

TO: Department of Health Care Services

FROM: Center for Technology and Aging & AgeTech California

RE: Request for Information on Pilots for Beneficiaries Dually Eligible for Medi-Cal and Medicare

DATE: June 1, 2011

After reviewing the details of the Department of Health Care Services (DHCS) Request for Information on Pilots for Beneficiaries Dually Eligible for Medi-Cal and Medicare, the Center for Technology and Aging in partnership with AgeTech California recommend that at least two pilot programs be considered for implementation under this initiative. In summary, the proposed programs would draw upon the lessons of the US Department of Veterans Affairs Care Coordination Home Telehealth (CCHT) Program which is aimed at high-risk, high-cost veterans, typically with multiple, chronic conditions and disabilities, including mental-health disorders. The CCHT model pairs nurse care coordinators in clinical settings (VA community-based outpatient clinics) with “home telehealth” technology placed in the homes of enrolled veterans. The technology provides for both ongoing monitoring of veterans to ensure that potential complications are caught early, thus avoiding utilization of acute-, post-acute-, and institutional long-term-care services. Further, such technology can provide self-management support through automated assessment of beneficiary behavior (such as medication compliance and nutrition), risk factors such as depression, and knowledge of condition, and provide automated feedback to address deficits and calls to action to contact a care provider if necessary. The veterans served by the CCHT program are similar to the dual-eligible population in California, both in terms of the range of conditions and disabilities to be managed, as well as the mix between urban and rural settings.

Proposed Pilots

Center for Technology and Aging and AgeTech specifically recommend that DHCS initiate two distinct pilots: 1) one pilot involving care coordination and management through a confederation of home healthcare agencies in one county, and 2) a second pilot involving a centralized care coordination and management organization to be created by a COHS within a participating county. The model for both pilots would be one of a telehealth-based care coordination and management overlay within the existing fee-for-service structure. In the first pilot, homecare agencies will be paid a capitated care management fee for which they initially would not have risk, nor would they carry risk for Medicare Part A and B and Medi-Cal payments for enrolled dual-eligible beneficiaries. The enabling language for Center for Medicare and Medicaid Innovations Phase I pilot programs does not require that such program initially be budget neutral; therefore, the homecare agencies involved would also initially have no fee risk to give them time to implement and fine-tune their care coordination and management

programs. We suggest that a similar arrangement be extended to the COHS model in the second pilot. Once the intervention models have been proven out, the State could then seek to reach risk-bearing arrangements with the contracting entities. Moreover, both models could ultimately evolve into being the linchpin of Accountable Care Organizations that would take the equivalent of insurance risk under a shared savings or global capitation model once the ACO concept has been perfected in more tightly integrated delivery system models.

Background

The VA model was pioneered early in the last decade in the Veterans Integrated Services Network in South Florida. It was based on the observation that four percent of the non-institutionalized veterans population in the network were driving 40 percent of costs. Clinical leaders in the network thus developed the intervention model centered around telehealth-based care coordination and management. The deployed technology includes a large number of automated interactive disease-management programs that address a wide range of conditions, from cardiac and pulmonary disease to diabetes to mental health conditions, including depression, bipolar disorder, schizophrenia, and post-traumatic stress disorder. Enrolled veterans who elect to enroll – typically through a physician referral or identification through an algorithmic model – undertake a daily interactive session with a home appliance that assesses and provides feedback and calls to action (including contacting a care provider as appropriate) for:

- Vital signs and subjective symptoms
- Other risk factors such as depression
- Behavior in terms of compliance with prescribed regimes, including medication, diet, and exercise
- Knowledge of condition

The responses to each question are tagged with an associated risk level. They are then processed through an analytics engine that stratifies patients based on the risk levels associated with their responses.

Care coordinators typically manage a population averaging 125 individuals (relative to the 20 to 60 typically manageable through a non-technology-based intensive case management model) through a secure Web-based interface that presents the stratified risk levels. The result is an exception-based workflow in which care coordinators reach out to the individuals in greatest need, and coordinate care, ranging from standing orders for medication adjustments to referrals to a physician or other care professional, including mental / behavioral health services.

The success of the VA's CCHT program has been widely documented in the form of peer-reviewed publications.

- The first published study assessed the results of a pilot program in the year 2000 of 891 non-institutionalized, high-risk, high-cost veterans with multiple conditions

and co-morbidities. Results include a 40 percent reduction in ER visits, a 63 percent reduction in hospital admissions, and an 88 percent reduction in nursing home bed days of care.¹

- VA researchers in late 2008 published a study assessing the initial results of national deployment of the CCHT program involving over 17,000 veterans, again with a wide variety of chronic conditions. That study found a 19.5 percent reduction in hospitalizations and a 25 percent reduction in hospital bed days.²

The VA researchers, in their 2008 paper, also made the following observations that are relevant to this RFI response:

On the cost-effectiveness of the CCHT home-based program relative to care in other settings: “The cost of CCHT was \$1,600 per patient per annum. This compares very favorably to the direct cost of VHA’s home-based primary care services of \$13,121 per annum and market nursing home care rates that average \$77,745 per patient per annum.”

