



"I look forward to being 80 ... I begin to feel not a shrinking but an enlargement of mental life and perspective. One has had a long experience of life, not only one's own life, but others' too ... One is more conscious of transience and perhaps of beauty.

"At 80 one can take a long view and have a vivid, lived sense of history not possible at an earlier age ... I do not think of old age as an ever grimmer time that one must somehow endure and make the best of, but as a time of leisure and freedom, freed from the factitious urgencies of earlier days, free to explore whatever I wish, and to bind the thoughts and feelings of a lifetime together... I look forward to being 80."

from "The Joy of Old Age. (No Kidding.)" by Oliver Sacks, MD, The New York Times, July 6, 2013

Table of Contents

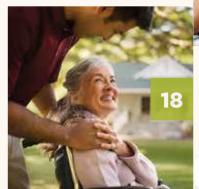


AGING INSTITUTE WORKGROUPS



GRANTS

PARTNERSHIPS



NURTURING INNOVATION



GERIATRIC EDUCATION



CONNECTING TO THE COMMUNITY



46

AGING INSTITUTE LEADERSHIP

RESEARCH

DIRECTOR'S LETTER



Charles F. Reynolds III, MDDirector, Aging Institute of UPMC Senior Services and The University of Pittsburgh

UPMC Endowed Professor in Geriatric Psychiatry

Director, NIMH Center of Excellence in Late-Life Depression Prevention and Treatment and of the John A. Hartford Foundation Center of Excellence in Geriatric Psychiatry

University of Pittsburgh

The Aging Institute of UPMC Senior Services and the University of Pittsburgh continues to serve as a catalyst for change, mobilizing the resources of UPMC and the University to the benefit of older adults and their caregivers.

My colleagues and I are proud to share the past year's strides in clinical care, education, and research. Pursuit of our mission means fostering collaboration among colleagues with expertise in the sciences of aging (basic, biological, social, and clinical), operations (clinical and systems), and health care finance. The pace of change is quickening indeed, as we hope to show in this 2013 annual report.

In the arena of clinical service, we have made substantial progress in the implementation of a CMS-sponsored (Centers for Medicare and Medicaid Services) innovation project, RAVEN, with the goal of reducing the rate of unplanned hospital admissions among residents of 19 skilled nursing facilities in western Pennsylvania; the expansion of palliative

and supportive care options; the implementation of osteoporosis screening and maintenance treatment for osteoporosis — an initiative in collaboration with the UPMC Health Plan; and the identification of unmet needs experienced by caregivers of family members living with Alzheimer's and related dementias. We are also expanding our efforts to promote and disseminate strategies that foster healthy brain aging and cognitive fitness later in life. We are working with Pennsylvania Governor Tom Corbett to help fashion the Commonwealth's response to the growing numbers of older Pennsylvanians living with dementia.

These services to seniors and their caregivers have resulted from Aging Institute workgroups seeking to bridge science, education, and service to deliver care that is both evidence-based and efficient. Our progress on these and other clinical program initiatives has been facilitated this year through collaborative efforts with several sister organizations, including the UPMC Palliative and Supportive Institute, the Health Policy Institute, the Donald D. Wolfe, Jr. Center for Quality, Safety, and Innovation, the Jewish Healthcare Foundation, Robert Morris University, Excela Health, Heritage Valley Health System, and 19 partnering skilled nursing facilities around western Pennsylvania.

We continue to help patients, caregivers, clinicians, and other stakeholders navigate to needed services within UPMC and in the community. Given that older adults are living longer, the coordination and integration of their care over long periods of time has never been more important.

Taking a systems approach to the way care is delivered and financed is of first-rank importance. Ed Ricci, PhD, MLitt, of Pitt's Graduate School of Public Health and a member of the Aging Institute's Executive Committee and Board of Directors has been a major proponent of changing systems of care to coordinate and clearly define the goals of care in a way that is consonant with patient and family values. His efforts prompted UPMC Senior Communities and the institute to honor him as the 2013 Caregiver Champion at our Celebrating Seniors Champions Dinner in October 2013.

Advances in clinical care and in the culture of medicine accompany our ongoing program of educating the workforce in appropriate geriatric care. We have been able to draw upon the expertise of the Schools of the Health Sciences at the University of Pittsburgh (Nursing, Medicine, Pharmacy, Health and Rehabilitation Sciences, Public Health, and Social Work). We have also turned to the University's Geriatric Education Center for guidance in advancing our mission to "geriatricize" the workforce, and to enable patients and caregivers to participate actively in setting the goals of care. A particularly strong example is the Ageless Wisdom program, created in part by the Aging Institute's geriatric nurse educator, Betty Robison.

Breaking down silos extends no less to the Aging Institute's program in seeding innovative research related to aging.

Using resources provided to us by the deans of the Schools of the Health Sciences, the Health Policy Institute, and the provost of the University, we have been able to fund five unique multidisciplinary research projects. As described in this report, seeding the field has meant investments in basic, translational, clinical, and applied research across the schools of the Health Sciences and in other schools within the University. Seeding the field also means celebrating the accomplishments of our early-stage investigators at our annual Celebrating Aging Research Day.

The University of Pittsburgh continues to attract major federal sponsorship for its aging research and research training from the National Institutes of Health, Veterans Administration, Agency for Health Research and Quality, and Centers for Disease Control and Prevention. This report describes the extent of federally sponsored projects in aging at The University of Pittsburgh and highlights some of the contributions by its Centers of Excellence in investigation and research training in healthy aging, Alzheimer's disease, mobility and balance, and mood disorders.



We acknowledge with gratitude the financial support and administrative leadership of UPMC, including Elizabeth Concordia (president, Hospital and Community Services Division) and Diane Holder (president, Health Insurance Division). With equal gratitude, we acknowledge the support and vision provided by each of the deans of the University of Pittsburgh's Schools of the Health Sciences: Thomas Braun, DMD, PhD (School of Dental Medicine); Clifford Brubaker, PhD (School of Health and Rehabilitation Sciences); Donald Burke, MD (Graduate School of Public Health); Jacqueline Dunbar-Jacob, PhD, RN, FAAN (School of Nursing); Patricia Kroboth, PhD (School of Pharmacy); Arthur S. Levine, MD (School of Medicine); and Larry Davis, MA, MSW, PhD (School of Social Work). Finally, we extend our sincere thanks to Patricia Beeson, PhD, provost of the University of Pittsburgh, for her support and engagement in the mission of the Aging Institute.

Charles F. Rynolds Mi)

AGING INSTITUTE WORKGROUPS

Decades of pioneering research by faculty of the University of Pittsburgh — combined with the expertise of world-class medical professionals at UPMC — place our region at the forefront of national efforts to improve the health and well-being of older adults.

According to the Centers for Disease Control and Prevention (CDC), two out of every three older Americans have multiple chronic conditions, and treatment for this population accounts for fully two-thirds of the country's health care budget. The Aging Institute's workgroups convene clinical, research, administrative, and financial expertise from the University of Pittsburgh, UPMC, UPMC Senior Communities, and UPMC Health Plan to identify and implement ways to promote healthy aging, and provide better and more cost effective care for older adults.

Healthy Aging Workgroups

Making the First Fracture the Last

The year 2012 marked the implementation of the Healthy Aging Workgroup's **Mature and Secure from Falls and Fractures** initiative. Researchers from a wide range of disciplines joined together to take a close look at osteoporosis and identify strategies to promote prevention and treatment among older women.

According to the UPMC Health Plan, approximately 1,500 members who are women over age 65 experience a fracture each year. Treatment of osteoporosis — a condition in which bones become thin and brittle, leading to fractures — has been shown to reduce the risk of future fractures by 40 to 60 percent. However, many older adults fail to get the follow-up treatment they need to prevent their reoccurrence.

With a focus on patients, the program goals included:

- Increasing the number of women 65 and older with the UPMC for Life HMO, PPO, and Specialty Plan who receive osteoporosis screenings, counseling, interventions, and treatments if indicated.
- Improving HEDIS (Healthcare Effectiveness Data and Information Set) measures — which call for women to receive a bone mineral density (BMD) test and a prescription for a drug to treat or prevent osteoporosis within six months after a fracture — by increasing the osteoporosis management rate from 27 percent to 85 percent.

 Improving the patient care experience and reducing medical costs by decreasing the risk for a second fracture.

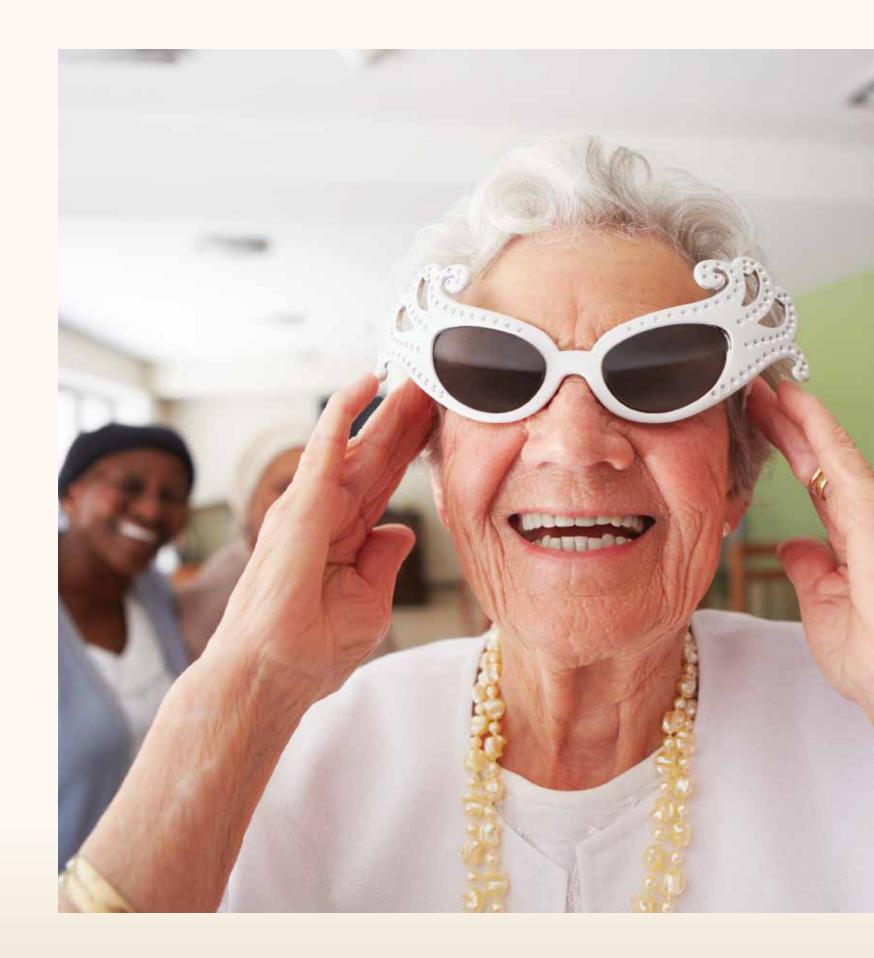
Using a multipronged strategy, the Aging Institute conducted outreach to at-risk and eligible women identified by the UPMC Health Plan. Contacted six weeks after sustaining a fracture, patients were provided information on the program along with comprehensive educational materials.

Participants, who had the option of choosing home-based or ambulatory rehabilitation care settings for the project, underwent a complete assessment of bone health, mobility, and fall risk, and were encouraged to see their primary care physician (PCP) and undergo a bone density scan. In addition, program information was sent to their PCP along with recommendations for screening, prevention, and treatment.

The Mature and Secure initiative determined that:

- As many as 90 percent of patients sustained serious fractures requiring further evaluation, prevention, and treatment.
- Most participants did not want in-home evaluations.
- · Physicians welcomed the educational materials.
- More involvement and intervention is needed from physicians to encourage patients to take care of their bone health.

Although findings are still being analyzed, possible "next step" solutions include working with patients at the time of a fracture, or very soon afterwards, to encourage screening,



testing, prevention, and treatment. The program also suggests involving a physician who is knowledgeable about osteoporosis and bone health.

Promoting Brain Health

Some people live long, but do not necessarily live well, in their later years. Cognitive health — memory, attention, judgment, intuition, and language — can decline. Depression can become debilitating. Older adults who experience cognitive decline may be unable to prepare meals, manage money, or care for themselves.

The Healthy Aging Workgroup's newest initiative will explore brain health to develop a better understanding of the brain's resilience and ability to compensate. A primary outcome will be to promote public awareness of what can be done to promote overall brain health.

The multidisciplinary workgroup — with expertise in psychiatry and mood disorders, epidemiology, neuroscience, and public policy — has identified a three-pronged research agenda:

- What mechanisms enable some individuals to compensate and age better than others?
- Once identified, can these mechanisms become a target for intervention and management?
- Can we develop a prescription that combines neurochemical and behavioral interventions to improve brain health?

Building on the *Healthy Brain* initiative of the CDC, the workgroup plans to explore why some older adults — even those with severe physical disabilities — mentally age more successfully than others. It also will evaluate health risk factors such as high blood pressure, high glucose, and fat levels to study whether the brain is better able to adapt when these conditions develop slowly.

Recognizing the challenges of motivating older adults to consistently engage in exercises and other brain health activities, the workgroup also hopes to explore the potential of creating biomarkers that will reward older adults and enable them to actually chart their progress.

A retreat was held in the fall of 2013 to summarize current knowledge on brain health.

Supporting Dementia Caregivers

According to the Alzheimer's Association, last year more than 15 million caregivers provided more than 17 billion hours of unpaid care to people with dementia, valued at more than \$216 billion.

This workgroup is focused on responding in unique and relevant ways to the challenges faced by families caring for relatives with dementia. Its efforts are targeted not at the clinical aspects of dementia but on the impact of the disease on families.

Its work is greatly informed by researchers like Richard Schulz, PhD, director of University of Pittsburgh's University Center for Social and Urban Research (UCSUR) — who has long been a leading contributor to understanding the health effects of caregiving and intervention studies for caregivers of persons with Alzheimer's disease (AD) — as well as the pioneering work of sister organizations of the Institute, such as the University of Pittsburgh Alzheimer's Disease Research Center (ADRC) and the Graduate School of Public Health's Center for Healthy Aging.

Workgroup members bring a broad range of both professional expertise and personal experience to the subject. They include representatives of UPMC Health Plan; caregivers at UPMC and UPMC Senior Communities; and researchers and faculty members from the University of Pittsburgh, representing such disciplines as nursing, physical and occupational therapy, public policy, psychology, and social work. Many have had direct experience providing care to a relative with dementia. Representatives from long-term care facilities, community-based organizations, and outpatient agencies that provide care for dementia patients also have been invited to join the workgroup.

Early efforts in 2012-13 focused on creating an inventory of available services and resources for families, from national organizations like the Alzheimer's Association to local community efforts, including those provided by UPMC and the University of Pittsburgh.

The second phase of the workgroup's efforts involved direct outreach to caregivers to hear



Dementia caregivers face additional stresses beyond those typically encountered by other caregivers, says Richard Schulz, PhD, associate director of education for the Aging Institute and director of the University Center for Social and Urban Research at the University of Pittsburgh.

