Salem State University

Pilot project conducted with

NortheastArc

Lifelong support for people with disabilities

Caseload Balance and Risk Stratification in Community Residential Care:

A PILOT PROGRAM FOR NURSE CASE MANAGERS

Julieanne Burridge, RN, CMGT-BC (MSN 2021)

Background & Significance

Community Residential Living

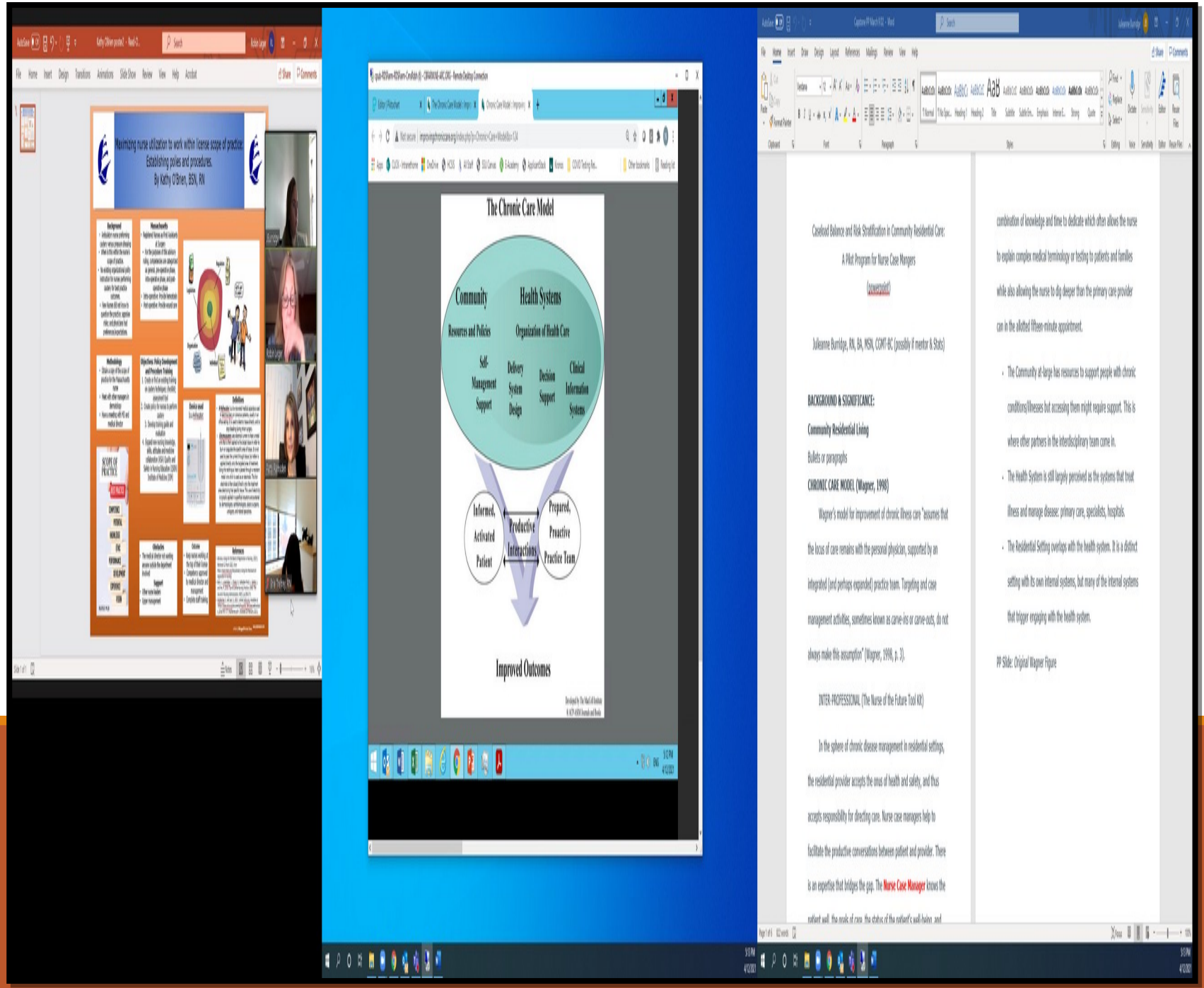
Community residences (a division of a 501(c)3) are designed to promote long-standing community involvement.

The goal is to achieve optimal health and wellbeing to promote the utmost **independence, engagement, and autonomy**.

