

# Advances in Aging

A publication about gerontology programs at the Claude D. Pepper Older Americans Independence Center and the Geriatrics Research, Education and Clinical Center at the University of Maryland and Veterans Affairs Medical Center in Baltimore

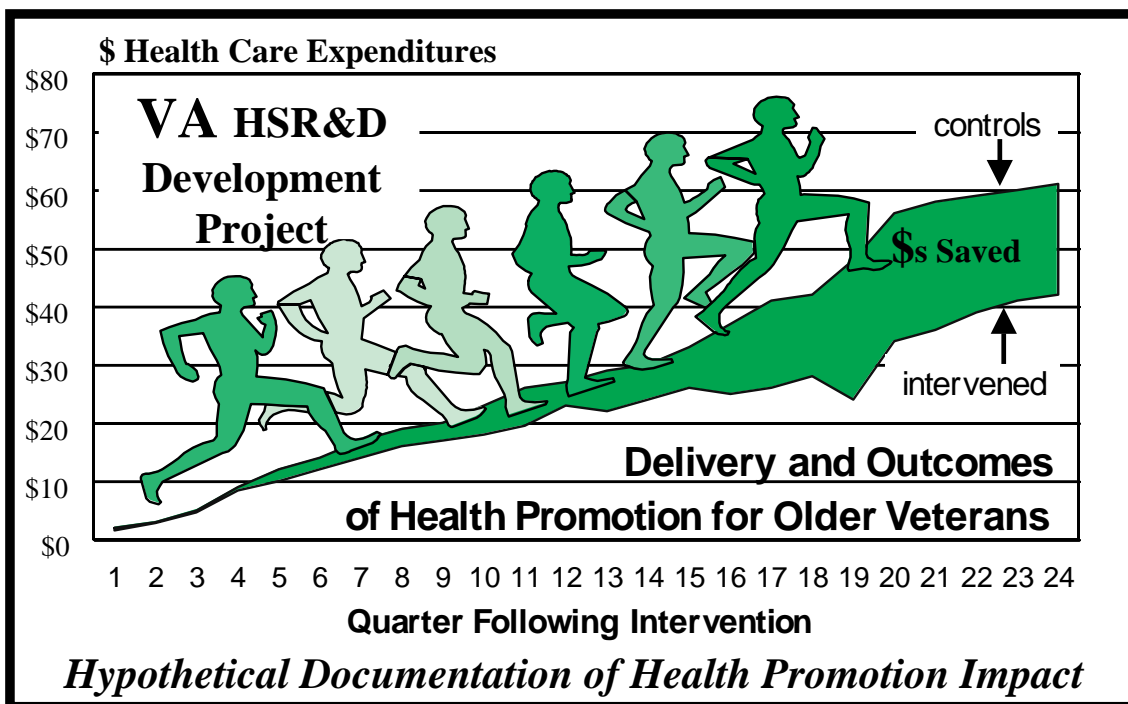
## HSR&D Center for Health Promotion in Older Veterans

The Health Services Research and Development (HSR&D) Center for Health Promotion in Older Veterans is in its second year at the Baltimore Veterans Affairs Medical Center under the directorship of Douglas D. Bradham, DrPH. It is one of 10 such centers funded by the HSR&D Service in the Department of Veterans Affairs. The mission of the Center is to provide the interdisciplinary structure to a) design practical clinical delivery approaches for health promotion interventions, b) develop valid measures of the impact of these interventions, and c) document that health promotion is the right investment for veterans' health and for the Veterans Health Care System.

Dr. Bradham explained that the Center plans to accomplish its mission through the successful implementation of programs in two areas, research and HSR development.

The Research Goal involves 1) the initiation of demonstration projects and research in health promotion interventions including exercise, nutrition/weight loss, and smoking cessation for older veterans at risk for CVD; and 2) the assessment of the resulting medical outcomes from these intervention studies.

As part of the Research Goal, a Health Promotion study is being conducted. This research will involve 200 study participants selected from the pool of veterans attending the Primary Care Clinic at the Baltimore VA Medical Center. Patients over 50 years of age with at least one cardiovascular disease risk factor (i.e., hypertension, type II diabetes mellitus, hyperlipidemia, tobacco use, obesity) who do not have identified atherosclerotic disease or a condition that may limit participation in an exercise pro-



gram are eligible for inclusion in the study.

Potential subjects will go through a medical screening to verify they are physically able to participate in the study. Subjects in the health promotion clinic will exercise three times per week for four months. They will then enter a maintenance program for up to 24 months. Quality of life, physical function, and health care use data will be collected on all study participants. Outcomes will be measured by changes in these variables.