"The level of care needed by individuals with dementia tends to be higher and length of care typically lasts several years," says Dr. Schulz, who led the landmark REACH (Resources for Enhancing Alzheimer's Caregiver Health) study from 1999—2005. "Most dementia caregivers have relatively little knowledge about the disease, its progression, and how it affects behavior."

"For example, many have difficulty understanding that inappropriate and difficult behaviors caused by the disease are not intentional," he says. "Helping a caregiver to understand the disease process and manage difficult patient behaviors are among the goals of interventions designed to support the caregiver."

While progress is being made and funding to find a cure for Alzheimer's Disease and other forms of dementia has increased, the overall outlook is sobering: "We're moving into a future where large numbers of people with dementia won't have caregivers, because baby boomers had fewer or no children," notes Dr. Schulz. "From that perspective, today's cohort of dementia patients might be considered the lucky ones."





their comments and concerns. In late summer 2013, the staff of the University of Pittsburgh's University Center for Social and Urban Research recruited and conducted a series of three focus groups at these locations:

- Presbyterian SeniorCare The Willows (Oakmont)
- UPMC Senior Communities Canterbury Place (Lawrenceville)
- University of Pittsburgh (Oakland)

Participants included families currently providing in-home care, as well as those who have made the decision to move family members to a facility for care.

Based on the results of the focus groups and a review of available resources, the workgroup will seek to identify gaps to determine what steps are needed to better meet the needs of caregivers. The workgroup has already determined that:

- Caregivers need to be better educated about Alzheimer's disease and dementia, especially the characteristics and progression of the disease.
- 2. Caregivers need support and training in how to identify and address particular behaviors and circumstances, such as wandering and changes in personality.
- 3. In addition to resources offering emotional support, caregivers need access to critical services in such areas as legal, medical, and insurance coverage.

The workgroup is exploring the creation of a subgroup to develop training for clinicians on new diagnostic guidelines on Alzheimer's disease that are designed to ensure clinicians are familiar with the guidelines and know how to use them effectively. Studies show that the number of medical professionals trained to effectively treat individuals with cognitive disorders is woefully inadequate, despite the growing number of cases emerging annually.

Additionally, the workgroup is exploring ways to maximize the value of the Aging Institute's website and Referral Line as a resource for both caregivers and clinicians. It also encouraged the institute to expedite the development and limited piloting of a new training program that offers participants a simulated, experiential look at dementia.

The Search for a Cure

Dementia, which affects one in three older adults, is an overall term used to describe a decline in mental ability that is severe enough to interfere with daily functioning. Alzheimer's disease (AD) is its most frequent form, accounting for 60 to 80 percent of all dementias. Other types include vascular dementia, frontotemporal dementia, dementia with Lewy bodies, and Parkinson's disease dementia.

For nearly three decades, researchers and clinicians at the University of Pittsburgh Alzheimer's Disease Research Center have been in the vanguard of finding a cure for dementia and AD by studying changes in the brain's pathophysiology. Internationally renowned for its clinical, neurological, genetic, and psychosocial research, the center also trains health care professionals and provides comprehensive assessment services and care to thousands of individuals with dementia.

Age is the greatest risk factor in developing dementia; the older we are, the greater the risk.

"But research now shows that brain changes related to AD can be detected at least a decade before that first diagnosis," says Oscar Lopez, MD, director of the center and professor of neurology and psychiatry at the University of Pittsburgh School of Medicine.

"We're using imaging to track early changes in brain chemistry, especially as related to amyloid deposits," says William Klunk, MD, PhD, co-director of the center and distinguished professor of psychiatry at the University of Pittsburgh School of Medicine, who pioneered the use of amyloid imaging agents to diagnose AD. "People who are cognitively normal but have higher deposits of the amyloid protein are at higher risk for dementia. Our focus now is identifying what mediates the transition to the disease — and how we can treat and prevent it."

Efforts like brain imaging and genetic risk profiling to identify potential biomarkers to predict risk of future disease offer the promise of hope — and new burdens — for patients and their families, notes Dr. Lopez. "Through our relationship with the Aging Institute, we can dovetail our joint interests and commonalities to address some of these issues."



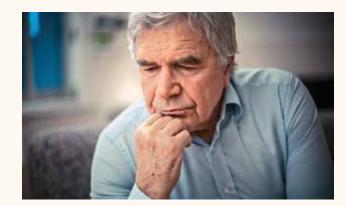
GRANTS

UPMC'S RAVEN GRANT: YEAR ONE

Improved outcomes, reduced costs, and enhanced access to quality care for western Pennsylvania nursing home residents.

Identifying ways to reduce unnecessary hospital readmissions of nursing home residents has been a focus of the Aging Institute's workgroups since 2008. The Institute and its partner organizations, the UPMC Palliative and Supportive Institute and UPMC Senior Communities, collaboratively developed a series of targeted interventions that resulted in a 38 percent reduction in hospital readmission rates at UPMC Senior Communities skilled nursing facilities. Hallmarks of the program included staff education, use of communication tools, and placement of palliative and supportive certified registered nurse practitioners (CRNPs) at each facility.

The success of those efforts led the Centers for Medicare and Medicaid Services (CMS) to award UPMC a \$19 million Innovation Award in October 2012. This program (locally known as RAVEN) is designed to **R**educe **Av**oidable Hospitalizations Using **E**vidence-Based Interventions for **N**ursing Facility Residents.



"Our selection as one of seven organizations nationwide to receive a CMS Innovation Award grant is an outstanding example of how collaboration with community organizations and nursing facility partners can impact the larger community and transform health care delivery," says Mary Ann Sander, MHA, MBA, NHA, vice president for Aging and Disability Services, UPMC Community Provider Services.

Nationwide, studies show nearly 45 percent of all hospital readmissions could be avoided, representing a potential cost savings of \$7 to \$8 billion annually. The RAVEN initiative focuses on both improving the quality and reducing the cost of care for nursing homes residents who are enrolled in Medicare and Medicaid programs.

UPMC Community Provider Services, the Aging Institute, and UPMC Palliative and Supportive Institute — along with community partners Excela Health, Heritage Valley Health System, Jewish Healthcare Foundation, and Robert Morris University — have enlisted 19 non-UPMC nursing facilities to participate in the initiative, including several rural facilities. RAVEN seeks to replicate the successes of the Aging Institute's Unplanned Readmission Workgroup to these organizations:

- Ball Pavilion (Brevillier Village)
- The Caring Place
- The Commons at Squirrel Hill
- Corry Manor (HCF)
- Edison Manor Nursing and Rehabilitation Center
- Evergreen Health and Rehabilitation
- Friendship Ridge
- Golden Living Center, Shippenville
- John J. Kane Regional Centers (participating facilities include Kane-Glen Hazel, Kane-McKeesport, and Kane-Ross)
- Lutheran Home at Kane
- Mountainview Specialty Care Center
- Oakwood Heights (formerly Oil City Presbyterian Home)
- Sugar Creek Rest Nursing Home
- Sunnyview Nursing Home
- Sweden Valley Manor (HCF)
- Trinity Living Center
- Westmoreland Manor

The five core elements of the RAVEN program are:

- The use of facility-based nurse practitioners and enhanced care nursing staff
- Assessment and clinical communication tools (INTERACT)
- Innovative educational tools
- Enhanced medication review and pharmacy engagement to reduce the risk of pharmacy-related complications
- Use of telemedicine and information technologies to enhance communications and provide health care support and access

"Much of our first year has been spent in start-up operations, recruiting staff, activating workgroups to implement core program components, and collaborating with our operating and nursing facility partners to launch the RAVEN initiative at each of 19 locations", says Ms. Sander.

PCORI Grants

The Patient-Centered Outcomes Research Institute (PCORI) is a non-governmental institute created as part of the 2010 Patient Protection and Affordable Care Act. It was created to fund research giving both patients and health care providers evidence-based information for better-informed health care decisions.

Two PCORI initiatives are currently underway that offer the promise of improving the health care and quality of life of older adults. Nationwide, a total of only 25 PCORI grants were made in its first year of operation.

"Optimizing Behavioral Health Homes by Focusing on Outcomes that Matter Most for Adults With Serious Mental Illness (SMI)" is a 3-year, \$1.8 million project under the aegis of The UPMC Center for High-Value

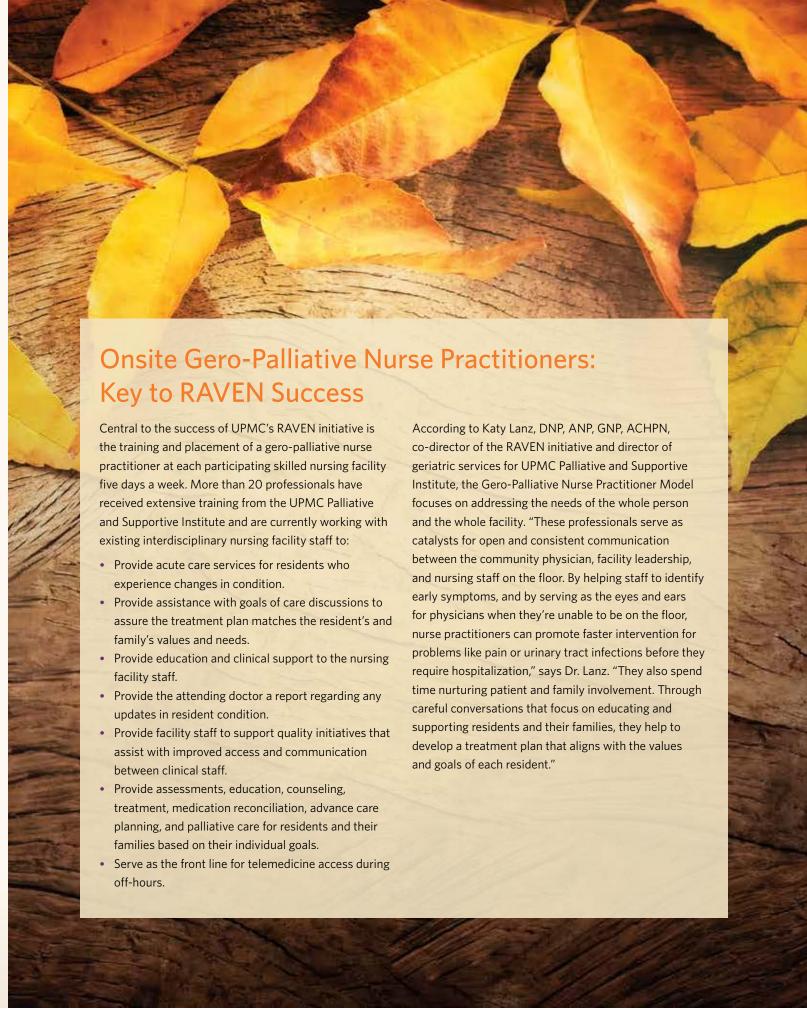
Health Care. It focuses on providing

intensive care across different domains — physical, mental, and social — to individuals with severe mental health disorders. Adults with SMI are one of the most medically vulnerable populations and often go undiagnosed or untreated. The grant involves partnerships with Community Care, the country's largest not-for-profit, behavioral health managed care organization, and behavioral health providers throughout north central Pennsylvania.

"The model of care we are testing with this PCORI grant aligns closely with the Aging Institute's palliative care model," says Charles Reynolds III, MD, director of the Aging Institute and the academic principal investigator for the grant. "Our focus is to improve the integration and coordination of care at all levels, to respect the values and preferences of the patient and family, and to share decision making so that the focus can be on creating an appropriate plan of care."

"A Comparison of Non-Surgical Treatment Methods to Patients With Lumbar Spinal Stenosis" is a 3-year, \$1.6 million project granted to the University of Pittsburgh's Department of Physical Therapy and led by Michael J. Schneider, DC, PhD, of the School of Health and Rehabilitation Sciences. Lumbar spinal stenosis — often referred to as "arthritis of the spine" — is a common condition affecting nearly 30 percent of older adults. It is the most common reason for people over 65 to have back surgery. These operations are both risky and expensive, with a high number of complications that cause many patients to be readmitted to the hospital. "A large number of patients with stenosis do not need back surgery and can be treated with other methods, such as physical therapy, chiropractic, exercise, and medication," says Dr. Schneider. "This marks the first study ever undertaken to look at non-surgical treatment options for this problem." More than 150 adults 60 years of age or older will be participating.

In September 2013, Jennifer S. Brach, PhD, PT, associate professor, Department of Physical Therapy at the University of Pittsburgh, received notification of PCORI funding for her project, "On the Move: Optimizing Participation in Group Exercise to Prevent Walking Difficulty in At-Risk Older Adults." She credits the seed grant funding she received from the Aging Institute as playing an instrumental role in her research leading to this grant.



The UPMC Center for High-Value Health Care

"Much like the Aging Institute, the Center for High-Value Health Care is a convener, bringing people together across the UPMC system and opening ways for us to collaborate with the University of Pittsburgh and with other academic, research, and community partners," says Center Director Jane N. Kogan, PhD. "Our focus is on designing, implementing, and testing models of care that support the triple aim of improving health care outcomes, reducing costs, and enhancing the overall patient experience."

As part of UPMC Insurance Services Division, the center leverages UPMC's unique "payer/provider" laboratory by engaging all key stakeholders — payers, providers, patients and their families, communities, academicians, and

policymakers — to ensure the real-world applicability of its work. Many of its activities are supported through contracts and grants (such as PCORI), conducted in partnership with patients, community organizations, government agencies, and other stakeholders.

"For example, PCORI offers both the Center and the Aging Institute outstanding opportunities to seek funding for initiatives and interventions that already exist," says Dr. Kogan. "It's a very efficient way to do science: by focusing on promising health care practices that are already underway within an existing system, where a range of stakeholders could benefit from study results. We're looking forward to using the center's platform and the involvement of the Institute for future efforts."





Telemedicine in the Nursing Home

UPMC's RAVEN initiative also features the pioneering use of telemedicine as an integral part of nursing home residents' care. "Its documented use in nursing homes is quite limited, and no studies to date appear to target acute changes in condition and palliative care needs assessments using telemedicine technology," says Steven Handler, MD, PhD, CMC, medical director for long-term care health information technology at UPMC Senior Communities.

The care model in the RAVEN grant includes a component of using telemedicine to ensure timely access to qualified health care professionals during evenings and weekends when these clinicians are usually not available onsite. "Telemedicine may help to level the playing field in patient care by offering increased access to high quality, less variable care," says Dr. Handler. "Its potential value is particularly great for remote rural facilities or those with limited clinical capabilities."

Telly — a customized telemedicine cart — has been developed and is being piloted under the RAVEN study under the direction of Dr. Handler and clinical Project Manager Reza Sadeghian, MD, MBA. Telly was created in partnership with UPMC's Technology Development Center, Center for Connected Medicine's Information Services Division, Department of Biomedical Informatics, and Community Provider Services.

Findings from a feasibility study suggest that telemedicine used by nurse practitioners to conduct consultations for an acute change in condition and/or palliative care need in the nursing home is an effective use of their skill set and time, is effective in the medical management of the resident, avoids the need for face-to-face visits, and can help avoid resident transfers to the hospital/emergency department.

PARTNERSHIPS

To advance its mission of providing state-of-the-art educational programs to health care professionals and quality resources for the community, the Aging Institute forges relationships with organizations that foster creative and mutually rewarding collaborations.

