

Building a community-based nursing service in rural communities

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Acknowledgements

- Gina Seufert and clinic RNs at Adventist Health in Tillamook and Vernonia, Oregon initially conceptualized and initiated the care model we will discuss today
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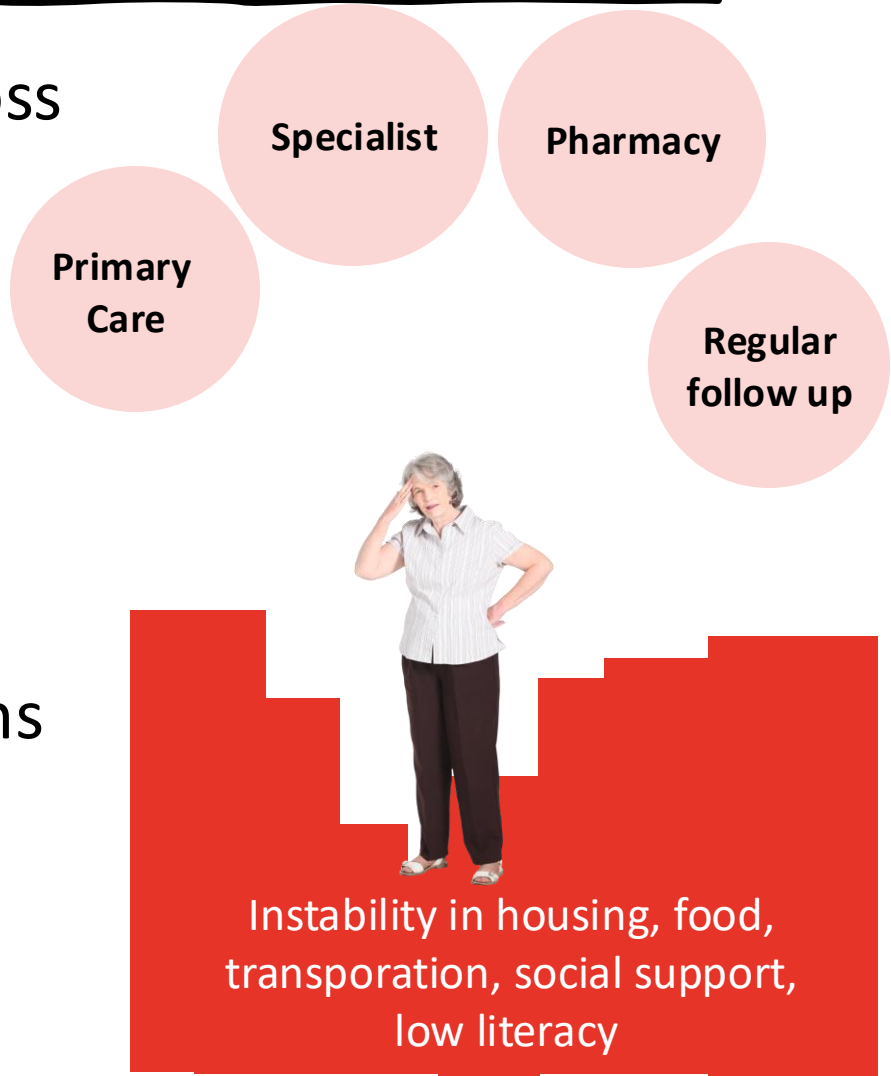
Learning Objectives

- Describe challenges of living with multiple chronic conditions in a rural area
- Describe characteristics of Community Based Nursing Services (CBNS) program
- Discuss the impact of the CBNS program on patient and organizational outcomes
- Discuss strategies to develop, implement, and sustain the CBNS program

Living with chronic conditions in a rural community

Gaps & Challenges in Health Care Systems

- Fragmented system, limited communication across sites
- Access to healthcare system
- Accessibility (transportation, home bound)
- Social Determinants of Health
- Complex care needs
- Short PCP visits, insufficient discharge instructions
- Limited social support



Community-Based Nursing Services program

Community Based Nursing Service (CBNS) Program

Registered Nurses based in primary care clinics, deliver whole-person care to patients living with multiple chronic conditions in rural communities

