

About people and efforts that bring the knowledge we seek on Alzheimer's disease and healthy brain aging ever closer *in sight*

Taking our research on the road

There's been tremendous participation in a Penn Memory Center study at one large retirement community, where elders have taken our interest in their life-long brain health to heart

by Carol Edwards

Do people who are more active and more adaptive to life's ups and downs — more resilient — have better odds of life-long brain health? And if so, why? Those are among the questions Penn Memory Center's *Stress, Resilience, and Cognition in Aging* study hopes to answer. And studying people like Tootsie Drucker seems a good way to find out.

A profile of resilience

Tootsie is among 58 seniors at Ann's Choice retirement living community in Warminster, PA, who just completed the first year of this 3-year study of factors that influence age-related cognitive changes. Like them, she's lived through the "wonderful and terrible" world events of the 20th century. And she's known bitter and sweet on her own life's path.

She lost both her parents in their 50's. She worked, and volunteered, and raised two

continued on page 2



photo | Carol Edwards

Tootsie Drucker, 88, leads the "Happy Tappers" dance class at Ann's Choice retirement community. Tootsie was among the first Ann's Choice residents to join the Penn Memory Center *Stress, Resilience, and Cognition in Aging* study conducted there. Since getting to know PMC's staff and programs, she's learned of the need for elders with normal memory and thinking — and after death, their brain tissue — in Alzheimer's research, and she's decided to become a brain donor.



And Inside . . .

Partners in MCI-related research



From the News and Journals



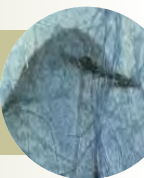
Enhanced Services for Latinos



Sleep — Beware the OTC's



Your Gifts Recognized, and more



accomplished daughters in a beautiful marriage that lasted 61 years, until the death of her husband, Nathan, in 2008. She moved to Ann's Choice shortly thereafter.

Tootsie misses Nathan deeply, and may still shed a tear when she talks of him. Yet, she is determined "not to spend my life sitting on the couch crying," and now, at 88 years of age, this life-long "doer and joiner who can't say no if somebody asks me to help" is more active than ever.

She belongs to the coin club and garden club. A dancer since age 3, she teaches one weekly tap class at Ann's Choice and another at a local senior center, with dancers she's led for 17 years. She believes that the strength she developed from decades of stepping and twirling and high kicks helped her survive the heart attack she had ten years ago. She bakes, and writes poetry, and volunteers in the community's skilled nursing unit. She and ten other ladies who graduated with her from West Philadelphia High



Penn Memory Center's newest research partners are those 58 Ann's Choice retirement community residents enrolled in the *Stress, Cognition, and Resilience in Aging* study. Year-one of this three-year project kicked-off at Ann's Choice this past July. Pictured here is a group of those participants who arranged for transport via the Ann's Choice bus to and from the 4th annual Penn Memory Center Research Partner Thank-You Breakfast, held this past September at the Inn at Penn. Joining them, seen at the rear of the photo, are (standing) Jody Gertsman, LSW, a social worker at Ann's Choice and a key helper with on-site logistics for the study, and (kneeling) Carol Edwards of the PMC.

School — "the 'Elegant Epicures'" — meet monthly for lunch at some of Philadelphia's finest hotels and restaurants.

Birds — and elders — of a feather

By any standard, Tootsie Drucker is a model of successful, resilient aging. And in her community of nearly 2000 residents, average age 81, she has plenty of company. "So many people are cognitively and physically active and fully engaged in life here, it's inspiring," said Ann's Choice Social Work Manager Suzanne Tepper. It's also a powerful lure to researchers investigating how such people successfully resist the age-related brain pathology that claims so many of their peers. "The physiology of that kind of late-life resilience is what we want to better understand," said Dr. Steven

Arnold, Penn Memory Center Director. "It's a key reason why we were eager to conduct a large portion of this study, and we expect future studies, out at Ann's Choice."

Roots of a partnership

A Penn Memory Center basic educational presentation on Alzheimer's disease and research to the community in 2009 "is what got this started," said Tepper. "Everyone here knows someone who's affected by this terrible disease, and how spouses and others who become caregivers suffer, too. When they learned there was research that people with normal memory and thinking, or only mild memory prob-

So many people demonstrating late-life resilience is a key reason why we were eager to conduct a large portion of this study — and, we expect future studies — at a community like Ann's Choice . . .

Penn Memory Center Director Dr. Steven Arnold

lems could join that might somehow help science better understand Alzheimer's, I think they felt empowered." Interest from residents was so great, Tepper invited PMC director Dr. Steven Arnold "to meet with our medical leadership to explore ways to conduct studies on our campus." What emerged was the decision to designate about half the initial 100 participant slots available in the *Stress, Cognition, and Resilience in Aging Study* to be conducted at Ann's Choice.

