There are multiple challenges facing healthcare delivery as the U.S. population ages, people are living longer with multiple chronic conditions and there is lack of equitable access and affordability for healthcare services (Swan, Conway-Phillips, Haas, & De La Pena, 2019). Concurrently, leadership in health care is struggling to develop methods to identify, stratify, and care for individuals with multiple chronic conditions often complicated by social determinants such as lack of social support and healthcare literacy, addiction, and depression (Swan et al., 2019). This is the final article in a three-part series. Part 1 described the American Academy of Ambulatory Care Nursing’s Invitational Summit on Care Coordination and Transition Management (CCTM®), including objectives and assumptions, pre-summit planning, summit agenda, and overview of three focus groups (Haas & Swan, 2019). Part 2 discussed the recommendations on educating pre-licensure nursing students and continuing education for currently practicing nurses on the CCTM model (Swan et al., 2019). Recommendations for integrating the CCTM model into practice and policy are described in this final article.

**Methods**

**Design**

A descriptive qualitative design utilizing focus groups was used to assist in creating a strategic, collaborative agenda intended to facilitate adoption of the CCTM role for registered nurses (RNs) in all practice settings across the healthcare continuum.

**Data Collection**

The focus group questions were developed by the co-investigators and informed by the literature and a pre-summit...
survey as described previously (Haas & Swan, 2019). The questions were designed to inform a collaborative and strategic agenda enhancing adoption and integration of CCTM into nursing practice and policy.

Research questions were:
- What are the major barriers to recognition and adoption of the CCTM RN role in practice across the continuum (acute care, ambulatory care, home health care, all care settings)?
- What are the major barriers to recognizing and adopting the CCTM RN role in all settings across the continuum (acute care, ambulatory care, home health care, all care settings)?
- What strategies could overcome such barriers?
- Who are major stakeholders who would need to collaborate on enhanced recognition and adoption of CCTM RN practice?
- What are the major challenges with achieving reimbursement policies at the state and national levels for CCTM RN practice?
- What strategies could overcome such challenges?
- Who would be the major stakeholders who would need to collaborate on enhanced recognition and adoption of reimbursement for CCTM practice (acute care, ambulatory care, home health care, all care settings)?

**Ethical Considerations**

This study was approved by the Thomas Jefferson University Institutional Review Board. One of the investigators read aloud the consent as a paper consent was distributed to all participants describing the study, its risks and benefits, and instructed participants that the content of the focus groups should remain confidential. All participants were asked to provide verbal consent.

**Data Management and Analysis**

All sessions were digitally recorded and transcribed verbatim. Transcripts were de-identified and stored in a password-protected computer, and all recordings were deleted after transcripts were checked for accuracy. The two co-investigators, plus two researchers with qualitative analysis expertise, completed a line-by-line reading of the transcripts from the five groups. Following this reading, all four researchers identified categories, sub-categories, and associated quotes independently. Saturation was achieved after reading the content from four of the five groups. Analysis of transcripts was facilitated by NVivo12 software (QSR International, Doncaster, Australia). Following procedures outlined by Creswell and Poth (2017), inter-coder agreement was established between the four researchers.

**Results**

**Barriers to Adopting CCTM Role in Practice**

Focus group participants identified over 25 barriers to adopting the CCTM RN role in all settings across the continuum of care. Barriers were categorized as follows: (a) cost of training RNs and cost of RNs performing CCTM; (b) variation in reimbursement and reimbursement policies, fee-for-service versus value-based payment; (c) complicated taxonomy of care coordination “45 titles in my organization for care coordination;” (d) competition between certification examinations; (e) lack of interoperability of electronic health records across healthcare system; (f) lack of value statement and business plan; (g) lack of knowledge, role definition, and role clarity across the care continuum; (h) lack of outcome measurement; and (i) task-oriented mentality and emphasis on “getting tasks done.”

