PROGRAM OF ALL-INCLUSIVE CARE FOR THE ELDERLY (PACE®)
KEY RESEARCH FINDINGS: QUALITY CARE, IMPROVED HEALTH, COST-EFFECTIVE

PACE has been the subject of over a hundred health care articles that have examined a range of factors to determine whether the community-based, comprehensive and accountable care offered by PACE providers delivers quality care, improved health, and value for the health care system. This chart summarizes key research findings demonstrating PACE effectiveness in delivering gold-standard care for older adults, and ways its approach can be a model for others looking to improve the health care system. For additional information, please contact Sharon Pearce at SharonP@npaonline.org or (703) 535-1574 or Peter Fitzgerald at PeterF@npaonline.org or (703) 535-1519.

QUALITY CARE PACE treats the whole person, not just a combination of their medical conditions.	
Key Findings	**Supporting Research**
PACE is effective and efficient in treating individuals with multiple and complex health care needs	PACE was one of three chronic care models identified that include processes that improve the effectiveness and efficiency of complex primary care. Four processes present in the most successful models of primary care for community-based older adults who have multiple chronic conditions, including PACE, are: 1) development of a comprehensive patient assessment that includes a complete review of all medical, psychosocial, lifestyle and care preference issues; 2) creation and implementation of an evidence-based plan of care that addresses all of the patient's health needs; 3) communication and coordination with all who provide care for the patient; and 4) promotion of the patient's (and their family caregiver's) engagement in their own health care. *Boult, C. & Wieland, G.D. (2010). Comprehensive primary care for older patients with multiple chronic conditions: "Nobody rushes you through." JAMA, Vol. 304, No. 17, pp. 1937-1943.*
Caregivers and participants rate PACE high in satisfaction	The findings document a comparatively low annual rate of disenrollment from PACE (7%), suggesting that enrollees are quite satisfied with the care they receive. There is no increase in disenrollment risk by age, functional or cognitive impairment, Medicaid eligibility, or diagnoses. *Temkin-Greener, H.; Bajorska, A.; Mukamel, D.B. (2006). Disenrollment from an acute/long-term managed care program (PACE). Medical Care, Vol. 44, No. 1, pp. 31-38.* PACE participant satisfaction levels and family member/caregiver satisfaction levels are high (96.9% - 100%) among enrollees of PACE organizations in Tennessee. *Damons, J. (2001). Program of All-Inclusive Care for the Elderly (PACE) Year 2 Overview. Long Term Care, Bureau of TennCare, Tennessee.*