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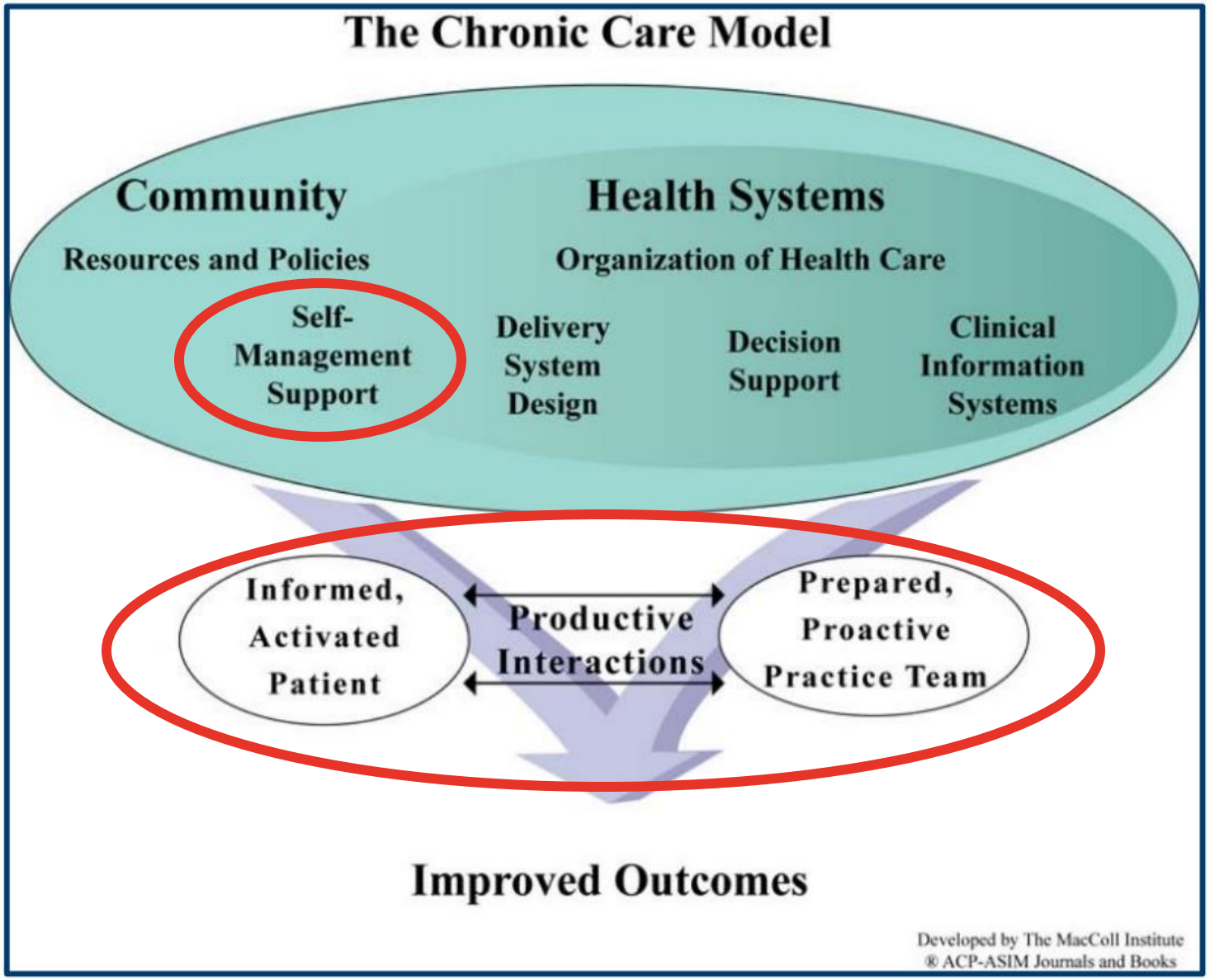
Chronic Care Model



Source: https://www.act-center.org/application/files/1616/3511/6445/Model_Chronic_Care.pdf

RN-led Program

Service Locations: Home, phone, place in community if preferred or unhoused

Key services:

- Whole person assessment
- Person-centered care plan
- Chronic care management
  - -Symptom and medication management
  - -Patient education, coaching
  - -Skilled care, ADL assistance
  - -Ongoing monitoring
  - -Psychosocial support
- Care Coordination across facilities

Pilot Outcome Measures

Self-Sufficiency – RNs assess patients' self-management competency every 3 months

