Nutrition and Aging Resource Center

Improving Nutrition and Health of Rural Older Adults Following Hospital Discharge

Appendix Documents

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Appendix A

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Application Narrative:

Funding:

Funding Agency: Administration for Community Living via Eastern Agency on Aging (lead org)

Project # NSN928 (GL Project # 5407980 and PARS submission #2019630)

Title: Older Adult Nutrition Innovation Pilot

1. Summary:

Eastern Area Agency on Aging in partnership with St. Joseph Healthcare, Senscio Systems, and the University of Maine, will establish and test an innovative, technology-driven nutrition enhancement and self-management program for older adults with multiple chronic diseases. The goal of this three-year project is to improve the nutritional and health status of rural adults 60 and older with multiple chronic conditions immediately following hospital discharge.

Anticipated outcomes for older adults include: 1) Decreased nutritional risk; 2) Improved health and health-related quality of life; 3) Improved ability to age in place; and 4) High levels of satisfaction with services.

Significance

The majority of adults 65 and older (80%) have at least one chronic disease. Medicare reports that 68% of beneficiaries have two or more chronic conditions and about a third of those individuals have four or more chronic conditions.[1] Ranking among the top chronic diseases are chronic obstructive pulmonary disease (COPD) and heart failure, which each impact approximately one in 10 older adults, and diabetes, which affects over one in four older adults.[2] Chronic conditions result in increased emergency department visits, inpatient hospital stays, outpatient visits, and prescriptions. For inpatient stays, 3% of people with no chronic conditions will have at least one inpatient stay in a year, compared with 6% of individuals with 1-2 chronic conditions, and 24% with five or more chronic conditions.[3] It is argued that a quarter of hospital readmissions can potentially be prevented using interventions "that span the continuum of care, prioritize efforts to prepare patients more effectively for discharge, and provide better ability for patients, caregivers, and health care professionals to support patients and improve outcomes during the period after hospitalization."[4]

In addition to chronic disease, food insecurity is a growing national concern with as many as one in 10 older adults either at-risk for food insecurity or facing hunger. In Maine, there are similar proportions of at-risk individuals currently facing hunger with an additional 16% experiencing a threat of hunger.[5] Chronic diseases and functional limitations are more prevalent in food insecure older adults.[6] A variety of health conditions are linked to food insecurity in older adults including asthma, diabetes, CHF, osteoporosis, and hypertension.[7] Furthermore, a powerful link exists between the cost of managing chronic disease and the financial and nutritional status of older adults.[8] Low income patients are routinely readmitted to hospitals because they had to choose between buying food and purchasing medication. This "treat or eat" dilemma effects as many as one in three chronically ill older adults yet most self-management

interventions do not include nutritional supports.[9]

An additional challenge is the cost of maintaining a nutritionally sound diet that is aligned with the clinical guidelines necessary to properly manage chronic disease. For clients with chronic disease, managing special diets across co-occurring conditions can be complicated and costly. Medically tailored meals (MTMs) are currently available to older adult clients through the Eastern Area Agency on Aging (EAAA) Meals on Wheels (MOW) program. However, clients must self-identify and self-select their meals, leaving room for error in the process, especially when that individual has more than one chronic condition. Without the support of a dietician and the billing structure to cover costs, it is impossible for EAAA to offer customized MTMs.

The Rural Imperative: Eastern Maine's low-income older adults are at considerable risk of food insecurity and accompanying health issues making it a critical location for offering nutritional and health innovations. EAAA's four, largely rural service counties have a significant poor older adult population: nearly 49,000 residents are over 65, with poverty rates ranging from 8.1% to 11.4%.[10] A recent study notes 43% of Maine's older adults are low-income, a risk factor for food insecurity and poor health.[11] [12] Some 16% of Maine households are food insecure. This rate of food insecurity places Maine in the top 10 states facing food insecurity.[13] Innovations in rural areas are needed that are accessible to older adults and are efficiently delivered by host agencies. The proposed research project will evaluate an intervention that leverages an innovative technology platform to deliver nutritional education and supports in the home. This model is especially designed to be less staff intensive and more consumer accessible than existing models of in-home nutritional supports and chronic disease management programming.