CHRONIC CARE MODEL (Wagner, 1998)

Wagner's interdisciplinary model for improvement of chronic illness care "**assumes that the locus of care remains with the personal physician, supported by an integrated (and perhaps expanded) practice team**. Targeting and case management activities, sometimes known as *carve-ins* or *carve-outs,* do not always make this assumption" (Wagner, 1998, p. 3).

Original Model



CHRONIC CARE IN THE RESIDENTIAL SETTING

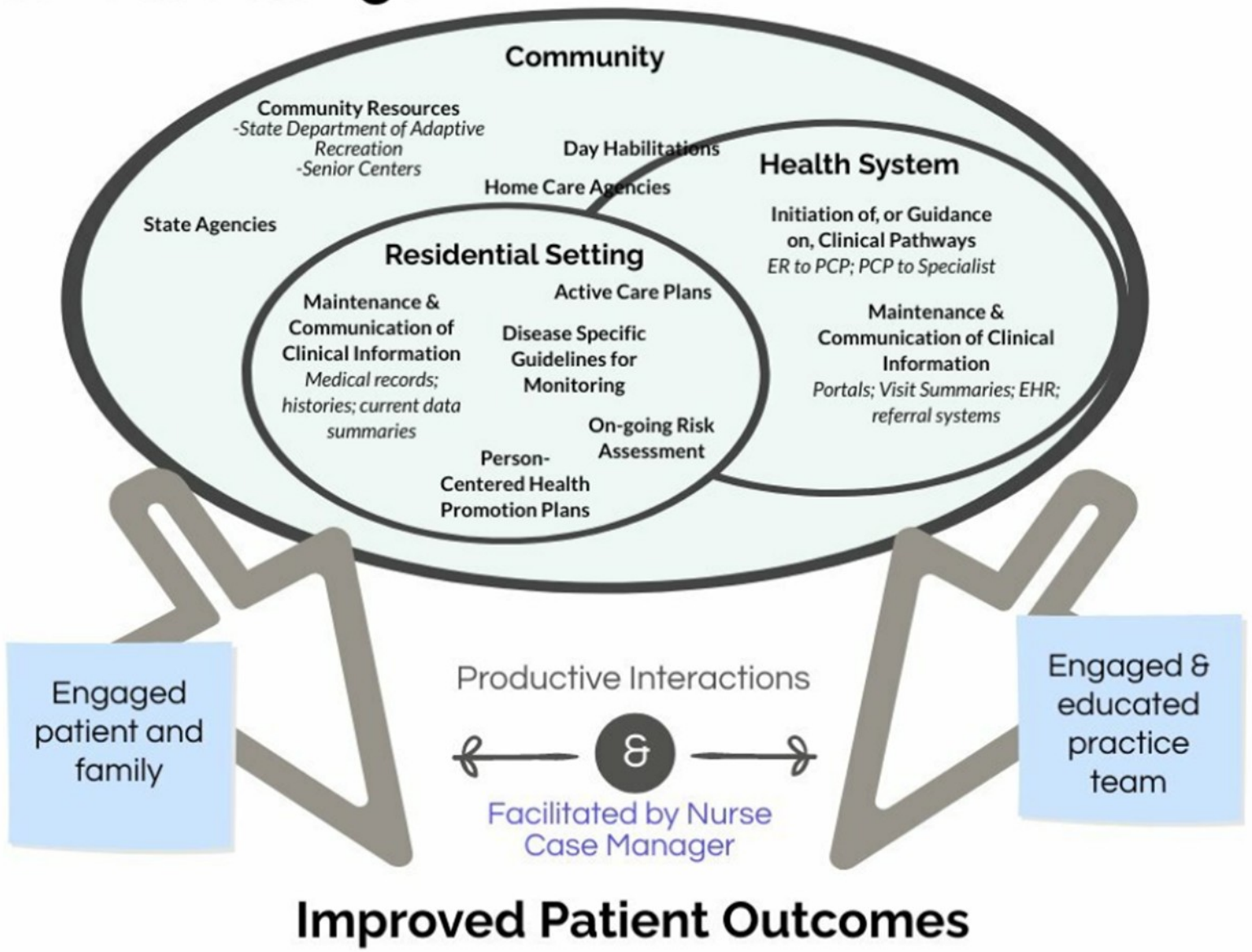
The residential provider/agency accepts **the onus of health and safety**, and thus accepts responsibility for directing care.