In a period of health care reform where health services' benefits and costs are being balanced, this overarching "health promotion clinical strategy" is compatible with an increased role for preventive and primary care coupled with enhanced patient responsibility. In order for VA decision makers to confidently embark on system-wide implementation of health promotion inter-

ventions, acceptable integration into managed care primary care practice must be resolved and evidence of value and cost-effectiveness in actual practice obtained.

Health promotion interventions are presumed to save money over time through improved medical outcomes and lower health care consumption. Dr. Bradham commented, "Research of this sort combines the very best of VA research efforts for the elderly — medical, rehabilitative and health services research — to move the veterans' health system into the front line of managed care."

The HSR Development Goal focuses on expanding currently available health services research expertise through the multiple VA facilities. This goal is achieved by 1) adding specialists in programming, data collections, and in assessment of patients satisfaction, quality of life, and function; and 2) developing an HSR Support and Mentoring Program that efficiently accesses VA data bases, provides limited collaborative support for VA investigators, and enhances local and VISN-wide skills through educational seminar programs.

Several collaborations have been formed and strengthened as a result of the HSR

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*The HSR&D Center is designing, implementing and evaluating the short- and long-term impact of health promotion interventions on older veterans' quality of life, satisfaction and health care outcomes.*

# Gerontology Notes

## GERONTOLOGY RESEARCH CENTER ESTABLISHED AT THE UNIVERSITY OF MARYLAND

President David Ramsey has established an Organized Research Center in Gerontology within the School of Medicine at the University of Maryland.

This Center will facilitate, amplify and enrich clinical, basic and population-based research in aging. The outstanding research training and educational opportunities currently available in Gerontology will be further enhanced for students in the six professional schools (Medicine, Nursing, Social Work, Pharmacy, Law and Dentistry).

The Center will be co-directed by Andrew Goldberg, M.D. and Jay Magaziner, Ph.D., M.S. Hygiene, Directors of the Divisions of Gerontology in the Department of Medicine and the Department of Epidemiology and Preventive Medicine. Drs. Goldberg and Magaziner will work closely with leaders from the six schools to expand and enhance the resources for the conduct of research in gerontology at the University.

The Center will target populations which

can provide the basis for research and research training in aging, and also develop and strengthen core facilities with substantive and methodologic capabilities to design and conduct new, cutting-edge, interdisciplinary research.

According to Dr. Andrew Goldberg, "The Center will enrich research efforts, provide greater opportunities for training students and health professionals, and ultimately enhance patient care within the Maryland health care system and graduate campuses."

Aging research will be conducted in the following areas:

- exercise, nutrition and other health promoting activities in free-living older persons as well as those living in institutions and other residential care settings,
- rehabilitation of older patients who have suffered a hip fracture, stroke or are limited by cardiovascular diseases,
- epidemiology and the treatment of dementia, depression and substance abuse, and
- the effects of preventive medicine on the health care utilization and well-being of older patients with chronic diseases.

Dr. Magaziner states, "Developing this center will improve the University's ability to attract more research funding in aging to more thoroughly address many of the critical health and health care problems in the aging population. We now have the infrastructure for greater interdisciplinary collaboration among faculty in the study of cardiovascular disease, hip fracture, dementia, osteoporosis and long-term care. University investigators also will evaluate health care delivery and the effects of health promotion/disease prevention programs in the elderly."

Collectively, the new Center will provide an infrastructure for the development of new research studies and the longitudinal follow-up of older populations to determine the utilization of health care services, evaluate the quality of care, and assess the geographic, financial and cultural factors that affect access to health care in elderly Maryland residents. The outcome of these studies will provide important information for future public policy in geriatric care. ■

