation costs \$3000 for instructor training and materials and \$500 for each program implementation site as well as \$50 per site for annual renewals and an on-line data entry fee of \$200 per user per year. Additional information on this program can be found at: http://www.projectenhance.org.

Wellness Initiative for Senior Education (WISE)

WISE is a wellness and prevention program for older adults. It is designed to foster healthy aging and healthy lifestyle choices and avoid substance abuse.

The program provides education on topics including medication misuse and management, stress management, depression and substance abuse.

WISE is comprised of a six-lesson curriculum (depicted below) that is facilitated by trained prevention specialists once a week over a six-week period. Each lesson is approximately two hours in duration and is generally offered with breakfast or lunch. The content is organized to promote the understanding and value of generational diversity in a format that encourages participants to share what they have learned with family, friends, and peers. During the lessons, participants are educated through interactive exercises that include small group discussion and projects (based on research showing that this method of learning is more effective with adult learners than didactic teaching). They are also given tools and resources to take home in order to increase the likelihood that they will practice and share what they have learned.

WISE Curriculum		
Lesson One: Understanding the Changes Associated with Aging	 The facts and myths of aging The top ten causes of death in America Risk factors that contribute to premature death and how to avoid these risks Depression risk among seniors 	
Lesson Two: Aging Sensitivity	 The biological changes associated with aging Our own feelings about aging The advantages of growing older 	
Lesson Three: Valuing Cultural and Generational Diversity Expected Outcomes	 Understanding the concepts of culture and diversity Articulating one's own cultural identifications, how they impact one's values, and the ways people interact with others Understanding the diversity of senior citizens and the unique needs of different types of seniors Assumptions people commonly make about various cultural groups and how they affect social interaction 	
Lesson Four: Medication and the Older Adult	 The prevalence of medication use among older adults Identifying the behaviors that lead to medication misuse Knowing how to manage medication use Drugs commonly used by older adults, typical adverse reactions to drugs, and age-related changes in how drugs are metabolized 	

	 Relating critical information to health care providers and 		
	asking important questions relevant to medication use		
	 Understanding addiction as a disease 		
Losson Five. Addiction ATOD	 Identifying the signs of alcohol abuse among seniors 		
Lesson Five: Addiction, ATOD	The effects of ATOD use and abuse		
(Alcohol, Tobacco and Other	 Health risks and treatment options for addiction 		
Drugs) and the Older Adult	• Factors that place older adults at risk for ATOD abuse		
	and protective factors that can help prevent it		
	Strategies for maintaining a healthy lifestyle		
Lesson Six: An Enhanced	 Personal stress triggers awareness 		
Quality of Life	 Personal values and how they influence the way one 		
	thinks and behaves		

Studies of this evidence-based practice have shown that participation leads to increased knowledge regarding how bodies age, how the aging process affects the ability to metabolize alcohol and medications, and how to recognize the early signs and symptoms of depression. In addition, participants have been found to display improvements in health behaviors related to lifestyle choices, health care empowerment, and use of prescription and over-the-counter medications. Self-reported outcomes include greater increases in social support over time.

Additional information on WISE can be found at http://www.njpn.org/initiatives/wise/ and on SAMHSA's NREPP Website at

http://www.nrepp.samhsa.gov/ViewIntervention.aspx?id=261.

Active Choices

Active Choices is a six-month physical activity program developed at Stanford University to address the issue of sedentary lifestyles in older adults that is designed to help with the incorporation of preferred physical activities into daily life. The program is individualized for each person. Staff or volunteers are trained to provide regular, brief telephone-based guidance and support, and follow up with health tips and newsletters mailed to participants' homes. The program targets older adults who want to be more active and are medically safe and physically able to engage in aerobic or cardiovascular exercise without supervision. It is available free of charge.

Participants are paired with a trained telephone coach who first meets with them face-to-face and then offers support via phone calls to track goals and progress. The coach provides encouragement in creating an effective personal activity plan for each participant. The coach also links each participant with resources in their community. Coaches teach self-management skills (e.g., goal setting and problem-solving) to help shape exercise habits.

Participation in Active Choices has been found to lead to enhanced mobility; better weight control (by burning calories); improved appetite and digestion; increased tone and muscle strength; keeping joints, tendons and ligaments flexible for easier, unrestricted movement; improved heart and lung function; improved blood pressure and glucose levels; enhanced balance and agility; and improved overall mental and physical health.

Implementation includes the following costs:

- \$ Licensing: There are no licensing fees; there is a one-time cost for the Active Choices manual.
- \$ Materials: \$295 per organization for an electronic copy of the *Active Choices* manual, including coach/counselor training material and electronic program forms for duplication.
- \$ Training: A minimum \$1200; costs vary depending on organization, number of trainees, and location (on- or off-site).
- \$ Participant Materials (i.e. books, equipment, etc.): There is no cost to participants; the material toolkit comes with reproducible forms and information sheets. Participant materials are in both English and Spanish.
- \$ Organizational Costs: Space for facilitators to conduct face-to-face sessions, telephones, access to printing/photocopy services to reproduce program forms and participant materials, facilitator supervision (from more experienced facilitator or on-site Trainer).

Additional information on Active Choices is available from the National Council on Aging at https://www.ncoa.org/resources/program-summary-active-choices/.