"As soon as information on the study went out, my phone was ringing off the hook," said Jody Gerstman, LSW, social worker in the community's Keystone Clubhouse who handled the study's on-site logistics. Soon she had 147 names on the sign up sheet. "When we learned there would be space for only approximately the first 50 or 60 interested residents, people

started calling back to ask 'Where am I on the list?'"

Stay tuned for more

In 58 study sessions conducted at Ann's Choice, not one resident missed or was late for their appointment. "I'm so proud of how our residents have committed to partnering with the PMC on this effort," said Gerstman. And interest among the community continues to build, she said.

"Dr. Arnold and Dr. Wolk were here in October, to present initial findings of the *Resilience* study, and discuss new research they would like to bring to our campus. Word must have gotten around that the Penn Memory Center experience is interesting and worthwhile, because we had 225 residents attend that session. And no one left early." ■



Penn Memory Center's Assistant Director Dr. David Wolk is pictured here at a recent presentation on research into Alzheimer's disease and Mild Cognitive Impairment to mostly retired sisters of several orders, held at the convent of the Sisters of Mercy in Merion Station, PA. "Give us a way that we can be used to help advance this science," said Sr. Kathleen Lyon, director of senior services there. Like our successful efforts with the *Stress, Resilience and Cognition in Aging* study at the Ann's Choice retirement living community, increasing the research opportunities we can offer participants like these, conducted where they live, is a growing emphasis of the Penn Memory Center.

To widen participation in 'Resilience,' new openings are now available for study appointments to be held at the Penn Memory Center.

We especially invite participation from individuals who have frequently experienced psychological distress.



Understanding brain resiliency is the aim of the *Stress, Resilience, and Cognition in Aging Study*. "It's the next line of AD research; namely, finding key factors in life-long brain health that may one day allow us to stop the onset of AD before it starts," said Dr. Steven Arnold. "We're particularly interested in how elders experience stress, and how that affects overall aging.

- Individuals 65 and older who do not have dementia may be eligible. A cognitive test given over the phone is used to gauge eligibility.
- In a 3-hour session you will complete cognitive tests (some using a computer), interviews, and questionnaires on your health and life history, and on how you experience stress. Small samples of blood, saliva, and, if available, hair will be taken. These will be used to measure the presence of chemicals produced by the body in response to stress.
- This will be repeated one year later, and a third time one year after that. Participants receive \$50 at completion of each session.
- Contact Hannah McCoubrey at 215-573-0844 to learn more.

Talking, and more, about MCI

Research opportunities for individuals with Mild Cognitive Impairment, (MCI), including interview studies, and a study testing if a small amount of electrical current applied to the brain can improve memory, are now available through the PMC

Meet Alan, and Iris, active participants in research related to MCI

Alan and Bonnie Haines learned of the Penn Memory Center from a pamphlet about normal controls their daughter gave them. “She thought it would be an interesting experience for us,” said Bonnie, 69. During the cognitive tests for the program, it got interesting indeed. Alan’s tests showed memory problems. After a full evaluation by PMC’s Dr. David Wolk, he was diagnosed with MCI.

Alan, age 76 and retired 15 years from human resources at DuPont, couldn’t truly say he was surprised. “I never had a good memory,” Alan said. “Even in school, while some people read a page once and recalled it, I’d need two or three times. My last few years at work, it



Bonnie and Alan Haines pictured at this year’s Penn Memory Center Research Partner Thank You breakfast

took more effort than ever to remember little things. Yet I never thought it interfered with doing what I wanted to do.”

MCI describes a condition where an individual’s memory or other cognitive skills drop below what is considered normal for someone of their age and level of education, but without affecting reasoning or judgement, or their ability to function in day-to-day life.

The Haineses previous exposure to memory problems was a sad one. Alan’s mother developed Alzheimer’s in her mid 60s. She died in her 80s, “totally debilitated, curled up in a little ball, weighing 90 pounds,” Alan said. “And it didn’t just take her. The stress of it all killed my father, too.”

Since Alan’s diagnosis, The Haineses have learned a lot about MCI. They know that it means Alan has a much greater chance of developing dementia sooner than others of his age without these memory impairments. But they also know that a significant percentage of those diagnosed with MCI remain essentially stable for the remainder of their lives. And that research aimed at

better understanding MCI “might also get us some knowledge of how to stop Alzheimer’s before it turns into what we all know it can be,” Alan said.

It was an “easy decision” for Alan to join in PMC research efforts. “If I can help science in this way, I’m happy to do it. I wouldn’t wish what my mother went through on anyone,” he said. Bonnie, who qualified as a normal control, admires her husband’s research role “especially since it’s not in the way he originally thought.”