IMPROVED HEALTH PACE emphasizes timely preventive primary care over specialty and institutional care.	
Key Findings	**Supporting Research**
PACE participants report they are healthier, happier and more independent than counterparts in other care settings	A U.S. Department of Health and Human Services study found higher quality of care and better outcomes among PACE participants compared to home and community-based service (HCBS) clients. PACE participants reported: 1) better self-rated health status; 2) better preventive care, with respect to hearing and vision screenings, flu shots and pneumococcal vaccines; 3) fewer unmet needs, such as getting around and dressing; 4) less pain interfering with normal daily functioning; 5) less likelihood of depression; 6) and better management of health care. Both PACE participants and HCBS clients reported high satisfaction with their quality of life and the quality of care they received. *Leavitt, M., Secretary of Health and Human Services. (2009). Interim report to Congress. The quality and cost of the Program of All-Inclusive Care for the Elderly.*
PACE participants live longer than enrollees in a home- and community-based waiver program	This South Carolina specific study examined long-term survival rates of participants in PACE and an aged and disabled waiver program over a five-year period. Despite being older and more cognitively and functionally impaired than those in an aged and disabled waiver program, PACE participants had a lower long-term mortality rate. When stratifying for mortality risk, "PACE participants had a substantial long-term survival advantage compared with aged and disabled waiver clients into the fifth year of follow-up." The benefit was most apparent in the moderate- to high-risk admissions, highlighting the importance of an integrated, team-managed medical home for older, more disabled participants, such as those in a PACE program. *Wieland, D., Boland, R., Baskins, J., and Kinosian, B. (2010). Five-year survival in a Program of All-Inclusive Care for the Elderly compared with alternative institutional and home- and community-based care. J Gerontol A Biol Sci Med Sci. July: 65(7), pp. 721-726.* A study by Mathematica Policy Research found that PACE enrollees had a lower mortality rate than comparable individuals either in nursing facilities or receiving home and community based services (HCBS) through waiver programs, reflecting the success of PACE in effectively managing participants' health care needs. PACE enrollees were also less likely to experience a long-term nursing home stay than their HCBS peers. *The Effect of PACE on Costs, Nursing Home Admissions and Mortality: 2006 – 2011 Mathematica Policy Research evaluation prepared for U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, Office of Disability, Aging and Long-Term Care Policy (2014)*
COST-EFFECTIVE The focus on prevention and wellness means avoiding unnecessary care and the costs that go along with it.	
Key Findings	**Supporting Research**
PACE reduces the need for costly, long-term nursing home care	The study found that, "Despite the fact that 100% of the PACE participants were nursing home certifiable, the risk of being admitted to a nursing home long term following enrollment from the community is low." The risk of admission to nursing homes for 30 days or longer was 14.9% within 3 years. Based on this study of 12 PACE sites, fewer than 20% of participants who died spent 30 days or more in a nursing home prior to death. *Friedman, S.; Steinwachs, D.; Rathouz, P.; Burton. L.; & Mukamel, D. (2005). Characteristics Predicting nursing home admission in the program of all-inclusive care for elderly people. The Gerontologist, Vol. 45, No. 2, pp. 157-166.*

PACE prevents or significantly reduces preventable hospitalizations	In this Texas specific study, the analysis concluded that despite the number and severity of participant medical conditions, PACE saves Texas about 14% compared to statewide costs of regular nursing home and medical care for the frail elderly. While PACE cares for a more frail population than Medicare in general, PACE enrollees had fewer hospital admissions and shorter hospital stays, thus successfully preventing avoidable conditions that could require or lengthen hospitalization. *Rylander, C. (2000). Recommendation of the Texas Comptroller: Chapter 8: Health and Human Services, "Expand the Use of an Effective Long-term Care Program." Texas Comptroller of Public Accounts, Austin, Texas.* PACE provides a 17% cost savings relative to the TennCare managed care organization/behavioral health organization nursing facility system. Inpatient hospitalization rates are low, averaging 1140 days per 1000 and a 3.1 day average length of stay; an average of 8% of participants received care in a nursing home. *Damons, J. (2001). Program of All-Inclusive Care for the Elderly (PACE) Year 2 Overview. Long Term Care, Bureau of TennCare, Tennessee.* PACE enrollees had fewer hospital admissions, preventable hospital admissions, hospital days, emergency room visits, and preventable emergency room visits than a comparable population enrolled in the Wisconsin Partnership Program. *Kane, R. L.; Homyak, P.; Bershadsky, B; & Flood, S. (2006). Variations on a theme called PACE. Journal of Gerontology Series A, Vol., 61, No. 7, pp. 689-693.* The Massachusetts Division of Health Care Finance and Policy (DHCFP) evaluated the effectiveness of the PACE program in keeping its enrollees well and out of a hospital. PACE was compared to a group of older adults who, like PACE program participants, were nursing home eligible, but receiving care in a home or community rather than institutional setting, and a sample of nursing home residents. The analysis found that PACE inpatient days, average length of stay, and outpatient emergency department visit rates were lower than the nursing home group. PACE also showed lower rates of inpatient discharges, days, and emergency department visits than the waiver group. *Division of Health Care Finance and Policy, Executive Office of Elder Affairs. (2005). PACE Evaluation Summary. Accessed on May 25, 2011 at: http://www.mass.gov/Eeohhs2/docs/dhcfp/r/pubs/05/pace_eval.pdf.* A New York City specific study compared hospital and skilled nursing facility utilization between PACE and a Medicaid-sponsored, managed long-term care plan. PACE participants had fewer hospitalizations than the Medicaid plan enrollees. Medicaid plan members were more likely to be admitted to a hospital and experienced longer stays. *Nadash, P. (2004). Two models of managed long-term care: comparing PACE with a Medicaid-only plan. Gerontologist, 44(5), pp. 644-654.*
PACE produces Medicare savings	Total Medicare and Medicaid capitation payments are generally comparable to estimates of projected Medicare and Medicaid fee-for-service (FFS) expenditures for PACE enrollees in the year following enrollment. For this period, the study estimates Medicare capitation rates are 42-46% lower than estimates of fee-for-service expenditures, while Medicaid capitation rates are higher than estimated fee-for-service costs. The analysis, however, does not provide an overall assessment of the cost effectiveness of PACE to States. This would require the cost experience of comparable population followed for a longer time period; at a minimum several years' post enrollment. *White, A., Abel, Y. & Kidder, D. (2000). Evaluation of the Program of All-Inclusive Care for the Elderly Demonstration: A comparison of the PACE capitation rates to projected costs in the first year of enrollment. Abt Associates. Contract No. 5001.* A 2014 study by Mathematica Policy Research finds that capitated monthly Medicare expenditures for PACE enrollees were mostly similar to predicted expenditures that

