Landscape of Nutrition Services Available in Vermont (2022)

Purpose of this Overview: In 2021, Bi-State Primary Care Association received a Healthy Rural Hometown Initiative (HRHI) grant to pilot programs at Vermont federally qualified health centers (FQHCs) using food interventions to reduce cardiovascular disease. This project uses existing evidence-based models for changing clinical indicators of CVD risk to inform Vermont pilot design. In reviewing current models, we identified access to nutrition services as a common core element. This overview is designed to provide a sense of services available in Vermont and opportunities for expansion – it is not a comprehensive inventory of individual programs and not every program is available to every practice.

Food integrated into health care covers a range of applications, including nutrition security, community health / general prevention, and targeted treatment for diet-related conditions. The focus of the HRHI grant is to build from a strong nutrition security / community health program base to expand towards more options to include treatment of diet-related health conditions. We grouped common elements shown in successful models as: Information Management, Access to Nutrition Services, Integrated Medication Management, Access to Food Programs Matching Dietary Treatment Needs. As part of establishing data collection systems in the early phase of this grant, Bi-State will be setting up mechanisms to help providers keep track of patients' participation in nutrition education and counseling programs, including from external providers.

Example of Evidence Base: The most robust program design that combines food access and treatment for specific diet-related conditions is Medically Tailored Meals (MTM). Part of the definition of an MTM program is referral from clinicians and access to Registered Dietitian (RD) services to work with patients on monitoring prescribed diets. Federally funded senior nutrition meal programs, which also have a goal of helping to manage chronic health conditions, require RD engagement in menu design and offer nutritional counseling. Although there are fewer national standards for non-meals-based food access programs used in treatment, case studies suggest a significant role for nutrition services. A 2017 Harvard Business Review of the pilot phases of the Geisinger Fresh Food Farmacy project for treating Type 2 Diabetes reported that the design switched from voluntary to required participation in education programming, as food alone was insufficient to reach clinical goals. Kaiser Permanente's current Produce Prescription trial integrates nutrition services from the beginning. A 2021 white paper from Fresh Connect, a produce prescription platform, outlines the framework for their learning model, where they plan to prioritize future research on food prescriptions as complement to existing models of care.

The previous examples come from programs designed to provide food access support within a health care context. Much more extensive evidence exists if we focus only on the impact of nutrition and related services on health goals. The Academy of Nutrition and Dietetics provides an extensive clinical evidence database for the impact of nutrition services as part of a medical team. This evidence based has been used for (among other things) expanding coverage of nutrition services by public payers. We can also look towards care approaches such as integrative medicine, culinary medicine, functional medicine, and lifestyle medicine for clinical evidence on the potential health impacts of integrating diet-change into recognized medical treatments for a range of conditions. Lifestyle Medicine, for example, integrates healthful earing as one of its six pillars. Their curriculum trains physicians, and other professionals, in strategies for patient engagement, coaching, and skills development. Other sources of best practices for treatment focus on particular conditions. For example, the National Diabetes Prevention Program emphasizes high levels of engagement and structured support from trained educations and coaches through their evidence-based structures. In 2022 the Center for Food as Medicine and Hunger College NYC Food Policy Center released an extensive report on the different perspectives from which ”food as medicine” has been studied in recent decades. Adding food access elements to evidence-based frameworks for dietary behavior change allows more patients to effectively access these options.

Terminology for Nutrition Services

Nutrition and diet related services appear under different categories, and the next pages provide the four basic categories included in this review. The overall approach can be fragmented. For example, the U.S. Government Accountability Office reviewed federal prevention strategy around diet-related health conditions in 2021 and found 200 efforts across 21 agencies, 72 of which were described as "education and clinical services". Activities in this category include:

- Inform or counsel patients or program beneficiaries.
- Provide clinical services, such as medical nutrition therapy from a registered dietitian nutritionist, including nutrition diagnosis and counseling.
- Use mass communication to inform the public.
- Support and train individuals or organizations that provide education services.

The GAO notes overlap between their services category and the research category. For example, the USDA Food and Nutrition Service recognizes Nutrition Education that includes setting dietary guidelines, broadly communicating those guidelines, training food services organizations to use the guidelines to design health strategies, and educating individuals through programs like SNAP-Ed.

With a more individual focus, the Academy of Nutrition and Dietetics uses the following terms:

- Nutrition Education: Reinforcement of basic or essential nutrition-related knowledge.
- Nutrition Counseling: A supportive process to set priorities, establish goals, and create individualized action plan which acknowledge and foster responsibility for self care.
- Medical Nutrition Therapy (MNT): A specific application of the Nutrition Care Process that is focused on the management of diseases. MNT involves in-depth individualized nutrition assessment and a duration and frequency of care using the Nutrition Care Process to manage disease.