Patient Survey – Perception of health, quality of life, RN care, likelihood of recommending CBNS to others

Utilization – ED visits, hospitalizations, length of stay, primary and specialist visits, medication cost using All Payer Claims Data

Proposed Value-Based Payment Model

Target population: Multiple chronic conditions & high risk of hospitalization

RN Services	**Payment**
Initial assessment and care plan	One time charge
•Follow-up visits at home and by phone •Care coordination with other providers •Periodic reassessment	Monthly per member per month (PMPM) fee
Add-on complexity payment, based on high utilization of RN services	If criteria met, single add-on payment per 6-mo. episode
Non-bundled procedures	Charge per occurrence

CBNS Pilot

Pilot: Dec. 2023 to Present

CBNS Pilot Participants (n=78; Dec 2023 – June 2024)

	Count (%)
Age	78
>89	3 (4%)
80-89	15 (19%)
70-79	22 (28%)
60-69	19 (24%)
50-59	7 (9%)
40-49	7 (9%)
30-39	1 (1%)
20-29	4 (5%)
Gender	78
Male	45 (58%)
Female	33 (42%)

	Count (%)
Primary Condition	78
Asthma	1 (1%)
CAD	1 (1%)
CHF	2 (3%)
COPD	4 (5%)
DM	60 (77%)
Liver Dx	1 (1%)
Other	9 (12%)

Enrollments & RN time per patient/month

Context: 3 FTEs deliver CBNS care – in addition to regular clinic duties

	Avg. # New Enrollments/Month	Cumulative
New Enrollments	12.3	78

	Avg. RN Minutes per Patient per Month
RN Care minutes	72
RN Travel minutes	33
Overall minutes	105

Time period: December 2023 – June 2024

CBNS Interactions

Context: 3 FTEs deliver CBNS care – in addition to regular clinic duties

RN Interactions	Avg # Interactions per Month	Cumulative # Interactions
Patient-Facing Interactions		
RN Visit in Home/Community	27.3	191
RN Phone Call with Pt or Caregiver	39.3	275
RN Visit, in Clinic	9.1	64
Brief Communication	7	7
Non-Patient Facing Interactions		
Care Coordination with other orgs	29	203
RN Interactions (any type)	106	740

Total 740 interactions with 78 patients during Dec. 2023 – June 2024

RN Services by Type

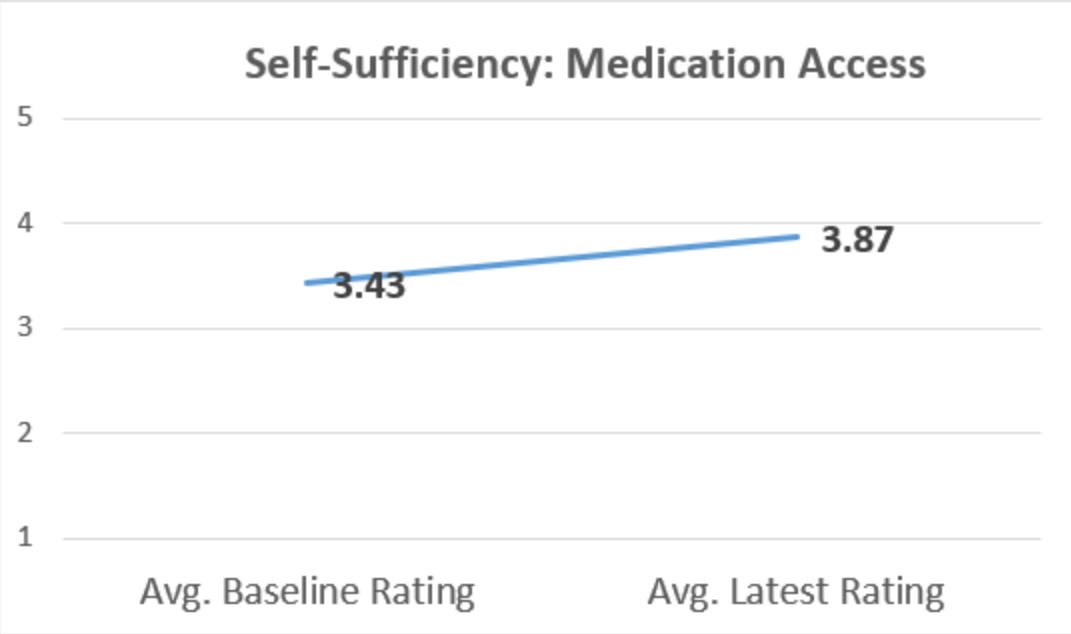
Nursing Services	***Avg # Services per Month***	***# Services, cumulative (% of Interactions)***
Assessment		
Patient Assessment	*65*	*455 (61%)*
Care Planning		
Initial creation or updates to care plan	*50*	*352 (48%)*
Care Management & Direct Care		
Education/Coaching	*25*	*173 (23%)*
Medication Management	*47*	*326 (44%)*
Symptom Management	*24*	*171 (23%)*
ADL Assistance	*1*	*8 (1%)*
Care Coordination		
Care Coordination	*73*	*512 (69%)*

