



Caring for Vulnerable Populations



A Report of the AHA Committee on Research:

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Executive Summary

Purpose

The American Hospital Association Board Committee on Research (COR) annually studies a topic in depth to provide the hospital field with relevant recommendations for advancing health care. **In 2011, the AHA COR examined emerging practices in effectively coordinating care for vulnerable populations.** Since the breadth of the vulnerable population is large, the committee focused its initial efforts on the unique dual eligible population as a subset. While the alignment of financial incentives to provide care to this population will evolve at the federal, state, and local policy levels, hospitals are in the unique position to address the system, provider, and patient barriers impeding high quality care. This report summarizes the literature, highlights best practices, and makes recommendations for the field on important elements that should be included in any organized program to coordinate care for the dual eligible or any other vulnerable population.

Background

Approximately 9.2 million Medicaid beneficiaries are dual eligibles – low-income seniors and younger persons with disabilities who are enrolled in both the Medicare and Medicaid programs. Dual eligibles are among the sickest and poorest individuals, and they must navigate both government programs to access necessary services, relying on Medicaid to pay Medicare premiums and cost sharing to cover critical benefits not covered by Medicare. Fifty-five percent of this population has an annual income below \$10,000, and they are three times more likely than the rest of the Medicare population to be disabled, in addition to having higher rates of diabetes, pulmonary disease, stroke, mental disorders, and Alzheimer’s disease. Although they represent a relatively small percentage of the overall Medicare and Medicaid populations, 16% and 15% respectively, dual eligibles account for \$300 billion (approximately one-third) of annual spending between the two programs.

Currently, care for dual eligibles is fragmented, unmanaged, and uncoordinated at the program level, based on an inefficient fee-for-service provider payment system. Different eligibility and coverage rules in Medicare and Medicaid contribute to these difficulties. The current system lacks sufficient care coordination for the comprehensive services this population needs, which inhibits access to critical services and encourages cost shifting between providers and payers. All of these factors adversely affect this population’s quality of care and health outcomes, in addition to contributing to Medicare and Medicaid spending challenges.

Policy makers and providers have recognized the challenges associated with caring for dual eligibles, and some care coordination models have developed. The currently implemented options for coordinated payment and care at the federal, state and provider levels can be grouped into three broad categories: (1) Special Needs Plans; (2) Program for All-Include Care for the Elderly; and (3) Medicaid Managed Care Models. While they offer several opportunities for integration, they have failed to expand beyond modest penetration, reaching less than 20% of the overall dual-eligible population. Only 2% of duals actually participate in a fully-coordinated plan.

Policy Developments

The Affordable Care Act established two new federal entities—The Federal Coordinated Health Care Office and the Center for Medicare and Medicaid Innovation—that will be involved in efforts to study and improve care for dual eligible beneficiaries. Developing and overseeing large-scale pilot projects, states will still take time to institute full care coordination programs. Therefore, there is a tremendous opportunity for hospitals to take the lead in creating integrated delivery programs for these unique populations.

Best Practice Recommendations and Metrics

The COR reviewed the literature and spoke to experts in the field to identify a set of promising practices that may be implemented by hospitals to improve care coordination. Not mutually exclusive, the core elements detailed in the table below represent foundational essentials that are able to be combined in various arrangements depending on each organization’s population, infrastructure capabilities, and ideal outcomes. Prior to this section, metrics are detailed that focus on utilization, cost, quality/outcomes, and satisfaction. These are also going to vary by organization initiative.

Core Elements		Description
1	Complete Comprehensive Assessment and Reassessment	Complete patient evaluation upon entrance to the program as well as regularly scheduled assessments to adjust care plans to evolving patient needs
2	Conduct Periodic Visits	Include periodic visits (in person, by telephone, or via internet) with the patient and his/her family and caregivers at home, complementing regularly scheduled medical care
3	Implement Protocol-Based Planning	Evaluate and employ evidence-based protocols to manage common conditions affecting geriatric and other vulnerable populations, reducing unwarranted provider variation
4	Incorporate Person-Centered Care Principles and Practices	Place the individual and those affiliated (family members, other informal caregivers, client advocates and peers) at the center of all planning decisions to achieve better results and promote self-direction
5	Utilize Team-Based Care Management Centered around Primary Care	Coordinate medical, behavioral, and long-term support services through the work of a multidisciplinary, accountable, and communicative care team. Integrate primary care physicians as the core of the care team, supporting and collaborating with the multidisciplinary group
6	Facilitate Data Sharing and Integrated Information Systems	Provide mechanisms and create the necessary data sharing arrangements to collect, store, integrate, analyze, and report data in a timely manner to promote care coordination
7	Align Financial Incentives	Organize financial arrangement and potential savings to encourage cooperation and alignment across the continuum of care
8	Develop Network and Community Partnerships	Expand beyond the hospital and encourage relationships with nursing homes and long term care providers, public health departments, community centers, and other organizations to improve care coordination and transition
9	Provide Non-Health Care Services	Provide non-clinical services such as transportation to appointments to assist patients in receiving needed care and living healthier lives
10	Offer Home-Based Care	Incorporate timely, patient and family-centric, home-based care options
11	Organize Day-Center Care	Form or partner with a program that utilizes a day-center based model
12	Incorporate Cultural Competency and Equity of Care Standards	Develop care teams with awareness of the individual’s cultural perspective and language fluency, and hold them accountable for quality metrics aimed at reducing incidences of health disparities

Introduction

“The moral test of a government is how it treats those who are at the dawn of life, the children; those who are in the twilight of life, the aged; and those who are in the shadow of life, the sick, the needy, and the handicapped.” – Hubert Humphrey, 1977

