Published in Nutrition Today. Craven K, Gay D, Foltz J, Kolasa KM. Remaining relevant in a changing health care organization: RDNs must listen up or lose out! Nutrition Today. 2024. 59(1):27-36.

Title: Remaining relevant in a changing healthcare organization: RDNs must listen up or lose out?

Authors: Kay Craven MPH, RDN, LDN, CDCES; Drillious Gay BSN, MSN, RN, Jason Foltz, D.O. Kathryn M Kolasa PhD, RDN, LDN

Dr. Kolasa will serve as the corresponding author. 3080 Dartmouth Drive, Greenville NC 27858; 252-917-1290; fax 252-744-2623; kolasaka@ecu.edu

Short title: value-based care (VBC)

Author bios:

Kay Craven is the Director of Clinical Nutrition Services for ECU Health Physician's Academic Practice and the Section Head for Nutrition Services in the Department of Family Medicine, Brody School of Medicine at East Carolina University, Greenville, North Carolina. She is passionate about working with dietitians to improve reimbursement for the work they do. She is a provider of Medical Nutrition Therapy in the Family Medicine Clinic specializing in diabetes education and support.

Drillious Gay is the Director of Quality for ECU Health Physicians Ambulatory practices. Her experience includes 25 years of leadership and management at ECU Physicians including 8 years as Director of Quality with success in building a quality team and fostering successful quality program growth while promoting accountability of quality performance. Her expertise and experience in assisting ambulatory practices to develop workflows and processes to support value-based care while improving organizational quality performance makes her an ideal contributor to this article.

Jason Foltz is the Chief Medical Officer of ECU Health Physicians (ECUHP). ECUHP includes the academic faculty practice of the Brody School of Medicine and the community practice of ECU Health. He serves on the executive committee and governing boards for both the Coastal Plains ACO and ECU Health Alliance. In addition, he represents ECU Health on the State of NC Technical Advisory Groups for Advanced Medical Homes and Tailored Care Management along with the state quality committee.

Kathryn M Kolasa is Professor Emerita, Brody School of Medicine at East Carolina University and contributing editor, Nutrition Today.

Conflicts of Interest and Source of funding: None of the authors have a conflict of interest. No funding was provided for this manuscript

Acknowledgement: We acknowledge Jamie Bloss, MLIS, AHIP, Liaison Librarian, Allied Health Sciences and Dental Medicine, Laupus Health Sciences Library, East Carolina University for her assistance with the literature search. Brittany Smith for development of the MEAT diagram.

ABSTRACT

Registered Dietitian Nutritionists (RDNs) working in ambulatory clinics should not be waiting for an administrator to invite them to the planning group for the transition from fee for service (FFS) to value-based care (VBC) payment models. RDNs should be identifying and promoting the services they can provide to ensure quality health care for patients. In this paper we describe VBC as it is presented in dietetics literature. We also describe how RDNs in our Family Medicine Practice demonstrate their value as a member of the expanded interprofessional ambulatory care team providing quality care, reducing costs, and providing an exceptional experience for the patient. We call on educators of dietetics students, interns, and professionals to teach the necessary interprofessional skills to be successful in VBC models of care.

INTRODUCTION

The Evolution of the Registered Dietitian Nutritionist (RDN) providing MNT in the Department of Family Medicine, ECU Health Physicians.

The concept of proving one's worth in the fee for service (FFS) ambulatory world is not foreign to Registered Dietitian Nutritionists (RDNs) (1-2). Almost since its establishment in 1976, at least one RDN has been continuously co-located in our academic Family Medicine practice that serves individuals with a wide array of social disparities. As a specialty, Family Medicine was the first to recommend core educational guidelines in nutrition. In the early 1980s, a group of physicians and RDNs from several academic practices teamed up to publish a curriculum to guide the implementation of those competencies (3). It includes detailed competencies across the life cycle and disease states, methods for teaching in clerkship and residency training and evaluation. Many RDNs received some salary support for instructing medical students, residents, and allied health students. At the same time reimbursement for medical nutrition therapy (MNT) was almost non-existent. RDNs engaged in acquiring grant funds for patient counseling and multidisciplinary research, and advocating for the role of MNT provided by a RDN would not only improve patient outcomes but free physicians for other activities more aligned with their training and interests. They have been engaged in pilot projects like team based geriatric assessment programs or Telemedicine care, that even with successful outcomes were terminated when the grant funds expired. While the MNT provided was appreciated by patients and many of the providers, RDNs

were continually expected to generate more revenue. They were excited in 2002 when MNT became a covered benefit to treat diabetes and chronic kidney disease and RDNs were recognized as a billable other healthcare provider (4). Unfortunately, this improvement in reimbursement for MNT affected services for only a small number of patients. Little has changed in Medicare reimbursement since that time with the exception of the addition of a paid benefit for Intensive Behavioral Therapy for Obesity (IBTO). The reimbursement available from Medicare IBTO can be provided "incident to" the physician and is often regarded as insufficient to cover the cost of offering the service to patients (5). Blue Cross Blue Shield of North Carolina has increased reimbursement for MNT, including for obesity treatment. These benefits rarely reach our most vulnerable patients who have poor health outcomes, decreased quality of life, and costly care to the health care organization. Since 2009 sufficient evidence has been available (6) to affirm MNT results in improved clinical outcomes, reduced costs related to physician time, medication use and/or hospital admission for people with obesity, diabetes, disorders of lipid metabolism and other chronic conditions. Even so, for RDNs in our practice reimbursements have ranged from $0 to $247 per hour session depending on insurance provider and patient diagnosis. Therefore, to even come close to covering salary and benefits RDNs need to carefully manage their schedule to ensure a sufficient number of patients with insurance from the highest payers each week. The salary range for an entry level RDN in our area is $21-36/hour (7). To ensure access to those who would benefit greatly from nutrition services, the RDNs continually seek grant support to provide programs like Diabetes Prevention, diabetes, and weight management classes that include cooking demonstrations to those who are under or uninsured. During the time of transition between FFS and VBC, RDNs are faced with the challenge of ensuring a place on the interprofessional team that will deliver VBC. In this paper we describe VBC and ways we are working to ensure patients who deserve receiving MNT from a RDN will have that opportunity. We call on dietetic educators to help students and professionals develop the skills to be successful in the VBC world that is developing (8).

