The following appendix is part of a Commonwealth Fund issue brief, Celli Horstman, Alexandra Bryan, and Corinne Lewis, *How the CMS Innovation Center's Payment and Delivery Reform Models Seek to Address the Drivers of Health* (Commonwealth Fund, Aug. 2022), https://www.commonwealthfund.org/publications/issue-briefs/2022/aug/how-cmmi-payment-delivery-reforms-address-drivers-health.

APPENDIX
Summary of Efforts to Address Drivers of Health (DOH) Within Center for Medicare and Medicaid Innovation (CMMI) Models

Model	Description	Screening activities	Navigation services/ Care coordination activities
Accountable care organizations (ACOs)			
Accountable Care Organization Realizing Equity, Access, and Community Health (ACO REACH) Model 2022–2026 Some requirements.	A new Medicare initiative that will use payment to promote improved care delivery and coordination for underserved communities and reduce health disparities. Expected to begin in 2023.	Participants will be required to collect demographic and social needs data.	No evidence of participants being required to navigate to social services.
Comprehensive End-Stage Renal Disease (ESRD) Care (CEC) Model 2015–2021 No requirements.	Building on other CMMI ACO models, this model brought together dialysis clinics, nephrologists, and other providers to form ESRD Seamless Care Organizations (ESCOs) to coordinate care for Medicare beneficiaries with end-stage renal disease (ESRD).	Screening was inconsistent across participants, and each had their own approach to identifying beneficiaries' social needs. Some identified needs through conversations with beneficiaries or risk-stratification algorithms.	Care coordinators, patient navigators, and social workers employed by some ESCOs worked directly with beneficiaries to discuss DOH and what resources were available to them. ESCOs were able to cover some transportation and nutrition needs through waivers and food and travel vouchers. One organization worked with a food bank to provide meals twice a month.
Pioneer ACO Model 2012–2016 No requirements.	Providers with experience in coordinating care across multiple care settings took on greater upside and downside financial risk than in the Medicare Shared Savings Program model. Pioneer ACOs that achieved sufficient savings in the first two years were able to move to population-based payments in year 3.	One organization expanded the information collected during annual wellness visits to include social needs.	Many participants hired social workers to address DOH and behavioral health needs.
Next Generation ACO Model 2016–2021 No requirements.	Allowed experienced ACOs to take on greater levels of upside risk in exchange for greater downside risk. Both fee-for-service (FFS) and population-based payments were made to practices. Model participants also were allowed to waive some Medicare requirements and enhance certain benefits like telehealth and postdischarge home visits.	Evaluation reports reveal that many participants considered social needs in care delivery. Screening was not consistent or standardized. One organization used screening for risk stratification, while others used screening to navigate beneficiaries to services.	Some participants employed social workers, community health workers, resource coordinators, and others to support navigation services. A few ACOs partnered with local businesses to address transportation and food insecurity through transportation vouchers and grocery gift cards.

APPENDIX: Summary of Efforts to Address Drivers of Health (DOH) Within Center for Medicare and Medicaid Innovation (CMMI) Models (continued)