Importance

Sixty million Americans currently obtain coverage through state-based Medicaid programs. These individuals come from lower socioeconomic backgrounds and pose unique care coordination challenges. They disproportionately face chronic diseases and challenges to access health care as compared to the overall population. Even when care is provided, the complexity of the patients often prevents application of appropriate care standards. More than nine million Medicaid beneficiaries are also enrolled in Medicare. While a small percentage of the overall Medicare and Medicaid population, this group accounted for almost \$300 billion in spending, or one-third of the overall annual government health care expenditure.¹ When compared to other Medicare beneficiaries, these dual eligibles are more likely to have multiple chronic physical conditions and mental disorders, posing further challenges to care coordination and access to appropriate care. Further expounding the challenge, the Patient Protection and Affordable Care Act (ACA) will expand Medicaid and CHIP to an additional 16 million Americans by 2104, a portion of which will be dual eligibles.² Additionally, 49 states have, at least to some degree, a balanced budget amendment, and as states continue to face debt crises, Medicaid funding may be cut. Realizing the significance of the impact of this unique group, ACA created the Federal Coordinated Health Care Office, which is charged with improving integration between the two government payers, ideally increasing the quality of care provided to this distinct population. **While payment coordination is being organized at various policy levels, hospitals should capitalize on their unique position to address the system, provider, and individual level barriers to the provision of high quality care, implementing effective population-specific programs.**

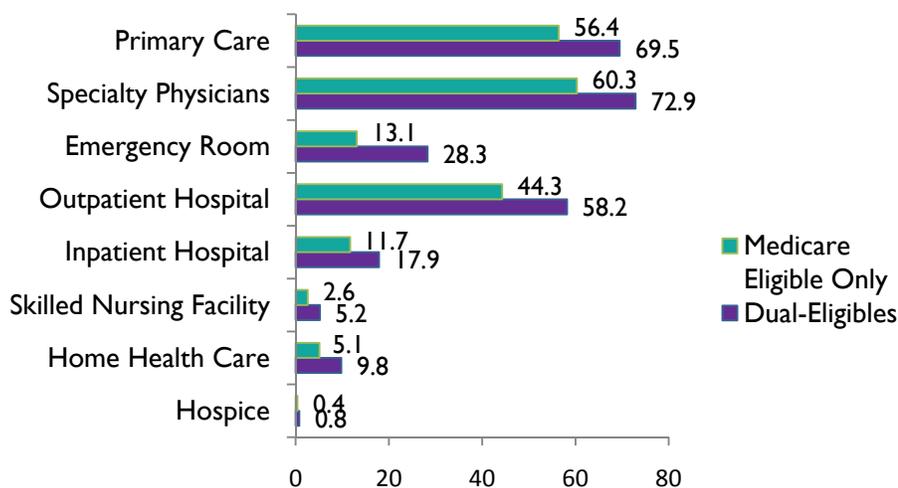
Who is a Dual Eligible?

About six in ten (5.5 million) dual eligibles are aged 65 and over, and more than one-third (3.4 million) are younger individuals with disabilities.³ Compared to other Medicare beneficiaries, dual eligibles are sicker, poorer and more likely to have chronic health conditions which require institutional care. Most dual eligibles have very low incomes: 55% have annual income below \$10,000 compared to 6% of all other Medicare beneficiaries. In particular, dual eligibles are:

- 15% more likely to have a cognitive or mental impairment compared to non-dually eligible Medicare beneficiaries⁴
- likely to have a limitation in at least one activity of daily living that would require attendant care, a benefit in most Medicaid programs but unavailable in Medicare (approximately 60%)⁵
- Three times more likely to be disabled⁶
- 50% more likely to have diabetes
- 600% more likely to reside in a nursing facility
- 250% more likely to have Alzheimer’s Disease⁷
- Much less likely to receive specific types of preventive care, follow-up care or testing; only 25% receive a mammogram every two years, as compared with 40% of Medicare⁸
- 100% more likely to have Heart Disease
- 162 times more likely to face Schizophrenia⁹

The varying and extensive physical and mental health co-morbidities increase care complexity, making health care service use extremely high among this population and care coordination particularly challenging. The chart below details the high service use among the dual population.

Health Service Use Among Dual Eligibles as Compared to the Medicare Population



Percent of Population Utilizing the Service

Kasper, Judy, Molly O'Malley, and Barbara Lyons. "Chronic Disease and Co-Morbidity Among Dual Eligibles: Implications for Patterns of Medicaid and Medicare Service Use and Spending." Kaiser Commission on Medicaid and the Uninsured, <http://www.kff.org/medicaid/8081.cfm>, July, 2010.

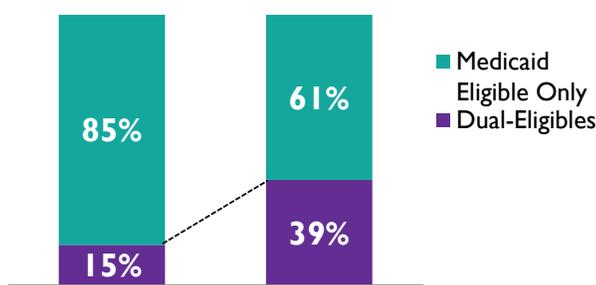
Due to their poorer health status and greater health service needs described above, particularly for high-cost services such as inpatient and nursing home care, dual eligibles are the most expensive population within both the Medicare and Medicaid programs. Annual mean per person spending for all dual eligibles was \$19,400 with Medicaid covering slightly more than half of the spending (56%). Spending per person with more than one mental or cognitive condition increased to approximately \$38,500.¹⁰ Although they are a relatively small percentage of the overall Medicare and Medicaid populations, they account for almost one-third of overall Medicare and Medicaid spending. This distortion is displayed in the charts below.

Dual Eligibles as a Share of Medicare Population and Medicare Spending, 2006



Total Medicare Population, 2006: 43 million
Total Medicare FFS Spending, 2006: \$299 Billion

Dual Eligibles as a Share of Medicaid Population and Medicaid Spending, 2007



Total Medicaid Population, 2007: 58 million
Total Medicaid FFS Spending, 2007: \$311 Billion

Source: Kaiser Family Foundation, "The Role of Medicare for the People Dually Eligible for Medicare and Medicaid," January 2011. <http://www.kff.org/medicare/upload/8138.pdf>

How do Coverage and Payment Policies Function for Dual Eligibles?

The current distribution of financial costs and management of dual eligibles across Medicare and Medicaid requires the coordination of two programs with different coverage and payment parameters. For this population, Medicare generally covers acute care services while Medicaid may reimburse for different combinations of Medicare premiums, cost sharing, and long-term care services, depending on the beneficiary.