	the enrollee would have incurred had they been in fee-for-service Medicare, suggesting Medicare capitation rates for PACE were set appropriately. *The Effect of PACE on Costs, Nursing Home Admissions and Mortality: 2006 – 2011 Mathematica Policy Research evaluation prepared for U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, Office of Disability, Aging and Long-Term Care Policy (2014)*
PACE produces Medicaid savings	A recently published research study of Medicaid payments to PACE organizations in South Carolina found that PACE organizations cost 28% less than what the state would have otherwise paid to serve a comparable population. *Wieland, D., Kinosian, B., Stallard, E. Bolan, R. "Does Medicaid Pay More to a Program of All-Inclusive Care for the Elderly (PACE) Than for Fee-for-Service Long-term Care?" The Journals of Gerontology, 5/7/2012.* An analysis by the state of Oklahoma indicated that for every 100 participants served by its PACE program the state saves $103,587 per month, or $1,243,044 per year. *Oklahoma Proposal for State Demonstrations to Integrate Care for the Dual Eligibles Individuals,* A National PACE Association review of Medicaid capitation rates for dual eligibles found that on average PACE rates are 14% less than the state's costs of providing alternative services to a comparable population. *NPA Analysis of PACE Upper Payment Limits and Capitation Rates, July 6, 2012.* New York's Department of Health noted that while program costs for other long term service and support options averaged a 26.2% increase per recipient between 2003 and 2009, the rate of growth in PACE was 0%. By maintaining its costs per recipient, the PACE program achieved significant savings relative to what the state would have paid for services through other programs. *New York State, Department of Health, "Redesigning the Medicaid Program," Presentation January 13, 2011.* In a 2014 study of PACE costs effectiveness by Mathematica Policy Research, of the three states for which MPR provided data, the findings were inconclusive. MPR found that Medicaid rates exceeded predicted expenditures in some states, they also determined that Medicaid expenditures under PACE were on track or significantly lower than projected fee-for-service expenditures in others. Study authors emphasized that, "The wide differences across states suggest that if states hold the line on Medicaid capitation rates for a few years, they may be able to bring them below the escalating FFS costs and generate net savings." *The Effect of PACE on Costs, Nursing Home Admissions and Mortality: 2006 – 2011 Mathematica Policy Research evaluation prepared for U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, Office of Disability, Aging and Long-Term Care Policy (2014)*