Model	Description	Screening activities	Navigation services/ Care coordination activities
Vermont All-Payer ACO Model 2017–2022 Some requirements.	Offers Vermont ACO (OneCare Vermont) the opportunity to participate in a state-tailored Medicare ACO initiative and receive state funding to assist providers with care coordination and collaboration with community-based providers.	All beneficiaries are risk-stratified (per ACO requirements) based on beneficiaries' medical and demographic information. Those with the most complex needs are eligible to receive DOH need management.	To support the "key activity" of DOH need management, OneCare Vermont developed a virtual platform to coordinate care for beneficiaries with complex needs. Providers, hospitals, social workers, and community workers can use the platform. Community collaboratives also were developed to support care coordination, address DOH, and bring community stakeholders together.
ACO Investment Model (AIM) 2016–2020 No requirements.	Building on the Advance Payment Model, AIM provides prepaid shared savings to small and/or rural ACOs to encourage their formation and prepare them to move toward high-risk models.	No evidence of participants screening for DOH needs.	No evidence of participants navigating to social services.
Advance Payment ACO Model 2012–2015 No requirements.	Provided advanced prepaid shared savings payments, serving as start-up capital, to encourage physician-led and rural smaller ACOs to participate in the Medicare Shared Savings Program.	No evidence of participants screening for DOH needs.	No evidence of participants navigating to social services.
Episode-based payment initiatives			
Bundled Payments for Care Improvement Advanced (BPCI Advanced) Model 2018–Present No requirements.	Building on Models 1 through 4, BPCI Advanced provides single, retrospective bundled payments for 90-day clinical episodes. CMS narrowed options for clinical episodes from up to 48 Medicare Severity Diagnosis Related Groups (MS-DRGs) to up to 31 inpatient and four outpatient clinical episodes. Not only can practices receive additional payment if they spend below the target price set at the beginning of each year, but they can also receive adjustments to those payments based on their performance on quality measures.	Most participants did not address DOH, but one developed a DOH questionnaire to screen beneficiaries.	Most participants did not address DOH, but one navigated beneficiaries to community resources that could support care at home.
Oncology Care Model 2016–2022 Some requirements.	Provided an episode-based payment for chemotherapy-related care over six-month periods to improve care coordination and access for cancer patients. Practices received enhanced per-member, per-month payments and could receive performance-based payments as an additional incentive. Commercial payers participated in the program.	Most participants screened beneficiaries for needs to support referrals to services and care coordination but did not use standardized tools. Screening was done at or prior to beneficiaries' first appointments. Some practices also used screenings to support risk stratification.	Participants incorporated plans for addressing beneficiaries' DOH needs into the required care plans. Participants differed in how they addressed DOH. The financial burden of oncology care meant some participants assisted beneficiaries with financial support for rent, utilities, and bills or offered financial counseling.

APPENDIX: Summary of Efforts to Address Drivers of Health (DOH) Within Center for Medicare and Medicaid Innovation (CMMI) Models (continued)

Model	Description	Screening activities	Navigation services/ Care coordination activities
Bundled Payments for Care Improvement (BPCI) Initiative 2013–2018 No requirements.	Hospitals paid a predetermined, discounted, episode-based payment for inpatient stays in the acute-care hospital for all MS-DRGs.	No evidence of participants screening for DOH needs.	No evidence of participants navigating to social services.
Comprehensive Care for Joint Replacement (CJR) Model 2018–Present No requirements.	Hospitals in designated areas receive a single, retrospective payment for hip and knee replacements, which includes inpatient hospitalization, as well as postacute care and other physician services. Like BPCI, participants receive payments if total spending is below predetermined target prices. CJR was mandatory for all providers in specific geographic areas in the first two years but was later made voluntary by CMS for some providers and areas. CMS recently issued a final rule to extend a slightly revised version of the model for three years.	No evidence of participants screening for DOH needs.	No evidence of participants navigating to social services.
Physician Hospital Collaboration Demonstration 2009–2014 No requirements.	Model assessed use of systemwide incentive payments as participating hospitals and physician groups collaborated on quality improvement initiatives to increase tracking of long-term outcomes and other quality measures.	No evidence of participants screening for DOH needs.	No evidence of participants navigating to social services.
Primary care transformation			
Comprehensive Primary Care (CPC) Initiative 2012–2016 No requirements.	Multipayer advanced medical home model in which participating practices received a non-visit-based care management fee ($20 per member, per month) and had the option to share in savings to Medicare. Practices received incentives and data about practice performance and technical assistance in exchange for meeting care delivery requirements.	All participants risk-stratified their beneficiaries as part of care management, but only some flagged those with DOH needs. Some participants used care managers to identify beneficiaries in need of social supports.	Some participants (21/500) employed care managers and health coaches to address the DOH needs of beneficiaries.
Comprehensive Primary Care Plus (CPC+) 2017–2021 Some requirements.	Built on lessons learned from CPC, CPC+ maintained care delivery requirements of CPC but changed the payment structure from shared savings to performance-based incentive payments. In Track 2, practices could opt out of FFS payments in exchange for a larger quarterly lump-sum payment.	Participants in Track 2 were required by CMS to screen beneficiaries for social needs. Most screenings were integrated into electronic health records, but not all participants had the capacity to integrate. In Track 1, participants were not required to screen beneficiaries for social needs but many did (86% in performance year 3).	Participants in Track 2 were required to maintain directories of relevant social services and navigate beneficiaries to these services. Some of these practices had multiple directories because of lack of communication about existing resources. Some practices hired additional staff to support navigation services or designated one staff member to coordinate services.

