

Home Health and Hospice Enterprises

QR quickreadbuzz.com/2019/04/17/healthcare-zigrang-bailey-wheaton-home-health-and-hospice-enterprises/

National Association of Certified Valuators and Analysts

April 17, 2019

Fair Market Value Considerations (Part I of II)

The valuation of home healthcare and hospice enterprises and services are influenced by certain market forces related to the *Four Pillars of Healthcare Valuation*, i.e.,: (1) regulatory; (2) reimbursement; (3) competition; and, (4) technology—each of which relates to almost all aspects of the U.S. healthcare delivery system. This first of a two-part series on home health and hospice enterprises will review the unique value drivers that impact the typical valuation approaches, methods, and techniques that are often utilized in determining the value of these enterprises in the current healthcare delivery system.



Introduction

Home healthcare enterprises may be classified as those enterprises that coordinate the delivery of healthcare services to patients in their homes. In 2015, there were approximately 386,384 home healthcare agencies (HHAs) in the U.S., over 12,300 of which were Medicare certified; however, in recent years, there has been a slight decline in the number of Medicare-certified HHAs.^[1] The home healthcare industry, including Medicare-certified HHAs, generated revenues of approximately \$83.9 billion in 2015, with an annual revenue growth rate of four percent between 2010 and 2015.^[2]

There are three types of entities that typically fall under the umbrella of home healthcare: (1) home healthcare enterprises, which provide medical and supportive care; (2) home care aide enterprises, which provide non-medical care or custodial/non-meal care; and (3) hospice

enterprises, which provide end-of-life care.[3] Additionally, two of the main types of home healthcare services are: (1) infusion therapy and (2) respiratory therapy.

Integral to the delivery of many home healthcare services is the utilization of durable medical equipment (DME), i.e., medical equipment designed for repeated use in order to improve the quality of life for patients with illnesses or injuries, including equipment for home respiratory therapy, home infusion therapy, and diabetic care supplies, as well as for patient positioning and mobility.[4] Medicare assigns DME into separate categories, based on the nature, price, and maintenance frequency of an item, as follows:

- Inexpensive or other routinely purchased equipment;
- Frequently serviced items;
- Oxygen and oxygen equipment;
- Other covered items that are necessary for the effective use of DME; and
- Capped rental items.[5]

DME includes not only physical medical equipment, but also any drugs and medications necessary for the equipment to function,[6] e.g., heparin (an anticoagulant) administered through a dialysis machine. Medicare spending for DME reached \$54.4 billion in 2017 and increased at a rate of 6.8%.[7]

Despite the slight decrease in active Medicare-certified HHAs, the number of Medicare beneficiaries using hospice services has been increasing over the last decade—the number of hospice beneficiaries in 2016 exceeded 1.4 million; more than double the number of beneficiaries in 2000.[8] Likewise, the number of hospice providers participating in Medicare almost doubled, from 2,255 in 2000 to 4,382 in 2016, with Medicare payments for hospice services increasing from approximately \$3 billion in 2000 to almost \$17 billion in 2016.[9] Of note, the number of for-profit hospice providers has also been growing; approximately 67% of hospice agencies were for-profit enterprises as of 2016, as compared to almost 30% in 2000.[10]

The valuation of home healthcare and hospice enterprises and services are influenced by certain market forces related to the *Four Pillars of Healthcare Valuation*, i.e.: (1) regulatory; (2) reimbursement; (3) competition; and, (4) technology—each of which relates to almost all aspects of the U.S. healthcare delivery system. This first of a two-part series on home health and hospice enterprises will review the unique value drivers that impact the typical valuation approaches, methods, and techniques that are often utilized in determining the value of these enterprises in the current healthcare delivery system.

