



Bethesda **NE**Wtrition
& **W**ellness **S**olutions

AAAs: Hub for Community Supports Addressing Social Determinants of Health

The case for effective identification and treatment of Malnutrition Risk

Presenter: Livleen Gill, MBA RDN LDN



AGENDA

- Payment frameworks now target **S**ocial **D**eterminants **o**f **H**ealth (SDOH)
- Current and changing health care landscape in Maryland
- Malnutrition's impact on healthcare cost
- How do AAAs own the mission of being the community hub – tools we will provide you to take charge

Social Determinants of Health

- Definition of SDOH/HRSN
- SDOH screening and coding
 - ICD-10 SDOH codes - Z55-z65
- Screening tools

Federal Legislation

& Social Determinants of Health



Chronic Care Act 2018

- Bipartisan Act that Congress passed On February 11, 2018
- New federal law advancing integrated, person-centered care for Medicare & dually-eligible beneficiaries
- Medicare Advantage Plans and their role

Key Medicare Advantage & SNP* Provisions

- Expands supplemental benefits & continues VBID demonstration for chronically ill MA enrollees
- Permanently authorizes D-SNP, C-SNP, & I-SNP
- Promotes additional integrated care in D-SNPs
- Updates C-SNPs care management requirements & condition list (e.g., HIV/AIDS, ESRD, & mental illness)
- Expands tele-health access

*SNP = Special Needs Plans

Types of Covered Services

- Adult Day Services
- In-Home Support Services
- Support for Caregivers of Enrollees
- Home and Bathroom Safety Devices and Modifications
- Transportation

Opportunities

- Focus on health beyond medical care
- Craft new partnerships to address SDOH

Centers for Medicare and Medicaid

- HHS spends over \$1 trillion a year on healthcare for the elderly and vulnerable through Medicare and Medicaid
- In 2018 CMMI launched the Accountable Health Communities model to address the human needs that may be impacting high utilizers of healthcare
- Screenings for
 - ➔ Food insecurity
 - ➔ Domestic violence risk
 - ➔ Transportation
 - ➔ Housing and utility needs

Needs assessed : connect with community resources- pay for services

Healthcare Influencers

& Social Determinants of Health



American Medical Association

- Integrating training on SDOH in undergraduate medical school education
- Incorporating lifestyle medicine in medical school adopted by AMA house of delegates (USC Greenville)
- Implemented training module for providers in addressing SDOH in their practices (Steps Forward)
 - Six common domains
 - Economic stability
 - Neighborhood
 - Food
 - Education
 - Community/social support
 - Healthcare system

American Hospital Association

- Task force to improve access and delivery of care to address SDOH (www.aha.org/ensuringaccess)
- Identified 3 ways for hospitals to engage
 - Screening and information
 - Navigation
 - Alignment
- Community conversations Toolkit for hospitals
- CMS 10 question screening tool for SDOH across 5 key domains

Maryland Healthcare

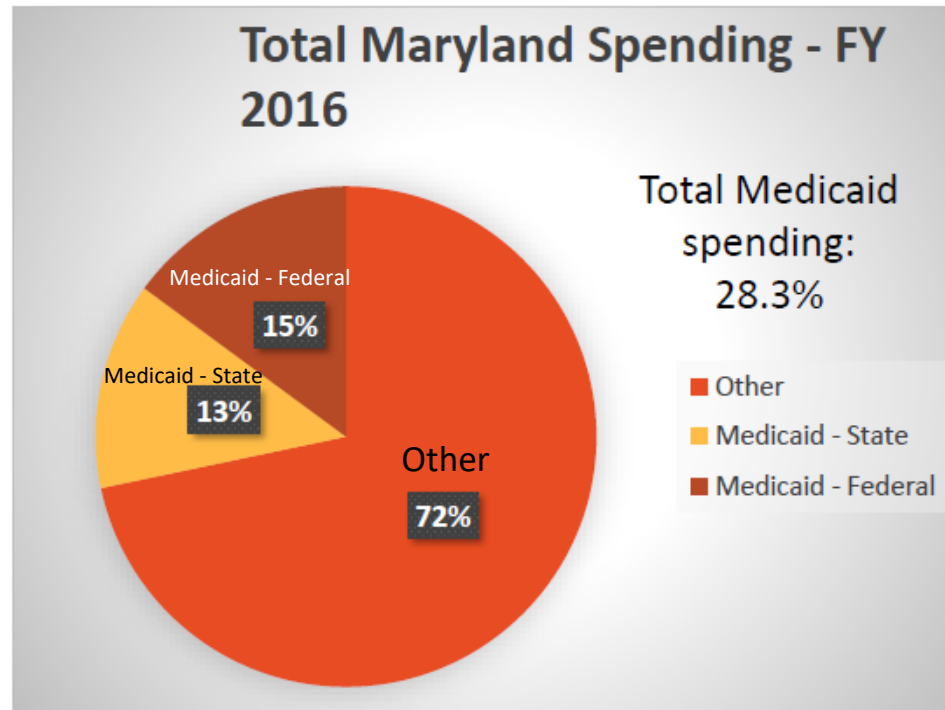
Current and changing health care landscape



State of Maryland Landscape

- Medicaid Service delivery (MCOs)
- Medicaid community services
- Role of Maryland Access Point (MAP)
- Maryland Primary Care Program (MDPCP)

Medicaid



Maryland Medicaid's high cost areas (FY2017):

- Institutional LTSS (7.8% of enrollees)
 - Hospital
 - Home and community based LTSS
-
- In 2018, approx. 1.3 million people enrolled in Medicaid (including CHIP)
 - 81.5% of enrolled beneficiaries are in Managed Care Organizations (MCOs)

Maryland Access Point (MAP)

- Single point of entry for access to services of state agencies (<https://md.getcare.com>)
- 20 MAP sites in Maryland
- Funding sources are Title II and Title III
- Title III funding is for all persons 60 years and over and means testing is prohibited
 - MAP is the Aging and Disability Resource Program in Maryland. The ADRC initiative is sponsored by the federal Administration for Community Living, the Centers for Medicare and Medicaid Services and the Department of Veterans Affairs, and involves a national network operating in 54 states and territories
 - MAP is a centralized, single point of entry for anyone – individuals, concerned families or friends, or professionals – to access aging and disability programs and services provided by state agencies and private, public and community-based organizations

Major MAP Funding Sources

Medicaid FFP

State, Local
Funds, Grants,
Contracts

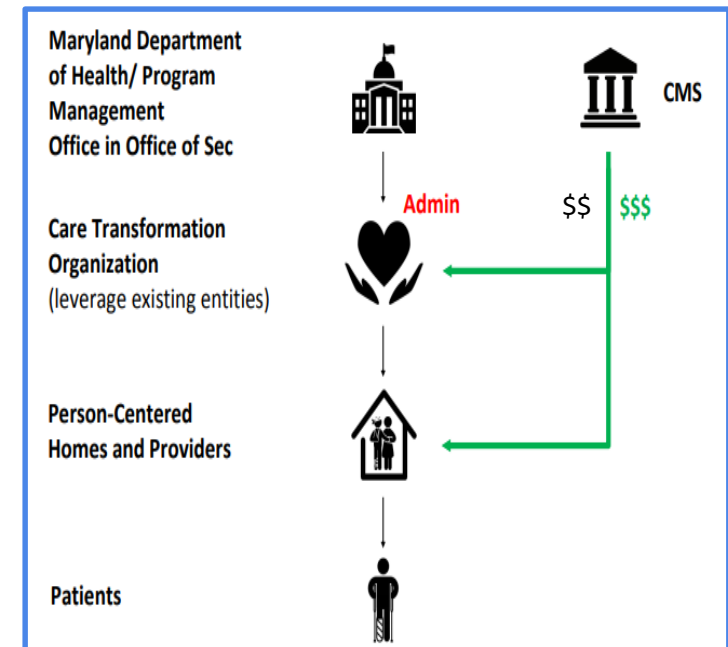
Older Americans Act: Title IIIB

I & A

Supportive Services:
Case Management
Chore Services
Personal Care
Homemaker

MDPCP

- Supports overall health care transformation process.
- Allows primary care providers to play an increased role in prevention, management of chronic disease, and preventing unnecessary hospital utilization.
- Voluntary program and open to all eligible primary care providers.
- Practices enrolled in the program are supported by Care Transformation (CTO) organizations and state practice coaches.
- Practices and CTO are provided additional \$\$ per beneficiary attributed in addition to fee for service



MDPCP

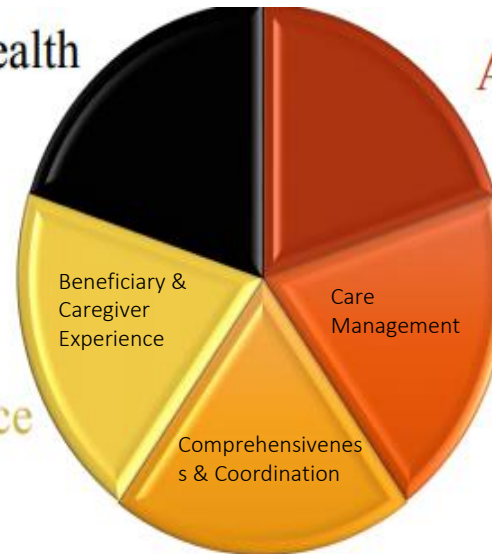
- Five Pillars of MDPCP
- Use of CRISP is mandatory

Planned Care for Health Outcomes

Access & Continuity

Beneficiary & Caregiver Experience

Care Management



Comprehensiveness & Coordination

Malnutrition

Impact on healthcare cost



Malnutrition

What is Malnutrition?

- Malnutrition is the inadequate intake of nutrients, particularly protein, over time and may contribute to chronic illness and acute disease or illness and infection

Impact of Malnutrition

- Frailty
- Disability
- Loss of independence
- Increased risk for falls
- Increased risk for infections
- Delayed wound healing
- Increased medical complications for other other diseases
- Hospital readmissions
- Increased length of stay
- Decreased effectiveness of medical treatment

Prevalence of Malnutrition in Care Settings

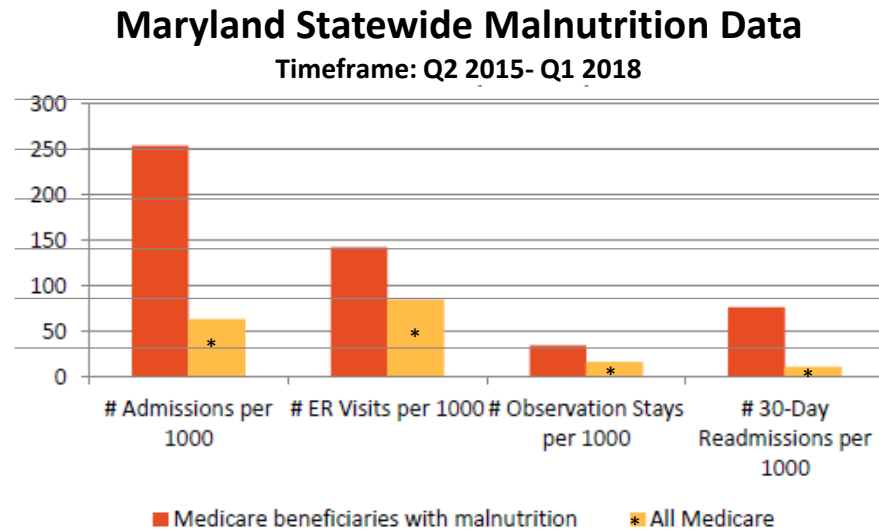
- Acute care
 - 20-50% of all patients are at risk for or are malnourished at the time of hospital admission (1)
 - Only 7% of patients are typically diagnosed with malnutrition during their hospital stay (2)
- Post-Acute care
 - 14- 51% of seniors are malnourished
- Community
 - Estimated 6-30% of seniors are malnourished

1 Barker LA, Gout BS, Crowe TC. Hospital malnutrition: Prevalence, identification, and impact on patients and the healthcare system. *Int J Environ Res Public Health*. 2011;8:514-527.

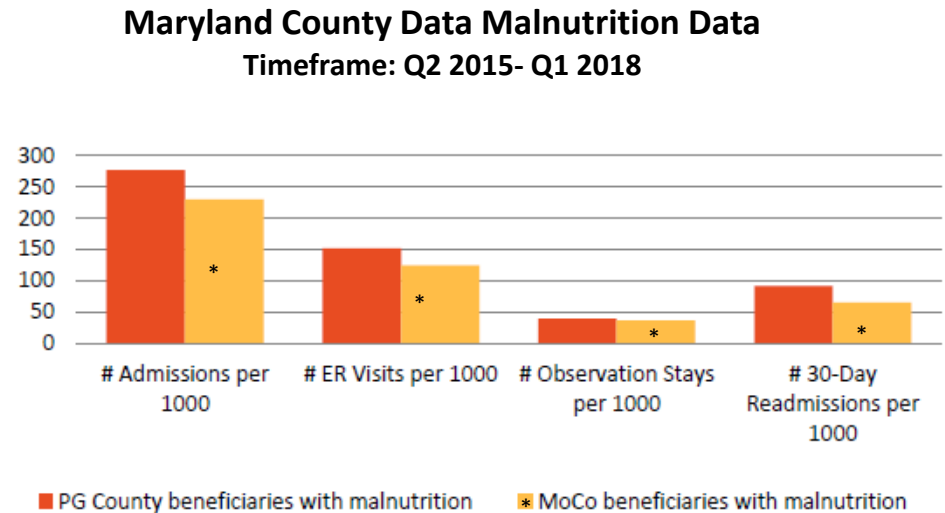
2 Weiss AJ, Fingar KR, Barrett ML, Elixhauser A, Steiner CA, Guenter P, Brown MH. Characteristics of hospital stays involving malnutrition, 2013. HCUP Statistical Brief #210. Rockville, MD: Agency for Healthcare Research and Quality. Available at: <http://www.hcup-us.ahrq.gov/reports/statbriefs/sb210-MalnutritionHospital-Stays-2013.pdf>.

Local Prevalence of Malnutrition

Maryland Malnutrition Data



County Specific Malnutrition Data



Malnutrition Risk Factors

- Clinical- Diagnosed by physicians, NPs and PAs
- Social- Diagnosed by care managers, nurses, support care personnel

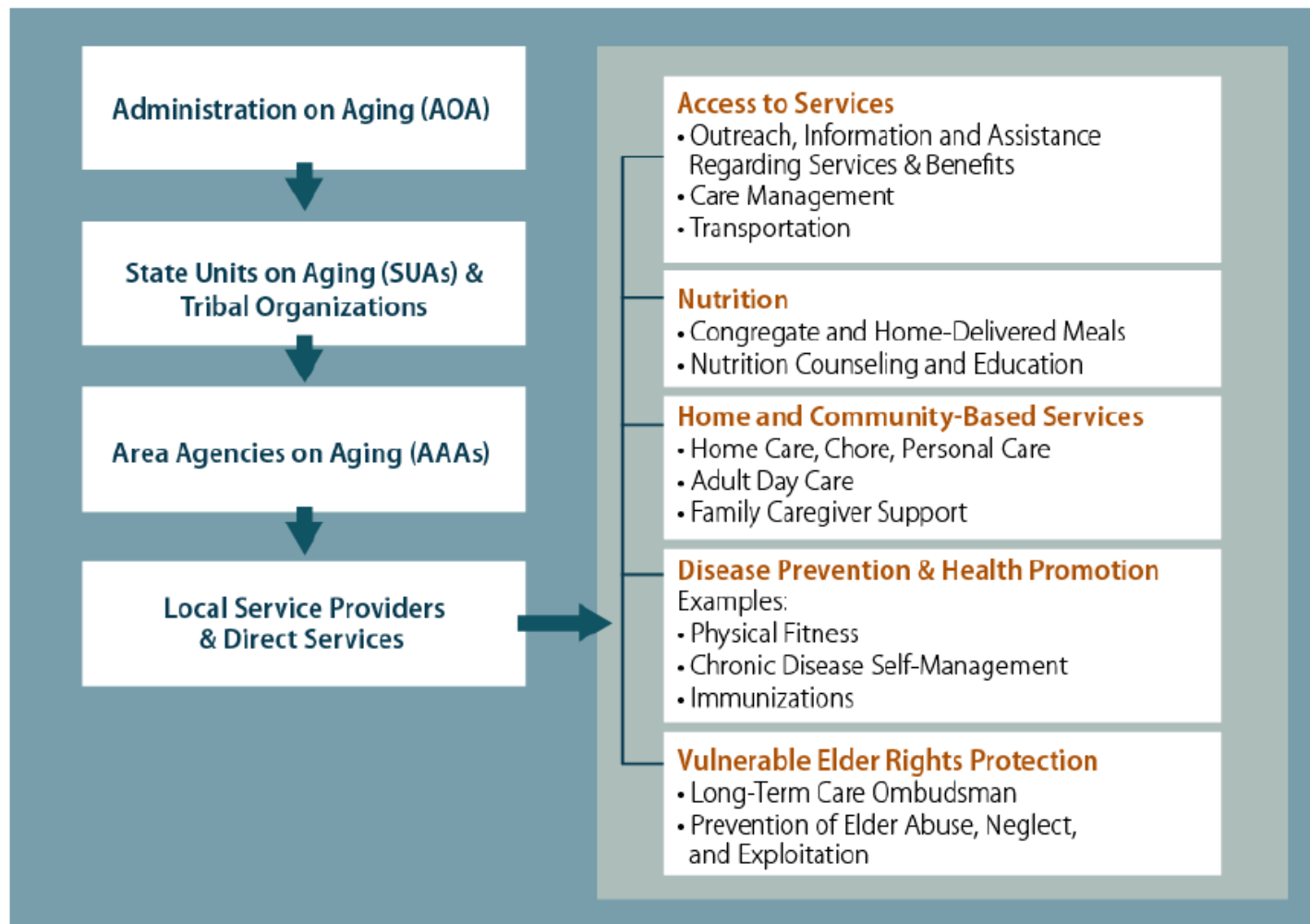
The Role of the AAA

Own the mission of being the community hub – tools we will provide you to take charge



Aging Network Overview

Figure 1. The Aging Network



Source: Prepared by the Congressional Research Service.