CALL OUT ABOUT HERE: Since 2009 sufficient evidence has been available (6) to affirm MNT results in improved clinical outcomes, reduced costs related to physician time, medication use and/or hospital admission for people with obesity, diabetes, disorders of lipid metabolism and other chronic conditions.

BACKGROUND: VALUE-BASED CARE MODELS IN AMBULATORY SETTINGS

What is Value-Based Care (VBC), Why and How Does it Work?

Many healthcare organizations participate in value-based care (VBC) agreements with Medicare, Medicaid, and commercial payors as the United States pivots away from traditional fee-structured payment systems. Rather than pay healthcare organizations for the number of reimbursable tests, procedures, and office visits, VBC is a healthcare delivery model emphasizing the patient as the primary focus of healthcare services, resulting in individualized care that can improve clinical outcomes and reduce costs (9). Value = Quality/costs. The higher the quality of care provided the lower the costs drive value to our patients and our payment system. It is believed that healthcare organizations that can improve patient outcomes by providing the right care at the right time and utilizing an expanded healthcare team working collaboratively for their patients are more likely to succeed in a VBC model.

VBC features a team-based approach to patient care and achievement of patient goals, including a focus on prevention and wellness, patient satisfaction, and reduction of medical errors and waste. In addition, this team-based approach supports providers by allowing them to focus on patient outcomes which supports their sense of purpose and reduces burnout. Patients get to know their healthcare team, which consists of their primary care provider, supporting healthcare professionals such as nurses, RDNs, and pharmacists who support them with their goals of staying healthy (10). These and more benefits expected to accrue by moving from FFS to VBC are well described in the literature (9-13). Quality is clearly a team sport. Having a core purpose focused on high-quality care and setting a strategy around

meeting each arm of the Quadruple Aim has prepared our organization to be successful in achieving better health outcomes for our patients while increasing satisfaction and reducing provider burnout (14).

Medicare and Medicaid implemented accountable care organizations (ACOs) in 2010 to ensure patients received quality care and avoid duplication of services (15). These VBC models were designed to restructure the US healthcare organizations so that the United States could keep up with other developed countries that spend half as much on healthcare and allow the US to improve clinical outcomes, provide better access to care, and offer more equitable healthcare. (16-17). Healthcare organizations participating in VBC choose varying degrees of program participation that offer progressive tracks or advancing levels of potential financial incentive payments as well as financial risks. Payers set benchmarks for quality performance measures like controlled blood pressure in hypertensive patients. When the established quality goals are met while keeping the costs of delivering care below an established threshold, healthcare organizations may earn quality incentive payments. Likewise, organizations may risk losing money if established performance goals are not achieved when participating in a more comprehensive VBC contract (17).

Transitioning from Fee for Service (FFS) to Value-Based Care (VBC) in the Ambulatory Setting

The transition from the traditional fee-for-service (FFS) healthcare reimbursement model to VBC is slowly evolving due to the difficulties healthcare organizations face moving from fee-for-service to VBC. While the Centers for Medicare and Medicaid (CMS) was the first to encourage VBC and offer program pathways to transition to VBC, commercial payors are also incorporating the VBC model into their contracts with healthcare organizations. The shift requires that the patient be the center of care which

requires coordination of services that will improve patient outcomes while meeting performance metrics and controlling costs (17). Most organizations currently participate in some VBC programs while depending on the more predictive income the fee-for-service model provides. This may be an opportunity for health professionals like RDNs, patient navigators, health coaches, Annual Wellness Nurses, and others not routinely included on the ambulatory care team to provide services that result in better outcomes at lower costs.

Although the adoption of VBC has been slow, CMS announced plans to have all Medicare beneficiaries and most Medicaid patients as part of a VBC program by the year 2030 to promote quality care, control costs, and expand access to care (18-19). As they transition, healthcare organizations must find ways to maximize their clinical resources to deliver more outcome-driven care with a focus on more proactive patient engagement to provide a holistic approach. (19). One successful strategy has been to reinvest the financial incentives earned from program years where there is no risk of reduced payments to expand resources and services. Implementing creative strategies within practices such as expanding the traditional roles of clinical team members and implementing new programs to support the needs of the patient population, can help transition to VBC (18).

CALL OUT ABOUT HERE: CMS announced plans to have all Medicare beneficiaries and most Medicaid patients as part of a VBC program by the year 2030 to promote quality care, control costs, and expand access to care

What is Risk Adjustment, and how does it correlate with Value Based Care (VBC) ?

It is critical that healthcare organizations participating in a VBC model are very specific in documenting patient outcomes to communicate the overall picture of the health status of the patient population served (20). Hierarchical Condition Categories or HCCs are medical codes that are tied to diagnosis codes and are used by Medicare to identify the complexity of patient medical conditions. The HCCs help establish an anticipated risk and associated cost that could be expected for treating or managing acute or chronic conditions. Health care professionals use HCCs along with diagnosis codes to paint a picture of both annual care costs and potential future costs of caring for patients. That estimated cost of care based on a patient's medical condition is known as a risk adjustment factor. Healthier patients have a lower risk adjustment factor than patients with more chronic medical conditions requiring more complex care. Documenting the complexity of a patient's condition with HCCs is key to maximizing potential incentive payments to the healthcare organization (20). One example of how specific documentation influences the anticipated risk and payment in caring for patients with diabetes is further described. During an office visit, when a healthcare professional such as a RDN chooses an HCC associated with a diagnosis code of diabetes without complications, the risk adjustment score will be much less than an HCC code that indicates the patient has diabetes with complications such as polyneuropathy. The difference in the two codes could mean as much as 0.218 risk adjustment for this single diagnosis which would equate to an expected spend by the healthcare organization of approximately $2,000 more to provide quality care for the complex patient (20-21). The use of HCC codes requires documenting the presence of a disease or condition as well as the assessment and plan for the management of the disease or condition Documentation to support monitoring, evaluating, assessing, and treatment of the condition is known as MEAT documentation (22**). Monitoring** is documentation of how the patient manages their condition by noting the most recent A1C result, patient adherence to medication and diet prescriptions. **Evaluation is** documentation of results of treatments of the condition such as recent hemoglobin A1C results, patient's response to a changed diet and exercise routine resulting in weight