Notably, MNT refers to a group of service codes that can be billed to payers that cover individualized nutritional diagnostic, therapeutic and counseling by a qualified health professional.

Insurance plans set details on who is permitted to bill (for example RDs after an MD referral), connected to which diagnoses, for what time duration, and any annual caps on either frequency or total visits per year. For example, Medicare Part B covers MNT for diagnoses of diabetes, non-dialysis kidney disease, and 36-months post kidney transplant with a physician referral, to a Medicare-recognized Registered Dietitian, with up to 3 hours of services in the first year of referral and up to 2 hours in subsequent years. Meanwhile, a 2022 recommendation by Vermont's Department of Health Access (DVHA) for Essential Health Benefit coverage would remove current limitations on number of MNT services for diseases other than diabetes. Other states have no coverage requirement. Vermont Medicaid covers MNT when provided by an RD, following a referral by a licensed provider, for beneficiaries who:

- Have a nutrition related medical condition, either acute or chronic, that requires an individual treatment plan more involved than basic nutrition counseling that might be provided by a primary care provider; AND
- The RD or RDN is working in conjunction with their primary care provider or multidisciplinary team to determine the beneficiary's daily food intake, level of physical activity, medication and other factors that contribute to poor nutritional status. (2021)

MNT is not required to be covered in Medicaid. Approximately half of states offered this benefit or something similar in 2021, according to a Center for Health Law & Policy Innovation report on Nutrition and Food Access in Medicaid.

Nutrition Services – Categories and Examples

For the purposes of this summary document, we have divided the services reviewed into four categories – General Education, Education Structured Around Diet-Related Conditions, Individual Counseling & Assessment, Services to Support Implementing a Dietary Plan -- with examples of the types of programs found in Vermont within each category. These categories are not exclusive, programs may have activities within multiple areas. Additionally, some programs may have variations in what they offer in different health service areas. This overview is intended to provide a sense of available services to explore further; it is not a complete, detailed inventory.

General Education – Evidence-based programs that support healthy eating patterns, usually for the purpose of early prevention that is not connected to clinical indicators of risk, pre-condition, or health condition. Programs may be offered by, or patients may be referred from, a health care provider but provider engagement is not necessarily a pre-requisite for participation.

The U.S. Department of Agriculture (USDA) sponsors several education-focused programs in connection to federal benefits for food access. The Expanded Food and Nutrition Education Program (EFNEP) serves income-eligible households with expecting parents, children, and teens. Our state program is operated by University of Vermont Extension. The Women, Infants and Children (WIC) program includes community activities, in-person counseling, and online learning. SNAP-Ed supports nutrition education, along with policy / systems / environmental change and social marketing. One example of a program using Vermont SNAP-Ed (and other) grant funds for a combination of education and developing a food environment that supports healthy eating habits is Vermont Fresh at the Vermont Foodbank.

Another category that can be viewed as nutrition education in complement to USDA food support is farm-to-school programming, although farm-to-school does not only happen in places using USDA school food or early childhood systems. VT FEED, which connects a network of farm-to-school practitioners, emphasizes integrating classroom and education alongside local food purchases for the cafeteria.

Nutrition education can be embedded in a retail environment. Since 2019 the Academy of Nutrition and Dietetics has had a program developing resources to support 'food is medicine' at food retailers, which increasingly combine RDs, pharmacists, and some level of in-store clinic services (1/3 of stores reported an in-store clinic in 2019; telehealth trends may since have accelerated that trend). Grocery stores may also partner with community groups to offer food programs, including using their RD staff (85% of food retailers employ RDs). One example is the DC Greens and Giant Foods partnership. Giant Food provides "wrap around" nutrition education for Produce Prescription participants, store tours, and educational materials. The National Grocers Association's Technical Assistance Center provides resources to support implementation of nutrition incentive programs, and Vermont Farm-to-Plate includes training resources for promoting both local and healthy foods in retail settings.

Accountable Communities for Health provide another avenue for offering general education to support healthy eating. For example, the NEK Prosper ACH builds from the nationally recognized Food Hero program for food education. Community Health Teams and Community Collaboratives may also organize nutrition education opportunities for their regions. Community Health Workers (CHW) are another point of connection for nutrition education and services that do not require a medical license. Health education, and navigation to supporting services, are part of a CHW scope of practice.

Some education programs focus on general, community-wide healthy dietary patterns and track success success through population level trends in specific health conditions. The 3-4-50 program, for example, encourages the healthy behaviors that can reduce incidence of cancer, heart disease & stroke, Type 2 diabetes, and lung disease and the Vermont Department of Health provides a detailed scorecard.