Total 740 interactions with 78 patients during Dec. 2023 – June 2024

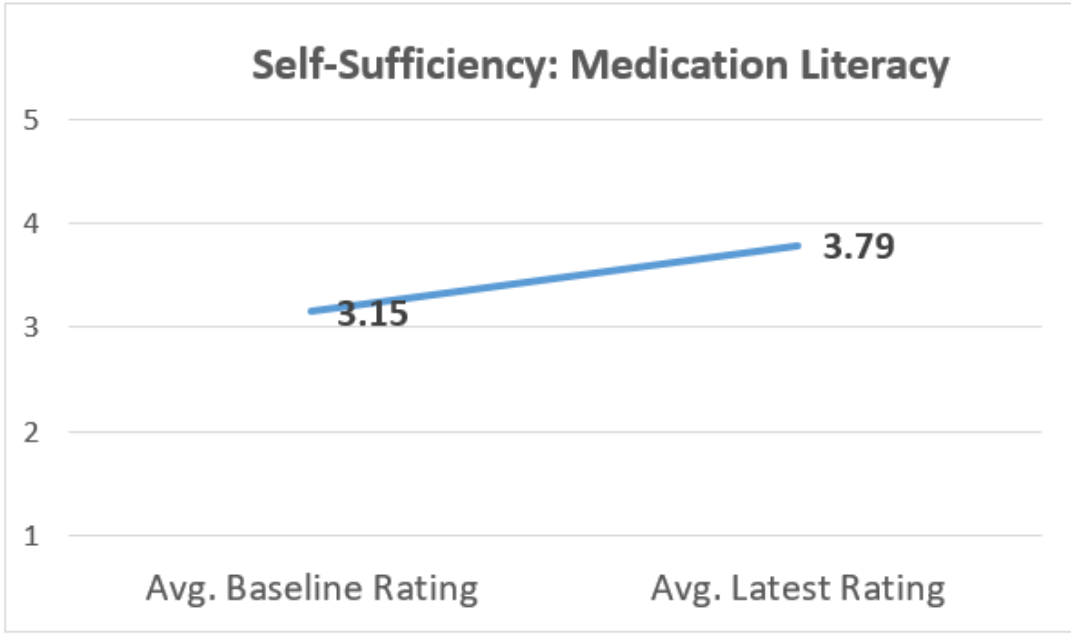
CBNS Impact

Pilot: Dec. 2023 to Present

Self-Sufficiency Measures

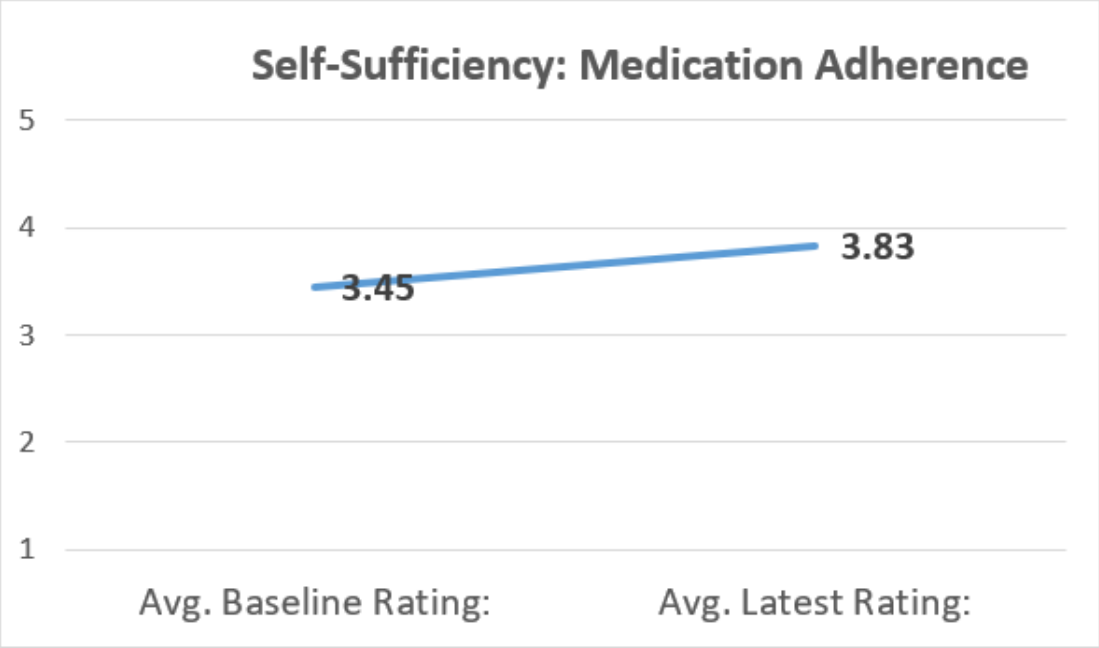


Participants with baseline & follow-up ratings	47