loss. **Assessment is** documentation of review of previous records, and counseling the patient on topics such as the relationship between diabetes and potential vision loss if retinopathy is detected. **Treatment** is documentation of actions to help the patient with the condition, such as continuation of dialysis for end-stage renal disease due to long-term diabetes (22). Figure 1 is one depiction of MEAT documentation.

TEAM-BASED CARE SUPPORTS MAKING PATIENTS THE PRIMARY FOCUS:

THE ECU HEALTH EXAMPLE

The ECU Health Physicians practices in eastern North Carolina continue to incorporate workflows and processes in our primary and multispecialty practices as the organization moves toward integration of a team care approach that supports VBC. One key component to set the foundation for success begins with patients having an established primary care healthcare team. This healthcare team works to provide patients with easily accessible access to care, strategies to improve existing chronic medical conditions, provision of preventative screenings, and education to support improved patient outcomes. The team incorporates an interprofessional group of healthcare providers, including registered nurses, RDNs, health coaches, social workers, and pharmacists, all working at the top-of-license along with the primary care physician to optimize care for our patients.

ECU Health Physicians began its VBC journey in 2015 and has used incentive payments earned to build staff infrastructure to support a team-based approach (14). The organization hired Quality Nurse Specialists (QNS) who provide education, workflow process guidance, and monthly data supporting the progression toward meeting improved quality performance. This allows individual primary care clinic

leadership and staff to continuously monitor their workflow success. Our Medicare Wellness Program was established with a team of nurses (MWRN) hired to support the Medicare patient population ensuring the beneficiaries receive individualized wellness and prevention visits and counseling, risk assessments, and advance care planning annually. Health Coach Nurse specialists (HCRNs)are also embedded in the primary care clinics to work individually with patients struggling to manage their chronic medical conditions such as diabetes. HCRNs assist the healthcare team by proactively communicating and meeting with patients who are identified as being at a higher risk for chronic disease management and/or social determinants of care that require extra support. Both MWRNs and HCRNs were created to add an additional layer of patient support and engagement with vulnerable patients so that disease management and potential healthcare concerns can be proactively addressed (14).

Strategic quality performance planning, communication, and education with clinic leadership and staff is essential in developing programs and processes that help meet the needs of patients. ECU Health has a High-Value Care Quality committee led by the Chief Medical Officer in which organizational quality goals are communicated and prioritized based on value-based care program metric requirements and clinical performance outcomes. Recommendations from the High-Value Care committee and the Director of Quality for implementation of process improvement workflows based on the need for improved clinical performance are routinely accepted and utilized by primary care and specialty clinics to create new or improved processes that can incorporate an interprofessional team approach.

Diabetes control is considered a high-priority quality performance metric in all of the VBC programs. In North Carolina (NC), diabetes is a health concern for approximately 12.4% of the adult population (1,014,358 people) with pre-diabetes a concern for an additional 34.6% (2,765,000 people). The annual cost of diabetes care is over ten billion dollars due to complications of the disease (23). Our organization designed a diabetic workflow or a series of steps in which specific members of the healthcare team take accountability for their part in working together to improve diabetic A1C control, patient education, and

ultimately positive patient outcomes while reducing costs. The following is an example of one workflow that outlines how we approach the management of our VBC patients with diabetes.

INSERT CALL OUT ABOUT HERE: Diabetes control is considered a high-priority quality performance metric in all of the VBC programs

VBC payors, using claims data they receive, routinely provide the ECU-Health Office of Quality lists of patients who require diabetes management. The QNS reviews the list for accuracy before providing the patient lists to each primary care clinic monthly. Each clinic's RNHC ensures every patient has up-to-date hemoglobin A1C that is less than 9% and flags those patients whose A1C is greater than 9% and considered uncontrolled. The RNHC provides education and coaching to help uncontrolled diabetic patients reach or maintain diabetic control. When appropriate, patients are referred by the RNHC or primary care provider to an RDN for MNT. In addition to education and monitoring of meal planning and weight management, the RDN can add value to the visit inquiring about medication adherence and potential barriers especially for diabetes and hypertension, as well as measuring and recording blood pressure, assisting patients in obtaining an A1C if overdue, documenting FI, connecting the patient to resources and reporting these data to the health coach and provider. These activities are key to improve outcomes. RDNs can encourage patients to communicate with the RDN via the patient portal for questions and updates. This level of engagement is helpful in ensuring patients have the resources needed for success in meeting their goals.

In our organization, appointments with an RDN may not occur several weeks after the referral due to staffing. Same-day co-located referrals to an RDN, social worker, or pharmacist by physicians or MWRN gives the patient immediate access to a professional with special expertise to support meeting the immediate needs of the patient while offering an exceptional patient experience. This level of collaboration and engagement by an interdisciplinary care team makes the patient the primary focus in

managing their healthcare and supports the organization in reaching established quality performance goals.

As ECU Health Physician practices expand VBC program participation, it expects to expand programs and workflows to support our patients based on identified needs and refine the interprofessional team approaches that will improve clinical outcomes, provide exceptional customer service, and lower costs for patients.