Education Structured Around Diet-Related Health Conditions – Programs in this category may include similar dietary concepts to general prevention, but participants are referred based on specific risk factors. Programs may be paired with individual counseling to set personal dietary plans and may integrate monitoring biometric markers and (where appropriate) medication management.

The Vermont Blueprint for Health provides access to classes and education for managing chronic conditions, including diet-related conditions, as part of their Self-Management programs. MyHealthyVT.org, sponsored with the Vermont Department of Health and UVM Medical Center Community Health Improvement program, provides an overview of opportunities. The most-utilized programs are Diabetes and Pre-Diabetes self management, built on evidence from the National Diabetes Prevention Program. A 2020 evaluation of Vermont self-management classes found that regions with higher one-on-one engagement between sessions, including counseling with an RD, had greater success.

The Vermont Department of Health supports self-management programs related to diabetes and cardiovascular disease with funds from the CDC 1815 grant program. These funds also support complementary activities, including quality improvement at health care practices, expanding the Community Health Worker workforce, and creating access with pharmacists who can provide Medication Therapy Management services.

Health practices often hold group sessions around diet-related conditions, which can take many formats. Dietitian services at UVM MC, for example, may happen in 1-on-1 sessions, in the Shared Medical Appointment model that bring together patients with similar conditions, and as part of a team in integrative medicine approaches such as the Comprehensive Pain Program. Sometimes the condition is not diet-related, but diet-relevant, such as classes for new parents or social groups for older patients learning to cook for a smaller household and changed nutritional needs.

Individual Counseling and Assessment – Counseling by a licensed provider to help individual patients create dietary regimens that support their health goals, this category may be an initial assessment and referral (for example to one of the education programs in the previous category, or to a tailored food access program) or extended individual services. This section does not include mental health services specific to treating eating disorders.

Individualized assessment and counseling is an important part of diet- and nutrition-related changes, even in contexts when the majority services come from classes, cohort-based behavior change programs, shared medical appointments, or other group activities (see, for example, the 2020 literature review of self-management program studies).

Quality measures for health care practices include basic nutrition information and education provided by the primary care provider (PCP). The Healthy People 2030 plan from HHS has goals for more nutrition counseling, such as “Increase Physician Office Visits Including Diet/Nutrition Counseling/Education for Patients with Obesity (NWS-5)”. Some organizations and policymakers support greater inclusion of nutrition as part of basic medical training.

Current models for comprehensive primary care include access to nutrition services. One example is the Patient-Centered Medical Home (PCMH). Supporting practices to achieve PCMH status is one of the Blueprint for Health core programs. Access in this case may mean referrals or a shared RD for the region, it does not require dedicated RD staff. Practices might deepen their integration of nutrition services through programs like Lifestyle Medicine, offered at Springfield Medical Care Systems. Some health professionals are also certified for nutrition work, such as Diabetes Care and Education Specialists. Elements of this role include engagement to help implement diet plans (see next section), but at higher levels can also cover assessing individual needs and medication management.

Individual Counseling and Assessment – continued from previous page

Advanced nutrition and dietary counseling are commonly provided through referral from the primary care provider. The referral may be to another practice network or an independent Registered Dietitian. The Blueprint for Health funds 14 RDs across the state to support primary care practices in providing this nutrition service access. The Area Agencies on Aging offer nutritional counseling and medication management among their services for age-qualified individuals. Telehealth is another route to access for individual consultations. Self-funded employer plans are one area seeing an increase in telehealth-based nutritional counseling. These platforms also appear in initiatives like the retail grocery-based clinics (mentioned in a previous section) in and direct to consumer business models.

Coverage of Medical Nutrition Therapy -- RD assistance that is individualized to a patient and prescribed for a certain condition -- may vary by payer and diagnosis. The most commonly covered services are for kidney disease and diabetes management. In 2022, the Vermont Department of Health Access (DVHA) recommended removing diagnosis restrictions in Qualified Health Plans. Vermont's Medicaid coverage includes an initial assessment and up to five hours of follow up therapy per condition per year, performed by a Registered Dietitian following referral by a primary care provider. Traditional Medicare covers limited hours of counseling related to diabetes and other kidney conditions, although Medicare Advantage plans may cover more services and a greater range of diagnoses. RDs may also be part of care teams with other providers and use alternative payment structures to bill. Information on trends at the end of this summary includes patterns seen for claims using the Medical Nutrition Therapy (MNT) common codes.

An important consideration for integrating licensed providers in nutrition-related services is the element of medication management. In some cases, such as with diabetes, dietary interventions can be dangerous without medication monitoring and management. In other instances, diet alone is insufficient and should be combined with medication for successful treatment, or medications may themselves be causing side effects like weight gain. This element is particularly important as many patients participate in diet-related programs only *after* a diagnosis prompts interest in, or readiness for, a lifestyle change.

