Paying for Nursing Home Quality: An Elusive But Important Goal

David C. Grabowski, PhD[1], **Amanda Chen, MS**[1], **Debra Saliba, MD, MPH, AGSF**[2,3,4,*]

[1]Department of Health Care Policy, Harvard Medical School, Boston, Massachusetts, USA.

[2]Borun Center for Gerontological Research, University of California Los Angeles, Los Angeles, California, USA.

[3]Geriatric Research, Education and Clinical Center, Veterans Affairs Greater Los Angeles Healthcare System, Los Angeles, California, USA.

[4]RAND Health, Santa Monica, California, USA.

Keywords

Nursing homes; Pay-for-performance; Payment

On a given day, almost 1.3 million individuals receive care from approximately 15,000 nursing homes nationwide (Kaiser Family Foundation, 2020). Nursing home residents have high levels of medical complexity, have physical and cognitive impairments, and often lack financial resources. As such, these are among the frailest and most vulnerable individuals in our health-care system. In 2020, the United States spent $196.8 billion on nursing home care, the majority of which came from public sources (Hartman et al., 2022). Yet, questions persist about the effectiveness of this investment (Halifax & Harrington, 2022).

Nursing home quality of care continues to be an important public policy issue (Ouslander & Grabowski, 2020), despite prolonged public outcry (Institute of Medicine, 1986, 2001; Mendleson, 1974; Vladeck & Twentieth Century Fund, 1980) and government reports (Office of Inspector General, 2014; U.S. Government Accountability Office, 2018; U.S. Senate, 1974). Often, the number of nurses per resident is low, with 75% of nursing homes failing to meet Centers for Medicare & Medicaid Services' (CMS') expected registered nurse staffing levels based on residents' acuity (Geng et al., 2019). Staffing is also highly variable from day to day (Geng et al., 2019; Mukamel et al., 2022), and the average annual staff turnover rate exceeds 120% (Gandhi et al., 2021). Residents may develop new health problems after nursing home admission due to unsafe care practices. Amenities that are common within a nursing home—including the food, activities, and public spaces—are too often substandard (Miller et al., 2014). Feelings of isolation and loneliness are consistently reported in the states that collect information on quality of life and care experiences (Roberts & Ishler, 2018; Shippee et al., 2015). These quality issues predate the COVID-19 pandemic,

[*]Address correspondence to: Debra Saliba, MD, MPH, AGSF. saliba@rand.org.

Conflicts of Interest
None declared.

but all have been magnified since March 2020 (Levere et al., 2021; McGarry & Grabowski, 2021; Montgomery et al., 2020).

Although Medicaid and Medicare pay for most nursing home care in the United States, very little of this public payment is linked to quality, either through bonuses or penalties. In other parts of the health-care system, an increasing number of payers has implemented value-based payment models that hold participating providers accountable for overall spending and quality (Barnett, Wilcock, et al., 2019; Joynt Maddox et al., 2018; McWilliams et al., 2016). A key question for policy-makers is whether and how to increase the accountability of nursing homes for the quality of care they provide under Medicaid and Medicare.

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New Recommendations

In 2022, a National Academies of Science, Engineering, and Medicine (NASEM) report concluded that quality is substandard in many U.S. nursing homes. The report offered a series of recommendations to transform how the United States delivers, regulates, finances, and pays for nursing home services. One of the payment recommendations focused directly on testing expanded value-based payments for nursing home care. Specifically, recommendation 4E states:

> To eliminate the current financial misalignment for long-stay residents introduced by Medicaid's coverage of their nursing home services and Medicare's coverage of health care services, the U.S. Department of Health and Human Services and the Centers for Medicare & Medicaid Services should conduct demonstration projects to explore the use of alternative payment models (APMs) for long-term nursing home care, separate from bundled payment initiatives for post-acute care. These APMs would use global capitated budgets, making care provider organizations or health plans accountable for the total costs of care.
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> - APM's capitated rate should include post-acute care and hospice care for long-term nursing home residents to address financial misalignment between Medicare and Medicaid payments, while supporting care coordination.
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> - Designs and payments of the demonstration projects should be tied to broad-based quality metrics, including staffing metrics, residents' experience of care, functional status, and end-of-life care to ensure that APMs maintain quality of care, particularly in areas such as post-acute care, end-of-life care, and hospice care (NASEM, 2022).