SITUATION: THE RDN RESPONSE

The literature clearly demonstrates MNT delivered by an RDN can lead to improved outcomes for a number of chronic health conditions which will be discussed more here. As our medical payment climate changes, physicians are getting advice on how to succeed in the space of VBC and improving patient outcomes (24). Physicians report a variety of limitations and barriers to providing nutrition counseling, some of which include lack of time compensation, knowledge, and resources (25). Other health care providers are eager to step into the roles that can help extend the physician's ability to meet the new challenges and rewards brought by VBC (26-29). It is essential that RDNs work to assure that the team who manages chronic conditions has an RDN who is prepared to take a strong role in VBC. Jortberg and colleagues (30) have strongly encouraged dietitians to "understand and embrace the opportunities and challenges that the new health care delivery and payment models present" for several years. Embracing this call to action to be nutrition leaders in innovative changes in how we deliver and are reimbursed for care in the current healthcare climate should be paramount for dietitians as we work to strengthen our ability to improve the health of our communities.

The first author (KC) was in a department meeting when it became clear that providing nutrition services was listed by an outside consulting group as a potential area for program cuts. The physicians had said

nutrition services were "essential" for their patients, but leadership reported those services were not meeting revenue targets. KC immediately became emersed in understanding the billing and reimbursement for services. This had previously not been a part of her role as defined by the organization. In this process she identified services that were not being reimbursed or where being attributed to non-RDN providers. Improvements were made in the billing and how these were attributed to RDNs. Subsequently KC was named Director of Nutrition Services for our academic faculty practice and later was invited to the High Value Care and Quality Group where the planning for the organization's transition to VBC was happening. It was there she discovered the value the RDN could provide in the VBC, ambulatory setting and how the RDN could be better utilized. She set out to learn about VBC, share that knowledge with other RDNs and demonstrate to the institution's leadership that RDNs were indeed critical to improving patient outcomes at a reasonable cost.

Changing the RDN mindset

RDNs have long stated that they are the Experts in Nutrition. However other licensed health care professionals, including but not limited to physicians, nurses, pharmacists, physical and occupational therapists, and speech have increasingly recognized nutritional care and obesity prevention and management as part of their scope of practice (31). Health or wellness coaches are relatively new to the health care team and assess individual health needs, customize recommendations—including dietary, as well as help patients navigate the healthcare organization. The Affordable Care Act is seen by some as a catalyst for the rise of the health coaching profession (32). RDNs need to demonstrate that their specialized training can not only produce improved clinical outcomes but can contribute in other ways to the VBC performance indicators selected by their organization. In our clinics we have trained RDNs working with patients with hypertension to accurately measure blood pressure and document this in the clinic notes. We have also worked with administration to order blood pressure monitors for the clinical RDN offices to assure easy access during the visits and group classes. RDNs working with patients with

diabetes are asked to check that an A1C level has been measured and work with nursing staff to get this lab completed during the visit if it is overdue.

INSERT CALL OUT ABOUT HERE: RDNs need to demonstrate that their specialized training can not only produce improved clinical outcomes but can contribute in other ways to the VBC performance indicators selected by their organization.

Where RDNs might begin

Educate self on VBC. RDNs must start by educating themselves on VBC models. This may start as simply as reading articles, like this one or those aimed at primary care physicians (24). Identifying individuals who are leading the VBC efforts in the system is a critical step. Many organizations have a committee to address high value care initiatives, quality, and planning. It is worth the RDNs time, not to wait, but to schedule meetings to discuss the system's efforts and work to find a seat on these committees or at a minimum to request a presence in these meetings.

One of the complexities of VBC is that there is no single model or program. Instead, there are many models which are constantly changing. Often these models have different measures, which may be similar but are not identical (24). Understanding the models that a practice participates in and the measures the practice is targeting to improve may be the RDNs opportunity to determine where he/she can add value to the organization.

Code Appropriately. The Academy of Nutrition and Dietetics (AND) periodically surveys RDNs to understand their knowledge and practices related to coding, billing, and payment. The most recent survey indicates that although the US health care system is experiencing considerable changes in

reimbursement for medical and nutrition services, the knowledge of billing and coding of RDNs has been stable and even low, especially in those with non-supervisory roles. Jortberg and colleagues (33) suggest "RDNs may be putting their jobs at risk and leaving potential revenue on the table and foregoing important opportunities to create jobs, expand roles, and increase salaries."

Meanwhile as our medical system and physician practices are working in this VBC space to meet metrics, improve outcomes and lower healthcare costs, they are being encouraged to identify the high-risk patients and develop targeted interventions that avoid "downstream" complications that increase costs of care (24). It is important for RDNs to work with the care teams to identify patients whose care is more complex because of malnutrition or other chronic health conditions for which MNT is known to improve outcomes. It is important for RDNs to learn about HCCs and how to use and document the care provided for them.

Finding Focus: Considering what and where interventions make sense in your organization

Identify metric targets. RDNs should work with their organization to Identify metric targets in the organization where MNT has evidence to make a difference. In our organization, as in most, two VBC metric targets, control of blood pressure and of diabetes are in the payment plan. Some payers may focus on other conditions such as CKD and malnutrition due to the increase in cost of care if these conditions are not recognized and managed early in the disease process.

Control of Blood pressure and control of diabetes. The metric target for diabetes control is a hemoglobin A1C value <9% and for blood pressure control readings of <140/90 mm Hg. Evidence strongly supports that RDNs have the skills needed to implement interventions in ambulatory clinics to support patient behavior change that assist patients to achieve improved blood glucose, blood pressure control and other parameters related to chronic disease, adding value to the team (34-38).

Prevention of CKD. In 2021 The Centers for Medicare & Medicaid Services, in part because of the high cost of care of patients with renal failure, introduced new models of care with strong financial incentives to delay the onset of dialysis (39. MNT, delivered by an RDN to patients with CKD are less likely to progress to dialysis and more likely to reduce blood pressure than those who do not receive MNT (40-41), The Kidney Disease Quality Initiative (KDOQI) clinical practice guidelines for nutrition advise early intervention by an RDN, in close collaboration with medical provider to deliver evidence-based MNT for patient with CKD (42).