Current and Future Trends: Regulatory, Reimbursement, Competition, and Technology

Regulatory

In addition to state licensure requirements, HHAs must be certified by Medicare in order to receive reimbursement for services provided to patients who are Medicare or Medicaid beneficiaries. HHAs may meet the requisite Medicare certification requirements by obtaining accreditation through an accepted national accreditation organization, i.e.,: (1) The Joint Commission; (2) the Accreditation Commission for Home Care, Inc.; and (3) the Community Health Accreditation Program.^[11] In addition, HHAs must also maintain compliance with federal Health Insurance Portability and Accountability Act (HIPAA) requirements; applicable state certificate of need (CON) laws; and federal fraud and abuse laws, such as the Anti-Kickback Statute and the Stark Law.

Fraud and abuse scrutiny have increased across the entire healthcare delivery system in recent years. In 2017 alone, more than 400 defendants were charged with participating in fraudulent activity involving \$1.3 billion in false billings to Medicare and Medicaid; over a third of which billings were related to home health and hospice activities.^[12] In 2010, the Medicare Payment Advisory Committee (MedPAC) recommended curbing fraudulent home health services, calling on the Secretary of the Department of Health and Human Services (HHS) to use the Department's authorities to examine providers with utilization patterns consistent with fraud and abuse.^[13] In 2017, the Centers for Medicare and Medicaid Services (CMS) expanded previously-established local moratoria to statewide moratoria for HHAs in Florida, Illinois, Michigan, and Texas due to the high incidence of fraud in those areas.^[14] Despite the moratoria, there continued to be numerous criminal prosecutions in home health fraud in these areas, despite the large reductions in the numbers of HHAs.^[15] CMS did not extend the moratoria on new HHAs in the affected states beyond the expiration date of January 30, 2019, after being extended for several six-month periods since the initial moratorium.^[16] Although the moratorium has expired, initiatives continue to emerge to battle fraud concerns related to HHAs.

As relates to hospice, the HHS Office of Inspector General's (OIG) active work plan has a significant portion dedicated to hospice investigation, resulting in an increase in the number of civil cases against hospice providers.^[17] Consistent with its work plan, since 2016, the OIG has announced approximately seven hospice-related evaluations or audits.^[18] As a result of this increased scrutiny, many hospice providers who allegedly sought false Medicare claims have been subject to whistleblower suits, facing legal and financial repercussions. For example, in 2017, Genesis Healthcare Inc. agreed to pay \$53.6 million to the federal government in response to allegations of providing medically unnecessary or substandard rehabilitation therapy and hospice services.^[19] As the OIG continues to audit and evaluate both home health and hospice entities, the supply of these agencies may decrease.

Reimbursement

Approximately 3.4 million Medicare beneficiaries received home healthcare services in 2015 and 2016, with Medicare payments for home healthcare services totaling approximately \$18.1 billion in 2016 alone.^[20] Medicare reimburses for home healthcare services under the home

healthcare prospective payment system (PPS), which was implemented in 2000.^[21] This episode-based PPS relies on a 153-category case mix adjuster to establish payment rates based on patient characteristics, including: (1) clinical severity, (2) functional severity, and (3) service utilization.^[22] While the PPS is similar to the methodology used for skilled nursing facility reimbursement, payment is based on a 60-day episode of care, as compared to the daily unit of payment utilized for skilled nursing reimbursement.^[23] Significantly, respiratory care services are specifically excluded from Medicare's home health PPS.^[24] However, respiratory care services may be covered under Medicare if they are furnished as part of a "plan of care" by a nurse or a physical therapist as a "skilled care" visit, rather than as a "home health episode."^[25]

On October 26, 2018, CMS finalized new case-mix methodology refinements for home health payments for calendar year 2020.^[26] In order to promote patient-driven care, CMS will implement the Patient-Driven Groups Model (PDGM), which will remove current incentives to overprovide therapy.^[27] Rather than paying for the number of therapy visits a patient receives, CMS will rely more on clinical characteristics and patient information to allow payments to reflect patient needs, moving from a volume-based model toward a more value-based reimbursement (VBR) system.^[28] Additionally, the PDGM would cut the home health unit of payment from 60 days to 30 days.^[29] Under this model, HHAs are expected to have a net savings of \$60 million in annualized costs, with each home health agency projected to save \$5,150.^[30]

