The following appendix is supplemental to a Commonwealth Fund issue brief, S. Klein, M. Hostetter, and D. McCarthy, *An Overview of Home-Based Primary Care: Learning from the Field* (The Commonwealth Fund, June 2017), available on the Fund's website at: http://www.commonwealthfund.org/publications/issue-briefs/2017/jun/overview-home-based-primary-care.

APPENDIX. HOME-BASED PRIMARY CARE PRACTICES PROFILED

DOCTORS MAKING HOUSECALLS

doctorsmakinghousecalls.com

Founded: 2002

Organization type: For-profit medical group.

Location: Headquartered in Durham, North Carolina; serves patients in most of the state.

Populations served: Primarily frail elderly patients with multiple chronic conditions and complex medical needs. Roughly 80 percent suffer from dementia and/or depression. About one-quarter of patients are dually eligible for both Medicare and Medicaid.

Number of patients: 8,000 patients currently served; 100,000 visits annually.

Payment model: Fee-for-service reimbursement from public and private plans, as well as direct payments from patients (i.e., a $95 trip fee is assessed for visits to private residences), supplemented by shared savings from the Independence at Home Demonstration.

Payer mix: Payments from Medicare and Medicare Advantage account for 70 percent of revenue; payments from supplemental insurance plans make up 20 percent; direct payments, including copayments, from patients account for the remainder.

Delivery model: Majority (80%) of patients are in assisted living facilities, enabling providers to see many patients in one location for an average of 10 to 15 visits per day. Palliative care services are provided.

Staff: 50 physicians and 30 physician assistants and nurse practitioners who have patient panels of about 150 to 200 patients each. They are supported by podiatrists, psychologists, licensed clinical social workers, and 130 administrative staff.

Training: Two-day training program, complemented by training videos.

After-hours care: Medical staff are available by phone during the week and will make house calls for urgent matters on weekends.

Care transitions: Staff call 250 independent and assisted living facilities daily to check whether patients are hospitalized and/or discharged.

Use of health IT: Customized electronic health record system.

Results: Participates in the Independence at Home Demonstration (about 1,200 enrolled patients) and earned $275,427 as its share of the savings in year 1 and $1,341,649 in year 2.

For more information, contact Alan Kronhaus, M.D., CEO, akronhaus@doctorsmakinghousecalls.com.

HOUSECALL PROVIDERS

housecallproviders.org

Founded: 1995

Organization type: Community-based nonprofit medical group.

Location: Headquartered in Portland, Oregon; serves patients in Clackamas, Multnomah, and Washington Counties.

Populations served: Homebound individuals; mostly frail elders but 20 percent under age 65 with devastating conditions. Thirty-nine percent of patients are eligible for both Medicare and Medicaid. More than 80 percent have cognitive impairment.

Number of patients: Average daily census of 1,400 to 1,450; more than 10,500 house calls per year.

Payment model: Fee-for-service reimbursement supplemented by some per-member per-month case management fees and shared savings from the Independence at Home Demonstration.

Payer mix: Fee-for-service revenue from Medicare, Medicare Advantage plans, Medicaid, commercial payers, and hospice covers 70 percent of expenses. Case management fees cover 10 percent, including care transition teams and social workers. Grants, donations, meaningful use payments, and other incentive payments compose the remainder of revenues.

Delivery model: Home visits with frequency ranging from once to twice a month. Patients also are treated in adult foster care homes and assisted and residential living facilities. Added hospice services in 2009 and a palliative care team (registered nurse, chaplain, and social worker) in 2015.

Staff: Physicians, nurse practitioners, and physician assistants each have their own patient panels, with assignments determined by region—a model enabled by Oregon's scope of practice laws. (PAs require physician oversight.)

Training: Comprehensive training and mentoring program for primary care providers.

After-hours care: On-call visits during the week for urgent needs; phone coverage on weekends (except for hospice services, which are available 24/7).

Care transitions: Dedicated transition teams of registered nurses and licensed clinical social workers go to hospitals to share patients' advance directives, records, medication lists, and problem lists with hospitalists and emergency department staff. Transitions teams also follow patients home to ensure they understand discharge instructions and have the medication and equipment they need. This model was implemented for the Independence at Home Demonstration, which requires participating practices to see patients within 48 hours of a hospital discharge, but is now used for all patients.