Services to Support Implementing a Dietary Regimen – Services in the previous category for individual counseling and building dietary plans may include ongoing support for implementation, or that support may be managed through a complementary program or other care team members. A distinguishing factor is often licensure and who can provide which services within their scope of practice. A 2022 podcast episode, Building a Team, describes some ways services for implementation can be combined.

During the period of making a dietary change, many patients who have built a diet plan with a licensed provider will require assistance with implementing that plan. One source of this assistance is Certified Health and Wellness Coaches. These coaches do not set a dietary plan (although some RDs, MDs, and other qualified professions also have a coaching certification). Instead, they help clients make lasting changes that match their individual experiences, values, and goals. The Integrative Health department at the University of Vermont includes an Integrative Health and Wellness Coaching certificate.

Some models for lifestyle change blend education, group classes, coaching, and sustained support into one platform. Omada Health and Pivio (formerly CHIP) are two virtual examples. These programs partner with wellness programs at large employers, usually through self-funded insurance plans. Employers may integrate complementary benefits in-person at their worksites, such as cooking demonstrations, group education sessions, changes to cafeteria design, and food access support like subsidized CSAs or prepared meal subscriptions. The You First program through the Vermont Dept of Health offers eligible Vermonters access to services to reduce cardiovascular disease risk, including home monitoring of blood pressure, nutrition programs, local food access, Medication Therapy Management, and local health coaches.

Services to Support Implementing a Dietary Regimen – continued from previous page

Chef educators and others with professional cooking skills may also join care teams to assist in implementing new dietary patterns. The Culinary Medicine model emphasizes this blending of culinary and medical skill sets. Culinary Medicine relies on licensed medical providers to set diet plans and advise individuals. At the same time, team members trained in culinary science design appealing recipes and work with patients to improve their cooking skills and strategize for how to fit the recommended foods into their lives. Season Four of the Policy in Plainer English podcast explores some elements of this approach using examples from UVM MC, and a February 2022 workshop provided more details. Dartmouth-Hitchcock and UVM MC were both founding members of the Teaching Kitchen Collaborative, an informal peer-based learning network in Culinary Medicine that grew from the Healthy Kitchens, Healthy Lives conferences.

Many of the programs described elsewhere in this overview as being prevention oriented also serve patients who are maintaining a dietary change after a period of focus on lifestyle adjustments. For example, the Rural Health Information Hub provides examples of Community Health Workers supporting programs to prevent diet-related health conditions or manage them, following initial interventions with a licensed clinical provider. In another example, Area Agencies on Aging provide more intensive services with home delivered meals and individual counseling, alongside less intensive services such as congregate meals and general education classes that clients might transition into, such as following an illness.

Food access programs support implementing a new dietary regimen through the basic mechanism of making the medically-indicated food available, but can also be designed to guide a shift towards a different eating pattern. For example, Medically Tailored Meals programs can help a patient manage a new diagnosis, recover from a serious illness, or navigate a particularly complicated diet change, acclimating them to the new eating style, and then offer step-down supports, like food prescriptions and cooking classes, to transition to home preparation. As noted in the introduction, Fresh Connect, the produce prescription platform, has identified this type of transition as an important future application. Specialized food boxes, along with cooking instruction, recipes, peer coaches, and other materials can help patients explore a range of new options for a medically-indicated diet as they settle into long-term patterns. In these examples, the food program provides greater resources at the start of a dietary change to reduce the obstacles to experimenting with new diets and establishing new patterns. Because our tastes are heavily influenced by familiarity, and foods quickly become “familiar” through focused sampling, a short burst of new flavors can have a sustained impact.

Variability in Access to Nutrition Services:

The many different forms that nutrition counseling and education services take makes it difficult to generalize availability across the state. Some programs, such as the online services offered through employers, would not appear in public databases. Other programs have grant-based reports of total participants. One starting point is to look for patients receiving individual RD consultations under the standard Medical Nutrition Therapy codes, as these are often a starting point for participation in other services. These codes would not show difference in the *depth* of available services, as models like the Shared Medical Appointment utilized at UVM MC do not bill these codes and high engagement services such as Health and Wellness Coaching are not reimbursed through payer claims. One benefit of focusing on initial consultations is that we reduce double-counting of patients. The following chart shows the volume of MNT claims for new patient intake and follow up from VHCURES (the all-payer claims database) grouped by the provider’s location.