Screening for SDOH at MAC

Chronic Disease Assessment: 1) Do you have 2 or more chronic medical conditions? 2) Are you taking more than 5 medications? 3) Do you have difficulty managing your condition(s)?

REFER TO LIVING WELL, COMMUNITY RESOURCES, HEALTHCARE

Falls Risk Assessment for patients over 65: 1) Have you fallen in the past year? 2) Do you feel unsteady when standing or walking? 3) Do you worry about falling?

REFER TO FALLS PREVENTION WORKSHOPS, EXERCISE PROGRAMS, COMMUNITY RESOURCES

Screening for SDOH at MAC

Depression Screen: Over the past two weeks, how often have you been bothered by any of the following problems? 1) Little interest or pleasure in doing things? 2) Feeling down, depressed or hopeless?

REFER TO PEARLS, COMMUNITY RESOURCES, ATTEND SENIOR CENTERS/ CONGREGATE MEALS

Malnutrition: 1) Have you recently lost weight without trying? 2) If yes, how much weight have you lost? (MST – Malnutrition Screening Tool)

REFER TO STEPPING UP YOUR NUTRITION, FALLS PREVENTION, LIVING WELL, MEALS PROGRAMS, EXERCISE PROGRAMS AS APPROPRIATE. IF FOOD INSECURE, FOOD PANTRIES AND OTHER RESOURCES.

Multi-Disciplinary Approach

MAP

<i>Type of intervention</i>	<i>Action</i>
Screening	<ul style="list-style-type: none">• Malnutrition Screen• Falls Screen• Depression Screen
Client Support Care Plan	<ul style="list-style-type: none">• Enroll/refer to Nutrition, HP and/or SHIP• Transportation to healthcare appointments and referral sites
Address Root Cause	<ul style="list-style-type: none">• Program Eligibility• Refer to Behavioral Health, caregiver support, Physician, CHW• Grocery program, pet food, call reassurance, etc
Communicate Progress	<ul style="list-style-type: none">• Track Referrals• Incorporate client Options Counseling goals• Assist with hospital messages and progress

Multi-Disciplinary Approach

Nutrition Program

<i>Type of Intervention</i>	<i>Action</i>
Screening	<ul style="list-style-type: none">• Malnutrition Screen• Food Insecurity Priority Screen
Client Support Care Plan	<ul style="list-style-type: none">• Person- centered service/meal plan• Provide Social Interaction• Nutrition education
Address Root Cause	<ul style="list-style-type: none">• Nutritionally balanced food• Social isolation• Hydration• Manage chronic conditions
Communicate Progress	<ul style="list-style-type: none">• Track Participation• Assist with hospital messages and progress

Multi-Disciplinary Approach

Health Promotion

<i>Type of Intervention</i>	<i>Action</i>
Screening	<ul style="list-style-type: none">• Varies based on program and staff certifications
Client Support Plan	<ul style="list-style-type: none">• Exercise• Strength• Nutrition• Chronic Disease Management
Address Root Cause (s)	<ul style="list-style-type: none">• Social isolation• Manage chronic conditions• Falls risk
Communicate Progress	<ul style="list-style-type: none">• Track Referrals• Share Client goals with healthcare team• Assist with hospital messages and progress

Multi-Disciplinary Approach

SHIP

<i>Type of Intervention</i>	<i>Action</i>
Screening	<ul style="list-style-type: none">• Benefits Check-up
Client Support Care	<ul style="list-style-type: none">• Identify & assist with medical insurance gaps
Addressing Root Cause (s)	<ul style="list-style-type: none">• Address gaps in insurance coverage (income)
Communicate Progress	<ul style="list-style-type: none">• Regular follow-up for high risk clients

Case Study



Case Study

- B.B. is an 85 year old woman who was referred to our practice in early February 2018. She presented socially well and was always well groomed.
- She had 42 ER visits to the local hospital in 2018
- She had two mini fires in her apartment
- She had not filled medications at the pharmacy since late 2017
- Calls would average between 2-8 times in a given day

Case Study

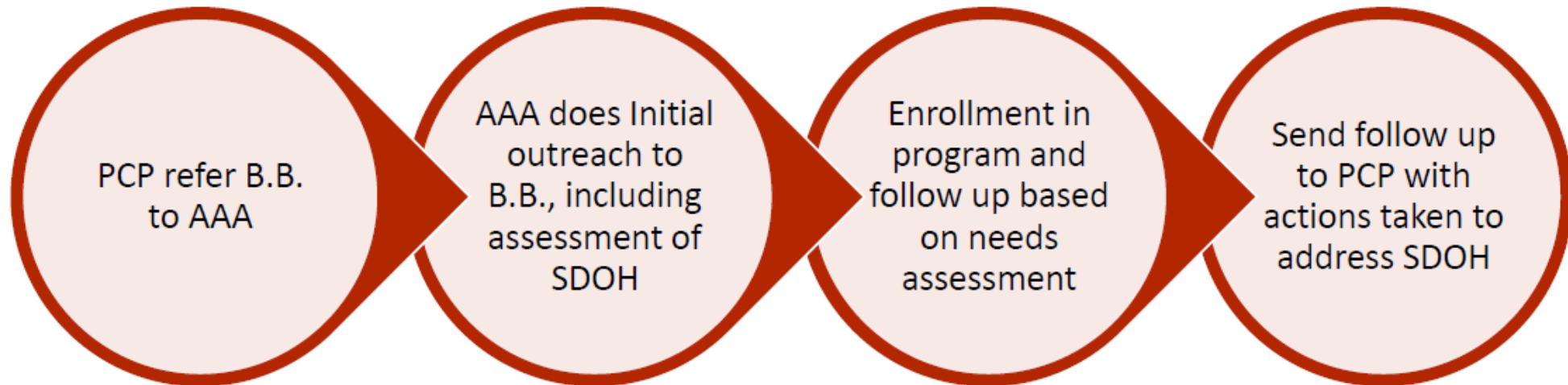
- Our practice provided telephonic touch points, office visits, home visits, information to EMS, hospital SW, contacted family
- We provided food items, supplements
- Finally reported to APS as things kept escalating after 3 months
- APS kept an eye on her but could not really do much
- In January 2019 was delirious and admitted to hospital psych unit
- APS filed for temporary guardianship

SDOH & ICD-10 Codes

SDOH Domains	ICD-10 codes for SDOH
Living Situation including housing and utilities	Z59 – Problems related to housing and economic circumstances Z60 – Problems related to social environment • Z60.2 – Problems related to living alone
Food	Z59 – Problems related to housing and economic circumstances • Z59.4 – Lack of adequate food and safe drinking water
Safety	Z60 Problems related to social environment
Financial Strain	Z59 – Problems related to housing and economic circumstances
Employment	Z56 – Problems related to employment and unemployment
Family and Community Support	Z63 – Other problems related to primary support group, including family circumstances Z60 – Problems related to social environment
Education	Z55 – Problems related to education and literacy
Mental Health	Z64 – Problems related to certain psychosocial circumstances Z65 – Problems related to other psychosocial circumstances

Case Study

- Ideal Pathway for B.B.



Next Steps: Tools to Take Charge

- Malnutrition Toolkit draft one week before in person meeting:
 - Rationale for community-based interventions
 - Community-based Malnutrition care pathway
 - Professional role delineation
 - Template presentations
 - Billing codes to match interventions
- In person meetings to solicit feedback on feasibility of draft toolkit (February) → incorporate feedback in toolkit (March)
- Web meeting to disseminate toolkit (March/April)

Thank you!

Livleen Gill, MBA RDN LDN

CEO of Bethesda NEWtrition and Wellness Solutions

Camalier Building
10215 Fernwood Road, Suite 630
Bethesda, MD 20817

Tel: (240) 449-3094

Fax: (240) 489-4415



Addressing Malnutrition in Community Living Older Adults

A Toolkit for Area Agencies on Aging



Larry Hogan, Governor Boyd K. Rutherford, Lt. Governor Rona Kramer, Secretary

Version 2 Issued July 2019

Grant funds from the Administration for Community Living (ACL), Grant Number 90INNU0002 and the Maryland Department of Aging assisted in the development of this material. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the ACL or Department.

Table of Contents

Acknowledgements	2
About this Project	3
Executive Summary	4
How to Use This Toolkit	6
Why Is Malnutrition Important?	7
Establish a Vision and Path to Success	15
Process Flow Planning	18
Step 1: Implement Validated Screening Tools	19
Step 2: Address Root Cause(s)	20
Step 3: Monitor Client Progress and Quality of Services	23
Define Roles & Responsibilities	27
Engage Partners	31
Conclusion	40
Abbreviations and Acronyms	41
References	43
Appendices	45

Acknowledgements

We sincerely thank the following Maryland Area Agencies on Aging (AAAs) who helped by pre-testing the toolkit and contributing feedback. Each AAA devoted significant staff time and resources to generously assist with this project.

- Baltimore City Health Department, Division of Aging and CARE Services
- Carroll County Bureau of Aging and Disabilities
- Maintaining Active Citizens (MAC, Inc.) and it's Maryland Living Well Center of Excellence
- Washington County Commission on Aging

We also are grateful to the following organizations:

- Bethesda NEWtrition & Wellness Solutions - participated in the creation of this document as well as contributed to and edited the content.
- Administration for Community Living - supported this project through grant 90INNU0002 as well as staff assisted by reviewing and providing feedback on the materials.

About this Project

In 2017, The Maryland Department of Aging was selected as one of six national “Innovations in Nutrition Services and Programs” grant awardees providing pioneering approaches for addressing the nutritional health of older adults. The Administration for Community Living (ACL), issued this first-ever “innovations” grant opportunity to drive improved health outcomes for senior meal program recipients by promoting higher service quality and increased program efficiency through innovative nutrition service delivery models. Our Department acknowledges and appreciates ACL’s leadership in funding unique initiatives, such as this grant project.

The two year grant also supports: 1) creating novel post-discharge, shelf-stable meal packages that meet individual’s needs based on their health condition(s), 2) testing the effectiveness of a model malnutrition awareness workshop for seniors at risk for falls (Stepping Up Your Nutrition), 3) establishing cross-referral links between the state’s healthcare system and the aging network, and 4) creating a mobile phone “app” to help determine the best approaches to address nutritional risk in community settings. Grant partners include the Maryland Department of Health, Maintaining Active Citizens’ (MAC, Inc.) Maryland Living Well Center of Excellence, Bethesda NEWtrition and Wellness Solutions, and the University of Maryland’s School of Nutrition Science.

The Maryland Department of Aging and our grant partners recognize that Area Agencies on Aging (AAAs) have a unique opportunity to address an emerging issue driving healthcare costs: older adult malnutrition. This toolkit’s goal is to develop a nationally-relevant template for aging network providers to screen for and address social determinants of health (SDOH), as well as communicate effectively with healthcare partners regarding malnutrition risk and older adults. Along with the pioneering work of national and other states’ leaders who have begun turning their attention to malnutrition across the hospital, post-acute and community settings, we hope this toolkit will act as an additional and important “piece of the puzzle” to facilitate active engagement by local aging network organizations.

Executive Summary

Why Is Malnutrition Important?

- The aging network’s mission to “*Maximize the independence, well-being, and health of older adults*” aligns with the importance of addressing malnutrition.
- Aging network staff often know their clients well, develop person-centered approaches, and are best-suited to identify malnutrition risk.
- Malnutrition or “poor nutrition” is more common than we realize and causes significant risk for illness, falls and poor quality of life. It often goes undetected, but there are signs that can be identified in the community, which can prevent these deleterious outcomes.
- The aging network is able to impact malnutrition through providing services that address social determinants of health, which contribute to malnutrition risk.
- Hospitals are unable to manage the complex needs of malnourished patients, but community-based organizations (CBOs) have years of experience providing services that support nutritional well-being.
- CBOs are important partners for healthcare, to smooth malnourished patients’ transitions of care and prevent malnutrition in community-residing older adults.

Establish a Vision and Path to Success

- Clarify why your CBO is devoting resources to addressing malnutrition and establish a vision statement.
- Acknowledge that your organization provides services that address the social determinants of health and YOUR STAFF ARE THE EXPERTS in this arena.
- Consider how to most effectively utilize existing staff and programs; create partnerships; learn about new programs and services.

Process Flow Planning

Follow the “community-based malnutrition care pathway”:

- Step 1: Implement validated screening tools and integrate into assessments.
- Step 2: Address root cause(s). Based on the screenings, conduct eligibility counseling and provide appropriate and documented referrals. A sample referral table is provided.
- Step 3: Monitor client progress and quality of services. A sample community care plan is provided and follow up is optimally provided at regular intervals. Implement quality assurance tools; upgrades to IT system may be required.

Define Roles & Responsibilities

- Malnutrition is not solved through the provision of food alone. In order to effectively address malnutrition, an interdisciplinary approach with cross-referrals to various services is required.

Engage Partners

- Partner with insurance companies, consider regional alliances, or contract directly with hospitals, Care Transition Organizations, and primary care providers.
- Review examples of successful healthcare-community partnerships including MAC, Inc. and the Southern Maine Agency on Aging.
- ICD-10 social determinants of health codes can be used for billing reimbursement with healthcare. Case studies are shared.
- Sample healthcare presentation and discussion tips are provided.

How to Use this Toolkit

This toolkit is designed to help set up *internal* processes that prepare AAAs to address older adults with malnutrition, or other health conditions. Although it suggests healthcare partnerships as the end goal and includes recommendations for setting up successful linkages, it is *not* intended to be a detailed guide on how to construct a partnership with a healthcare organization.

- 1.** To educate yourself and your staff on what malnutrition is, what it looks like, how common it is among older adults, and how you can improve the quality of life of your clients through providing resources that address the many risk factors.
- 2.** To help you think about why your agency may want to address malnutrition and establish an organizational vision. This process begins by identifying what your agency is already doing and then considering what additional steps you could take.
- 3.** To understand the process components required to effectively address community-based malnutrition and utilize templates provided to create and implement a plan for your agency.
- 4.** To acknowledge that it takes a team effort to address malnutrition and work across disciplines within an organization to establish defined roles for various staff members.
- 5.** To understand healthcare partnership models and billing reimbursement strategies and to prepare for conversations with potential partners, both in the healthcare arena and elsewhere.

Why Is Malnutrition Important?

Community-Based Aging Network Mission

The national network of organizations serving older adults in the community, often called the “aging network,” consists of State Departments of Aging, Area Agencies on Aging (AAAs) and Local Providers such as Aging and Disability Resource Centers (ADRCs or Maryland Access Points, aka MAP), home delivered meals organizations and so on. Since 1972, when the Older American’s Act was created, this interconnected system of support programs and services has provided millions of meals, health insurance counseling sessions, physical activity programs, and much more to hundreds of thousands of people annually.

The Administration for Community Living (ACL) was created in 2012 by the U.S. Department of Health and Human Services to serve as the Federal agency responsible for improving the lives of older adults and people with disabilities through services, research and education. The ACL mission statement reads “*Maximize the independence, well-being, and health of older adults, people with disabilities across the lifespan, and their families and caregivers.*” As will be outlined throughout this toolkit, **addressing malnutrition aligns with the mission of the aging network.**

While some interactions with older adults, their families and caregivers are brief (eg, a call asking for a referral), many staff who work in the aging network feel a deep commitment to assisting participants and may know an older adult for months or years, seeing them daily or weekly (eg, at meal sites, home delivered meals, senior center gyms, etc.). These dedicated staff often describe having “a servant’s heart” and when asked will share why malnutrition, among other conditions, are important to address:

“Our seniors count on us, we have to be there for them.”

“People spend such a short time in the hospital and in the doctor’s office, so it’s really important for community staff to send positive health messages.”

“Without adequate nutrition not only do our bodies lack necessary nutrients, but our will to engage socially and for ourselves becomes impacted.” - COO, AAA.

“Nutrition is a pathway to health and longevity which when addressed appropriately can reduce future economic burden of healthcare costs and prolong the need for other home and community based programs.” -CEO, AAA.

Everyday Examples of How Staff Identify Malnutrition

AAA staff members are well poised to identify signs of malnutrition because they are the “eyes and ears” in the community. Nutrition staff especially get to know a lot about their participants and can be important resources to make timely referrals when there is a significant change in behavior, medical condition or living situation.

“My drivers know exactly what to look for to identify warning signs. If the house isn’t being kept up, if a client seems more confused than usual, that can mean a change in their support system or medical status.” -Home-Delivered Meals Coordinator.

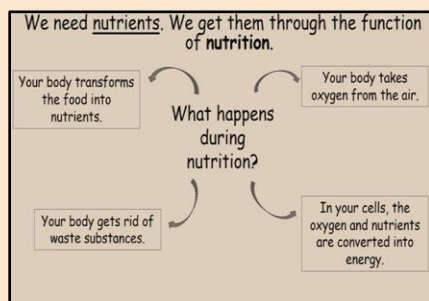
“I could tell from across the parking lot when I saw John that he was not taking his medications and was not doing well. I contacted our MAP office to ask them to engage with John and his medical provider to see what we could do to help.” -Senior Center/Congregate Meals Supervisor.