# Participants who improved over baseline	22
% Participants who improved over baseline	46.8%

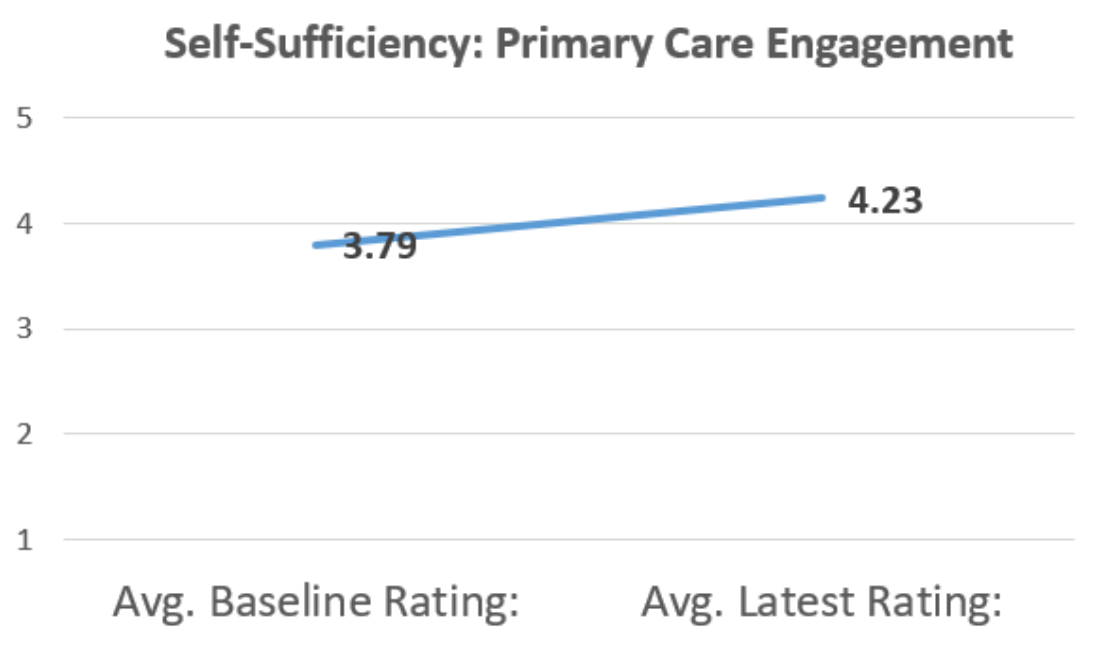


Participants with baseline & follow-up ratings	47
# Participants who improved over baseline	26
% Participants who improved over baseline	55.3%

Self-Sufficiency Measures, cont.