RD General Medical Nutrition Therapy Codes	2017	2018	2019	2020	2021
Burlington	3,275	6,256	9,159	11,355	8,219
NH	1,034	1,026	1,155	1,211	661
Morrisville	811	735	542	670	400
Rutland	653	541	576	474	335
Barre	248	697	659	513	231
St. Albans	405	432	354	527	431
OOS/Unknown	222	304	415	399	279
Brattleboro	370	319	259	98	62
Randolph	95	71	350	293	264
St. Johnsbury	129	185	233	179	123
White River Jct	323	220	125	122	23
Middlebury	74	128	89	87	123
Bennington		112	176	118	20
MA	114	105	73	61	57
NY	31	35	32	33	12
Newport	15				
Grand Total	**7,799**	**11,166**	**14,197**	**16,140**	**11,240**

Services are clustered in the Burlington area, disproportionate to the population concentration found there. In 2020 and 2021, many of the types of medical visits that would have resulted in referral to RD services saw a dramatic decline, so it would be reasonable to anticipate that if we adjusted for that baseline drop the dip in 2021 would disappear. The claims database does not include most self-funded plans (about 50% of Vermont's commercial market).

Current regional variations in utilization do not show the degree to which differences are due to supply of services or demand. Individual providers have very different perspectives on integrating focused nutrition services in a medical context. Demand for RD services can be shaped by referring providers' interest in access as much, or possibly more than, patients' interest. For example, the perspective of local orthopedic surgeons on the importance of reducing BMI ahead of surgery to lower the risk of post-operative complications (or avoid surgery altogether) ranges from fully integrating clinical nutrition services into the orthopedic practice to support BMI reduction ahead of elective procedures to not considering BMI a significant factor to address.

Anecdotally, provider perspectives are shaped by experience of patients' success with nutrition-related interventions, setting up a potential virtuous cycle as services increase within a region. The feedback loops can also go in the other direction. One example given was a physician providing a photocopied 'healthy eating' handout for gestational diabetes along with the warning that managing this condition through diet "has never worked for my patients." The 2020 review of chronic condition self-management programs in Vermont listed "physician skepticism" as a barrier to success. Stakeholder interviews noted that not all providers will diagnose pre-diabetes as a condition, and that patients in general "aren't phased" by this diagnosis or inclined to change behavior in response because it is so common. Studies of health care related food access programs, such as Produce Prescriptions, often combine all types of nutrition education into one category, without identifying what is provided in a clinical context tied to individual patients' health goals. Within payers we continue to find uneven guidance, with only about half of state Medicaid programs covering MNT or similar services (CHLPI, 2022).

Variability in Access to Nutrition Services – continued from previous page.

Another area with considerable variability is practices' experience in building teams that use staff at different licensure levels, or with different professional skill sets, to guide patient dietary change. In hospital systems, for example, the food service departments offer a clear avenue for engaging experienced food professionals. Vermont reinforces this connection through the Healthy Food in Healthcare network of hospital food service directors and the local chapter of Health Care Without Harm. Primary care practices, on the other hand, do not have the same starting connection to food.

Integration of nutrition services from non-licensed staff may improve organically as current workforce trends offer new opportunity. In 2018, the Vermont Department of Health received funding to develop strategies for engaging Community Health Workers in addressing chronic conditions. Surveys in 2020 and 2021 report that 92% of CHWs report working with their practice's clinical team and 70% are part of helping implement individuals care plans. At the same time, training on particular health conditions was listed as a high priority for CHWs, with only 41% of CHWs reporting that they'd received training on diabetes (no other diet-related condition made the top 5) and only 41% of employers reporting that CHWs helped increase patient compliance with treatment regimens. In another area, Health and Wellness Coaching is relatively new to formalized integration in health care. National Board certification began in 2017 and tracking codes (not yet reimbursable) to understand the service use patterns were first introduced in 2019. While some certification programs focus only on adding the coaching skill set for current health care professionals, the UVM Health and Wellness Coaching program has a goal of expanding the workforce by bringing in coaches from different backgrounds and at different career stages.

Regional variation in available clinical nutrition services can have a particularly strong impact on patients facing food insecurity, which often co-occurs with transportation barriers. UVM Children's Hospital, in an internal review of referral systems, found 75% of food insecure patients also request assistance with transportation. Below is the MNT code volume, this time by patient location, not provider location.

	2017	2018	2019	2020	2021
Burlington	3,394	5,690	7,717	9,298	6,390
Barre	643	1,259	1,583	1,542	1,022
Rutland	851	726	1,003	1,026	792
White River Jct	807	742	670	714	429
St. Albans	322	462	585	864	684
Middlebury	224	301	397	535	455
Morrisville	304	430	368	418	352
St. Johnsbury	305	387	403	337	210
Springfield	372	313	314	347	210
Brattleboro	265	295	268	300	254
Randolph	138	182	386	356	242
Bennington	84	237	332	265	104
Newport	70	106	132	107	86
Grand Total	**7,779**	**11,130**	**14,158**	**16,109**	**11,230**

Variability in Access to Nutrition Services – continued from previous page.