On the applicability of the CCHT model outside of the VA: “Clinical process reengineering is necessary to...support implementation of CCHT on an enterprise scale. The processes that support CCHT in VHA are not unique to the organization and it should be possible to implement CCHT or a variant of CCHT in other healthcare systems.”

On the role of CCHT in the continuum of care interventions: “CCHT does not replace the need for nursing home care or for traditional non-institutional care programs. It does, however, enhance the ability for self-management of chronic disease as well as delay institutionalization.”

There is additional evidence that a telehealth-based care coordination and management interventions outside the VA can achieve cost savings through precluded acute-, post-acute-, and institutional long-term care services. The Canadian Ontario Telehealth Network conducted a pilot study of telehealth-based care coordination and management involving 800 patients with congestive heart failure (CHF) and chronic obstructive pulmonary disease. The pilot demonstrated a 65 percent reduction in hospital admissions, a 72 percent reduction in emergency room visits, and a 95 percent reduction in walk-in clinic visits.³ The program is now being expanded. The DHCS RFI implies a unification of Medicare and Medicaid payments to, in effect, create a single-payer financing system with some similarities to that of Canada – which otherwise has a fragmented healthcare delivery system. The Ontario experience, which is also being closely watched by other provinces, combined with the VA experience, suggests that California – through experimentation with and tuning of payment and intervention

¹ Meyer M, Kobb R, Ryan P, “Virtually Healthy: Chronic Disease Management in the Home”, *Dis. Man.* (2002), 5 (2): pp. 87-94

² Darkins A, Ryan P, Kobb R, et al, “Care Coordination/Home Telehealth: The Systematic Implementation of Health Informatics, Home Telehealth, and Disease Management to Support the Care of Veteran Patients with Chronic Conditions,” *Telemedicine and E-health*, (2008): pp. 1118-1127

³ <http://www.otn.ca/en/services/telehomecare/>

models – can achieve similar results in its pilot programs.

As indicated above, we suggest that the CCHT model be initially implemented, fine-tuned, and evaluated within the existing fee-for-service system through a technology-based care coordination and management process that would create “virtually integrated care teams.” Homecare agencies are suggested as the locus of care coordination and management under one suggested model as they typically already have relationships with hospitals, physicians, and skilled-nursing facilities in their communities, and already provide a continuum of post-acute and home-based long-term-care services. COHS plans may already have care coordination and management organizations that have similar relationships with hospitals, physicians, and post-acute facilities and providers in their communities – albeit within their networks. The model may be more challenging to implement with non-network providers, but the challenge could likely be met through a combination of time during a period in which the COHS plans carry no insurance or care-management-fee risk in which they would establish these additional relationships, as well as other financial arrangements such as a “medical-home” fee for identified primary-care providers.

A nuance to consider is that the CCHT model will have some limitations in terms of the beneficiaries that can be enrolled in the program absent a caregiver (such as a family member) who can also support them in the home. Individuals with either visual and/or hearing impairment may not be able to interact with the technology. While many vendors offer solutions that work for Spanish speakers, they are not likely to provide near-term support for some languages, such as the range of Chinese-language dialects, Korean, or Vietnamese. Frail elders may have cognitive deficits (including early Alzheimer’s Disease or pre-dementia) that similarly would prevent them from interacting through the technology unless they have a caregiver in the home (such individuals may be candidates for institutional long-term care).

While the VA CCHT programs engagement rates among its non-institutionalized high-cost population have not been publicly presented (per current literature review), it is believed that, particularly if a physician or other trusted care professional is involved in the referral and/or outreach process, engagement rates among beneficiaries who meet program inclusion criteria would be in the range of 30 to 50 percent. The DHCS could consider including a pure telephonic model to manage individuals who cannot, or will not, engage in the technology-based intervention; although, there is limited evidence of the efficacy of such interventions with high-risk, high-cost individuals.

Responses to RFI Part 2: Questions for Interested Parties

1. What is the best enrollment model for this program?

An opt-in model is suggested – patients would only be enrolled after they have affirmatively consented to participate in the program. This model would also imply a

claims-based algorithm/process to identify beneficiaries for the program, with the care management programs that would be created as suggested above then conducting outreach, where possible in concert with physicians, to the degree that a primary care physician can be identified for that beneficiary (perhaps through a preponderance of claims). An inherent issue with this model and the accompanying patient-selection process is the timeliness of both Medicare and Medi-Cal claims data.