**Strategies for Overcoming Barriers**

Strategies to overcome the barriers were numerous and included: (a) developing talking points, (b) developing a business case with return on investment for CCTM RN model, (c) creating a marketing and dissemination plan, (d) linking CCTM to Magnet® standards, and (e) accelerating change through strategic partnerships. Table 1 presents a list of strategies to address associated barriers.

**Stakeholders for Recognizing and Adopting CCTM Practice**

Many participants discussed various stakeholders who are critical in the process of recognizing and adopting CCTM RN practice. Nursing accreditation bodies were noted as essential to implementing CCTM RN practice in core competencies for associate degree and baccalaureate
nursing graduates. One participant mentioned the important role different organizations will play in implementing CCTM RN into practice. The organizations included AARP, The Joint Commission, Centers for Medicare & Medicaid Services (CMS), Community Health Accreditation Partner, Healthcare Financial Management Association, and American Hospital Association. Community-based systems such as community health improvement planners were also mentioned as a major stakeholder. One participant stated that “we’re person centered” and major stakeholders are individuals, families, and communities that RNs care for and work with related to population health. Healthcare providers, “the frontline nurses” and leaders such as chief nursing officers/executives and chief financial officers, were discussed as stakeholders as well. Participants identified several associations as stakeholders that are involved in coordination activities such as the National Association of Home Care and Hospice, Hospice and Palliative Nurses Association, National Hospice and Palliative Care Organization, and the Center for Advanced Palliative Care. Additional

<table>
<thead>
<tr>
<th>Implement Strategy</th>
<th>Overcome Barrier in Practice</th>
</tr>
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</table>
| Develop talking points including differentiation between CCTM RN role vs. Case Management/Care Management/Navigator roles | • Complicated taxonomy of care coordination  
• Competition between certifications |
| Develop toolkit (currently available) | • Address “task-oriented mentality” |
| Include in clinical ladder | • Role delineation across the care continuum  
• Role clarity across the care continuum |
| Collaborate with interprofessional colleagues | • Role delineation across the care continuum  
• Role clarity across the care continuum |
| Create dissemination plan | • Knowledge of CCTM RN role |
| Implement marketing plan | • Knowledge of CCTM RN role |
| Invest and fund demonstration project | • Articulate value of CCTM education  
• Articulate value of CCTM RN role |
| Link to Magnet standards | • Articulate value of CCTM education  
• Articulate value of CCTM RN role |
| Link to outcome measures (currently available) | • Fee-for-service vs. value-based payment  
• Value statement |
| Build the business case and define return on investment | • Articulate value of CCTM education  
• Articulate value of CCTM RN role  
• Billing codes for chronic care management and transitional care management |
| Accelerate change through strategic partnerships | • Need for policy change  
• Interoperability of electronic health record |

CCTM = care coordination and transition management, RN = registered nurse
stakeholders included National Association of State Lobbyists, Primary Care Associates, Nursing Organizations Alliance, Veterans Health Administration, healthcare insurance agencies, American Medical Association, as well as Amazon, considering their recent foray into health care.

Strategies to Include Stakeholders as Collaborators

Participants suggested “thinking outside of the nursing brain” and speaking to other disciplines in their own language to draw them in as collaborators. Others recommended developing strategic partnerships to brand and disseminate CCTM RN information to nurse executives, vice presidents of population health, and other corporate suite members.

Social media was discussed to increase stakeholders’ awareness of the CCTM RN model and to recognize, adopt, and actively promote the model as collaborators. Participants identified LinkedIn, listservs, blogs, etc. as examples of social media tools.

Challenges to Achieving Payment for CCTM Services

Participants in the groups discussed possible challenges in achieving payment for CCTM services. A participant mentioned the difficulty of achieving reimbursement due to different state regulations that may hinder the reimbursement process. The electronic health record (EHR) was discussed in the focus groups as not supporting a billing system for CCTM RN services. One participant mentioned the EHR system is “not well designed for this.” This aspect needs to be addressed in order to achieve reimbursement. Medical boards and medical associations were revealed to be a major challenge in changing reimbursement policies as these groups present many restrictions for nurse practitioners. Additional challenges identified by focus group participants included competition for payment from providers such as pharmacists, social workers, and other health professionals.