Malnutrition: What is it?

“You Are What You Eat” is a phrase we have all heard, and it is essentially true. The food we eat and drink makes up our heart, lungs, hormones, bones and brain. Our bodies are made up of the nutrients we get from our food (protein, calcium, water, etc.).

We can eat all the right foods, but if our hormones - insulin for example - or organs aren’t working properly, the good nutrients we eat won’t be used to improve our health.

In fact, if nutrients don’t go where they belong, they can cause problems, often seen as chronic diseases including heart disease and diabetes.



Malnutrition or “poor nutrition” is defined as “the inadequate intake of nutrients, particularly protein, over time and may contribute to chronic illness and acute disease or illness and infection.” ¹ It is a hidden condition in the body that affects - and is affected by - medical conditions as well as **social determinants of health**. Because malnutrition is an imbalance in the body related to nutrients, a person may be fat, thin or average build and still be at risk for this condition. **In fact, you can’t tell if a person has malnutrition just by looking at them.**

When a dietitian or physician diagnoses malnutrition, they look for a person to have at least two of the following conditions: inadequate food intake, weight loss over time, loss of muscle, reduced amount of body fat, fluid retention (edema, swelling), or reduced hand grip strength. ²

TRY THIS: What signs of malnutrition can you identify?

1



2



3



4



1. <https://www.caregivers.com/blog/2012/10/senior-nutrition-poll/>
2. <http://www.mayoressaludables.org/en/study-finds-food-scarcity-poor-oral-health-be-major-risk-factors-malnutrition-among-older-adults>
3. <https://www.pccj.eu/browse/evidence-in-practice/item/5095-increasing-incidence-of-cachexia-following-stroke.html>
4. <http://sixtyandme.com/what-is-sarcopenia-and-how-can-older-adults-prevent-its-tragic-impacts/>

ANSWER: You can't tell for sure without a physical examination but there are clues, including:

1. Hollow eye sockets, sunken temples, cheeks
2. Prominence of collarbone/clavicles
3. Muscle loss in hands
4. Fat loss in upper arm

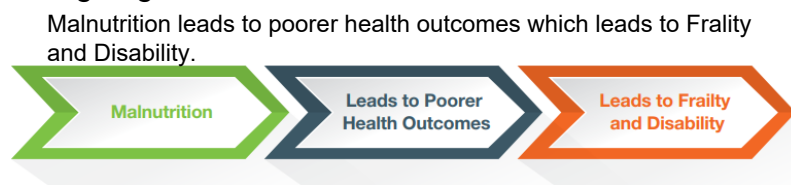
Older adults are especially at risk for malnutrition because they may already have a weakened immune system, have several risk factors, and often have one or more chronic conditions. Many issues can lead to malnutrition, including health-related and social/economic factors including the ones listed below. ^{3,4}

TRY THIS: Think of the clients you have seen during the past week. Did any of them have these malnutrition risk factors? (check all that apply)	
<input type="checkbox"/> Poor appetite	<input type="checkbox"/> Dementia
<input type="checkbox"/> Poor dental health	<input type="checkbox"/> Depression
<input type="checkbox"/> Trouble chewing or swallowing	<input type="checkbox"/> Social isolation
<input type="checkbox"/> Changing taste buds	<input type="checkbox"/> Limited income
<input type="checkbox"/> Chronic diseases	<input type="checkbox"/> Food insecurity
<input type="checkbox"/> Medication side effects	

It's likely that you checked several items in the list above. That means you regularly see older adults at risk for malnutrition.

What does that mean? YOU and your staff have the ability to identify malnutrition risk and address the causes through helping with your program and referring to other services offered in the community.

Malnutrition has a number of consequences, including increased risk for infection, delayed wound healing, higher rates of falls and fractures, loss of independence, and frailty, ⁵ resulting in longer hospital stays, higher readmission rates, five times higher rates of illness and death, and 300% higher healthcare costs. ^{6,7}



In Maryland, the estimated annual cost of malnutrition is **\$340,440,992**, or approximately \$55 per person. ⁸ See **Appendix 1** for a list of websites you can visit for more information about malnutrition.



Source: http://www.mealsonwheelsnys.org/MQC_Blueprint_web.pdf

Social Determinants of Health (SDOH)

As outlined above, social determinants of health play a large role in the risk for malnutrition. **Studies show that 40-90% of poor health can be traced back to social, behavioral and economic factors.** ⁹

“Health starts in our homes, schools, workplaces, neighborhoods, and communities. We know that taking care of ourselves by eating well and staying active, not smoking, getting the recommended immunizations and screening tests, and seeing a doctor when we are sick all influence our health. Our health is also determined in part by access to social and economic opportunities; the resources and supports available in our homes, neighborhoods, and communities; the quality of our schooling; the safety of our workplaces; the cleanliness of our water, food, and air; and the nature of our social interactions and relationships. The conditions in which we live explain in part why some Americans are healthier than others and why Americans more generally are not as healthy as they could be.” ¹⁰



SDOH is comprised of Neighborhood and Built Environment, Health and Healthcare, Social and Community Context, Education, and Economic Stability.
Source: <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>

By addressing the SDOH, which contribute to malnutrition, you can help to reverse this condition. The table below outlines some potential scenarios and how they relate to malnutrition and SDOH.

Table 1: Social Determinants of Health and Malnutrition.

Social Determinant	Malnutrition Sample Scenarios (causes and effects of malnutrition are IN BOLD)
Food and Nutrition	Food and Nutrition Client has always followed a low fat diet, but her new diagnosis of cancer means she needs to put aside her usual dietary restrictions to avoid losing weight and strength needed for her cancer treatments. Unfortunately, she is unable to “let go” of years of dietary restrictions so does not eat enough to maintain her strength. She experiences weight loss, frailty and significant decline in ADLs.
Housing	Shared housing with his daughter’s family means he only eats a hot meal when the family sits down together for a meal, which is only once or twice a week. He makes do with sandwiches and canned soup. This high salt diet makes his CHF worsen leading to frequent hospitalizations and ER visits.
Transportation	A client has heard of the falls prevention and exercise classes and meals at the senior center but does not have access to transportation to attend. Without these low- or no-cost programs, s/he is unable to participate in exercise, learn about how to prevent falls or receive a meal that often provides up to two-thirds of most participant’s daily calories.
Financial	The cost of nutritious foods to keep healthy are not affordable or accessible. Result is high blood pressure, obesity and heart disease despite medications and diet and medical counseling. These conditions increase inflammation and don’t allow the body to effectively store muscle in his/her organs and blood. Older adult becomes weak, lose independence and chronic conditions worsen.
Utilities	A client may be unaware of subsidies that assist low income seniors. So, money that could be used for nutritious food or medications must go towards utilities and rent. Chronic conditions and nutrition decline.
Personal Safety	If a client is afraid to walk outside they may not get needed exercise for strength and to manage diabetes. Poor diabetes control results in the body being unable to store muscle even when s/he eats enough protein. High blood sugar leads to frequent hospital admissions, but client does not go to follow up visits due to safety concerns traveling to medical appointments.
In-Home Care	A client who has difficulty bathing and grooming does not wish to attend senior center activities. In-home assistance can improve confidence in social interactions and facilitate improved health and medication management.
Social Support	Client lives alone and is socially isolated. Meal time is brief and she often skips meals because sitting alone at the kitchen table is unappealing. Research shows that eating with others improves food intake. Congregate meals, volunteering and senior center activities provide this support and connection.

Mental Health	Depression causes a decrease in appetite, resulting in weight loss, dehydration and poor nutrition. Client becomes isolated and weakness results in a fall.
Health Care Referral	A client may be in need of dental care but there are no available referrals. Therefore, s/he eats soft foods and avoids protein items like meats. Lack of protein results in weakness and social isolation.
Employment	Lack of profession or volunteer opportunities may lead to social isolation and depression. Depression can result in overeating and lack of exercise, worsening chronic conditions.
Health Education	Chronic Disease self-management workshops, and other evidence-based programs, provide education and allows for clients to feel activated and in control of their health. These classes have proven positive impacts on healthcare costs and on individuals' mental/physical health.

Addressing Malnutrition in the Community: Sustainable, Person-Centered Impact

Research and healthcare awareness about the impact of malnutrition on health outcomes has focused mostly on improving malnutrition in the hospital setting, while acknowledging the critical importance of addressing individuals' nutritional health prior to and after hospital admission.

Only recently has progress emerged on preventing, identifying, and managing malnutrition during transitions of care and in the community setting. ⁴ **Hospitals only have the capacity to provide short-term intervention and are not equipped to address the complex social needs that often accompany malnutrition.** They already recognize the costly impact of malnutrition and appreciate the role of the community.

Healthcare organizations have monetary incentives and financial penalties which can motivate them to partner with community-based agencies, like AAAs, if they are aware of the services and programs AAAs offer including: 1) managing transitions of care from hospital to home, 2) offering social services and preventive health programming and 3) providing benefits counseling and eligibility screening. Social supports, including assistance with housing, nutrition and income, have been shown to improve health and reduce healthcare costs. ⁹

Effective implementation of high quality AAA services can therefore reduce healthcare costs. As outlined earlier, our programs and services interact with individuals at risk for malnutrition on a regular basis.

Why should AAAs consider partnering with healthcare? Organizations may gain access to additional resources such as:

- Improved health and quality of life for our clients and community,
- Expanded referral options to appropriately assist older adult,
- Additional funding stream(s),
- Increased cost-effectiveness of existing programs such as chronic disease self-management, meals programs, SHIP, MAP etc.,
- Opportunities to offer a wider number and types of services,
- Enhanced quality assurance of current and new programs,
- New staffing resources and increased professional training opportunities for staff,
- Improved technology and documentation of high quality service delivery to better justify funding.

Questions to Consider

1. *Define malnutrition in your own words.*
2. *Describe a client who might be at risk for malnutrition, perhaps someone you've seen or spoken to this past week?*
3. *What are the benefits to your organization of taking on malnutrition? What are the barriers and how might you overcome them? Who can you partner with to be successful?*

Establish a Vision and Path to Success

What is your Vision?

Look back at the Why is Malnutrition Important? section. Clarify why your organization is becoming involved in addressing malnutrition. Establish an organization-wide vision that drives each division's roles. Some examples could include:

- *To meet the unmet needs of our community and the older adults we serve.*
- *To improve staff collaboration to enhance efficiency and effectiveness of our staff and resources.*
- *To have an impact on healthcare costs while bringing in new revenue.*

FILL IN: What is your agency's vision for defeating malnutrition?

Aging Network "Owns" Social Determinants of Health!

AAAs already provide a wide variety of services for older adults that address SDOH and allow them to live healthfully and safely in their homes, including in-home care, case management, home-delivered meals, transportation, prevention of elder abuse and neglect and evidence-based programs. **In fact, AAAs are the leading experts at providing social services that address social determinants of health.** Tackling malnutrition is not a matter of making changes to these programs and services, but instead thinking about how to most effectively screen and refer to these programs.

Use Existing Staff and Programs Efficiently and Effectively

Screening is a process for determining if there *may* be a problem. Screening differs from **assessment and diagnosis**, which often requires a medical expert. There are validated tools for screen for various conditions, including malnutrition. Validated tools have been tested for:

11

1. reliability (the ability to produce consistent results),
2. validity (the ability to produce true results), and
3. sensitivity (the probability of correctly identifying a patient with the condition).

Executive Directors can establish uniform policies and procedures for staff within existing programs and services that can positively affect and even cure this and other conditions. As we pursue clinical-community partnerships, the goal for local aging organizations - where there often are no healthcare staff - will be to perform screenings for malnutrition and other conditions.

STEP 1: Screen with the MST

1 Have you recently lost weight without trying?

No	0
Unsure	2

If yes, how much weight have you lost?

2-13 lb	1
14-23 lb	2
24-33 lb	3
34 lb or more	4
Unsure	2

Weight loss score:

2 Have you been eating poorly because of a decreased appetite?

No	0
Yes	1

Appetite score:

Add weight loss and appetite scores

MST SCORE:

There are a number of validated malnutrition risk screening tools, including the Malnutrition Screening Tool (MST), which is a quick and easy tool containing just two questions.¹²

Should a “positive” screen occur, AAAs need to establish a process to notify the persons’ healthcare provider in order to:

- Facilitate the healthcare provider’s ordering of further tests, referrals to specialists, physical therapy, etc. and
- Communicate community-based interventions, which will both demonstrate our organization’s impact, potentially secure funding based on effectiveness and allow for effective clinical-community approaches to addressing the illness(es).

Truly, only by working hand-in-hand “across care settings” (eg, between hospital

and community), will individuals have the best chance at improving their health and quality of life.

Consider Offering Additional Programs and Services

Stepping Up Your Nutrition (SUYN), one of the evidence-informed workshops offered by AAAs, is specifically focused on malnutrition related to falls risk. Participants identify their personal nutrition risk status and establish their own goals to improve nutritional status and muscle strength. **SUYN could be an appropriate referral for an individual with malnutrition or could help identify a root cause for an individual referred for falls.** See **Appendix 2** for a list of evidence-based programs available across Maryland.

Are You At Nutritional Risk?

	<p>High Nutrition Risk: Score below 50</p> <p>Consult with your healthcare team as soon as possible to address the areas of nutrition concern and improve your nutrition status. identify resources to help you reduce your risk.</p>
	<p>Moderate Nutrition Risk: Score 50-54</p> <p>Take Action to improve your nutrition health. Discuss options with your healthcare team and identify resources to help you reduce your risk.</p>
	<p>Low Nutrition Risk: Score above 54</p> <p>Keep up the good work! Your eating habits are working to keep you healthy and strong.</p>

Source: <https://nutritionandaging.org/wp-content/uploads/2018/10/steppingupyournutritionsuynfactsheet1537983645540.pdf>

The phrase “food is medicine” is becoming increasingly popular among the news and media, as a number of organizations are starting to focus on this concept. The [Food Is Medicine Coalition](#) is an association of 20+ nationwide non-profit medically tailored food and nutrition providers that is leading much of the research and policy advocacy in this field. Massachusetts is also pioneering some of this work, with the launch of their [Food Is Medicine State Plan](#) in June 2019. In Maryland, the Department of Aging is piloting medically tailored, shelf-stable meal packages for older adults transitioning from hospital to home that are based on the “food is medicine” model. These packages are geared toward individuals with malnutrition, food security, and/or high risk for readmission and could serve as a bridge to integrate patients with other AAA service offerings, including home delivered meals, food assistance programs, etc.

Nutrition education and/or counseling can supplement these programs. In-home medical nutrition therapy (MNT) could be a service offering to consider. The Elder Services of the Merrimack Valley, Inc., a AAA in Massachusetts, has launched an in-home MNT program that has been popular with healthcare partners. In this program, clients with type 2 diabetes and chronic kidney disease are covered for up to three hours of counseling in year one and two hours in subsequent years by a Registered Dietitian, who is able to bill for reimbursement. You can learn more about MNT at the Academy of Nutrition and Dietetics website [here](#).

Every AAA offers nutrition education, much of which will be helpful to prevent or address malnutrition. Consider options that focus on adequate protein, managing chronic conditions and looking for the warning signs of malnutrition. See **Appendix 1** for client education materials.

Next, we'll share how to appropriately incorporate screening tools and refer to existing and/or new programs and services that address malnutrition.

Questions to Consider

- 1. What is your organization's vision to address malnutrition?*
- 2. What services are you or your existing partners already providing that may address malnutrition risk among clients?*
- 3. What additional services could you provide or connect clients with?*

Process Flow Planning

Once you have created a vision for your agency and have established a set of referral service offerings, it is time to lay out the steps you will take to identify and address malnutrition among clients in your agency. This “**community-based malnutrition care pathway**” has been divided into three steps, which include:

Step 1: Implement validated screening tools

Step 2: Address root causes(s)

Step 3: Monitor client progress and quality of services

Each of these steps will be reviewed in greater detail in the following pages.

Figure 1: Overview of Community-Based Malnutrition Care Pathway - Steps and Tools Involved.

1. IMPLEMENT VALIDATED SCREENING TOOLS

Intake clients that are self-referred from the community or referred by healthcare or outside organizations.

Screen clients with validated malnutrition and social determinant of health tools.

Tool: List of malnutrition and SDOH screening tools.

2. ADDRESS ROOT CAUSE(S)

Refer clients to new and/or existing programs and services that can address the root cause(s) of malnutrition and implement interdisciplinary cross-referrals. Document screening results and service/program referrals.

Tool: Sample Referral Table.

3. MONITOR CLIENT PROGRESS AND QUALITY OF SERVICES

Document client goals, referrals, action steps, and progress notes.

Follow up with clients at established intervals to re-screen for continued unmet needs and assure the quality of services provided.

Report positive screens, ICD-10 codes, client status and outcomes to healthcare partners.

Step 1: Implement Validated Screening Tools

Screening is the first step to identify what issues a client might need to address. Validated screening tools are processes that have been developed through extensive testing and will assure you that your result can be used with confidence. AAAs already utilize a number of screening tools on their clients, which may vary from state to state. AAAs in the state of Maryland are required by Medicaid to screen clients who have a need for long term services and supports with a Level 1 Screen, congregate/home delivered meal clients with the DETERMINE checklist, and home delivered meal clients with the Home Delivered Meals Priority Screening. See **Appendix 3** for more details regarding Maryland screening tools.