Pennsylvania Partnership to Improve Dementia Care

Nationally, there is a growing concern over the implementation of antipsychotic drugs in nursing homes to treat dementia. Despite the fact that the side effects can be severe, leading to stroke, high morbidity, and Parkinson's complications, their use is common and widely variable, with no standardized approach in place.

To address these concerns, last fall the Centers for Medicare and Medicaid Services created the **National Partnership to Improve Dementia Care in Nursing Homes** — supported by stakeholder partnerships in each state — to promote improved approaches to behavioral health care and limited use of antipsychotic medications.

The **Pennsylvania Partnership** was formed in December of 2012 under the leadership of David Nace, MD, MPH, Chief of Medical Affairs for UPMC Senior Communities, and Jules Rosen, MD, the former chief of geriatric psychiatry service at UPMC. More than 80 public, private, and academic stakeholders are participating throughout the commonwealth.

Efforts are currently underway in Pennsylvania to create educational and quality improvement tools and resources to share with interested providers and consumers. These will include the development of best practices and the identification of champions statewide to serve as regional resources to provide technical guidance and support.

The Aging Institute is pleased to support the Pennsylvania Partnership by hosting its website and supporting its conference call meetings.

Pennsylvania Medical Directors Association

The Pennsylvania Medical Directors Association (PMDA) provides advocacy, education, and professional support for medical directors, physicians, nurse practitioners, and other professionals who provide medical care in nursing homes and other long-term care settings.

To enable greater numbers of PMDA members statewide to meet and share information on a more regular basis, the Aging Institute is providing support for regional teleconferenced meetings. The first broadcast meeting was held in Pittsburgh at UPMC Senior Communities' Cumberland Woods Village in May 2013.

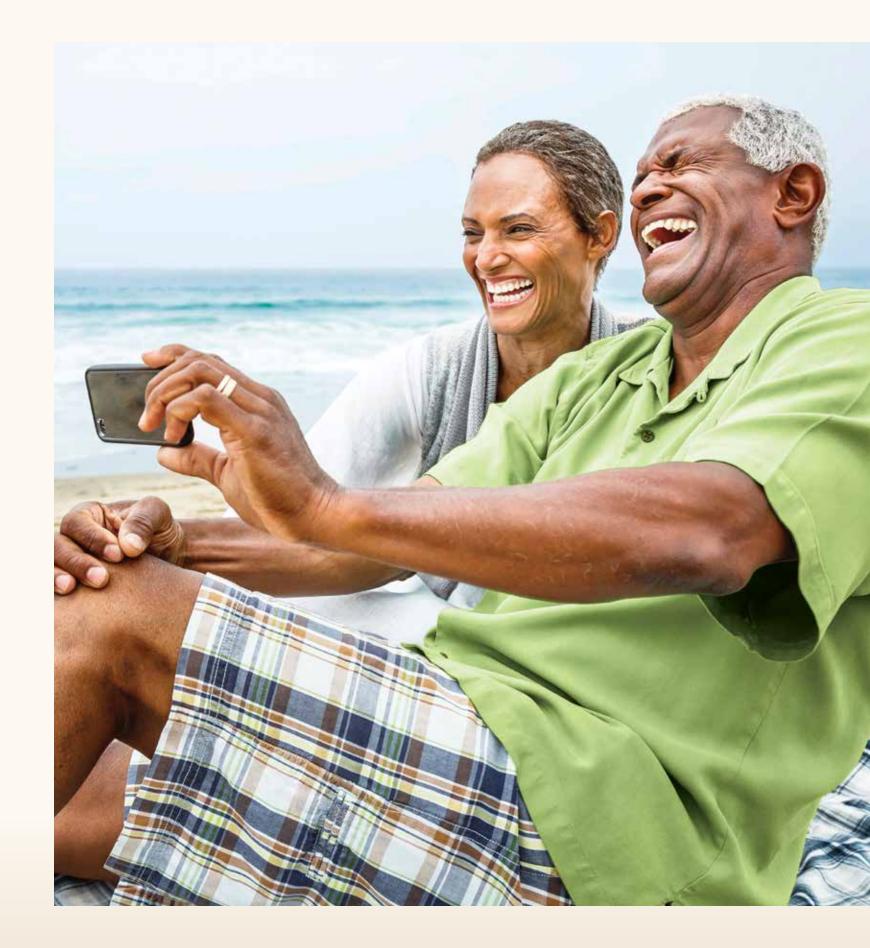
Pennsylvania Orders for Life-Sustaining Treatment (POLST)

POLST is a legal medical order document designed to help health care professionals honor their patients' treatment wishes and assist patients who desire to define their preference of care. It can be signed by the patient's physician, nurse practitioner, or physician assistant. The POLST form also provides a way to transfers one's medical wishes from one location to another. The Aging Institute continues to play a key role in advancing the understanding and use of POLST statewide by supporting efforts to educate and train health care professionals in its use, and encouraging nursing homes to "start the conversation" with patients and their families.

AgeWell Pittsburgh

AgeWell Pittsburgh is dedicated to helping older adults lead dignified, independent, and meaningful lives, with a particular focus on helping seniors to live independently in their own homes for as long as possible. The Aging Institute has a cooperative relationship with AgeWell, providing technical support and presentations for members. The Institute also recruits AgeWell members to participate in research studies, such as its clinical trials for the prevention of late-life depression.

"The collaboration between AgeWell Pittsburgh and the Aging Institute serves as a national model for academic and community partnerships," says Daniel Rosen, PhD, former chair of AgeWell's advisory board and an associate professor of social work at the University of Pittsburgh. "AgeWell Pittsburgh is a living laboratory for the work of members of the Aging Institute, and the older adults of AgeWell benefit from having access to world-class professionals."





NURTURING INNOVATION

Whether it happens in the research laboratory or at a patient's bedside, innovation offers the promise of better and more cost-effective care for older adults, and exciting connections for improved systems of support.

The study of aging is relatively new, one that depends on imagination, ideas, and fresh applications to advance. Through its partnerships and programs, the Aging Institute nurtures innovation and exchange among established authorities in aging, as well as aspiring professionals in the field.

Research Day on Aging

A core tenent of the Aging Institute is its commitment to promoting innovative research on aging. One expression of that commitment is its Research Day, which provides a forum for researchers from UPMC, the University of Pittsburgh, and Carnegie Mellon University to network and view posters that showcase the latest in aging research. The Seventh Annual Research Day on Aging was held on April 17, 2013, and attracted more than 100 participants and guests.

Awards are presented for the best posters submitted by junior faculty, candidates for clinical or research doctorates, post-doctoral students (those who have completed a clinical or research doctorate and are still in training), and clinical practitioners doing quality or practice improvement.

2013 first-place winners, by category, were:

Post-Doctoral Students

Andrea Rosso, PhD, MPH, Department of Epidemiology/GSPH: Aging, the Central Nervous System, and Mobility.

Junior Faculty

Neelesh Nadkarni, MD, PhD, Department of Medicine/ School of Medicine/Division of Geriatric Medicine: Association between Cerebellar Grey Matter Volumes, Gait Speed, and Information Processing Speed in Community-Dwelling Older Adults.

PhD Students

Lolita Nidadavolu, BA, Department of Microbiology and Molecular Genetics: MicroRNA Profiling of the XFE Progeroid Syndrome Demonstrates Similarities Between Progeroid and Wild-Type Aged Mice.

Clinical Practitioners

Patrice Thorpe-Jamison, MS, Department of Biomedical Informatics: Evaluating the Impact of Computer-Generated



Rounding Reports on Physician Workflow in the Nursing Home: A Feasibility Time-Motion Study.

Stephanie Seaton, PharmD, UPMC Department of Pharmacy and Therapeutics: Empowering Pharmacy Students to Better Care for Older Adults.

Seed Grant Program

The **Seed Grant Program** encourages collaborative, multidisciplinary research in new areas of aging that hold the potential to attract future funding from external sources. The following 2013 awards, each valued at \$20,000, were made possible with generous support from all six deans of the University of Pittsburgh Schools of the Health Sciences.

2013 Recipients

Project Title: Exploring Whether Situational Cues for Urge Incontinence Can Be Simulated in a Controlled Environment

Principal Investigator:

Becky Clarkson, PhD

Project Summary: Researchers will study the causes and triggers of urge urinary incontinence by recreating situations during urodynamic studies of the bladder and urethra.



Project Title: Role of Telomere and Mitochondria Cross-Talk in Cellular Aging

Principal **Co-Investigators:** Patricia L. Opresko, PhD, and Bennett Van Houten, PhD





Project Summary: Researchers will explore the link between telomere and mitochondria mechanisms and how damage to each contributes to organ decline and disease with aging.

Project Title: Feasibility and Acceptability of Adding Family Components to Evidence-Based Collaborative Care Model for Older Adults with Depression and Chronic Medical Conditions

Principal Investigator: Mijung Park, PhD, MPH, RN

Project Summary: Researchers will conduct personal interviews with a diverse group of older adults with depression, family caregivers, and providers to examine how families can be included in a collaborative depression care program for those with complex health care needs.



Project Title: Relationship between Frailty, Falls, Mobility, Cognition, and Strength in Residents of Long Term Care (LTC) Facilities

Principal Co-Investigators: Patrick Sparto, PT, PhD, and Susan Greenspan, MD





Project Summary: Investigators will use portable, novel, and state-of-the-art equipment, including a gait analysis app developed for the iPhone (iGait), to measure strength, muscle mass, cognition, and sway of 20 residents of a long-term care facility. That information, in addition to a standard assessment of cognition, function, and falls, will be used to demonstrate the feasibility of conducting assessments in LTC facilities.

Project Title: Communication about Type 2 Diabetes Treatment Decisions in Older Patients with Comorbid Dementia

Principal Investigator:

Carolyn T. Thorpe, PhD, MPH

Project Summary: In this study, researchers will examine the decisionmaking process for treatment of older patients with both Type 2 diabetes



and dementia to better understand barriers to controlling blood sugar levels.

2012 Seed Grant Spotlights

Edward A. Burton, MD, DPhil, FRCP

Assistant Professor of Neurology, Molecular Genetics and Biochemistry University of Pittsburgh

As a neurologist in his native England, Dr. Burton saw first-hand the negative impact of



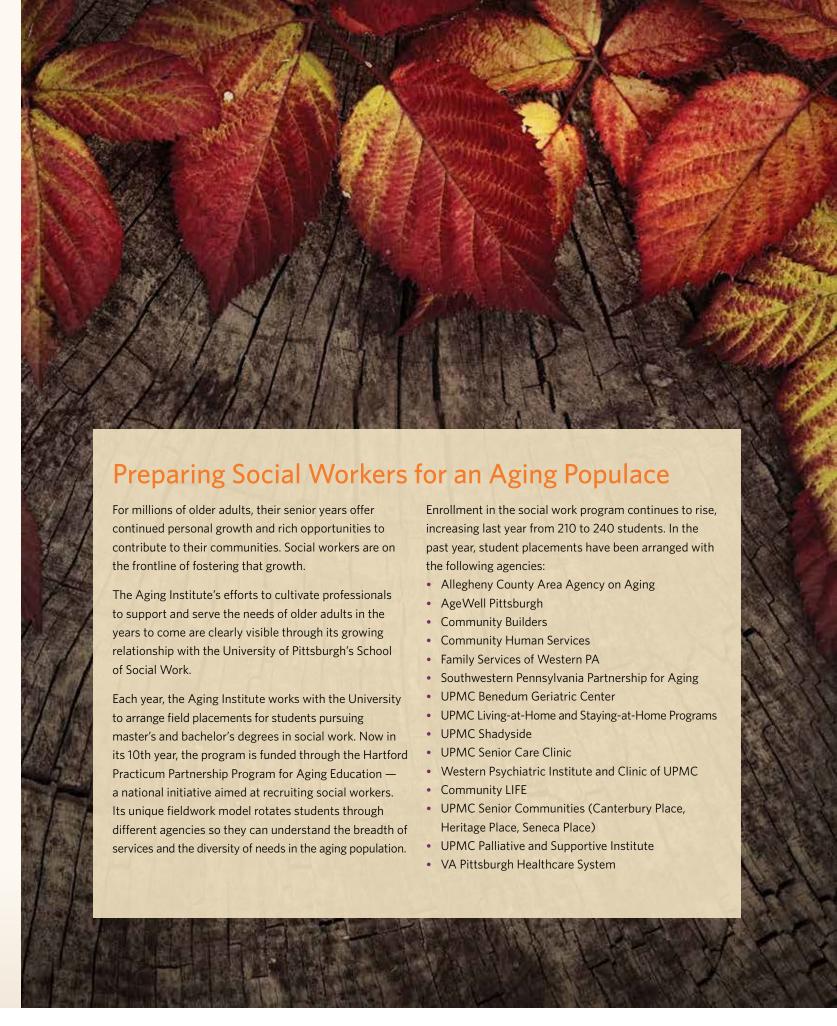
Parkinson's disease — a disorder of the nervous system that affects movement — on his patients. Millions worldwide suffer from Parkinson's, which has no cure and worsens over time.

To better understand the nature of this debilitating disease, Dr. Burton decided to pursue a doctorate in molecular biology at Oxford University, followed by a post-doctoral fellowship at the University of Pittsburgh. His goal: to conduct his own research into the cause, treatment, and cure for Parkinson's disease.

"I think my training in science has helped to make me a better physician," says Dr. Burton. "I'm more critical about data and understand the molecular basis of disease better."

In 2004, he joined the faculty at the University of Pittsburgh to start up a neurology lab, where he discovered the University had one of the world's largest zebrafish facilities.

"Zebrafish may offer novel opportunities for Parkinson's research," says Dr. Burton, who works with patients in the comprehensive movement disorders clinic at UPMC, carries out laboratory research into neurodegeneration in the



Pittsburgh Institute for Neurodegenerative Diseases, and teaches neuroscience in the medical school.

Small and easy to keep, with a short generation span, zebrafish are frequently used to study diseases. Because their embryos are transparent, the zebrafish brain and other organs can be visualized directly in the live animal. "Zebrafish brains, while much smaller and less complex, share many similarities with human brains," Dr. Burton explains. "They are the lowest level of vertebrate, so the basic layout of their nervous system is comparable to that of mammals, birds, and reptiles."

In 2012, Dr. Burton received an Aging Institute Seed Grant to develop genetically modified zebrafish to test new drugs for treatment of Parkinson's disease, and explore the role of cellular aging on the development of the disease. "The seed grant came at a critical time in our work," he says. "This particular project would have almost certainly been considered too speculative for traditional funding mechanisms, but the pilot study has led to two possible NIH grants."

Caterina Rosano, MD, PhD Associate Professor of

University of Pittsburgh

Epidemiology

As a child growing up in Palermo, Italy, Dr. Caterina Rosano was fascinated by the mysteries of the brain. That interest sparked a

personal passion in the young Caterina as she pushed herself to learn and keep learning, to be smart and become smarter.

In her quest to further unlock the complexities of the mind, Dr. Rosano went on to medical school and doctoral studies in neuroscience. She began using magnetic resonance imaging (MRI) to study human brain performance in both



young and old adults — eventually using the technology to study gait and balance in the elderly. Her research began to look at brain resilience and ability to adapt and compensate.