Another (less extensive) Medicare VBR model was implemented for HHAs beginning January 1, 2016.^[31] The CMS Innovation Center's Home Health Value-Based Purchasing Model (HHVBP) is mandatory for HHAs in nine states, tying payment to quality performance.^[32] Payment adjustments (upward and downward) were set at a maximum of three percent in 2018, slowly increasing to an eight percent adjustment by 2022.^[33] The model is currently undergoing adjustments, which may indicate that the model will expand at the conclusion of the pilot program, affecting payments to HHAs in all states.^[34]

Of note, on March 4, 2019, HHS Secretary, Alexander Azar, stated that Medicare will be significantly changing its payment system to move the large majority of dialysis treatments from the facility to the home.^[35] The federal government wields extensive influence in kidney disease reimbursement, with over one-fifth of Medicare's spending in 2016 devoted to kidney disease treatments;^[36] consequently, it is likely that any changes made by Medicare will be echoed by commercial insurers.

As regards the provision of DME during a home healthcare episode, Medicare reimbursement payments are typically 80% of the lesser of either: (1) the supplier's actual charge; or (2) the Medicare fee schedule for an item or a service.^[37] For certain types of DME (e.g., oxygen and oxygen equipment), the carrier determines the fee schedule.^[38] In addition, under the

Medicare Prescription Drug, Improvement, and Modernization Act of 2003, HHS established a program under which DME suppliers must participate in a competitive bidding program in order to obtain Medicare contracts.[39]

In contrast to reimbursement for home healthcare services, Medicare reimbursement for hospice services is based on an adjusted *per diem* rate for each day a beneficiary is enrolled in the hospice benefit program, regardless of the level of services provided in a given day.[40] The payment rate for each day is determined by a fee schedule containing four levels of care: routine home care (RHC), continuous home care (CHC), inpatient respite care (IRC), and general inpatient care (GIC).[41] In addition to the *per diem* rate, hospice facilities may bill the patient a coinsurance amount separately for prescription drugs or respite care.[42] Significantly, Medicare caps payments to hospice facilities in two ways: (1) the inpatient cap limits the number of days of inpatient care that the hospice may provide to no more than 20% of the total inpatient care days; and (2) the aggregate cap is an absolute dollar limit on the average annual payment per beneficiary that an agency can receive, which is the cap amount times the number of Medicare patients served.[43] The aggregate cap amount for 2019 is equal to the 2018 amount of \$29,205.04.[44]

Individuals covered under Medicare Part A can elect to receive hospice care if they:

- Have a terminal illness with a prognosis of under six months, if the disease runs its normal course;
- Receive treatment in a Medicare-approved hospice center; and
- Sign a statement electing hospice care and waiving all other rights to Medicare payments associated with the terminal illness.[45]

During the first 90 days of hospice care, the beneficiary must receive a signed certification of a terminal illness from both: (1) the medical director of the hospice or the physician member of the hospice group; and (2) the individual's physician, describing the clinical findings that support a life expectancy of under six months.[46] After the initial 90-day period, a physician must recertify that the patient is still eligible for hospice care.[47]

As noted above, hospice utilization has steadily increased over the years, with Medicare paying \$16.7 billion for these services in 2016; however, these programs do not always provide appropriate services, may be of poor quality, and consequently cost Medicare millions of dollars due to fraudulent billing.[48] In light of this trend, HHS and the OIG recommend that CMS strengthen the survey process to promote compliance and ensure quality care and establish additional remedies to tackle poor performance within hospice enterprises.[49] In addition, to reduce fraudulent billing, the agencies recommend that CMS strengthen hospice oversight by analyzing claims and identifying practices that raise concerns.[50] While, to date, no action has been taken to change reimbursement incentives for hospice services, fraud and abuse scrutiny of these facilities will likely continue in their intensity going forward, as the U.S. healthcare delivery system evolves in this new era of healthcare reform. As a result of these

recommendations and increasing concerns related to quality and billing, potential modifications to the reimbursement structure may emerge through the introduction of VBR programs, similar to the HHVBP.