2. *Which long-term supports and services (Medi-Cal and non-Medi-Cal funded) are essential to include in an integrated model?*

An integrated model typically includes services that Medi-Cal already supports, particularly mental-health services, in-home supportive services, transportation, and adult daycare for nutrition and socialization. Such a model also includes non-Medi-Cal reimbursed services such as senior centers and in-home nutrition services. Finally, the care coordination and management model envisioned in the suggested model would have to address issues related to transitional and permanent housing for homeless dual-eligible beneficiaries, as well as provision of services to ensure access to benefits.

3. *How should behavioral health services be included in the integrated model?*

The technology-enhanced care-coordination model suggested in this RFI response is oriented toward a “whole person” approach that recognizes that high-cost, high-risk dual-eligible beneficiaries have complex needs that are often associated with a range of mental health conditions, including severe mental illnesses. A first step in supporting the whole person approach is to include telehealth/mHealth technology that can facilitate both self-management and monitoring of mental illnesses. Anecdotal evidence has shown that an individual’s non-compliance with technology can be a precursor to a cycling or deepening of their condition.

The second step in the care coordination and management process is the inclusion of mental health professionals that are considered part of an integrated care team with a care coordination and management infrastructure at its hub. It is recommended that care coordinators form tight relationships with mental health providers and provide timely referrals of beneficiaries to the appropriate resource in keeping with the technology-based care coordination and management model.

4. *If you are a provider of long-term supports and services, how would you propose participating in an integration pilot? What aspects of your current contract and reimbursement arrangement would you want to keep intact, and what could be altered in order to serve as a subcontractor for the contracted entities?*

Center for Technology and Aging and AgeTech are not direct providers of long-term supports and services. However, one of the models suggested within this RFI response is care coordination and management by way of home healthcare agencies that often provide long-term care at home services. Other aging services providers who provide

care across the continuum, including home care, are also potential participants in implementing this model. As suggested earlier, DHCS may consider providing these agencies with a capitated monthly care coordination and management fee.

5. *Which services do you consider to be essential to a model of integrated care for duals?*

To provide greater level detail concerning concepts mentioned earlier, a successful integrated care model capable of achieving the DHCS goals in this RFI will need to include primary and appropriate specialty care.

The list below is intended to be comprehensive (although not necessarily applicable to every dual-eligible beneficiary), which therefore implies expense. However, the clear goal of the suggested model is produce a substantial return on investment for the State and federal governments by ensuring the preclusion of utilization of more expensive acute-, post-acute-, and institutional long-term care, while also ensuring a much higher quality of life.

- Technology-based care coordination and management
 - Sustained chronic disease management
 - Post-acute care transitions
 - Management of institutional long-term care utilization to ensure prompt return to a non-institutional environment (which could include assisted living)
- Primary care and appropriate specialty care
 - Mental health services as appropriate
- Medication management/polypharmacy
- Nutrition support
- Socialization (adult daycare)
- Transportation
- Homemaker services
- Homecare services by licensed care professionals as appropriate
- Engagement of family caregivers as possible

6. *What education and outreach (for providers, beneficiaries, and stakeholders) would you consider necessary prior to implementation?*

Based on the experience of other care-management programs outside the VA – which typically educates and enrolls veterans during outpatient-clinic visits – the marketing costs of such programs are substantial and would have to be internalized into the cost and ROI calculations surrounding such programs (irrespective of whether they use the suggested technology). These efforts would be community-based and would require dedicated human resources, as well as the development of supporting materials (although these materials could ultimately be templated and leveraged across programs elsewhere in the state – should the programs be implemented at scale).

Additional cost planning-factors include:

- Telephonic outreach to beneficiaries under an opt-in model
- Risk assessments of beneficiaries and assignment to tailored interventions
- In-person outreach to beneficiaries during clinical encounters, ranging from physician office visits to discharge from an acute- or post-acute-care facility, or during a short-term homecare episode
- Education of providers, including physicians, discharge planners, and via printed materials, online campaigns, and events
- Education of other community resources, such as adult daycare centers and senior centers through printed materials, online campaigns, and events
- Education of family caregivers

Also, as indicated, the suggested model will have to determine the best possible and most practicable alignment of care and financial incentives among entities in the care continuum, including a medical home fee to identified primary care physicians (either in small practices or medical groups).