In order to adequately address malnutrition, it is important for AAAs to screen for SDOH, which may exacerbate or contribute to malnutrition. **A SDOH screening tool will allow for the identification of uncaptured social needs and for referrals to be made to appropriate services that address the root causes of malnutrition.** One AAA in Maryland, MAC, Inc., screens select clients for malnutrition using the [Malnutrition Screening Tool \(MST\)](#) and for social determinants of health using an internally created tool. See **Appendix 4** for a copy of this tool. **These screening tools can be integrated into program or intake assessments, disease prevention programs, evidence based health promotion classes, etc.** A more centralized approach can be employed or perhaps each department could screen for certain issues, such as social isolation, falls risk or depression.

The choice of malnutrition and SDOH screening tool(s) utilized by a AAA may vary depending on fiscal resources, staff time, training and preferences, coordination with existing AAA databases and healthcare electronic medical record (EMR) systems, the availability of programs to address screening components and other local issues. See **Appendix 5** for a list of malnutrition and SDOH tools. There is no universal tools used across the healthcare system for SDOH. The Social Interventions Research & Evaluation Network (SIREN) has created a [comparison table](#) to assist with the selection of a SDOH screening tool. It contains the most widely used tools and describes the target population and social domains addressed by each tool. SIREN is also in the process of releasing a [systematic review](#) of screening tools to assist organizations with choosing an appropriate tool for their population.

Step 2: Address Root Cause(s)

To effectively address the root, or underlying, causes of malnutrition and allow an individual to improve their mental and physical health, person-centered screening, referrals to programs and services, as well as eligibility counseling should take place. With the implementation of new screening tools, needs that may have previously gone under the radar will be identified. **This will allow for better service planning and more comprehensive care for the client.**

Generally, the more SDOH that are addressed, the better overall result will be for the person. Although, often, a few, key changes can positively affect someone's physical and mental health, which reinforces healthy actions. As outlined earlier, and below, there may be many SDOH which could be addressed to help correct malnutrition and improve health; however...

THE ONLY SOLUTIONS THAT WILL WORK ARE THOSE WHICH THE CLIENT WILL ACTUALLY DO.

The AAA staff should identify clients' wants, needs, and preferences and discuss which services and programs fit these needs. **Often, [motivational interviewing](#) skills will be helpful in working with individuals, in order to allow them to prioritize and select solutions.** A successful approach is often based on starting with one or two ideas, and then over time additional programs or services to may be added to improve their health and independence.

Once priority areas are determined by the client, and at established follow-up intervals, the sample referral table below can be completed to document the screening results and recommended services and programs.

This form can be sent to the healthcare provider along with the Community Care Plan in the following section. Social determinants ICD-10 codes are embedded in the table, which will be explained in greater detail in the Engage Partners section. Note that this is only a *sample* as each AAA offers a different set of programs and services.

Table 2: Sample Referral Table - Social Determinants of Health with ICD-10 codes.

Care Planning Components	AAA Referral Programs and Services
Food and Nutrition Z594	<ul style="list-style-type: none"> <input type="checkbox"/> Senior Center Congregate Meals <input type="checkbox"/> Home-Delivered Meals <input type="checkbox"/> Nutrition counseling, MNT, nutrition education, and care planning <input type="checkbox"/> Commodity Supplemental Food Program (CSFP) <input type="checkbox"/> Community food resources (Food Bank, etc.) <input type="checkbox"/> Senior Farmers Market Nutrition Program <input type="checkbox"/> Stepping Up Your Nutrition <input type="checkbox"/> Post-discharge, medically-tailored meals
Housing Z590	<ul style="list-style-type: none"> <input type="checkbox"/> Assisted Living (including SALGHS) <input type="checkbox"/> Ramp Assistance <input type="checkbox"/> Home Modification <input type="checkbox"/> Assistive Technology <input type="checkbox"/> Durable Medical Equipment <input type="checkbox"/> Congregate Housing Services Program
Transportation Z650	<ul style="list-style-type: none"> <input type="checkbox"/> County or Regional Transit <input type="checkbox"/> Cab/Bus Vouchers <input type="checkbox"/> Senior Village <input type="checkbox"/> Community for Life
Financial Z590	<p>Application assistance for financial aid:</p> <ul style="list-style-type: none"> <input type="checkbox"/> SNAP <input type="checkbox"/> Medicaid <input type="checkbox"/> State Health Insurance Program (SHIP) <input type="checkbox"/> Energy-assistance programs <input type="checkbox"/> Income-tax assistance <input type="checkbox"/> Medicare Part A, B, C, D <input type="checkbox"/> Medicare Billing, Appeals, Denials, Grievances <input type="checkbox"/> Medicare Fraud Assistance <input type="checkbox"/> Oral nutritional supplements (Ensure, etc) <input type="checkbox"/> Prescription assistance <input type="checkbox"/> Assistance for dental, eye care, hearing aids
Utilities Z590	<ul style="list-style-type: none"> <input type="checkbox"/> Low-Income Home Energy Assistance Program (LIHEAP) <input type="checkbox"/> Electric Universal Service Program (EUSP) <input type="checkbox"/> Universal Service Protection Program (USPP) <input type="checkbox"/> Utility Assistance (other)
Personal Safety Z600	<ul style="list-style-type: none"> <input type="checkbox"/> Elder Abuse <input type="checkbox"/> Legal Assistance <input type="checkbox"/> Emergency Response Systems <input type="checkbox"/> Falls Prevention (Stepping On, Matter of Balance, Tai Chi for Better Balance) <input type="checkbox"/> Arthritis foundation classes (Walk with Ease)
In-Home Care Z602	<ul style="list-style-type: none"> <input type="checkbox"/> Sitters and in-home care services (personal care, chore service) <input type="checkbox"/> Home Care agencies <input type="checkbox"/> Community First Choice

In-Home Care Z602 (con't)	<input type="checkbox"/> Senior Care <input type="checkbox"/> Home-delivered meals <input type="checkbox"/> Dietitian referral <input type="checkbox"/> Senior Village
Social Supports Z600 or Z630	<input type="checkbox"/> Senior Center (exercise, socialization, Congregate Meals) <input type="checkbox"/> Telephone Reassurance <input type="checkbox"/> Support Groups: Caregivers, Renal, Stroke, ALS, Parkinson's <input type="checkbox"/> Adult Day Care <input type="checkbox"/> Volunteer opportunities
Mental Health Z640 or Z650	<input type="checkbox"/> PEARLS: Program to Encourage Active, Rewarding Lives <input type="checkbox"/> Enhance Wellness <input type="checkbox"/> Healthy IDEAS <input type="checkbox"/> Behavioral Health Referral (Core Service Agency or Health Department)
Health Care Referral ICD-10 code dependent on root cause	<input type="checkbox"/> Primary Care Physician <input type="checkbox"/> Clinics: Dental, Eye, Physical Therapy <input type="checkbox"/> Community Health Worker <input type="checkbox"/> Adult Medical Day Care <input type="checkbox"/> Local health department <input type="checkbox"/> Home care agencies <input type="checkbox"/> Medical supplies
Employment Z560	<input type="checkbox"/> Senior Employment <input type="checkbox"/> AAA volunteer coordinator <input type="checkbox"/> Community volunteer opportunities
Health Education Z550	Self-management workshops: <ul style="list-style-type: none"> <input type="checkbox"/> Diabetes Self-Management (Spanish version available) <input type="checkbox"/> Chronic Disease Self-Management (Spanish version available) <input type="checkbox"/> Chronic-Pain Self-Management <input type="checkbox"/> Cancer Thriving and Surviving <input type="checkbox"/> Falls Prevention (Stepping On, Matter of Balance, Tai Chi for Better Balance) <input type="checkbox"/> SAIL (Stay Active and Independent for Life) <input type="checkbox"/> Aging Mastery <input type="checkbox"/> Enhance Fitness <input type="checkbox"/> Lifelong Learning <input type="checkbox"/> Medication Management <input type="checkbox"/> Wellness Center Gym

Step 3: Monitor Client Progress and Quality of Services

The final but ongoing task is to monitor client progress with a care plan, re-screen clients as needed, and assure the quality of services provided.

Monitoring Progress: A Community Care Plan

A care plan outlines:

- individual assessed care needs,
- the types of services provided to meet those needs,
- who will provide the services and when.

And, it is person-centered and developed with input from the individual.

Establishing regular contact with clients is imperative to addressing the range of SDOH that may be involved and also to provide regular, positive reinforcement for each step forward. This regular contact should be systematized, with responsibilities established and documentation incorporated.

Goals and action steps should be established with the client and a goal date should be established. Referrals to services or other staff should be made. Follow up dates are suggested for 30, 60, and 90 days, but these can be adjusted based on staff capacity. Follow up should be made to check in on progress toward goals, provide encouragement, and see if any additional referrals are needed. The updated status and referrals should be documented. This sample is an open format, but a standardized checklist could be provided if desired.

For example, consider an individual with diabetes. A malnutrition and SDOH screen are completed and the results are as follows: malnutrition (negative), personal safety (positive), health care referral (positive), and transportation (positive).

A sample care plan for this individual is provided below. **This form can be sent to the healthcare provider along with the Referral Table in the previous section.** Notice in the care plan below that the goal is person-centered, but it also addresses the healthcare provider's goal for an improvement in diabetes control.

Figure 2: Sample Community Care Plan - Initial and Follow Up Monitoring.

CLIENT NAME: <i>Sally Jones</i>	DATE: <i>January 1, 2019</i>
GOAL (OUTCOME): <i>Feel strong enough to attend grandson's graduation.</i>	
ACHIEVE BY DATE: <i>June 20, 2019</i>	
Step 1: <i>Sign up for exercise class to build up strength.</i>	
Step 2: <i>Set up doctor's appointment to check on diabetes medications.</i>	
Step 3: <i>Establish method of transportation to get to class/appointment.</i>	
<p>NOTES: <i>Referral made to Health Promotion Coordinator to enroll in Stepping On.</i> <i>Contacted doctor regarding positive screens. Faxed referral table, care plan.</i> <i>Assisted in getting a cab voucher for transportation.</i> DATE: <i>January 1, 2019</i> STAFF SIGNATURE: <i>Linda Johnson, MAP Program Coordinator</i></p>	
<p><u>30 DAY FOLLOW UP:</u> <i>Mrs. Jones attended her first Stepping On class yesterday and has an appointment scheduled with her doctor. Rescreened for social determinants of health. No changes, no new referrals made.</i> DATE: <i>February 4, 2019</i> STAFF SIGNATURE: <i>Linda Johnson, MAP Program Coordinator</i></p>	
<p><u>60 DAY FOLLOW UP:</u></p> <p>DATE: STAFF SIGNATURE:</p>	
<p><u>90 DAY FOLLOW UP:</u></p> <p>DATE: STAFF SIGNATURE:</p>	

Quality Assurance

Quality assurance may include client satisfaction, evidence based workshop retention rates, fidelity monitoring of evidence-based classes, measuring of outcomes (eg, hospital readmissions, ER visits, etc.), and monitoring staff adherence to protocols for documentation and communicating with healthcare. **Contracts with healthcare will often incorporate expectations for quality measurement, so it is important to consider what you currently do and what your organization might be willing to do in the future (assuming adequate funding and staffing).**

Be prepared to measure quality of services; emphasize the importance of quality and meeting established standards with your staff. Allowing significant variety in providing referrals or documentation will not support fruitful and long-term healthcare contracting for AAA services.

A recent report listed key factors for measuring the effectiveness and quality of home and community-based services, listed below. ¹³ For additional quality assurance resources, see **Appendix 6**.

- Provides for a person-centered system that optimizes individual choice and control...
- Promotes social connectedness and inclusion ...in accordance with individual preferences
- Includes a flexible range of services that are sufficient, accessible, appropriate, effective dependable and timely...
- Integrates healthcare and social services to promote well-being
- Promotes privacy, dignity, respect and independence....
- Ensures each individual can achieve the balance of personal safety and dignity of risk...
- Supplies and supports an appropriately skilled workforce...
- Supports family caregivers
- Engages individuals in the design, implementation, and evaluation of the system and its performance
- Reduces disparities by offering..services that are...culturally sensitive and linguistically appropriate
- Coordinates and integrates to best meet needs and maximize efficiency/affordability
- Delivers cost-effective services
- Supplies valid, meaningful, integrated, aligned, accessible, outcome-oriented data...
- Fosters accountability through measurement and reporting of quality of care and consumer outcomes



Chesapeake Regional Information System for Patients (CRISP)

When partnering with healthcare, an IT system is essential, especially for reimbursement purposes including tracking, reporting and billing. The Regional Health Information Exchange (HIE)- Chesapeake Regional Information System for Patients (CRISP), which serves Maryland, West Virginia, and the District of Columbia, has the capacity to allow AAAs to communicate with healthcare partners in real-time. Through a contract with CRISP, AAAs could:



- Embed referrals to evidence-based programs and other non-clinical services
- Report patient engagement, enrollment, and completion of programs
- Document provisions of programs and services (including ICD-10 codes)
- Alert providers of patient’s conditions, gaps, or needed services through care alerts

In addition, CRISP could be utilized to track return on investment (ROI), including pre/post hospital and emergency department utilization and changes in cost of care.

CRISP has begun to work with hospitals and community-based providers to begin tracking social determinants of health needs as well as referrals to evidence-based programs and community-based services. **As this opportunity expands statewide, AAAs should be in the position to align with their hospital’s or payor partner’s medical records technology and CRISP data sharing infrastructure.**

Questions to Consider

1. *What screening tools does your AAA already use and which clients are screened? Would it be feasible to implement an additional SDOH screening tool for all or select clients?*
2. *Looking at Table 2, what services/programs does your AAA offer to address each of the social determinants of health? Could you create your own form?*
3. *Do you currently document a “care plan” or “person centered plan of care”? If not, what would it take to implement one?*
4. *What does your current quality assurance structure look like? If you don’t have one in place, consider reviewing resources in Appendix 6.*

Define Roles & Responsibilities

In this section, we'll look at how AAAs can positively impact malnutrition by using a team approach. Traditionally, AAA staff members tend to work in “silos” and may not be aware of the full extent of activities happening across the organization. However, **an interdisciplinary team approach is required to adequately support an older adult at risk for malnutrition.** Malnutrition is not solved with food alone, although it is often a first step, but most clients will require a more comprehensive set of services. All of the SDOH domains previously discussed, including chronic conditions, financial limitations and social isolation need to be addressed.

Executive Director

As the lead administrator for your agency, creating the vision and services your organization delivers to existing and prospective clients, you can have an impact on healthcare costs while bringing in new revenue. You can work with your team as well as community healthcare partners to identify and treat malnutrition. A good place to begin is to estimate existing healthcare costs of malnutrition for individuals in your community.

In order to foster organizational commitment:

- Review existing resources and research best practices. Brainstorm ideas that are feasible given your existing resources.
- Establish cross-departmental meetings to develop healthcare-community linkages.
- Create a malnutrition coalition. Encourage your Board of Directors to reach out to healthcare providers, non-profits, community foundations and other community-based organizations (Visiting Nurses, Homemaker Services, etc.) to identify potential partners, coalition members and funding opportunities.

In order to become involved:

- Initiate meetings with hospital administration (Medical Director, Population Health, etc.) or discharge/social work personnel.
- Consider developing joint proposals with hospitals or health departments for grant opportunities which relate to providing healthcare in the community and/or preventive health approaches.
- Inform your stakeholders, including clients, caregivers, and government, about your initiatives. Enlist their in-kind support and financial resources.
- Identify which organizations in your community are paying the costs for malnourished seniors. Meet with them to understand discharge nutritional care

plans and potential service models which they feel could be appropriate for individuals discharged with malnutrition.

- Review alternative payment options for providing new or existing services. Consider starting with small changes or additions to services or assessment processes. Build a solid initial partnership model and deliver specific tasks.
- Identify organizations which provide a variety of support services that address all of the causes of malnutrition.

Program Directors

As a program director, you may see clients with lack of transportation, financial strain, issues with housing, social isolation, multiple chronic conditions, etc. which are all risk factors for malnutrition. You receive referrals and refer to services to address these social determinants of health and are therefore a key player in addressing malnutrition risk. To start, consider the many factors which can increase risk for malnutrition, including social, psychological, economic and health-related factors and think about how your organization can effectively support older adults to combat these issues.

In order to foster organizational commitment:

- Acknowledge pieces of the “malnutrition puzzle” that you can identify during screening.
- Work across your organization to determine what each department can do to screen or educate clients for their risk of malnutrition and offer validated tools.
- Consider existing and new initiatives which can address the social and environmental causes of malnutrition.
- Participate in cross-departmental meetings and list activities as potential items which your organization can use to identify or treat malnutrition.
- Support your Executive Director’s efforts and be prepared to learn more about what hospitals feel could be critical community supports for their patients. Assist with presentation materials which summarize your current services and consider adjusting them, based on healthcare partner feedback.