Competition

According to a March 2018 MedPAC report, Medicare beneficiary home healthcare utilization has been declining since 2011, in both the demand for, and the supply of, services.^[51] The number of HHAs fell by 1.2% in 2016, after a 60% increase from 2004 to 2015.^[52] This decline is thought to be due to the decrease in hospital discharges, which are a common source of referrals, and the low growth in the overall U.S. economy;^[53] decline was most acute in Texas and Florida, states that had previously seen the greatest amount of concentrated growth, resulting in CMS implementing moratoria to stop the entry of new agencies.^[54] As previously mentioned, due to the moratoria expiration at the end of January 2019, more HHAs will likely be established in those areas moving forward; however, these newer entities will face continued challenges in the form of high levels of regulatory scrutiny and the new payment model in 2020.^[55] Despite the decline of HHAs in states with high instances of fraud, these decreases have not been experienced in other areas of the U.S., with 44 states experiencing a 2.1% growth, principally in the for-profit sector.^[56]

Evidence indicates that home health services decrease costs, improve health outcomes, and reduce hospital stays.^[57] Especially as the U.S. population continues to age (with approximately 10,000 individuals turning 65 every day), patient demand for these services will continue to increase as healthcare utilization and prevalence of disease increases with age.^[58] Additionally, there has been a shift in government reimbursement (primarily Medicare and Medicaid), toward home health services, as 2015 marked the first year that more money was spent on home care rather than nursing home care.^[59] Both payors (as demonstrated by CMS's March 4, 2019 announcement⁶⁰—see above) and patients may continue demanding home health services in attempts to reduce expenditures by avoiding more costly alternatives (e.g., inpatient hospital stays) and improving outcomes (e.g., reducing the potential for facility-acquired infections).^[60]

Competition among home healthcare providers is largely variable, due to the wide spectrum in the scope of services that may be provided by a given HHA. For example, HHAs may provide services that require a licensed provider, such as home infusion therapy; respiratory care; physical, occupational, and speech therapy; behavioral care; and skilled nursing services, or may provide services that do not require a licensed provider, such as those provided by a home healthcare aide.^[61] As a result, the home healthcare industry is quite fragmented, with the four largest industry firms only generating one-tenth of total industry revenue in 2015.^[62] However, the industry is expected to continue consolidating, as home and hospice enterprises are "far less fragmented than [they were] just five years ago."^[63]

Similar to HHAs, hospice services vary in scope, but principally provide palliative services, which focus on providing patients with relief from the symptoms, pain, and stress of a serious, terminal illness.^[64] These services include: (1) skilled nursing services; (2) drugs and biologicals for pain control and symptomatic management; (3) physical, occupational, and speech therapy; (4) counseling services; (5) home healthcare aide services; (6) short-term inpatient care; (7) inpatient respite care; and (8) such other palliative services as may be required for the management of a terminal illness.^[65] Accordingly, hospice providers may compete with short-term acute care hospitals, long-term acute care hospitals, skilled nursing facilities, and HHAs, all of which have the ability to offer certain hospice care services under their continuum of care.^[66]

Technology

Technological advancements in DME and other home healthcare supplies, such as those related to infusion therapy, have increasingly allowed patients to receive medical care in their homes, rather than at an inpatient or outpatient facility. In addition, advancements in telemedicine have allowed for remote patient monitoring for conditions such as: (1) active heart monitoring; (2) blood pressure; (3) diabetes; (4) kidney disease; (4) prescription compliance; and (5) sleep apnea, which have permitted more patients to remain in their homes unless a need for acute healthcare services arises.^[67] CMS recently finalized a proposal to allow HHAs to report the cost of remote patient monitoring for Medicare beneficiaries, potentially encouraging more HHAs to adopt the technology.^[68]