In 2012, Dr. Rosano received an Aging Institute Seed Grant to study the brains of lifelong, sedentary senior adults who participated in a two-year walking program. She and co-principal investigator Howard Aizenstein, MD, PhD, associate professor of psychiatry, bioengineering, and clinical and translational science at the University of Pittsburgh, are using MRIs to measure changes in brain blood flow and brain health in participants. "Our focus is on understanding the changes in the brains of older adults and the impact of late-life interventions," says Dr. Rosano. "We want to understand why and how these changes occur."

The project builds on an earlier study involving a group of seniors age 70 and older. Half of the group remained sedentary, while the other half began walking at least 150 minutes a week. Results of that study showed that those who walked regularly were faster at test taking and made fewer errors compared to others. In addition, brain scans showed that more parts of the brain were activated in the walkers compared to those who remained sedentary.

"My personal goal is to demonstrate that it is possible to change the lifestyle of older adults — even the very frail — and have a positive impact on the brain," says Dr. Rosano.

Researchers will analyze the before and after MRIs to measure changes in an area of the brain near the hippocampus, which plays an important role in memory. Results of the study are expected in late spring 2014.

Chao Hsing Yeh, PhD, RNAssociate Professor of
Nursing

University of Pittsburgh

Before coming to the United States, Dr. Yeh specialized in symptom management for pediatric oncology patients in her



native Taiwan. As a certified master of auricular medicine, she used a form of traditional Chinese medicine known as auricular therapy (ear point acupressure) to minimize the side effects of chemotherapy on children.

In traditional Chinese medicine, a disease is considered to be caused by an imbalance of a person's energy, known as Qi. The stimulation of auricular points regulates Qi, activates the meridians and collateral systems, and has been successful in treating health problems.

In 2012, Dr. Yeh received a seed grant from the Aging Institute to assess the use of ear point acupressure in controlling chronic low back pain (CLBP) in older adults. "My project built on an earlier study that offered just one week of therapy," says Dr. Yeh. "Through the seed grant, I was able to extend the therapy to 4 weeks, and do broader testing to identify the underlying biological mechanism for the pain relief using cytokine biomarkers."

Treatment involved applying a seed-embedded tape to each patient's ear. "We used vaccaria seeds from China, which are a good size to stimulate the acupoint," explains Dr. Yeh. "Participants then learned how to press the seeds, which often provided relief from even severe pain in just a few minutes." Participants were assessed before treatment, weekly during treatment, and a month following treatment.

The study concluded in June 2013. "While we still have to review the data, the overall response has been very positive," reports Dr. Yeh. "Participants were initially very skeptical but eager to seek pain relief. They were drawn to the fact that this is a non-medicinal and non-invasive treatment."

Dr. Yeh hopes to pursue future funding for a clinical trial to test the efficacy of acupressure for pain relief. She is also interested in the correlation between genetics and lower back pain.

Aging Institute Scholarships

Meeting the growing health care demands of older adults requires informed professionals in almost every field — medical, legal, mental health, financial, nutrition, pharmaceutical, social services, and more. These professionals serve as critical advocates on behalf of seniors, ensuring their access to quality care, resources, and support.

The Aging Institute actively encourages full-time UPMC employees to take on leadership roles in geriatrics by awarding \$2,500 scholarships annually toward studies in the University of Pittsburgh's innovative **Graduate Gerontology Certificate Program**.

Developed jointly by the Aging Institute and the University of Pittsburgh's Center for Social and Urban Research, and the College of General Studies, the certificate combines interdisciplinary perspectives to achieve better care and new solutions in geriatrics.

This year's scholarship recipients include UPMC professionals from a rehabilitation center, hospital, and senior community.

2012-2013 Scholarship Recipients

Jamie Dunlap, DPT *Physical Therapist and*

Facility Director

UPMC Centers for Rehab Services in Greensburg, PA

Jamie Dunlap began working for UPMC Centers for Rehab Services in 2008 as a floating physical



therapist before taking on the role of facility director at the Greensburg clinic in 2010. She has witnessed the impact of injuries on elderly patients, as well as middle-aged adults acting as caretakers for aging parents.

"Injuries can affect an older person's independence and cause concern for baby boomers dealing with shoulder problems and other injuries that impact their ability to care for relatives," she says.

Jamie, who earned her doctorate of physical therapy at Duquesne University in 2008, says seeing the challenges faced by older patients, their families, and caretakers inspired her to pursue the Graduate Gerontology Certificate.

"Our aging population will only increase as Baby Boomers grow older. It's important for us to better understand the aging process, and its impact on the body and mind of the elderly, as well as the impact on families," Jamie says. "I hope this certificate will improve my understanding and the way I interact with older patients."

Ryan King, BS, MPT Clinical Director, Orthopaedic and Neurology Services

UPMC Hamot

Ryan King has worked with a variety of patients since joining the staff at UPMC Hamot in 1999. During his



years as a physical therapist and manager of Physical and Occupational Therapy, he cared for many older patients who had undergone hip, knee, and shoulder replacements. Since becoming clinical director of Orthopaedic and Neurology Services in 2012, he also has helped to educate patients and family members about strokes.

That experience motivated Ryan to pursue the Graduate Gerontology Certificate as the first step in helping UPMC Hamot develop more geriatric-specific programs — especially prevention and treatment of hip fractures and strokes.

"The 65 and older population is growing. I want to develop programs to identify those at risk of osteoporosis and falling, which puts them at increased risk of hip fractures," says Ryan, who earned a master's degree in physical therapy at Gannon University where he is currently pursuing an MBA.

"Ultimately, my goal is to improve the quality of care and satisfaction of our geriatric patients so they can return home sooner and have a better prognosis," he says.

Christina Wilhelm, RN, BSN Registered Nurse, Sherwood Oaks - Part of UPMC Senior Communities

Oak Grove Center Secure Dementia Unit

Christina Wilhelm says she has found my "niche" since coming to work at



the secure dementia unit at Sherwood Oaks' Oak Grove Center in 2010.

The former Army Reserve specialist, who served a year of active duty in Iraq, initially worked with veterans as a student nurse at the VA Hospital in Aspinwall, PA. At Sherwood Oaks, Christina discovered she has a natural connection with the elderly and enjoys using her skills to make them feel more comfortable.

Christina, who earned her BSN at Penn State Beaver in 2012, sees herself as an advocate for patients. By pursuing a Graduate Gerontology Certificate — and eventually, a master's degree in nursing — she hopes to improve her knowledge and understanding of the aging process.

"I want to be on the right wavelength concerning patient needs. Just because a patients don't remember, that doesn't mean they don't need their families," says Christina. "I hope to improve the quality of life for the residents, to educate families, and to share my knowledge with my peers.

Together, we can make a difference."

2013 Health Career Scholars Academy

The Aging Institute participates annually in the University of Pittsburgh's Health Career Scholars Academy, a unique summer program for gifted high school students.

Students who choose the geriatrics concentration receive an in-depth look at the field from the staff and

board members of the Aging Institute, and from faculty throughout the University of Pittsburgh.

Students explore aging issues, such as chronic pain and mood disorders, balance disorders, falls and difficulty walking, memory problems and dementia, and other complex health problems that affect the elderly.











LEADERSHIP PROFILES



Paul Winkler

President and CEO • Presbyterian SeniorCare

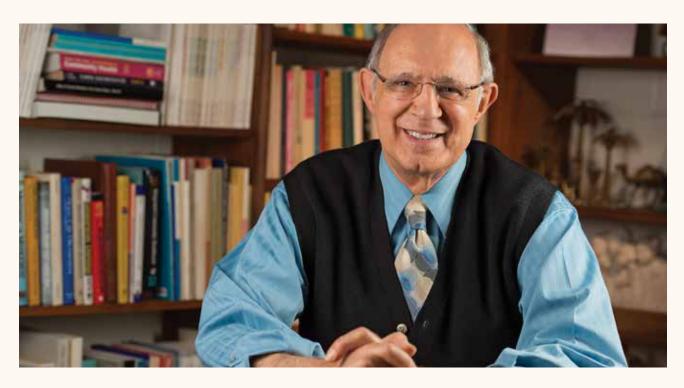
"We try to be person-centered in all we do — from hospital to home. We look at the individuals and their families with a holistic approach. If we can all be on the same page — the hospitals, facilities, and agencies — then services can be optimized. That's inherent in good quality of care and good quality of life."

Described by his peers as a man of vision, Paul Winkler's extraordinary leadership has improved the lives of seniors throughout western Pennsylvania and beyond. His ability to encourage collaboration, embrace change, and break down barriers has helped to ensure that older adults live with respect and dignity.

During his 26 years at Presbyterian SeniorCare — including 14 years at the helm — he steered the organization as it evolved to provide a lifetime continuum of care. Today, Presbyterian SeniorCare's communities serve 6,500 older and disabled adults annually in 44 locations, making it the largest provider of eldercare in the Pittsburgh area.

Guided by a goal of "being person-centered in all we do," Paul Winkler's tireless efforts have opened new doors of hope for older adults and their families, including greater access to senior housing for low-income adults, specialized services for Alzheimer's patients, and increased home-based services. He also has led a culture change initiative, resulting in a more home-like environment in residential living facilities.

His unwavering commitment to senior causes is evident in his leadership in numerous state and local organizations. He has served as chair of LeadingAge PA, a statewide organization representing more than 360 not-for-profit senior service organizations, and as chair of the National Advisory Committee at the University of Pittsburgh's Graduate School of Public Health, Health Administration Program. He is the founding director and former chair of the Greater Pittsburgh Chapter of the Alzheimer's Association and immediate past chair of Family Hospice and Palliative Care. He has served in leadership roles with the boards of Hospital Council of Western Pennsylvania and the Southwestern Pennsylvania Partnership for Aging.



Edmund Ricci, PhD, MLitt

Associate Director of Evaluation Sciences • Aging Institute

"The tremendous stresses of being a caretaker cannot be denied. There are resources out there, but I struggled to identify them — even with all my contacts, professional network, and experience. What must it be like for others? We need to recognize and support the critical role that caregivers play."

Caring for a loved one — particularly over an extended period of time — can be an emotionally, physically, and financially draining experience. For Dr. Edmund Ricci, the challenges he encountered as a caregiver were also life changing — and life affirming.

When his beloved wife, Joann, was diagnosed with a rare and debilitating neuromuscular disease, Dr. Ricci provided loving care throughout the six years of her illness while continuing to demonstrate exceptional leadership in his career.

Internationally sought for his expertise in scientific evaluations and surveys, Dr. Ricci's work puts him at the forefront of problem solving in health care. As associate director of evaluation sciences at the Aging Institute of UPMC Senior

Services and the University of Pittsburgh, Dr. Ricci focuses on the study of elder minority health disparities, long-term care services and institutions, medical homes, emergency and disaster medicine, and substance abuse intervention programs.

Dr. Ricci's work is driven by his personal experience as a caregiver, says Charles F. Reynolds III, MD, director of the Aging Institute. "Ed is an inspiration to all of us. He harnessed his personal life experiences and turned them into motivation for his work as a much admired leader of the Aging Institute," says Dr. Reynolds. "He continues to work tirelessly to improve, coordinate, and integrate the services available to caregivers of family members living with complex diseases."

His commitment to helping ease the challenges faced by caregivers is evident through his professional and volunteer activities. He currently chairs the Advisory Council for the Allegheny County Area Agency on Aging, and served as co-director of the Training and Information Transfer Core, Alzheimer's Disease Research Center at the University of Pittsburgh.

GERIATRIC EDUCATION

ADDRESSING THE KNOWLEDGE GAP

Educating health care professionals and service providers on the physical, mental, and medical challenges of aging has been the hallmark of the Aging Institute's outreach efforts since its inception. Those on the front line of caring for older adults praise the Institute's programs for their relevant, handson, and experiential approach, and the concrete insights they give into the complexities of aging.

Interest in geriatric education continues to grow. As one of the region's leading resources for geriatric education, the Aging Institute offers extensive staff training and development, as well as engaging presentations for the community. In 2012-13, educational training classes and presentations were offered on virtually a daily basis throughout the University of Pittsburgh, UPMC, UPMC School of Nursing, and most UPMC Senior Communities' facilities.

A Guide to the Aging Institute's Educational Programs

New in 2013

INSPIRE/Advanced Caregiver Series: Piloted in 2013, this program seeks to provide personalized, comprehensive support to long-term caregivers, particularly those providing in-home care to older adults with dementia.

Senior Living LGBT Sexuality Training: A two-hour staff sensitivity program addressing the unique challenges faced by lesbian, gay, bisexual or transgender older adults living in senior care communities. This program was made possible with the help of Pittsburgh's PERSAD Center.

On-Going Programs

Ageless Wisdom: A simulated, interactive-learning approach that allows participants to personally experience and explore some of the unique challenges faced by older adults, such as blurred vision and mobility problems. Includes two- and four-hour formats.

Ageless Wisdom Train the Trainer: Prepares professionals to teach the **Ageless Wisdom** program. To date, more than 150 individuals have completed this training.

Gerontology Certificate: A four-day program for front line workers that builds the skills of nursing facility staff whose members provide direct bedside care to frail older adults. All geriatric syndromes are reviewed and the interactive components of **Ageless Wisdom** and a training series on

dementia are included. Discussion of case studies focused on current issues in long-term care facilities engage employees in problem-solving and enhance critical thinking skills. Employees are encouraged to work in small groups and also present their solutions to the other participants.

Gerontological Nurse Certification Review: Fewer than one percent of all nurses nationwide are certified as geriatric nurses. The Aging Institute offers review courses twice a year to prepare registered and licensed practical nurses to sit for the Gerontological Nurse certification exam of the American Nurses Credentialing Center (ANCC) or the National Association for Practical Nursing Education and Service (NAPNES).

Graduate Gerontology Certificate: Developed jointly by the Aging Institute and the University of Pittsburgh's Center for Social and Urban Research and the College of General Studies, this certificate combines interdisciplinary perspectives to achieve better care and new solutions in geriatrics. The Aging Institute teaches two online programs for the certificate: Perspective in Aging and Caregiving.

Geriatric Resource Nurse (GRN) Program: An intensive, eight-hour class focused on developing the nursing and leadership skills needed to work with older adults in an acute-care setting and to advise peers on their bedside care.

I AM HERE: Interventions for Assessment of Mental Health in Elders with Resources and Education: An interactive training program developed in cooperation with





the Aging Institute and the Geriatric Education Center of Pennsylvania, focusing on critical mental health issues ranging from depression and dementia to substance abuse.

Finding Your G.P.S. (Goals, Passion, Support): Focuses on helping older adults to navigate the detours that come with life changes during aging, and how to plan effectively for the future.

New Programs in 2013

INSPIRE (Inspiring New Solutions; Providing Individualized Resources and Education)

A Pilot Program for Advanced Caregivers

There are many excellent community-based and online information resources available to caregivers, including the UPMC Health Plan's **Powerful Tools for Caregivers**. But long-term caregivers — particularly those spouses and relatives caring for older adults with dementia — face many additional challenges that remain unaddressed. In spring 2013, a dozen individuals were recruited in partnership with Carnegie Library of Pittsburgh to participate in **INSPIRE**, a

six-week pilot for advanced caregivers. Based on their input, the institute is currently restructuring **INSPIRE** to include more individualized support, as well as more in-depth dementia education to better manage and plan for behavioral and health care changes as the disease progresses. Because research shows long-term caregivers are often subjected to verbal and physical abuse, the program also will introduce participants to such crisis intervention resources as UPMC's **re:solve Crisis Network**.