APPENDIX: Summary of Efforts to Address Drivers of Health (DOH) Within Center for Medicare and Medicaid Innovation (CMMI) Models (continued)

Model	Description	Screening activities	Navigation services/ Care coordination activities
Independence at Home Demonstration 2012–Present No requirements.	Practices provide home-based primary care for chronically ill Medicare beneficiaries using teams of providers. Those that achieve cost reductions while maintaining or improving quality share in savings to Medicare.	In general, participants have not screened beneficiaries for social needs, although some may have identified beneficiaries' needs through informal provider–patient conversations.	Some participants have hired additional staff, including social workers and care coordinators, to navigate beneficiaries to community resources.
Multi-Payer Advanced Primary Care Practice 2011–2016 No requirements.	State-sponsored, multipayer program that offered per-member, per-month care management fees to advanced primary care (APC) practices. Fee was intended to cover services, including care coordination and patient education, to support chronically ill beneficiaries.	Few participants screened beneficiaries for social needs. Some participants identified needs through conversations with providers or social workers, while others reviewed prior utilization data to identify complex patients.	Many practices hired care managers and coordinators to support beneficiaries' social needs. Some offered transportation vouchers to ensure beneficiaries were able to access care. One practice developed an online social service directory to help navigate beneficiaries to services.
Federally Qualified Health Centers (FQHC) Advanced Primary Care Demonstration Model 2011–2014 No requirements.	Required federally qualified health centers (FQHCs) to achieve Level 3 patient-centered medical home (PCMH) recognition by the National Committee for Quality Assurance (NCQA). FQHCs were offered technical assistance and paid a monthly care management fee for each eligible Medicare beneficiary served.	No evidence of participants screening for DOH needs.	No evidence of participants navigating to social services.
Primary Care First Model 2021–Present No requirements.	A set of Medicare payment models in which practices receive a population-based payment using a less burdensome mechanism and can opt into a Seriously Ill Population–specific model with a modified payment structure.	No evidence of participants screening for DOH needs.	No evidence of participants navigating to social services.
Innovation in Medicaid and the Children's Health Insurance Program (CHIP)			
Integrated Care for Kids Model 2020–Present Some requirements.	Through state-specific alternative payment models, participants will seek to identify and treat children's health needs early and navigate kids to health care and social services.	Participants are required to screen beneficiaries for DOH needs, including food insecurity and housing instability, to support both risk stratification and care coordination. It is unclear if screening will be standardized across participants.	Participants are required to provide care coordination and case management, in part to address social needs.
Maternal Opioid Misuse Model 2021–Present Some requirements.	Aims to address the opioid epidemic by increasing access to coordinated and integrated opioid use disorder (OUD) treatment for pregnant women through states' Medicaid flexibilities and partnerships with practitioners to coordinate care.	Participants are not required to screen beneficiaries for DOH needs, although during the preimplementation phase participants expected many beneficiaries to face social needs.	Participants are required to refer beneficiaries to community and social service organizations.