Despite the obvious need for organization between the two organizations, the related administrative complexity has encouraged few dual eligibles to participate in coordinated care models and even fewer in integrated programs that align Medicare and Medicaid. Legally, the government payers are structured to operate as two separate programs, and their interaction is complicated by 50 separate state Medicaid policies.

Financially, the current policy creates incentives to shift costs to the other payer, often hindering efforts to improve quality, increase access, and coordinate care. State-run Medicaid plans have little incentive to improve coverage on long-term and supplemental services for duals—which will ideally reduce hospitalization, readmissions, and unnecessary ED visits—because potential savings would accrue primarily to Medicare. Better discharge planning under Medicare could help avoid a lengthy Medicaid-reimbursed nursing home stay, but without program coordination, there is no incentive for Medicare to support this endeavor.

As such, dual eligibles are forced to navigate a system with two sets of payers and benefits. This fragmentation results in unnecessary, duplicative, and missed services. Integrating Medicare and Medicaid services can ensure that dual eligible beneficiaries receive the right care in the right setting. Coordinated care through aligned financial incentives potentially offers one seamless set of benefits and providers, high quality of care, and less confusion. For state and federal policymakers, coordinated care can potentially reduce fragmentation, increase flexibility in the types of services that can be provided, enhance budget predictability, align incentives and control the costs of caring for this population.

Existing Service Delivery Models

The existing efforts to integrate the health care of dual eligibles at the federal and state level demonstrate both the promise and perils of such programs. The current wide-spread options can be grouped into three broad categories, which are summarized and then compared in the following chart. These plans are not mutually exclusive, and states have adopted a combination to suit their population's needs as well as to cover both Medicare- and Medicaid-reimbursed services. While some states have introduced well-integrated models, they are not included in this section due to the limited beneficiary size.

- 1) Special Needs Plan (SNPs):** SNPs are specialized Medicare Advantage Plans that receive capitated premiums to pay for traditional and nontraditional Medicare-covered services. New and expanding SNPs are now required to contract with the state to provide some Medicaid coordination.
- 2) Program of All-Inclusive Care for the Elderly (PACE):** PACE is a fully integrated, provider-based managed care plan, incorporating all Medicare and Medicaid primary and acute services, in addition to long-term health care. PACE providers assume full financial risk for participants without limits on quantity, period, or scope of services.¹¹
- 3) Medicaid Managed Care Models (MMCMs):** MMCMs vary widely and include both fee-for-service (FFS) models with additional payment to further care coordination and risk-based models, where a capitated payment is provided to reimburse for all covered services.¹²

Program	Financing	Population	Care Coordination
SNP	Risk-adjusted, capitated payments to provide Medicare Part A and B services (and some degree of Medicaid services depending on the plan) ¹³	298 plans serving more than 1,000,000 beneficiaries ¹⁴	<p>Opportunities</p> <ul style="list-style-type: none"> • Patient ease through one plan • Greater budget predictability • Multidisciplinary care team <p>Barriers</p> <ul style="list-style-type: none"> • No proven care improvement • Varying degree of Medicaid coordination
PACE	Separate Medicare and Medicaid capitated benefit at an agreed-upon per member per month rate	71 sites nationally, servicing approximately 23,000 participants ¹⁵	<p>Opportunities</p> <ul style="list-style-type: none"> • Fully integrated funding stream • Established quality measures • Medical and non-medical capabilities <p>Barriers</p> <ul style="list-style-type: none"> • Sufficient up-front capital required¹⁶ • High administration and workforce costs • Centered around one physical location
MMCM	Some plans maintain FFS with an additional payment for coordination and others utilize a capitated model	Approximately 2.5 million beneficiaries ¹²	<p>Opportunities</p> <ul style="list-style-type: none"> • Incremental step toward risk sharing • Improve care coordination <p>Barriers</p> <ul style="list-style-type: none"> • FFS disincentives remain • No set design standard • Some exclusion of long-term care and behavioral health benefits

While the plans depicted above offer several opportunities for integration, truly integrated plans have failed to expand to more than 2% of the overall dual-eligible population (not including non-Medicaid affiliated SNPs) for a variety of reasons including but not limited to¹⁷:

- Traditional beneficiary resistance to capitation models
- Ineffective communication around voluntary programs, decreasing enrollment and increasing opportunities for adverse selection
- Differences between state and federal requirements complicate plan development
- Variation between state Medicaid regulations makes it difficult to replicate plans between states
- Disparity among the dual eligible population within geographic areas makes it harder to develop one comprehensive plan
- Large start-up costs, additional administrative staffing

While the information below provides a summary, more details about each of the current models can be found in [Appendix A](#).

Policy Developments

The disproportionate high cost and low quality outcomes associated with the dual eligible population brought this population to the attention of health policymakers. The 2014 Medicaid expansion combined with potential Medicare and Medicaid reimbursement reductions (Congressional action and state balanced budgets respectively) further highlight the need for action to increase care coordination to improve quality and reduce costs.

ACA offers new opportunities for states and the federal government to align Medicare and Medicaid to establish more efficient, better coordinated care for dual eligibles. The Centers for Medicare and Medicaid Services (CMS) has two new avenues for improving care. The Federal Coordinated Health Care Office, established through Section 2602 of ACA, will study and analyze the best methods to integrate benefits under the Medicare and Medicaid programs and improve the coordination between the federal government and the states for dual eligibles.¹⁸

The CMS Center for Medicare and Medicaid Innovation (CMI) will test innovative payment and service delivery models to improve quality and reduce unnecessary costs. In April of 2011, CMS announced 15 states that were selected to receive up to \$1 million to design a delivery system and payment model to improve coordination of care across primary, acute, behavioral health, and long term support systems for dual eligibles.¹⁹ Three months later, CMI announced the testing of two different shared saving models through pilots to improve care for this same population: 1) a state, CMS, and health plan will enter into a three-way contract where the managed care plan receives a prospective blended payment to provide coordinated care or 2) a state and CMS enter into an agreement in which the state would be eligible to benefit from savings resulting from managed FFS initiatives.^{20,21} * The programs vary by state and county, as participating entities have varied the programs based on geographic and population demographics.

What Should Hospitals Do?