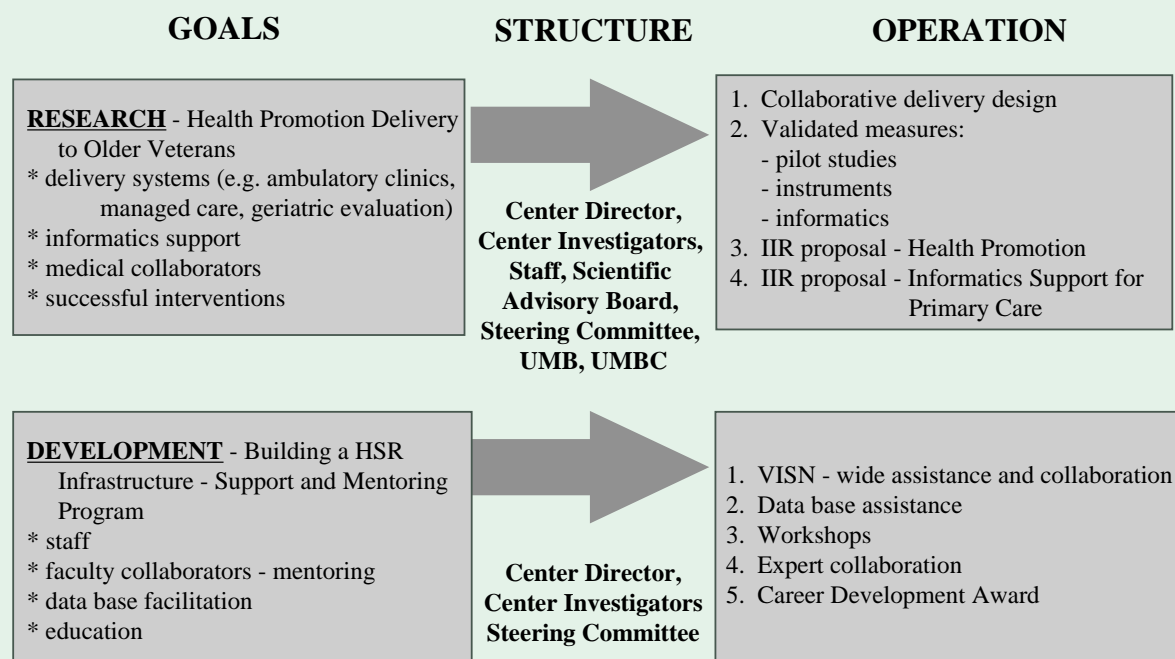
## Health Promotion In Older Veterans

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Development Goal. This aspect of the Center grant provides necessary resources to support VA investigators interested in pursuing Health Services Research. Educational seminars in the local VA Medical Centers provide potential HSR investigators the opportunity to learn about the grant application process and areas of interest to HSR review boards. Dr. Bradham and data analysts support investigators' letters of intent and research proposals with descriptive data of VA health care utilization. These products confirm the importance of the investigator's potential research. Since the funding of the Center, 13 letters of intent and 12 proposals have been assisted in this manner.

Health Services Research has been called the basic science of health system change and managed care. The growth and development of a Health Services Research Center at the Baltimore VA Medical Center is

## Baltimore HSR&D Development Center Goals



an important contribution to the future and complements the existing aging research activities at the University of Maryland.

Anyone interested in learning more

about the HSR&D Center or participant recruitment information should contact Heather Saunders at (410) 605-7970. ■

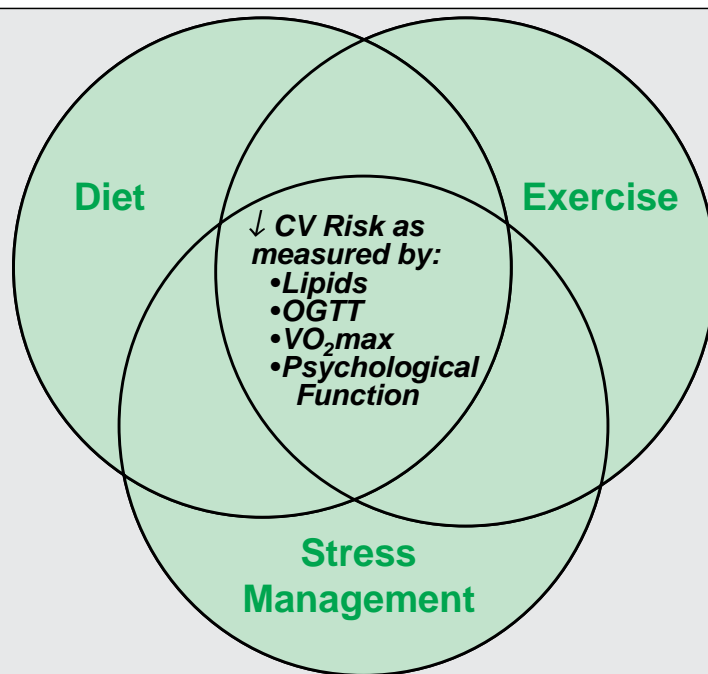
# Cardiovascular Risk Modification Program for Seniors

Coronary artery disease (CAD) is the leading cause of death in the United States and is a major factor in the development and exacerbation of other medical illnesses. In addition to the role of traditional risk factors like smoking, hypertension, obesity and high cholesterol in the development of CAD, recent research has identified that behavioral and psychological factors also contribute to the development of CAD and its complications. Behavioral interventions such as exercise, diet, and stress management have been shown to improve quality of life and to reduce morbidity and mortality in patients with CAD (Blumenthal & Emery, *Journal of Consulting Clinical Psychology*, 1988).