So far Alan’s had an MRI and a lumbar puncture (spinal tap.) “I was a little apprehensive about that,” he said, “but Dr. Wolk explained it all step-by-step; it turned out to be quick and painless and I was fine. And as for the interview study I’ve done, there’s nothing to it.

It’s no hassle; you’re sitting in your own house talking for an hour. Basically, I’m willing to be a part of whatever I can do to help someone else, now or in the future.”

And it’s a future “we plan to live fully,” said Bonnie Haines. Evolving technology recently ended Alan’s 15-year stint as the volunteer “video doctor” – bringing movies on DVD to patients at Christiana Medical Center near their Wilmington, DE, home. “I loved meeting people and helping that way,” Alan said. So, after they mark that ‘second retirement’ with a cruise to South America, “I’ll start thinking about other ways I can still contribute.”

Alan, have you heard about some of the PMC’s other new studies? ■

I

ris Pollack, 68, is a “stick with it” kind of gal. She’s been married to her childhood sweetheart, Paul, for 50 years. They bought a house 47 years ago and have lived in it ever since. She worked 21 years as a secretary at Penn State’s Abington campus.

But hard as she tried, certain things just never “stuck” with Iris. “I could never remember faces or names, and I was terrible at spelling and directions. And if I was tense or stressed, my memory would just collapse.”

Much tension and stress moved into Iris’s life seven years ago when Deena, her “only sister and dearest friend,” developed Alzheimer’s. Deena had joined Iris and Paul on their travels “everywhere and anywhere — she was part of it,” Iris said. “We knew something was wrong when, on one trip, she lost her credit cards and insisted that people had broken into her room at night.”

Iris was soon traveling routinely to and from Deena’s Florida home to care for her. As her sister’s memory and personality disintegrated, “I was overwhelmed and whatever synonyms for ‘sad’ you can think of,” Iris said. “When I’m stressed, I forget. The more I forgot, the more I worried that I was headed down the same path” — a worry worsened by knowing her mother, too, had died with dementia. “Finally, Paul said, ‘Let’s call the Penn Memory Center.’ I actually felt good that I would find out something specific, whatever it would be,” she said. What did she learn from her visits with Dr. Jason Karlawish?

“First, I learned that I don’t have Alzheimer’s,” she said. “I have Mild Cognitive Impairment, and I’ve probably had it for a long time. I know I could develop Alzheimer’s someday. But just because it’s in my family does not mean it’s destined for me.”

Iris’s cognitive testing scores are stable over the three years since her diagnosis, and periodic talk therapy helps her with her sad feelings related to her sister. Iris also talks freely about her memory issues, with friends, family, or to

“Scientists say understanding MCI may be a big step to understanding Alzheimer’s, so that’s reason enough for me to get involved.”

encourage anyone “who might have a worry about their memory and is afraid to investigate it. I can’t say enough about the quality of the people and services at the Penn Memory Center.”

But Iris doesn’t just talk PMC. She’s an active partner in PMC research. “If you’ve ever seen what Alzheimer’s disease does to a person, and how it affects the people who love that person, you understand how badly we need to discover some treatment or a cure. The scientists say that understanding MCI may be a big step toward understanding Alzheimer’s, so that’s reason enough for me to get involved. And there could be benefits to me someday.”

To date, she’s taken part in a biomarker/brain imaging study, and an interview study about adjusting to living with MCI.



Iris Pollack, MCI research participant and Phillies fan, with her dog Molly, who wasn’t in a hat mood that day.

It’s an adjustment that appears to be going well. “When I was first tested, I was so worried about everything, I could not remember how many days there are in a year,” Iris said. Now, she can, and she’s got plans for most of them. She’s often out with friends, exercising, or visiting her children and grandchildren. She and Paul will travel to France next year. And there will be many trips for these die-hard local sports fans to see their beloved teams in action. “We joke that the only way we’d leave this house is if we move to South Philly to be closer to the stadiums.” ■



To learn more about participating in the interview studies Alan and Iris mentioned, call 215-573-9736.

On page 15, read more about a study testing how small amounts of electrical current (known as tDCS) affect memory. To learn more about taking part in this study, call Lauren Mancuso at 215-349-5903.

The Knowledge You made possible

Developed by Penn Medicine researchers, a test capable of predicting whether someone with Mild Cognitive Impairment will go on to develop Alzheimer's disease continues to progress toward wider availability. Penn Memory Center research participants contributed samples vital in the test's formulation and validation.

Biomarkers — tiny tell-tale changes found in cerebrospinal fluid — can confirm or rule out Alzheimer's disease, and identify which individuals with mild cognitive impairment (MCI) will convert to full scale Alzheimer's disease with clinically useful accuracy. And progress continues toward making the test that identifies these biomarkers more widely available, said the lead scientist on the Penn Medicine team that created it.