Use of health IT: Care coordinators, primary, palliative, and transitional care staff communicate via an electronic health record system.

Results: Participates in the Independence at Home Demonstration (about 200 enrolled patients). Achieved the highest cost savings among the demonstration sites according to the results reported to date, with a 32 percent reduction in patients' expected health care spending the initial year and a 24 percent reduction in expected spending the following year. Housecall Providers received approximately $1,228,263 as its share of the savings in year 1 and $942,156 in year 2.

For more information, contact Terri Hobbs, executive director, thobbs@housecallproviders.org.

LANDMARK HEALTH

landmarkhealth.org

Founded: 2012

Organization type: For-profit, risk-based medical group.

Location: Headquartered in Huntington Beach, California; serves patients in 10 markets and six states.

Populations served: Patients with multiple chronic conditions, many of whom are homebound, bedbound, or face other barriers to accessing office-based care. About 40 percent suffer from a behavioral health comorbidity. The average patient is 79 years old and has seven or more chronic conditions.

Number of patients: 45,000 currently served.

Payment model: Landmark enters into a variety of risk-based contracts with health plans and integrated delivery systems. It is compensated only if it is able to achieve improvements in patient satisfaction and quality and reduce the cost of care.

Payer mix: Sixty percent of patients are covered by Medicare Advantage plans; roughly 20 percent by Medicaid managed care plans; 15 percent in a demonstration program for dually eligible Medicare and Medicaid beneficiaries; and the remaining 5 percent by commercial plans.

Delivery model: Landmark partners with health plans, health systems, and provider groups to deliver in-home primary care to high-risk patients and works in close partnership with the patient's primary care physician and/or other community providers to develop and deliver a comprehensive plan of care. Landmark typically manages care for assigned patients until they are discharged to hospice or die.

Staff: Physicians, nurse practitioners, and physician assistants with small panels of patients are supported by interdisciplinary care teams that include behavioral health providers, social workers, nurse care managers, pharmacists, and dietitians. Teams meet on a weekly basis to discuss complex cases and review changes in patients' conditions.

Training: Clinicians take part in intensive clinical practice training, including ride-along visit observations with local medical leadership, biweekly seminars, and online educational sessions on topics like palliative care and medication management.

After-hours care: 24/7 visits for urgent needs.

Care transitions: Postdischarge visits are made to homes and skilled nursing facilities within 72 hours of hospital discharge. Nurse care managers also will follow up over the phone to assess safety and manage the patient's postacute environment. Providers oversee care in skilled nursing facilities as well.

Use of health IT: Custom electronic medical record with an integrated case management system and screening tools for behavioral health, substance abuse, and adult malnutrition, as well as prompts to assess and document previously undiagnosed conditions. Landmark also uses a proprietary, data-driven algorithm to stratify patients and allocate provider resources.

Results: Landmark reports that patients it manages are hospitalized at a rate that is 40 percent to 60 percent lower than the period prior to enrollment (adjusted to account for regression to the mean). An internal study of more than 1,000 patients found Landmark's program was associated with a 15 percent lower mortality rate over two years compared with a matched cohort of patients. Its Net Promoter Score, a widely used metric used to evaluate whether a respondent would recommend a product or service to other qualified individuals, was 94 out of 100.

For more information, contact Adam Boehler, CEO, aboehler@landmarkhealth.org.

MEDSTAR HEALTH TOTAL ELDER CARE–MEDICAL HOUSE CALL PROGRAM

medstartotaleldercare.org

Founded: 1999

Organization type: Nonprofit health system.

Location: Headquartered in Washington, D.C.; serves patients in Washington, D.C., and Baltimore, Maryland.

Populations served: Frail elders (80% African American) who have difficulty getting to a doctor's office. Nearly 60 percent suffer from dementia and most have multiple severe chronic illnesses and disability. About 44 percent are eligible for both Medicare and Medicaid. All are 65 or older; the median age is 85.

Number of patients: Average monthly census of 620 patients; about 8,500 home visits annually.