Additionally, equipment advancements have similarly enabled the provision of home-based treatments. Over the past decade, advances in dialysis techniques and machinery have allowed increasing numbers of end-stage renal disease (ESRD) patients to receive, or personally perform, home-based services. Peritoneal dialysis, which uses the lining of the patient's abdomen as a filter to clear wastes and extra fluids,^[69] allows the ESRD beneficiary the luxury of receiving dialysis treatments at home or at work, without visiting an outpatient dialysis center.^[70] Similarly, hemodialysis, i.e., the process of purifying the blood of a person whose kidneys are not working through a dialyzer (artificial kidney),^[71] machines have evolved such that patients may receive this form of treatment in their homes through a machine similar to that found in outpatient dialysis centers, but smaller and portable.^[72] As home care services have come to be viewed as a prominent healthcare delivery avenue, and home healthcare providers are increasingly being viewed as a critical link in the array of patient-centered healthcare services aimed to bring care back into the community, technology will likely play an increasingly prominent role in managing patient populations in need of, and preferring, home healthcare services.

Conclusion

The value of home healthcare and hospice enterprises is significantly tied to the rapidly evolving U.S. healthcare industry, eminent in the modern era of U.S. healthcare reform. The ability of these providers to operate as a part of the continuum of care in this new VBR paradigm may determine their viability as an ongoing enterprise in the future. Part two of this series will discuss the unique value drivers that impact the typical valuation approaches, methods, and techniques that are often utilized in determining the value of home healthcare and hospice enterprises and providers in the current healthcare delivery system.

Todd A. Zigrang, MBA, MHA, ASA, FACHE, is president of Health Capital Consultants, where he focuses on the areas of valuation and financial analysis for hospitals and other healthcare enterprises. Mr. Zigrang has significant physician-integration and financial analysis experience and has participated in the development of a physician-owned, multispecialty management service organization and networks involving a wide range of specialties, physician owned hospitals as well as several limited liability companies for acquiring acute care and specialty hospitals, ASCs, and other ancillary facilities.

Mr. Zigrang can be contacted at (800) 394-8258 or by e-mail to: tzigrang@healthcapital.com.

Jessica Bailey-Wheaton is Vice President and General Counsel for Heath Capital Consultants.

Ms. Baily can be contacted at (800) 394-8258 or by e-mail to: jbailey@healthcapital.com.

[1] "IBISWorld Industry Report 62161: Home Care Providers in the US" By Dmitry Diment, IBIS World, November 2015, p. 4; "Chapter 9: Home health care services" in "Report to the Congress: Medicare Payment Policy" Medicare Payment Advisory Committee, March 18, http://www.medpac.gov/docs/default-source/reports/mar18_medpac_ch9_sec.pdf?sfvrsn=0 (Accessed 2/1/19), p. 246, 252.

[2] "IBISWorld Industry Report 62161: Home Care Providers in the US" By Dmitry Diment, IBIS World, November 2015, p. 4.

[3] *ibid*, p. 17.

[4] "U.S. Durable Medical Equipment, DME Industry Report, 2025" Grand View Research, 2018, <https://www.grandviewresearch.com/industry-analysis/us-durable-medical-equipment-dme-market> (Accessed 3/1/19).

[5] "Durable Medical Equipment Payment System" Medicare Payment Advisory Commission, October 2018, http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_18_dme_final_sec.pdf?sfvrsn=0 (Accessed 3/1/19).

[6] *Ibid*.

[7] "National Health Expenditures 2017 Highlights" Centers for Medicare and Medicaid Services, 2018, <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/downloads/highlights.pdf> (Accessed 3/1/19).

[8] "Chapter 9: Home health care services" in "Report to the Congress: Medicare Payment Policy" Medicare Payment Advisory Committee, March 18, http://www.medpac.gov/docs/default-source/reports/mar18_medpac_ch9_sec.pdf?sfvrsn=0 (Accessed 2/1/19), p. 246, 252; "Hospice Services" Medicare Payment Advisory Commission, March 2018, http://www.medpac.gov/docs/default-source/reports/mar18_medpac_ch12_sec.pdf?sfvrsn=0 (Accessed 1/18/19), p. 323, 331.

[9] "Hospice Services" Medicare Payment Advisory Commission, March 2018, http://www.medpac.gov/docs/default-source/reports/mar18_medpac_ch12_sec.pdf?sfvrsn=0 (Accessed 1/18/19), p. 323, 331.