This paper first reviews the U.S. experience with value-based payments for nursing home services. Unfortunately, most of the models tested to date have not shown improvements in the quality of nursing home care. The paper then considers how policy-makers can implement the NASEM recommendation to ensure a greater likelihood of success relative to prior efforts.

History of Nursing Home Value-Based Payment Initiatives

The first documented attempt to improve nursing home quality through incentive payments was a randomized experiment conducted in 36 San Diego–area nursing homes over the period of 1981 to 1983 (Weissert et al., 1983). The experimental group received three separate bonus Medicaid payments for admitting heavy-care patients, meeting outcome goals on some patients, and discharging and maintaining some patients in the community. The treatment group was found to have better outcomes at a lower cost, admit more residents with functional disabilities, and shorten lengths of stay (Norton, 1992).

Despite these promising early results, over two decades passed until there was a major federal effort to test value-based payments in nursing homes. This delay could have been due to the government's focus on using prospective payment approaches to control expenditures, CMS prioritization of public quality reports that aimed to provide market-based quality incentives by influencing consumer choice, industry's resistance to such models, or public focus on auditing and enforcement of care standards. Nevertheless, CMS introduced the three-year, three-state Nursing Home Value Based Payment demonstration in 2009. Nursing homes in New York State that agreed to participate were randomized into intervention ($n = 72$) and control ($n = 78$) groups, while propensity-score matching identified comparator facilities for participating facilities in Arizona ($n = 38$) and Wisconsin ($n = 61$). The model assigned nursing homes a quality score for a combination of nurse staffing, Minimum Data Set–based quality measures, survey citations, and hospitalization rates. The design required budget neutrality. If the treatment group collectively saved money relative to the control group, only the participating nursing homes with the highest-quality scores received a payout. Little quality difference was found across the three years of the demonstration, and limited savings were found during some years in Arizona and Wisconsin (Grabowski et al., 2017). However, a mixed-methods evaluation found that these savings were likely due to "regression to the mean." Ultimately, the demonstration was not found to be successful at improving quality or reducing Medicare spending, partially attributable to a series of design issues.

As authorized in the 2014 Protecting Access to Medicare Act, the federal government next introduced the Skilled Nursing Facility Value Based Payment (SNF VBP) model in 2018. Unlike the earlier demonstration, this model focused on short-stay residents and only examined a single outcome measure, hospital readmissions. Program payment represented uniform 2% withholding that could be paid back to nursing homes based on their performance on the readmissions measure. Research on the SNF VBP found that facilities serving vulnerable groups were less likely to receive bonus payments and more likely to be penalized in Year 1 of the model (Hefele et al., 2019; Qi et al., 2020). Moreover, the program did not improve readmission rates for the lowest-performing facilities (Burke et al., 2022). The Medicare Payment Advisory Commission (2021) detailed a series of shortcomings to improve the model, some of which are potentially addressed in changes incorporated by CMS in 2021. Nevertheless, this value-based payment program has also largely been unsuccessful to date.

Several states have introduced value-based payments through their state Medicaid programs. Between 2001 and 2009, eight state Medicaid agencies adopted pay for performance (P4P) programs in nursing homes. Considerable variability exists in the size of the incentive payments and the quality measures included in the payment models (Werner et al., 2010). Overall, these Medicaid value-based payment models were not found to result in consistent improvements in nursing home quality (Werner et al., 2013).

One successful state model was the state of Minnesota's value-based payment model, which was individualized to specific groups of nursing homes. The Performance-Based Incentive Payment Program allowed nursing homes to propose a specific quality improvement program to the state. The models focused on a range of different quality measures, including fall prevention, readmissions, and quality of life. Nursing homes received 85% of expected payments upfront and were at risk for the remaining 15%. An evaluation of the Performance-Based Incentive Payment Program model found improvement in a composite measure of quality that combined the very specific quality programs among participating nursing homes (Arling et al., 2013).