Assessing and treating malnutrition. Malnutrition is an under-recognized health condition that impacts a patient's quality of life and has direct medical costs that can be reduced (43). In recent years, in part because an estimated 1/3 of patients in developed countries entering the hospital with malnutrition(44), there has been important development of inpatient assessment and treatment protocols to improve outcomes and reduce costs. It would be reasonable that the RDN suggest completing screening and assessment in the outpatient setting to avoid extended hospital length of stays. Many ambulatory care RDNs include addressing malnutrition in the treatment plan for patients referred for other conditions but formal a diagnosis has not been made, in part due to lack of reimbursement. It is often unclear who is managing enteral and parenteral feeding in the outpatient setting. This may be an area where the RDN can provide additional services to influence positive outcomes in patient care.

Ensuring success while avoiding burnout during the transition to VBC.

Assessing the RDNs workflow is likely necessary as an organization moves toward VBC. It is important to balance the needs of patients with other chronic diseases where MNT is critical to success with the need for revenue generation. This is necessary as we are currently work in both FFS and VBC space. It will be necessary to determine what can be eliminated and/or reduced while interventions are added that impact important outcomes and metrics. It continues to be important to measure outcomes and make

sure your contribution to quality metrics is being recognized in your organization. If you have the opportunity, contribute to efforts that provide evidence that MNT works in this type of practice

Finally, make sure make sure everyone in your health care organization knows. You will be surprised to hear "we didn't know RDNs did that!"

INSERT CALL OUT ABOUT HERE: You will be surprised to hear "we didn't know RDNs did that!"

What ECU RDNs are doing to address social determinants of health (SDOH)

Building on strength of the healthcare organization: diabetes care and medical food pantry . Several opportunities for patients to reduce their risk for diabetes as well as improve the management of the condition were in place to help patients reduce their A1C and blood pressure. Those efforts included an interprofessional diabetes clinic, grant funded Diabetes Self-Management Education and Support (DSMES) and Diabetes Prevention (DPP) programs, as well as grant funded weight management and healthy cooking programming. The next step is to ensure patients who are not meeting the goal metrics are aware of these opportunities. This requires working with medical providers, health coaches, wellness nurses, pharmacists, and communication specialists to enroll patients in those programs.

Social determinants of health (SODH) are factors such as genetics, behavior, environmental and physical influences, as well as social elements that influence health outcomes. Identification of specific SDOH factors, such as FI, can be documented by any healthcare professional utilizing a specific Z code added to

the billing documentation. Utilization of a Z code, like with HCs, helps contribute to the identification and recognition of the complete patient picture. This is important so that payors can not only predict current and future health risks related to existing medical conditions but also predict health outcomes based on specific social risks and unmet needs that patients experience (46).

In 2017, we began developing an intervention to address food insecurity (FI). The RDNs raised awareness of the existence of FI, patience reliance on food pantries, family, and friends for food along. They alerted physicians about the impact FI had on the patient's ability to follow physician's instructions to manage their obesity, diabetes control, hypertension, and other chronic disease states. The RDNs surveyed and documented the rates of FI, developed the questions to be added to the EMR, provided education to the medical staff, identified resources to initiate the development of a medical food pantry, tailored educational materials for the local population and collaborated with administrators to ensure the pantry's sustainability (47). Outside of the RDNs, MWNs were one of the first groups that added screening for FI in their visits and began providing bags the Medical Food Pantry regularly at visits when patients screened positive for FI. The RDNs continue to work to improve utilization of this resource given the impact on health.

During COVID the ECU RDNs quickly pivoted to providing nutritional services in a variety of ways that helped patients manage their chronic conditions (48). With success in this area, we have continued these visits and are now investigating if virtual visits may help us expand our services to more patients. Not only were they able to provide telehealth visits, they also often prepared patients for telemedicine visits with their primary care provider.

RDN staff trainings. We offered online blood pressure training for dietitians to assist with accurate blood pressure measurement and documentation in the medical record. We have provided training in

diagnosing malnutrition (https://www.eatrightpro.org/nfpe) with a plan for follow up training and work with physicians to diagnose malnutrition where it affects the complexity of care for patients.

Monthly outpatient enteral feeding clinic. We have developed an outpatient enteral feeding clinic managed by a physician and RDN to improve the care of patients who at times were unable to easily access care in our system. The RDN verifies the tube feeding orders and works with the patient and family to assure the feeding volume and formula type are meeting the patient's needs. The RDN looks at response and outcomes of care, tolerance of feedings, barriers to care, and works with home health companies, providers, and family to help resolve those for the patient. In the VBC space this has the potential to impact the payment for care while improving outcomes for these patients.

Hypertension intervention pilot. In our healthcare organization, the first author (KC) began working with the Medical Director (JF) and Director of Quality (DG) to determine what targeted metrics that the RDNs could impact. Our Medical Director expressed interest in our developing a pilot hypertension intervention. One of the four modules in our Family Medicine Clinic was selected. A physician champion was identified to collaborate in the design and implementation of the intervention. The Quality Manager (DG) provided a list of patients from that module who were not meeting the blood pressure metric. Once we received the list, the RDN met with the pharmacist and physician champion to determine what data we might need to know about the patients. The pharmacist collected information on medications ordered to treat hypertension, dosing, and adherence data. The pharmacist worked with the physician to determine that hypertension was being treated optimally and how we might decrease barriers to adherence. We also looked at the age, ethnicity, race, and insurance coverage information available in our electronic medical record. We are collecting information on previous dietary counseling

the patient may have had, comorbid conditions and BMI. We are currently evaluating how these patients may be plugged into some of our existing programs as well as working to obtain referrals for MNT when covered by insurance for those who have not had MNT previously. Finally, the RDN is reviewing the literature for existing hypertension group programs that have been validated in groups similar to our population.