Healthy IDEAS (Identifying Depression, Empowering Activities for Seniors)

Healthy IDEAS is an evidence-based short-term (three to six month) intervention that targets older adults who are at risk for depression. This home-based program is designed to identify and reduce the severity of depressive symptoms in socially isolated older adults who have chronic health conditions and functional limitations and are served by community-based agencies, as well as those in congregate housing settings with social services, (e.g., assisted living residences). The intervention can be provided by care managers, outreach personnel, or staff of social service agencies.

Healthy IDEAS incorporates four evidence-based components into the ongoing delivery of care management or social service programs: (1) screening and assessment of depressive symptoms; (2) education for consumers and family caregivers about depression and self-care; (3) referral and linkages to health and mental health professionals; and (4) behavioral activation.

Care managers or other frontline outreach workers are provided depression training by mental health professionals who also function as coaches for supervisors and staff to support their acquisition of the skills required to provide this intervention.

Care managers screen both new and ongoing consumers for depressive symptoms and administer a two-question depression screening at the initial assessment interview with a new consumer or during a follow-up interview with an existing consumer This screening interaction is scripted and is incorporated into established assessment and follow-up recordkeeping systems of agencies. Care managers ask caregivers or other key informants to answer the screening questions about consumers, particularly if the consumer's cognitive status is an issue.

A positive response to one or both of the screening questions (i.e., "yes" to either question) results a request to the consumer and/or caregiver to complete the Geriatric Depression

Scale (GDS) to assess the severity of the depressive symptoms. (Cards with the response categories printed in large type in the consumer's preferred language may be used as appropriate.)

All consumers in the program receive printed information about depression self-care strategies and local treatment resources in order to enhance their awareness of the symptoms of depression as well as their understanding of ways to prevent and treat depression. Interested consumers or family members may view videos about late-life depression. Care managers also provide family members residing in the home with the information and encourage them (with the consent of the consumer) to participate in the consumer's self-management program.

The behavioral activation²³ intervention phase of the program actively engages older adults with mild to moderate symptoms of depression who have 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 over a period of three or four months.

Care managers help consumers understand the connection between behavior and mood. They 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) utilizing a problem-solving approach and knowledge of a consumer's overall abilities and needs. A consumer may opt to take 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 (e.g., problematic interactions with a family member) or resuming a previous activity (e.g., social contact with lost friends).

Care managers monitor progress on goals, help consumers adjust goals as needed and reinforce positive behavior via follow-up telephonic and in-person support. 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 scope and duration of the program is individualized to each participant and based on the presence and severity of depressive symptoms. Their needs, ability to participate in the intervention, and the change in symptom severity over time determine the number of contacts. If a participant's symptoms become severe, the intervention then refocuses to help them obtain treatment.

Outcome evaluations indicate that this intervention leads to improvements in case management services along with increased staff knowledge and confidence in their ability to help with depression as well as increased consumer awareness, knowledge, and comfort. Additional information on Healthy IDEAS can be found on the Internet at http://careforelders.org/default.aspx/MenuItemID/494/MenuGroup/Initiatives+.htm.

²³ Behavioral activation is a brief and uncomplicated approach for reducing depressive symptoms through increased exposure to reinforcing healthy activities.

Active Living Every Day (ALED)

Active Living Every Day is a twelve-week, self-paced, step-by-step behavior change program that is designed to help sedentary individuals overcome barriers to physical activity by offering alternatives to more traditional, structured exercise programs. The program aims to increase physical activity and aerobic fitness, decrease stiffness, and improve blood pressure, blood lipid levels, and body fat. Participants select activities to engage in and create their own plans based on their lifestyles and personal preferences while focusing on moderate-intensity activities that can be easily added to their daily routines. It can be offered in a group or one-on-one format. The group format includes an hour-long workshop that is held once per week for a maximum of twenty participants. Optional online tools can be used as a supplement.

The course text and online tools offer structure and support to participants as they explore options and begin to appreciate how enjoyable physical activity can be. Participants learn lifestyle management skills and build on small successes as they work through the course using methods that have been shown to result lasting behavior change. ALED incorporates facilitated group-based problem solving methods in order to integrate physical activity into everyday living. During the program participants learn to set goals, overcome barriers, find activities they enjoy, and experience successes.

Outcome evaluations show that participation leads to improvements in physical activity and cardiorespiratory fitness as well as statistically significant increases in moderate-to-vigorous physical activity and total physical activity as well as reductions in depressive symptoms and stress, increases in satisfaction with body appearance and function, and reductions in BMI.

Training costs \$373 per leader (facilitator) and includes materials, training, and a (required) competency test. Each ALED participant package (text and Web link) costs \$37.95. Participants also need to purchase step counters or pedometers.

Additional information on Active Living Every Day courses can be found on the Web at http://www.humankinetics.com/our-programs/our-programs/active-living-every-day-program as well as at http://www.activeliving.info/FeaturedCourses.cfm.

Fit and Strong! (F&S)



Fit & Strong! is a multi-component, evidence-based physical activity program for older adults with osteoarthritis (OA) that combines flexibility, strength training and aerobic walking with health education for sustained behavior change.

The program is provided three times per week over the course of eight weeks for a total of twenty four ninety-minute sessions for

twenty participants. Each session includes a sixty-minute exercise program and a thirty-minute education and group problem-solving session to help participants develop ways of incorporating exercise into their daily lives. Participants are helped to develop individualized, tailored, multiple component physical activity programs that are sustainable after the program ends.