The NASEM report adopted the CMS definition of an alternative model. The report states that the APM, "according to the Centers for Medicare & Medicaid Services, is a 'specific subcategory of value-based purchasing initiatives that require providers to make fundamental changes in the way they provide care' and that 'shift financial incentives further away from volume by linking provider payments to both quality and total cost of care results'" (CMS, 2015). Thus, providers take on substantial financial risks to deliver high-quality care at lower costs, typically across health-care providers and settings. APMs can apply to a specific medical condition, an episode of care, or a patient population (CMS, 2015, p. 367).

Nursing homes have been affected by several newer APMs, such as bundled payments that link the hospital, the provider, and post-acute care payments to an episode of care (Barnett, Wilcock, et al., 2019), and accountable care organizations, in which provider organizations share incentives for controlling health-care costs and meeting benchmarks for a population of Medicare enrollees (McWilliams et al., 2017). Although these models have not focused specifically on nursing home care, the elimination of post-acute nursing home services has been the major source of savings within these demonstrations, with a recent commentary terming nursing homes "the piggy bank" for these APM payment models (Barnett, Mehrotra, et al., 2019).

Similarly, Medicare Advantage (MA) plans have also targeted post-acute care as a source of savings. Some of this lower utilization might be due to favorable health and socioeconomic selection, but several studies have found that lower post-acute care utilization within MA plans is not associated with any change in claims-based outcomes, such as mortality or readmissions (Huckfeldt et al., 2017; Kumar et al., 2018). Moreover, enrollees in MA plans typically use lower-quality nursing homes (Meyers et al., 2018). One Medicare Advantage model that was specifically designed for long-stay nursing home residents is the Institutional Special Needs Plan (or I-SNP) model. The I-SNP takes on the financial risks for Medicare expenditures for nursing homes and typically increases on-site clinical care to manage this

risk. One recent study suggested that beneficiaries in the I-SNP have fewer hospitalizations and emergency department visits and more skilled nursing facility use relative to traditional Medicare beneficiaries (McGarry & Grabowski, 2019).

Few, if any, of these models have focused on improving quality in nursing homes to date. Indeed, these concurrent payment initiatives, co-occurring with shifts in post-acute populations, regulations, and available community alternatives, make isolating the individual effects of a particular payment program difficult. Additionally, none of these models have addressed the NASEM report's recommendations to expand future demonstrations to consider advanced illness care models and the influence of patient social drivers of health on outcomes.

Key Lessons Going Forward for NASEM Recommendations

A series of important lessons have emerged from the existing value-based payment models that should be considered in the implementation of the NASEM recommendation. First, NASEM recommendation 6A called for the inclusion of a robust measure of resident and family experience on the Care Compare website. In the home health-care setting, results from patient surveys to understand patient care and care issues, communication between providers and care recipients, and overall quality of care have been publicly posted and utilized in the home health star rating calculation for years (Schwartz et al., 2021). These measures should also be incorporated into future nursing home value-based models to ensure these new payment approaches are consistent with the wants and needs of residents and their families. Similarly, the outcomes included in the model should be concordant with the goals of the specific patient. These goals and preferences will differ across residents (Roberts et al., 2018). Further, given the high proportion of patients with Alzheimer's disease and related dementias who receive care in nursing homes, it is important to also capture the caregiver experience to ensure that the experiences of residents with cognitive impairments are incorporated into the model. Moreover, the social drivers of health and available caregiver support will influence the resources needed to obtain important outcomes across facilities.