APPENDIX: Summary of Efforts to Address Drivers of Health (DOH) Within Center for Medicare and Medicaid Innovation (CMMI) Models (continued)

Model	Description	Screening activities	Navigation services/ Care coordination activities
Medicaid Innovation Accelerator Program 2014–2020 No requirements.	Provided technical assistance to states to support their payment and delivery system reform efforts in four areas: high-need, high-cost Medicaid beneficiaries; substance use disorders; community integration to support long-term services and supports; and physical and behavioral health integration.	Some participants in the Long-Term Services and Supports (LTSS) Housing Tenancy Track learned about assessments they could leverage to identify Medicaid beneficiaries in need of stable housing.	Participants in the LTSS Housing Tenancy Track learned how to build partnerships with housing systems to support Medicaid beneficiaries experiencing housing instability. States created crosswalks that mapped housing services for beneficiaries and potential reimbursement sources.
Strong Start for Mothers and Newborns Initiative 2013–2017 Some requirements.	Public–private partnership that raised awareness of early elective deliveries and tested effectiveness of three enhanced prenatal approaches to reduce premature births among Medicaid and CHIP beneficiaries: group prenatal care, birth centers, and maternity care homes.	Some participants engaged their peer counselors to meet with beneficiaries to identify any DOH needs, but evaluators noted that this wasn't standardized and could be informal. Food, housing, and transportation needs were common.	Participants in the Enhanced Prenatal Care at Birth Centers Track were required to offer peer counseling support to beneficiaries. One participant hired social workers for this role. CMMI required track applicants to coordinate with community and social services.
Medicaid Emergency Psychiatric Demonstration 2012–2015 No requirements.	Tested whether waiving the institutions for mental disease (IMD) exclusion, thereby allowing Medicaid to reimburse certain services at psychiatric hospitals, could lead to better access, higher quality, and lower costs through reductions in other forms of mental health services. Over three years, the demonstration provided $75 million in federal matching funds to treat psychiatric emergencies.	No evidence of participants screening for DOH needs.	No evidence of participants navigating to social services.
Improving care for dually eligible beneficiaries			
Financial Alignment Initiative 2013–Present Some requirements.	Tests two models to better align financial incentives across Medicare and Medicaid with the goal of reducing fragmentation of care for dual eligible beneficiaries: 1) a capitated model in which health plans receive a prospective, blended payment to provide coordinated care for dually eligible individuals; and 2) a managed FFS model in which states can share savings from the initiative. In both models, CMS, states, and health plans enter a three-way contract to integrate primary, acute, and behavioral health care, and long-term services and supports.	Participants are required to conduct needs assessments for beneficiaries. Some participants have used the assessments to identify DOH needs and assess social risks.	Some participants have offered navigation services, patient advocacy, and direct service provision to address DOH needs. Participants have addressed five domains of DOH: cultural context, socioeconomic context, community, environment, and social relationships.

APPENDIX: Summary of Efforts to Address Drivers of Health (DOH) Within Center for Medicare and Medicaid Innovation (CMMI) Models (continued)