F&S is designed to help participants gain a clear understanding of what OA is and how physical activity that is tailored to the needs of persons with arthritis can help them manage arthritis symptoms. Participants learn to perform safe stretching, balance, aerobic and strengthening exercises which gradually increase in frequency, duration, and intensity over time. They also learn to incorporate physical activity into their lifestyles by exercising three times per week for one hour.

Participation in the program has been demonstrated to lead to significant functional and physical activity improvements including reductions in lower extremity stillness and pain and increases in lower extremity strength as well as aerobic capacity, participation in exercise and caloric expenditure, and self-efficacy for exercise.

Instructors are required to attend an eight hour day-long training that is led by a F&S Master Trainer and other team members prior to implementing the program. The curriculum includes:

- **Y** Background and Development of Fit and Strong!
- Y Study Design and Findings/Evidence
- Y How to work with older adults
- T How to work with persons who have OA
- T Group dynamics, problem-solving, techniques to build efficacy, dealing with common issues that arise, etc.
- Y Systematic review of program components and how to conduct/ instruct each component:
 - ▲ Types of exercises that are appropriate for older adults with OA
 - ▲ How to increase intensity and progress participants over time
 - ▲ How to facilitate group discussion
 - ▲ How to promote maintenance of physical activity
 - ▲ Health education skills
 - ▲ How to develop negotiated physical activity contracts
 - ▲ How to implement and evaluate Fit and Strong! in community-based settings

The instructor must be a certified exercise instructor (CEI) or a licensed physical therapist (PT) or an Occupational Therapist (OT), or a student working under the supervision of licensed PT or OT. Qualified instructors of other arthritis programs and Matter of Balance trainers can also be trained as a F&S Instructor. A one-day (eight hour) F&S certification training taught by an F&S master trainer is required.

Licensing for the primary location is \$2,000 and \$400 for each satellite site. A stand-alone site license costs \$1,000 if the program is only offered at one site. A renewal license is required for the main site or stand-alone site. The fee is \$200. Each satellite site renewal fee \$100. Equipment for a class of twenty participants costs about \$1,985; this is one-time cost since equipment can be used again for subsequent classes. Participant manuals cost \$30 each and are included in the cost of the equipment. Instructor training is included in the licensing fee.

Information on the F&S training can be found on the Internet at http://www.fitandstrong.org/instructors/training-certification.html and additional information on F&S can be found on the Web at http://www.fitandstrong.org/.

Arthritis Foundation Aquatics Program (AFAP)

The Arthritis Foundation Aquatic Program is a recreational group water exercise program that is designed for people with arthritis. It aims to improve functional ability, self-confidence, self-care, mobility, muscle strength and coordination as well as reduce fatigue, pain, and stiffness.

AFAP classes are provided in a warm (83–90 degree) swimming pool with a water depth at shoulder level for groups of twenty participants two to three times per week for one hour each for six to ten weeks or on an ongoing basis. The classes include joint range of motion, muscle strengthening with optional equipment, socialization activities and an optional moderate intensity endurance component. Participation is not contingent upon the ability to swim.

The classes are delivered by an Arthritis Foundation (AF) certified instructor who must have CPR certification, the ability to swim, lifeguard or water safety certification, an affiliation with an AF approved facility, and be willing to commit to teaching at least one class series per year. AF certification entails participation in a one-day/eight-hour training provided by the AF. Recertification every three years is also required. Training costs \$125-\$175 per instructor.

Program information is available from http://www.arthritis.org/aquatics.php and local AF office information is available at http://www.arthritis.org/chaptermap.php.

Arthritis Foundation Exercise Program (AFEP)

The Arthritis Foundation Exercise Program is a low-impact recreational exercise program with brief education (that was formerly known as PACE - People with Arthritis Can Exercise) for people living with arthritis. It is designed to improve functional ability, self-confidence, self-care, mobility, muscle strength and coordination as well as reduce fatigue, pain, and stiffness.

The exercise component of the program includes:

- **Y** Joint check/warm up
- **Y** Range of motion/stretching
- **Y** Strengthening
- **Y** Cardiovascular endurance
- Y Joint check/cool down
- **Y** Balance and coordination activities
- **T** Relaxation and breathing activities

The health education component includes up-to-date information about arthritis self-management and exercise. Optional activities include weight-bearing, posture/body mechanics, body awareness, and socialization activities.

The program is provided in a group format with fifteen to twenty participants during one-hour classes that are offered two to three times per week for eight to twelve weeks or on an ongoing basis. Each class is taught by an Arthritis Foundation (AF) certified instructor who has education or related experience in exercise, fitness, or health-related field. The instructor must be CPR certified and be affiliated with an AF approved facility as well as

commit to teaching at least once per year. AF certification includes a one daylong/eight-hour training session and recertification every three years at a cost of \$125 to \$175. Additional implementation costs include participant materials which consist of a manual (\$2.30/person) that is available in English and Spanish.

Participation in this evidence-based program has been found to lead to reductions in pain and stiffness; maintaining or increasing muscle strength; improved balance and coordination; decreased fatigue and increased endurance; and improvements in overall perceived health status.