Second, many of the prior models rewarded nursing homes based on a very limited set of quality measures. In many respects, it has been a "Goldilocks problem," in that some models include too many measures (e.g., Nursing Home Value-Based Payment) and others include too few (e.g., SNF VBP). Another concern is that these models may lead to "teaching to the test," as providers target measures that are rewarded by the model (e.g., hospital readmissions), at the expense of resources and attention diverted from measures that are not rewarded (Feng et al., 2005; Kash et al., 2007). Recent improvements to ensure accurate data reporting, such as the use of the Payroll-Based Journal system to capture staff hours paid, instead of hours reported, provide improved consistency and reliability (Geng et al., 2019). The IMPACT Act of 2014 tasked CMS with identifying and implementing standardized data elements for inclusion across post-acute care assessments, including nursing homes, to allow valid comparisons of the value of services being provided across the broader long-term care financing and delivering system (Chen et al., 2022). However, further efforts are needed to

ensure the integrity of provider-reported assessments and administrative data and to translate these improvements in data integrity into improvements in the quality of care received.

Because there are many measurable and actionable components that comprise nursing home quality, determining the "right" set of measures is key. Indeed, evidence from the state Medicaid P4P models suggests a larger weighting of clinical outcomes in the payment formula leads to larger improvements, with small weights leading to no improvement or even a worsening of some clinical outcomes (Konetzka et al., 2018). As a result, it is important to get the "right" set of measures and then determine the appropriate weights to optimize improvements in nursing home quality of care.

Third, policy-makers will need to incentivize the growth of successful models. An old line suggests P4P often stands for "pennies for performance" in many models, offering weak incentives to motivate providers to improve quality. Meaningful payouts for quality improvement and performance need to be ensured. Moreover, many voluntary APM models, such as bundled payments, and accountable care organizations have suffered from low enrollment and face potential issues of selection bias, as the most primed providers volunteer to participate. Although there are obvious political trade-offs with mandatory enrollment, mandatory enrollment is not only essential to guard against differential selection but is also easier to implement, as most nursing homes receive Medicare and/or Medicaid funding, so program participation could be made a condition for receiving federal funding. The existing SNF VBP is limited in many ways, but the mandatory enrollment approach to enrollment provides a stronger foundation for future nursing home payment models.

Most importantly, any value-based payment system should encourage health equity and carefully monitor for disparate effects on historically marginalized populations. Once again, results from the existing SNF VBP model have reinforced concerns that these models exacerbate existing disparities. Nursing homes that serve vulnerable populations are less likely to receive bonus payments and more likely to be penalized, thereby punishing facilities that care for a greater share of Medicaid residents and historically marginalized communities, as dual eligibility, racial minority, and ethnic minority statuses are significant predictors of admission to the lowest-rated facilities in Medicare's star rating system (Zuckerman et al., 2019). Such programs create payment deficits for nursing homes serving high-risk populations, which reduce the resources that may be allocated toward patient care and quality improvement. The growth in the use of assisted living facilities as a substitute for traditional nursing home care for those with greater financial resources and lower acuity (Grabowski et al., 2012), alongside the growth in the use of non-institutional care settings, including the push towards home- and community-based services by state Medicaid programs (Siconolfi et al, 2019; Siconolfi et al., 2021), has signaled that any payment changes must be considered within the context of the larger post-acute and long-term care health system to ensure equitable access and delivery of care.

Moving forward, CMS should closely monitor the highest and lowest performers of these value-based models—and support any additional expenditures needed to achieve the desired quality goal (Damberg & Elliot, 2021)—to encourage a more equitable payout across providers.

Conclusion

The concept of value-based payments for nursing homes is one that has existed for decades. Lessons from prior efforts provide important insights that should be taken into consideration, alongside the recent 2022 NASEM recommendation, as the development of a value-based payment model moves forward and continues to focus on aligning nursing home payments with quality of care. The right payment model will require incorporating elements of the patient experience, getting the mix of quality measures included in the incentive payment correct, incentivizing participation and program retention, and promoting health equity across nursing homes nationwide.