Strategies to Overcome Challenges

Strategies to achieve payment for CCTM services at the state and federal levels included developing a policy brief regarding the need for reimbursement for outcomes of CCTM by interprofessional teams that include CCTM RNs. Such a brief could be used for informing nurse leaders of issues and methods of discussing needs, and lobbying state and federal legislators and insurance executives. A second strategy at the local level is to work with government affairs professionals in healthcare and professional organizations, such as the American Organization of Nurse Executives, American Nurses Association (national and state), American Hospital Association, and the Institute for Healthcare Improvement.

Critical to informing reimbursement policies is the need for quality measures and outcome data. Ambulatory care measures have been developed that address the structure, process, and outcomes of interventions sensitive to nursing care/practice (Mastal, Matlock, & Start, 2016; Matlock, Start, Aronow, & Brown, 2016; Start, Matlock, Brown, Aronow, & Soban, 2018). Technical expert panels comprising RNs from organizations across the country convened to provide voice and direction to the development of measures that were feasible to capture in EHRs and meaningful to practice. In 2016, measure sets were defined for ambulatory surgery centers and procedure centers that included structure of staffing and outcomes of care (Brown & Aronow, 2017). In 2017, measures were expanded to primary and specialty care settings for measure sets that evaluated the process of assessment and follow-up planning for pain management, hypertension, community fall risk, depression, and body mass index. The next generation of measures address the more complex work of care coordination, transition management, and virtual care through telehealth. A sample of currently tested and available quality measures/indicators linked with CCTM dimensions are listed in Table 2. For example, support for self-management dimension is linked with measure set for pain, hypertension, diabetes monitoring; cross-setting communication and transition are linked with admission and...
readmission; person-centered care planning is linked with risk assessment and follow-up plans; advocacy is linked with advanced care planning; and teamwork and collaboration are linked with staffing, volume, and role demographics.

**Recommendations**

**CCTM RN Practice Across the Continuum**

Nursing leaders should strategically assess the populations seeking care in their organization, as well as populations that are costly to care for. Attention must be paid to identifying social determinants of the populations, in addition to physical and mental health problems, that make care more challenging and costly. Once high need populations are identified and strategies to stratify individuals are in place, a plan to employ CCTM RNs to implement best evidence-based practice for these populations should be established so that CMS “never events,” inappropriate use of the emergency department, readmissions, and redundancies can be avoided and high-quality outcomes achieved. Nursing leaders should work with informatics specialists to set up established process and outcome metrics for use with the EHR and establish procedures for routine data queries to evaluate impact of CCTM RN practice and outcomes. Such data can provide the basis for developing a business case for CCTM RN practice. Part of the business case for CCTM RN practice

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### Table 2. CCTM Dimensions and Validated Outcome Measures

<table>
<thead>
<tr>
<th>CCTM Dimensions</th>
<th>Measure Sets</th>
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<tbody>
<tr>
<td>Support for Self-Management</td>
<td>1. Pain</td>
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<td></td>
<td>2. Hypertension</td>
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<td>3. Body Mass Index</td>
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<td>4. Depression</td>
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<td>5. Community Falls</td>
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<td></td>
<td>6. DM HbA1C Monitoring</td>
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<td>7. Advanced Care Planning</td>
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<td></td>
<td>8. Opioid Misuse</td>
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<td>9. Emergency Throughput</td>
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<td>10. Staffing</td>
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<td>11. Volumes</td>
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<td></td>
<td>12. Staff Demographics</td>
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<tr>
<td>Education and Engagement of Individual and Family</td>
<td>Structure</td>
</tr>
<tr>
<td>Cross-Setting Communication and Transition</td>
<td>• Staffing</td>
</tr>
<tr>
<td></td>
<td>• Volume</td>
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<tr>
<td></td>
<td>• Role Demographics</td>
</tr>
<tr>
<td>Coaching and Counseling of Individual and Family</td>
<td>Process</td>
</tr>
<tr>
<td>Nursing Process: Assessment, Plan, Intervention, Evaluation</td>
<td>• Risk Assessment and Follow-Up Plans</td>
</tr>
<tr>
<td>Teamwork and Collaboration</td>
<td>• Reassessment</td>
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<tr>
<td>Person-Centered Planning</td>
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<tr>
<td>Population Health Management</td>
<td>Outcomes</td>
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<tr>
<td></td>
<td>• Admission</td>
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<td></td>
<td>• Readmission</td>
</tr>
<tr>
<td></td>
<td>• DMHbA1C Control</td>
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</tbody>
</table>