The AHA COR recognizes that in the current hospital economic climate, it is necessary for financial incentives to be aligned, and this will be addressed legislatively at the federal, state and even local level. The pilot projects are taking large leaps forward in coordinating care at the payer level. Even if successful, these plans will take several years to expand beyond the current pilot format, and while integration at the payer level facilitates care coordination, it does not guarantee the same intensity at the provider level. Additionally, coordinated payments for this population demands organizations to improve quality, transitions, and efficiency. While hospitals have historically done a lot to care for vulnerable populations from onsite services and partnerships with other institutions, care coordination continues to remain a challenge.

Improved infrastructure, integration, and collaborative relationships are the keys to providing better care for these populations beyond the fragmented care arrangements reinforced by fee-for-service programs. With the ACA expanding Medicaid and CHIP coverage by 2014 combined with a potential reduction in Medicaid payment rates, **hospitals have the opportunity to address the patient, provider, and system barriers that have impeded the progress toward improved care coordination and a positive impact on the quality of care and cost for the vulnerable populations they serve.**

**The states currently involved in these demonstrations (although they may have to change specifics after the July 2011 shared savings models) include: California, Colorado, Connecticut, Massachusetts, Michigan, Minnesota, New York, North Carolina, Oklahoma, Oregon, South Carolina, Tennessee, Vermont, Washington, and Wisconsin.*

Promising Models and Program Elements

There is wide variation within the dual population. Less than 18% (approximately 1.6 million) accounts for more than 70% of all spending.²² To further complicate the matter, there is also wide geographic variation in dual eligibles as a share of the overall Medicare population – from 11% in Montana to 37% in Maine.²³ (It is important to note that these numbers will change when Medicaid is expanded in 2014.)

Therefore, it is not realistic or financially feasible for every organization to develop comprehensive care coordination plans solely for the dual eligible population. However, duals have similarities with other populations that require a high-intensity of inpatient and outpatient medical and social services. **The committee believes that strategies to improve care for dual eligibles and other vulnerable populations also have spillover benefits for patients with chronic conditions, regardless of payer type.** Therefore all facilities should consider the models presented on the following pages.

Each hospital and health care system must match its community’s needs and demographics with the appropriate model. As the case studies display, some programs are more comprehensive while others focus on specific points within the care continuum. Some programs require a significant amount of upfront funding and others do not. However, the majority enforce improved communication and data exchange across care transitions.

The following pages will detail 12 foundational core elements of successful programs for care management of vulnerable populations. While each element is highlighted by a case study of an organization, these programs include a large majority of the elements. The table below displays each profiled program as well as their adherence to the core elements as described on the following page. **Appendix B** will provide full case-studies on the institutions and their programs that improve care coordination and transitions at various sites of care for complex, vulnerable populations. Additionally, more resources are available on the Hospitals in Pursuit of Excellence website at www.hpoe.org.

Core Elements within each Care Management Program

		Element Number											
		1	2	3	4	5	6	7	8	9	10	11	12
Case Study	Johns Hopkins Health System	X	X	X	X	X	•	X	X	X	X	X	X
	Wishard Health Services	X	X	X	X	X	X	X	X	•	X	•	X
	Holy Cross Hospital	X	n/a	X	X	X	•	n/a	•	n/a	n/a	n/a	•
	SSM St. Mary’s Medical Center	X	X	X	X	X	X	•	•	•	n/a	n/a	•
	AtlantiCare	X	X	X	X	X	X	X	X	X	n/a	n/a	X
	Aurora Healthcare	X	n/a	X	X	X	X	X	n/a	•	n/a	n/a	•
	Commonwealth Care Alliance	X	X	X	X	X	X	X	X	X	X	•	•
	Montefiore Medical Center	X	•	X	X	X	X	X	X	•	X	•	•
	Fairview Health Services	X	X	X	X	X	X	X	X	X	n/a	n/a	X
	Summa Health System	X	n/a	X	n/a	X	X	X	X	X	•	n/a	n/a

X - Included within program

n/a - Not included due to structure/ purpose of program

• - Either not included or not emphasized in resources utilized as part of program

Core Elements		Description
1	Complete Comprehensive Assessment and Reassessment	Complete patient evaluation upon entrance to the program as well as regularly scheduled assessments to adjust care plans to evolving patient needs
2	Conduct Periodic Visits	Include periodic visits (in person, by telephone, or via internet) with the patient and his/her family and caregivers in their own home, complementing regularly scheduled medical care
3	Implement Protocol-Based Planning	Evaluate and employ evidence-based protocols to manage common conditions affecting geriatric and other vulnerable populations, reducing unwarranted provider variation
4	Incorporate Person-Centered Care Principles and Practices	Place the individual and those affiliated (family members, other informal caregivers, client advocates and peers) at the center of all planning decisions to achieve better results and promote self-direction
5	Utilize Team-Based Care Management Centered around Primary Care	Coordinate medical, behavioral, and long-term support services through the work of a multidisciplinary, accountable, and communicative care team. Integrate primary care physicians as the core of the care team, supporting and collaborating with the multidisciplinary group
6	Facilitate Data Sharing and Integrated Information Systems	Provide mechanisms and create the necessary data sharing arrangements to collect, store, integrate, analyze, and report data in a timely manner to promote care coordination
7	Align Financial Incentives	Organize financial arrangement and potential savings to encourage cooperation and alignment across the continuum of care
8	Develop Network and Community Partnerships	Expand beyond the hospital and encourage relationships with nursing homes and long term care providers, public health departments, community centers, and other organizations to improve care coordination and transition
9	Provide Non-Health Care Services	Provide non-clinical services such as transportation to appointments to assist patients in receiving needed care and living healthier lives
10	Offer Home-Based Care	Incorporate timely, patient and family-centric, home-based care options
11	Organize Day-Center Care	Form or partner with a program that utilizes a day-center based model
12	Incorporate Cultural Competency and Equity of Care Standards	Develop care teams with awareness of the individual's cultural perspective and language fluency, and hold them accountable for quality metrics aimed at reducing incidences of health disparities

Program Metrics

The following pages provide descriptions of the foundational core elements of successful care programs. It is complex to measure success of these programs, especially in the short term. Crossing the patient, provider, and system level barriers requires patience. Additionally, the applicable metrics are going to depend on the program implemented. The area below details different metrics organizations can utilize to measure their progress in program implementation. Organizations must realistically apply these to their own situation.