[10] *Ibid*, p. 330.

[11] "Accrediting Agencies" National Association for Home Care & Hospice, <https://www.nahc.org/consumers-information/home-care-hospice-basics/accrediting-agencies/> (Accessed 3/4/19).

[12] "The Department of Health and Human Services and the Department of Justice Health Care Fraud and Abuse Control Program Annual Report for Fiscal Year 2017" Department of Health and Human Services, April 2018, <https://oig.hhs.gov/publications/docs/hcfac/FY2017-hcfac.pdf> (Accessed 3/1/19), p. 36.

[13] "Chapter 9: Home health care services" in "Report to the Congress: Medicare Payment Policy" Medicare Payment Advisory Committee, March 18, http://www.medpac.gov/docs/default-source/reports/mar18_medpac_ch9_sec.pdf?sfvrsn=0 (Accessed 2/1/19), p. 250.

[14] *Ibid*.

[15] *Ibid*.

[16] "CMS does not extend moratoria on new home health agencies in 6 metro areas" Post-acute Advisor, February 1, 2019, <http://blogs.hcpro.com/mdscentral/2019/02/cms-does-not-extend-moratoria-on-new-home-health-agencies-in-6-metro-areas/> (Accessed 3/1/19); "CMS Announces Ninth Extension of Temporary Home Health Moratorium" By Denise Leard, Esq., Brown & Fortunato, <https://www.bf-law.com/cms-announces-ninth-extension-of-temporary-home-health-moratorium-1/> (Accessed 3/1/19).

[17] "OIG Puts the Pressure On as Hospice Fraud Cases Pile Up" By Robert Holly, Home Health Care News, June 24, 2018, <https://homehealthcarenews.com/2018/06/oig-puts-the-pressure-on-as-hospice-fraud-cases-pile-up/> (Accessed 3/1/19).

[18] *Ibid.*

[19] "Genesis Healthcare Inc. Agrees to Pay Federal Government \$53.6 Million to Resolve False Claims Act Allegations Relating to the Provision of Medically Unnecessary Rehabilitation Therapy and Hospice Services" The United States Department of Justice, Justice News, June 16, 2017, <https://www.justice.gov/opa/pr/genesis-healthcare-inc-agrees-pay-federal-government-536-million-resolve-false-claims-act> (Accessed 3/1/19).

[20] "Chapter 9: Home health care services" in "Report to the Congress: Medicare Payment Policy" Medicare Payment Advisory Committee, March 18, http://www.medpac.gov/docs/default-source/reports/mar18_medpac_ch9_sec.pdf?sfvrsn=0 (Accessed 2/1/19), p. 246.

[21] *Ibid.*, p. 249.

[22] "Medicare and Medicaid Programs; CY 2018 Home Health Prospective Payment System Rate Update and CY 2019 Case-Mix Adjustment Methodology Refinements; Home Health Value-Based purchasing Model; and Home Health Quality Reporting Requirements" Federal Register, Vol. 82, No. 214 (November 7, 2017), p. 51679.

[23] "Home Health Care Services Payment System" Medicare Payment Advisory Commission, Payment Basics, October 2018, http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_18_hha_final_sec.pdf?sfvrsn=0 (Accessed 3/1/19), p. 1; "Skilled Nursing Facility Services Payment System" Medicare Payment Advisory Commission, Payment Basics, October 2018, http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_18_snf_final_sec.pdf?sfvrsn=0 (Accessed 3/1/19), p. 1.

[24] "Medicare Benefit Policy Manual" Chapter 7, Section 80.8, Centers for Medicare and Medicaid Services, February 24, 2017, available at: <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/bp102c07.pdf> (Accessed 3/1/19).

[25] *Ibid.*

[26] "CMS finalizes calendar year 2019 and 2020 payment and policy changes for Home Health Agencies and Home Infusion Therapy Suppliers" Centers for Medicare & Medicaid Services, October 31, 2018, <https://www.cms.gov/newsroom/fact-sheets/cms-finalizes-calendar-year-2019-and-2020-payment-and-policy-changes-home-health-agencies-and-home> (Accessed 3/1/19).