Payment model: Fee-for-service reimbursement supplemented by shared savings from the Independence at Home Demonstration, capitation payments through a Medicaid waiver, and philanthropic support.

Payer mix: Medicare is the primary payer for 95 percent of patients, with Medicaid as a secondary payer for dual eligibles. Medicare Advantage plans cover care of some patients in the Baltimore market.

Delivery model: House calls are made every week to eight weeks, depending on severity of illness. Same-day or next-day urgent visits made for acutely ill patients. In-home diagnostic tests and treatments, medications, and equipment are delivered to patients and palliative care services are provided by the house-call team.

Staff: Interdisciplinary team of geriatricians, nurse practitioners, licensed practical nurses, and social workers share responsibility for creation and execution of the care plan. Pharmacists and physical therapists as well as psychiatrists and other specialist physicians serve as consultants.

After-hours care: The team offers 24/7 telephone access to an on-call physician with access to the mobile electronic health record. Nurses make house calls on Saturdays to unstable patients.

Training: To supplement prior training or experience serving elders, new staff receive four weeks of training on clinical and practice management skills that are specific to home-based primary care.

Care transitions: Physicians directly oversee care of hospitalized patients to ensure continuity and safety. Patients are seen within 48 hours of hospital discharge.

Use of health IT: Team members use a mobile electronic health record to coordinate care. The program relies a regional health information exchange to track patients admitted to other emergency departments, hospitals, and skilled nursing facilities in the region.

Results: Participates in the Independence at Home Demonstration (about 265 patients enrolled in the fifth year) and earned approximately $1.6 million in shared savings in the first two years of the program. MedStar and its consortium partners reduced total Medicare spending by 20 percent in the first year and 12 percent in the second year. A prior study found that the program reduced total Medicare spending by 17 percent over two years without increasing mortality rates.*

For more information, contact K. Eric De Jonge, M.D., executive director, karl.e.dejonge@medstar.net.

* K. E. De Jonge, N. Jamshed, D. Gilden et al., "Effects of Home-Based Primary Care on Medicare Costs in High-Risk Elders," *Journal of the American Geriatrics Society,* Oct. 2014 62(10):1825–31.

TRUMAN G. SCHNABEL IN-HOME PRIMARY CARE PROGRAM AT PENN MEDICINE

pennmedicine.org/for-patients-and-visitors/find-a-program-or-service/geriatric-medicine/house-calls-program

Founded: 1994

Organization type: Academic medical center.

Location: Headquartered in Philadelphia; serves patients in most of the city.

Populations served: Frail, mostly African American women who are either homebound or have difficulty leaving their home. About half are dually eligible for Medicare and Medicaid. All are over age 60 and most are much older.

Number of patients: Average monthly census of 210 patients; about 1,500 home visits annually.

Payment model: Fee-for-service reimbursement supplemented by shared savings from the Independence at Home Demonstration.

Payer mix: Medicare is the primary payer for about 60 percent of patients while Medicare Advantage plans are the primary payer for the remainder. (Medicaid is a secondary payer for dually eligible members of Medicare Advantage plans.)

Delivery model: Home visits every four to six weeks, with same-day or next-day visits for acutely ill patients. Palliative care services also are provided. Roughly 30 percent of patients are served through the Elder Partnership for All-Inclusive Care (Elder PAC), a partnership that enables the home-based primary care team, a nurse from Penn Medicine's home health agency, and social worker case managers from the local Area Agency on Aging (AAA) to address patients' needs holistically. The AAA arranges services such as home health aides, day care, housing modifications, transportation, and Meals on Wheels.

Staff: Nurse practitioners and physicians work as a team, with support from a staff social worker who also makes home visits. Mobile diagnostics, laboratory, podiatry, respiratory therapy, optometry, behavioral health, and pharmacy services are delivered by community providers.

After-hours care: On-call providers make house calls over the weekend if necessary.

Training: New staff accompany others on visits.

Care transitions: Patients are encouraged to be hospitalized, when necessary, at Penn Medicine's Acute Care for Elders Unit, a specially designed unit for older adults. This allows better communication among home-care and hospital providers. Patients discharged from the hospital or emergency department are seen within 48 to 96 hours, as required.