INTERPROFESSIONAL TRAINING

The National Academies of Sciences, Engineering, and Medicine's Global Forum on Innovation in Health Professional Education (49) is one group focused on interprofessional practice and education. It often explores the intersection of health professions education and practice where both sectors are working toward the same goal of improving the health of patients and populations, without compromising the mental stability and wellbeing of the workforce or its learners. There clearly is a need for greater alignment between education and practice to realize these desired outcomes more fully. While there is a growing literature about the RDN role in interprofessional practice and working on teams, we did not find that interprofessional education has been widely incorporated into Nutrition and Dietetics Education programs (50). Learning about billing and coding for MNT is a knowledge requirement for dietetic students and interns (51-52). The Academy has a handbook that is one resource for training (53).

INSERT CALL OUT ABOUT HERE: we did not find that interprofessional education has been widely incorporated into Nutrition and Dietetics Education programs

There are competencies and instructors report incorporating VBC into case study work. However, it is not clear how competencies related to learning about VBC are assessed. Nor how and where the skills needed to succeed in VBC taught. We found literature describing how medical students might learn about VBC (9). We call on dietetic educators to develop and share curriculum ideas.

SUMMARY

The literature clearly demonstrates MNT delivered by an RDN can lead improved outcomes for a number of chronic health conditions as discussed in this article. RDNs must understand and embrace opportunities that VBC models offer and must prepare themselves to collaborate with the other leaders on the interprofessional team. Knowledge of VBC as well as opportunities to learn the skills to advocate for the RDNs role on the health care team in the ambulatory setting are needed for dietetic students, interns, and practicing RDNs. Healthcare administrators must recognize that it is difficult to show a full return on investment with adding RDNs to the care team under a traditional FFS model; however, based on the examples listed above, the RDN plays a valuable role to the patient and organization by delivering outcomes focused on value. RDNs have value as a member of the expanded ambulatory team providing quality care, reducing costs, and providing an exceptional experience for the patient.

REFERENCES

1. Creager RJ, Turner JM, Cook JE. The clinical dietitian in family practice residency programs. J Fam Pract. 1984; 18(2):320-324.

2. Kolasa K, Lasswell A. Dietitian as medical educator. Topics in Clin Nutr. 1995;10(3): 20-28.

3. Kolasa KM, Deen D. Physicians Curriculum in Nutrition: Primary Care. Group on Nutrition, Society for Teachers of Family Medicine. 2002. Available at MedEdPortal. https://www.mededportal.org/doi/10.15766/mep_2374-8265.159. Accessed September 30, 2023.

4. Centers for Medicare & Medicaid Services. Decision Memo for Medical Nutrition Therapy Benefit for Diabetes & ESRD (CAG-00097N). February 2002. https://www.cms.gov/medicare-coverage-database/view/ncacal-decision-memo.aspx?proposed=N&NCAId=53. Accessed August 18, 2023.

5. Ozoor M, Gritz M, Dolor RJ et al Primary care provider uptake of intensive behavior therapy for obesity in Medicare patients, 2013-2019. PLOS ONE, March 24, 2023. https://doiorg/10.1371/journal.pone.0266217. Accessed August 18, 2023.

6. Academy of Nutrition and Dietetics. MNT: Cost effectiveness, cost-benefit, or economic savings of MNT. Analysis Library, 2009. https://www.andeal.org/topic.cfm?cat=4085 Accessed September 4, 2023.

7. Zip Recruiter. https://www.ziprecruiter.com/Jobs/Dietitian. Accessed September 25, 2023.

8. Gurwitz A. Nutrition's critical role in value-based care. Health Care Business Today. June 26, 2021. https://www.healthcarebusinesstoday.com/nutritions-critical-role-in-value-based-care. Accessed September 30, 2023.

9. Teisberg E, Wallace S, O'Hara S. Defining and implementing Value-Based Health Care: A strategic framework. Acad Med. 2020;95(5):682-685.

10. Hupke C. Team-Based care: Optimizing primary care for patients and Institute of Healthcare Improvement. 2014; (May 16). http://www.ihiorg/communities/blogs/team-based-care-optinmizing-primary-care-for-patients-and-providers. Accessed September 3, 2023.

11. Beckman AL, Becerra AZ, Marcus A, et al. Medicare Annual Wellness Visit association with healthcare quality and costs. Am J Manag Care. 2019; 25(3):e76-e82. Accessed September 3, 2023.

12. Shires DA, Tabriz AA, Miller CA, et al. Team functioning and clinical quality, patient satisfaction, and patient portal implementation among patient-centered medical homes. The Am J Accountable Care. 2018;9(3):23-27.

13. Andel C, Davidow SL, Hollander M, et al. The economics of health care quality and medical errors. J Health Care Finance. 2012;39(1):39-50.

14. Foltz Jason, Gay D, Dartt M, et al Patient health outcomes as a cornerstone in seeking the Quadruple Aim. MGMA Connection. 2021;(January): 62-65.

15. Dreyer T, Maddox KJ. What's the value in value-based care? 2023. AAMC Issue Brief. https://www.aamc.org/advocacy-policy/aamc-research-and-action-institute/whats-value-value-based-care. Accessed September 30, 2023.

16. Gunja MZ, Gumas ED, Williams II RD. U.S. health care from a global perspective, 2022: Accelerating spending, worsening outcomes. Commonwealth Fund. Jan. 2023.

17. Werner R, Emanuel E, Hoangmai H, et al. The Future of Value-Based Payment: A Road Map to 2030. A White Paper. Leonard and Davis Health Institute of Health Economics, University of Pennsylvania, 2021. https://ldi.upenn.edu/wp-content/uploads/2021/07/PennLDI-Future-of-Value-Based-Payment-WhitePaper.pdf?_ga=2.53978600.1784586575.1693339128-1626887975.1693339128. Accessed September 30, 2023.

18. Bazzoli F. Two canoes, one canoeist: The accelerated transition to value-based care. Health Data Mgmt. Newsletterhttps://www.healthdatamanagement.com/articles/two-canoes-one-canoeist-the-accelerated-transition-to-value-based-care. Accessed September 2, 2023.