Nurse Case Managers help to facilitate productive conversations between patient and provider utilizing an **expertise that bridges the gap**. The **Nurse Case Manager** knows the patient well, the goals of care, the status of the patient's well-being, and current risk factors and concerns.

Adapted Model

Chronic Care in the Residential Settings

Developed by J. Burridge, RN, CMGT-BC



Adapted from
Wagner E. H. (1998). Chronic disease management: what will it take to improve care for chronic illness?. *Effective clinical practice : ECP*, 1(1), 2–4.

Chronic Care Model: Details

- The community at-large has resources to support people with chronic conditions/illnesses but accessing these resources might require support. This is where other partners in the interdisciplinary team intersect.

- The Health System (primary care, specialists, and hospitals) is still largely perceived as the systems that **treat illness and manage disease.**

- The Residential Setting **overlaps** with the Health System. It is a distinct setting with its own structures and resources, but many of which trigger engaging with the Health System.

PROBLEM STATEMENT:

What components of chronic care take so much time?

How many patients/residents can a Nurse Case Manager safely balance so they have optimum outcomes?

Case A: In a middle-aged adult whose chronic illness is stable and managed, with intermittent flares, how much time does a Nurse Case Manager need to dedicate to that person?

Case B: If a person with multiple comorbidities and early-stage dementia has a fall with complicating CVA, how much nursing time does this person need for adequate management?

If there is a new development, what is the mechanism of action? What does the nurse use to guide the next steps of care?

PILOT PROGRAM & TOOL DEVELOPMENT OBJECTIVES:

- Identify key patient indicators that are likely to increase the acuity of the patient with respect to the case manager's time and resources
- Create clinical pathways that are specific to homecare and community settings and address each patient at every level of risk, not just those at the highest risk stratification
- Isolate trigger events that help the nurse case manager identify when a patient has crossed the threshold into a higher risk level and guide appropriate actions.
- Determine the most balanced caseload for quality and safety

STAKEHOLDERS

Primary: Person with chronic illness

Secondary:

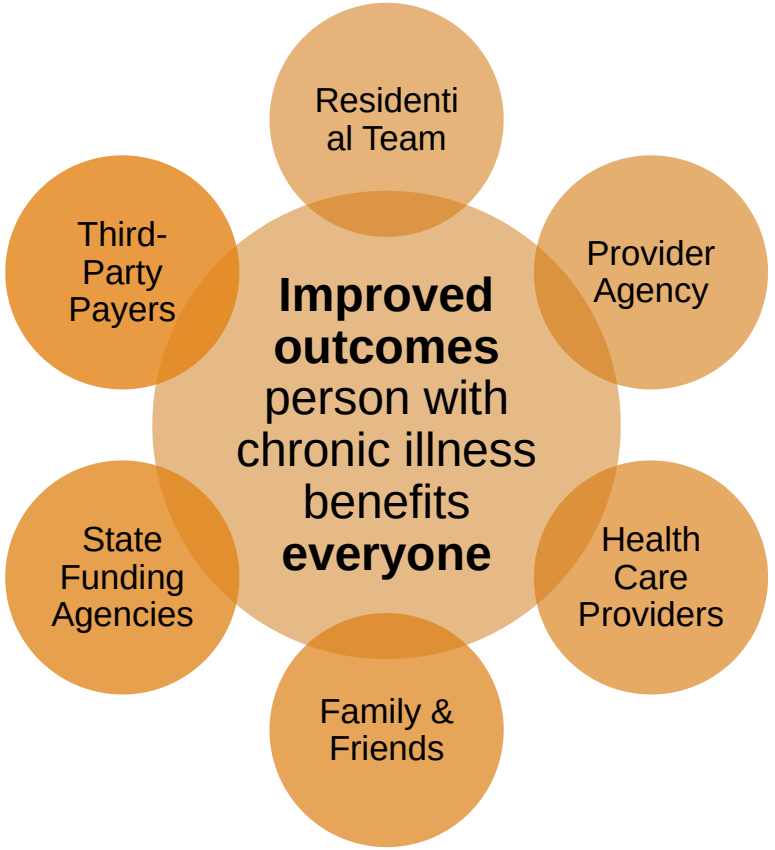
Family & Friends of the person being treated (improved outcomes for their loved one)

