Covering the last mile: an in-home model for more effective care management of frail, elderly populations

Synopsis: There is an approach to care management of the frail elderly that has proven far more effective than traditional approaches in keeping these vulnerable members safe at home while reducing costs for health plans. This paper outlines a data-driven, holistic model that incorporates in-home assessment, engagement and monitoring to overcome the limitations of conventional/telephonic care management. It offers evidence that such a face-to-face approach simply makes sense in these changing times, and can result in improved outcomes for members and reduced medical costs for health plans—a solid return on investment.
In-home care management: part of a winning cost management strategy for health plans

Health plans continue to face serious pressures in cost/price compression. On the revenue side health plans experience declining reimbursements, while on the cost side of the equation are rising costs of care. In our previous paper, “In-home AHRAs: A Best Practice Model for Changing Times,” we outlined how ComplexCare Solutions (CCS) in-home assessments address the revenue side through improved coding accuracy—as many as two to three times the number of appropriate diagnoses identified by physician in-office assessments, while keeping in full compliance with CMS best practices. In this paper, we address the other side of the equation, the rising costs of delivering and managing care, by describing an approach to care management that incorporates in-home assessments.

Our solution to the cost/price compression challenge

| Revenue |
|-----------------|-----------------|
| **Decreasing reimbursement** | **Increase revenue** |
| Market Pain |  ▶ Risk assessments and coding ROI  
|  ▶ Quality programs |

| Costs |
|-----------------|-----------------|
| **Increasing cost of care** | **Control costs** |
|  ▶ Fill gaps in care  
|  ▶ Engage impactable members |
In-home care management does what telephonic care management can’t do

Proprietary analytics enable enhanced stratification of the frail, elderly population to identify those members who are most impactable. Going into the home allows identification of social and environmental factors that, when addressed together with clinical factors, creates a more holistic and effective approach to care management. Finally, going into the home to regularly assess plan members’ health status and ability to live independently allows for direct engagement with members to encourage better adherence and compliance. Together, these advantages lead to healthier outcomes for members and reduced costs for health plans.

### 3:1 ROI

For a national plan, CCS’s approach to care management generated a 3:1 ROI.

In brief, the CCS approach fills important gaps in care left unaddressed by the limitations of telephonic care management by:

- Adding in-home data including social and environmental factors to better identify members who are most likely to be in need of services and who are most impactable
- Informing various durations and intensities of member engagement
- Directly engaging members through face-to-face interactions for greater compliance and adherence

The goal of this approach is to help more members remain safe at home while preventing readmissions and other avoidable costly events.

### Quality of Care Case #1

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<thead>
<tr>
<th>Member profile</th>
<th>Challenges</th>
<th>CCS interventions</th>
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<tbody>
<tr>
<td>74 y/o widowed female with DM 2, CKD stage 3, Depression, s/p neck surgery, CAD, Hypertension, Arthritis, Dyslipidemia, CHF, A Fib, Insomnia, S/P left breast lumpectomy/cancer in remission and Urinary retention. Partially independent with ADLs/IADLs. Recent history of ER visits/readmission.</td>
<td>Irregular blood draws; unable to take newer anticoagulants due to chronic renal failure Stage-III; INRs are not stable and no INR follow-up plan. Primary caregiver suffered back injury and is unable to help with ADLs and IADLs. Not currently eligible for HHA services, as she is over income.</td>
<td>RN will be reaching out to new MD who will be taking over INR monitoring and ordering of blood work. She will be requesting dedicated office contact whom she can work closely with to better coordinate the member’s care. SW is working with member to meet spend-down requirements. Member did agree to privately pay for some HHA services, as this will help her meet her spend-down sooner while getting her the assistance that she needs.</td>
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The criticality of identifying social and environmental factors

5 minutes with Anthony Kotin, MD
Chief Medical Officer, Complex Care Solutions

Q: Dr. Kotin, how does the ability to identify social and environmental factors impact care management?

A: In the frail elderly, we believe that these factors represent at least 50% of the opportunity to help keep someone safe at home and out of the hospital and emergency room. Without uncovering those issues and successfully addressing them, you cannot impact the clinical problems that are so common in this population.

Q: What are some specific examples?

A: By being in the home, you can see:

• Medications that are duplicated or not being taken
• An infestation of vermin or insects
• Stairs that are difficult to navigate or hazardous
• If there is nutritious food in the house
• The status of the heating or air conditioning
• If there are financial difficulties
• If there is reason to suspect domestic abuse

Q: What’s the solution?

A: We believe that identifying social and environmental factors during in-home assessments and incorporating them into an integrated care plan are critical to helping frail, elderly people remain safe at home. These members are chronically ill and frail, so by obtaining a comprehensive health perspective that includes clinical, social and environmental factors, we give them their best chance at staying independent longer—at home and out of the hospital or nursing facility.
Data-driven stratification for identifying the most impactable members

**impactable**

*adjective im-ˈpakt-ə-bəl: able to benefit from intense, in-home care management*

First, it is necessary to identify those members who will benefit from direct engagement—those most impactable. CCS identification of members who will benefit from in-home care management is cost- and disease-agnostic. Using proprietary algorithms that incorporate over 50 elements, involving clinical, environmental and social determinants, CCS is able to stratify members in an ordinal fashion, prioritizing members who will benefit from intense, in-home care management.