Methods

This project will entail testing a new intervention to be delivered by Eastern Area Agency on Aging (EAAA) and Senscio Systems. For this project, older adults with chronic disease will be identified by St. Joseph Hospital (SJH) and screened for food insecurity (see Appendix A for screening language). Those that screen positive based on the Hunger Signs food security screen will be offered a referral to EAAA. Once referred, EAAA will introduce the Ibis Program system, an in-home system that helps individuals to better manage their health. Older adults who are interested in receiving this hub will receive an informed consent form and be randomized into the study. See Appendix B for EAAA protocols for the study visits.

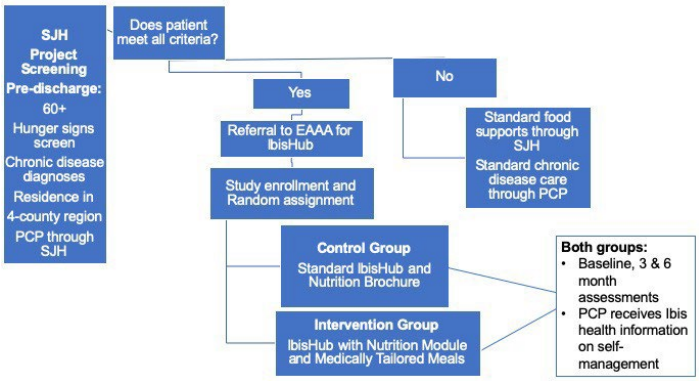


Figure 1: Project at a glance

The study will have two arms: Intervention and control group. The intervention group will receive medically tailored meals from EAAA based on their chronic disease conditions along with the Ibis Program. Those in the control group will receive the Ibis Program plus a nutrition tipsheet about maintaining good nutrition (see Appendix C for the

control group tipsheet). Those in the intervention group will also receive enhanced information features via their IbisHub including healthy recipes and healthy eating tips. Individuals in the control group arm are eligible to receive other available nutrition supports via EAAA. EAAA staff will screen and work with these individuals to ensure that immediate needs are met using their standard service delivery protocols. See Appendix D for a full study flow chart.

Figure 2: IbisHub

The IbisHub, developed by Senscio, provides self-management support to persons with complex care needs. Ibis uses AI to assist individuals in optimally managing their health by dynamically planning their daily self-care. Guided by the patient's physician, Ibis creates a personalized daily user care plan. The care plan consists of a sequence of tasks that need to be accomplished each day including taking medications, meals, exercises, activities of daily living, vitals and symptoms monitoring, and appointments to be kept. Through simple, large icons, the IbisHub provides step by step instructions on completing each task. As each task is completed, the AI analyzes the data to decide whether any additional tasks need to be performed to maintain stable health and, if so, will proceed to provide the needed guidance. The Ibis Program represents both the IbisHub plus phone-based chronic disease management support through a care manager. The information collected via the Ibis unit is shared with the individual's healthcare team and care manager. The system has built-in alerts that trigger interventions based on the individual's condition. The system does not require high speed internet access for participants. All connectivity will be provided by Senscio Systems. Individuals who enroll in the system complete a care plan with the enrolling physician as well as a cognitive screen prior to install to ensure that participants are able to effectively utilize and understand the technology interface. Eastern Area Agency on Aging staff will be installing the IbisHub technology and will complete a cognitive assessment prior to install.

The study hypothesis is that those in the intervention group (Ibis Program plus medically tailored meals) will experience decreased nutrition risk, improved chronic disease self-management efficacy, along with decreased utilization of healthcare services, including hospital readmissions, urgent care visits, and ER visits. Nutritional support clients will report high levels of satisfaction with the meals provided. Chronic disease self-efficacy scores will increase over time for intervention participants and there will be a significant difference in scores between the intervention and control arms. A reduction in hospitalizations will be noted over time for study participants based on healthcare data. Institutional placement tracking over time will demonstrate that participants are able to remain in their home throughout the six months post-discharge period.