Through a meta-analysis of 23 randomized controlled trials, Linden, Stossel and Maurice (*Archives of Internal Medicine*, 1996) examined the effect of combining psychosocial interventions with cardiac rehabilitation. These authors found that the addition of psychosocial treatments to standard cardiac rehabilitation programs reduced mortality and morbidity, psychological distress, and some biological risk factors such as systolic blood pressure, heart rate, and cholesterol level. These benefits were strongly evident during the first two years but seemed to decrease thereafter. Which specific psychosocial interventions proved most effective were not identified.

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## A Multibehavioral Intervention



In an attempt to identify the comparative effectiveness of behavioral interventions, a study was undertaken to examine the extent to which ischemia-induced mental stress can be modified by exercise or stress management and the impact of these findings on clinical outcomes. Blumenthal, et al.

(*Archives of Internal Medicine*, 1997) randomly assigned 107 patients with coronary artery disease and ischemia to a four month program of exercise, stress management training or usual care. Patients were contacted annually for up to five years to document cardiac events. Nine percent of the patients undergoing a structured, behaviorally oriented stress management program, 21% of the patients who participated in an exercise program and 30% who received routine medical care experienced adverse cardiac events. Although a number of studies have explored the effectiveness of a single behavioral intervention such as stress reduction or exercise, none have explored the efficacy of a combination of multiple behavioral interventions.

Toward the goal of testing the efficacy of a three-pronged approach to the reduction of cardiovascular risk, Susan McCrone, Ph.D., R.N., Veterans Affairs Post-doctoral Nurse Research Fellow and Associate Professor at the University of

Maryland School of Nursing is conducting a six month cardiovascular risk modification program (IMPACT) focusing on exercise, diet, and stress reduction. Dr. Les Katzel, (Associate Professor, University of Maryland Baltimore and Associate Director for Clinical Services, Baltimore GRECC), David Brendle, M.S. (Exercise Physiologist), and Kelly Barton, M.S., R.D. (Research Dietitian) are working with Dr. McCrone on this study.

The IMPACT protocol includes a twice weekly exercise group at the VA exercise facility and a one hour small group meeting focusing on diet management and stress reduction.

The aim of this study is to determine if this program composed of three elements; exercise, diet and stress reduction, is more effective than a single intervention in the reduction of cardiovascular risk and cardiac disease exacerbation. It is only through longitudinal follow-up and evaluation of health care utilization and functional status that the efficacy of this intervention will be determined.

Faculty investigators and other health professionals develop an individualized IMPACT program for each participant based upon their health status, exercise capacity, functional limitations and diet requirements. The IMPACT program provides an interdisciplinary approach

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**Study participants undergo comprehensive baseline evaluations. Anita Neal, L.P.N., Research Assistant, with IMPACT study participant, John Thomas.**

# Cardiovascular Risk Modification

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through a coordinated team of physicians, nurses, dietitians, exercise physiologists and psychologists for the comprehensive treatment of each participant.

Participants undergo a comprehensive baseline health evaluation including:

- Physical examination, laboratory blood test, electrocardiograms (EKG), graded exercise treadmill test with EKG monitoring and  $VO_2$ max;

- Heart rate and blood pressure monitoring;

- Determination of body composition (fat and lean mass) and bone density;

- Glucose tolerance and lipoprotein lipid metabolism;

- Determination of dietary habits and baseline perception of stress; and

- A psychological evaluation.

Results of this comprehensive evaluation are reviewed with participants. All aspects of the IMPACT study are monitored by health professionals. Specific health outcomes such as functional capacity and cardiovascular risk factors are monitored at baseline, six months and at one year follow-up.

Participation in the IMPACT study is free to healthy, sedentary, overweight males who are willing to participate in a six month, twice a week clinical research intervention. This program incorporates practical, preventive measures adaptable into the lifestyles of older men to improve their health and modify cardiovascular risk and prevent exacerbation of cardiac disease. Thus, the study intends to meet health needs, prevent disability, and enhance the functional independence of older men at risk for cardiac disease. ■



*A closely monitored exercise program is part of a three-pronged approach to cardiovascular risk modification examined in the IMPACT study.*

*Advances in Aging* is published periodically by the University of Maryland Baltimore, Division of Gerontology. We welcome questions, story ideas, letters to the editor and other suggestions from our readers. All correspondence should be directed to:

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School of Medicine



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