PACE—the Program of All-Inclusive Care for the Elderly—is an undertaking designed to address the complex health and health-related needs of frail older persons on an integrated, capitated basis. According to FRONTimite, a publication for home- and community-based service providers, PACE is “the embodiment of the type of care that you would want your parents to receive—a round-the-clock focus on the life of the individual.”

PACE’s primary aim is to provide participants with the health and health-related services they need for their highest possible level of functioning and autonomy. To accomplish this, the program:

- Substitutes primary and preventive services for institutional care
- Provides comprehensive services
- Offers center-based care that, because it involves regular contact between an interdisciplinary care team and the participants, reduces participants’ isolation

Among various managed care options—for example, HMOs (health maintenance organizations), PSOs (provider sponsored organizations), and PPOs (preferred provider organizations)—PACE sites most resemble PSOs in that both are provider entities, not insurers. Unlike PSOs, however, PACE programs serve only the frail elderly, provide a comprehensive benefit package that includes both acute and long-term care, and deliver services through interdisciplinary teams.

PACE Began as a Day Program

The prototype for the PACE model is On Lok Senior Health Services in San Francisco’s Chinatown. On Lok was begun in the early 1970s as one of the nation’s first adult day health centers. The program later added home care and transportation components, enabling it to respond to participants’ needs on a 24-hour basis. Then, in 1979, prompted by difficulties in coordinating its efforts with those of private physicians, On Lok decided to recruit its own physician staff.

With the three mainstays of the PACE model (adult day care, home care, and primary medical care) in place, On Lok expanded its range of services to include all community-based and institutional primary, acute, and long-term care. Between 1980 and 1983, the program served as a prototype for others.

Summary

PACE—the Program of All-Inclusive Care for the Elderly—provides integrated, comprehensive healthcare services to the frail elderly on a capitated basis. Begun in the early 1970s in San Francisco’s Chinatown, PACE today comprises many individual programs across the nation.

PACE’s goal is to provide participants with the healthcare services they need for the highest possible level of functioning and autonomy.

A typical PACE program is divided into sites, each of which serves 120 to 150 participants. Most participants come several times a week to the site’s adult day care center, where they see members of an interdisciplinary team that includes physicians, nurses, social workers, therapists, and others. Home care is provided to participants unable to attend the center.

PACE is financed by capitated payments from Medicare and Medicaid, which put providers at full risk for the services used by participants. The flexibility provided by this funding enables PACE to offer a wide variety of services, including supportive housing, which help keep participants out of institutions. Estimates of Medicare savings attributed to PACE are 12 percent and higher.

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part of a three-year demonstration project for the U.S. Health Care Financing Administration (HCFA), which reimbursed On Lok on a cost basis for the comprehensive, integrated package of services it offered its participants.

In 1983 Congress passed legislation that allowed On Lok to receive capitated reimbursement for its package of Medicare and Medicaid benefits. That year the program became the first U.S. provider to assume full financial risk for all the health and health-related needs of its frail older enrollees. In 1985 federal legislation extended On Lok’s demonstration status indefinitely, so long as quality and cost-effectiveness requirements were met. Then, a year later, Congress established a national demonstration—later named PACE—to determine whether On Lok’s experience in San Francisco could be replicated by providers in other communities.

With funding from the Robert Wood Johnson Foundation and other philanthropies, demonstration sites were launched in six cities: El Paso, TX; Milwaukee, WI; Bronx, NY; Boston; Columbia, SC; and Portland, OR (at Sisters of Providence Health System’s Providence ElderPlace). Most of these sites began PACE operations with Medicare and Medicaid waivers and capitation in 1990.

On Lok, which began in a single building, has since expanded to comprise six sites. Other PACE programs have grown in the same way. A site typically serves 120 to 150 participants at an adult day care center staffed by an interdisciplinary team. At present, about 70 organizations in 30 states are operating PACE programs or pursuing PACE development, including 15 in a “pre-PACE” phase (during pre-PACE, Medicaid contracts enable organizations to provide capitated long-term care services, while Medicare services remain on a fee-for-service basis).

The national demonstration’s success was recognized in the Balanced Budget Act of 1997, which established PACE as a permanent type of provider under Medicare and as a state option under Medicaid. The measure also increased the total number of authorized sites from 15 to as many as 40 in the first year after enactment, with 20 more each year thereafter. Thus, by 2005, 180 PACE programs will be authorized. Regulations governing PACE providers were to be released by HCFA in August. The regulations were expected to draw heavily on the experience of individual sites, states, and HCFA in implementing the national demonstration.

**Whom Does PACE Serve?**

To enroll in PACE, a person must be at least 55 years old, live in the program’s service area, and

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**A PACE CASE HISTORY**

Mr. M, age 71, was hospitalized in August 1994 with a fractured right hip, hypertension, osteoarthritis, and hearing loss. After hip surgery, he was moved to the hospital's skilled nursing unit for rehabilitation and hernia repair surgery, which revealed cancerous tumors. Neither further tumor workup nor chemotherapy was recommended. In November, when Medicare coverage ended for Mr. M's skilled nursing care, he refused to go to a nursing home, preferring to return to his hotel room. He lived alone and had no one to take care of him.