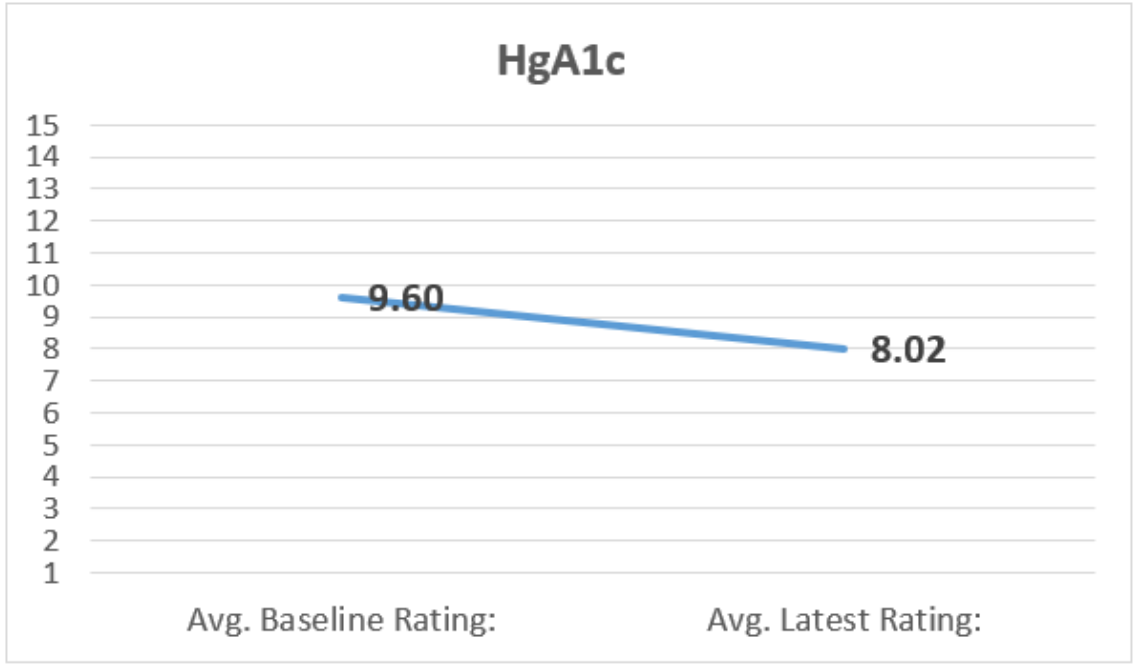


Participants with baseline & follow-up ratings	47
# Participants who improved over baseline	20
% Participants who improved over baseline	42.6%



Participants with baseline & follow-up ratings	47
# Participants who improved over baseline	21
% Participants who improved over baseline	44.7%

Over-time Glucose Control & Life Challenges



Participants with baseline & follow-up ratings	36
# Participants who improved over baseline	30
% Participants who improved over baseline	83.3%