Data collection methods will include a survey packet that is administered at baseline, 3-months, and 6-months post-enrollment. The nutrition project coordinator will complete study enrollment and baseline-data collection over the phone during their initial telephone visit to introduce the Ibis Program. Subsequent data collection (3-month and 6-month) will be collected by phone by the Center on Aging graduate assistant. The baseline survey will be completed in paper format and transmitted via scan to the Center on Aging. The baseline survey packets and study consent hard copies will be mailed to the Center on Aging and data entry into a Qualtrics shell will be completed by the project graduate assistant. All subsequent surveys will be completed by phone by Center on Aging staff and entered directly into an electronic Qualtrics survey shell.

Demographic Questionnaire (Appendix E): This questionnaire, administered at baseline only, consists of 6 questions covering gender, age, primary diagnoses, and ability to cook and prepare meals.

Hunger Vital Signs (Appendix F): The Hunger Vital Sign measure is a validated two question screen used to identify households at risk of food insecurity. This instrument will be included as part of the project referral form used by EAAA as well as the baseline, 3 month and 6 month follow-up data collection.

UCLA Loneliness Scale (Appendix F): The Three-Item Loneliness Scale is designed to quickly and effectively measure feelings of loneliness and social isolation.

Mini Nutritional Assessment (Appendix G): The MNA is a 6-item index used to assess nutrition risk in older adults. Questions cover topics such as food intake, recent weight loss, mobility, and stress.

6-Item Self-Efficacy for Managing Chronic Disease Scale (Appendix H): The Self-Efficacy for Managing Chronic Disease six item scale developed by the Self-Management Resource Center will be used to measure changes in chronic disease self-efficacy. This scale covers several domains that are common across many chronic diseases, symptom control, role, emotional functioning, and communicating with physicians. These questions assess the patient's confidence level in managing their illness.

Meals Satisfaction and Consumption Questions (Appendix I): A survey will be used for the intervention group to track meal satisfaction among participants. A five-star rating will be provided for meal taste and overall appeal. These rating data will be used to tailor meals to meet personal preferences. Daily meals data will be collected from the Ibis system based on daily prompts that ask "Did you eat lunch today?" and "Did you eat one of your delivered meals?" These questions will be delivered and collected via the IbisHub system.

Project Satisfaction Survey (Appendix J): A survey will be given to those in the intervention group to assess the overall project and will include ratings on the IbisHub system and meals delivery satisfaction.

Nutrition Knowledge Questionnaire (These questions will be developed when the nutrition module is completed): A nutrition knowledge questionnaire that is developed by the project dietician and delivered through the IbisHub system. Questions will focus on reading a nutrition label, healthy food "swaps," healthy foods on a budget, and food preparation techniques.

Data collection from third party partners:

In addition to primary data collection via project surveys, administrative and health data will be gathered via secure data transfers. Eastern Area Agency on Aging, Ibis Health, and Senscio Systems will obtain release of information forms from research participants prior to data sharing (see Appendix L for agency release forms).

IbisHub- Disease Exacerbations (collected continuously by the Senscio system): The Ibis algorithm is designed to identify disease-specific exacerbations, such as a significant change in blood sugar levels and edema, which signal risk for significant health events. These data are collected as part of the IbisHub protocol and will be used to measure the extent to which participation in the nutritional intervention is associated with a significant decrease is disease exacerbations. Disease exacerbations will be quantified across each 3-month reference period.