The test is the work of Leslie Shaw, PhD, and colleagues at Penn's Center for Neurodegenerative Disease Research (CNDR). Spinal fluid and/or brain tissue studied came from hundreds of research participants in the Alzheimer's Disease Neuroimaging Initiative (ADNI), the largest study ever conducted aimed at identifying early-stage Alzheimer's biomarkers. Samples from 52 Penn Memory Center normal controls and 56 patients with autopsy-confirmed AD were among those evaluated.

Compared with normal controls, a pattern of changes emerged in people with Alzheimer's or MCI. Their spinal fluid contained higher concentrations of tau, a pathological protein found in brain cells of those with Alzheimer's, and decreasing levels of amyloid beta, another protein that forms the brain plaques charac-

teristic of the disease. "The release of tau into spinal fluid is thought to be the result of dying nerve cells releasing their contents," Shaw said. The lower concentration of amyloid is presumably because that protein is remaining in the brain as accumulated plaque.

Shaw's team envisions a test that, one day, could be used in almost any basic healthcare setting, and could "improve the focus of clinical trials by enrolling patients earlier in the disease course."

- The test described here is currently used only in research and is not available to the general public.

- To obtain an evaluation of cognitive problems, call the Penn Memory Center at 215-662-7810.

Classes for Caregivers of Relatives with Dementia

The PMC offers 6-weeks of a psycho-educational class led by qualified mental health professionals open to anyone who cares for someone with dementia.

The course primarily relates to patients earlier in the disease course, but caregivers of patients at any stage are welcome to join. You'll learn how to take better care for yourself and your loved one as you move through the changes of living with AD or other dementias.

- The next session of these classes will begin Wednesday, January 19, 2011, and meet six consecutive Wednesdays, from 5:00 to 7:00 p.m. Please call Felicia Greenfield at 215-614-1828 for more information.



Brain Donation

Brain donation is the logical conclusion to the extensive study PMC patients and normal controls received while alive, and a vital contribution to knowledge obtainable only by studying this tissue.

- To update your donor registration info, or to learn more, call Marianne Watson, RN, at 215-662-4373.



In pursuing sleep, know this . . .

An ingredient in many sleep aids is known to cause memory problems and confusion in older adults

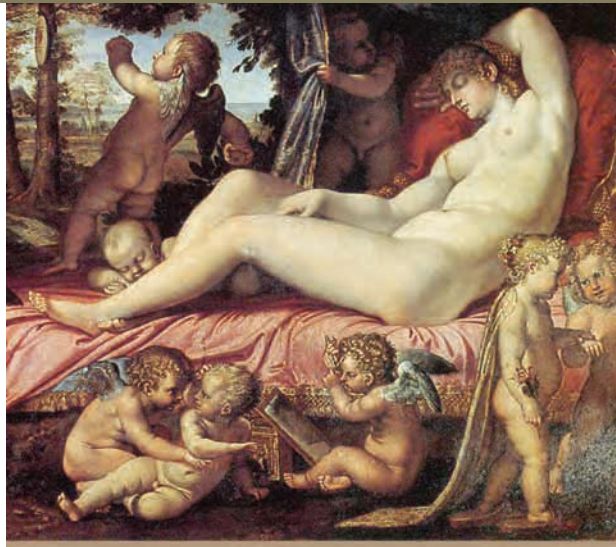
“A good laugh and a long sleep are the best cures in the doctor's book,” an old Irish proverb claims. But for some older people, adjusting to age-related changes in sleep is no laughing matter. And those who opt for over-the-counter sleep aids may not realize that these usually include diphenhydramine (Benadryl) — a drug known to have significant side effects in the elderly, including memory problems and confusion.

Awareness that our need for sleep and the sleep itself changes with age can lessen sleep-related anxiety that fuels insomnia, said Nalaka Gooneratne, MD, DABSM, a Penn Medicine specialist who studies and treats sleep disorders in the elderly.

Older people require less total sleep — about an hour less than in middle age, he said. And the way sleep is produced also changes. “In young people, the body's core temperature drops slightly a few hours before one's typical bedtime, signaling the body to rest. As we age, core temperatures don't drop as much, so there's less of that physiological drive to sleep.”

But the toughest change for many older people is that “sleep becomes far less ‘consolidated,’ more often punctuated by wakening.”