Patients facing food insecurity, or at risk of food insecurity, may have multiple barriers to participating in nutrition services and in other treatments that emphasize lifestyle change. Some nutrition education programs, such as the USDA-connected programs in the first section, specifically target participants with food access barriers. However, these groups may also have greater reason to engage in services through a clinical context. On average, patients experiencing food insecurity have a higher incidence of diet-related conditions and lower overall health quality. They also present with more advanced diet-related health conditions and more co-occurring conditions. They are more likely to struggle with medication adherence -- Feeding America reports 56% of Vermonters accessing the charitable food system choose between paying for food or paying for medicine. There is also potential positive reinforcement of adding a trusted health provider's opinion that diet change *can* work, and helping monitor and interpret the clinical results of that change over time. It is easier to overcome the challenges of implementing a new dietary pattern if you are confident it will have the desired health benefit.

Many health care practices collect data on food insecurity within the communities they serve and are increasingly tracking food insecurity screening results for individual patients (see this October 2021 report). Current coding practices make it difficult to track how this data then connects with participation in different types of nutrition services alongside, or separate from, food access. Clinical ICD-10 coding does capture malnutrition, but these diagnoses are a subset of patients facing food insecurity and may be the result of a different co-occurring condition unrelated to food security.

Type of Complication/Comorbidity	ICD-10 Code
Major Complication/Comorbidity (MCC)	E43 Unspecified Severe Protein Calorie Malnutrition
Complication/Comorbidity (CC)	E44.0 Moderate Protein Calorie Malnutrition E44.1 Mild Protein Calorie Malnutrition *(peds)* E45 Retarded Development Following Protein Calorie Malnutrition *(peds)* E64 Sequelae of Protein Calorie Malnutrition R64 Cachexia Z68.1 BMI <19, adult

Changes in ICD-10 coding, along with changes in technology to integrate food access platforms with EHRs, could allow for better analysis in the future. Another source of information could be pre- and post-reviews of changes at individual practices, for example changes in whether patients complete RD referrals if they know a health care practice has food access programs to support their diet change. Practices may also be able to perform more sophisticated analysis on population level data as other regions build their own detailed case studies. For example, we might try to understand patterns of utilization by patients whose EHR records indicate Type 2 Diabetes that is unresponsive to insulin alone. Or, as Medicare Advantage Plan coverage of medically tailored meals continues to expand, we could review Vermont databases to understand which patients meet common eligibility criteria for these meals but are not MA Plan participants. A more ambitious research project would be to take the current high variability in nutrition service utilization as a natural experiment where we might test the outcomes of different levels of integration into clinical practice.

Recommendations for Future Review:

The overview created in this report is an introduction to the landscape of nutrition services available in Vermont's rural health systems that could support effective ”food as medicine” health care integration. Other regions of the country and national groups are performing similar reviews and outlining their future research agenda. Examples of these resources include: **2020-2030 Strategic Plan for National Institutes of Health Nutrition Research**, **Food Is Medicine Research Action Plan** (Aspen Institute, 2022), **Food As Medicine** (Center for Food as Medicine, NYC Food Policy Center).

Additional research on critical gaps highlighted through this preliminary overview could help design a more effective statewide strategy for integrating food in health care:

Review Impact of Integrating Nutrition Services in Specific Scenarios: Although it is difficult to review the impact of the broad landscape of nutrition services, the variability in how services have been introduced in Vermont offers a chance to look at specific case studies linked to clinical evidence elsewhere. One potential area is in post-operative complications for patients who did or did not receive individualized counseling for weight reduction prior to surgery. Because differences exist between HSAs and also within HSAs, it should be possible to compare groups that are generally similar except for the level of integrating diet and nutrition as part of the care plan. Dartmouth-Hitchcock, for example, is currently investigating this question as part of their Culinary Medicine program. A second area that may be possible to review is the use of nutrition services, including Medically Tailored Meals, to support transition from hospital to home for Medicare-eligible patients. Differences in Medicare Advantage Plan coverage of food supports, collaborations between Older Americans Act programs (e.g. Meals on Wheels) and their region's health care providers, and levels of care management should provide an opportunity to increase our understanding of the role of nutrition in these transitions.

Review Current "Full Service" Programs: Some of the programs listed in this overview combine food access, nutrition assessments by licensed providers, and extended individualized support of dietary change to achieve specific health goals. Examples include Comprehensive Pain Program at UVM Medical Center, employer-based wellness programs such as Pivio and Omada Health, and You First. These programs could be reviewed for common lessons learned that might apply more broadly.