**Source:** © D.S. Brown & R. Start

CCTM = care coordination and transition management
should include a plan to incrementally educate RNs and introduce the CCTM RN role into care settings where populations are most in need of CCTM RN interventions.

**Reimbursement Policy for CCTM**

Nurse leaders need to work with their home organization and professional organization legislative affairs officers to develop a policy brief that speaks to reimbursement for outcomes of CCTM RN care. The focus should be on the CCTM RN role within the interprofessional team, so competitive/adversarial relationships are avoided. Policy briefs should be done for both state and federal legislators. With policy brief in hand, nurse leaders should visit local, state, and federal legislators to advocate for changes in reimbursement policy. It is helpful to share “big data” within such policy briefs especially data on quality outcomes and numbers served.

Leaders also need to write to legislators as bills are written and posted. Professional organizations usually send broadcast emails with draft responses to issues, so leaders/members can contact their congressperson and/or senator and share their response to proposed changes or bills.

**Implications**

There have been many changes in foci within U.S. health care. The Patient Protection and Affordable Care Act (ACA, 2010) fostered movement from a heavy focus on acute care to a focus on health promotion and disease prevention; movement from practice silos to interprofessional team-based care; movement from fee-for-service where the focus is on quantity of care to incentives for high-quality care and outcomes called value-based-purchasing and to development of Accountable Care Organizations; and from a focus on best evidence-based practice for an individual to a focus on population health management using best evidence-based guidelines for defined populations. The ACA also tried to foster interoperability of EHRs through funding meaningful use. This has not yet come to fruition. A hallmark of many of these healthcare reforms is providing coordinated care and managing transitions believed to improve outcomes, increase satisfaction, and decrease costs. Registered nurses play an integral role in CCTM and contribute to quality and cost outcomes that are realized across the care continuum. CCTM RNs are employing population health management methods and population guidelines appropriate for evidence-based care. Population health management process indicators such as risk assessment and follow-up plans, as well as interprofessional team engagement, can be linked to outcomes such as admissions and readmissions (Austin et al., 2019).

Themes expressed by focus groups related to recognizing and adopting CCTM RN practice across the care continuum were concerns about CCTM practice as an “add on” to an already full nursing role: “CCTM is added on responsibility.” Another barrier to CCTM RN practice was cost: “too expensive to train all RNs across the continuum.” Another barrier was “lack of metrics and data to show impact…and lack of data on value.” Also, the concern that CCTM is “not reimbursable.”

There are links between these barriers and some avenues to solutions that were brought up in the set of questions regarding achieving payment at the state and federal levels for CCTM RN practice. “It is a mistake to approach…having reimbursement for the CCTM nurse…we’re missing the piece about programmatic population health or chronic disease element of CCTM.” This statement summarizes issues discussed including overlap of providers who can and do provide CCTM, the potential for competition between providers to do and be reimbursed for care coordination, and the challenge of parsing out nursing time, effort, and effectiveness with CCTM including the issue of establishing a fee for CCTM RN practice. Many of these issues are grounded in a fee-for-service mentality that fails to recognize that care should result in high-quality outcomes and the quality of outcomes is what should be reimbursed.