One reason for that is surprising. “Though your general hearing may not be as good, your sleep ‘noise arousal threshold’ drops, Gooneratne said. So those who once slept



section of “The Sleep of Venus”
Annibale Carracci (1560-1609) oil on canvas Musée Condé, Chantilly, France

To help insure a good night's sleep, ban chatty cherubs — and other sources of noise — from the bedroom

through the sounds of city traffic or a snoring spouse may now be awakened by it. Pain from arthritis, heartburn, and other conditions, and the effects of medicines used to treat them, can disrupt sleep. And sleep apnea, abnormal stoppages of breathing that can cause frequent, abrupt wakening “affects nearly one person in 5 over age 60. Muscles in and around the airway slacken with age, especially at rest, blocking air flow,” he said. And sleep apnea is even more common in persons with dementia.

Good information on better sleep for older adults is readily available, Gooneratne said, “and all the basics — keeping your bedroom cool, increasing daily exercise, reducing naps and noise, and no alcohol near bedtime — should be tried before using medications, even OTC ones.”



“If it's got ‘PM’ in its name, it probably contains diphenhydramine (Benadryl),” said Gooneratne.

*Penn Memory Center Associate Director
Dr. Jason Karlawish writes on diphenhydramine (Benadryl)*

“As a geriatrician and a memory specialist, I am stunned that diphenhydramine (Benadryl) is still available over-the-counter, in drugs such as Tylenol PM and Advil PM. It may be a reasonably effective sleep aid, but often at the cost of confusion and memory problems for seniors. Early research in Alzheimer's disease dosed older adults with diphenhydramine (Benadryl) to mimic the confusion of Alzheimer's. The data were definitive: diphenhydramine (Benadryl) impaired memory and concentration in the elderly. It can also cause urinary retention, which can lead to infection. Though it's been around for years, I am convinced that today, if a company applied to the FDA to market diphenhydramine (Benadryl) for over-the-counter use, the FDA would reject the application.”

More on improving sleep at
www.nia.nih.gov/HealthInformation/Publications/sleep.htm

This drug affects the action of several neurotransmitters in the brain, and is known to cause confusion and other problems in older people. It is cited as a ‘medication to avoid or use within specified dose and duration ranges’ on the Beers Medication list, a guide for pharmacists and physicians to improve medication use in the elderly. “Seniors, especially those with cognitive problems, should be very cautious of medications that affect brain chemistry this way.” ■



Friends, family may detect earliest signs of dementia better than traditional tests

A quick, cheap, minimally-invasive way to identify the presence of Alzheimer's disease in an individual before symptoms show — remains elusive. But a recent study suggests that close friends and family members may be more sensitive to early signs of the disease than usual screening tests, such as recalling word lists or drawing shapes on paper.

Researchers at Washington University in St. Louis developed a questionnaire known as the Ascertain Dementia-8 (AD-8). It's completed by an "informant" — someone who knows the person well and sees him or her often.

In this study, published online September 2010 in the journal *Brain*, informants rated 251 individuals using the AD-8. Researchers also tested the individuals with the Mini Mental Status Exam (MMSE) a traditional cognitive screening tool. Then they looked at "biomarkers" — testing spinal fluid for certain changes indicative of brain pathology, and performing brain scans capable of imaging Alzheimer's plaques.

Results of the AD-8 more consistently matched biomarker evidence of dementia than typical cognitive tests. "It's not economically feasible to screen everyone for Alzheimer's biomarkers," said



What's trump again?

Problems keeping up with hobbies may be an early signal of cognitive trouble likely to be noticed by family or friends.

John C. Morris, MD, director of the Charles F. and Joanne Knight Alzheimer's Disease Research Center at Washington University and a researcher in the study. Morris sees the AD-8 as a brief, low-cost alternative to screen for problems and thus identify those individuals who need follow-up evaluations. "It can't tell us whether the dementia is caused by Alzheimer's or other disorders, but it lets us know when there's a need for more extensive evaluations to answer that question."

About 70% of cases of dementia in older people in the United States result from Alzheimer's disease.

<http://news.wustl.edu/news/Pages/21209.aspx>

In the AD-8, a quick screen for cognitive problems, a family member or close friend of an individual reports if they have observed any of these changes:

1. Problems with judgment, such as bad financial decisions;
2. Reduced interest in hobbies and other activities;
3. Repeating of questions, stories, or statements;
4. Trouble learning to use a tool or appliance, such as a television remote control or a microwave;
5. Forgetting the month or year;
6. Difficulty handling financial affairs, such as balancing a checkbook;
7. Difficulty remembering appointments; and
8. Consistent problems with thinking and memory.

Informants answer "yes" or "no" to each question. A "yes" answer equals 1 point. A score of 2 or more points indicates the need for an additional evaluation.

Older men developed Mild Cognitive Impairment (MCI) earlier and at a rate 1.5 times that of women, found a recent Mayo Clinic study published in *Neurology*. MCI is a condition of problems with memory or thinking beyond those explained by the normal changes of aging. One type of the condition, *amnesic MCI*, is often considered a precursor to Alzheimer's disease.