Residential Team and the Agency at-large (health and wellness is prerequisite for optimum engagement – mission driven)

Primary Care Team & Specialists

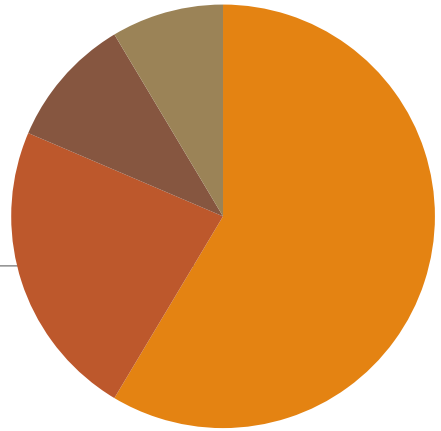
Third-Party Payers (cost savings)

State Funding Agencies (cost savings)



Methodology

REVIEW OF UTILIZATION



What happens to the patient, or what does the patient report, that increases the resources they require?

- Identify what factors change the case managers involvement with a patient
- Identify what changes correlate to an increase in resources and to what degree
- Identify what resources are being used and how are they allocated **right now**

The nurse case manager's involvement increases for episodes of acute illness/injury and when the nurse has identified an increased risk

The nurses' expertise helps identify root causes of risk factors and enact interventions to mitigate that risk before the problem is exacerbated.

ACUITY TOOL

General Medical		
2	Generally stable; episodic illness ≤ 2x year	Comments:
4	More frequent episodic illness management; averages one hospitalization per year	
6	Complex chronic illness(es); infrequent flares	
8	Complex chronic illness with routine acute episodes; end of life care needs	
	Total Score	

Mental Health		
0	No hx/evidence of mental illness	Comments:
2	History of mental illness; stabilized with meds or past treatment; infrequent med changes	
4	Moderate emotional stress; ongoing treatment; chronic/major mental illness; inability to adhere to treatment	
6	Danger to oneself or others in the last year.	
	Total Score	

Dementia		
0	No evidence of dementia	Comments:
4	Monitoring for early dementia; question of diagnosis	
6	Active dementia diagnosis; noted decline in skills/abilities	
8	Stage 2/3 dementia; hospitalizations for change in mental status this year	
	Total Score	

Falls		
0	Not deemed fall risk (based on completed fall assessment)	Comments:
8	Fall risk, fall precautions in place (based on completed fall assessment)	
	Total Score	

Comorbidities		
2	4 or fewer active diagnoses	Comments:
4	5-8 active diagnoses	
6	9-12 active diagnoses	
8	More than 12 active diagnoses	
	Total Score	

Poly-pharmacy		
2	PRN medications only	Comments:
4	Daily supplements; <5 scheduled medications (meds not number of pills or frequency)	
6	More than 5 medications daily; infrequent med changes	
8	More than 5 medications daily; frequent med changes	
	Total Score	

Skin Integrity		
0	No history of pressure injury/skin breakdown	Comments:
2	History of pressure injury/skin breakdown more than 3 years ago	
4	Pressure injury in last 3 years; or active prevention/management of risk for alteration in skin integrity; presence of indwelling device	
6	Recent/frequent pressure injury or skin breakdown	
	Total Score	

Mobility		
0	Independent; walks frequently	Comments:
2	Slight limitations; walks intermittently	
4	Requires assistance to ambulate	
6	Chairfast/bedfast	
	Total Score	