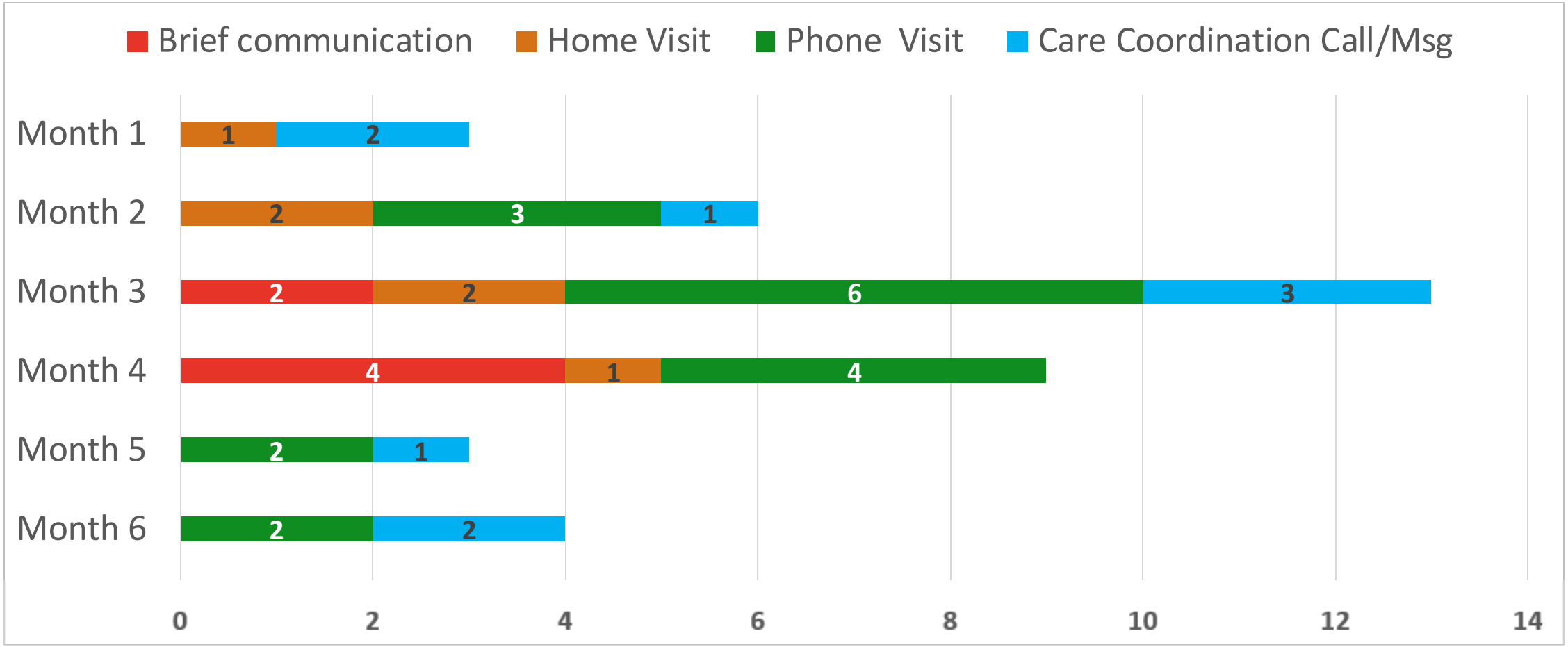
Life Challenges	Time 1	Time 2
Food	15%	11%
Housing	9%	13%
Social Support	17%	15%
Sedentary	56%	45%
Disability	21%	21%
Transportation	23%	21%
Pain Mgmt	13%	11%
Income	22%	17%
Mental Hlth	12%	11%
Substance Use	5%	4%
Safety	5%	6%
Crim Justice	1%	0%

% of Participants with Life Challenge present

Case 1: Ms. A. Dec 2023 – May 2024

Patient	Care Highlights	Care Outcomes
73-year-old female referred to CBNS by PCP for multiple chronic conditions • DM with HgA1c: 15 • HTN • Arthritis • Depression • Obesity Insurance: Medicare Fee for Service Dates: 12/23 – 05/24	- **Intake:** Communicated b/t pharmacy and PCP to resolve delay in acquiring insulin & syringes - **Month 1: I**nitial DM education - **Month 2:** Troubleshoot point of care testing - **Month 3:** Became aware of two stopped medications due to side effects, intervened to find resolution and re-establish HTN medication compliance - **Months 4 -5:** Continued outreach - **Month 6: HgA1c 5.8**	- Disease trajectory improved - Sustained med adherence - Patient appreciative of in-home care - RN Social support was a source of motivation to develop regular habit of taking sugars - Patient and RN experienced sense of accomplishment with notable reduction in HgA1c

Case 1: Ms. A. Dec 2023 – May 2024



RN Interactions include home visits, phone visits with patient/family, care coordination calls with other providers/facilities on behalf of patient, and brief phone communications)

Case 1: Ms. A. received 106 RN service through 38 interactions between Dec 2023 – May 2024

	Assessment	Care Planning	Education & Coaching	Medication Management	Symptom Management	Care Coordination	Specimen Collection	Deliver Supplies/Equip
Month 1			3			4		
Month 2	3		2	2	1			
Month 3	7	5		7	6	10	1	2
Month 4	5	4	1	6	4	6		
Month 5	2	3	1	2	2	3		
Month 6	3	2	1	4	1	3		
# Services	**20**	**14**	**8**	**21**	**14**	**26**	**1**	**2**

Note: Patients often receive multiple services per RN interaction.
Shading indicates relative service volume. Darker color = larger number of service instances.

