Strategies for Incorporating Telehealth-based Care Coordination and Management Solutions into Programs to Integrate Care for Dual Eligibles

Telehealth-based care coordination and management is a successful intervention that should be required for participating sites in the State of California Dual Eligible pilot program, the emerging federal-state initiative to integrate care for individuals who are dually eligible for Medicare and Medicaid. In a response to a Request for Information from the State of California Dual Eligible pilot program, projections drawn from the outcomes of the US Department of Veterans Affairs' (VA) telehealth-based care coordination program indicate that there is a potential for $1 billion in savings from the implementation of such a program.[1] This issue brief is primarily intended for key decision makers at health plans implementing programs to integrate care for dual eligibles as well as for policy makers at the state and federal levels. This brief identifies specific strategies derived from successful telehealth-based programs that could enable health plans in pilot counties to improve health, improve the patient experience and access, and reduce costs. These include:

- Business and clinical case for telehealth-based care management programs
- Patient selection
- Intervention design
- Technology selection
- Key tactical issues:
  - Provider engagement, patient engagement, telehealth-equipment logistics and ramp-up

By way of background, the Centers for Medicare and Medicaid Services and 15 state governments have been exploring integrating financing and care for dual eligible beneficiaries as a means of rationalizing fragmented care delivery.   Dual eligible individuals are typically elderly or non-elderly disabled. Dual eligibles are the poorest, sickest, and costliest of all Medicaid beneficiaries—representing 15 percent of Medicaid enrollees and 39 percent of the program's spending in 2007—with the majority of the costs going to pay for long-term services and supports not covered by Medicare. Duals are also costly to Medicare, accounting for 16 percent of the program's enrollees and more than one-quarter (27 percent) of program spending in 2006.[2]

The Business and Clinical Case for Telehealth-based Care Management Programs: The case for building a telehealth-based care coordination program is that this type of program has been shown to have a dramatic impact on reducing utilization of healthcare resources. The model can be distinguished from traditional, telephonic case management programs in that it:

- Enables cost-effective daily monitoring of vital signs and subjective symptoms to enable early detection of potential exacerbations, and thus emergency room visits and hospital stays. (Traditional telephonic programs typically cannot economically support such daily interactions.)
- Often offers self-management support to enable individuals with chronic conditions to remain healthier through behavioral supports such as medication reminders.
- Facilitates a highly efficient model of 'management by exception' in which care managers only need to pay attention to individuals who need help on any given day.[3] This enables those care managers to manage much larger patient populations than traditional care management.

More than a decade ago, the US Department of Veterans began pilot tests of a care coordination and management program, based on telehealth technology, for high-risk, high-cost veterans with complex chronic conditions, including mental health. The program achieved substantial initial results – including a 63 percent reduction in hospital admissions and an 88 percent reduction in nursing home bed days of care.[4] This in turn led the VA to the program nationally, with an initial finding of a 20 percent reduction in hospital admissions with a population of over 17,000 veterans.[5] The VA's telehealth program has since grown to over 65,000 enrolled veterans.

Subsequently, an amalgam of the VA model was tested in the more fragmented delivery environment of Medicare fee-for-service through the Center for Medicare and Medicaid Services (CMS) Health Buddy Program. The three-year program, found a 7.7 percent to 13.3 percent gross reduction in costs across a population of 1,757 high-risk, high-cost Medicare beneficiaries – about 39 percent of who were engaged at any point over the program.[6] An extrapolation to the engaged population in the Dual Eligible Pilot Program would place the range of gross cost reduction between 21 and 36 percent.

More recently, the results of the United Kingdom Whole System Demonstrator Programme involving 6,000 individuals with health and social support needs, showed utilization results consistent with those of the VA, including 14 percent reduction in elective hospital admissions and hospital bed days.[7] Based on the results of the WSD Programme, the UK is embarking on an effort to extend telehealth-based care management to the 3 million individuals with long-term chronic conditions and/or social support needs in that country.

The implications for programs selected as pilot sites for the dual eligibles initiative are that telehealth-based care coordination and management programs hold significant promise in:

- Promoting relative wellness in a population, even given these individuals' complex needs (Note: the CMS Health Buddy Project showed a significant reduction in mortality rates, while the UK program showed a 45 percent reduction in mortality rates.)
- Substantially reducing these individuals' utilization of acute-care services, in a way that would improve the financial viability of programs that integrate care for these populations (This would also imply a salutary impact on utilization of post-acute and long-term-care services, although there are less data on these service categories.)

Individual plans can derive the potential savings they might reap from the adoption of telehealth-based care coordination programs based on an analysis by the Center for Technology and Aging and its partners. The analysis yielded an estimate of $1.1 billion in savings, net of the cost of the intervention, based on the following assumptions:

- Targeting the top 15 percent of the 1.1 million beneficiary dual eligible population that is either high cost and/or high risk, with a derived average total cost of $112,000 per beneficiary per year (PBPY)
- Enrolling 35 percent of the target population – about 50,000 individuals in a technology-based program
- Realizing gross savings of 20 percent of costs, including long-term care
- An average intervention cost of $2,400 PBPY, or $200 per beneficiary per month (PBPM)

Patient Selection: Patient selection models for the VA and Health Buddy programs focused on identifying high-cost, high-risk individuals, often with complex needs and multiple, manageable chronic conditions:

- The VA program in its pilot phase was originally based on analysis of population based on distribution of costs – the top 4 percent of non-institutionalized population driving 40 percent of the costs. The VA's model has grown in sophistication - such as referring anyone who is on over seven medications. The algorithm, however, still targets veterans at the top end of the distribution of the non-institutionalized VA population.[8]

- Similarly, the CMS Health Buddy Project used an algorithm in which patients were selected based on having one or more of three key disease states – congestive heart failure, diabetes, and chronic obstructive pulmonary disease. However, the program involved being held to a financial performance standard based on total Medicare costs (excluding prescription drugs), which necessitated a 'whole person' approach as noted below.[6]

Intervention Design: Both the VA program and the CMS Health Buddy Project necessarily tended toward 'whole person' approaches given the programs' emphases on population health (albeit with a high-risk, high-cost subset). As such, the VA and CMS Health Buddy programs have employed generalist care coordinators with some form of nursing credential.

As indicated previously, the telehealth-based care coordination model is one in which:
- A telehealth appliance is placed in the patient's home
- Patients engage in a daily session of interactive content tailored, to the degree possible, to their condition and co-morbidities, that covers:
  - Vital signs and subjective symptoms
  - Behavior, both to identify deficits and to promote self-management
- Responses that are out of norm generate alerts to which care managers can respond
- Care managers direct alerts either to clinicians or to non-medical service providers, as needed

The latter is particularly important as telehealth technologies can provide near-real-time information about a patient's condition and whether a crisis may be imminent. Both the VA program and the CMS Health Buddy Project are provider-based models in which care coordination is tightly linked to the direct provision of services. Outside of integrated delivery systems with managed-care contracts, many existing managed Medicaid programs lack such tight integration with providers. This is addressed in the section on provider engagement below.

Technology Selection: There is a wide array of telehealth technologies that could successfully be employed by the dual eligible pilot sites. Some technologies emphasize monitoring of vital signs and subjective symptoms. Others augment such monitoring with a form of two-way messaging – albeit through automated interactive content – to promote patient self-management. Still others focus on 'vertical' applications such as medication compliance and management. Both the VA home telehealth program and the CMS Health Buddy Project focus on messaging technologies that add patient self-management support to a base of monitoring vital signs and subjective symptoms.[8]

Key Tactical Issues:

Provider engagement: The CMS Health Buddy Project experience is most instructive for the purposes of this brief in that it involves developing and implementing a telehealth-based care-management program within the fragmented, distributed environment of Medicare fee-for-service. The project demonstrated that an intervention in a fragmented environment could produce outcomes similar to that of the VA, a tightly integrated financing and delivery system.

As indicated above, the VA program needed to heavily market to other VA providers and even offer incentives to support the telehealth-based care coordination effort. Dual eligible pilot managed-care plans might consider paying 'medical home' fees or shared savings (similar to the Medicare ACO program) to identified primary-care and home-care providers who would then be incentivized to respond quickly to alerts generated by telehealth systems. Plans might also consider using plan-based or subcontracted personnel to triage telehealth-based alerts, and to then escalate to physicians as appropriate.

Patient engagement: The VA telehealth program relies and CMS Health Buddy Projects relied on being able to engage and enroll patients at a community-based point of care. For local managed-care plans, a medical home model offers one way of recruiting patients and training them on the installation and use of the technology via visits to physician practices. Another mechanism for effective recruitment that has been successful in other telehealth programs is to engage individuals at point of discharge from a hospital stay, or as a function of a homecare episode. An important consideration is to ensure to only engage patients who are willing to engage in order to avoid individuals who would otherwise be non-compliant and not benefit from the intervention.

Logistics: A key implementation and operational consideration for dual eligible managed care plans lies in the distribution of telehealth equipment – communications / messaging base stations. The VA originally added the duty of inventory management to its care coordinators. Since the VA program went national in 2005, it has created a centralized inventory management system in Denver. Plans seeking to implement such programs should consider stipulating such capabilities in requests for proposal to telehealth technology vendors and/or plan in-house inventory management to ensure logistical success.

Ramp-up: Experience from VA and CMS initiatives indicate that the dual eligible managed-care plans could realistically implement a telehealth-based care management program in a six- to nine-month period. The VA's program was piloted for two years with 600 patients before the agency began the process of a national roll-out. Organizations should engage in pilot testing of interventions – including ironing out issues such as patient engagement and logistics – before scaling up. However, the cycle of pilot-testing and implementing at a larger scale can be shortened by learning from the lessons of the VA and CMS Health Buddy Projects, as well as other programs such as the Whole System Demonstrator, which was extended to 6,000 in a short period of time.

Conclusion: The evidence from successful technology-based care management interventions indicates that tens of thousands of Californians can potentially benefit from telehealth-based care coordination and management when programs for integrating care for dual eligibles are rolled out statewide in 2015. Given there are indications that the roll-out may go more quickly – the California Draft Budget for 2012–2013 would expand the initial program from four counties to eight to 10 counties – the benefits of this intervention could be achieved even earlier.[9] The introduction of telehealth-based care management in the dual-eligible program offers an important opportunity to improve care management, improve health outcomes, and reduce unnecessary utilization. Telehealth-based care coordination and management programs, drawing upon the lessons of the VA and CMS Health Buddy Projects, would be a potent tool for managed-care plans and contracting providers to improve the financial performance of their programs. By extension, such well-implemented programs would also enable the State of California an improved chance to meet its aggressive savings targets for programs that care for the dual-eligible population.

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