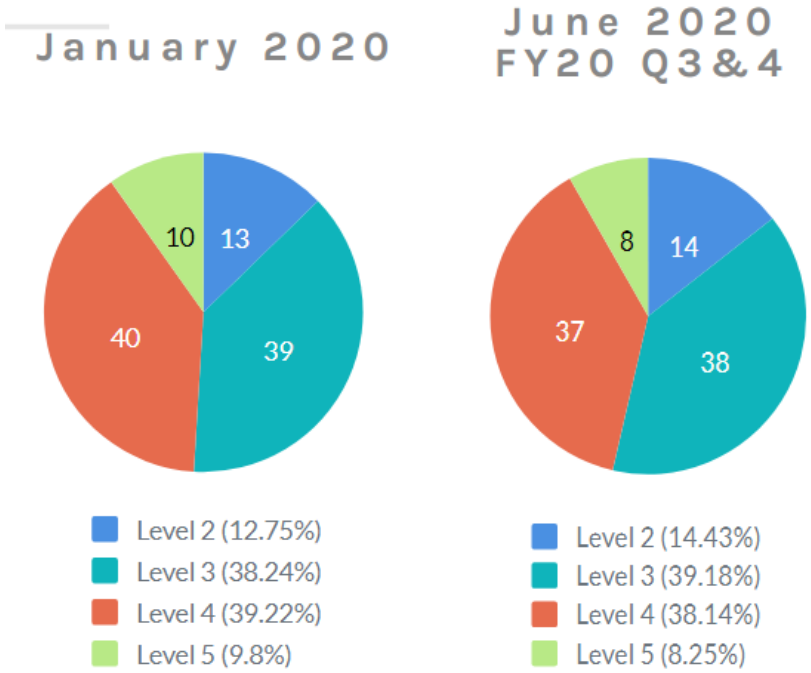
Communication		
0	Able to describe current state of health; accurate reporter of medical history; able to follow provider orders	Comments:
2	Able to describe current state of health; requires staff assistance to report medical history	
4	Able to make needs known to familiar staff; unable to effectively communicate with unfamiliar staff/providers; can follow provider orders with staff direction	
6	Able to make needs known to familiar staff but unable to follow through on provider orders	
8	Unable to make needs known; requires complete assistance from staff to convey clinical information to health care provider and to follow provider orders.	
	Total Score	

NURSING INVOLVEM

Level	Score	Requirements
1	6-10	Independent; minimal support needed
2	10-20	Minimal supports; requires teaching for new diagnoses but able to report changes appropriately and seek assistance from appropriate supports.
3	20-34	Requires active support to coordinate and manage care as needs arise, but otherwise stable
4	34-50	Requires active support and management for chronic illness; significant risk for deterioration in at least one area
5	50-64	Requires active management and coordination; significant risk for acute illness; active end of life process

1	
	Medications: orders (annual, interim), verification of OTC meds, transcriptions, assistance with pharmacy as needed
	annual physical; ISP assessment
	Routine annual staff trainings (e.g., signs and symptoms, MAP recert, disease-specific trainings)
2	RN CM will be involved to provide guidance on new diagnoses, teaching for staff or individual about prevention, treatment, and/or chronic management of diagnoses
	RN CM will outline care plan of clinical interventions based on diagnoses
	Routine annual staff trainings (e.g., signs and symptoms, MAP recert, disease-specific trainings)
	Medications: orders (annual, interim), verification of OTC meds, transcriptions, assistance with pharmacy as needed
	annual physical; ISP assessment
3	RN CM will monitor stability of chronic illnesses, and be involved to help when needs arise.
	RN CM will participate in regular interdisciplinary meetings to ensure needs are met & health promotion/prevention goals are established
	RN CM will be involved with episodic care: assistance coordinating with physicians and other specialists
	RN CM will outline care plan of clinical interventions based on diagnoses
	Medications: orders (annual, interim), verification of OTC meds, transcriptions, assistance with pharmacy as needed
	Routine annual staff trainings (e.g., signs & symptoms, seizures, MAP recert, disease-specific trainings, protocols and interventions, rescue meds)
	annual physical; ISP assessment
4	RN CM will monitor stability of chronic illnesses, and be involved to help when needs arise
	RN CM will be in regular contact with program director re: health status
	RN CM will have eyes on monthly or more frequently, if needed (this may change if VNA involvement)
	RN CM will coordinate with VNA, as required
	RN will attend important appointments, and communicate with physicians to report on changes and progress, as required
	RN CM will participate in regular interdisciplinary meetings to ensure needs are met and health promotion/prevention goals are established
	RN CM will establish protocols for intervention, as required (Authorization for Specialized Healthcare)
	RN CM will be involved with episodic care: assistance coordinating with physicians and other specialists
	RN CM will outline care plan of clinical interventions based on diagnoses
	Routine annual staff trainings (e.g., signs & symptoms, seizures, MAP recert, disease-specific trainings, protocols and interventions, rescue meds)
	Medications: orders (annual, interim), verification of OTC meds, transcriptions, assistance with pharmacy as needed
	annual physical; ISP assessment
5	RN CM will have eyes on twice monthly or more frequently, if needed (this may change if VNA involvement)
	RN CM will monitor stability of chronic illnesses, and be involved to help when needs arise
	RN CM will be in regular contact with program director re: health status
	RN CM will coordinate with VNA, as required
	RN will attend important appointments, and communicate with physicians to report on changes and progress, as required
	RN CM will participate in regular interdisciplinary meetings to ensure needs are met and health promotion/prevention goals are established
	RN CM will establish protocols for intervention, as required (Authorization for Specialized Healthcare)
	RN CM will be involved with episodic care: assistance coordinating with physicians and other specialists
	RN CM will outline care plan of clinical interventions based on diagnoses
	Routine annual staff trainings (e.g., signs & symptoms, seizures, MAP recert, disease-specific trainings, protocols and interventions, rescue meds)
	Medications: orders (annual, interim), verification of OTC meds, transcriptions, assistance with pharmacy as needed
	annual physical; ISP assessment