In order to become involved:

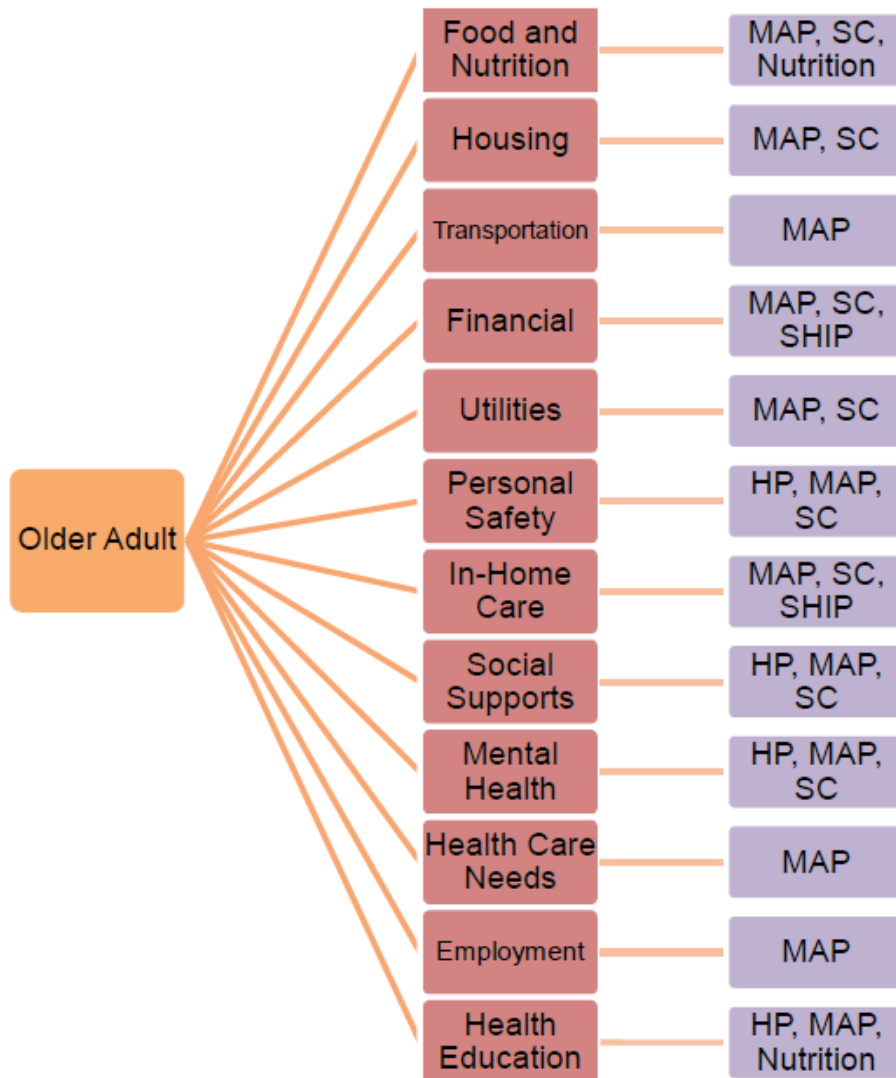
- Cross-refer to services and programs your organization offers.
- Provide follow-up with targeted client to ensure that individuals have received needed services.
- Provide information on resources, services, and benefits and assistance with completion of documents.

- Consider ways to provide regular updates to healthcare partners regarding client status and assist with supporting care plans.

Cross-Referrals

The figure below shows how interdisciplinary cross-referrals can be made to support an older adult at risk for malnutrition. As discussed in the previous section, **it is important that staff roles are established and streamlined documentation is implemented.** The team members roles below are *an example*, as staffing may vary across AAA's and some staff members may oversee multiple program areas.

Figure 3: Interdisciplinary Team Approach to Address the Social Determinants of Health.



Key. HP= Health Promotion. SC= Senior Care.

Each AAA staff can support and inform a patient’s care plan, address the underlying causes of malnutrition, and communicate with healthcare partners regarding progress made and interventions implemented. See Appendix 7 for a more detailed list of suggested professional roles that align with the three steps of the community-based malnutrition care pathway.

Questions to Consider

- 1. Do you feel the suggested roles and cross-referrals apply to your agency?*
- 2. What additional staff members might you include in the malnutrition pathway process?*

Engage Partners

Partnership Scenarios

Consider implementing a variety of partnerships to provide programs and services to prevent and address malnutrition in your AAA jurisdiction.

Community Partners and Food Resources

Existing partnerships may be leveraged in the fight against malnutrition. For example:

- How can a transportation provider help with getting clients to a falls prevention class?
- Consider whether SNAP referrals are being maximized for low-income clients.
- Can congregate meal sites expand beyond senior centers and include partner organizations such as churches, soup kitchens or libraries?
- If you screen for depression, does your agency have a resource for referrals such as a local PEARLS provider, outpatient counselor or Core Services Agency?

For food insecure clients, there are a number of referrals that may be appropriate. See **Appendix 8** for a sample Community Food Resource List.

- Contact your local food bank for a list of local resources and provide their number to persons inquiring about food access.
- Refer clients who need food to a congregate meal site, or refer to home delivered meals if they are homebound.
- Contact MDoA to become a local provider of the Commodity Supplemental Food Program (also known as “My Groceries to Go Program” in Maryland).
- Lastly, for individuals who are also suffering from chronic conditions, medically tailored food based on the “food is medicine” approach (see Establish a Vision and Path to Success section) may be a good choice for your organization.

Insurance Companies

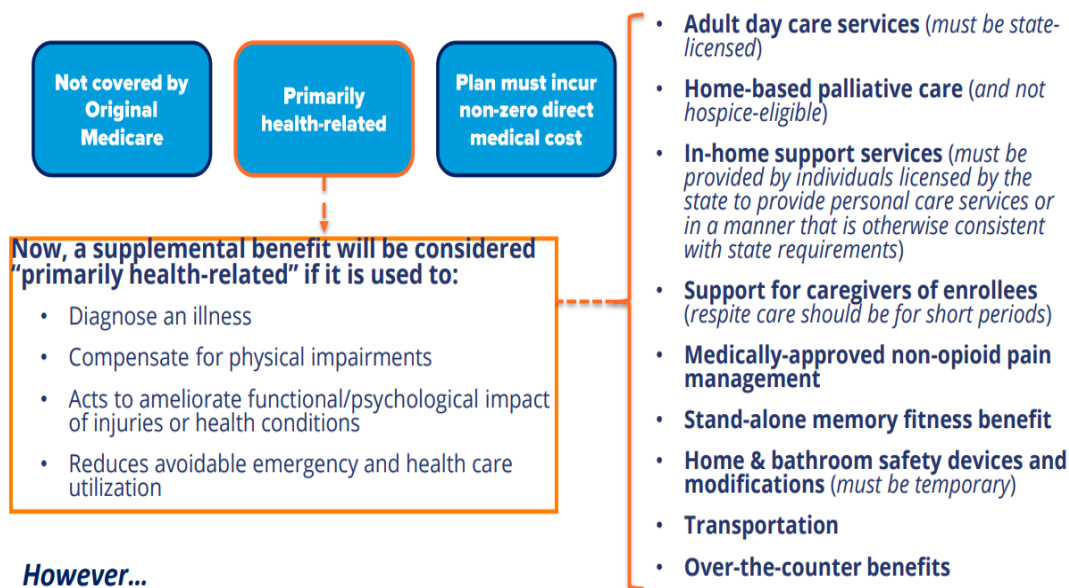
In 2018 Congress enacted the Chronic Care Act, which allows additional **supplemental benefits to Medicare beneficiaries enrolled in Medicare Advantage plans (MA)**. According to Title III of the Act, the changes are part of a MA value-based insurance design, allowing MA plans to create structures that vary benefits, cost-sharing, and supplemental benefits offered to enrollees with qualifying chronic diseases. As stated in the preamble of the Act, all of these changes are meant “*to improve*

management of chronic diseases, streamline care coordination, and improve quality outcomes.”

The measures will help the chronically ill get basic treatment at home, so that they can remain independent and out of the hospital. This will reduce the frequency of chronically ill patients needing hospitalization, which will free up room for non-chronic emergency room visits. This model approach will inform policymakers of the services that offer the most benefits to different populations, which may prompt policymakers to expand those benefits to people in the rest of traditional Medicare.

Beginning January 1, 2019, the Center for Medicare and Medicaid Services (CMS) expanded supplementary benefits to be “primarily health-related” if they were used to 1) diagnose an illness 2) compensate for physical impairments, 3) ameliorate the functional/psychological impact of injuries or health conditions or 4) reduce avoidable emergency and health care utilization.

Figure 4: Expansion of Supplemental Benefits in 2019.

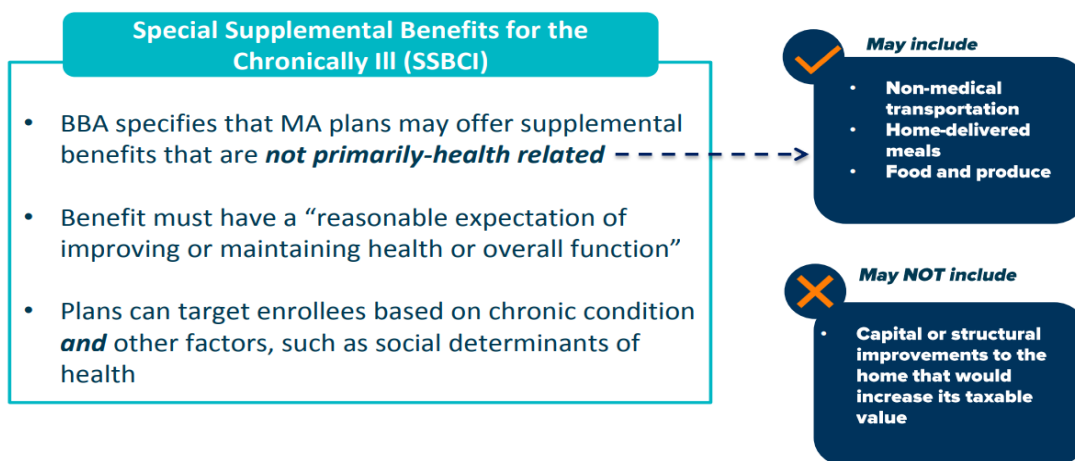


Source: https://nutritionandaging.org/wp-content/uploads/2019/03/Part-1_The-Evolving-Healthcare-Legislation-Landscape_Combined_Final.pdf

The Bipartisan Budget Act of 2018 further expanded supplemental benefits by eliminating the “primary health-related” standard for individuals with chronic conditions, which essentially created a new category of benefits for 2020, which must have a “reasonable expectation of improving or maintaining health or overall function.” **MA plans will expand to address SDOH, most notably nutrition, housing and transportation.**

Figure 5: Further Expansion of Supplemental Benefits.

The Bipartisan Budget Act of 2018 eliminated the “primarily health-related” standard for supplemental benefits for individuals with chronic conditions, effectively establishing a new category of benefits, beginning in 2020.



Source: https://nutritionandaging.org/wp-content/uploads/2019/03/Part-1_The-Evolving-Healthcare-Legislation-Landscape_Combined_Final.pdf

There are several commercial insurance companies in Maryland offering the Medicare Advantage plans. These plans, starting January 2019, are required to offer the above services to their beneficiaries. Every year the insurance companies submit their benefits package to Medicare for approval in early June. For the insurance companies to be able to offer a particular benefit to its members, it has to be on this plan so it is accounted for in the premium they will charge the members. The major insurance companies that offer Medicare Advantage plans in Maryland are: Aetna, Cigna, Erickson, Humana, Johns Hopkins, Lasso and United Healthcare. A full listing can be found [here](#).

Regional AAA Partnerships

With a national network of over 600 AAAs in the National Association of Area Agencies on Aging (n4a), AAAs have the capability to join together, regionally or statewide, to scale up services to a broader population. An example is the **Eastern Virginia Care Transitions Partnership**, a coalition 5 AAAs, 4 health systems, 69 skilled nursing facilities, and 3 Medicaid managed care organizations. Discharged patients are referred by hospitals to AAAs for case management, referral assistance, benefits counseling, family caregiver support, and other non-clinical services including meals and transportation. Funding is supported by a per-member per-month reimbursement by the Medicaid MCOs. **The program led to a reduction in 30-day readmission rates from 18.2 to 8.9%, and avoided 1,804 readmissions with \$17 million in savings.**¹⁵

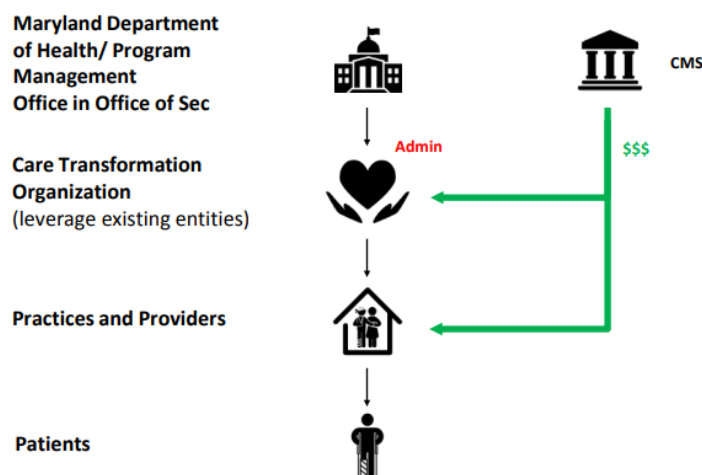
Hospitals, PCPs, and CTOs

Maryland has a unique all payer hospital rate setting system whereby the Health Services Cost Review Commission (HSCRC) establishes uniform payment structures based on population health goals, which incentivizes cost reduction.

In 2019, the Maryland Department of Health (MDH) rolled out the Maryland Comprehensive Primary Care Model (MDPCP), designed to expand improvements in care and reductions in the growth of healthcare spending from hospitals to community-based healthcare providers such as primary care providers, skilled-nursing facilities, home health providers, and others. In 2019, newly created Care Transition Organizations (CTOs) began working with these providers to assist them with care management, data tools and informatics, practice transformation technical assistance, social services connections, hospital care coordination and behavioral health integration. A list of the CTOs for 2019 can be found [here](#).

Figure 6: The Maryland Primary Care Program Structure.

The Maryland Primary Care Program



Source: <https://pophealth.health.maryland.gov/Documents/Maryland%20Comprehensive%20Primary%20Care%20Model/MPCP%20-%20Presentation%20Web.pdf>

Across the state of Maryland there are approximately 386 primary care practices enrolled in this program (as of May 2019). The MDPCP supports the overall health care transformation process and allows primary care providers to play an increased role in prevention and management of chronic disease and prevention of unnecessary hospital utilization. Each primary care practice that has enrolled in the MDPCP program receives a care management fee (CMF) per attributed Medicare beneficiary in the practice. This CMF is to be used by the practice to help with patient needs for care coordination with social service resources and access to care as determined by the practice. **AAAs can**

partner (ie, have contracts) with primary care practices and provide care coordination services to get reimbursed with a portion of the CMF.

Another alternative could be partnering with area CTOs for specific services (home delivered meals, housing assistance etc.) to receive payment for services rendered. Any partnership or contractual arrangement would depend on each AAA's capacity for types of services they provide and would depend on the CTO's perceived needs.

Examples of Success

The MAC, Inc. Living Well Center of Excellence (LWCE) has established contracts with multiple hospitals in their regional area. Many of these partnerships began with referrals for Chronic Disease Self-Management Education (CDSME) workshops. Based on successful outcomes through consistent data reporting, these partnerships have expanded to include other programs offered by the AAA and have resulted in reimbursement for these services.

The Southern Maine Agency on Aging (SMAA) has also had success at developing contractual agreements with a number of local hospitals, health plans, and medical practices. The chief executive officer, Larry Gross, states that he was motivated to “really address our mission to improve quality of life for older adults, and to work more closely with others who shared our interests.”¹⁴ SMAA initiated these partnerships by inviting heads of local health plans and hospitals to join their board of directors. Gross emphasizes that his keys to success were talking about contracts up front, instead of performing work for free, and utilizing volunteers, who gave 80,000 hours of service in 2016, and allowed their agency to increase service volume by 25%.¹⁴

Billing Reimbursement Options

ICD-10 codes are used by physicians, insurance companies, public health agencies and organizations, etc. to represent diagnoses. ICD-10 stands for International Statistical Classification of Diseases and Related Health Problems 10th Revision; it is published, copyrighted, and updated by the World Health Organization. There is an ICD-10 code for every disease, disorder, injury, infection and symptom and they are utilized in many ways, including processing health insurance claims and compiling national health statistics. **ICD-10 codes Z55-Z65 capture socioeconomic and psychosocial circumstances (i.e. social determinants of health).**

Below is a shortened list of the ICD-10 codes for social determinants of health that are most relevant to AAAs. Under each of the SDOH categories there are more specific codes pertaining to situations. The categories point out where to look for more specific codes if needed. For an extended list of SDOH ICD-10 codes, click [here](#). Identification and coding with the appropriate Z code for SDOH reflects the risk an individual is at for poor health outcomes.

These Z codes show the “risk” for individuals, which may result in a higher care management fee (CMF) paid by Medicare to primary care. **In other words, Z codes = higher risk= higher potential reimbursement.** AAAs could partner with these healthcare organizations to provide case management and document social needs with the ICD-10 codes. This CMF could then be utilized to pay the AAA. In another scenario, this coding has the potential to show insurance companies that these individuals need services like housing, meals etc. which would directly/indirectly be paid by them.

Table 3: Social Determinants of Health ICD-10 Codes.

SDOH	Sample ICD-10 Codes
Living Situation (Housing, Utilities)	Z590 - Problems related to housing and economic circumstances Z600 - Problems related to social environment Z602 - Problems related to living alone
Food	Z590 - Problems related to housing and economic circumstances Z594 - Lack of adequate food and safe drinking water
Safety	Z600 - Problems related to social environment
Financial Strain	Z590 - Problems related to housing and economic circumstances
Employment	Z560 - Problems related to employment and unemployment
Family and Community Support	Z630 - Other problems related to primary support group, including family circumstances Z600 - Problems related to social environment
Education	Z550 - Problems related to education and literacy
Mental Health	Z650 - Problems related to other psychosocial circumstances

SDOH ICD-10 Code Case Studies

SCENARIO ONE

Suzy,* who is the sole caregiver for her 78 year old bed bound mother, was referred by her church to the local AAA. Suzy revealed that she had reached her breaking point and needed help but did not have the resources to pay for assisted living or caregivers from a private agency.