Additional IbisHub data will be collected as follows:

- The number of Activities of Daily Living limitations reported by an individual will be sent from Ibis to the Center on Aging in order to facilitate subject group assignment.
- The extent to which participants are actively engaging in their coaching calls with Ibis staff (quantified by count of calls in the past three months, collected at 3 months and 6 months) This will be used as a control variable for the analysis.
- Participant engagement with Ibis as measured by a daily "click" average generated at 3 months and 6 months). This will be used both as a process measure but also as a potential control variable in the study design.
- External referral: This measure will capture the number and type of referrals made by Ibis staff on behalf of the participant. This will also be used as a control variable within the analysis.
- Meals ratings: individuals in the intervention group will be asked to rate their medically tailored meals (see Appendix I). These ratings will be compared using a within-group comparison to assess growth in meal satisfaction as EAAA staff use meals ratings to improve individual meal selection for participants.

Healthcare utilization data will be used to identify the number of chronic conditions overall for each participant at baseline, hospital readmissions, number of urgent care visits, and the number of ER visits among study participants in the last three months. These data will be collected and transferred on the baseline, 3 month, and 6 month schedule. These data will help to test whether or not participation in the nutrition intervention is connected with decreased healthcare utilization and healthcare costs.

Eastern Area Agency on Aging Data: Data will be collected from EAAA on participant engagement with EAAA services as well as administrative tracking of meals delivery dates for participants. For engagement with EAAA services, data will be gathered on the number of contacts with EAAA staff and the types of programs to which the individual is engaged over time. Data from the project referral form will also be transmitted to the Center on Aging. These data will be used to assess whether or not agency announcements provided via Ibis to the intervention group lead to increased engagement with social services over time. Data will be collected at baseline (for 3 months prior), 3 months, and 6 months. See Table 1 for timing of data collection efforts.

Table 1: Project Milestones and Data Collection

Milestone	Type of data collected	By Whom?	Timing
First IbisHub visit by EAAA	1) Informed Consent and baseline demographics form EAAA collects referral forms from SJH as project referrals come in	EAAA collects and transmits consent form, baseline demographics, and a copy of the referral form to UM Center on Aging. Original consent form and referral form are scanned and sent immediately to Center on Aging. The original paper copy of the consent form will be mailed to the Center on Aging.	Within a week of hospital discharge
Randomization assignment data collection	ADL/functional status information is generated during the Senscio intake with physician	Senscio transmits ADL information to the UM Center on Aging	Within 2 weeks of hospital discharge
Second IbisHub installation visit by EAAA	Remaining baseline survey packet	EAAA collects and transmits to the UM Center on Aging. Baseline packet is transmitted by mail.	Within 2 weeks of hospital discharge
3 month data collection Participants in control group are receiving the Ibis Program services; Intervention group is receiving Ibis Program and weekly meals deliveries	1) 3 month survey packet completed by phone Senscio data and EAAA data collected for baseline through 3 month time period	1) Center on Aging staff 2) Center on Aging electronically transmits consent form to partners and receives data transfers	3 months post-enrollment in the pilot
6 month data collection	1) 6 month survey packet completed by phone	1) Center on Aging staff	6 months post-enrollment in the pilot
Participants in control group are receiving the Ibis Program services; Intervention group is receiving Ibis Program and weekly meals deliveries	2) Senscio data, and EAAA data collected for 3 month through 6 month period	2) Center on Aging electronically transmits consent form (if needed) to partners and receives data transfers	

Citations- See Appendix M

2. Personnel:

Dr. Lenard Kaye is the project Co-PI and will be involved in study oversight. Dr. Kaye is Professor of Social Work at the University of Maine School of Social Work and Director of the University of Maine Center on Aging. Dr. Kaye has been the principal investigator of numerous assessments of innovative community services for older adults, including projects funded by the AARP Andrus Foundation, Families USA, Brookdale Foundation, Maine Health Access Foundation, Pew Foundation, Bingham Program, John Harford Foundation, and U.S. Administration on Aging. He has been the principal investigator of the MeHAF-funded Maine Partners for Elder Protection (MePEP), the principal investigator of the Health Services Initiative of the Eastern Maine Transportation Collaborative Community Needs Assessment Project and has been the co-principal investigator for the Maine Primary Partners in Caregiving Project funded through the U.S. Administration on Aging.