Acknowledgments

References

Arling G, Cooke V, Lewis T, Perkins A, Grabowski DC, & Abrahamson K (2013). Minnesota's provider-initiated approach yields care quality gains at participating nursing homes. Health Affairs, 32(9), 1631–1638. doi:10.1377/hlthaff.2013.0294 [PubMed: 24019369]

Barnett ML, Mehrotra A, & Grabowski DC (2019). Postacute care - The piggy bank for savings in alternative payment models? The New England Journal of Medicine, 381(4), 302–303. doi:10.1056/NEJMp1901896 [PubMed: 31340092]

Barnett ML, Wilcock A, McWilliams JM, Epstein AM, Joynt Maddox KE, Orav EJ, Grabowski DC, & Mehrotra A (2019). Two-year evaluation of mandatory bundled payments for joint replacement. The New England Journal of Medicine, 380(3), 252–262. doi:10.1056/NEJMsa1809010 [PubMed: 30601709]

Burke RE, Xu Y, & Rose L (2022). Skilled nursing facility performance and readmission rates under value-based purchasing. JAMA Network Open, 5(2), e220721. doi:10.1001/jamanetworkopen.2022.0721 [PubMed: 35226075]

Centers for Medicare & Medicaid Services. (2015). Report to Congress: Alternative payment models & Medicare Advantage. https://www.cms.gov/medicare/medicare-advantage/plan-payment/downloads/report-to-congress-apms-and-medicare-advantage.pdf

Chen EK, Edelen MO, McMullen T, Ahluwalia SC, Dalton SE, Paddock S, Rodriguez A, Shier V, Mandl S, Mota T, & Saliba D (2022). Developing standardized patient assessment data elements for Medicare post-acute care assessments. The Journals of American Geriatric Society, 70(4), 981–990. doi:10.1111/jgs.17648

Damberg CL, & Elliot ME (2021). Opportunities to address health disparities in performance-based accountability and payment programs. JAMA Health Forum, 2(6), e211143. doi:10.1001/jamahealthforum.2021.1143 [PubMed: 36218754]

Feng Z, Katz PR, Intrator O, Karuza J, & Mor V (2005). Physician and nurse staffing in nursing homes: The role and limitations of the Online Survey Certification and Reporting (OSCAR) system. Journal of the American Medical Directors Association, 6(1), 27–33. doi:10.1016/j.jamda.2004.12.008 [PubMed: 15871868]

Gandhi A, Yu H, & Grabowski DC (2021). High nursing staff turnover in nursing homes offers important quality information. Health Affairs, 40(3), 384–391. doi:10.1377/hlthaff.2020.00957 [PubMed: 33646872]

Geng F, Stevenson DG, & Grabowski DC (2019). Daily nursing home staffing levels highly variable, often below CMS expectations. Health Affairs, 38(7), 1095–1100. doi:10.1377/hlthaff.2018.05322 [PubMed: 31260368]

Grabowski DC, Stevenson DG, Caudry DJ, O'Malley AJ, Green LH, Doherty JA, & Frank RG (2017). The impact of nursing home pay-for-performance on quality and Medicare spending: Results from the nursing home value-based purchasing demonstration. Health Services Research, 52(4), 1387–1408. doi:10.1111/1475-6773.12538 [PubMed: 27491950]

Grabowski DC, Stevenson DG, & Cornell PY (2012). Assisted living expansion and the market for nursing home care. Health Services Research, 47(6), 2296–2315. doi:10.1111/j.1475-6773.2012.01425.x [PubMed: 22578039]

Halifax E, & Harrington C (2022). Nursing home financial transparency and accountability are needed to assure minimum staffing levels. The Journals of American Geriatric Society. Advance online publication. doi:10.1111/jgs.17931

Hartman M, Martin AB, Washington B, Catlin A, & The National Health Expenditure Accounts. (2022). National health care spending in 2020: Growth driven by federal spending in response to the COVID-19 pandemic. Health Affairs, 41(1), 13–25. doi:10.1377/hlthaff.2021.01763 [PubMed: 34910596]

Hefele JG, Wang XJ, & Lim E (2019). Fewer bonuses, more penalties at skilled nursing facilities serving vulnerable populations. Health Affairs, 38(7), 1127–1131. doi:10.1377/hlthaff.2018.05393 [PubMed: 31260343]

Huckfeldt PJ, Escarce JJ, Rabideau B, Karaca-Mandic P, & Sood N (2017). Less intense postacute care, better outcomes for enrollees in Medicare Advantage than those in fee-for-service. Health Affairs, 36(1), 91–100. doi:10.1377/hlthaff.2016.1027 [PubMed: 28069851]

Institute of Medicine. (1986). Improving the quality of care in nursing homes. National Academy Press.