It is the middle category that represents 9-12% of the Medicare Advantage population that the CCS approach is designed to find, engage and help—and do so more effectively than older models that rely exclusively on telephonic interaction.
Determining the level of enhanced engagement for optimal results

Combining our structured, in-home assessments with algorithmic logic, CCS creates unique, highly personalized care plans for members. The embedded logic determines the timing and intensity of in-home visits, as well as which members of the multidisciplinary care team—which may include registered nurses, social workers, pharmacists, nutritionists and rehabilitation therapists—need to be involved. It also creates the outcome metrics that will be used to determine progress toward “graduation” from the program.

A member’s care plan can be on a spectrum of low-intensity, short-term follow-up and care coordination to high-intensity, in-home long-term managed care. All care plans are discussed with and approved by the member and the member’s PCP and family caregivers when appropriate. In all cases, our clinicians leverage in-home visits to help members embrace and adopt the changes necessary to improve their health. CCS clinicians know when and how to leverage home- and community-based services, as well as traditional medical care, to support members based on their unique needs with the end goal of effective self-care.

65-80%

*CCS member engagement rate.*

Services provided or coordinated by CCS can include:

- Adult Day Health Care
- Biometric Monitoring
- Home and Environmental Assessment and Modification
- Medication Reconciliation and Monitoring
- Nutritional Counseling and Services
- Personal Care—Agency- and Consumer-Directed
- Respite Care—Agency- and Consumer-Directed
- Hospital Transition Coordination
- Transportation Services

In addition to coordinating care, CCS clinicians make sure the member is staying on track and making progress. During scheduled check-ins, members are reassessed and data is fed into their electronic health records. This new data is used to track progress and trigger any adjustments to the member’s care management plan.
Comprehensive home-based care management, connected to provider and plan

The final requirement for a successful home-based care management program is establishing and maintaining an appropriate level of connectedness to providers and the health plan. CCS offers real-time information sharing with providers and the health plan so that everyone involved in the member’s care has accurate and up-to-date information.

Proprietary algorithms applied to a defined population to determine those members who have attributes that are likely to benefit from intensive in-home care management

Clinical conditions and utilization are important but significant focus on social and environmental determinants is critical

Multidisciplinary team provides interventions based on CCS-generated individualized care plans

Real-time care coordination and information sharing with providers and health plans

Stratification

Selection

Execution

Linkage

Quality of Care Case #2

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<tr>
<td>89 y/o female with Hypertension x 10 years, Breast CA L breast with L radical mastectomy 2001 and radiation, metastatic breast CA dx 11/2015 and chemotherapy initiated. Enrolled telephonically but transitioned to visits ~6 months later due to concerns of declining health status by the tele RN. Husband drives her to appointments and assists with ADLs and IADLs. Recent hospitalizations led to diagnoses of metastatic breast CA and pneumonia.</td>
<td>Member discharged without HHA, PT/OT services in place; needs PT eval, high risk for falls; weakness and deconditioning due to chemo and recent hospital stay; need for additional support for spouse.</td>
<td>PT/OT home eval scheduled and completed. Request for HHA services initiated. Will discuss consult by dietician to ensure adequate calorie and nutritional intake while on chemotherapy. Pharmacy review completed. SW referred to Cleaning for a Reason home cleaning services due to CA diagnosis. Follow-up by RN 1 week after PT/OT eval. Follow-up by SW 10 days after RN follow-up.</td>
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Net result: improved health outcomes and reduced medical costs

The CCS approach includes proactive in-home patient assessment, monitoring and engagement and is therefore able to identify and address potentially costly gaps in care that would otherwise go unnoticed and unaddressed. The results include personalized care recommendations, social, environmental and clinical interventions; fewer hospital admissions and readmissions; a lower cost trend; and, ultimately, better health and health outcomes for members.

25% annual savings vs. control group

![Graph showing inpatient outcomes comparison between CCS Managed Group and Control Group.](image)

![Graph showing outpatient outcomes comparison between CCS Managed Group and Control Group.](image)

![Graph showing E.R. outcomes comparison between CCS Managed Group and Control Group.](image)
In summary, CCS care management plans have proven to:
• Increase member adherence
• Ensure PCP visits
• Minimize health risks
• Reduce avoidable hospitalizations and readmissions
• Reduce unnecessary ER visits
• Improve member satisfaction and quality of life
• Decrease cost of care

**Connecting Code to Care** is an ongoing series that explores current market conditions impacting health plans and offers possible solutions designed to improve outcomes. Your feedback is welcome and encouraged. Please contact us at Code2Care@complexcaresolutions.com with comments or suggestions for future topics.