Unfortunately, CMS methods provide reimbursement under a fee-for-service model. In addition, CMS is still focused on...
the medical model, so reimbursement for care coordination currently is paid to the physician even though the physician is not doing care coordination, it is being done by providers associated with the physician (Erikson, Pittman, LaFrance, & Chapman, 2017). Within CMS, reimbursement for interprofessional team-based care is not yet a reality.

Nurses and other providers perform care coordination interventions and have been for many years (Hackbarth, Haas, Kavanagh, & Vlasses, 1995). However, care coordination that was done in the past was not the sophisticated evidence-based CCTM interventions of today (Haas, Swan, & Haynes, 2013, 2014, 2019). CCTM education and practice should not be regarded as an “add on” to the RN role, but rather an enhancement to the RN’s knowledge, skills, and attitudes. CCTM education and practice by RNs leads to CCTM RN certification. The CCCTM® examination received accreditation by the Accreditation Board for Specialty Nursing Certification in Fall 2018 and is a recognized national certification currently included in the Magnet Demographic Data Collection Tool®.

There is a cost to CCTM RN education and there are ways to incrementally provide such education for nurses working across the healthcare continuum. Using population health management techniques, populations of individuals needing CCTM RN interventions can be stratified by level of need using instruments such as BOOST® tools that identify not only physical and mental health issues, but also social determinants that put individuals at higher risk for emergency department use and readmission. Education can begin in areas where populations of high need and risk reside. In acute care, populations most in need of CCTM RN are often on medical units/clinics/homes where their health care is provided but where they are often transitioning to other healthcare settings.

CCTM RNs working with populations with multiple chronic conditions will employ evidence-based interventions in most of the dimensions of CCTM, such as education and engagement, coaching and counseling, person-centered care planning, support for self-management, teamwork and collaboration, population health management, advocacy, and, eventually, cross-setting communication and care transitions. In acute care areas where treatment is more predictable and standardized such as surgical units/outpatient surgery, fewer CCTM interventions may be used. Therefore, CCTM RN education should begin with nurses working in areas where populations are most in need of CCTM RN interventions. This incremental approach can be used in healthcare settings across the continuum and provides a way to spread out costs and sequentially analyze outcomes.

In a pay-for-performance environment, costs of CCTM RN education should be offset by higher-quality outcomes. Reducing never events, overuse of the emergency department, and readmissions are outcomes that can avoid costs, so calculations should be made for both cost avoidance and cost savings.

Developing a business case for CCTM RN practice across the continuum requires the following essential elements: problem to be addressed; vision and purpose; estimate of costs, benefits, value, and risks; and plan to operationalize including a timeframe and estimated return on investment. Drenkard (2010) included a rationale for the project, and expected business and quality outcomes. Attention to five key factors in a business case is essential: strategic fit, program objectives, review of options, affordability, and achievability (Weaver & Sorrell-Jones, 2007). A business case should have an executive summary that is written last and appears first in the document.

Summit focus group members expressed the need for metrics and measures of outcomes of CCTM RN practice. There are such metrics. The work of Start and colleagues (2018) in collaboration with Collaborative Alliance for Nursing Outcomes has led to developing outcome metrics for nine CCTM RN dimensions. When implemented, these metrics will provide the data to track the outcomes of CCTM RN care. Data will be even more robust when CCTM RN
interventions are coded in SNOMED CT and tracked and linked to the outcomes achieved. There are two recent articles that discuss how to discover value in the work of RNs and track impact of care coordination done by other members of the interprofessional team (Haas & Swan, 2014; Haas, Vlasses, & Havey, 2016). This content will demonstrate the value and be foundational to developing the business case for the CCTM RN model, as well as measuring the impact of CCTM RN care across the healthcare continuum.

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Patient Protection and Affordable Care Act, 111-1, 2nd Session Cong. (2010). (ACA).


Additional Resource

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