Dr. Jennifer Crittenden will train EAAA staff on project protocols and provide oversight to the research project. Dr. Crittenden is the Associate Director at the University of Maine Center on Aging and is serving as the subaward co-PI for this research project. Dr. Crittenden has over fifteen years of experience in professional and community education, program evaluation and program planning. Dr. Crittenden has been involved in implementing and evaluating a wide range of research, training, and community service initiatives including serving as the Program Manager for Encore Leadership Corps, an innovative volunteer leadership program for Mainers 50+ and served as Project Manager for the National Institutes of Health-funded Balancing Act Clinical Trial, a research study testing a falls prevention program among older adults with visual impairments.

David Wihry, Center on Aging Senior Project Manager, will serve as the project data manager and will setup the project databases for both survey data and secondary data from Senscio and EAAA. David will oversee data transfers and conduct data checks to ensure data integrity. David will also oversee data entry in collaboration with the project graduate assistant.

Abbie Hartford is currently an MSW student at the University of Maine and has research experience working on human subjects projects including interviewing and survey projects. Abbie will assist in carrying out 3-month and 6-month data collection. The graduate assistant will also help with data entry, data analysis, and reporting in collaboration with David Wihry.

Kelley Morris, CoA Administrative Specialist, will be tracking participants to ensure that timely 3-month and 6-month assessment appointments are made. She will also be receiving and reviewing the signed informed consent forms, data authorization forms, and maintaining a contact log with each participant.

Tracy Kinney, EAAA Project Administrative Coordinator will be responsible for introducing the study to participants, obtaining informed consent for the project, and collecting baseline data from participants. Tracy will start in her position in January 2020 and will complete the IRB human subjects training as well as project specific trainings on protocols. All training will be completed prior to subject enrollment in March 2020.

Tom Kenney, EAAA Director of Nutrition Services will be trained to serve as a backup for the EAAA Nutrition Coordinator in order to complete study enrollment functions. Tom will complete the IRB human subjects training as well as project specific trainings on protocols. All training will be completed prior to subject enrollment in March 2020.

All individuals named above will complete human subjects training prior to subject enrollment in March 2020.

The following individual will receive signed consent forms in order to authorize data transfers but will not have access to individual survey packet data:

Senscio Systems: Mike Charley, Senior VP of Client and Member Services

3. Recruitment:

Recruitment will be facilitated through the established program pathway using scripting at St. Joesph's and EAAA (see Appendix items A & B). Individuals will be recruited from current patients within St. Joseph Hospital in Bangor Maine who will be screened and offered participation in the pilot project. Each patient is screened for food insecurity by hospital staff as part of standard practice prior to hospital discharge. Those older adults (age 60+) who screen positive for food insecurity and meet study criteria will be referred to EAAA (project lead) for further introduction to the study. In addition, any SJH patient who has experienced a hospitalization in the last 90 days will be identified through the care management department and screened during routine follow-up contact. All individuals who screen positive for food insecurity and meet project criteria (see below) will be sent home with 10 meals to last them through the study consent process. For those not currently hospitalized, the meals will be delivered to their home or provided by an SJH primary care practice site. If the individual ultimately does not consent into the study or is not offered the study enrollment option, EAAA will connect them with additional nutritional supports and programming as needed.

Client inclusion criteria for the project is as follows: 1) Age 60 and older; 2) Positive screen for food insecurity as measured by the hunger vital signs measure; 3) Two or more chronic conditions expected to last longer than 12 months that place the patient at significant risk of death, acute exacerbation, decompensation, or other functional decline. Diagnoses must include one of the following priority populations: congestive heart failure (CHF), depression, hypertension, diabetes, or chronic obstructive pulmonary disease (COPD); 4) Residing in the EAAA four-county service area; 5) Followed by a St. Joseph Healthcare (SJH) PCP and 6) A discharge plan that includes a discharge home (as opposed to a facility) or currently residing at home following a hospitalization within the last 90 days.