Institute of Medicine. (2001). Improving the quality of long-term care. National Academy Press.

Joynt Maddox KE, Orav EJ, & Epstein AM (2018). Medicare's bundled payments initiative for medical conditions. The New England Journal of Medicine, 379(18), e33. doi:10.1056/NEJMc1811049

Kaiser Family Foundation. (2020). State health facts: Total number of residents in certified nursing facilities. https://www.kff.org/other/state-indicator/number-of-nursing-facility-residents/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D

Kash BA, Hawes C, & Phillips CD (2007). Comparing staffing levels in the Online Survey Certification and Reporting (OSCAR) system with the Medicaid cost report data: Are differences systematic? The Gerontologist, 47(4), 480–489. doi:10.1093/geront/47.4.480 [PubMed: 17766669]

Konetzka RT, Skira MM, & Werner RM (2018). Incentive design and quality improvements: Evidence from state Medicaid nursing home pay-for-performance programs. American Journal of Health Economics, 4(1), 105–130. doi:10.1162/ajhe_a_00095 [PubMed: 29594189]

Kumar A, Rahman M, Trivedi AN, Resnik L, Gozalo P, & Mor V (2018). Comparing post-acute rehabilitation use, length of stay, and outcomes experienced by Medicare fee-for-service and Medicare Advantage beneficiaries with hip fracture in the United States: A secondary analysis of administrative data. PLoS Medicine, 15(6), e1002592. doi:10.1371/journal.pmed.1002592 [PubMed: 29944655]

Levere M, Rowan P, & Wysocki A (2021). The adverse effects of the COVID-19 pandemic on nursing home resident well-being. Journal of the American Medical Directors Association, 22(5), 948–954.e2 e942. doi:10.1016/j.jamda.2021.03.010 [PubMed: 33861980]

McGarry BE, & Grabowski DC (2019). Managed care for long-stay nursing home residents: an evaluation of Institutional Special Needs Plans. American Journal of Managed Care, 25(9), 438–443. https://www.ajmc.com/view/managed-care-for-long-stay-nursing-home-residents-an-evaluation-of-institutional-special-needs-plans [PubMed: 31518093]

McGarry BE, & Grabowski DC (2021). Nursing homes and COVID-19: A crisis on top of a crisis. The Annals of the American Academy of Political and Social Science, 698(1), 137–162. doi:10.1177/00027162211061509

McWilliams JM, Gilstrap LG, Stevenson DG, Chernew ME, Huskamp HA, & Grabowski DC (2017). Changes in postacute care in the Medicare shared savings program. JAMA Internal Medicine, 177(4), 518–526. doi:10.1001/jamainternmed.2016.9115 [PubMed: 28192556]

McWilliams JM, Hatfield LA, Chernew ME, Landon BE, & Schwartz AL (2016). Early performance of accountable care organizations in Medicare. The New England Journal of Medicine, 374(24), 2357–2366. doi:10.1056/NEJMsa1600142 [PubMed: 27075832]

Medicare Payment Advisory Commission. (2021). Report to the Congress: Medicare payment policy. https://www.medpac.gov/wp-content/uploads/import_data/scrape_files/docs/default-source/reports/mar21_medpac_report_to_the_congress_sec.pdf

Mendleson MA (1974). Tender loving greed. Alfred A. Knopf.