Through the screening process by MAP, Suzy's mother was identified at risk for:	In addition, Suzy herself was identified with the following risk factors:
→ Living arrangements: Z599	→ Dependent needing care: Z636
→ Financial: Z596	→ Burnout: Z730
→ Food and nutrition: Z594	→ Lack of relaxation and leisure: Z732
→ In Home care: Z602	
→ Social support: Z600	

Suzy's mother was set up with the following services by the AAA:

1. Respite care through the local ARC.
2. Caregiver program and support group.
3. Home-delivered meals 3 times per week.
4. In-home care 4 hours a day for 5 days per week (waiting list).
5. Connection with a local bible group and volunteer from the local school 1-2 times per week.

MAP staff encouraged Suzy to call her mother's insurance company, Aetna Medicare Advantage, and check her benefit eligibility. Suzy found the Aetna MA plan would pay for in-home care and meals as long as the primary care physician (PCP) did the pre-authorization.

The AAA faxed the referral to the PCP for needed services with the ICD-10 codes for SDOH. The PCP used the codes to get the services covered. Aetna MA plan reimbursed the AAA for the meals and the private agency providing the caregiver. In addition, Suzy herself was given resources and connected to caregiver support groups near her.

SCENARIO TWO

Barbara* is an 85 year old who lives alone in a one bedroom apartment. She had multiple admissions to community hospital emergency room. The Emergency Room Department staff determined that there were no significant medical issues but that Barbara was struggling with anxiety.

The PCP took on the patient and their Nurse Practitioner (NP) did a home visit:

- Barbara was not taking her medications and many of them were expired.
- There was almost no food in the refrigerator.
- Barbara asked for water and stated she was hungry. Her lips and mouth were dry.

The NP referred Barbara to an on-staff Social Worker and Registered Dietitian (RD). The RD brought nutritional supplements; the patient declined a referral for home-delivered meals.

The family expressed they were unable to assist with Barbara's care. The PCP felt it was an unsafe environment and referred the case to Adult protective services (APS) of the county.

The following diagnosis codes were identified for this situation:

- | | |
|-----------------------------|----------------------------|
| → Living arrangements: Z599 | → Food and nutrition: Z594 |
| → Financial: Z596 | → Living alone: Z602 |

Preferred solution: This client would have been better served if referred to the AAA by the hospital and PCP.

Under the Care Redesign program and the MDPCP, the AAA could have been identified as the community resource to provide support to the patient, saving the PCP significant time resources and better meeting the needs of the client.

*Names have been changed to protect privacy.

Initiating Conversations with Healthcare

Meetings with prospective healthcare partners should outline:

1. Identify what the healthcare partner is most concerned about.
2. Share the specific services and programs provided by your organization which address SDOH and health conditions (or risks for health conditions) that can reduce their costs.
3. Formulate an agreeable initial service for funding, based on quality and outcome measures that will be transparent to both parties.
4. Once successful, continue to develop the partnership to incorporate additional programs/services. A promising approach is shared risk contracting.

Contracting with healthcare can be complicated, with many options, opportunities and pitfalls. AAAs are strongly encouraged to seek out resources and experienced peers to learn about the best approach for your organization. **Appendix 9** shares presentations you can customize for meetings with healthcare and **Appendix 10** contains additional website resources.

As demonstrated in this and earlier sections, **ongoing support, communication among AAA staff and healthcare, with adequate documentation, are key components of addressing malnutrition and health conditions in the community.**

Questions to Consider

1. *Do you have existing partnerships, programs and services that can help clients address their risk for malnutrition? If yes, how can you create an internal system to manage these clients?*
2. *Are you ready to meet with healthcare organizations - a hospital, insurance company or PCP - to create a contractual cross-referral relationship? If not, what resources do you need?*
3. *Which ICD-10 codes fit with services you are already providing or referring clients to?*

Conclusion

In summary, “Addressing Malnutrition in Community Living Older Adults: A Toolkit for Area Agencies on Aging” has shared:

- How the problem of malnutrition in our communities is relevant to the aging network’s core mission to “*Maximize the independence, well-being, and health of older adults*”
- Why AAAs are critical partners for healthcare and Maryland’s unique payment system, to smooth malnourished patients’ transitions of care and prevent malnutrition in community-residing older adults.
- The importance of establishing a vision and path to success by defining a project mission and assigning staff roles, documenting processes, and embedding quality assurance.
- How to develop your organization’s “community-based malnutrition care pathway.”
- The importance of engaging partners - new and existing - to create an effective, high quality process to expand resources and service offerings.

The toolkit also provided you with:

- Template forms that incorporate ICD-10 codes
- Internal and external cross-referral suggestions
- Case studies
- Questions to consider as you develop your plans
- Sample healthcare presentations and discussion tips

We hope you have found this toolkit helpful! The journey towards effective management and elimination of community-based older adult malnutrition is just beginning. We welcome you to join us in this emerging endeavor.

Abbreviations and Acronyms

AAA	Area Agency on Aging
ACL	Administration for Community Living
ADL	Activities of Daily Living
ADRC	Aging and Disability Resource Center
ALS	Amyotrophic Lateral Sclerosis
APS	Adult Protective Services
CBO	Community-Based Organization
CDSME	Chronic Disease Self-Management Education
CHF	Congestive Heart Failure
CHW	Community Health Worker
CMF	Case Management Fee
CMS	Center for Medicare and Medicaid Services
CRISP	Chesapeake Regional Information System for Patients
CSFB	Commodity Supplemental Food Program
CTO	Care Transformation Organization
EMR	Electronic Medical Record
EMT	Emergency Medical Technician
EUSP	Electric Universal Service Program
ER	Emergency Room
HDM	Home-Delivered Meal
HIE	Health Information Exchange
HP	Health Promotion
HSCRC	Health Services Cost Review Commission
ICD-10	International Statistical Classification of Disease and Related Health Problems, 10th Revision
IDEAS	Identifying Depression, Empowering Activities for Seniors
IT	Information Technology
LIHEAP	Low-Income Home Energy Assistance Program
LTSS	Long Term Services & Supports
LWCE	Living Well Center of Excellence
MA	Medicare Advantage
MAC	Maintaining Active Citizens
MAP	Maryland Access Point
MCO	Managed Care Organization
MDH	Maryland Department of Health
MDPCP	Maryland Primary Care Program
MNT	Medical Nutrition Therapy
MQii	Malnutrition Quality Improvement Initiative

MST	Malnutrition Screening Tool
NP	Nurse Practitioner
n4a	National Association of Area Agencies on Aging
PCP	Primary Care Provider
PEARLS	Program to Encourage Active, Rewarding Lives
RDN	Registered Dietitian Nutritionist
RD	Registered Dietitian
ROI	Return on Investment
SAIL	Stay Active and Independent for Life
SALGHS	Senior Assisted Living Group Home Subsidy
SDOH	Social Determinants of Health
SHIP	Senior Health Insurance Program
SIREN	Social Interventions Research & Evaluation Network
SMAA	Southern Maine Agency on Aging
SNAP	Supplemental Nutrition Assistance Program
SUYN	Stepping Up Your Nutrition
SW	Social Worker
USPP	Universal Services Protection Program

References

1. Malnutrition Quality Improvement Initiative. (2018). Briefing: The Value of Quality Malnutrition Care. Retrieved from <http://mqii.defeatmalnutrition.today/static/pdf/briefing-the-value-of-quality-malnutrition-care.pdf>.
2. Becker, P. J., Carney, L. N., Corkins, M. R., Monczka, J., Smith, E., Smith, S. E., ... & White, J. V. (2014). Consensus statement of the Academy of Nutrition and Dietetics/American Society for Parenteral and Enteral Nutrition: indicators recommended for the identification and documentation of pediatric malnutrition (undernutrition). *Journal of the Academy of Nutrition and Dietetics*, 114(12), 1988-2000.
3. Lloyd, J. L. (2017, February). Hunger in Older Adults: Challenges and Opportunities for the Aging Services Network. Retrieved from <https://www.mealsonwheelsamerica.org/docs/default-source/research/hungerinolderadults-fullreport-feb2017.ppdf?sfvrsn=2>.
4. Hickson, M. (2006). Malnutrition and ageing. *Postgraduate medical journal*, 82(963), 2-8.
5. Barker, L., Gout, B., & Crowe, T. (2011). Hospital malnutrition: prevalence, identification and impact on patients and the healthcare system. *International journal of environmental research and public health*, 8(2), 514-527.
6. DefeatMalnutrition.Today. Retrieved from Malnutrition http://defeatmalnutrition.today/sites/default/files/documents/CMKT_15_00385a_Malnutrition_Info_Graphic_OnePage_Update_FA.pdf.
7. Avalere, DefeatMalnutrition.Today. (2017, March). National Blueprint: Achieving Quality Malnutrition Care for Older Adults. Retrieved from http://www.defeatmalnutrition.today/sites/default/files/documents/MQC_Blueprint_web.pdf.
8. Goates, S., Du, K., Braunschweig, C. A., & Arensberg, M. B. (2016). Economic burden of disease-associated malnutrition at the state level. *PloS one*, 11(9), e0161833.
9. Brewster, A. L., Kunkel, S., Straker, J., & Curry, L. A. (2018). Cross-sectoral partnerships by area agencies on aging: Associations with health care use and spending. *Health Affairs*, 37(1), 15-21.

10. Healthy People 2020. Social Determinants of Health. Retrieved from <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>
11. The Joint Commission. Question: Definition of validated and non-validated screening tool for substance use. Retrieved from <https://manual.jointcommission.org/Manual/Questions/UserQuestionId03Sub0015>.
12. Dialogue Proceedings/Advancing Patient-Centered Malnutrition Care Transitions. (2018, July 27). Retrieved from <https://avalere.com/insights/dialogue-proceedings-advancing-patient-centered-malnutrition-care-transitions>.
13. Quality in Home and Community-Based Services to Support Community Living: Addressing Gaps in Performance Measurement Final Report, September 2016. National Quality Forum. Retrieved from http://www.qualityforum.org/Publications/2016/09/Quality_in_Home_and_Community-Based_Services_to_Support_Community_Living_Addressing_Gaps_in_Performance_Measurement.aspx.
14. Aging Today. (2017, January). The Southern Maine Agency on Aging: A Patient Approach Nets Multiple Contracts. Retrieved from <https://www.asaging.org/blog/southern-maine-agency-aging-patient-approach-nets-multiple-contracts>.
15. Freda, B., Kozick, D., & Spencer, A. (2018). Partnerships for Health: Lessons for Bridging Community-Based Organizations and Health Care Organizations. Retrieved from https://www.chcs.org/media/CBO-HCO_Partnership_update_032018.pdf.

Appendices

Appendix 1: Malnutrition Resources

- Alliance for Aging Research- Malnutrition in Older Adults
<https://www.agingresearch.org/campaign/malnutrition/>
- American Society for Parenteral and Enteral Nutrition Malnutrition Toolkit
https://www.nutritioncare.org/Guidelines_and_Clinical_Resources/Toolkits/Malnutrition_Toolkit/
- Defeat Malnutrition Today
<http://www.defeatmalnutrition.today/>
- Malnutrition Quality Improvement Initiative (MQii) Toolkit
<http://mqii.defeatmalnutrition.today/mqii-toolkit.html>
- National Council on Aging Community Malnutrition Resource Hub
<https://www.ncoa.org/center-for-healthy-aging/resourcehub/>
- National Council on Aging Malnutrition Toolkit
<https://www.ncoa.org/healthy-aging/chronic-disease/nutrition-chronic-conditions/>
- National Resource Center on Nutrition & Aging
<https://nutritionandaging.org/tag/malnutrition/>
- The Gerontological Society of America
<https://www.geron.org/programs-services/alliances-and-multi-stakeholder-collaborations/malnutrition>

Appendix 2: Evidence-Based Programs in Maryland

- Aging Mastery Program
- Arthritis Foundation Classes (Aquatics, Exercise Program, Tai Chi, Walk with Ease)
- Diabetes Prevention Program (Medicare, National)
- Enhance Fitness
- Enhance Wellness
- Healthy Eating for Successful Living in Older Adults
- HomeMeds
- Matter of Balance
- Move with Balance
- Otago
- Powerful Tools for Caregivers
- Program to Encourage Active and Rewarding Lives (PEARLS)
- Self-Management Programs (Chronic Disease, Chronic Pain, Cancer Thriving & Surviving, Diabetes, Spanish versions)
- Stay Active and Independent for Life (SAIL)
- Stepping On
- Tai Ji Quan: Moving for Better Balance
- TimeSlips

The MAC, Inc. LWCE website contains descriptions about each program, flyers, and links to workshop registration: <https://www.mdlivingwell.org/programs/>

Appendix 3: Screening Tools Currently Required for Maryland AAA's

Screening Tool	Details	Use
<p>Level 1 Screen</p> <p><i>REQUIRED FOR ELIGIBILITY IN MEDICAID LONG TERM SUPPORTS AND SERVICES.</i></p>	<p>Purpose: Screen and triage individuals for Medicaid community programs, including the Community Options waiver, Community First Choice, and Medical Assistance Personal Care.</p> <p>Components:</p> <ul style="list-style-type: none"> ● Instrumental Activities of Daily Living ● Activities of Daily Living ● Living Arrangement ● Health Status ● Communication, Cognition and Behavior ● Financial Questions ● Referral Questions <p>Length: Thirty one questions</p> <p>Score: Priority category and referral recommendations generated</p>	<ul style="list-style-type: none"> ● Determine functional eligibility for Medicaid community services ● Provide information, referrals, Options Counseling and access to home and community-based services
<p><u>DETERMINE Your Nutritional Health (Nutrition Screening Initiative)</u></p> <p><i>REQUIRED BY ACL FOR SENIOR NUTRITION PROGRAM USE (CONGREGATE AND HOME DELIVERED).</i></p>	<p>Purpose: Identify persons at risk for poor nutrition, based upon SDOH.</p> <p>Components:</p> <ul style="list-style-type: none"> ● Disease ● Eating poorly ● Tooth loss/mouth pain ● Economic hardship ● Alcohol problems ● Reduced social contact ● Multiple medications ● Involuntary weight loss/gain ● Ability to shop, cook and/or feed self <p>Length: Ten questions</p> <p>Score: 0-2 not at risk, 3-5 moderate nutritional risk, 6 + high nutritional risk</p>	<ul style="list-style-type: none"> ● Home delivered or congregate meal program ● RDN counseling or nutrition education ● Social and exercise programming to address isolation ● Dental referral ● Social services or community group if elevated alcohol intake noted ● Physician/pharmacy or medication management referral if multiple medications noted ● Financial assistance if unable to afford medications and/or food
<p>Home Delivered Meals Priority Screening</p> <p><i>REQUIRED BY MDoA FOR ALL HOME DELIVERED MEAL SERVICE PROVIDERS.</i></p>	<p>Purpose: Effectively identify persons most at need for meals and to determine other services which may best meet clients' current needs.</p> <p>Components:</p> <ul style="list-style-type: none"> ● Ability to acquire groceries and prepare meals ● Food insecurity assessment <p>Length: Eight questions</p> <p>Score: A-E levels of priority</p>	<p>Determine if client would benefit most from:</p> <ul style="list-style-type: none"> ● Fully prepared home-delivered meals ● Income eligibility review and/or SNAP ● Grocery assistance, including the Commodity Supplemental Food Program

Appendix 4: MAC Inc. Maryland Living Well Center of Excellence Social Determinants of Health Screening Tool

MAC Inc. Maryland Living Well Center of Excellence Social Determinants Screening Tool

Name: _____ Phone Number: _____

Preferred Language: _____ Best time to call: _____

In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money for food?	___ YES ___ NO	NOTES:
In the last 12 months, has your utility company shut of your service for not paying your bills?	___ YES ___ NO	
Are you worried that in the next 2 months, you may not have stable housing?	___ YES ___ NO	
Do you have difficulty in taking the medicine/prescriptions prescribed by your doctor?	___ YES ___ NO	Are you able to get/pay for your medicine? Do you understand what medicine to take when and what it is for?
In the last 12 months, have you needed to see a doctor but could not because of cost?	___ YES ___ NO	
In the last 12 months, have you ever had to go without health care because you didn't have a way to get there?	___ YES ___ NO	
I see or talk to family members at least once a week.	___ YES ___ NO	
I see or talk to friends at least once a week.	___ YES ___ NO	
On a weekly basis I participate in social activities or attend organized groups, such as choirs, support groups, cultural performances, group meals, exercise classes, etc.	___ YES ___ NO	
Do you ever need help reading or understanding hospital or other materials from your physician?	___ YES ___ NO	
Are you afraid you might be hurt in your apartment building or house?	___ YES ___ NO	
In the past three months, have you had a fall? If you fell in the past 3 months, how many times did it limit your regular activities for at least a day or you saw a doctor. # _____	___ YES ___ NO	Do you worry about falling? ___ YES ___ NO
Over the past two weeks, have you had little interest or pleasure in doing things or felt down, depressed or hopeless?	___ YES ___ NO	
If you checked "YES" to any boxes above, would you like to receive assistance with any of these needs?	___ YES ___ NO	
Are any of your needs urgent? (i.e. – "I don't have food or a place to sleep tonight)	___ YES ___ NO	

Screened by: _____ Referred to: _____ Date : _____

Appendix 5: List of Malnutrition and Social Determinants of Health Screening Tools