Use of health IT: Nurse practitioners, physicians, and the social worker use Penn Medicine's cloud-based electronic health record. Nurses at the Penn Medicine Home Health Agency have read-only access to patients' visit notes, and soon will have access to the EHR.

Results: Participates in the Independence at Home Demonstration (about 160 enrolled patients over four years) as part of the Mid-Atlantic Consortium (MAC) and earned approximately $300,000 as its share of the savings in year 1 and $150,000 in year 2 (representing 16.9 percent of the shared savings earned by the MAC). A study that compared hospitalization and readmission rates found the consortium reduced hospitalization rates by 29 percent, readmissions within 30 days by 20 percent, and ambulatory care–sensitive hospitalizations by 44 percent. Studies of Elder PAC found it reduced Medicare costs by 50 percent and reduced nursing home use fourfold.

For more information, contact Jean Yudin, M.S.N., R.N., C.S., director and nurse practitioner, yudin@mail.med.upenn.edu.

VISITING PHYSICIANS ASSOCIATION

visitingphysicians.com

Founded: 1993

Organization type: For-profit medical group.

Location: Headquartered in Troy, Michigan; serves patients through 43 practice locations in Florida, Illinois, Indiana, Kansas, Kentucky, Michigan, Missouri, Ohio, Texas, Virginia, Washington, and Wisconsin.

Populations served: Homebound and home-limited individuals with multiple chronic conditions and/or disabilities. Average age is 73. Forty-two percent of patients are eligible for both Medicare and Medicaid.

Number of patients: Average daily census of 37,000, with 360,000 house calls performed in 2016.

Payment model: More than 90 percent of patient census enrolled in governmental and commercial shared-savings arrangements including the Independence at Home Demonstration.

Payer mix: Medicare accounts for 85 percent of revenue; commercial payers make up 13 percent; and Medicaid accounts for the remaining 2 percent of revenues.

Delivery model: Providers deliver primary care, including lab testing, X-rays, medication management, and care coordination, in patients' homes (71%) and in assisted living facilities (29%). Affiliates of Visiting Physicians Association's management services organization, U.S. Medical Management (USMM), provide home health and hospice services as well as durable medical equipment—arrangements that help Visiting Physicians Association providers coordinate care for their patients.

Staff: Physicians (80%) and nurse practitioners (20%) travel with medical assistants to make home visits. Visits are typically scheduled every four to six weeks, based on medical necessity. Providers are supported by practice-based care coordinators, as well as nurses, care managers, and social workers at USMM's headquarters.

Training: Providers receive two weeks of training at corporate headquarters and spend several months acclimating to field operations with the assistance of coaches at the practice sites.

After-hours care: Visiting Physicians Association providers take turns providing after-hours coverage and will typically schedule next-day visits for urgent needs. A care center at USMM's headquarters provides backup and 24/7 access to care managers and physicians for additional support.

Care transitions: Providers communicate with staff at area hospitals to track patients during hospitalizations and arrange discharge plans. Health information exchanges in three states alert providers of hospitalizations and emergency department use.

Use of health IT: Providers use a cloud-based electronic health record system that incorporates screenings for behavioral health conditions and social needs. Providers also use a proprietary tool that provides clinical reminders at the point of care. USMM also maintains a data warehouse that aggregates clinical, claims, and performance data.

Results: Five Visiting Physicians Association practices that participate in the Independence at Home Demonstration earned a $8.9 million share of the $28 million in savings achieved for an average of 3,188 enrolled patients in the first two years. Providers also participated in the Michigan Pioneer Accountable Care Organization (ACO) for three years (2012–14), achieving annual savings of $3.0 to $3.6 million. In 2015, USMM and Visiting Physicians Association joined the Medicare Shared Savings Program as the only ACO dedicated exclusively to serving home-limited patients. With 16,400 attributed beneficiaries in its first year of operation, the USMM Partners ACO generated $15.1 million in savings, of which it received roughly half.

For more information, contact Robert Sowislo, government affairs officer for USMM, rsowislo@usmmllc.com.