Meyers DJ, Mor V, & Rahman M (2018). Medicare Advantage enrollees more likely to enter lower-quality nursing homes compared to fee-for-service enrollees. Health Affairs, 37(1), 78–85. doi:10.1377/hlthaff.2017.0714 [PubMed: 29309215]

Miller SC, Cohen N, Lima JC, & Mor V (2014). Medicaid capital reimbursement policy and environmental artifacts of nursing home culture change. The Gerontologist, 54(Suppl 1), S76–S86. doi:10.1093/geront/gnt141 [PubMed: 24443609]

Montgomery A, Slocum S, & Stanik C (2020). Experiences of nursing home residents during the COVID-19 pandemic. Altarum. https://altarum.org/sites/default/files/uploaded-publication-files/Nursing-Home-Resident-Survey_Altarum-Special-Report_FINAL.pdf

Mukamel DB, Saliba D, Ladd H, & Konetzka RT (2022). Daily variation in nursing home staffing and its association with quality measures. JAMA Network Open, 5(3), e222051. doi:10.1001/jamanetworkopen.2022.2051 [PubMed: 35285921]

National Academies of Sciences Engineering and Medicine. (2022). The national imperative to improve nursing home quality: Honoring our commitment to residents, families, and staff. The National Academies Press.

Norton EC (1992). Incentive regulation of nursing homes. Journal of Health Economics, 11(2), 105–128. doi:10.1016/0167-6296(92)90030-5 [PubMed: 10171309]

Office of Inspector General. (2014). Adverse events in skilled nursing facilities: National incidence among Medicare beneficiaries (OEI-06-11-00370).

Ouslander JG, & Grabowski DC (2020). COVID-19 in nursing homes: Calming the perfect storm. The Journals of American Geriatric Society, 68(10), 2153–2162. doi:10.1111/jgs.16784

Qi AC, Luke AA, Crecelius C, & Joynt Maddox KE (2020). Performance and penalties in year 1 of the Skilled Nursing Facility Value-Based Purchasing Program. The Journals of American Geriatric Society, 68(4), 826–834. doi:10.1111/jgs.16299

Roberts AR, & Ishler KJ (2018). Family involvement in the nursing home and perceived resident quality of life. The Gerontologist, 58(6), 1033–1043. doi:10.1093/geront/gnx108 [PubMed: 28977636]

Roberts TJ, Gilmore-Bykovskyi A, Lor M, Liebzeit D, Crnich CJ, & Saliba D (2018). Important care and activity preferences in a nationally representative sample of nursing home residents. Journal of the American Medical Directors Association, 19(1), 25–32. doi:10.1016/j.jamda.2017.06.028 [PubMed: 28843525]

Schwartz ML, Mroz TM, & Thomas KS (2021). Are patient experience and outcomes for home health agencies related? Medical Care Research Review, 78(6), 798–805. doi:10.1177/1077558720968365 [PubMed: 33135585]

Shippee TP, Hong H, Henning-Smith C, & Kane RL (2015). Longitudinal changes in nursing home resident-reported quality of life: The role of facility characteristics. Research on Aging, 37(6), 555–580. doi:10.1177/0164027514545975 [PubMed: 25651583]

U.S. Government Accountability Office. (2018). Nursing home quality: Continued improvements needed in CMS's data and oversight.

U.S. Senate. (1974). Nursing home care in the United States: Failure in public policy. Senate Special Committee on Aging, Subcommittee on Long-Term Care.

Vladeck BC, & Twentieth Century Fund. (1980). Unloving care: The nursing home tragedy. Basic Books.

Weissert WG, Scanlon WJ, Wan TT, & Skinner DE (1983). Care for the chronically ill: Nursing home incentive payment experience. Health Care Financing Review, 5(2), 41–49. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4191329/ [PubMed: 10310528]

Werner RM, Konetzka RT, & Liang K (2010). State adoption of nursing home pay-for-performance. Medical Care Research Review, 67(3), 364–377. doi:10.1177/1077558709350885 [PubMed: 19923629]

Werner RM, Konetzka RT, & Polsky D (2013). The effect of pay-for-performance in nursing homes: Evidence from state Medicaid programs. Health Services Research, 48(4), 1393–1414. doi:10.1111/1475-6773.12035 [PubMed: 23398330]

Zuckerman RB, Wu S, Chen LM, Joynt Maddox KE, Sheingold SH, & Epstein AM (2019). The five-star Skilled Nursing Facility Rating System and care of disadvantaged populations. Journal of the American Geriatrics Society, 67(1), 108–114. doi:10.1111/jgs.15629 [PubMed: 30339726]

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