PILOT RESULTS: Resident Assessment (n=103; n=100)



Comparing assessments at two time points suggests the acuity of the individuals supported in this residential program did not change (stability).

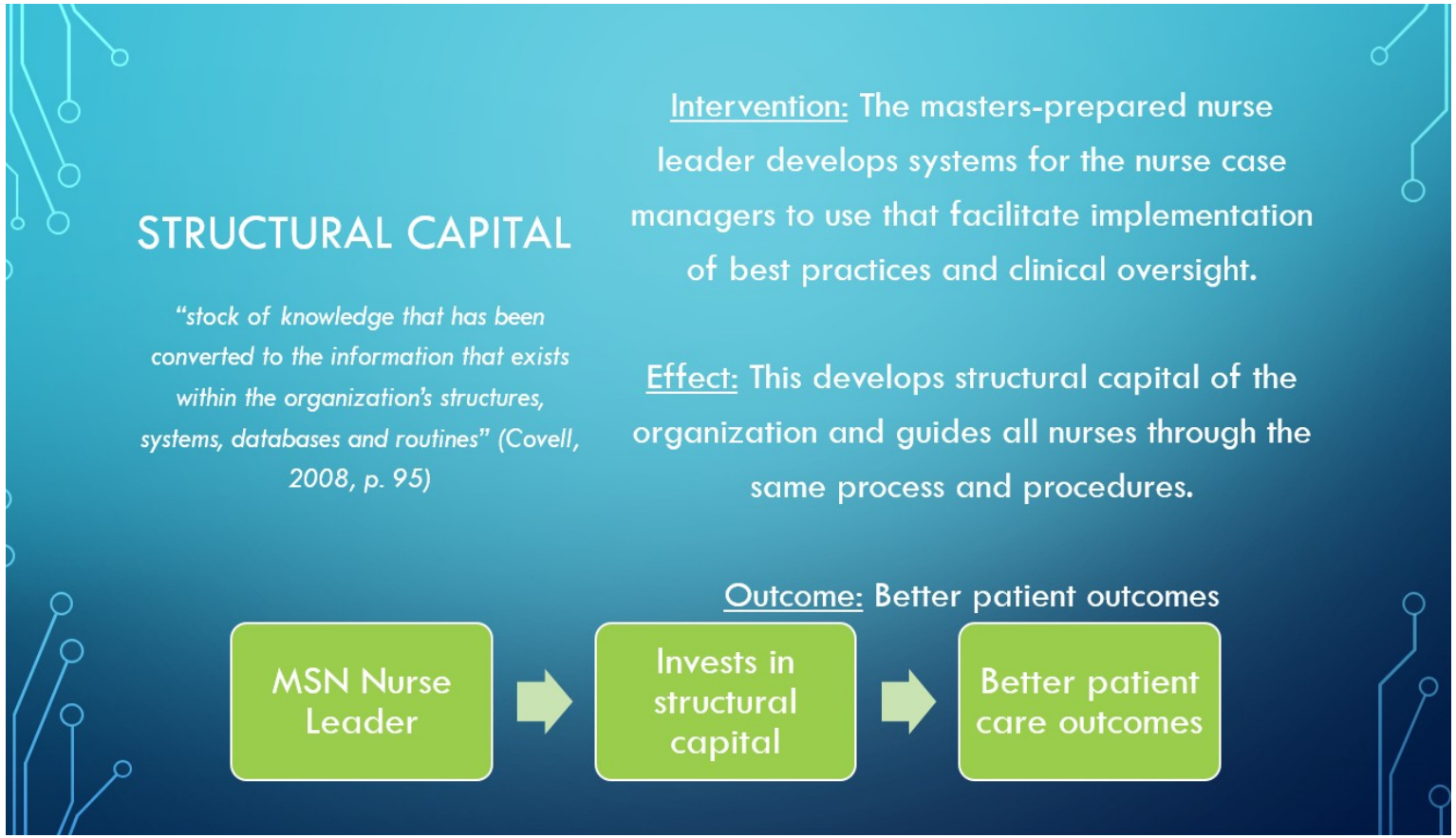
Stability suggests people **were currently well-managed caseload balance was achievable** during the pandemic.