Walk With Ease (WWE)

The Arthritis Foundation's Walk With Ease program is a community-based physical activity and self-management education program for adults with arthritis who want to be more physically active, but is also appropriate for people without arthritis, particularly those with diabetes, heart disease and other chronic conditions, who want to get more active.

WWE is conducted in groups with twelve to fifteen members led by trained leaders in a structured six-week program. One-hour sessions are held three times a week over the six-week period for a total of eighteen sessions.

WWE includes health education, stretching and strengthening exercises, and motivational strategies along with walking (which is the principal activity). Group sessions provide socialization time, a brief scripted pre-walk informational lecture, warm up and cool down, and a ten to forty-minute walking period during which participants walk at self-selected speed and distance. Group education about arthritis and behaviors that includes information on group walking, safe walking, exercising safely and comfortably and sustaining physical activity by using a personal plan is provided.

Although the program was developed for adults with arthritis who want to be more physically active, it is also appropriate for people without arthritis, particularly those with diabetes, heart disease and other chronic conditions who want to increase their activity level. The program can also be used by individuals using the *Walk With Ease* guidebook, on their own as a self-guided course. It is available for \$11.95. The *Walk With Ease* guidebook includes tools for developing a walking plan, staying motivated, managing pain and exercising safely. Walk with Ease can also be incorporated into a company's wellness programming for employees. An app for phones and tablets can be downloaded from http://www.arthritis.org/we-can-help/community-programs/walk-with-ease/walk-with-ease/walk-with-ease-worksite.php.

Studies show that participation in Walk With Ease leads to reductions in the pain and discomfort associated with arthritis, increased balance, strength and walking pace, overall health improvements, and enhanced confidence in the ability to be physically active.

Classes are led by certified Arthritis Foundation WWE program leaders who also have certification in CPR. The Arthritis Foundation recommends that leaders have first aid certification as well. AF Certification for leaders can be obtained through an in-person three to four hour workshop or via an online training module available from the AF. Leader

materials for the program include the *Walk With Ease Leader's Guide, WWE Guidebook* and posters (which is also available in Spanish). Participant materials include Walk With Ease participant guidebooks (which are available in English and Spanish) and cost \$11.95 each. Information on the program is available from http://www.arthritistoday.org/tools-and-resources/walk-with-ease-program/?ga=1.264771215.1252633740.1414597223.

Instructor training is offered on-line. Additional information can be found on the Web at www.arthritis.org/walk-with-ease.php.

Walk with Ease – Self-Directed is the self-directed version of the program. In the self-directed program, participants use a guidebook to learn about arthritis precautions and safety. The guidebook includes a contract walking log and starting point and ending point tests. Participants walk on their own at self-selected walking speeds and distances three times per week to start and work up to at least thirty minutes per session for six weeks. The WWE guidebook (which is used to assure fidelity to the program) costs \$11.95 and can be purchased from the Arthritis Foundation. Program information available from http://www.arthritis.org/walk-with-ease.php and http://www.arthritis.org/wwe.

Eat Smart, Live Strong



The Eat Smart, Live Strong program was developed to improve fruit and vegetable consumption and physical activity among low-income ablebodied older adults aged sixty to seventy four who are eligible for SNAP or other publically-funded nutrition programs. It aims to promote increased fruit and vegetable consumption as well as participation in at least thirty minutes of physical activity most days of the week. The program

encourages the consumption of at least three and a half cups of fruit and vegetable per day $(1\frac{1}{2}$ cups of fruits and 2 cups of vegetables) in accordance with the Dietary Guidelines for Americans.

The *Activity Kit* promotes behavior change by involving participants in interactive education and skill-building sessions that allow them to use nutrition skills and practice physical activity exercises. The Kit contains a leader's guide, four interactive sessions, *Ready to Go* participant handouts and marketing flyers.

Eat Smart, Live Strong can be delivered in local communities through Food and Nutrition Service programs such as SNAP, the Commodity Supplemental Food Program or the Senior Farmers' Market Nutrition Program or through local sites such as senior and community centers.

The sessions are designed to motivate participants and build skills. Activities include self-assessment tools to assist participants in achieving eating and physical activity goals and simple standing and seated exercises. They consist of the following:

Session 1: Reach Your Goals, Step by Step allows participants to review the amount of fruits and vegetables appropriate for their age, activity level and gender. This session encourages behavior change by providing participants with an opportunity to set goals and track achievement. Participant tools include a goal setting handout to monitor progress and a self-assessment handout to determine current fruit and vegetable intake and physical activity levels. All four sessions include an exercise and a feedback sheet.

Session 2: Challenges and Solutions offers numerous suggestions to help older adults adapt their eating and physical activity behaviors to reach their goals. This session encourages behavior change by building participants' ability to overcome challenges and initiate support from health care providers. Resources for participants include a commitment form and "Smart" card.

Session 3: Colorful and Classic Favorites provides hands-on experiences in updating classic recipes by adding fruits and vegetables. Participants are encouraged to improve their skills in creating healthier dishes by making simple adaptations to familiar dishes. Easy-to-make recipes are provided to help participants make classic dishes at home.

Session 4: Eat Smart, Spend Less increases awareness about the variety of nutrition assistance programs available to low-income older adults. Educators are provided with strategies to help participants identify resources within their community to help them obtain fruits and vegetables on a limited budget.