Malnutrition

- Malnutrition Screening Tool (MST)
https://static.abbottnutrition.com/cms-prod/abbottnutrition-2016.com/img/Malnutrition%20Screening%20Tool_FINAL_tcm1226-57900.pdf
- Mini Nutritional Assessment (MNA)
https://www.mna-elderly.com/forms/MNA_english.pdf
 - a. MNA-Short Form (MNA-SF)
https://www.mna-elderly.com/forms/mini/mna_mini_english.pdf
- Malnutrition Universal Screening Tool (MUST)
<https://www.bapen.org.uk/pdfs/must/must-full.pdf>
- Nutrition Risk Screening (NRS-2002)
<http://espen.info/documents/screening.pdf>
- Subjective Global Assessment (SGA)
[http://nutritioncareincanada.ca/sites/default/uploads/files/SGA%20Tool%20EN%20colour_2017\(1\).pdf](http://nutritioncareincanada.ca/sites/default/uploads/files/SGA%20Tool%20EN%20colour_2017(1).pdf)
- Patient Generated Subjective Global Assessment (PG-SGA)
<http://pt-global.org/>
- Seniors in the Community: Risk Evaluation for Eating and Nutrition (SCREEN I and SCREEN II)
<https://www.flintbox.com/public/project/2750>
- Short Nutritional Assessment Questionnaire (SNAQ)
<https://www.fightmalnutrition.eu/toolkits/summary-screening-tools>

Validated Malnutrition Screening and Assessment Tools: Comparison Guide

https://www.health.qld.gov.au/_data/assets/pdf_file/0021/152454/hphe_scrn_tools.pdf

Social Determinants of Health

- Accountable Health Communities Health-Related Social Needs Screening Tool
<https://innovation.cms.gov/files/worksheets/ahcm-screeningtool.pdf>
- PRAPARE: Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences
http://www.nachc.org/wp-content/uploads/2018/05/PRAPARE_One_Pager_Sept_2016.pdf
- Health Leads Social Needs Screening Toolkit
<https://healthleadsusa.org/resources/the-health-leads-screening-toolkit/>
- Institute of Medicine Social and Behavioral Domains and Measures
http://sirenetwork.ucsf.edu/sites/sirenetwork.ucsf.edu/files/IOM_white.ppt
- WellRx Toolkit
<https://www.jabfm.org/content/29/3/414>
- Total Health Assessment Questionnaire for Medicare Members

<http://sirennetwork.ucsf.edu/sites/sirennetwork.ucsf.edu/files/Medicare%20THA%20questionnaire%20v2%20%28rvd%2012-5-14%29%20with%20Sources.pdf>

- Kaiser Permanente's Your Current Life Situation Survey

<http://sirennetwork.ucsf.edu/sites/sirennetwork.ucsf.edu/files/Your%20Current%20Life%20Situation%20Questionnaire%20v2-0%20%28Core%20and%20supplemental%29%20no%20highlights.pdf>

- HealthBegins Upstream Risk Screening Tool

<https://healthbegins.wufoo.com/forms/upstream-risk-screening-tool-2015/>

Social Need Screening Tools Comparison Table

<https://sirennetwork.ucsf.edu/tools-resources/mmi/screening-tools-comparison/adult-nonspecific>

Appendix 6: Quality Assurance Resources

- Home and Community Based Services: Quality Management Roles and Responsibilities
http://www.nasuad.org/sites/nasuad/files/hcbs/files/73/3602/QM_Roles_Res_Narrative_Final.pdf
- Improving Quality of Services
<https://acl.gov/programs/strengthening-aging-and-disability-networks/improving-quality-services>
- Measuring the Quality of Home- and Community-Based Services: A Conversation about Strategic Directions for Research and Policy
https://www.thescanfoundation.org/sites/default/files/academyhealth_hcbs_quality_meeting_handout.pdf
- Quality Measurement for Home and Community Based Services (HCBS) and Behavioral Health in Medicaid <https://www.macpac.gov/wp-content/uploads/2017/06/Quality-Measurement-for-HCBS-and-Behavioral-Health-in-Medicaid.pdf>
- Quality in Home and Community-Based Services to Support Community Living: Addressing Gaps in Performance Measurement
http://www.qualityforum.org/Publications/2016/09/Quality_in_Home_and_Community-Based_Services_to_Support_Community_Living_Addressing_Gaps_in_Performance_Measurement.aspx.
- Quality of Home- and Community-Based Services
<https://www.macpac.gov/subtopic/quality-of-home-and-community-based-services/>

Appendix 7: Suggested Professional Role Delineation

MAP

Implement Screening Tools

- Level 1 Screen
- Malnutrition Screen
- SDOH Screen

Address Root Cause(s)

- Enroll/refer to Nutrition, HP, Senior Care, and/or SHIP.
- Refer to behavioral health, caregiver support, physician, CHW
- Transportation to healthcare appointments and referral sites
- Groceries program, pet food, call reassurance, etc.

Monitor Progress and Quality

- Lead care plan implementation and documentation
- Track referrals
- Share client care plan goals with healthcare
- Assist with hospital messages and progress

Nutrition

Implement Screening Tools

- DETERMINE Checklist
- HDM PriorityScreen
- Malnutrition Screen
- SDOH Screen

Address Root Cause(s)

- Enroll/refer to MAP, HP, Senior Care and/or SHIP
- Person centered service/meal plan
- Provide social interaction
- Provide relevant nutrition education
- Nutritionally balanced food, hydration
- Reduce social isolation
- Manage chronic conditions

Monitor Progress and Quality

- Periodic screening, as appropriate, note in care plan
- Inform care plan as new service options become available and seem appropriate
- Perform quality assurance related to respective service(s)
- Update care plan as client participates in programs
- Adjust care plan as information changes
- Assist with communicating hospital messages

SHIP

Implement Screening Tools

- Benefits Checkup
- Malnutrition Screen

- SDOH Screen

Address Root Cause(s)

- Enroll/refer to MAP, Nutrition, HP and/or Senior Care
- Address gaps in insurance coverage (income)
- Reduce stress and financial concerns related to billing and potential fraud
- Allows client to access affordable medical care and medications

Monitor Progress and Quality

- Periodic screening, as appropriate, note in care plan
- Inform care plan as new service options become available and seem appropriate
- Perform quality assurance related to respective service(s)
- Update care plan as client participates in programs
- Adjust care plan as information changes
- Assist with communicating hospital messages

Health Promotion

Implement Screening Tools

- Varies based on program staff certifications
- Malnutrition Screen
- SDOH Screen

Address Root Cause(s)

- Enroll/refer to MAP, Nutrition, Senior Care and/or SHIP
- Chronic disease management
- Exercise to improve strength
- Improve nutrition/malnutrition
- Social isolation
- Address falls risk
- PEARLS to address depression

Monitor Progress and Quality

- Periodic screening, as appropriate, note in care plan
- Inform care plan as new service options become available and seem appropriate
- Perform quality assurance related to respective service(s)
- Update care plan as client participates in programs
- Adjust care plan as information changes
- Assist with communicating hospital messages

Senior Care

Implement Screening Tools

- Level 1 Screen
- Malnutrition Screen
- SDOH Screen

Address Root Cause(s)

- Enroll/refer to MAP, Nutrition, HP and/or SHIP
- Refer to behavioral health, caregiver support, physician, CHW
- Provide PEARLS or refer to other mental health supports

Monitor Progress and Quality

- Periodic screening, as appropriate, note in care plan
- Inform care plan as new service options become available and seem appropriate
- Perform quality assurance related to respective service(s)
- Update care plan as client participates in programs
- Adjust care plan as information changes
- Assist with communicating hospital messages

Appendix 8: Sample Community Food Resource List

Food and Nutrition Assistance in Somerset County 2019


Worrying about whether or not you will have enough food is stressful. Regular, nutritious meals are necessary for seniors to stay healthy. The following resources are here to help you.

Food Needs	Program Name	Number	Contact Name	Other Information
For homebound: Delivered meals & Grocery bags	Meals On Wheels by Somerset MAC Senior Services	410-651-3400	All staff	Delivered meals Mon. Tuesday, Thursday for 60 and older
Therapeutic Home Delivered Meals	Moveable Feast	410-327-3420 Ext 12	all staff	Delivered frozen meals for all ages –
Senior Center Noon Meals	Westover and Deal Island MAC Senior Services Centers	410-651-3400	All staff	Noon meal Tuesday and Thursday for 60 and older
Dinner Friday & Saturday 6-7:30 PM	H.O.P.E. Ministry 11724 Somerset Ave. Princess Anne	410-726-7910 or 443-880-7871	Steve Milligan Wayne Muir	Eat dinner and take a bag lunch home.
Nutrition Education and Supplement Assistance	MAC Registered Dietitian	410-742-0505 Ext 144	Karla Beardsley	Call for appointment or questions
Nutrition Counseling	McCready Hospital Dietitian	410-968-1801 Ext 3250	Jeannette Jardin	Call for appointment
Food Stamps (SNAP)	Social Services 30397 Mt Hermon Rd. Princess Anne	410-677-4330	All staff	Need proof of address, income, expenses, SS card, and picture ID
Emergency and monthly food pantry	Maryland Food Bank- Eastern Shore	410-742-0050	Teresa See Jennifer Small	Find a food pantry close by you. www.mdfoodbank.org Click "find food"
Emergency and monthly food pantry "Food Share"	Seton Center Catholic Charities	410-651-9608	All Staff	Need proof of address, income, food stamps, SS card, and picture ID
Grocery Shopping Online	Walmart Pocomoke City Supercenter	410-957-9600	All staff	Order at www.walmart.com and pick up at store

Appendix 9: Sample Presentations for Healthcare

A Guide to Aging and Disability Services

Presented by:
MAC, Inc. Living Well Center of Excellence
&
Baltimore City Health Department
Division of Aging and CARE Services



Older Americans Act of 1965



Older Americans Act of 1965 was the first federal level initiative aimed at providing comprehensive services for older adults. Through this act, Area Agencies on Aging at the local level were developed.

In the Aging Network

AAA

Means

Area Agency on Aging

The Mission



The Maryland Department of Aging in partnership with 23 Area Agencies provides leadership and advocacy to Maryland seniors and their families through information, education and services.

23 Area Agencies on Aging

<ul style="list-style-type: none"> • Allegany County Department of Area Agency on Aging • Anne Arundel County Dept of Aging and Disabilities • Baltimore City Division of Aging and Care Services (Baltimore City Health Dept) • Baltimore County Dept. of Aging • Calvert County Office on Aging • Carroll County Office on Aging • Carroll County Bureau of Aging and Disabilities • Cecil County Aging & Disability Services Division • Dorchester County Office on Aging * • Frederick County Sr Services • Garrett County Area Agency on Aging 	<ul style="list-style-type: none"> • Harford County Office on Aging • Howard County Office on Aging and Indop. • Kent County Office on Aging • Montgomery County Aging & Disability Services • Prince George's County Aging & Disability Services • Queen Anne's County Aging Division • St. Mary's County Dept of Aging and Human Services • Somerset County Commission on Aging * • Talbot County Commission on Aging • Washington County Commission on Aging • Wicomico County Commission on Aging * • Worcester County Commission on Aging
--	--

* Part of MAC, Inc.

AAA Services

<ul style="list-style-type: none"> • Information & Assistance (MAP) • Adult Evaluation & Review Services (AERS) • Personal Care • Home-Delivered Meals • Adult Day Care/Day Health • Congregate Meals • Transportation & Taxi Card • Ombudsman Program • Hospital-2-Home • Health Promotion & Education 	<ul style="list-style-type: none"> • Long Term Care Advocacy Program • Senior Care Case Management • Medicaid Waiver/Community First Choice • Public Guardianship • Legal Assistance • Tax Aid Program • Senior Assisted Group Home Subsidy Program • SHIP (State Health Insurance Assistance Plan) • Family Caregivers Support
---	--

Maryland Access Point

<http://www.marylandaccesspoint.info/>
1-844-MAPLINK / 1-844-627-5465



Explanation of Services

Presented by Liz Briscoe
Baltimore City Health Department
Division of Aging and CARE Services

**"No Wrong Door" Maryland Access Point (MAP)
1-844-MAPLINK**

Provides information and access to a wide range of services including social security, housing, health care, transportation, legal assistance, and leisure activities. This information resource is available to everyone at no cost, regardless of income.



**Community Personal Assistance /
Community First Choice**

- Clients receive in-home, individualized plans of services that may delay or prevent nursing home placement.
- **Eligibility: No age requirement, however, client must be eligible for Medicaid.**



Senior Care Program

Provides services that will support aging in place.

Available services:

- Personal care
- Light housekeeping
- Meal preparation
- Nursingcare
- Shopping
- Transportation



Eligibility: Age 65 or older. Must meet income and medical guide lines.

Ombudsman Program

- Provides investigation & resolution of complaints in nursing homes and assisted living facilities
- Mediates disputes
- AAA Ombudsmen investigate complaints within 24 hours as well as provide information on regulations
- Provides in-service training on topics such as residents' rights, psycho-social needs, difficult behavior, sexuality, communication, and dignity, among others.
- Program is not a 24 hour emergency response service

**Senior Health Insurance Program
(SHIP)**

- Provides information and individual counseling for Medicare and health insurance questions.
- Helps in selecting health insurance coverage, filling out complicated forms, and intercede on their behalf when necessary.
- Assistance with enrollment in Low Income Subsidy Programs for Medicare recipients.



Helps Medicare, Medicaid beneficiaries prevent, detect, and report health care fraud.

**Housing Services / Sr Assisted
Group Home Subsidy Program**

For low income seniors, this program provides access to assisted living in small group homes (4 – 16 residents) which are licensed by the State of Maryland.



Eligibility:

- At least 62 years of age
- Physically or mentally impaired and in need of assistance with ADL's.
- Financially eligible

Public Guardianship

Adult Public Guardianship provides protection and advocacy on behalf of older adults who are determined by a court of law to lack the capacity to communicate responsible decisions concerning their daily living needs.

An Executive Director of the Area Agency on Aging can be appointed as a legal guardian.

A public guardian can be appointed if a person exhibits an inability to make everyday decisions due to:

- Effects of disease or disability
- Mental confusion / forgetfulness
- Inability to manage money / business affairs
- Inability to meet physical needs such as food, shelter, bathing, medical appts.

Legal Services



Maryland Legal Aid provides a full range of free civil legal services to financially qualified Marylanders and to those over age 60.

Maryland Legal Aid handles civil, not criminal, cases. Areas of general civil legal services include:

- Consumer rights
- Elder rights
- Employment
- Family
- Government benefits
- Health care
- Housing

Meals On Wheels

Provides a life-giving service to the homebound elderly who are confined to bed, lack transportation, or are too frail to cook for themselves



Support provided by  United Way

Area Agency on Aging Contact Info (MAP contacts)

County	MAP Contact	E-mail	Phone
Baltimore City Health Dept	Liz Briscoe	Elizabeth.Briscoe@baltimorecity.gov	410-545-3967
Baltimore County Dept of Aging	Peggy Miller	psmiller@baltimorecountymd.gov	
St. Mary's County Dept of Aging	Jennie Beyer	jennette.beyer@stmarysmd.com	301-475-4200 X 71057
Montgomery County Aging & Dis.	Jennifer Long	Jennifer.long@montgomerycountymd.gov	
Prince George's Co. Aging & Disab.	Deborah McBroom	dcmcbroom@co.pg.md.us	301-265-8450
Howard County	Christopher Moore	cmoore@howardcountymd.gov	

National Family Caregivers Program

Services:

- Provides support for caregivers
- Provides caregiving training
- Connects caregivers to available services
- Respite care

Eligibility:

- Adult family members or other informal caregivers age 18 and older who provide care to individuals age 60 and older
- Adult family members or other informal caregivers age 18 and older who provide care to individuals of any age with Alzheimer's disease and related disorders;
- Resources available for grandparents as well

Area Agency on Aging Contact Info (MAP contacts)

County	MAP Contact	E-mail	Phone
DC Office on Aging	(ask for Information & Assistance) Sheila is very good!	Ask.adrc@dc.gov	202-724-5626

The Senior Nutrition Program

Produced by: Amanda Scotland

IMPACTS ON HEALTH

- Decreased Hospitalizations¹
- Less Medical Spending^{1,2}
- Improved Self Reported Health^{3,4}
- Reduced Nursing Home Use¹
- Fewer Emergency Room Visits^{1,2}
- Improved Quality of Life⁵

The Senior Nutrition Program Impacts:

- HEALTH
- NUTRITION
- SAFETY
- SOCIABILITY

IMPACTS ON NUTRITION

- Improved Self Report of Eating Healthier¹
- Improved Nutritional Status⁶
- Improved Diet Quality³
- Decreased Nutritional Risk⁶
- Increased Food Security⁶
- Increased Nutrient and Food Intake^{3,5}

IMPACTS ON SAFETY

- Decreased Falls⁴
Those receiving home delivered meals and significantly fewer falls
- Increased Self Report of Feeling Safer⁴
Significant increased feelings of safety for those receiving home delivered meals

Other Benefits to Consider

- Participants are satisfied with meals and their overall experience^{3,5}
- Participants report less anxiety related to food⁵
- The meal program helps accommodate those with functional impairments^{3,5}

SOCIAL IMPACTS

- Decreased Feelings of Loneliness⁷
- Support Independent Living³
- Increased Opportunities for Interaction and Engagement³⁻⁶

References

1. More than a meal medicare claims analysis. Meals on Wheels America Web site. <http://www.mealsonwheelsamerica.org/learn-more/impact/more-than-a-meal/medicare-claims-analysis/>. Updated 2017.
2. Berkowitz SA, Terranova J, Hill C, et al. Meal delivery programs reduce the use of costly health care in dually eligible medicare and medicaid beneficiaries. Health Affairs (Project Hope). 2018;37(4):535-542.
3. James Mabi, Elizabeth Gearan, Rhoads Cohen, et al. Evaluation of the effect of the older americans act title III C nutrition services program on participants' food security, socialization, and diet quality. Mathematica Policy Research Published Reports. 2017.
4. Thomas K, Dosa D. More than a meal pilot study. Brown University. 2015. <https://www.researchprotocols.org/2015/4/e10118>. Accessed January 4, 2018.
5. Campbell AD, Godthryd A, Buys DR, Locher JL. Does participation in home delivered meals programs improve outcomes for older adults? results of a systematic review. Journal of Nutrition in Gerontology and Geriatrics. 2015;34(2):124-167. <http://www.tandfonline.com/doi/abs/10.1080/7151197.2015.1038463>. doi: 10.1080/7151197.2015.1038463.
6. Ullqvist S, Soia E, Cnelli S, et al. Impact of home delivered meals on nutrition status and nutrient intake among older adults in central Sweden. J Nutr Health Aging. 2018;22(7):863-868. <http://www.ncbi.nlm.nih.gov/pubmed/30030212>. doi: 10.1007/s12603-018-1038-0.
7. Thomas KI, Akobundu U, Dosa D. More than A meal? A randomized control trial comparing the effects of home delivered meals programs on participants' feelings of loneliness. The journals of gerontology. Series B, Psychological sciences and social sciences. 2016;71(6):1049-1058.