[27] *Ibid.*

[28] *Ibid.*

[29] *Ibid.*

[30] "CMS Proposes New Grouping Model for Medicare Home Health Payments" By Jacqueline LaPointe, Revcycle Intelligence, July 5, 2018, <https://revcycleintelligence.com/news/cms-proposes-new-grouping-model-for-medicare-home-health-payments> (Accessed 3/1/18).

[31] "Home Health Value-Based Purchasing Model" Centers for Medicare & Medicaid Services, <https://innovation.cms.gov/initiatives/home-health-value-based-purchasing-model> (Accessed 3/1/19).

[32] *Ibid.*

[33] *Ibid.*

[34] "Value-Based Purchasing Proposals May Signal Expanded Rollout" By Robert Holly, Home Health Care News, July 29, 2018, <https://homehealthcarenews.com/2018/07/value-based-purchasing-proposals-may-signal-expanded-rollout/> (Accessed 3/1/19); "10 Myths Surrounding the Home Health Value Based Purchasing Model" CellTrack, January 26, 2017, <https://www.celltrak.com/blog/10-myths-home-health-value-based-purchasing> (Accessed 3/1/19).

[35] "Azar: kidney dialysis needs to move to patient homes" By Susannah Luthi, Modern Healthcare, March 4, 2019, https://www.modernhealthcare.com/payment/azar-kidney-dialysis-needs-move-patient-homes?utm_source=modern-healthcare-daily-finance&utm_medium=email&utm_campaign=20190304&utm_content=article3-headline (Accessed 3/4/19).

[36] *Ibid.*

[37] "General payment rules." 42 C.F.R. Â§ 414.210 (2018).

[38] "General payment rules." 42 C.F.R. Â§ 414.210(b) (2018).

[39] "Medicare Announces Timeline for Bidding and Begins Supplier Education Campaign for Durable Medical Equipment (DMEPOS)" Centers for Medicare & Medicaid Services, August 4, 2009, <https://www.cms.gov/newsroom/fact-sheets/medicare-announces-timeline-bidding-and-begins-supplier-education-campaign-durable-medical-equipment> (Accessed 3/1/19).

[40] "Hospice Services Payment System" Medicare Payment Advisory Commission, Payment Basics, October 2018, http://medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_18_hospice_final_sec.pdf?sfvrsn=0 (Accessed 3/1/19), p. 1.

[41] *Ibid.*

[42] "Hospice Payment System" Medicare Learning Network, Centers for Medicare & Medicaid Services, October 2017, https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/hospice_pay_sys_fs.pdf (Accessed 3/1/19), p. 8.

[43] "Hospice Payment System" Medicare Learning Network, Centers for Medicare & Medicaid Services, October 2017, https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/hospice_pay_sys_fs.pdf (Accessed 3/1/19), p. 8.

[44] "Update to Hospice Payment Rates, Hospice Cap, Hospice Wage Index and Hospice Pricer for FY 2019" Medicare Learning Network, 2018, <https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNMattersArticles/downloads/MM10631.pdf> (Accessed 1/18/19).

[45] "Hospice Payment System" Medicare Learning Network, Centers for Medicare & Medicaid Services, October 2017, https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/hospice_pay_sys_fs.pdf (Accessed 3/1/19), p. 3.

[46] *Ibid*, p. 5.

[47] *Ibid*.

[48] "Vulnerabilities in the Medicare Hospice Program Affect Quality Care and Program Integrity: An OIG Portfolio" <https://oig.hhs.gov/oei/reports/oei-02-16-00570.asp> (Accessed 3/1/19).

[49] *Ibid*.

[50] *Ibid*.

[51] "Chapter 9: Home Health Care Services" Medicare Payment Advisory Commission, 2018, http://www.medpac.gov/docs/default-source/reports/mar18_medpac_ch9_sec.pdf?sfvrsn=0 (Accessed 1/18/19).

[52] *Ibid*.

[53] *Ibid*.

[54] *Ibid*.