Materials are available free of charge through the SNAP-Ed Connection website at http://snap.nal.usda.gov/resource-library/nutrition-education-materials-fns/eat-smart-live-stong.

Healthy Eating for Successful Living among Older Adults

Healthy Eating for Successful Living in Older Adults is an educational and support program that targets adults aged sixty and older who are interested in acquiring knowledge about healthy eating and exercise. The program is designed to assist older adults in the self-management of their nutritional health as well as increase to their self-efficacy and general well-being by improving their knowledge of nutritional choices and physical activity that support heart and bone health.

Healthy Eating for Successful Living in Older Adults employs goal-setting, problem-solving, and self-monitoring to maximize the potential for positive behavior change and increase participants' knowledge about healthy diet choices and physical activity as well as foster healthier eating habits, positive changes in eating behaviors. In addition, the program aims to lead to reductions in blood pressure and cholesterol, weight loss or maintenance, and goal-setting and problem-solving skill development.

The program can be provided by community-based organizations that focus on the needs

and concerns of seniors, including but not limited to, senior centers, churches, congregate housing, and congregate meal sites.

Participants must have the cognitive capacity to be able to participate in group discussions. And, while they may not be committed to making behavioral changes at the outset of the program, they need to be willing to participate in the process.

The program uses MyPyramid as a framework and employs peer support to focus on behavior



change as a core component. It also includes recommendations and support for physical activity in conjunction with healthy nutrition practices.

The main components of Healthy Eating for Successful Living in Older Adults include:

- ▲ Self-assessment and management of dietary pattern
- ▲ 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

The workshop is conducted once a week for two and a half hours over the course of six sessions for eight to twelve participants and also includes a restaurant outing to acquired test knowledge and skills:

- △ Week #: MyPyramid, Dietary Guidelines, Label Reading and Exercise
- △ Week #2: Grains, Vegetables, Fruits, Water and Exercise
- △ Week #3 Meat, Eggs, Legumes, Milk and Exercise
- △ Week #4: Fats, Sweets and Exercise
- △ Week #5: Applying our Skills-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 of the sessions, as well as a Healthy Eating Luncheon. Each session is organized to maximize interaction, with two peer leaders facilitating the process. Sessions are highly participatory and include activities such as education, support, and resource connection.

The program also includes a variety of 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. Participants keep a journal of food choices to monitor changes in their eating habits. A Registered Dietician/Nutritionist is available as needed to answer technical questions and direct participants to appropriate printed materials.

Evaluation of the program is conducted on an ongoing basis by soliciting feedback on each session and by measuring participant satisfaction and self-reported changes through a satisfaction survey. In addition, a more comprehensive evaluation is recommended using the Nutrition Screening pre-test questionnaire and Attitudes and Behaviors pre-and post-questionnaires. Pre-test forms are self-administered and given to prospective participants at the time of enrollment and collected at the first session. The post-test is administered at the Luncheon. All evaluation tools are included in the Appendix of the Healthy Eating Toolkit. The survey is completed at the start of the program and two to three months after completion of the workshop as pre and post participation.

The Toolkit is free of charge on CR-ROM from the National Council on Aging (NCOA). It includes: (1) a detailed description of the Healthy Eating program; (2) instructions for training Healthy Eating peer leaders; (3) information about being a peer leader and instructions for leading each weekly session; (4) handouts for use in the workshop,

including a Participant Manual; and (5) materials for assessing readiness and evaluating the program.

Any staff, volunteer or seniors who are interested in the subject matter are eligible to lead the sessions. Two eight 27-hour training sessions and follow-up as needed via email or telephone are provided to lay leaders.

Additional information on Healthy Eating for Successful Living in Older Adults can be found on the Web at http://www.ncoa.org/improve-health/center-for-healthy-aging/healthy-eating-for-successful.html#sthash.095a0Xeo.dpuf.

Healthy Changes

Healthy Changes is an evidence-based program that provides both education and support to assist adults over the age of fifty five who have any type of diabetes in the day-to-day self-management of the disease. The program consists of weekly group sessions during which participants learn about nutrition, exercise, and physical activity and how each of these relates to diabetes. Participants are also provided with opportunities to discuss their personal goals and the achievement of those goals as well as receive problem-solving and

support from other group members. They also learn about community resources available to help them. The program educates participants to set reasonable goals, problem-solve effectively, and establish sources of peer support.

Healthy Changes is conducted in community settings (e.g., senior centers, community centers, congregate meal sites, or churches). Studies show that it is less effective when provided in medical settings, business locations, or individual homes than when it is held in community locations.

Healthy Changes groups, comprised of twelve to fifteen members, meet once a week for approximately one and a half hours on an ongoing basis for as long as participants are interested in continuing the group. Groups are open-ended; participants can join, leave and re-join the group as their personal needs change.

Research has shown that education is critical to the management of diabetes. In addition, the linkage between selfmanagement and the setting of reasonable goals, problem solving. and having peer support have been established. Research has also demonstrated that people often experience greater success making positive health changes if they have connections with a variety of resources. Healthy Changes incorporates all of these components into each session and addresses the barrier of inadequate resources by linking participants with community resources (e.g., exercise programs and nutritional classes).

In addition, group members are able to participate fully even if they have not attended any previous classes. New members can join at any time as long as space allows.