Case A: Ms. A. Examples of whole-person care

Productive Interactions	Differences it made
"Gave patient pointers on her finger-sticks. She was poking too low on the side of her finger, adjusted location. Also reminded her on where the trigger was on the lancing device."	- Ensure self-testing technique to avoid pain and inaccurate test values
"Patient had an office visit to establish care with PCP today."	- RN ensured patient has established visits with a PCP
"Patient called this AM. Reports that she is having constant nausea."	- Patient is comfortable reaching out to RN to report symptoms
"Patient's pulse rate continues to be elevated at 119 beats/min despite stopping medication"	- Early awareness of side effect, discovered during RN home visit, escalated to PCP

Case 1: Ms. A. Estimated Impact on Cost of Care

Dec 2023 – May 2024

Services	Projected Charges	Estimated Cost Avoidance
Intake & Initial Plan	$345	
PMPM	$230/mo for 6 months: $1,380	($350) RN communication with PCP after home visits replaced the need for in-person clinic visits to manage medication side effects
Add-on payment for high RN utilization	$300	($3900) avoidance of excess medical spending, based on average excess spending of $7,800 per person with DM per year in OR*
Total	$2,025	($4,250)

Projected **Net Savings: $2,225**

*Oregon Diabetes Report, 2015 https://www.oregon.gov/oha/ph/diseasesconditions/chronicdisease/diabetes/documents/oregondiabetesreport.pdf

Challenges and Strategies to Sustain CBNS

Challenges

- Lack of or restricted reimbursement mechanisms for CBNS
- Establishing systems infrastructure and processes to support CBNS practice
- Outcome-related constraints

Payment for services similar to CBNS

To bill for delivery of chronic care management using CPT/HCPCS code,

99490	Chronic care management services - comprehensive care plan established, implemented, revised, or monitored. First 20 minutes of clinical staff time directed by a physician or other qualified health care professional, per calendar month. (Avg $43.90) (From Oregon state-wide claim data 2019-2021)

Payment for services similar to CBNS

To bill for delivery of transitional care using CPT/HCPCS code,

99495	Transitional care management services: Communication (direct contact, telephone, electronic) with the patient and/or caregiver within 2 business days of discharge. At least moderate level of medical decision making during the service period Face-to-face visit, within 14 calendar days of discharge (Avg $271) (From Oregon state-wide claim data 2019-2021)

Payment for services similar to CBNS

To bill for delivery of patient education using CPT/HCPCS code,

98960	Education and training for patient self-management by a qualified, nonphysician health care professional using a standardized curriculum, face-to-face with the patient (could include caregiver/family) each 30 minutes; individual patient (Avg $31.31) (From Oregon state-wide claim data 2019-2021)

Proposed a value-based payment for CBNS

- Patients with multiple chronic conditions with a high risk for hospitalizations enrolled in the program

Service	Payment
Initial assessment and care plan	One time
Home visit Phone visit Care coordination with other care providers	Per member per month
Add-on payment for complex case	One time payment for 6-month episode
Additional procedures	Per HCPCS

Systems Infrastructure & Process

Challenge	Description	Current plans to address
Enrollment Management	Ambulatory EHR was not designed to support enrollment of a sub-population of the clinic's patients into a nurse-led, billable program	• Create a new "location" for CBNS within each clinic location • Use an active nursing communication order for CBNS to denote "enrolled"
Scheduling & Billing	Traditional clinic visits are episodic and billed on a per-visit basis using CPT codes, whereas CBNS is longitudinal. No existing CPT code fully reflects RN-led CBNS care.	• Reconfigure to support individual appointment scheduling against a recurring, monthly encounter • Utilize an S-code, created by commercial payers for billing (pending CCO agreement)
Documentation	Documentation was text based and varied by individual RN practice	• Create CBNS dot phrases as interim solution that supported rapid iteration • Create structured documentation to capture self-sufficiency values, track RN services, and initiate claims process

Challenges for Outcome Evaluation

- Disease specific clinical quality indicators (e.g., HgA1c) are not universally applicable to all participants
- Ambulatory satisfaction surveys focus on overall experience (e.g., wait time) and are not specific to the effectiveness of care
- Limited availability of health service utilization data across the healthcare organizations
- Difficult to establish a comparison group with a wide variety of comorbidities
- Difficult to prove cost savings of prevented events (e.g., ED avoidance)

Summary

Meeting patients where they are and continuous self-care support is critical in managing multiple chronic illnesses

RN-led CBNS shows promise in addressing Triple Aim of improve experience, improve health outcomes & reduce cost

CBNS promotes a change from disease focused, per-visit payment to value-based, patient-centered health maintenance

Thank you!
Questions?
Comments?

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