Understand Referring Provider Perspectives on Efficacy of Dietary Change: Anecdotally, Vermont health care practice staff have split opinions on using dietary change as part of treating health conditions and pre-conditions. This perspective is distinct from the importance of high-quality diet as an element of general good health and prevention, which has a more established place in Vermont's health culture. Perspectives on treatment can be gathered through interviews and qualitative data. There may also be opportunities for quantitative assessments that contextualize stated opinions with observed actions (and vice versa). For example, we know that MNT services cluster by region, but we do not know if referrals cluster around individual providers nor whether low referrals are attributable to lack of demand or lack of supply. As another example, we could compare A1c readings in the pre-diabetes range against diagnoses of pre-diabetes to see if there are differing practices in diagnosis and why. A third area to examine could be the prevalence of reliable ”closed loop” referral systems from primary care practices to RDs, indicating the degree to which nutritional assessments and counseling are integrated into primary care plans when a practice does not have its own clinical nutrition services department. Other, potentially better, examples could be generated with review by subject matter experts.

Recommendations for Future Review – continued from previous page

Reduce Confusion Regarding Payment for Medical Nutrition Therapy (MNT): Payers have different reimbursement policies for Medical Nutrition Therapy, including around eligible diagnoses, and number, duration, and frequency of services. For effective service referrals, we require clarity not only among licensed providers of these services but also the providers who would be making these referrals. Recent (2022) recommendations to update the Essential Health Benefit Benchmark Plan to expand MNT reimbursement could offer an opportunity to start resolving current confusion.

Explore Better Data Collection to Understand Dietary Regimens as Treatment: Recent coding changes may make it easier to track data on how food is integrated into patient treatment plans, including the impact of food access barriers on clinical outcomes. The 2021 E&M Coding updates created an avenue for using Social Drivers of Health Z-Codes as a complexity measure tied to reimbursement level (see this ICD-10 monitor update for an explanation). Using the ICD-10 code system, practices could note a combination such as Z59.4 (food insecurity) + Z91.11 (failure to comply with dietary regiment) to indicate that a patient has a dietary regimen developed in a clinical context, but that food barriers interfere with compliance. Unlike the MNT codes shown earlier in this document, the ICD-10 codes would not be limited to a narrow range of provider types or influenced by differences in payer reimbursement structure. Although it is extremely difficult for practices to add new coding routines, the E&M changes could make this relatively more attractive to practices. This information could also be critical to developing any future alternative payment models that incorporate food as part of treatment plans.

Individuals and organizations interviewed for this overview indicated that any proposed addition to current coding systems should meet the following criteria:

- Clearly defined ask – for example, a specific combination (Z59.4 + Z91.11) with a purpose in mind, not a more general "SDOH Z-code" ask.
- Direct connection to action taken on behalf of a patient – beyond the currently existing efforts to implement structured food insecurity screening (see earlier report).
- Connection to future reimbursement beyond current updates to E&M complexity coding – for example, will this information be needed for designing value-based payments? Will it be tied to quality score incentives? Will it be needed to assess feasibility of adding food or meals as a covered health service?
- Alignment with future federal action, we do not want to invest in an informatics project only to learn in a few years that CMS / other federal regulators want something different.
- Preference for piloting first with a provider group, such as registered dietitians, who work regularly at the intersection of food insecurity and medical dietary treatment.

Appendix: Medical Nutrition Therapy Reimbursement

Medical Nutrition Therapy (MNT) refers to a group of clinical services that cover diagnosis, prevention, and treatment of health conditions using dietary change. The Academy of Nutrition and Dietetics uses the following general definition:

- Medical Nutrition Therapy (MNT): A specific application of the Nutrition Care Process that is focused on the management of diseases. MNT involves in-depth individualized nutrition assessment and a duration and frequency of care using the Nutrition Care Process to manage disease. (Accessed online, June 2022)

Attributes that distinguish MNT from other nutrition services include the licensure level of the provider and a nutrition specialty, referral pathways that require diagnosis of a diet-related clinical condition, and individualization of care plans.

Reimbursement structures provide guidance on who is qualified to provide the services, requirements for referral, diagnoses, and duration and frequency of services. A new qualifying diagnosis or change in diagnosis usually resets the duration and frequency restrictions. The following notes give a general framework. Predicting payment for specific services depends on the details of a patient's individual plan and whether the professional providing the services is enrolled with that plan.