Senior Living LGBT Sexuality Training

Studies show that lesbian, gay, bisexual, and transgender (LGBT) individuals who live in senior care communities often encounter immense discrimination and ostracism by their fellow residents. Working in partnership with UPMC Senior Communities and Pittsburgh's PERSAD Center, Inc. — the nation's second oldest licensed mental health agency serving the LGBT community — the Aging Institute has developed a two-hour training program to sensitize frontline staff to the stigmas faced by LGBT residents, and their potential impact on mental and physical well-being. Training will be provided to staff members at all UPMC Senior Communities facilities.

Delirium Training Videos

Delirium is the most frequent complication associated with the hospitalization of older adults, but it often goes unrecognized. Its impact can be profound, leading to prolonged hospital stays, the need for long-term care, and even death. Common symptoms include being disoriented, the inability to concentrate or sleep, and memory loss. To assist UPMC nurses and other staff in the early identification of delirium in patients, the Aging Institute partnered with UPMC's Office of Communication and Lalith Solai, MD, assistant professor of psychiatry, University of Pittsburgh; Neil Resnick, MD, chief, division of geriatric medicine, University of Pittsburgh; and staff members from UPMC Shadyside, Magee Women's Hospital of UPMC, UPMC McKeesport, UPMC Presbyterian, and UPMC Passavant. With their partnership, a series of brief training segments were developed to assess and prevent delirium. These will be posted on UPMC's intranet for easy staff reference. Facilitating the project were Tami Minnier, RN, MSN, FACHE, chief quality officer for UPMC, and Susan Christie Martin, MSN, director, Donald D. Wolff Jr. Center for Quality, Safety, and Innovation at UPMC.

Other 2012-13 Educational Highlights

The Pennsylvania Association of Directors of Nursing/ Long Term Care Nurses (PADONA/LTCN)

Providing engaging and experiential staff development is the cornerstone of the Aging Institute's educational efforts. To build awareness of its training programs and using simulation in education, the Institute presented to nearly 400 participants at the 2013 conference of PADONA/LTCN in Harrisburg, Pa. The organization represents directors, assistant directors, nursing supervisors, and other professionals in long-term care, along with consultants to directors of nursing in long-term care.

Healthcare Education, Harrisburg Area Community College (HACC)

Harrisburg Area Community College's Healthcare Education program is the leading provider of nurse aide certification statewide. In summer 2013, four HACC faculty members completed the Aging Institute's **Ageless Wisdom: Train the Trainer Program**, with plans to integrate Ageless Wisdom in the College's nurse aide certification curriculum.

Gerontological Nurse Certification Review

Several years ago, the Aging Institute nearly cancelled its Gerontological Nurse Certification Review due to low enrollment. This year, more than 90 registered and licensed practical nurses completed the exam review program, offered at UPMC Senior Communities' Cumberland Woods Village on the campus of UPMC Passavant. The institute offers the program at no charge to UPMC nursing staff.

Gerontology Certificate Program at Presbyterian SeniorCare

Frontline nursing staff at Presbyterian SeniorCare participated in four days of training to receive the institute's gerontology certificate. Delivered over a four-week period,

Ageless Wisdom

Ageless Wisdom serves as a dynamic educational program, geared to a wide variety of audiences, that seeks to build awareness of the changes that may accompany aging through interactive modules.

the training is designed for staff who provide direct care to older residents.

Ageless Wisdom: Seeing Is Believing

While attending a conference in State College in 2011, Susan E. Biggs says she "was blown away" by a presentation of the Aging Institute's **Ageless Wisdom** program by gerontology educator Betty Robison. Participants engaged in exercises that simulated what it is like to perform everyday tasks while dealing with aging-related changes, such as vision and hearing loss, and mobility and balance issues.

"It was an incredibly powerful and vivid way to see things through the eyes of an older person," says the managing director of Healthcare Education at HACC, central Pennsylvania's Community College. "I just couldn't stop thinking about it."

In the summer of 2013, Ms. Biggs arranged for 14 HACC adjunct faculty members to enroll in the **Ageless Wisdom**: Train the Trainer program. In fall 2013, two of the faculty conducted the **Ageless Wisdom** program for dietary workers in Pittsburgh, Philadelphia, and Harrisburg. Moving forward, Ms. Biggs hopes to introduce facets of the **Ageless Wisdom** program into the nurses aide curriculum at HACC — one of largest programs of its kind in Pennsylvania.

"There's no better way to understand the blurred vision and mobility issues encountered by the elderly," says Ms. Biggs. "That increased awareness can be empowering for health care workers."



Community Garden at Cumberland Crossing Manor



Through the efforts of the Aging Institute, the Community Garden at UPMC Senior Communities Cumberland Crossing Manor received an \$8,367 grant in 2013 from the Passavant Hospital Foundation at UPMC Passavant. The grant was used to complete an irrigation system and put in a gravel walkway, making the garden wheelchair-accessible. Boy and Girl Scout troops from



the North Hills area of Pittsburgh participate with residents on maintaining the garden, and in spring 2013, children from a local grade school helped to plant flowers to encourage pollination and beneficial insects. Produce reaped through the intergenerational project is shared with the families of Cumberland Crossing Manor residents.



Building Awareness of Elder Abuse

Elder abuse can take many forms — from physical, emotional, and sexual abuse, to financial exploitation, neglect, and abandonment. To launch Pennsylvania's Elder Abuse Awareness Month, UPMC Senior Communities and the Aging Institute sponsored a community event at UPMC Senior Communities Cumberland Woods Village on June 6, 2013, that focused public attention on this often-unreported and growing problem.

Pennsylvania Secretary of Aging Brian Duke was the featured speaker at the event, attended by more than 100 individuals from throughout the community. Joining him was Pennsylvania Supreme Court Justice Debra Todd, chair of that court's newly established Elder Law task force.

"Our highest priority is protecting vulnerable older adults from abuse and making others aware of the signs of neglect, abuse, abandonment, and exploitation," said Secretary Duke.

It is estimated that more than one out of every 10 adults over 60 experience some form of abuse annually. In Pennsylvania, more than 18,000 cases of suspected neglect and abuse were reported to the Department of Aging in 2012.

Living Its Commitment to Quality Senior Care:

NICHE Certification Sees Gains at UPMC McKeesport

Last year, with financial support and training from the Aging Institute, UPMC McKeesport became the first western Pennsylvania hospital to be designated as a **Nurses Improving Care for Healthsystem Elders (NICHE)** facility.

"We turned to the Aging Institute because we wanted to help our staff deliver even better care for our growing geriatric patient population," says Mary Shields, MSN, RN-BC, director of inpatient rehabilitation and transitional care at UPMC McKeesport and the hospital's NICHE coordinator. Three out of every five patients admitted to the hospital are age 65 and older; one in five is over age 85.

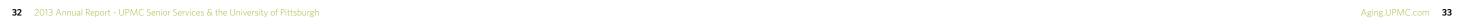
"We began training staff leaders in the Institute's **Ageless Wisdom: Train the Trainer** program in 2011," she says. "Our goal was to be able to deliver geriatric sensitivity training within a year to everyone who came in contact with older patients."

"At the Aging Institute, we were impressed at how enthusiastically everyone embraced the training," says Betty Robison, MSN, RN-BC, the Institute's gerontology educator. "That prompted us to encourage UPMC McKeesport to pursue **NICHE** designation, a nurse-driven program to help hospitals improve the care of older adults."

UPMC McKeesport's collaboration with the Institute as a **NICHE** facility has continued. Based on staff requests, additional geriatric training was developed by the Institute in 2012-13 on targeted geriatric syndromes, including urinary incontinence and insomnia. "We're interested in continually educating our staff on the differences between caring for older adults and the general population," says Ms. Shields

Additionally, more than 85 nurses have participated in the Institute's **Geriatric Resource Nurse (GRN) Program**. "Part of UPMC McKeesport's NICHE commitment is to ensure that qualified nursing staff are available 24/7," says Ms. Robison.

As part of NICHE, UPMC McKeesport now participates in an annual benchmarking survey that measures staff knowledge in a wide variety of geriatric areas. "We saw significant gains between summer 2012 and 2013 in staff knowledge in the use of restraints (27.9 percent), pressure ulcers (13.4 percent), incontinence (30.5 percent), and total knowledge (19.6 percent), as well as measureable gains in staff attitudes and perceptions," reports Ms. Shields. "We're delighted to see this kind of progress in just one year."





CONNECTING TO THE COMMUNITY

THE AGING INSTITUTE INFORMATION AND REFERRAL LINE

The Information and Referral Line is the community face of the Aging Institute. It is a free, non-insurance related referral line dedicated to serving the needs of seniors.

Each year, a wide variety of phone calls representing a variety of needs are received from older adults and their family members, as well as attorneys, physicians and other health care professionals, and social workers. The majority of callers found out about the referral line through Internet searches, although health care providers accounted for a significant number of referrals to the service, as well as referrals from family and friends.

Two staff members link callers to a wealth of community resources on such topics as:

- Non-medical in-home services, including housekeeping and personal care
- Support for caregivers
- Finding a doctor
- Depression and other mental health issues
- Assisted living and nursing home care
- Advance directives
- Financial assistance
- Legal and financial services

In 2012-13, callers ranged in age from 19 to 92. While most calls came from Allegheny County and other parts of western Pennsylvania, callers connected with the referral line from as far away as California.

The Aging Institute's New Website

With an anticipated launch in the first quarter of 2014, the Aging Institute's new website, Aging.UPMC.com, will further increase public use of the Information and Referral line. Additional promotional efforts at senior health fairs and other community events also are planned to expand awareness of the service.



Living Healthy in the Face of Long-Term Illness

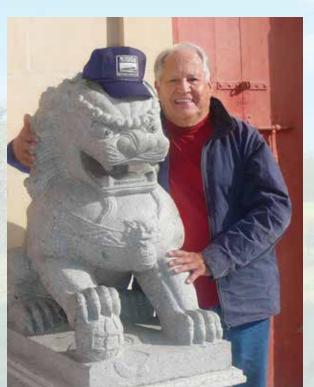
George Bentrem, MD, had a thriving OB-GYN practice in Virginia when he briefly lost sight in one eye. Several months later, his hand went numb while tying a surgical knot. Those symptoms soon led to a diagnosis of multiple sclerosis (MS), cutting short his medical career when George was only in his mid-50s.

That was 20 years ago, but life has hardly stopped short for him. A native of Bridgeville, George eventually returned to Pittsburgh to help care for his aging parents. His three sons went on to become successful physicians. Best of all, an online dating service led him to his current wife, Carol Larson, associate director of the University of Pittsburgh's Study Abroad Office. They've been celebrating life together for the past 17 years, working together to manage the challenges of George's MS as the disease evolves.

Last year, Islam Zayden, MD, assistant professor of neurology at the University of Pittsburgh School of Medicine and a member of the comprehensive UPMC Multiple Sclerosis Center, recommended that George and Carol contact the **Aging Institute's Information and Referral Line** for help in battling bouts of depression. The call ultimately led them to **University of Pittsburgh's Late Life Depression Evaluation and Treatment Center**. "UPMC and Pitt have been remarkable resources for us," says Carol. "We're so lucky to have access to some of the leading health care and research experts in the world."

Both acknowledge that MS has its challenges, but they refuse to let it define their world. Carol is a passionate international educator and her love of travel has taken the couple around the globe. "We've been to Greece and Egypt, South Africa and the Arctic Circle," she says. "And we have much more to see!"

The couple is already planning their next trip to Australia, New Zealand, and Fiji. "We believe that you get out of life what you put into it, and we're determined to live it to the fullest," says Carol. "With planning and the right attitude, you can go anywhere."







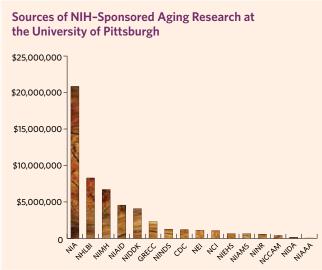


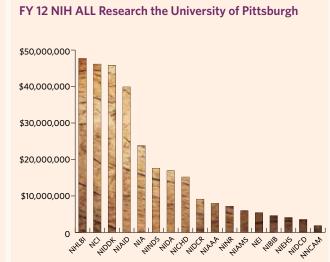
RESEARCH

Evidence-based research informs and inspires the agenda of the Aging Institute, which strives to then translate those findings into improving the care and quality of life of older adults.

The scope, depth, and continuity of work conducted by the Aging Institute's partners at the University of Pittsburgh position it among the nation's leading resources of aging-related research.

The following pages highlight leading research initiatives published in prestigious peer-reviewed scientific journals in 2012-13.





Centers of Excellence Research Publications Highlights

Advanced Center in Intervention and Services Research in Late Life Depression Prevention (ACISR/LLMD)

Director: Charles F. Reynolds III, MD

A Hartford Center of Excellence, ACISR/LLMD provides a research infrastructure to promote investigations that ultimately will improve real world practice in the care of elderly living with depression and other severe mood disorders. It focuses on prevention and rehabilitation; improving care of difficult-to-treat late life mood disorders and providing assistance to families; and identifying and removing barriers to effective treatment practices in the community, especially among older primary care African Americans, in the nursing home, and in the rehabilitation setting.

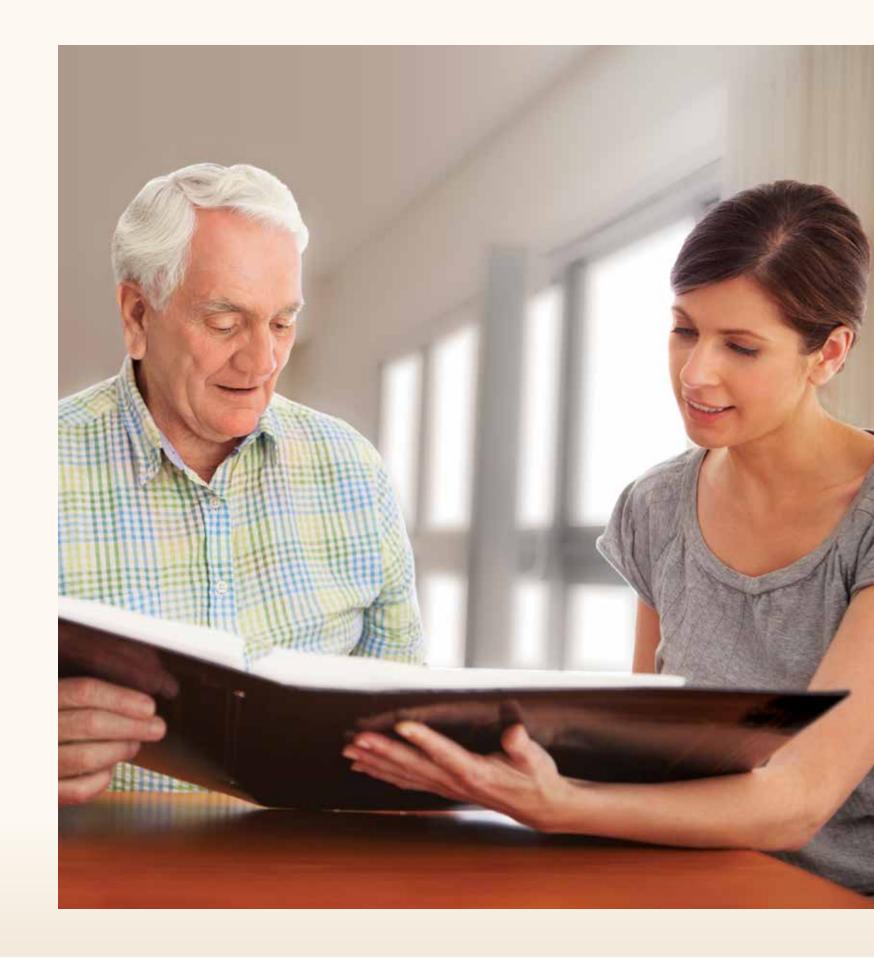
Gallo JJ, Morales KH, Bogner HR, Raue PJ, Zee J, Bruce ML, and Reynolds CF. Long-term effect of depression care

management on mortality in older adults: a cluster-randomized clinical trial in primary care. **British Medical Journal**, 2013 June 05 (Epub) PMCID: PMC3673762.