[55] "CMS Lifts Moratoria on Home Health After 5 Years" By Bailey Bryant, Home Health Care News, February 4, 2019, <https://homehealthcarenews.com/2019/02/cms-lifts-moratoria-on-home-health-after-5-years/> (Accessed 3/1/19).

[56] "Chapter 9: Home Health Care Services" Medicare Payment Advisory Commission, 2018, http://www.medpac.gov/docs/default-source/reports/mar18_medpac_ch9_sec.pdf?sfvrsn=0 (Accessed 1/18/19).

[57] "Home Care: More Than Just a Visiting Nurse" By Katrina Romagnoli, et al., British Medical Journal Quality and Safety, Vol. 22, No. 12, (December 2013), p. 1.

[58] "As the US population ages, the need for home health-care workers skyrockets" By Kate Rogers, CNBC, <https://www.cnn.com/2018/05/31/as-the-us-population-ages-the-need-for-home-health-care-workers-skyrockets.html> (Accessed 3/1/19).

[59] *Ibid.*

[60] "The Future of Home Health Care: A Strategic Framework for Optimizing Value" by Steven Landers et al., *Home Health Management & Practice*, Vol. 28, No. 4 (November 2016), available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5052697/> (Accessed 3/4/19).

[61] "Home Health Care Services Payment System" Medicare Payment Advisory Commission, *Payment Basics*, October 2018, http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_18_hha_final_sec.pdf?sfvrsn=0 (Accessed 3/1/19).

[62] "IBISWorld Industry Report 62161: Home Care Providers in the US" By Dmitry Diment, IBIS World, November 2015, p. 24.

[63] "Home Health & Hospice Is Primed for Consolidation" By Lisa Phillips, Irving Levin Associates, March 1, 2019. <https://healthcare.levinassociates.com/2019/03/01/home-health-hospice-is-primed-for-consolidation/> (Accessed 3/4/19).

[64] "What Is Palliative Care?" Get Palliative Care, 2019, <https://getpalliativecare.org/whatis/> (Accessed 3/1/19).

[65] "Hospice Services Payment System" Medicare Payment Advisory Commission, October 2018, http://medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_18_hospice_final_sec.pdf?sfvrsn=0 (Accessed 3/1/19).

[66] "NHPCO Fact and Figures: Hospice Care in America" National Hospice and Palliative Care Organization, 2017 Edition, April 2018, https://www.nhpco.org/sites/default/files/public/Statistics_Research/2017_Facts_Figures.pdf (Accessed 3/1/19), p. 2, 6.

[67] "Remote Patient Monitoring Research Catalogue" Center for Connected Health Policy, August 2018, <https://www.telehealthresourcecenter.org/wp-content/uploads/2018/08/Remote-Patient-Monitoring-Research-Catalogue-Aug-2018.pdf> (Accessed 3/1/19), p. 3-7.

[68] "CMS finalizes calendar year 2019 and 2020 payment and policy changes for Home Health Agencies and Home Infusion Therapy Suppliers" Centers for Medicare & Medicaid Services, October 31, 2018, <https://www.cms.gov/newsroom/fact-sheets/cms-finalizes-calendar-year-2019-and-2020-payment-and-policy-changes-home-health-agencies-and-home> (Accessed 2/1/19).

[69] “The Kidney Diseases Dictionary” By The National Kidney and Urological Diseases Information Clearinghouse, U.S. Department of Health and Human Services, NIH Publication No. 03-4359, 2003, p. 5.

[70] “Peritoneal Dialysis: What You Need to Know” National Kidney Foundation, 2017, <https://www.kidney.org/atoz/content/peritoneal> (Accessed 12/12/18).

[71] “What is Hemodialysis?” DaVita Kidney Care, <https://www.davita.com/treatment-services/dialysis/in-center-hemodialysis/what-is-hemodialysis> (Accessed 3/1/19).

[72] “Form 10-K: Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934” DaVita, Inc., U.S. Securities and Exchange Commission, 2018, <https://www.sec.gov/Archives/edgar/data/927066/000092706618000030/dva-123117x10k.htm> (Accessed 12/12/18), p. 3.