MCI seen earlier and more often in men



Ladies first? Not when it comes to Mild Cognitive Impairment, a recent large study finds.

"It's the first study of community-dwelling persons to find higher prevalence of MCI in men," said study author Ronald Petersen, MD, PhD, director of Mayo's Alzheimer's Disease Research Center. "It suggests we may want to investigate differences in the way men and women develop MCI, similar to the way stroke and cardiovascular disease risk factors and outcomes vary between the sexes," said National Institute on Aging Director Richard Hodes, of the NIA-sponsored study.

Even after adjusting for factors that would inflate men's rate of MCI, the condition was identified in 19% of men, but in just 14% of women. Amnesic MCI was also more common in men.

Among both sexes, MCI was more likely among the never-married. Also, the greater number of years spent in school was significantly associated with decreased MCI rates. These findings echo others which suggest protective effects of interpersonal engagement and education on brain health.

Researchers conducted in-person evaluations of 2000 randomly selected 70-89 year olds in Olmsted County, MN.

<http://www.nih.gov/news/health/sep2010/nia-07.htm>

Walking just 10-12 blocks daily may slow brain shrinkage in late old age, a study recently published online in *Neurology* reported.

Walk now, preserve brain size later?



Dress as you like, but consistently walking a few miles a week may help us hold on to grey matter in our golden years.

In 1989, University of Pittsburgh psychologist Kirk I. Erickson and colleagues studied 299 cognitively normal older adults, charting how many blocks each walked in a week. Nine years later, MRI scans measured participants' brain sizes. Those who walked at least 72 blocks per week, or roughly six to nine miles, had more gray matter volume than people who didn't walk as far. Logging more miles did not appear to build gray matter volume further.

Researchers emphasized that the relationship between walking and gray matter volume appears to apply only to those who tread these distances consistently. "If regular exercise in midlife could improve brain health, thinking, and memory in later life, it would be one more reason to make regular exercise in people of all ages a public health imperative," said Erikson.

Four years after that, participants, most now in late old age, underwent cognitive testing, revealing that 116 of them, about 40%, had developed cognitive impairment or dementia. But those who had regularly walked the 6-9 miles showed half the risk of developing memory problems.

<http://www.healthfinder.gov/news/newsstory.aspx?docid=644342>



Conozca a las personas que proveen servicios a los Latinos — Meet the Penn Memory Center Latino Services staff. (standing, left to right) Leonel Oliveros-Rosen, clinic flow coordinator; Mirna Negrón, MA, social worker and Latino Education coordinator, and Ivy Mesa, Latino Outreach coordinator. (seated, left to right) Patricia Martinez, research coordinator; Jorge Rivera-Colón, MD, Penn Memory Center psychiatrist; and Jessica Nunez-Lopez, research coordinator.

Latinos — 12% of the US population — are our largest minority and fastest-growing demographic group. And they are living longer than non-Hispanic whites and blacks.

Hay buena noticias y malas noticias; It's good news and bad news for Latino elders. Longer life spans, coupled with high rates of obesity, diabetes, and other problems in this population, greatly increase their risk for Alzheimer's disease.

Locally, the number of Latinos over age 60, a predominantly Puerto Rican population living in North Philadelphia, has grown 33% since 2004, mirroring national trends. Yet when it comes to cognitive

health, this community has some unique, and troubling, characteristics.

"In caring for and studying age-related cognitive health of local Latinos for 20 years, we've identified several striking trends," said Steven E. Arnold, MD,

In caring for and studying the age-related cognitive health of North Philadelphia's Latinos for 20 years, we've identified several striking trends; primarily, the onset of cognitive problems at a much younger age — on average, seven years younger — than our non-Latino patients.

Director of the Penn Memory Center. "Primarily, we see the onset of cognitive problems at a much younger age — on average, seven years younger than in our non-Latino patients. Also, they have more impairment at the time they first seek evaluation, and they are more likely to have depression."

Building on a long track record of significant commitment to this population, the PMC has added and refocused staff and resources to better meet the needs of these individuals, "and to encourage their participation in our research, especially as we seek to learn why cognitive disorders and depression hit harder and earlier in this group," said Dr. Arnold.

Enhancing services for Penn Memory Center's Latino patients and families



... And why it matters

Evaluation and care from a bilingual, bicultural physician

Chief among these service enhancements is the availability of Jorge Rivera-Colon, MD, a board certified psychiatrist born, raised, and educated in Puerto Rico, and later trained at Penn, who joined the PMC late last year. “Dr. Rivera’s clinical skill and cultural connection with our Latino patients and families is a strong addition to our core services for Latinos,” said Arnold.