Model	Description	Screening activities	Navigation services/ Care coordination activities
Initiative to Reduce Avoidable Hospitalizations Among Nursing Facility Residents 2012–2020 No requirements.	Supported organizations to adopt clinical and educational evidence-based interventions for dually eligible beneficiaries in long-term care (LTC) facilities to prevent hospitalizations. Building on Phase 1, Phase 2 added a payment reform component. The model reduced the financial incentive for hospitalization by funding LTC facilities and practitioners to directly provide higher-intensity services should a beneficiary require acute care while in the facility.	No evidence of participants screening for DOH needs.	No evidence of participants navigating to social services.
Accelerating the development, testing, and adoption of new payment and delivery models			
Accountable Health Communities Model 2017–2022 Some requirements.	Addressed health-related social needs, such as food insecurity and unstable housing, of beneficiaries by linking clinical care and community services. Model funded "community bridge organizations" to engage clinical sites in social needs screening and connect high-need beneficiaries to community services.	Participants were required to use a universal screening tool to identify DOH needs in five areas: housing, food, transportation, utilities, and interpersonal violence.	Participants were required to refer and navigate eligible beneficiaries to community and social services. Some participants were required to work with community stakeholders to align community needs and services.
Health Care Innovation Awards (Rounds 1 & 2) Round 1: 2012–2015 Round 2: 2014–2017 No requirements.	Provided approximately $2 billion in funding to providers, payers, local government, public–private partnerships, and multipayer collaboratives to test and implement innovative programs to improve care and reduce costs. Awards focused on one of several priority areas: identifying new models of workforce development and deployment; improving care for high-need populations; testing provider-specific approaches to transforming financial and clinical models of care; and improving the health of geographically defined populations.	Many participants identified beneficiaries with DOH needs, but their methods were not clear or standardized. For example, one organization identified beneficiary need through a "nonclinical bio psychosocial interview" conducted in the first beneficiary meeting. Other participants used predictive risk algorithms to identify beneficiaries with DOH needs who may need community supports.	Some participants in several award categories (e.g., Primary Care Redesign, Community Resource Planning and Prevention, and Complex/High-Risk Patient Targeting) addressed DOH. Some organizations that identified beneficiaries in need of community and social supports referred them to these services, although there was wide variation in participants' capacity and approaches. Some engaged social workers and other professionals to support care coordination and referral to community and social services.
Maryland All-Payer Model 2014–2018 No requirements.	Model updated Maryland's 35-year-old Medicare waiver to allow state to adopt new policies that reduced per capita hospital expenditures and improved health outcomes.	Participants did not report using screening tools to identify beneficiaries with DOH needs.	To reduce avoidable hospitalizations and ER use, some participants navigated beneficiaries to community and social services through social workers and care coordination. One organization used community donations to fund social service provisions; another coordinated with sources like Meals on Wheels.

APPENDIX: Summary of Efforts to Address Drivers of Health (DOH) Within Center for Medicare and Medicaid Innovation (CMMI) Models (continued)

Model	Description	Screening activities	Navigation services/ Care coordination activities
Maryland Total Cost of Care Model 2019–2026 Some requirements.	Model holds Maryland fully at risk by setting per capita limit on Medicare total cost of care. The model sets the state up to save more than $1 billion by the end of 2023 and creates opportunities for nonhospital health care providers to participate.	Screening for social needs is a requirement for Track 2 participants, but many participants in Track 1 also screen beneficiaries. By the second performance year, 88% of participants screened beneficiaries. Screening supported risk stratification and referral to social services. Screening was not standardized; some organizations' social workers identified social needs.	Some participants navigate beneficiaries to community and social services. The state is developing an online referral tool to navigate beneficiaries to community services.
Pennsylvania Rural Health Model 2017–2024 No requirements.	Model seeks to improve access to high-quality care for rural Pennsylvanians, reduce growth of hospital expenditures, and improve financial viability of rural hospitals in the state. Participating hospitals create rural hospital transformation plans to test whether global budgeting will facilitate investment in preventive care.	Screening for DOH needs is done on a community level, as opposed to a beneficiary level. Participants are required to develop "community and market service profiles" that describe the demographics, DOH needs, and available social services in the area they serve. One hospital worked with community stakeholders and leaders to determine what DOH needs were most relevant for their population. Three of the five hospitals participating in the model stated they used the Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE) assessment tool to screen patients for social needs.	Despite being required to assess community-level needs, participants are not required to address the needs. The state is developing an on online referral tool that will help providers navigate beneficiaries to community and social services.
State Innovation Models Initiative (Rounds 1 & 2) 2013–Present No requirements.	Provide federal funding and technical assistance to states to help them plan, design, and/or implement multipayer partnerships aimed at transforming care delivery. Most popular alternative payment models (APMs) adopted and tested have been PCMH, ACO, and episode-of-care models. States applying for the second round of funding are required to include interventions that address health disparities and achieve health equity in their plan for improving population health.	Some states have screened beneficiaries for DOH needs. For example, Iowa and Michigan have developed and implemented screening tools to identify need, support risk stratification, and facilitate referral to social services. By the end of the performance period, all Michigan participants who were encouraged to screen were doing so.	Several state programs have navigated beneficiaries to resources by developing relationships with community and social services. For example: • Minnesota and Vermont leverage community health workers to integrate care across providers and community-based organizations. • Massachusetts uses an online platform to coordinate between health care providers and social services. • Rhode Island has created an online database on social services. • Idaho, Maine, and Minnesota have developed care teams and medical homes to promote collaboration and referral between social and health services. • Minnesota and Oregon have provided funding for participants to offer social services to high-need beneficiaries.