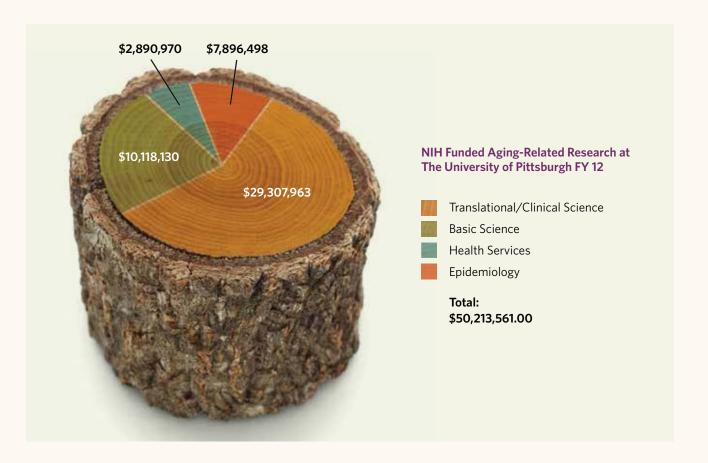
Evidence-based depression care management for older adults in primary care with major depression lowers mortality risk by 24 percent over 8-year follow up, relative to care as usual. Reduction in mortality risk is due to decreased deaths from cancer.

van Zoonen K, Burntrok C, Ebert DD, Smit F, Reynolds CF, Beekman A, and Cuijpers P. Preventing the onset of major depressive disorder: a meta-analytic review of psychological interventions. **International Journal of Epidemiology**, in press.

In a meta-analysis of 32 randomized controlled trials examining the effects of preventive interventions in participants with no diagnosed depression, we found a 21 percent decrease in incidence over 1 to 2 years of diagnosed depressive disorders in comparison to control groups.



3 Aging.UPMC.com Aging.UPMC Senior Services & the University of Pittsburgh



Lokkerbol J, Adema D, Cuijpers P, Reynolds CF, Schulz R, Weehuizen R, and Smit F. Improving the cost-effectiveness of a health care system for depressive disorders by implementing telemedicine: a health economic modeling study. **American Journal of Geriatric Psychiatry**, 2013 June 3 (Epub).

In terms of return on investment, a health care system with preventive telemedicine for depressive disorders offers better value for money than a health care system without the Internet-based prevention.

Alzheimer's Disease Research Center (ADRC)

Director: Oscar Lopez, MD Co-Director: William E. Klunk, MD, PhD

The ADRC performs and promotes research designed to gain an understanding of the etiology and pathogenesis of Alzheimer's disease (AD) and the mechanisms underlying the cognitive and neurobiological changes. It also develops strategies targeted at effective early diagnoses and treatments for AD and other dementias. Its research centers around the areas of genetics, neuroimaging, neuropathy, and minority outreach. A major focus is matching participating patients and family members with volunteer opportunities for AD-related studies.

Lopez OL, Becker JT, Chang CF, Sweet RA, Dekosky ST, Gach HM, Carmichael OT, McDade E, and Kuller LH. Incidence of mild cognitive impairment in the CHS Cognition Study.

Neurology, 2012; 79: 1599-1606. PMCID: PMC3475628.

This study showed that the majority of the individuals age 80 and older developed a mild cognitive impairment (MCI) syndrome and half of them progressed to dementia. Once the MCI syndrome was present, the symptoms of dementia appeared within 2 to 3 years. Progression from normal to MCI or from normal to MCI to dementia is not always linear; subjects who developed MCI and later returned to normal can subsequently progress to dementia. Competing mortality and morbidity influenced the study of incident MCI and dementia in population cohorts.

Tsuang D, Leverenz JB, Lopez OL, Hamilton R, Bennett D, Schneider J, Buchman AS, Larson EB, Crane P, Kaye J, Trojanowski JQ, Masliah E, Galasko D Kukull W, Yearout D, Huston H, Fritts-Penniman A, Kramer P, Woltjer R, Neltner J, Nelson P, Mata I, Jicha G, Edwards KL, Schellenberg G, Montine T, and Zabetian C. Glucocerebrosidase Gene Mutations increase risk for Lewy body disease with and

without Alzheimer's disease pathology. **Neurology**, 2012; 79: 1944-1950. PMCID: PMC3484986.

This study examined the association between Lewy body pathology and glucocerebrosidase (GBA) gene mutations. GBA is a susceptibility gene across the Lewy body disease spectrum, but not in "pure" Alzheimer's disease (AD), and appears to convey a higher risk for Parkinson's disease (PD) and "pure" Lewy body dementia (pLBD) than for the Lewy body variant of Alzheimer's disease (LBV-AD). This might indicate that PD and pLBD are more closely linked to one another in terms of genetic determinants and pathophysiology than either is to LBV-AD.

Lopez, OL, Becker JT, Chang YF, Sweet RA, Aizenstein H, Snitz B, Saxton JA, McDade E, Kamboh MY, DeKosky ST, Reynolds CF, and Klunk WE. The long-term effects of typical and atypical antipsychotics in patients with Probable Alzheimer's disease. **The American Journal of Psychiatry**, 2013 (in press).

This study examined the relationship between typical and atypical antipsychotics and death and nursing home (NH) placement in a large cohort of probable Alzheimer's disease patients. The use of antipsychotic medications, both typical and atypical, was not associated with either time to NH admission or time to death after adjusting for relevant covariates. Rather, it was the presence of psychiatric symptoms — including psychosis and agitation — that was linked to increased risk of institutionalization and death after adjusting for exposure to antipsychotic agents.

Snitz BE, Weissfeld LA, Lopez OL, Kuller LH, Saxton J, Singhabahu DM, Klunk WE, Mathis CA, Price JC, Ives DG, Cohen AD, McDade E, and Dekosky ST. Cognitive trajectories associated with beta-amyloid deposition in the oldest-older without dementia. **Neurology**. 2013;80:1378-1384. PMID: 23516317; PMCID: 3662268.

Highly prevalent Abeta deposition in oldest-older adults is associated with cognitive decline in visual memory, semantic fluency, and psychomotor speed beginning 7 to 9 years prior to neuroimaging. Mean differences in nonmemory domains, primarily executive functions, between Abeta-status groups may be detectable 7 to 9 years before neuroimaging.

Cohen AD, Mowrey W, Weissfeld LA, Aizenstein HJ, McDade E, Mountz JM, Nebes RD, Saxton JA, Snitz B, Dekosky S, Williamson J, Lopez OL, Price JC, Mathis CA, and Klunk WE.

Classification of amyloid-positivity in controls: comparison of visual read and quantitative approaches. **Neuroimage**, 2013;71:207-215. PMID: 23353602; PMCID: 3605888.

The visual read and SKM methods, applied together, may optimize the identification of early Abeta deposition. These methods have the potential to provide a standard approach to the detection of PiB-positivity that is generalizable across centers.

Nebes RD, Snitz BE, Cohen AD, Aizenstein HJ, Saxton JA, Halligan EM, Mathis CA, Price JC, Kamboh MI, Weissfeld LA, and Klunk WE. Cognitive aging in persons with minimal amyloid-beta and white matter hyperintensities (WMH). **Neuropsychologia**, 2013 (online). PMID: 23911776.

The results of this study suggest that normal elderly individuals whose brain scans show minimal evidence of amyloid deposition or WMH still demonstrate a major decrement in comparison to younger persons on measures of processing resources and inhibitory efficiency.

Geriatric Research, Education and Clinical Center (GRECC)

Director: Steven Graham, MD

The GRECC is funded by the Department of Veterans Affairs and provides an integrated program of basic biomedical, clinical, and health services research; education of trainees and practitioners; and clinical demonstration projects designed to advance knowledge regarding the care of the elderly, with an emphasis on stroke. Its research focus includes neuronal-cell death in stroke, gene therapy in cerebrovascular disease, depression in the elderly, polypharmacy in long-term care, and end-of-life care.

Liu H, Li W, Ahmad M, Rose ME, Miller TM, Yu M, Chen J, Pascoe JL, Poloyac SM, Hickey RW, Graham SH. Increased generation of cyclopentenone prostaglandins after brain ischemia and their role in aggregation of ubiquitinated proteins in neurons. **Neurotoxicity Research**, 2013; 24: 191-204, 2013. PMCID:

Neuronal cell death is a major
determinate of cognitive decline in aging
and may be mediated in part by the
production of reactive compounds produced
by metabolism of omega 6 fatty acids
common in the Western diet. This study shows
that one type of reactive omega 6 fatty acids

products, cyclopentenone prostaglandins, binds to a protein implicated in the pathogenesis of Parkinson's and Alzhiemer's diseases and results in abnormal accumulations of damaged proteins in neurons commonly seen in these diseases.

Liu H, Rose ME, Miller TM, Li W, Shinde SN, Pickrell AM, Poloyac SM, Graham SH, and Hickey RW. COX2-derived primary and cyclopentenone prostaglandins are increased after asphyxial cardiac arrest. **Brain Research**, 2013; 1519: 71-7, PMCID: 3681205.

Cyclopentenone prostaglandins and other omega 6 fatty acid products produce aggregation of abnormal proteins in neurons similar to what is seen in Parkinson's and Alzheimer's diseases. The current study shows that these fatty acids are produced after brain ischemia, a common comorbidity in patients with neurodegenerative diseases.

Liu H, Li WJ, Rose ME, Pascoe JL, Miller TM, Ahmad M, Poloyac SM, Hickey RW, and Graham SH. Prostaglandin D2 toxicity in primary neurons is mediated through its bioactive cyclopentenone metabolites. **NeuroToxicology**, in press.

This study shows that PGD2, the most common prostaglandin produced in the brain, is metabolized to cyclopentenone prostaglandins. These cyclopentenone prostaglandins produce cell death and abnormal aggregation of proteins within neurons similar to those found in brains of patients with neurodegenerative diseases.

Division of Geriatric Medicine

Director: Neil M. Resnick, MD

Designated a National Center of Excellence by the John A. Hartford Foundation, the University of Pittsburgh's Division of Geriatric Medicine is committed to excellence in geriatric research, clinical care, and training. Its research includes the biology of aging, cancer, dementia, depression, falls, frailty, heart disease, incontinence, infections, mobility, osteoporosis, pain, pharmacotherapy, resilience, and sarcopenia.

A.A. Ferguson, L. Cai, L. Kashyap, and A.L. Fisher. Improved vectors for the selection of transgenic C. elegans. **Methods in Molecular Biology**. 2013; 940:87-102.

Dr. Fisher's group has pioneered the use of homologous recombination in E. coli to quickly add selectable markers to transgenes and streamline the production of transgenic nematodes. In this work, they report options for modifying both

the commonly used small plasmids and larger genomic regions carried in fosmid library clones. Together these approaches permit the production of more sophisticated transgenic animals in a simple, and time and cost-effective manner.

Nadkarni NK, Studenski SA, Perera S, Rosano C, et. al. White matter hyperintensities, exercise, and improvement in gait speed: does type of gait rehabilitation matter? **Journal of the American Geriatrics Society**, 2013; 61:686-93.

Ischemic damage to brain white matter tracts alters neural connectivity, causes clinical problems with gait and cognition, and is common with aging. To determine whether it also affects ability to respond to gait rehabilitation, Dr. Nadkarni and colleagues performed a secondary analysis of data from a clinical trial of traditional rehabilitation versus targeted neurorehabilitation for gait disorders. As postulated, those with high degrees of damage to white matter tracts benefitted from neurorehabilitation but not traditional gait rehabilitation. Because such damage is common, once confirmed, these findings should have a major impact on rehabilitation.

Evidence-based criteria for sarcopenia with clinically important weakness. **Seminars in Arthritis and Rheumatism**, 2013; 42: 447-9. PMID: 22985709

Sarcopenia, the loss of muscle mass and function, is common with aging but has not been formally recognized as a diagnosable condition. Based on 3 years of research using data from more than 25,000 older adults, a consortium led by Dr. Studenski has developed evidence-based criteria for the condition. This is a report of a conference sponsored by NIA, FDA, and FNIH to present findings, obtain feedback, and plan further analyses.

Roshanov PS, Fernandes N, Wilczynski J, Handler SM, and Haynes RB. Features of effective computerized clinical decision support. **British Medical Journal**, 2013; Feb 14:346:f657 PMID: 23412440.

Dr. Handler and colleagues performed a meta-regression analysis of 162 RCTs to identify factors that differentiate effective from ineffective computerized decision support systems. Contrary to expectation, they found that presenting decision support recommendations within electronic charting or order entry systems was ineffective. By contrast, systems that required practitioners to provide reasons

Voices on Aging

In 2012-13, the Aging Institute was proud to provide financial support for the following presentations by leading voices on aging and geriatric medicine:

John W. Rowe, MD, professor of health policy and management, Columbia University Mailman School of Public Health, discussed "Challenges and Opportunities of an Aging Society" at the annual fall program of the Pennsylvania Geriatrics Society-Western Division on Oct. 3 in Pittsburgh. Currently chair of the MacArthur Foundation Research Network on an Aging Society, Dr. Rowe previously directed the MacArthur Foundation Research Network on Successful Aging. Prior to joining Columbia University, he led the program in academic geriatrics at Harvard, served as president and CEO of Mount Sinai School of Medicine and Hospital, and led Aetna. Inc., as chairman and CEO.

The Global Consortium for Depression Prevention was held in Pittsburgh on Oct. 28 and 29, featuring in-depth presentations and discussions by senior investigators involved in innovative research on depression prevention. The event was just prior to the annual meeting of the International College of Geriatric Psychoneuropharmacology (ICGP), Oct. 30 through Nov. 2 at the University of Pittsburgh. The theme of the Pittsburgh meeting was "Toward Healthy Brain Aging."

David Ames, MD, professor of psychiatry at the University of Melbourne in Australia, spoke May 1 and 2 at the University of Pittsburgh. An internationally renowned expert in the field of geriatric psychiatry, Dr. Ames is director of the National Aging Research Institute and University of Melbourne Foundation Professor of Ageing and Health. His main research interests are new drug treatments for Alzheimer's disease, early detection of Alzheimer's, and the care of the depressed elderly.





when overriding advice were effective, as were those that provided advice concurrently to patients and practitioners.