19. Lewis C, Horstman C, Blumenthal D et al. Value-based care: What it is, and why it's needed, Commonwealth Fund. 2023 (Feb 7). https://doi.org/10.26099/fw31-3463. Accessed September 3, 2023.

20. Yeatts JP, Sangvai D. HCC coding, risk adjustment, and physician income: What you need to know. Fam Pract Manag. 2016; 23(5):24-27.

21. Am Acad Fam Phys. Hierarchical condition category coding. 2020. https://www.aafp.org/family-physician/practice-and-career/getting-paid/coding/hierarchical-condition-category.html. Accessed September 25, 2023.

22. Watson MM. Documentation and coding practices for risk adjustment and Hierarchical Condition Categories. Practice Brief. J AHIMA. 2018;89(6):46-51. https://bok.ahima.org/doc?oid=302516. Accessed September 30, 2023.

23. CDC. North Carolina Diabetes Profile. September 15, 2022. https://www.cdc.gov/diabetes/programs/stateandlocal/state-diabetes-profiles/northcarolina.html. Accessed September 30, 2023.

24. Dom DJ. How to succeed in Value-Based Care. Fam Pract Manag. 2021; 28(6):25-31.

25. Kolasa KM, Rickett K. Barriers to providing nutrition counseling cited by physicians: A Survey of Primary Care Practitioners. Nutr Clin Pract. 2010; 25:502-509.

26. Fortmann AL, Walker C, Barger K, et al. Care team integration in primary care improves one-year clinical and financial outcomes in diabetes: A case for Value-Based Care. Popul Health Manag. 2020; 23(6):467-475.

27. Nesin N. Pharmacists should be part of the primary care team. J Ambul Care Manage. 2020; 43(4):317-318.

28. Valliant SN, Burbage SC, Pathak S, et al. Pharmacists as accessible health care providers: quantifying the opportunity. J Manag Care Spec Pharm. 2022;28(1):85-90.

29. Comunale MJ, Lerch W, Reynolds B. Integrating advanced practice providers into value- based care strategies: One organization's journey to achieve success through interprofessional collaboration. J Interprof Educ Pract. 2021;22:100384. Accessed September 30, 2023.

30. Jortberg BT, Fleming MO. Registered dietitian nutritionists bring value to emerging health care delivery models. J Acad Nutr Diet. 2014;114(12):2017-2022.

31. Eliot K, Firnhaber G, Cuff P, et al. A mixed methods exploration of Interprofessional roles and competencies in obesity treatment. J Interprofessional Educ & Pract. 2021. 25:100475. https://doi.org/10.1016/j.xjep.2021.100475

32. May CS, Russell CS. Health Coaching: Adding value in healthcare reform. Global Adv Health Med. 2013;2(3):92-94. DOI:10.7453/gahmj.2013.032

33. Jortberg BT, Parrott JS, Schofield M, et al. Trends in Registered Dietitian Nutritionists' knowledge and patterns of coding, billing, and payment. J Acad Nutr Diet. 2020;120(1):134-145.

34. Stoddard AM, Palombo R, Troped PJ, et al. Cardiovascular disease risk reduction: The Massachusetts WISEWOMAN Project. J Women's Health; 2004;13(5)539-546.

35. Philip A, Mayahara M, Fogg L, et al. The impact of an education intervention to improve blood pressure control among black non-Hispanic patients and Hispanic patients with chronic kidney disease Nephrol Nurs J. 2022;49(4):351-358.

36. Sikand G, Cole RE, Handu D, et al. Clinical and cost benefits of medical nutrition therapy by registered dietitian nutritionists for management of dyslipidemia: A systematic review and meta-analysis. J Clin Lipidol. 2018;12(5)1113-1122.

37. Evert AB, Dennison M, Gardner CD, et al. Nutrition therapy for adults with diabetes or prediabetes: A consensus report. Diabetes Care;2019;42 (5):731–754.

38. Riegel GR, Ribeiro PAB, Rodrigues MP, et al. Efficacy of nutritional recommendations given by registered dietitians compared to other healthcare providers in reducing arterial blood pressure: Systematic review and meta-analysis. Clin Nutr. 2018;37: 522e-531e.

39. Tummalapalli SL, Mendu ML. Value-Based Care and kidney disease: Emergence and future. Adv Chronic Kidney Dis. 2022; 29(1): 30–39. doi:10.1053/j.ackd.2021.10.001.

40. de Waal D, Heaslip E, Callas P. Medical Nutrition Therapy for chronic kidney disease improves biomarkers and slows time to dialysis. J Ren Nutr. 2016;26(1)1-9.

41. Rozga M, Burrowes JD, Byham-Gray LD, et al. Effects of sodium-specific Medical Nutrition Therapy from a Registered Dietitian Nutritionist in individuals with chronic kidney disease: An evidence analysis center systematic review and meta-analysis. J Acad Nutr Dietetics. 2022;122(2)445-460.

42. Ikizler TA, Burrowes JD, Byham-Gray LD, et al. KDOQI clinical practice guideline for nutrition in CKD: 2020 update. Am J Kidney Dis. 2020;7(3)(suppl 1):S1-S107.

43. Goates S, Du K, Braunschweig CA, et al. Economic burden of disease-associated malnutrition at the state level. PLoS One. 2016;21;11(9):e0161833.

44. Guenter P, Jensen G, Patel V, et al. Addressing disease-related malnutrition in hospitalized patients: A call for a national goal. J Comm J Qual Patient Saf. 2015;41(10):469-473

45. White JV, Guenter P, Jensen G, et al. Consensus statement: Academy of Nutrition and Dietetics and American Society for Parenteral and Enteral Nutrition: Characteristics recommended for the identification and documentation of adult malnutrition (undernutrition). J JPEN. 2012;36(3):275-83.

46. Centers for Medicare & Medicaid Services. Utilization of Z codes for Social Determinants of Health among Medicare Fee-For-Service Beneficiaries, 2019. Data Highlight No. 24, September 2021.