For access to this PowerPoint, please contact Judy Simon at judy.simon@maryland.gov.

Congregate Meal Programs a value proposition

Congregate meal programs

Serve adults 60+ (and in some cases, caregivers, spouses, and/or younger people with disabilities)

Provide meals in senior centers, schools, churches, farmers markets, and other community settings

Offer healthy meals, social engagement, access to community resources, volunteer roles

**Population of Americans 60+
2016: 69 Million**
Projected 2020: 77 Million
Projected 2040: 102 Million



Demand on the health care system will grow with the population

Nutrition/malnutrition have a tremendous impact on overall health and health care utilization


How the health care system benefits


Participants vs non-participants

Fewer ER visits leading to admissions **5.4%** vs 10.4% | **8.5%** vs 13.7% Fewer hospital admissions

How meal program participants benefit

Higher quality diet

 A healthy diet is essential to overall wellness


 1 out of 2 older adults is at risk or is malnourished

80%

80% of participants say a congregate meal program improved their health

Greater food security


 Access to food is a social determinant of health


 4.9 million seniors do not have reliable access to enough affordable, nutritious food

54%

54% of participants say a congregate meal supplies 50% or more of total food for the day

Increased socialization

 Staying connected is an important part of healthy aging

 Social isolation is linked to higher blood pressure, earlier onset of dementia, and other serious illnesses

54%

54% of participants say their social opportunities have increased because of a meal program

Sources: ACL's 2018 Evaluation of the Older Americans Act Nutrition Services Program Outcomes Report – Part II; U.S. Census Bureau Population Data; The National Foundation to End Senior Hunger and Feeding America's "The State of Senior Hunger in America 2016."



You can access this infographic at: <https://acl.gov/sites/default/files/programs/2019-03/MealProgramValueProposition.pdf>

Appendix 10: Healthcare-Community Partnership Resources

- A Roadmap to Financial and Programmatic Sustainability for Community-Based Organizations: Understand the Business Environment and Your Place Within It <http://www.nasuad.org/sites/nasuad/files/BACStep1Prepare.pdf>
- Aging and Disability Business Institute <https://www.aginganddisabilitybusinessinstitute.org/>
- Chronic Care Management Information Resource https://www.ncoa.org/wp-content/uploads/CCM-Information-Resource_FINAL_031218.pdf
- Community-Clinical Linkages for the Prevention and Control of Chronic Diseases. A Practitioner's Guide. CDC <https://www.cdc.gov/dhdsp/pubs/docs/ccl-practitioners-guide.pdf>
- Fundamentals of Community-Based Managed Care: A Field Guide <https://www.asaging.org/blog/fundamentals-community-based-managed-care-field-guide>
- HCBS Business Acumen Center <http://www.hcbsbusinessacumen.org/>
- HCBS Business Acumen Toolkit. Step 1: Prepare. Understand the Business Environment and Your Place Within It. Step 2: Plan. Use Business Intelligence to Build the Strategic Plan for Your Organization <http://www.hcbsbusinessacumen.org/toolkit.html>
- Healthcare Policy and Practice Opportunities for Senior Nutrition Programs. Part 1: The Evolving Healthcare Legislation Landscape. Part 2: Launching an In Home Medical Nutrition Therapy Program <https://nutritionandaging.org/training-events/leveraging-value-added-nutrition-services-in-healthcare-contracting-for-senior-nutrition-programs/>
<https://nutritionandaging.org/training-events/healthcare-policy-and-practice-opportunities-for-senior-nutrition-programs-part-2/>
- Health Care and Community-Based Organizations Have Finally Begun Partnering to Integrate Health and Long-Term Care <https://www.healthaffairs.org/doi/10.1377/hblog20180130.620899/full/>
- Learn the Basics about Medicare Advantage and Position Your Organization for New Partnerships <https://www.ncoa.org/resources/webinar-learn-the-basics-about-medicare-advantage-and-position-your-organization-for-new-partnerships/>
- Partnerships for Health: Lessons for Bridging Community-Based Organizations and Healthcare Organizations https://www.chcs.org/media/CBO-HCO_Partnership_update_032018.pdf
- Sustainability and Revenue Generation in an Evolving Senior Nutrition Business Environment

<https://nutritionandaging.org/sustainability-and-revenue-generation-in-an-evolving-senior-nutrition-business-environment-extended/>

- The Aging Network in Transition: Hanging in the Balance
http://www.nasuad.org/sites/nasuad/files/Aging_Network_in_the_Balance.pdf
- Using Community Partnerships to Integrate Health and Social Services for High-Need, High-Cost Patients
https://www.commonwealthfund.org/sites/default/files/documents/_media_files_publications_issue_brief_2018_jan_amarasingham_integrating_health_social_services_high_need_high_cost_ib.pdf



LINKING PATIENTS TO RESOURCES

23 AREA AGENCIES ON AGING IN MARYLAND

1. ALLEGANY COUNTY DEPARTMENT OF AREA AGENCY ON AGING
2. ANNE ARUNDEL COUNTY DEPARTMENT OF AGING AND DISABILITIES
3. BALTIMORE CITY DIVISION OF AGING AND CARE SERVICES (**BALTIMORE CITY HEALTH DEPARTMENT**)
4. BALTIMORE COUNTY DEPARTMENT OF AGING
5. CALVERT COUNTY OFFICE ON AGING
6. CAROLINE COUNTY OFFICE ON AGING
7. CARROLL COUNTY BUREAU OF AGING AND DISABILITIES
8. CECIL COUNTY AGING & DISABILITY SERVICES DIVISION
9. DORCHESTER COUNTY OFFICE ON AGING *
10. FREDERICK COUNTY SENIOR SERVICES
11. GARRETT COUNTY AREA AGENCY ON AGING
12. HARFORD COUNTY OFFICE ON AGING
13. HOWARD COUNTY OFFICE ON AGING AND INDEPENDENCE
14. KENT COUNTY OFFICE ON AGING
15. MONTGOMERY COUNTY AGING & DISABILITY SERVICES
16. PRINCE GEORGE'S COUNTY AGING & DISABILITY SERVICES
17. QUEEN ANNE'S COUNTY AGING DIVISION
18. ST. MARY'S COUNTY DEPARTMENT OF AGING AND HUMAN SERVICES
19. SOMERSET COUNTY COMMISSION ON AGING *
20. TALBOT COUNTY COMMISSION ON AGING
21. WASHINGTON COUNTY COMMISSION ON AGING
22. WICOMICO COUNTY COMMISSION ON AGING *
23. WORCESTER COUNTY COMMISSION ON AGING

*(part of MAC, Inc.)

“NO WRONG DOOR” MARYLAND ACCESS POINT (MAP) 1-844-MAPLINK

PROVIDES ACCESS TO AND INFORMATION ABOUT A WIDE RANGE OF SERVICES
INCLUDING...

SOCIAL SECURITY

HOUSING

HEALTHCARE

TRANSPORTATION

LEGAL
ASSISTANCE

LEISURE
ACTIVITIES

AVAILABLE TO EVERYONE AT NO COST, REGARDLESS OF INCOME!

SENIOR CARE PROGRAM

GOAL

PROVIDE SERVICES
THAT SUPPORT AGING
IN PLACE

TYPES OF SERVICES

- PERSONAL CARE
- LIGHT HOUSEKEEPING
- MEAL PREPARATION
- NURSING CARE
- SHOPPING
- TRANSPORTATION

ELIGIBILITY

- 65 YEARS OF AGE OR OLDER
- MEETS INCOME AND MEDICAL GUIDELINES

COMMUNITY PERSONAL ASSISTANCE / COMMUNITY FIRST CHOICE

GOAL: CLIENTS RECEIVE IN-HOME, INDIVIDUALIZED PLANS OF SERVICES THAT MAY DELAY OR PREVENT NURSING HOME PLACEMENT.

ELIGIBILITY: NO AGE REQUIREMENT, HOWEVER, CLIENT MUST BE ELIGIBLE FOR MEDICAID.

HOUSING SERVICES/ SENIOR ASSISTED GROUP HOME SUBSIDY PROGRAM

GOAL: FOR LOW INCOME SENIORS, THIS PROGRAM PROVIDES ACCESS TO ASSISTED LIVING IN SMALL GROUP HOMES (4 – 16 RESIDENTS) WHICH ARE LICENSED BY THE STATE OF MARYLAND.

ELIGIBILITY:

- AT LEAST 62 YEARS OF AGE
- PHYSICALLY OR MENTALLY IMPAIRED AND IN NEED OF ASSISTANCE WITH ADL'S
- 1.- FINANCIALLY ELIGIBLE

SENIOR NUTRITION PROGRAMS

MEALS ON WHEELS

- PROVIDES MEALS FOR THE HOMEBOUND ELDERLY WHO ARE CONFINED TO BED, LACK TRANSPORTATION, OR ARE TOO FRAIL TO COOK FOR THEMSELVES

CONGREGATE DINING

- PROVIDES HOT LUNCHESES SERVED IN CHURCHES, SENIOR CENTERS OR SENIOR HOUSING COMMUNITIES.
- APPROXIMATELY 250 SITES ACROSS THE STATE.

NATIONAL FAMILY CAREGIVERS PROGRAM

GOAL:

- PROVIDES SUPPORT FOR CAREGIVERS
- PROVIDES CAREGIVING TRAINING
- CONNECTS CAREGIVERS TO AVAILABLE SERVICES
- RESPITE CARE

ELIGIBILITY:

- ADULT FAMILY MEMBERS OR OTHER INFORMAL CAREGIVERS AGE 18 AND OLDER WHO PROVIDE CARE TO INDIVIDUALS AGE 60 AND OLDER
- ADULT FAMILY MEMBERS OR OTHER INFORMAL CAREGIVERS AGE 18 AND OLDER WHO PROVIDE CARE TO INDIVIDUALS OF ANY AGE WITH ALZHEIMER'S DISEASE AND RELATED DISORDERS;
- RESOURCES AVAILABLE FOR GRANDPARENTS AS WELL

HEALTH PROMOTION AND EDUCATION

CHRONIC DISEASE SELF MANAGEMENT PROGRAMS

DIABETES PREVENTION PROGRAM

FALLS PREVENTION PROGRAM

STEPPING UP YOUR NUTRITION

PEARLS- DEPRESSION SCREENING AND BEHAVIORAL INTERVENTION

**OTHER
COMMUNITY
RESOURCES**



DIAL 211

PROVIDES ACCESS TO SERVICES SUCH AS...

HOUSING

FOOD

EMPLOYMENT

UTILITY ASSISTANCE

MENTAL HEALTH AND SUBSTANCE ABUSE

AUNT BERTHA

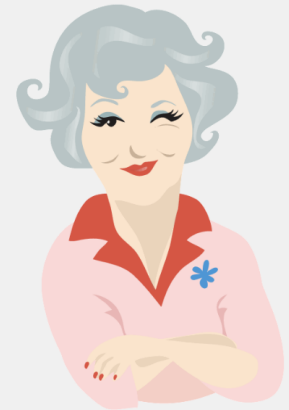
CONNECTING PEOPLE AND PROGRAMS

Search for **free or reduced cost** services like medical care, food, job training, and more.

Zip

Q Search

2,154,267 people use it (and growing daily)



KEY CONSIDERATIONS FOR PRACTICES

SELECTING AND EMBEDDING	SELECTING AND EMBEDDING SDOH SCREENING TOOLS
COLLECTING	COLLECTING PATIENT LEVEL SDOH DATA
CREATING	CREATING WORKFLOWS TO TRACK AND ADDRESS PATIENT NEEDS
IDENTIFYING	IDENTIFYING RESOURCES AND TRACKING REFERRALS

SELECTING & EMBEDDING TOOLS

UNDERSTAND NEEDS OF THE PATIENT POPULATION AND THE ORGANIZATION



PAPER OR ELECTRONIC FORMAT?



USE AN EXISTING TOOL OR CREATE A NEW ONE?



AWV AND TCV

AVAILABLE TOOLS INVENTORY

	AHC-Tool	HealthBegins	Health Leads	MLP IHELLP	Medicare Total Health Assessment Questionnaire	NAM Domains	PRAPARE	WellRx	Your Current Life Situation
Number of social needs questions	19	24	10	10	9	12	17	10	19
Number of non-social needs questions	8	4	0	0	30	12	4	1	10
Patient or clinic population	Medicare and Medicaid	Non-specific	Non-specific	Non-specific	Medicare beneficiaries	Non-specific	Community Health Centers	Primary care	Non-specific
Reading Level	8th grade	11th grade	6th grade	8th grade	College	6th grade	8th grade	2nd grade	9th grade
Reported Completion Time	NR	NR	NR	NR	10-20 min	NR	NR	NR	NR
Additional Languages							Spanish	Spanish	
Scoring	Y	Y	N	N	N	N	N	N	N
Cost	Free	Free	Free	Free	Free	Free	Free	Free	Free
Domains									
Benefits					1				
Caregiver responsibilities									1
Childcare access and affordability				1				1	1
Civic engagement			1						
Clothing								1	
Disabilities		2							
Education		1	3		1		2	1	1
Employment		1	1		1			1	2
Financial strain		1	2				1		1
Food insecurity		2	1	1		2		1	1
Health care/medicine access and affordability				1				2	2
Housing insecurity/instability/homelessness		1	2	1	2	1		2	1
Housing quality		1	1		1	1			1
Immigration / Migrant status / Refugee status			1		2			2	
Incarceration								1	
Income					3		1**	1	
Interpersonal violence (IPV)		4	4		3		4	1	2
Literacy				1					1
Neighborhood safety			1					1	1
Power of attorney/guardianship					1	1			
Social support		2	5	1		2	4	1	
Stress		1	1			2	1	1	
Transportation		1	1	1				1	1
Utilities		1		1				2	1
Veteran status								1	
Health behaviors/behavioral health/ health status	MH, PA, SU	DP, PA			AU; DP; HS; MH; PA; TU	AA, MH, PA, TU		AA, SA	
Desire for assistance / urgent needs	Integrated into some domains; see domain-specific questions	Integrated into "civic engagement"; see domain-specific question	2 stand-alone questions	Integrated into "Immigration"; see domain-specific question	1 stand-alone question			Integrated into some domains; see domain-specific questions	2 stand-alone questions

1

**WHAT METRICS
WILL YOU BE
MEASURING?**

2

**WHO IS
RESPONSIBLE FOR
THE DATA?**

3

**HOW WILL THIS
DATA INFORM
CLINICAL PRACTICE**

COLLECTING PATIENT LEVEL DATA

CREATING WORKFLOWS

TIME FRAME TO
ADMINISTER
SCREENING

CARE TEAM MEMBER
RESPONSIBLE FOR
ADMINISTERING AND
REFERRAL

ANY TRAINING
NEEDED TO
ADMINISTER THE
TOOL

TRACKING AND
FOLLOW UP

IDENTIFYING RESOURCES & TRACKING REFERRALS

BUILDING

BUILDING A REFERRAL NETWORK

INCORPORATING

INCORPORATING REFERRAL NETWORK IN EHR

CLOSING

CLOSING THE LOOP

ICD-10 CODING FOR SDOH

Table 3: Social Determinants of Health ICD-10 Codes.

SDOH	Sample ICD-10 Codes
Living Situation (Housing, Utilities)	Z590 - Problems related to housing and economic circumstances Z600 - Problems related to social environment Z602 - Problems related to living alone
Food	Z590 - Problems related to housing and economic circumstances Z594 - Lack of adequate food and safe drinking water
Safety	Z600 - Problems related to social environment
Financial Strain	Z590 - Problems related to housing and economic circumstances
Employment	Z560 - Problems related to employment and unemployment
Family and Community Support	Z630 - Other problems related to primary support group, including family circumstances Z600 - Problems related to social environment
Education	Z550 - Problems related to education and literacy
Mental Health	Z650 - Problems related to other psychosocial circumstances

EMBEDDING SDOH CARE ALERTS IN CRISP

- IN THE PATIENT CARE COORDINATION NOTE- DOCUMENT A TEXT VERSION OF WHAT YOU NEED TO INPUT ABOUT THE PATIENT WHICH WILL BE AVAILABLE TO OTHERS.
- IT GETS SENT TO CRISP AT THE CLOSURE OF THE ENCOUNTER