Utilization	
Depending on the attributed patient population, some of these metrics may see increased or decreased numbers. For example, for patients that never received appropriate treatments, the number of labs should go up, but improved care coordination for the most complex patients should reduce the number of ordered labs.	
<p>Example program measures:</p> <ul style="list-style-type: none"> • Number of Emergency Department visits • Number of hospital admissions • Number of preventable readmissions 	<ul style="list-style-type: none"> • Number of surgical procedures • Number of labs and tests ordered • Number of missed appointments • Hospital length of stay • Electronic Health Record meaningful use
Quality/ Outcomes	
While organizations will all strive for improved quality and outcome metrics, the desired measures will vary based on patient population. The programs centered on older and more complex patients should strive for improved quality of life, while for younger patients, outcomes will be a more important focus.	
<p>Example program measures:</p> <ul style="list-style-type: none"> • Length of survival • Assessing Care of Vulnerable Elders (ACOVE) measures • SF-36 questionnaire or similar scale 	<ul style="list-style-type: none"> • ADL improvement • Hospital Compare – process of care measures • Mortality • Medication compliance
Cost	
Measuring cost is complicated for these programs. While it is desired for total cost of care to remain constant or decrease, in the beginning programs may desire for a shift in spending from inpatient and post-acute care to primary, home, and preventive care.	
<p>Example program measures:</p> <ul style="list-style-type: none"> • Total cost of care • Cost per inpatient hospital stay • Cost of specialty care visits • Cost of primary care visits 	<ul style="list-style-type: none"> • Mental health care spending • Durable medical equipment costs • Non-health care services spending • Cost of employed care coordinators • Home health care costs
Satisfaction	
Care coordination programs must monitor satisfaction amongst all customers: patients, their families, and affiliated providers.	
<p>Example program measures:</p> <ul style="list-style-type: none"> • Patient satisfaction in all settings – inpatient (HCAHPS), ambulatory, nursing home • Affiliated partner satisfaction 	<ul style="list-style-type: none"> • Provider satisfaction (employed and affiliated) • Patient Satisfaction • Patient family/ caregiver satisfaction

Element #1: Complete Comprehensive Assessment and Reassessment

Facing a specific but variable population of complex patients confronting multiple chronic diseases, it is essential to enroll the right patient into the right care plan at the right time. Therefore, all programs must institute a comprehensive assessment to identify all potential medical and psychosocial supports that each beneficiary may need, and utilize that information to develop an individualized care plan. Additionally, while frequent access to the patient should allow for ongoing recognition of necessary services, all of the comprehensive programs include annual, if not more frequent, comprehensive assessments, to evaluate any change the beneficiary's clinical or social needs. In a complex population, one acute event has the potential to drastically modify the frequency or type of necessary services to maintain, if not improve, daily function.

Hopkins ElderPlus, Johns Hopkins Health System *Baltimore, MD*

Background: Hopkins ElderPlus is the PACE program of Johns Hopkins Health System, providing all primary, acute and long term services and supports (LTSS) under integrated Medicare and Medicaid financing to approximately 150 beneficiaries.

What they did: To ensure that Hopkins is accepting the appropriate patients into the program, PACE participants must fit the following eligibility requirements: 55 years old, certified by the state to need nursing home care, retained ability to live safely in the community at time of enrollment, and reside in a PACE service area. Upon initial pass, each beneficiary goes through an intensive medical, social, and behavioral assessment to gain an understanding of which services will be essential for each patient. Although a fluid adjustment on service changes, the multidisciplinary staff (including everyone from physicians to housekeeping aides and social workers) holds a quarterly intake and assessment meeting for each participant, offering insights into how the participant is doing, recognize any problems, flag potential future issues, and discuss how to improve on his or her care moving forward.

Financing: As with all PACE programs, Hopkins receives a separate Medicare and Medicaid capitated benefit on a per member per month rate, and all necessary services are coordinated within that amount.

Results: Evaluations of the PACE model have found them to be successful in several outcomes including: health and functional status, quality of life, length of survival (4.2 years) and service satisfaction. In spite of increased beneficiary complexity, PACE sees readmission rates similar to those of the overall Medicare population. Virginia programs estimate that the cost to the state for PACE Medicare and Medicaid is, on average, \$4,200 less per year compared to a person receiving Medicaid services at home or in a nursing facility.^{24,25}

Element #2: Conduct Periodic Visits

Medical and psychosocial appointments with physicians are the focal point of the majority of care plans. However, ongoing visits with the patients and their familial support are a crucial complement to scheduled medical care, to evaluate patient progress and any need for changes in the beneficiary's care plan. Programs deploy these visits in a variety of ways: face to face meetings at the patient's home or day center (depending on the program), via telephone, or through other remote, virtual technologies. These non-clinical focused visits can help beneficiaries and their caregivers address issues and unmet needs, such as difficulties in obtaining medications, reducing household safety hazards, getting to required appointments, setting up more clinical home visits, or arranging other caregivers.

Geriatric Resources for Assessment and Care of Elders, Wishard Health Services

Indianapolis, IN

Background: Geriatric Resources for Assessment and Care of Elders (GRACE) is an integrated care model targeting the senior population facing multiple chronic conditions. A partnership among Indiana University and other local facilities, the program is centered around a community-based health center, leveraging the expertise of a geriatric interdisciplinary team for designing individual, patient-specific, care protocols. The initiative reached close to 500 patients by 2007.

What they did: The program is designed with an understanding that integration of medical and social care, in addition to repetition in clinical and support visits, constitutes essential care for beneficiaries with functional limitations. While patients receive comprehensive assessments, ongoing communication and evaluation aids in developing the ideal care plan. These periodic visits will vary by patient but generally include:

- Comprehensive in-home assessment by nurse practitioner and social worker
- Second in-home visit after development of individualized care protocol to communicate patient care plan and discuss logistics
- Patient contact by phone at least once a month with GRACE coordinators
- Home visits after a hospitalization or ED visit

Financing: Providers are reimbursed on the typical fee-for-service and Diagnosis-Related Groups (DRGs) as other patients. Working together with Indiana University, the group secured a large amount of financial funding from a variety of local and national organizations to cover the additional cost (approximately \$105 per member per month).