“Fully customized logistics”

Helping patients and families navigate their way to Dr. Rivera and other PMC offerings will be Ivy Mesa, newly named Latino Outreach Coordinator. Her four



Despite high rates of poverty and health problems, Latinos in the US are living longer than non-hispanic whites or blacks. And age-related cognitive disorders are forecast to hit them hard. The Alzheimer’s Association predicts that by 2050, the number of Hispanics in the US with Alzheimer’s disease will grow by more than 600%, from 250,000 today, to nearly 1.75 million people.

(see http://www.nlm.nih.gov/medlineplus/news/fullstory_104345.html)

years experience in the PMC front office means Ivy is well prepared to handle scheduling, reminders, transportation, and related issues. “It’s fully customized appointment logistics for this group,” said Felicia Greenfield, MSW, Operations Director at the PMC.

And care management

Mirna Negrón, MA, social worker and Latino Education Coordinator, now also offers broad care management services to PMC’s Latino cohort. “These families usually have many socio-economic, medical, legal, and/or psycho-social needs,” she said. “Many believe memory problems and depression just go along with getting older.” This can mean staying committed to care and research related to the patient’s cognitive and mental health needs is often a low priority.

“Breaking through that thinking is key to getting this population the care they need, and getting the research answers we need,” said Dr. Rivera. Dr. Arnold agreed. “Mirna educates, counsels, and helps patients and families get the services, support, or information necessary to address their other life issues, reducing their sense of feeling overwhelmed, and increasing the probability of retaining them in our programs.”

Screening, cognitive testing, and research opportunities for Spanish-speaking patients are managed by research coordinators Jessica Nunez-Lopez and Patricia Martinez. And patients and families are assisted throughout the various elements of

Dr. Jorge Rivera-Colón joins the Penn Memory Center



Jorge A. Rivera-Colón, MD, is board certified by the American Board of Psychiatry and Neurology. He earned his undergraduate degree from the Universidad de Puerto Rico and his medical degree from the Universidad Central de Caribe, in Puerto Rico. He completed a residency in Psychiatry at Albert Einstein Medical Center in Philadelphia and a fellowship in Psychosomatic Medicine at Penn.


Psychosomatic Medicine emphasizes in diagnosis and treatment the influence of psychological and emotional conditions in relation to physical factors. It is a recognized psychiatric sub-specialty of the American Board of Psychiatry and Neurology.

Dr. Rivera specializes in the diagnosis and treatment of adults with new-onset mental illness, psychiatric issues of chronic disease, and Alzheimer’s disease and other dementias. He consults at the Hospital of the University of Pennsylvania. He is fluent in Spanish and English.

their appointments by Leonel Oliveros-Rosen, clinical flow coordinator.

Knowledge here and beyond

The PMC also collaborates with researchers in Puerto Rico. “Participants there are more socioeconomically varied than in North Philadelphia,” said Dr. Arnold. “Comparing data with them, we can better understand the biological, environmental, and cultural factors related to AD in our immigrant Latino community. And ultimately, better understand how these factors may affect larger, more diverse Latino populations elsewhere in the US. ■



Every gift of noble origin
is breathed upon by
hope's
perpetual breath
• William Warkentin

WITH GRATITUDE, WE RECOGNIZE THESE RECENT DONORS

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In this season of remembering, and looking ahead . . .

Please consider supporting the research of the Penn
Memory Center. We rely on your gifts to ADVANCE.



Alzheimer's disease threatens to become
the largest public health crisis ever faced
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ing for our efforts continues to be cut back. This hard reality
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We are especially appreciative of those who have made gifts
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Planned giving, matching gift programs, and a range of tax-
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Irene Lukoff at 215-573-0187. Thank you.

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*Flowers wither and
are forgotten.*

*A gift to the
Penn Memory Center
fuels our vital research
and care efforts and is
always remembered.*



In lieu of flowers . . .

In contemplating your own final arrangements, or those of a loved one, please consider an obituary request that, instead of flowers, donations for Alzheimer's research at the Penn Memory Center be made to:

"Trustees of the University of Pennsylvania"
(write "ADC-PMC" on the memo line)

And mailed to Penn Memory Center (Attn: Faye Silag)
3615 Chestnut St.
Philadelphia, PA 19104

Questions? Call Faye at 215-615-0975

Make a gift on-line

It's easy, quick, and secure. At our website — www.pennadc.org — click on "How to Make a Donation." You'll be directed to the on-line donation form.