47. Patil SP, Craven K, Kolasa K. Food insecurity: How you can help your patients. Am Fam Physician. 2018;98(3):143-145.

48. Kolasa KM, Craven K, Nordby K. Meeting the challenge of providing nutrition services during the COVID-19 pandemic. Nutr Today. 2021;56(1):7-18.

49. Global Forum on Innovations in Health Professional Education. https://www.nationalacademies.org/our-work/global-forum-on-innovation-in-health-professional-education.

50. Eliot KA, Wilson M, Breitbach AP, et al. Incorporation of Interprofessional Education in nutrition and dietetics education programs. Top Clin Nutr. 2017; 32(3):184–192.

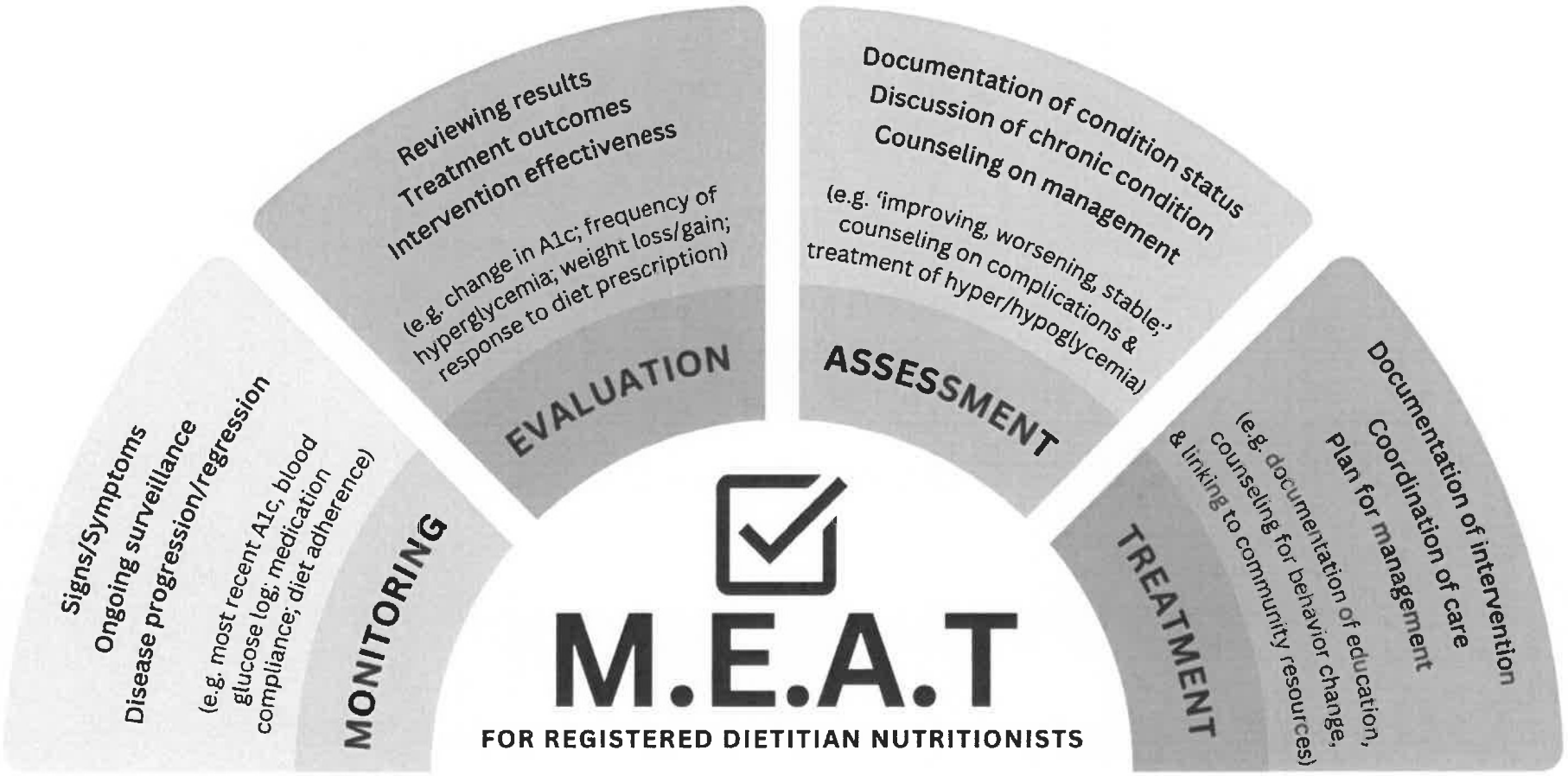
51. Accreditation Council for Education in Nutrition and Dietetics (ACEND) 2022 Accreditation Standards for Nutrition and Dietetics Coordinated Programs (CP). Adopted September 1, 2021; Effective June 1, 2022. Accessed September 5, 2023 at https://www.eatrightpro.org/acend/accreditation-standards-fees-and-policies/2022-standards-and-templates

52. Accreditation Council for Education in Nutrition and Dietetics (ACEND) Future Education Model Accreditation Standards for Graduate Degree Programs (GP) in Nutrition and Dietetics. Adopted November 1, 2021; Effective June 1, 2022. Accessed September 5, 2023 at https://www.eatrightpro.org/acend/accreditation-standards-fees-and-policies/future-education-model-standards-and-templates

53. Academy Nutrition and Dietetics. 2020. Coding & Billing Handbook: A Guide for Program Directors and Preceptors.

https://www.eatrightpro.org/career/payment/coding-and-billing/coding-billing-handbook. Accessed September 30, 2023.

FIGURE LEGEND: M.E.A.T. For Registered Dietitian Nutritionist



Proper documentation with M.E.A.T is essential to support HCC diagnoses and ensure accurate risk adjustment.

(An example using insulin-treated diabetes with hyperglycemia)

Adapted from: Watson MM. Documentation and coding practices for risk adjustment and hierarchical condition categories. *J AHIMA*. 2018;89(6):46-51.