APPENDIX: Summary of Efforts to Address Drivers of Health (DOH) Within Center for Medicare and Medicaid Innovation (CMMI) Models (continued)

Model	Description	Screening activities	Navigation services/ Care coordination activities
Community-Based Care Transitions Program 2012–2017 Some requirements.	To reduce readmissions among high-risk Medicare beneficiaries, the program provided federal funding to community-based organizations for improving transitions from hospital to home or other care settings.	Many participants identified beneficiaries with DOH needs; screening was not standardized and occurred through needs assessments, patient records, and conversations with providers, family members, and beneficiaries.	Applicants were required to demonstrate how they would incorporate community and social services. Many participants leveraged social workers and registered nurses as "care transition workers" to navigate beneficiaries to social services. Some participants provided services directly (e.g., home-delivered meals, transportation to appointments).
Frontier Community Health Integration Project Demonstration 2016–2022 No requirements.	The model tests integrated care coordination initiatives in rural counties to reduce Medicare expenditures and improve health outcomes.	No evidence of participants screening for DOH needs.	No evidence of participants navigating to social services.
Home Health Value-Based Purchasing Model 2016–2020 No requirements.	Home health providers in participating states took on increasing upside and/or downside risk to test whether value-based payment could improve home care quality and efficiency.	No evidence of participants screening for DOH needs.	No evidence of participants navigating to social services.
Rural Community Hospital Demonstration 2004–Present No requirements.	To strengthen the financial condition of small rural hospitals, the model provided higher Medicare payments for covered inpatient hospital services.	No evidence of participants screening for DOH needs.	No evidence of participants navigating to social services.
Medicare Care Choices Model 2016–2021 No requirements.	Model tested whether providing supportive care services to dually eligible beneficiaries from select hospice providers improved quality of care, increased patient satisfaction, and reduced expenditures.	No evidence of participants screening for DOH needs.	No evidence of participants navigating to social services.
Medicare Advantage Value-Based Insurance Design Model 2017–2024 No requirements.	The model tests Medicare Advantage service delivery and payment innovations designed to reduce total Medicare spending and enhance quality of care for beneficiaries.	No evidence of participants screening for DOH needs.	No evidence of participants navigating to social services.

APPENDIX: Summary of Efforts to Address Drivers of Health (DOH) Within Center for Medicare and Medicaid Innovation (CMMI) Models (continued)

Model	Description	Screening activities	Navigation services/ Care coordination activities
Innovations to speed the adoption of best practices			
Medicare Diabetes Prevention Program (MDPP) Expanded Model 2018–Present No requirements.	A national, structured intervention for behavior change aimed at preventing the onset of type 2 diabetes among Medicare beneficiaries with prediabetes. MDPP participants receive performance-based payments, which depend on beneficiaries' weight loss and attendance.	No evidence of participants screening for DOH needs.	No evidence of participants navigating to social services.
Million Hearts: Cardiovascular Disease Risk Reduction Model 2017–2021 No requirements.	Model provided targeted incentives for providers to practice beneficiary cardiovascular disease risk calculation and population-level risk management.	No evidence of participants screening for DOH needs.	No evidence of participants navigating to social services.
Partnership for Patients 2014–2017 No requirements.	Provided technical assistance to acute-care hospitals in initiatives to reduce preventable hospital-acquired conditions (HACs) and decrease expenditures.	No evidence of participants screening for DOH needs.	No evidence of participants navigating to social services.