A PACE team’s assessment showed that Mr. M had moderately severe cognitive impairment and was dependent in three activities of daily living and in all instrumental activities of daily living. Even with a walker he was too weak to go from the street to his room, and he could not obtain food on his own. The team recommended that he be given more accessible housing, with an elevator, and ongoing medical care. He refused to move, but did agree to receive supportive services at home and to come to the center five days a week for rehabilitation therapy, social work, personal care, and medication monitoring.

The PACE program's vans brought him to and from the center. Three times a week, the occupational therapist and physical therapist worked with him on gait training, muscle strengthening, and outdoor ambulation. Health workers provided personal care, did his laundry, and shopped for snack items. He saw the nurse practitioner and the nurse in the clinic twice a week to have his pain and hypertension medication monitored and adjusted. Twice a week, the social worker counseled him on financial affairs, such as paying his rent. At home, an aide helped him prepare his evening meals and did light chores.

Within two months Mr. M was willing to move into housing with elevator access. He did well with continued day health, clinic, and home services.

A year after his enrollment in PACE, an abdominal examination showed that Mr. M's cancer had spread to his liver. He refused to undergo gastrointestinal studies, and within a month his bone pain increased and his appetite declined. He soon needed around-the-clock narcotics for pain control and was homebound except for escorted visits to the clinic and center.

In March 1996, 17 months after enrolling in PACE, Mr. M fell at home and broke his left hip. Two days later he died in the hospital.
meet state Medicaid nursing home eligibility criteria. As of December 31, 1997, 5,031 seriously ill older people were enrolled at PACE and PACE sites throughout the country. Between 1990 and 1997, 8,837 persons had received care through the program, whose census has grown an average 40 percent a year.

The typical PACE participant is an 80-year-old woman who lives alone, suffers from several chronic physical problems (an average of 8.1 in 1996), and has some degree of cognitive impairment. The medical diagnoses most prevalent among enrollees are hypertension, arthritis, dementia, depression, stroke, coronary artery disease, diabetes, peripheral vascular disease, and diseases of the eye and ear. The average PACE participant is dependent in three activities of daily living (which include bathing, dressing, eating, and toileting) and virtually all instrumental activities of daily living (which include preparing meals, shopping, doing housework, and managing money). More than 80 percent of participants require assistance with bathing, and more than 60 percent need help with dressing and toileting. More than 85 percent require assistance with chores, laundry, meal preparation, and taking medications.

PACE participants are ethnically diverse. As the Figure shows, nearly 50 percent are white, about 25 percent are African American, 15 percent are of Hispanic descent, and 12 percent are of Asian or Pacific Island descent. Individual sites have different racial and ethnic compositions. For example, 75 percent of participants in San Francisco are Asian; 73 percent of those in Columbia, SC, are African American. Several of the original sites, as well as many of the developing ones, serve a predominantly white population.

Both entering and leaving PACE is voluntary. In 1997, 16 percent of participants left the program, the majority because of death, which is not surprising considering the average participant's advanced age and poor health status. Four percent left for other reasons, most because they moved outside the service area.

What Services Does PACE Provide?
PACE programs cover all medical benefits offered by Medicare and Medicaid, as well as services typically available through Medicaid home- and community-based care programs, such as social services, nutrition counseling, expanded personal care, home-delivered meals, transportation, and respite care. Individual programs have the flexibility to cover other items and services to avoid more costly medical care.

Because PACE programs are managed care plans, participants must use the plans' provider networks. Most care is provided by site employees. At each site, care is coordinated and delivered at an adult day health center, where primary care physicians see participants. Most participants attend the center frequently so their health status can be monitored, they can receive care, and their families can be relieved of some of the care burden. Meals are provided in the center, the program provides transportation for participants to and from their homes, the center, and medical appointments. When necessary, care is also delivered in the participant's home. Primary care physicians arrange for medical specialty appointments, hospital care, and nursing home placement as needed.

Services delivered at the adult health centers include primary care, nursing, social work, rehabilitation therapy (physical, occupational, and speech), recreation therapy, nutrition counseling, personal care (showers, haircuts, and toileting, for example), chore services (including laundry), transportation and escort, and meals (including special diets). In-home services typically include healthcare, personal care, home-maker/chore services, and assistance with meal preparation, although professional services are also provided at home as needed. Outpatient medical specialist services are covered, as are specialty services such as audiology, dentistry, optometry, podiatry, and psychology. In addition, PACE sites provide prescriptions, laboratory tests and procedures, radiology tests and procedures, durable medical equipment (wheelchairs and hospital beds, for example), outpatient surgery, emergency room care, and medical...
transportation (ambulance service and transport for dialysis). Inpatient services are delivered in contracting hospitals and nursing homes, where all inpatient specialists are covered, too.