Results: A randomized control trial found a positive impact on both quality and cost. In a group with incomes 200% of the federal poverty level, high-risk patients had fewer visits to the ED, inpatient hospitalizations, and readmissions. Satisfaction was higher among GRACE patients and participating providers than the control groups. Finally, the improved quality and reduced number of acute hospitalizations saved approximately \$1,500 per patient by the second year of program implementation.^{26,27,28}

Element #3: Implement Protocol-Based Care Planning

Care transition and coordination is a difficult process for vulnerable populations, as they demand providers with experience in caring for patients with multiple chronic diseases. While a variable population with different medical and social needs demands individual care plans, aggregate data analysis, (stratified by population subgroup), on these patients allows for the creation of effective protocols for both clinical care and processes. These are going to differ by site, comprehensiveness and design of the care program, but within well-designed protocols is the ability to reduce variation, increase quality, and avoid unnecessary costs for this complex population. Complex patients with additional behavioral health problems can almost double medical claims costs if not treatment effectively. Each program should utilize evidence-based protocols to scan for behavioral health issues.

Holy Cross Hospital Geriatric Emergency Department *Silver Spring, MD*

Background: Holy Cross is a 450 bed, not-for-profit teaching hospital located just north of Washington, DC. Part of a large integrated health system, the institution established the first senior emergency center in the country, to treat patients 65 and older who are experiencing acute, but not life threatening issues.

What they did: Recognizing that this population demanded a unique approach to ED care, the department is located immediately off to the side of the regular ED. Patients are triaged and then sent to this department. All staff received specialized training in common health issues facing the geriatric population, allowing for quicker diagnosis and standardized treatment protocols. For example, any patient that is on five or more medications are immediately referred for a polypharmacy referral in which a pharmacist reviews the identified drugs and doses to understand if there was an undesired interaction. Additionally, once a patient is stabilized in the ED, nurses screen for cognitive loss, depression and alcohol or drug abuse in addition to fall evaluation, and neglect.

Financing: The Holy Cross geriatric ED is still reimbursed in a FFS system with DRG-based payment upon admission. Trinity subsidized the development of the specialized center at a cost of under \$200,000.

Results: 98% of over 1,000 surveyed patients rated their ED care as “excellent.” One-ninth of the patients were prescribed five or more medications, and through the pharmacist referral, it was recognized that 20% of that population was taking inappropriate medications or doses. Inpatient volume increased, signifying appropriate admissions and return ED visits decreased to 3% within 72 hours.^{29,30,31}

BOOST Program at SSM Saint Mary’s Medical Center *Saint Louis, MO*

Background: Better Outcomes for Older Adults through Safe Transitions (BOOST) is a discharge-focused program from the Society of Hospital Medicine.

What they did: Following BOOST protocols based on aggregate data analysis, patients were “BOOSTed” upon admission, their charts flagged and names added to a unit white board so that all providers can track that patient’s care. Prior to discharge, which is completed both by a nurse and physician, the providers make patient rounds and perform “teach back” – where a patient has to describe the important steps they have to complete back to the providers to gauge understanding. Upon discharge, all important points of patient information such as diagnosis, tests performed, medication prescribed, and future appointments, are captured into a patient-friendly, one page document.

Financing: Organizations are reimbursed on a DRG level or FFS, depending on the payer. The BOOST toolkit is available through the Society of Hospital Medicine.

Results: Programs have found lower numbers of unnecessary readmissions (12% to 7%), reduced preventable ED visits, and increased patient satisfaction from 52% to 68%.^{32,33}

Element #4: Incorporate Person-Centered Care Principles and Practices

The success of a program depends on patient involvement – adhering to prescribed medication rituals, complying with fall protocols, eating a healthy diet, and coming to all necessary medical visits. Satisfied patients are much more likely to stay involved in their care plan, and therefore each program needs to put the individual and his or her family if applicable, at the center of the care team. All of the care models should include various mechanisms to engage patients and their families in their care. This should include self-educational materials and materials that take into account the low health literacy levels of many patients and their families.

AtlantiCare Special Care Center *Atlantic City, NJ*

Background: The Special Care Center (SCC) is a primary care center serving slightly over 1,000 patients and established in conjunction with large area employers. This care coordination program is specially designed for patients facing a chronic illness such as heart disease, diabetes, hypertension, obesity, asthma, or emphysema.

What they did: SCC put the patient and his or her family first in the physical, medical and social design of the clinic. The following practices have improved patient compliance and satisfaction:

- Each patient is assigned a non-clinical health coach to help him or her proactively manage his care and navigate the health system. They make contact with each of their patients at least once every two weeks
- New patients receive a one-hour appointment with a physician and existing patients receive full 30-minute physician appointments
- The complete interdisciplinary care team shares 24 call coverage so that patients can contact them at any time with health problems – data capabilities allow them to pull up patient charts from home and refer to the ED if necessary
- All patients are guaranteed same-day sick visits
- Patients have access to group education on a variety of issues, which are segmented out by type of condition and provided in several languages
- All patients who make a sick-visit will receive a follow-up call from their health coach within 24 hours of leaving the office
- Patients have no co-payments for physician visits or prescriptions filled at the on-site pharmacy, which both encourages patients to get their prescriptions there and allows the care team to monitor adherence

Financing: The original funding came through a partnership with HEREIU Fund – a large multi-employer trust fund for service workers at hotel, restaurant, and casinos – and AtlantiCare employees. Initially globally budgeted with costs shared by the Fund and Health System, the risk moved to an adjusted PMPM for subsequent payers.