Marcum ZA, Sevick MA, and Handler SM. Medication non-adherence: A diagnosable and treatable medical condition. **Journal of American Medicine**. 2013; 309: 2105-6.

Dr. Marcum and colleagues identified at least six representative medication non-adherence phenotypes and highlights the differences in behaviors and barriers that exist at the patient level. Each phenotype requires different diagnostic tools and treatments, just as subtypes of a medical condition, such as heart failure (diastolic vs. systolic) do.

Pugh MJV, Marcum ZA, Amuan ME, Copeland LA, Mortensen EM, Zeber JE, Noël PH, Berlowitz DR, Downs JR, Good CB, and Hanlon JT. HEDIS quality measures for medication management in the elderly: Outcomes associated with new exposure. **Drugs & Aging**, 2013; 30:645-654.

Efforts by Dr. Hanlon and others to reduce inappropriate prescribing to older adults have generated a list of high-risk medications for seniors, which has been incorporated into NCQA/HEDIS measures. This cohort study examined the actual risk in older veterans. New exposure to such agents increased emergency department (ED) use, hospitalization, and mortality (by 60 percent) even after controlling for demographics, health status, and recent VA health services use. Studies such as this have propelled our efforts to address this problem.

University of Pittsburgh Cancer Institute

Bennett Van Houten, PhD, Leader of the Molecular and Cell Biology Program

Advancing the understanding, diagnosis, and treatment of cancer through basic, translational, clinical, and population-based research programs.

Yeh JI, Levine AS, Du S, Chinte U, Ghodke H, Wang H, Shi H, Hsieh CL, Vu T, Conway JF, Van Houten B, and Rapić-Otrin V. (2012). Damaged DNA induced UV-DDB dimerization and its roles on chromatinized DNA repair. **Proceedings of the National Academy of Sciences**, 2013; 109(41):E2737-46. PMCID: PMC3478663.

First structure-function analysis of a human DNA repair protein binding to DNA as a dimer. This protein is involved in removing sunlight-induced DNA damage and prevents skin cancer.



Qian W, Choi S, Gibson GA, Watkins SC, Bakkenist CJ, and Van Houten B. Mitochondrial hyperfusion induced by loss of the fission protein Drp1 causes replication stress and genome instability. **Journal of Cell Science**, Dec 1; 125(Pt 23):5745-57. PMID: 23015593 (Cover and highlights).

First study to connect mitochondrial dynamics with genome stability; hyperfused mitochondria causes G2/M arrest and aneuploidy.

Hughes C, Wang H, Ghodke H, Simons M, Towheed A, Peng Y, Van Houten B, and Kad N. Real time single molecule imaging reveals a direct interaction between UvrC and UvrB on DNA tightropes. **Nucleic Acids Research**. March 19, May; 41(9):4901-12. Epub 2013 Mar 19. PMCID: PMC3643590.

Analysis of DNA repair proteins by single-molecule fluorescence microscopy techniques allowed visualization of a new protein-DNA complex.

Maslov Y, Ganapathi S, Westerhof M, Quispe W, White RR, Van Houten B, Reiling E, Dollé M, van Steeg H, Hasty P, Hoeijmakers J, and Vijg J. DNA damage in normal and prematurely aged mice. **Aging Cell**. March 15, 2013 Jun;12(3):467-77. Epub 2013 Apr 24. PMID:23496256.

This collaborative study showed an age-related increase in DNA damage in the livers (33 excess lesions/Mb of nuclear DNA and about 1.2 excess lesions per mitochondrial genome), but not in the brains, of mice.

UPMC Palliative and Supportive Institute (PSI)

Director: Robert Arnold, MD

The Supportive and Palliative Care Program at UPMC was established to improve the quality of life of patients whose

diseases are no longer responsive to curative treatments. Its team of health care professionals offers care for patients with serious and life-limiting illnesses, and provides comfort and support to those patients and their families.

Maciasz RM, Arnold RM, Chu E, Park SY, White DB, Vater LB, and Schenker Y. Association between physicians' beliefs and the option of comfort care for critically ill patients. **Intensive Care Medicine**, 2012; 38(10):1607-15. Epub 2012 Aug 11.

For critically-ill patients at high risk of death, reasonable treatment options include attempts at life prolongation and treatment focused on comfort. Little is known about whether and how physicians present the option of comfort care to surrogates. This study assessed how comfort care is presented to surrogates and whether physicians' beliefs are associated with whether comfort care is presented as an option.

Scheunemann LP, Arnold RM, and White DB. The facilitated values history: helping surrogates make authentic decisions for incapacitated patients with advanced illness. **American Journal of Respiratory and Critical Care Medicine**, 2012; Sep 15; 186(6):480-6. Epub 2012 Jul 19.

Many patients who develop incapacitating illness have not expressed clear treatment preferences. Therefore, surrogate decision makers are asked to make judgments about what treatment pathway is most consistent with the patient's values. Surrogates often struggle with such decisions. The difficulty arises because answering the seemingly straightforward question, "What do you think the patient would choose?" is emotionally, cognitively, and morally complex. There is little guidance for clinicians to assist families in constructing an authentic picture of the patient's values and applying them to medical decisions, in part because current models of medical decision making treat the surrogate as the expert on the patient's values and the physician as the expert on technical medical considerations. However, many surrogates need assistance in identifying and working through the sometimes conflicting values relevant to medical decisions near the end of life. We present a framework for clinicians to help surrogates overcome the emotional, cognitive, and moral barriers to high-quality surrogate decision making for incapacitated patients.

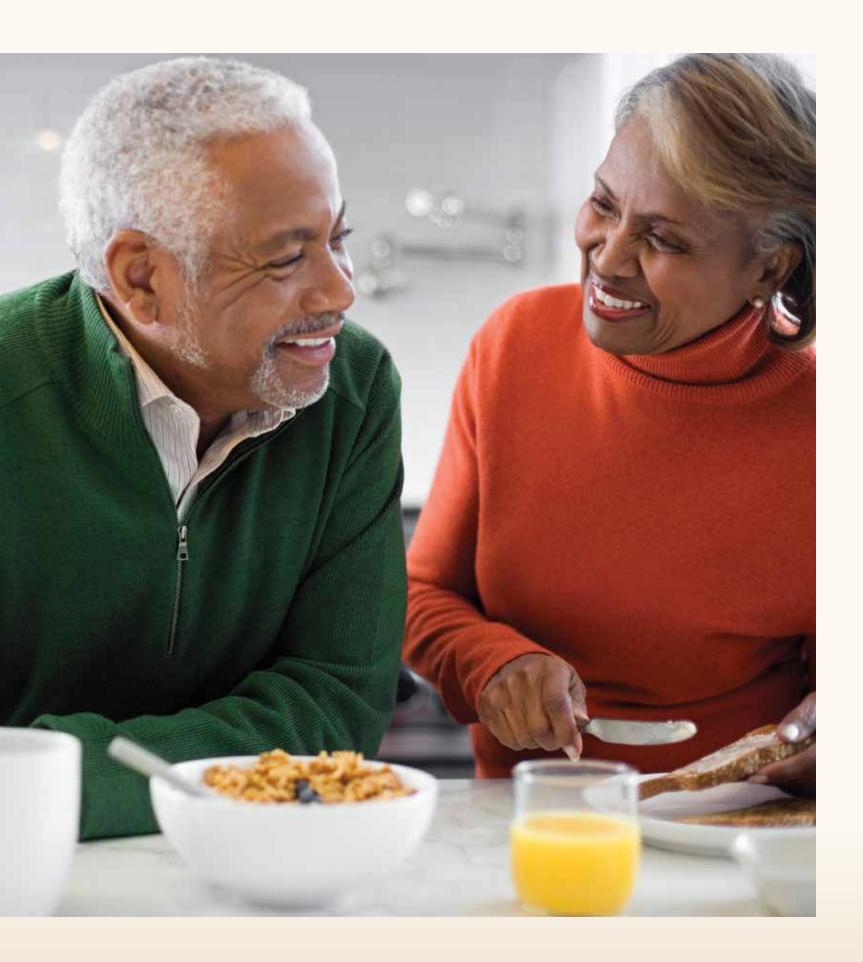
Majesko A, Hong SY, Weissfeld L, White DB. Identifying family members who may struggle in the role of surrogate decision. **Critical Care Medicine**, 2012; 40(8):2281-6.

Although acting as a surrogate decision maker can be highly distressing for some family members of intensive care unit patients, little is known about whether there are modifiable risk factors for the occurrence of such difficulties.

White DB, Cua SM, Walk R, Pollice L, Weissfeld L, Hong S, Landefeld CS, and Arnold RM. Nurse-led intervention to improve surrogate decision making for patients with advanced critical illness. **American Journal of Critical Care**, 2012; 21(6):396-409.

Problems persist with surrogate decision making in intensive care units, leading to distress for surrogates and treatment that may not reflect patients' values.





AGING INSTITUTE LEADERSHIP

Administrative Staff

Phone: 1-866-430-8742

Website: Aging.UPMC.com

Charles F. Reynolds III, MD Director

Deborah S. Brodine, MHA, MBA *President*

UPMC Community Provider Services

Mary Ann Sander, MHA, MBA, NHA

Vice President Aging and Disability Services UPMC Community Provider Services

Taafoi S. Kamara, MPH Administrative Director

Betty Robison, MSN, RN-BC Gerontology Educator

Mary Denise Sinwell, MBA Aging and Disability Coordinator

Kelly Covone-Henning, MA, ACC Aging Educator and Community Resource Coordinator

Aging Institute Executive Committee

Robert Arnold, MD

Medical Director, UPMC Palliative and Supportive Institute Director, Institute for Doctor-Patient Communication Chief, Section of Palliative Care and Medical Ethics Leo H. Criep Chair in Patient Care Professor of Medicine, School of Medicine, University of Pittsburgh

Deborah S. Brodine, MHA, MBA
President, UPMC Community Provider Services

Susan L. Greenspan, MD Associate Director, Research

Aging Institute of UPMC Senior Services and the University of Pittsburgh Director, Osteoporosis Prevention and Treatment Center Director, Bone Health Magee Women's Hospital of UPMC Professor of Medicine, School of Medicine University of Pittsburgh Professor in Clinical and Translational Science Institute

Taafoi S. Kamara, MPH Administrative Director Aging Institute of UPMC Senior Services and the University of Pittsburgh Tami Minnier, RN, MSN, FACHE

Chief Quality Officer UPMC Executive Director

Beckwith Institute for Innovation in Patient Care

Neil M. Resnick, MD

Associate Director
Aging Institute of UPMC Senior Services
and the University of Pittsburgh
Chief, Division of Geriatric Medicine and
Gerontology

Thomas P. Detre Professor of Medicine Director

John A. Hartford Foundation Center of Excellence in Geriatric Medicine School of Medicine, University of Pittsburgh

Charles F. Reynolds III, MD

Director
Aging Institute of UPMC Senior Services

and the University of Pittsburgh UPMC Endowed Professor in Geriatric Psychiatry Director, NIMH Center of Excellence in Late-Life Depression Prevention and Treatment Director

John A. Hartford Foundation Center of Excellence in Geriatric Psychiatry School of Medicine, University of Pittsburgh

Edmund M. Ricci, PhD, MLitt

Associate Director, Evaluation Sciences Aging Institute of UPMC Senior Services and the University of Pittsburgh Professor of Behavioral and Community Health Sciences Graduate School of Public Health University of Pittsburgh

Loren Roth, MD, MPH

Associate Senior Vice Chancellor for Clinical Policy and Planning, Health Sciences University of Pittsburgh Professor of Psychiatry, School of Medicine University of Pittsburgh Former Chief Medical Officer, UPMC

Mary Ann Sander, MHA, MBA, NHA Vice President, Aging and Disability Services

UPMC Community Provider Services

Richard Schulz, PhD

Director, University Center for Social and Urban Research Program Director, Gerontology, University Center for Social and Urban Research Professor of Psychiatry, School of Medicine, University of Pittsburgh Stephanie A. Studenski, MD, MPH

Associate Director, Research Aging Institute of UPMC Senior Services and the University of Pittsburgh Director, Claude D. Pepper Older Americans Independence Center

University of Pittsburgh Professor, Division of Geriatric Medicine School of Medicine

School of Medicine University of Pittsburgh

Staff Physician, VA Pittsburgh Healthcare System Geriatrics Research, Education and Clinical Center

Bennett Van Houten, PhD

Associate Director, Basic Science Research Aging Institute of UPMC Senior Services and the University of Pittsburgh Richard M. Cyert Professor of Molecular Oncology Department of Pharmacology and Chemical Biology Graduate Faculty in Molecular Biophysics and Structural Biology (MBSB) at the University of Pittsburgh and Carnegie Mellon University Co-Leader, Program of Molecular and Cellular Cancer Biology University of Pittsburgh Cancer Institute

Dean Walters, MBA

Vice President and Chief Marketing Officer, UPMC

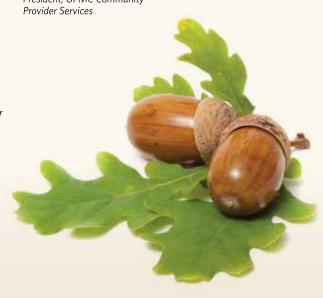
Aging Institute Board of Directors

Robert Arnold, MD

Medical Director, UPMC Palliative and Supportive Institute Director, Institute for Doctor-Patient Communication Chief, Section of Palliative Care and Medical Ethics Leo H. Criep Chair in Patient Care Professor of Medicine, School of Medicine,

Deborah S. Brodine, MHA, MBA President, UPMC Community

University of Pittsburgh



Anthony Delitto, PhD, PT, FAPTA

Professor, Department of Physical Therapy Associate Dean for Research School of Health and Rehabilitation Sciences University of Pittsburgh Vice President for Education and Research

Centers for Rehabilitation Services

Jacqueline Dunbar-Jacobs, PhD, RN, FAAN Dean, University of Pittsburgh

School of Nursing Professor, Nursing, Epidemiology, Psychology and Occupational Therapy University of Pittsburgh

Rafael Engel, PhD, MSW

Associate Professor Coordinator, Gerontology Certificate Program Principal Investigator John A. Hartford Practicum Partnership Program

School of Social Work, University of Pittsburgh

Lawrence Frolik, JD, LLM

Professor of Law School of Law University of Pittsburgh

Diane Holder

Executive Vice President, UPMC President, Insurance Services Division President and CEO, UPMC Health Plan

Susan L. Greenspan, MD

Associate Director, Research Aging Institute of UPMC Senior Services and the University of Pittsburgh Director, Osteoporosis Prevention and Treatment Center Director, Bone Health Magee Women's Hospital of UPMC Professor of Medicine, School of Medicine University of Pittsburgh

Professor in Clinical and Translational

Taafoi S. Kamara, MPH

Science Institute

Administrative Director Aging Institute of UPMC Senior Services and the University of Pittsburgh



A. Everette James, JD, MBA

Professor of Health Policy and Management Graduate School of Public Health University of Pittsburah Associate Vice Chancellor for Health Policy and Planning, Health Sciences Executive Director, Health Policy Institute