Healthy Changes group leaders organize, coordinate and lead the weekly classes using a defined curriculum and format which are provided in the leader's manual. This manual covers the core components of the program, provides information for sites getting ready to implement the program, and offers a weekly class guide. Leaders model how to be a supportive group member and how to help people empower each other and thus participate as a group member. Lay group leaders can supplement the curriculum with diabetes educators or other knowledgeable professionals as guest speakers. Group

members eventually may share leadership tasks (e.g., recruit a guest speaker or find a specific community resource).

The program includes a brief educational presentation on a variety of topics related to nutrition and physical activity important for people with diabetes as a core component. Program topics include:

- Making Healthy Food Choices
- Meal Planning Methods
- Shopping Tips
- Managing Diabetes and Exercise Safely
- Parts of an Exercise Program

It should be noted that the core curriculum does not include instruction on home blood glucose monitoring and medication management due to the technical knowledge and expertise required to provide that type of instruction. Participants who need such instruction are referred to their physicians for follow-up which may also include attending a formal diabetes education program.

Each meeting follows a similar agenda: Participants first report on their action plans and then the group helps problem solve barriers that any member experienced in achieving their action plan. The presenter then gives a presentation and guides a discussion of the week's topic. Finally, group members develop their action plans for the next week and receive any homework assignments.

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 when they develop the plans and again after they attempt to accomplish their objectives (typically the following week). Group members provide feedback and support regarding developed plans, make suggestions and help the participant problem solve solutions for any anticipated barriers. The group offers congratulations for the participant's success or offers encouragement and brainstorms possible solutions if the participant did not achieve the anticipated or desired level of success.

Group discussions can include the identification of resources (e.g., exercise programs and nutritional classes) and the group leader also shares resources with the group either from their own knowledge or by connecting with representatives from other community resources who may be invited to the group as guest speakers. Groups may benefit from meeting in community organizations that provide key community services that participants can available themselves of. Participants complete progress charts during several of the sessions. The progress chart identifies the extent to which the participant believes they have achieved their goals and, if so, what has helped or, if not, what barriers they have encountered.

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. After the introductory sessions, the group becomes topic-oriented. Leaders can arrange twenty one specific topics in any order or sequence for sessions six to twenty seven. The topics are associated with healthy eating and physical activity and may include presentations from guest speakers or from group members or the leader. The members discuss the topic and related issues during the meeting. The group leader announces the coming week's topic at the end of each meeting. Introductory sessions are repeated when all the members are new and have not previously heard the materials, or when the group would benefit from having the sessions repeated.

When a group member misses a session, leaders make a follow-up phone call to determine why the person missed the session and whether they will be returning. This follow-up²⁴ is meant to indicate that the leader cares about the participants as well as helps to discern the reasons participants miss sessions.

Studies indicate that participation in Healthy Changes leads to improvements in health behaviors, supportive resources, and self-efficacy. Implementation with trained peer leaders has been shown to be critical to key to effective program implementation; peer-led groups enhance goal attainment by giving participants a venue to discuss obstacles and strategize solutions.

Strong for Life (SFL)



Strong for Life is a strengthening exercise program that was created by physical therapists that is designed to improve strength, balance, and overall health. It is a six-week, homebased exercise program for older adults who are frail and homebound. It specifically targets those who are sedentary

and experience some degree of physical disability.

The program consists of pre-recorded exercise routines performed with color-coded elastic bands of varying thickness that target specific muscles that are important in everyday movements such as getting out of a chair and walking. All of the routines can be performed in a seated or standing position. The program contains warm-up, strengthening, and cooldown exercises. Volunteer coaches instruct participants on how to exercise using a video and monitor their performance. Additional information on this program can be found on the Web at www.ncoa.org/improve-health/center-for-healthy-aging/strong-for-life.html.

Fall Prevention Programs

Many older adults experience a fear of falling. And, individuals who develop this fear often limit their activities which can result in physical weakness, making the risk of falling even greater. In fact, studies indicate that approximately thirty percent of older adults who fall lose their self-confidence and start to go out less often. This inactivity leads to social isolation as well as the loss of muscle strength and balance, thereby increasing the risk for falls.

 $^{^{24}}$ Evidence shows that individuals are likely continue in support groups if they establish a personal connection with others in the group.

Stepping On

Stepping On engages older adults in a range of relevant fall preventive strategies in order

to break that cycle. It is a manualized falls-prevention program that has been shown to reduce falls. The program helps participants gain specific knowledge and skills to prevent falls in community settings.

Stepping On targets older adults who are at risk for falling; have a fear of falling; or who have fallen one or more times. Workshops are facilitated by trained Leaders and provide a safe and positive learning experience. The program is designed for older adults who live in their home or independent apartment, are able to walk



without the help of another person, and do not rely on a walker, scooter or wheelchair most of the time indoors. In addition, they must have the cognitive capacity to participate in the sessions.

Stepping On workshops meet for two hours a week for seven weeks. Classes are highly participative; the provision of mutual support and achievement of successes are used to build participants' confidence in their ability to manage their health behaviors, reduce their risk of falls, and maintain active and fulfilling lives.

Topics covered include:

- Simple and fun strength and balance exercises
- The role vision plays in keeping your balance
- How medications can contribute to falls
- Ways to stay safe when out and about in your community
- What to look for in safe footwear
- How to check your home for safety hazards

Workshop leaders must attend a three-day training session and a license for the program is required. Equipment and supplies needed include ankle weights for each participant to take home and extras to use in class; a display board and table with various display items; a leader manual; exercise manuals, handouts and name tags for each participant as well as healthy snacks, a DVD player and a flipchart for some of the session.