Results: Initial results have displayed improved clinical incomes and significantly lowered treatment costs. According to analysis conducted between 2008 and 2009, patients experienced 41% fewer inpatient admission, 48% fewer ED visits, 25% fewer surgical procedures, and improved outcomes in pharmaceutical adherence, quality indicators, and generic use. Spending on primary care visits, prescription drugs, labs and testing all increased. It is assumed that these increases are a result of increased compliance, and the program still produced a first-year savings of up to 28% off of net total spending for the highest risk quarter of patients.^{34,35,36}

Element #5: Utilize Team-Based Care Management Centered around Primary Care

All programs designed for dual-eligibles and other vulnerable populations must incorporate a multidisciplinary care team that can cross the boundaries between medical, behavioral, and long-term supports and services needs. All care models should include a primary care physician as an integral part of the care team, working in support with an interdisciplinary group. This comprehensive provider network must fit the needs of the target population and support an overall model for care coordination. Success depends not just on the number and type of providers involved; it also depends on how well they communicate to put the health of the patient before anything else. Improving the care coordination between these providers will remove potential errors that can decrease quality and outcomes, in addition to increasing costs. While teams are going to vary based on the target population and their demands, these integrated care teams often include: nurses, nurse practitioners, medical assistants, social workers, primary care physicians, specialty physicians, home-based nurse aids, hospitalists, geriatricians, care coordinators/navigators, and psychologists or psychiatrists. Hospitals must engage primary care physicians to change the way they operate. Also, organizations noted that success depends on the workforce functioning at the top of their license and utilizing all of their clinical skills for success.

The Acute Care for Elders Tracker at Aurora Healthcare Milwaukee, WI

Background: Aurora Healthcare is a nonprofit, integrated delivery system consisting of 15 hospitals, 155 clinics and 1600 employed physicians throughout Wisconsin. To improve care for their most complex patients in areas where they may not have physicians trained in geriatrics, they installed the Acute Care for Elders Tracker (ACE). Following ACE regulations, this is a computerized tool which is designed to improve care for hospitalized elderly patients.

What they did: The ACE tracker provides the multidisciplinary care teams with real-time information on each patient's health risks based on retrospective and aggregate analysis, and allows the teams to customize treatment plans. To facilitate the individualized care plans, the teams use e-Geriatrician, which utilizes teleconferencing to allow geriatricians to consult with staff at hospitals that do not have someone trained in this specific population. The team meets for 30 minutes a day, five days a week to review the ACE tracker report on each patient, develop a plan or make necessary modifications. The team overseeing the inpatient care and at the meeting includes clinical nurse specialists, social workers, pharmacists, physical therapists, and occupational therapists. Geriatricians attend the meeting twice a week. If the hospital in question does not have one, a geriatrician from another Aurora facility will participate twice a week via teleconferencing.

Financing: Aurora receives no additional funding beyond traditional DRG or FFS reimbursement (depending on payer). Additionally, for participating organizations without a geriatrician on staff, Aurora reimburses the physician an additional hourly rate for joining via teleconference ACE team meetings twice a week.

Results: Initial published data has shown that the percentage of patients receiving urinary catheters decreased from 26.2% to 20.1%, and the share of patients receiving physical therapy consultations has risen from 27% to 39.1%. These large changes can only be described by a result of the regular, multidisciplinary team meetings to improve care plans.³⁷

Element #5: Utilize Team-Based Care Management Centered around Primary Care (Continued)

Commonwealth Care Alliance *Massachusetts*

Background: Commonwealth Care Alliance (CCA), which functions both as part capitated health plan and part, provider, developed a Senior Care Options plan for low-income, dually eligible beneficiaries. Analysis in Massachusetts found that primary care for vulnerable and complex populations was inadequate, discontinuous, and unengaged with the patients they were meant to serve.

What they did: Through the Senior Care Options plan, enrollees were provided with a primary care team made up of a physician, nurse practitioner, and geriatric specialist who work out of the beneficiary's primary care clinic. They created a new system of multidisciplinary primary care that included the following components:

- Comprehensive assessments instead of medical histories
- Individualized care plans with behavioral health integrated into primary care services
- Team trained to go beyond medical services to address poverty alleviation issues
- Capacity for home visits and transfer of clinical decision to the home or other settings of care
- Team approach with nurse, nurse practitioner, behavioral health, social worker, and primary care physician in a horizontal rather than vertical way
- Fully organized hospital and institutional network centered around primary care team

Financing: First started as a demonstration program, CCA relies on a risk-adjusted premium paid separately from both Medicare and Medicaid. Providing primary care themselves, they contract at agreed-upon rates (typically Medicare reimbursement) for specialty and inpatient care.

Results: Even with a more complex population, hospital utilization is significantly lower for both nursing home certifiable and ambulatory certifiable CCA beneficiaries (1,634 and 511 hospital days per 1000 population respectively) as compared with traditional Medicare fee-for-service beneficiaries (2,620 risk adjusted hospital days per 1,000 population). For CCA nursing home certifiable enrolled patients living in the community, 46% fewer become long-term nursing home residents. These are signs of both increased quality and long-term cost reduction.^{38,39}

Element #6: Facilitate Data Sharing and Integrated Information Systems

Dual eligibles tend to utilize both inpatient and outpatient services intensively, especially those who have more than one chronic condition. Increased utilization with a wide number of providers naturally leads to fragmentation, unnecessary duplication of efforts, and poor communication. A combination of robust data sharing and electronic communication systems guarantees continuous access to services and promotes coordination of care across all settings. In order to further promote care coordination for this highly complex population in best practice programs, data on service utilization is shared on a regular and timely basis, including the measurement of person-level outcomes and the identification of high-utilization members for increased attention. Integrated information technology systems facilitate this exchange of health information between and among physicians, case managers, and other health professionals.

Montefiore Care Management Organization at Montefiore Medical Center *Bronx, NY*

Background: Montefiore Medical Center is a large, academic medical center in New York City that has created a large integrated system for its primarily low income patients. The Care Management Organization (CMO) is a for-profit subsidiary of the medical center, and it receives capitated payments for a little over 140,000 patients to provide medical and behavioral care management in addition to traditional health plan administrative functions.

What they did: CMO shares and analyzes its data through an integrated information technology system that includes several aspects for success. All providers within the Montefiore Medical Center and its outpatient locations have access to the same electronic health record system. They utilize a data warehouse, called Clinical Looking Glass, to measure quality of care for this specific patient population and to identify areas for improvement. CMO uses the clinical data, along with claims data, to identify patients that would benefit from its large degree of care coordination that other networks do not provide. Care managers look closely at ED visits, as frequent trips can be an early sign of ongoing, complex, problems. CMO also participates in the Bronx Regional Health Information Organization, which contains data on more than one million patients. CMO can utilize the data to check on its patients' interactions with Bronx health providers other than Montefiore. CMO is in the unique position to mine both provider claims and cost data to understand where care can be improved. All patients have access to an online personal health record to monitor their own care progress. For more complex patients, caregivers have permission to access information from the personal health record.^{40,41,42}

Financing: Responsible for medical and behavioral care management and other administrative functions, CMO receives a share of the capitated reimbursement that the payers reimburse to the Montefiore IPA.