**Staying Sharp:
Advances in Brain Research**



Almost 400 people heard from this panel of Penn researchers at this recent event sponsored by AARP’s Educator Committee, the Dana Alliance for Brain Initiatives, and MetLife Foundation



On a warm Saturday morning this past October, Penn’s Irvine Auditorium was the setting for a morning of questions and answers on topics of interest to anyone who has a brain and wants to keep it healthy. The session, “Staying Sharp: Current Advances in Brain Research,” presented a panel of researchers and practitioners well known to those familiar with the Penn Memory Center, fielding a wide range of questions from among nearly 400 attendees at the open-

to-the public event. Participating on the panel were *John Q. Trojanowski, MD, PhD*, director of the Institute on Aging and Alzheimer’s Disease Center, and co-director of the Center for Neurodegenerative disease Research (CNDR); *Virginia M-Y. Lee, PhD, MBA*, director of CNDR, *Steven E. Arnold, MD*, associate director of the Alzheimer’s Disease Center and director of the Penn Memory Center, and *Jason Karlawish, MD*, associate director of the Penn Memory Center.



Undiagnosed cognitive problems can be costly

“Money Woes Can Be Early Clue To Alzheimer’s,” by Gina Kolata, a recent story in the *New York Times*, looks at the impact of poor financial decisions made by individuals whose emerging cognitive problems were not yet recognized by family members. Renee Packel, a Penn Memory Center normal control, is featured in the story. *Jason Karlawish, MD*, commented in the piece, part of a series entitled, “The Vanishing Mind.”

<http://tinyurl.com/money-woes>



Depression/Dementia Link

In a WHYY Radio story by Maiken Scott *Steven Arnold, MD*, comments on two newly published studies in the journal *Neurology* that support a depression/dementia link. “One of the leading hypotheses is that depression and psy-

chological distress have a chronic wear-and-tear effect on the brain, making it more vulnerable to deterioration. Depression could also result in reduced social interactions and withdrawal from other activities that keep the brain healthy. Some experts suggest depression could be an early sign of dementia.”

<http://tinyurl.com/depression-dementia>



Scenes from the Penn Memory Center's 4th Annual Research Partner Thank You Breakfast

We thank the more than 220 of our research participants, families, and friends who joined us for eggs and information about our progress in understanding Alzheimer's disease, other cognitive impairments, and healthy brain aging at this fine event.

Brain Boost Helps Memory

An ongoing study being conducted by *David Wolk, MD*, Assistant Director of the Penn Memory Center, was featured recently on an NBC10 broadcast. The report said the study found that "zapping the brain with a tiny electric current enhances brain function."

The technique, known as transcranial direct current stimulation (tDCS), is being studied to determine its possible value in treating memory impairment resulting from a variety of conditions.

In an article published in the November 2010 issue of *Neuropsychologia*, Dr. Wolk and colleagues report on findings of a study which show that as little as 15 minutes of tDCS can improve performance on tests of a subject's ability to remember names. Coverage of the study also appeared in *TIME.com*, and the *Philadelphia Inquirer*.

<http://tinyurl.com/labrat15min>
<http://tinyurl.com/tinyzap>

Dr. Wolk and colleagues also report in *Clinical Psychiatry News* on a study of "how the presence or absence of the APOE e4 allele influences the cognitive and anatomic phenotypic expression of AD in a dissociable manner."

<http://tinyurl.com/ClinicalPsychiatry>



Without research, there can be no progress against Alzheimer's disease

Without you, there can be no research



all Penn related photo on these two pages: Chris and Faye Siag



Philadelphia neighborhood scene: jbachman01 | Flickr

Seasons Greetings
and Best Wishes for a Happy New Year
from the Physicians and Staff
of the Penn Memory Center.

inSight

WINTER | YEAR END 2010

Newsletter of the Penn Memory Center

About people and efforts that bring the knowledge we seek on Alzheimer's disease and healthy brain aging ever closer *in sight*

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- inSight is produced by the Penn Memory Center, a part of Penn Medicine of the University of Pennsylvania.
- The Penn Memory Center is a National Institute on Aging-designated Alzheimer's Disease Center (ADC), one of only 30 centers in the United States, and the only one in our tri-state region.
- Our staff and programs are dedicated to research in Alzheimer's disease and age-related cognitive problems, and improving the well-being and quality of life of our patients and their families.
- We welcome and encourage your questions, comments, suggestions, and gifts.

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If you remember eating at the automat . . .

You're probably about the right age to join the work of the Penn Memory Center, by becoming a Normal Control

Did you know that older adults with normal memory and thinking are vital participants in Alzheimer's research? Studying people in their 60s, 70s, 80s, and beyond, who have normal cognition for their age, helps science better understand exactly what goes wrong, and when, in the brains of those with age-related cognitive problems. These very important partners in brain-aging research are known as "normal controls."

- Please contact Marianne Watson, RN, at 215-662-4373 or by email at marianne.watson@uphs.upenn.edu to learn how you can advance Alzheimer's disease and healthy brain-aging research as a normal control.