Judith R. Lave, PhD

Professor of Health Economics Director, Health Administration Program Director, Pennsylvania Medicaid Policy Center Co-Director, Center for Research on Health Care University of Pittsburgh

Carrie Leana, PhD

George H. Love Professor of Organizations and Management Professor of Business Administration, Medicine, and Public & International Affairs Director, Center for Health and Care Work

University of Pittsburgh John Lovelace, MS, MSIS

President UPMC for You, Inc. President, Government Programs and Individual Advantage

Tami Minnier, RN, MSN, FACHE Chief Quality Officer

LIPMC **Executive Director**

Rick Morycz, PhD

Associate Professor, Geriatric Services Western Psychiatric Institute and Clinic of UPMC University of Pittsburgh

Beckwith Institute for Innovation in Patient Care

Anne B. Newman, MD, MPH

Chair, Department of Epidemiology Director, Center for Aging and Population Health Professor of Epidemiology and Medicine Graduate School of Public Health University of Pittsburgh

Neil M. Resnick, MD

Associate Director Aging Institute of UPMC Senior Services and the University of Pittsburgh Chief, Division of Geriatric Medicine and Gerontology Thomas P. Detre Professor of Medicine Director

John A. Hartford Foundation Center of Excellence in Geriatric Medicine School of Medicine University of Pittsburgh

Charles F. Reynolds III, MD

Aging Institute of UPMC Senior Services and the University of Pittsburgh UPMC Endowed Professor in Geriatric Psychiatry Director, NIMH Center of Excellence in Late-Life Depression Prevention and Treatment Director John A. Hartford Foundation Center of Excellence in Geriatric Psychiatry School of Medicine University of Pittsburgh

Edmund M. Ricci, PhD, MLitt

Associate Director, Evaluation Sciences Aging Institute of UPMC Senior Services and the University of Pittsburgh Professor of Behavioral and Community Health Sciences Graduate School of Public Health University of Pittsburgh

Loren Roth, MD, MPH

Associate Senior Vice Chancellor for for Clinical Policy and Planning, Health Sciences University of Pittsburgh Professor of Psychiatry School of Medicine University of Pittsburgh Former Chief Medical Officer, UPMC

Mary Ann Sander, MHA, MBA, NHA

Vice President Aaina and Disability Services **UPMC Community Provider Services**

Richard Schulz, PhD

Director, University Center for Social and Urhan Research Program Director, Gerontology, University Center for Social and Urban Research Professor of Psychiatry, School of Medicine, University of Pittsburgh

Joshua Thorpe, PhD, MPH

Associate Professor Department of Pharmacy and Therapeutics School of Pharmacy University of Pittsburgh Faculty Member Health Equity Research and Promotion Department of Veterans Affairs

Bennett Van Houten, PhD

Associate Director, Basic Science Research Aging Institute of UPMC Senior Services and the University of Pittsburgh Richard M. Cyert Professor of Molecular Oncology Department of Pharmacology and Chemical Biology

Graduate Faculty in Molecular Biophysics and Structural Biology (MBSB) at the University of Pittsburgh and Carnegie

Mellon University Co-Leader, Program of Molecular and Cellular

Cancer Biology University of Pittsburgh Cancer Institute

Dean Walters, MBA

Vice President and Chief Marketing Officer UPMC

Robert Weyant, DMD, DrPH

Associate Dean Dental Public Health and Community Outreach School of Dental Medicine University of Pittsburgh

Aging Institute Workgroups

Dementia Workgroup

Namita Ahuia, MD

Medical Director, Heritage Place, a **UPMC Senior Community** Medical Director, UPMC Health Plan I-SNP Program Clinical Assistant Professor of Medicine/Geriatrics Division of Geriatric Medicine University of Pittsburgh

Robert Arnold, MD

Medical Director, UPMC Palliative and Supportive Institute Director, Institute for Doctor-Patient Communication Chief, Section of Palliative Care and Medical Ethics Leo H. Criep Chair in Patient Care Professor of Medicine, School of Medicine, University of Pittsburgh

Deborah S. Brodine, MHA, MBA President, UPMC Community Provider Services

Ken Burkholder, MHA

Business Analyst at UPMC Health Plan Lead, UPMC for Life Options

Sophie A. Campbell, MSN, RN, CRRN, RAC-CT Director of Quality, Education, and Compliance **UPMC Senior Communities**

Kelly Covone-Henning, MA, ACC Aging Educator & Community Resource Coordinator

Aging Institute of UPMC Senior Services and the University of Pittsburgh

Howard B. Degenholtz, PhD

Associate Professor of Health Policy and Management . Founding Director of the Doctoral Program in Health Sciences Research and Policy Associate Director of Research, Center for Bioethics and Health Law Graduate School of Public Health University of Pittsburgh

Roseann Degrazia, RN, BSN, MEd Executive Director, Clinical Business Development

UPMC Health Plan

Anthony Delitto, PhD, PT, FAPTA Professor, Department of Physical Therapy Associate Dean for Research

School of Health and Rehabilitation Sciences University of Pittsburgh Vice President for Education and Research Centers for Rehabilitation Services

Leslie Dunn, MPH Academic Administrator ADRC, PPG & State Grant Administrator

Linda Garand, PhD, GCNS-BC Assistant Professor Health and Community Systems Nicole Fowler, PhD, MNSA

Assistant Professor Department of Medicine Associate Director, ADRC Educational Information Care

Megan Glance, MPH

Systems Analyst Donald D. Wolff Jr. Center for Quality. Safety, and Innovation at UPMC

Daniel G. Grant, RN, MS, NHA Chief Operating Officer **UPMC** Senior Communities

Tammi S Grumski, CRNP, BC, CDE CRNP, Care Through Transitions UPMC Health Plan

Paul Hanlon

Executive Director, Quality and Risk Management **UPMC** Passavant

Elaine Hatfield, RN, BSN, MPM, NHA Chief Nursing Officer **UPMC** Senior Communities

John G. Hennon, EdD

Associate Director for Education and Evaluation Geriatric Research, Education and Clinical Center VA Pittsburah Healthcare System Co-Director, Geriatric Education Center Research Associate, Gerontology Program University Center for Social and Urban Research University of Pittsburgh

Susan C. Hunt, MD Chief Medical Officer Family Hospice and Palliative Care

Taafoi S. Kamara, MPH

Administrative Director Aging Institute of UPMC Senior Services and the University of Pittsburgh

Maggie Kimmel, PhD Professor Emerita

Department of Library and Information Science University of Pittsburgh

Julie Klinger, MA

Project Coordinator, First Person Vision Project Coordinator, Geriatric Education Center of Pennsylvania University Center for Social and Urban Research University of Pittsburgh

Kathryn Lanz, DNP, ANP, GNP, ACHPN Director of Geriatric Services Co-Project Director for CMS RAVEN Initiative UPMC Palliative and Supportive Institute

Carrie Leana, PhD

George H. Love Professor of Organizations and Management Professor of Business Administration, Medicine, and Public & International Affairs Director, Center for Health and Care Work University of Pittsburgh

Jennifer Lingler, PhD, CRNP Assistant Professor Health and Community Systems School of Nursing University of Pittsburgh

John Lovelace, MS, MSIS President UPMC for You, Inc. President, Government Programs and Individual Advantage

Penny Milanovich, MSN, MBA President **UPMC** Visiting Nurses Association

Rick Morycz, PhD

Associate Professor, Geriatric Services Western Psychiatric Institute and Clinic of UPMC University of Pittsburgh

David A. Nace, MD, MPH, CMD Division of Geriatric Medicine University of Pittsburgh Physicians

Stephen E. Perkins, MD Vice President, Medical Affairs UPMC Health Plan

Tracy Polak, CRNP, MSN Director, Geriatric Programs UPMC Health Plan

Ray Prushnok

Senior Director, Medicare SNP Plans **UPMC** Health Plan

Charles F. Reynolds III, MD Director

Aging Institute of UPMC Senior Services and the University of Pittsburgh UPMC Endowed Professor in Geriatric Psychiatry Director, NIMH Center of Excellence in Late-Life Depression Prevention and Treatment Director, John A. Hartford Foundation Center of Excellence in Geriatric Psychiatry School of Medicine University of Pittsburgh

Aging.UPMC.com 49

Edmund M. Ricci, PhD, MLitt

Associate Director, Evaluation Sciences
Aging Institute of UPMC Senior Services
and the University of Pittsburgh
Director, Institute for Implementation and
Evaluation Science
Graduate School of Public Health
University of Pittsburgh

Joan Rogers, PhD, OTR/L, FAOTA

Associate Dean of Graduate Studies Professor and Chair Department of Occupational Therapy School of Health and Rehabilitation Sciences University of Pittsburgh Professor of Psychiatry Schools of Nursing

Jules Rosen, MD

Chief Medical Officer, Mind Springs Health Clinical Professor of Psychiatry, University of Colorado School of Medicine

Mary Ann Sander, MHA, MBA, NHA Vice President, Aging and Disability Services UPMC Community Provider Services

Eugene Scanzera, MSW, MPA Vice President of Medicare UPMC Health Plan

Richard Schulz, PhD

Director, University Center for Social and Urban Research Program Director, Gerontology, University Center for Social and Urban Research Professor of Psychiatry, School of Medicine,

University of Pittsburgh

Mary Dee Sinwell, MBA

Aging and Disability Coordinator Aging Institute of UPMC Senior Services and the University of Pittsburgh UPMC Disabilities Resource Center

Denise Stahl, RN, MSN, ACHPN Executive Director,

UPMC Palliative and Supportive Institute

Scot R. Stevens

Chief Information Officer, UPMC CancerCenter and University of Pittsburgh Cancer Institute

Joshua Thorpe, PhD, MPH

Department of Veterans Affairs

Associate Professor Department of Pharmacy and Therapeutics School of Pharmacy, University of Pittsburgh Faculty Member Health Equity Research and Promotion

Healthy Aging/Bone Health Workgroup

Steven M. Albert, PhD

Professor and Chair, Department of Behavioral and Community Health Graduate School of Public Health University of Pittsburgh

Jennifer Brach, PT, PhD

Associate Professor Department of Physical Therapy School of Health and Rehabilitation Sciences University of Pittsburgh

Kathleen Brandfass, MS, PT

Director of Neuro and Geriatric
Outpatient Services
Centers for Rehab Services/Partner of UPMC

Nuket Curran, BS, PT Director, Quality & Risk Management

Safety Officer CRS, UPMC
Roseann Degrazia, RN, BSN, MEd

Executive Director,
Clinical Business Development
UPMC Health Plan

Susan George, DPT, PT, MS, OCS, WCS Director, Women's Rehab and Men's Health UPMC Centers for Rehabilitation Services Adjunct Assistant Professor School of Health and Rehabilitation Sciences University of Pittsburgh

Megan Glance, MPH

Systems Analyst Donald D. Wolff Jr. Center for Quality, Safety, and Innovation at UPMC

Susan L. Greenspan, MD Associate Director, Research

Aging Institute of UPMC Senior Services and the University of Pittsburgh Director, Osteoporosis Prevention and Treatment Center Director, Bone Health Magee Women's Hospital of UPMC Professor of Medicine, School of Medicine University of Pittsburgh Professor in Clinical and Translational

Tammi S. Grumski, CRNP, BC, CDE CRNP, Care Through Transitions UPMC Health Plan

Deb Lejeune, MEd, NREMT-P Clinical Program Design Manager UPMC Health Plan

Amy Little, MBA

Science Institute

Sr. Manager, Performance Improvement Medicare Medical Management UPMC Health Plan

John Lovelace, MS, MSIS President, UPMC for You, Inc. President, Government Programs and Individual Advantage Rebecca M. Meehan, PT

Physical Therapist, Women's Rehabilitation Program UPMC Centers for Rehab Services

Penny Milanovich, MSN, MBA

President
UPMC Visiting Nurses Association

Rick Morycz, PhD

Associate Professor, Geriatric Services Western Psychiatric Institute and Clinic of UPMC University of Pittsburgh

Anne B. Newman, MD, MPH

Chair, Department of Epidemiology Director, Center for Aging and Population Health Professor of Epidemiology and Medicine Graduate School of Public Health University of Pittsburgh

Linda Organist, MSN, CRNP, GNP-BC Instructor, Health Promotion and Development School of Nursing University of Pittsburgh

Tracy Polak, CRNP, MSN

Director, Geriatric Programs UPMC Health Plan

Ray Prushnok

Senior Director, Medicare SNP Plans UPMC Health Plan

Charles F. Reynolds III, MD

Aging Institute of UPMC Senior Services

and the University of Pittsburgh
UPMC Endowed Professor in Geriatric
Psychiatry

Psychiatry
Director, NIMH Center of Excellence in
Late-Life Depression Prevention and Treatment
Director, John A. Hartford Foundation
Center of Excellence in Geriatric Psychiatry
School of Medicine
University of Pittsburgh

Edmund M. Ricci, PhD, MLitt

Associate Director, Evaluation Sciences
Aging Institute of UPMC Senior Services
and the University of Pittsburgh
Professor of Behavioral and Community
Health Science
Director, Institute for Implementation and
Evaluation Science
Graduate School of Public Health
University of Pittsburgh

Paul Rockar Jr., PT, DPT, MS

Chief Executive Officer
UPMC Centers for Rehab Services
Ajunct Assistant Professor
School of Health and Rehabilitation Sciences
University of Pittsburgh
President, APTA Board of Directors

Bruce L. Rollman, MD, MPH

Professor of Medicine, Psychiatry, Biomedical Informatics, and Clinical and Translational Science Division of General Internal Medicine University of Pittsburgh

Cynthia N. Rosenberg, MD Senior Medical Director UPMC Health Plan

Mary Ann Sander, MHA, MBA, NHA Vice President, Aging and Disability Services UPMC Community Provider Services

Eugene Scanzera, MSW, MPA Vice President of Medicare UPMC Health Plan

Peter Siska, MD

Assistant Professor, Orthopaedic Surgery University of Pittsburgh Director, Post-Traumatic Reconstructive Center Physician, Department of Orthopaedic Surgery, University of Pittsburgh Physicians

Francis X. Solano Jr., MD, FACP Medical Director UPMC Center for Quality Improvement and Innovation

Stephanie A. Studenski, MD, MPH

Associate Director, Research
Aging Institute of UPMC Senior Services
and the University of Pittsburgh
Director, Claude D. Pepper Older Americans
Independence Center
University of Pittsburgh
Professor, Division of Geriatric Medicine
School of Medicine
University of Pittsburgh
Staff Physician, VA Pittsburgh Healthcare
System Geriatrics Research, Education and
Clinical Center

Dan Swayze, DrPh, MBA, MEMS

Vice President Center for Emera

Center for Emergency Medicine of Western Pennsylvania, Inc.

Janice Zgibor, RPh, PhD

Assistant Professor of Epidemiology Graduate School of Public Health University of Pittsburgh Assistant Professor of Medicine University of Pittsburgh Program Director Center for Aging and Population Health Prevention Research Center

Qi Zhou, MD Executive Director, Quality Performance UPMC Health Plan





AGING INSTITUTE

2013 Annual Report

UPMC Senior Services & the University of Pittsburgh

UPMC Senior Services



Aging Institute 2013 Annual Report UPMC Senior Services & the University of Pittsburgh