WHAT'S NEXT?

The plan was quarterly assessments but due to pandemic, the assessment was done bi-annually.

*Experienced Nurse Case Managers are intervening where necessary out of **instinct and expertise. An evidenced-based practice and structured model are needed for sustainability.***

CLINICAL PATHWAYS



*Covell's Mid-Range **Theory of Intellectual Capital** (2008) outlines four types of capital: **human, structural, relational, & social.***

This excerpt from the conceptual model for the development of nurse case mangers outlines the value in developing clinical pathways to guide & standardize the nurse case managers' interventions.

Developing clinical pathways translates the knowledge that the nurses have gained through experience into standardized practice.

SAMPLE PATHWAYS

Integrated Care Pathway

Falls

0	not deemed fall risk (based on completed fall assessment)
8	fall risk, fall precautions in place (based on completed fall assessment)

Assessment:

Fall Risk Assessment to be conducted by RN Case Manager quarterly and as needed for an increase in falls.

For anyone deemed a fall risk, the following steps need to be put into place.

Prevention:

All staff working at that site must be trained in fall precautions

Incident Management:

Incident reports will be filled out with the fall addendum for falls

Data Collection:

RN Case Manager will track fall events and sequelae

Integrated Care Pathway

Skin Integrity

0	no hx of pressure injury/skin breakdown
2	hx of pressure injury/skin breakdown more than 3 years ago
4	pressure injury in last 3 years; or active prevention/management of risk for alteration in skin integrity; presence of indwelling device
6	recent/frequent pressure injury or skin breakdown

Assessment:

Risk associated with skin integrity be conducted by RN Case Manager quarterly (in acuity indicator) and as needed for reported injury.

For anyone scoring a 2, the training & protocols will be determined by the RN Case Manager

For anyone scoring a 4 or 6, staff must be trained and protocols outlined.

Prevention:

All staff working at that site must be trained in skin observation and reporting

Protocols for interventions will be outlined, as needed (e.g., turning, off-loading, cleansing)

Incident Management:

Skin observation tools are filled out by staff when discovered and reported to the RN Case Manager or on-call nurse

Data Collection:

RN Case Manager will track alterations in skin integrity and sequelae

DISCUSSION

NEXT STEPS

Clinical pathways were developed for each area assessed in the acuity tool because once a risk is identified, the Nurse Case Manager needs to activate interventions.

- The team needs to identify what other events require pathways – *what happens because we have done this before instead of because we have a standardized plan?*
- ***Convert human capital to structural capital***

ADDITIONAL FACTORS: QUADRUPLE AIM

Some factors are not so easily measured.

Examples: Is there a leadership vacuum in another part of the team? Is there a relatively stable patient but a family member that does not feel secure?

These factors require human discretion, but with a standard measurement of the patient, and a standardized list of supports, the supervisor can make an informed decision about where to apply resources to support both the patient and the Nurse Case Manager.

ACKNOWLEDGEMENTS

Many thanks to

- the Salem State N845, N742, N900/901 MSN Students and Faculty

- the Northeast Arc Nursing and Residential teams

- the ANA Mentorship Class of 2021, Camela Townsend, DNP, MS/MBA, RN

Select References

Covell, C., Sidani, S. (2013). Nursing intellectual capital theory: Implications for research and practice. *OJIN: The Online Journal of Issues in Nursing 18*(2) doi: 10.3912/OJIN.Vol18No02Man02

Leonard, M., Miller, E., & Llewellyn, A. (2012). *Nursing case management: Review and resource manual* (4th ed.). Silver Spring, MD: American Nurses Credentialing Center.

Roussel, L., Harris, J. L., & Thomas, P. L. (2020). *Management and leadership for nurse administrators*. Jones & Bartlett Learning.

Wagner E. H. (1998). Chronic disease management: what will it take to improve care for chronic illness? *Effective clinical practice: ECP, 1*(1), 2–4.