Element #7: Align Financial Incentives

Designing clinical and financial models that align incentives and foster collaborative partnerships is not simple, but such design has a huge impact on the program's success in care coordination. The payment arrangements previously described—PACE, states as coordinated entities, shared savings plans, and special needs plans—all facilitate a distinct type of reimbursement that should incent providers to improve care coordination and quality while reducing inefficiencies and cost. Fragmentation can be addressed through blended funding for programs and shared gains and risk agreements. Aligning economic incentives is a large challenge and will require a collaborative environment in which all parties see themselves as partners and not competitors.

Fairview Partners, Fairview Health Services *Red Wing, MN*

Background: Fairview Partners is a subsidiary of Fairview Health Services, an integrated health system of six acute care hospitals and affiliated physicians. With the goal of improving care delivery, promoting integration and improving customer satisfaction and clinical outcomes, Fairview Partners is a program that offers comprehensive care management for seniors living in assisted living sites, long term care centers, and in their own homes.

What they did/ Financing: Fairview Partners receives a per-member, per-month payment (PMPM) to provide comprehensive care for all services that fall under their capabilities. The net income is distributed to all three partnerships. FP assumes full operational responsibility for the continuum of care. The flexibility in the PMPM payments affords FP the flexibility to allocate the funds to meet specific patient needs. In order to make this model operable and successful, FP had to know and analyze the surrounding area demographics to design the best model for its specific population.⁴³

Element #8: Develop Network and Community Partnerships

It is not realistic or financially feasible for every organization to develop comprehensive programs for dual eligibles that cover the entire care continuum. However, this population still demands a large number of services that are delivered beyond the traditional four walls of an acute-care hospital. Therefore, market innovators are turning to other community providers ranging from health centers and adult daycare centers to long term care facilities and agencies on aging to improve care coordination and care transitions. These arrangements cannot always be financially based; they must be built on a mutual understanding that improving care coordination will improve the quality of care provided.

The Care Coordination Network at Summa Health System Akron, OH

Background: Summa Health System serves a five county region in Northeast, Ohio including seven owned, affiliated and joint venture hospitals, a regional network of ambulatory care centers, and a multi-specialty group of over 240 employed physicians.

What they did: Summa started the Care Coordination Network to help improve on the longstanding concern for improved patient coordination with the long term care facilities in the surrounding counties. The network was established to improve access for Summa patients to post acute beds, to facilitate the transfer of patients across the continuum, and to optimize the combined expertise of the providers to achieve the desired clinical outcomes. Summa contacted all of the area skilled nursing facilities (SNFs) to gauge their interest, and together with representatives from 28 SNFs, EMS/ambulance services, and the agency on aging in the area, they created a task force which had three main objectives:

1. Standardize the SNF referral process, including evidence-based guidelines for determining patient needs and a reference tool for discussing options with patients
2. Create a clinical and educational subcommittee to address priority areas for improving care transitions
3. Design and then evaluate various outcome measures to monitor members and overall network performance to develop best practice tools in the future

Financing: This program does not require much additional funding beyond some administrative costs and therefore was subsidized by Summa with in-kind donations from the participating SNFs.

Results: This partnership increased the visibility of the area SNFs to hospital case workers and improved the overall sense of understanding and collaboration between the parties where there used to be a large lack of knowledge. The streamlined processes and protocols improved the transitions between the facilities. For example, there was a reduction in broken appointments and improved schedule compliance for same-day surgery and outpatient testing among post-acute patients. Previously, many would arrive with incomplete paperwork, and now adherence increased significantly.^{44,45}

Additional Model Core Elements:

Duals face a wide range of medical and social issues, which may not be covered by the majority of programs. Over 60% of dual eligibles have a limitation in at least one activity of daily living, increasing the likelihood they will need assistance beyond the scope of traditional Medicare reimbursement. Best practice programs include directly, or partner with other institutions, to provide specialized benefits for this population. These actions make it easier for patients to delay nursing home residential care. At a national level, the AARP Public Policy Institute reported that Medicaid expenditures could assist nearly three seniors in home and community-based services for the same cost of providing care to one person in a residential facility. Additionally, a similar report detailed that more than 87% of this population would like to remain in their own homes.⁴⁶ Detailed in the table below, these elements are integrated throughout the other case studies on prior pages.

9	Offer Non-Health Care Services	Programs that encompass a wider range of social and medical conditions have been including more non-health care services ranging from transportation to appointments to assistance in cleaning and grocery shopping.
10	Provide Home-Based Care	The comprehensive plans typically begin with a home-based clinical assessment. Additionally, medical office-based care is often complemented with home-based visits to increase the frequency of patient-provider contact. These have been proven to improve patient satisfaction and compliance.
11	Organize Day-Center Based Care	Hopkins ElderPlus and GRACE are both based around day centers. While both institutions run these through the PMPM payment received through the state and federal funding, the building's development required large upfront costs. The benefit of these institutions is that they provide duals with the ability to remain in their own homes and communities for a longer period of time before instead of nursing homes. Additionally, providers can then observe their patients every day, improving coordination of necessary clinical and psychosocial visits and medication compliance.
12	Incorporate Cultural Competency and Equity of Care Standards	Dual eligibles are more than twice as likely to be members of racial and ethnic minorities as the traditional Medicare beneficiaries (42% as compared to 16%). All care models therefore should consider developing care teams that have an awareness of that specific population's cultural perspective and language fluency of the surrounding demographics. Just as AtlantiCare included educational groups in several languages, some programs have even gone so far as to hold teams accountable for reducing health disparities through data analysis.

Supporting Evidence from Key References

Background: The Need to Focus on Duals

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Evidence: Provides a general overview of shared savings plans as well as characteristics of effective arrangements.

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States as Coordinated Entities

Evidence: Details the 15 state design contracts funded by CMS to integrate Medicare and Medicaid benefits for dual eligibles.

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