Stepping on has been found to be effective in reducing falls in older adults residing in the community. Additional information on this program can be found on the Internet at http://www.steppingon.com/ as well as at http://www.ncoa.org/improve-health/center-for-healthy-aging/stepping-on.html.



A Matter of Balance (MOB)

MOB is an evidence-based, health promotion, group-based program for older adults that utilizes cognitive-behavioral techniques to reduce the fear of falling and increase activity levels.

It includes eight two-hour sessions for small group formats led by a trained facilitator. During the class, participants learn to: (1) view falls as

controllable; (2) set goals for increasing activity; (3) make changes to reduce fall risk at home; and (4) exercise to increase strength and balance.

MOB emphasizes practical strategies to reduce the fear of falling and increase activity levels. Participants learn to view falls and the fear of falling as controllable, set realistic goals to increase activity, change their environment to reduce fall risk factors, and exercise to increase strength and balance.

Evaluations of MOB have shown that participation leads to increased levels of intended activity, greater mobility control, improved social functioning, and mobility range. Significant increases in Falls Efficacy, Falls Management, and Falls Control were found at six weeks, six months, and twelve months. The program can be provided by volunteer lay leaders or professionals; both models achieve comparable outcomes.

Information on classes in Mid-Michigan can be found on the AAA Region VII's Web site at http://region7aaa.org/caregiving/caregiver-training/. General information on MOB can be found at www.mainehealth.org/mob.

Tai Chi

<u>Tai Chi</u> is an ancient martial art that is characterized by slow, flowing movement and meditation. It is also a balance-based exercise that has been shown to improve strength, balance, and movement control as well as prevent falls in older adults and is helpful for persons with Parkinson's disease. Studies suggest that it may improve axial symptoms of Parkinson's disease (e.g., postural stability). In addition, the practice of tai chi has been found to reduce depression among older adults as well as reduce pain for people with arthritis and fibromyalgia. Additional information on <u>Tai Chi</u> can be found in the section on <u>stress management</u> above.



Tai Ji Quan: Moving for Better Balance™ (TJQMBB)

TJQMBB (formerly known as Tai Chi: Moving for Better Balance) is an evidence-based fall prevention program for community-dwelling older adults. The program consists of an eight-form core routine with built-in exercise variations and a subroutine of integrated therapeutic movements. Tai Ii Ouan – Mini

Therapeutic Movements®²⁵, which, collectively, comprise a set of simple, functional Tai Ji Quan-based moves that are designed to provide therapeutic training for postural control and improve daily functioning for older adults and persons with physical limitations.

The **Tai Ji Quan - Mini Therapeutic Movements®** subroutine contains a set of Tai Ji Quan-based individual forms and movements that have been transformed into therapeutic applications for training ankle stability, effective weight transfer, active eye-head movement, and spatial orientation, as well as enhancing skills directly transferable to daily functional activities such as reaching, sit-to-stand (and stand-to-sit), stepping and turning, and walking. These exercises are designed to adapt and integrate sensorimotor systems, refine postural control and movement strategies, improve gait and locomotion, strengthen lower-extremity muscles, and increase flexibility. Exercises in this subroutine are integrated into the practice sessions of the overall TIQMBB program.

The program aims improve both static and dynamic postural stability, mindful control of body positioning in space, functional walking activities, movement symmetry and coordination, as well as to increase range of motion around the ankle joints and build lower-extremity strength. It includes chair-supported progressions ranging from completely seated through sit-and-stand and to chair-assisted with a variety of challenges that are tailored to meet the specific needs and performance capabilities of the participants. In addition, a set of home-based exercises is included to provide additional out-of-class practice.

TJQMBB is delivered in two weekly sixty-minute classes of eight to fifteen participants held for twenty four weeks. Each class session consists of three parts: (1) brief Tai Ji Quan-based warm-up movements, (2) core practice emphasizing integration of individual forms, variation in forms, and mini therapeutic movements, and (3) a brief period of breathing cool-down exercises.

The program provides an integrated training experience in sensory-motor-cognitive systems and postural control in order to improve the performance of daily functional tasks and reduce the incidence of falls. Practice focuses on stimulating musculoskeletal, sensory, and cognitive systems via self-initiated, controlled movements (e.g., unilateral weight-bearing and weight-shifting, trunk rotation, ankle sways, and coordinated eye-head-hand movements) and taxing sensory integration, limits of stability, functional adaption, anticipatory control, compensatory responses, and effective gait patterns.

Participation has been shown to lead to significantly fewer falls and improvements in functional balance and is has been found to be helpful for people with Parkinson's disease.

Training for program instructors is available at an on-site group rate for up to fifteen trainees. The trainer fee ranges from \$800 (for authorized trainers) to \$1,500 (for training by the program developer) per day, plus travel-related expenses. Training is also available on an individual basis at the Oregon Research Institute for \$200 per day per trainee. Additional information on TJQMBB is available from http://www.tjqmbb.org/.

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http://www.tandfonline.com/doi/pdf/10.1080/01621420903176136.