Medicare: Medicare views MNT as part of a group of complementary services focused on diabetes treatment (see overview from NGS here). Attributes of Medicare Part B MNT coverage (CY2022) include:

- Services are provided by Registered Dietitians (RD) and nutrition professionals after referral by a physician (MD or DO).
- Services are provided for treatment of diabetes, non-dialysis kidney disease, and following a kidney transplant.
- Medicare covers 3 hours of MNT services in the initial year of referral, and up to 2 hours for subsequent years.

See next page for Medicare Advantage Plans.

Secondary Insurance: For patients covered by both Medicare and another insurance, when MNT is provided for a diagnosis that is not billable to Medicare, an Advance Beneficiary Notice is completed for the patient and the bill is submitted to Medicare. After Medicare rejects the bill, it can be submitted to the secondary insurance and covered under the rules of that plan.

Medicaid: Approximately half of states offered MNT or a similar benefit in 2021, according to a Center for Health Law & Policy Innovation report on Nutrition and Food Access in Medicaid. Vermont Medicaid covers MNT when provided by an RD for beneficiaries who:

- Have been prescribed MNT by a qualified health professional (physician, physician assistant, nurse practitioner, osteopath, naturopath).
- Have a nutrition related medical condition, either acute or chronic, that requires an individual treatment plan more involved than basic nutrition counseling that might be provided by a primary care provider; AND
- The RD or RDN is working in conjunction with their primary care provider or multidisciplinary team to determine the beneficiary's daily food intake, level of physical activity, medication and other factors that contribute to poor nutritional status. (2021)

Medicaid covers one initial visit and up to 5 subsequent visits per calendar year. Additional visits require prior authorization. Beneficiaries enrolled in an accredited bariatric surgery program have up to 6 sessions covered per calendar year. (A currently proposed rule would remove visit caps, dated to July 15, 2022).

Appendix: Medical Nutrition Therapy Reimbursement cont'd

Medicare Advantage: Medicare Advantage Plans, or Medicare Part C, must provide *at least* the same level of MNT coverage as Part B. They may go beyond that baseline, as outlined by CMS (2022):

- Medical Nutrition Therapy (MNT): MA plans may offer as a supplemental benefit additional hours of one-on-one MNT counseling provided by a registered dietician or other nutrition professional, to enrollees who are eligible for the Medicare Part B-covered MNT benefit . . . In addition, MA plans may offer as a supplemental benefit one-on-one MNT counseling provided by a registered dietician or other nutrition professional, to all, or a disease defined group, of its enrollees. As with all supplemental benefits, the MNT benefit's primary purpose must be to improve health outcomes.

Plans should be reviewed individually for MNT coverage beyond traditional Medicare diagnoses.

Qualified Health Plans (QHP): Vermont currently requires all QHPs to cover nutritional counseling, for up to 3 visits per year. The visit limit does not apply to counseling for treatment of diabetes. A 2022 recommendation by Vermont's Department of Health Access (DVHA) for Essential Health Benefit coverage would remove the visit cap for all diagnoses in the next plan update cycle (CY2024).

The Affordable Care Act requires commercial health plans to cover certain preventive services without cost sharing. The list of services which, when offered, cannot impose a cost share on patients reflects the clinical evidence base of efficacy in prevention. It includes counseling related to nutrition and diet. For details, review the Class A & B services listed by the US Preventive Services Task Force.

TRICARE: TRICARE covers wellness programs, diabetes self-management, and registered dietitian MNT services provided under the supervision of a physician. See their covered services page.

Federally-Qualified Health Centers (FQHCs): Medical Nutrition Therapy is considered a PPS-qualifying visit type for FQHCs, and an RD is a billing qualified provider. See the FQHC PPS Specific Payment Codes manual from CMS for more details. An FQHC may also bill for an RD's medical services through incident-to billing procedures. FQHCs may not receive a separate payment for MNT when billed on the same day as another qualified visit.

Rural Health Clinics are not paid separately for MNT services (see Chapt 70.5)

Related Services:

Diabetes Self-Management Education and Support (DSMES – abbreviated DSMT in Medicare) is an accredited program for helping patients manage diabetes and reduce or avoid complications. DSMES services are covered in Vermont. The CDC provides a toolkit, which includes information on reimbursement and using DSMES in complement to MNT services.

The Diabetes Prevention Program began as a CMMI Innovation Model and was the first model to create a standard Medicare benefit (added in 2018). Accredited MDPP programs provide educational sessions, including coaching and counseling, for lifestyle change to prevent diabetes. In Vermont, the National Diabetes Prevention Program is one of the self-management courses offered without charge through MyHealthyVT.org.

Medically tailored meals and (for certain beneficiaries) produce prescriptions may be offered through Medicare Advantage Plans. Food as part of dietary treatment was one of the most common additional benefits nationally in 2022.