7. *What questions would you want a potential contractor to address in response to Request for Proposals?*

- Demonstrated efficacy and ROI of suggested model as applied to dual-eligible population with complex needs
 - Relative efficiency and caseloads of care-management personnel
- Ability to orchestrate resources across the continuum of care
- Ability to manage complex needs and the ‘whole person’
- Ability to demonstrate, based on established outcomes surrounding the model, replicability and scalability within communities with diverse populations and care-delivery systems

8. *Which requirements should DHCS hold contractors to for this population? Which standards should be met for cultural competency, sensitivity to the needs of the dual eligible population, accessibility, etc., prior to enrolling beneficiaries?*

The initial pilots should be able to address both English- and Spanish-speaking populations. After initial pilot, the models could be extended to other key languages and ethnicities.

9. *If not a potential contractor, what are you able to contribute to the success of any pilot in your local area?*

Center for Technology and Aging and AgeTech California and associated colleagues (Suneel Ratan and Alan Little) can both provide specific guidance for designing the model and intervention and for implementing this project in a local or statewide basis.

10. *What concerns would need to be addressed prior to implementation?*

- Ramp-up time and start-up costs for care coordination and management program, including hiring and training of personnel (and change management for incumbent personnel)
 - Training of clinical personnel in technology that supports the care-management process
- Establishment of appropriate linkages to other organizations within the virtual, community-based care team, and execution of any necessary legal agreements, such as those around data sharing under HIPAA
 - Includes potential payments / financing arrangements with other entities
- Development and implementation of robust marketing programs for beneficiaries, providers, community resources, and families
- Development of training processes for beneficiaries who choose to enroll
 - Encounters at clinical points of care (including group program orientations)
 - Home visits
- Integration of telehealth system and other information systems, where feasible and appropriate (not critical initial success factor)
- Systems for managing telehealth hardware (inventory, patient assignment, post-disenrollment retrieval)

11. *How should the success of these pilots be evaluated, and over what timeframe?*

Evaluation methodology: Propensity-matched control drawn from different geographical area or sample data, controlling for wide variety of variables (i.e. demographics, disease states / conditions, delivery-system characteristics of area); and / or pre/post analysis (less recommended because of potential regression to the mean)

Time period: 12 to 18 months, after a six-month initial implementation and pre-pilot period

Endpoints:

- Primary: Total Medicare and Medicaid costs (PBPM)
- Emergency room visits and costs
- Hospital admissions, lengths of stay, and costs
- Skilled nursing facility admissions, lengths of stay, and costs
- Physician office visits and costs
- Short-term home healthcare episodes and costs
- Home-based long-term care services and costs
- Institutional long-term admissions, lengths of stay, and costs

N = TBD based on final determination of effect size and power calculation

12. *What potential financial arrangements for sharing risk and rate-setting are appropriate for this population and the goals of the project? What principles should guide DHCS on requiring specific approaches to rate-setting and risk?*

As indicated earlier, this RFI response suggests that beyond a capitated PPM care management fee, estimated to be between \$150 and \$220 PPM, depending on the area of the state and associated labor costs, there should be no risk-sharing arrangements or any rate-setting adjustments during the pilot period. This would enable participating organizations the time to implement and tune their interventions without the undue pressure of a risk arrangement. Once an ROI has been established, DHCS can then move to implement a fee-risk arrangement as a function of scaling the program statewide. A clear implication is that DHCS would terminate the pilot program should it not be satisfied with the initial results. This proposal reemphasizes the need for timely Medicare and Medi-Cal data to enable a rapid evaluation of program results.

About the Center for Technology and Aging

The Center for Technology and Aging is a non-profit organization that was founded in 2009 with a grant from The SCAN Foundation (www.thescanfoundation.org) and is affiliated with the Public Health Institute (www.phi.org). Our purpose is to advance the diffusion of technologies that help older adults lead healthier lives and maintain independence. The Center identifies promising strategies to promote the diffusion and adoption of technologies and provides grant funding to test selected strategies. In collaboration with grantees and key stakeholders, the Center will disseminate best practices and lessons learned from grant making initiatives. The Center serves as a state and national resource for those engaged in the promotion and implementation of successful technology diffusion strategies.

555 12th Street, 10th Floor
Oakland, CA 94607
www.techandaging.org

About AgeTech California

AgeTech California was established to promote the use of advanced health and wellness technologies by aging services and home care providers throughout California. Its primary focus is on technologies that enable older Californians' aging in "connected independence" with safety and security, personal health maintenance, successful management of chronic disease, early detection of illness, and prevention of acute episodes. Such technologies include telehealth, electronic health records, sensor telemonitoring, remote medication management, safety technologies, and cognitive fitness among others that enable eCare and personal wellness while enhancing caregiving and cost efficiency. AgeTech is a programmatic partnership of Aging Services of California and the California Association for Health Services at Home (CAHSAH).

1315 I Street, Suite 100
Sacramento, CA 95746
www.agetechca.org