SELECTED RESOURCES

National Center on Physical Activity and Disability: www.ncpad.org

National Alliance for Nutrition and Activity (NANA):

http://www.cspinet.org/nutritionpolicy/nana.html

SAMHSA's Wellness Initiative—Promoting Wellness for People With Mental Health and Substance Use Conditions:

http://www.promoteacceptance.samhsa.gov/10by10/default.aspx

SAMHSA's Wellness Initiative: www.samhsa.gov/wellness

SAMHSA's Resource Center to Promote Acceptance, Dignity and Social Inclusion

Associated with Mental Health (ADS Center): www.stopstigma.samhsa.gov
U.S. Food and Drug Administration Office of Women's Health (FDA/OWH):

www.fda.gov/womens

National Institute on Aging Go4Life: https://go4life.nia.nih.gov/

Federal Disability Resources: www.disability.gov/

Million Hearts™: www.millionhearts.hhs.gov

Wellness Works Initiative: www.power2u.org/wellnessworks

The Wellness Institute: www.welltacc.org

HHS Initiative on Multiple Chronic Conditions:

http://www.hhs.gov/ash/initiatives/mcc

FDA Office of Women's Health: www.fda.gov/womens

U.S. Department of Health and Human Services: www.hhs.gov

Center for Psychiatric Rehabilitation: www.bu.edu/cpr
National Alliance on Mental Illness (NAMI): www.nami.org
The National Empowerment Center: www.power2u.org
The National Wellness Institute: www.nationalwellness.org

healthfinder®: www.healthfinder.gov

Faces & Voices of Recovery (FAVOR): www.facesandvoicesofrecovery.org

U.S. Preventive Services Task Force:

http://www.uspreventiveservicestaskforce.org/index.html

Sonoran UCEDD Health & Wellness Information Resource Center:

http://health.sonoranucedd.fcm.arizona.edu/index.php?q=&\$2

Mental Health America's Live Your Life Well Campaign:

http://www.mentalhealthamerica.net/live-your-life-well

Arthritis Toolkit: https://www.bullpub.com/catalog/the-arthritis-toolkit

Integrated Care:

AIMS Center: https://aims.uw.edu/

SAMHSA-HRSA Center for Integrated Health Solutions:

http://www.integration.samhsa.gov/

AHRQ (Agency for Healthcare Research and Quality): http://www.ahrq.gov/

IHI (institute for Healthcare Improvement): http://www.ihi.org/

Meditation:

Mayo Clinic

howtomeditate.org

Mindfulness:

Vipassana Meditation: www.dhamma.org

Shambhala: www.shambhala.org
Tai Chi: www.americantaichi.net

Qigong: www.nqa.org and www.qigonginstitute.org,

Osho/Rajneesh: www.osho.com

Smoking Cessation:

1-800-QUIT-NOW: www.1800quitnow.cancer.gov

American Cancer Society: www.cancer.org American Heart Association: www.amhrt.org

American Legacy Foundation: http://www.becomeanex.org/Blue Main.aspx

American Lung Association: www.lungusa.org

CHOICES (Consumers Help Others Improve their Condition by Ending Smoking):

www.njchoices.org

American Cancer Society: http://www.cancer.org

American Public Health Association: http://www.apha.org/ Association for the Treatment of Tobacco Use and Dependence:

http://www.attud.org/

Centers for Disease Control and Prevention: http://www.cdc.gov/tobacco Consumers Helping Others Improve their Condition by Ending Smoking

(CHOICES): http://www.njchoices.org

National Association of State Mental Health: Program Directors:

http://www.nasmhpd.org/

National Institute on Drug Abuse (NIDA):

http://www.nida.nih.gov/DrugPages/Nicotine.html

Nicotine Anonymous: http://www.nicotine-anonymous.org/

Smoking Cessation Leadership Center: http://smokingcessationleadership.ucsf.edu/

Society for Research on Nicotine and Tobacco: http://www.srnt.org

STEPP: http://www.steppcolorado.com

Surgeon General: http://www.surgeongeneral.gov/

Tobacco Cessation Leadership Network: http://www.tcln.org/ NIHSeniorHealth.gov, Quitting Smoking for Older Adults:

http://nihseniorhealth.gov/quittingsmoking/quittingwhenvoureolder/01.html

Examples of Health and Wellness Apps

Fitness/Exercise/ Weight Control

Tap & Track

Calorie Counter by FatSecret

iTreadmill

Fitnet

MapMyFitness

Moves

Pacer

Lose It!

MyFitnessPal Calorie Counter and Fitness Tracker



Fooducate

iTrackBites

Endomondo

Fitocracy

Noom Coach

HealthyOut

Diabetes Management

Glucose Buddy

Handylogs Sugar

Glooko Logbook

Stress Reduction

Stress Free with Andrew Johnson

iBreathe

Mindfulness Coach App

Medication Management/Monitoring

HomeMeds²⁶

Depression/Anxiety

Beating the Blues US™

 $myStrength^{\text{tm}}$

²⁶ The HomeMeds program (formerly called the Medication Management Improvement System or MMIS) was adapted from the Vanderbilt University Medication Management Model by the Partners in Care Foundation in California. This intervention is designed to enable case managers, social workers and nurse case managers to enter a participant's medication into a computer-based alert system, and to resolve identified medication problems with involvement of a consulting geriatric pharmacist. www.homemeds.org.