**Who Provides the Care?**

Interdisciplinary teams are integral to the PACE model. At each site, a team of physicians, nurses, social workers, physical and occupational therapists, recreational therapists, and others assesses participants' needs and develops treatment plans, together with participants and their families. The team also provides much of the direct care participants receive. The Figure below shows how a team is organized.

Participants typically come to the site's adult health center three times a week (daily attendance ranges between 50 and 70). To provide both home care and center services, a site needs between 60 and 80 staff members, including physicians, nurse practitioners, registered nurses, social workers, therapists, drivers, cooks, and others. This staffing ratio allows teams to get to know their participants well, thus enabling the site to anticipate and manage care needs successfully.

**How Is PACE Financed?**

In return for their services, fully developed PACE programs receive capitated payments from Medicare, Medicaid and, to a limited extent, private individuals. This puts PACE providers at full financial risk for the entire range of community-based and institutional services used by participants. Capitation encourages PACE to provide services on the basis of individual need, not the incentives inherent in the traditional Medicare and Medicaid fee-for-service systems. In general, capitation has led to a substantially lower use of costly inpatient services and a substantially higher use of community-based care.

The flexibility provided by this funding mechanism allows PACE programs to offer a wide variety of services, including supportive housing in the community, which help keep participants out of institutions. Capitation also results in high-quality care at a lower cost to Medicare and Medicaid.

Capitation payments from Medicare and Medicaid are based on an estimate of the payers' expenditures for a comparable population in the fee-for-service system. For Medicare, this translates into a monthly capitation payment equal to Medicare's average per capita cost for beneficiaries in the same county, multiplied by 2.39. The 2.39 adjustment factor was instituted to account for the medical complexity and frailty of the PACE population.

Since 1983, when the adjustment factor was first used, several studies have been undertaken to evaluate its cost effectiveness. A 1990 study concluded that the best estimate of relative cost for nursing home-certifiable individuals, as compared with that for the average Medicare beneficiary, was 2.42. A more recent study produced similar results. In this study—which used the same methods as the earlier one, but with data from the 1991-1994 Medicare Current Beneficiary Survey—individuals similar to PACE participants were estimated to cost Medicare 2.6 times more than the average beneficiary. Estimates of Medicare savings attributed to PACE are 12 percent and higher.

Medicare payments to PACE programs vary considerably from one to another. In 1998, these range from $877 per member per month at the Columbia, SC, site to $1,775 per member at the one in Bronx, NY. The median rate is $1,226.

There is no single Medicaid rate-setting methodology for PACE—each state with a program has developed its own capitation rate-setting process—but there are some similarities among the sites. States approach the task with the same objective: savings relative to their expenditures for a comparably frail population. In identifying Medicaid costs for a PACE-eligible...
The National PACE Association has—with input from site representatives, state and federal representatives, accreditation and quality assurance experts, and consumers—developed standards of care for PACE. The association is currently working with an independent agency on a pilot program to facilitate the accreditation of PACE programs.

The PACE programs already in existence have reduced the use of hospital and nursing home care by timely substitution of community care. In 1997, among sites in full operation at least a year, the annual hospital days per 1,000 ranged from a high of 3,600 (in the Bronx) to a low of 720 (in Columbia, SC); the average was 2,071. The corresponding Medicare statistic (for all beneficiaries, not just the frail population served by PACE) was 2,080 in 1996 (the most recent year for which data are available). The average length of hospital stay for PACE participants was 4.1, compared to 6.6 for Medicare beneficiaries.

Although all PACE participants are eligible for nursing home care, only 7.2 percent are permanent nursing home residents—proof of the program’s success in keeping people at home and in their communities.

For providers considering launching their own PACE programs, the two biggest challenges have been meeting the front-end capital requirements and building census. PACE providers need capital not only to acquire or remodel necessary facilities (an adult day health center and clinic), but also to defray staff costs while the program is being developed.

But providers with PACE programs are enthusiastic about the opportunities and rewards. “PACE is pioneering a creative model and new standards of care for the frail elderly—not rationing, but responding to individual needs and honoring the choices of the individual,” says Michael Whitley, executive director, Providence ElderPlace, Seattle, which began pre-PACE operations in 1995 and PACE operations this summer.

“PACE and Catholic health systems have some commonalities of mission, ensuring access to high-quality, comprehensive care in a seamless, integrated way. The PACE model integrates the spiritual dimension into treatment and care—part of the holistic approach.”

**NOTES**

5. The Medicare rate-setting methodology for PACE is a variant of the adjusted average per capita cost (AAPCC) rate-setting approach used by HCFA to establish HMO capitation rates.
9. This variation reflects the considerable disparity in Medicare average county per capita costs and is not PACE specific.