A referral sheet is included in Appendix A along with a sheet about the Ibis Program which will be provided to patients who qualify for the study prior to discharge.

Once referred to EAAA, a staff member will make contact and introduce the study using the script provided in Appendix B. An initial telephone visit will be scheduled with the project coordinator who will discuss the IbisHub and its features and install. Prior to this visit, two copies of the study consent form will be sent to the individual. Those who agree to enroll with Senscio and receive the IbisHub will complete the Ibis enrollment package and will be scheduled for their install telephone visit with the Ibis healthcare physician who sets up their plan of care. Part of the Ibis enrollment includes an assessment of cognitive capacity to use the Ibis system. If an individual does not meet this threshold, they will not be offered an IbisHub and will not be given the opportunity to enroll in the study. EAAA will provide supports to these individuals and their caregivers as needed.

For those who meet criteria and consent for Ibis enrollment, the project coordinator will review the study informed consent form with the individual and answer any questions they may have. The informed consent is signed and a copy is kept by the participant for future reference. After this telephone visit, the informed consent form and a copy of the original referral form will be sent to the Center on Aging. Prior to their second telephone visit by EAAA staff, Center on Aging will complete assignment to either the control group or the intervention group. All participants must successfully complete the Ibis Program enrollment process prior to the second telephone visit by EAAA. Participants may receive the Ibis Program while not consenting to the research project. Those who do not consent to the study will receive the standard Ibis Program offering without medically tailored meals.

Group assignment: Individuals will be assigned to the control or intervention groups using minimization assignment. Minimization assignment is a method used to reduce differences between different arms of the study based on prognostic factors that are likely to affect the dependent variables of interest. The first three individuals will be assigned to groups using a simple random number generator. Each subsequent participant after those three will then be placed into minimization assignment using the MinimPy software program balancing for the following factors: sex (male/female), functional status (based on ADL information provided by Senscio), and number of chronic conditions (2-3 versus 4 or more). Only staff from the Center on Aging, EAAA, and Senscio will know to which group each individual participant is assigned.

During the second staff visit, EAAA staff will complete the baseline data collection with the individual and submit that packet back to Center on Aging staff. At this second visit, individuals in the intervention group will start their weekly meals delivery. Individuals in the control group will receive a nutrition tipsheet via their IbisHub (see Appendix C). Individuals in both groups will be given an introduction to the IbisHub system using phone-based support. Those in the intervention group will receive additional training in accessing the nutrition module within their IbisHub system.

It is anticipated that the recruitment pool will include 200 older adults over the course of the 3-year project with a gender split of approximately 55% female and 45% male and 98% white and 2% non-white race based on local demographics. Recruitment will be done without regard for gender, race, or ethnicity and will be based on the study criteria noted above.

For the power analysis, a conservative estimate was made for treatment effects as this is an exploratory study. Using a small effect size and an a priori Bonferroni correction for five analyses, at least 68 participants are needed to detect a small effect. Given that we will adjust for number of chronic conditions, age, gender, and functional status, 100 participants per group is likely to be sufficient to detect the presence of at least a small treatment effect.

4. Informed consent:

For those who meet criteria and consent for Ibis enrollment, the EAAA project coordinator will review the study informed consent form by phone with the individual and answer any questions they may have. The informed consent is signed and a copy is kept by the participant for future reference. After this telephone visit, the informed consent form and a copy of the original referral form will be sent to the Center on Aging. Prior to their second telephone visit by EAAA staff, Center on Aging will complete assignment to either the control group or the intervention group.

The informed consent document will be provided to participants by mail, or through a socially distanced dropoff by EAAA staff, and will require their signature consenting to participate in the study. For individuals being discharged from SJH, staff will discuss the study briefly prior to discharge (see Appendix A for scripting) and the study consent materials will be provided in an envelope. SJH staff will indicate that an EAAA staff person will be calling to discuss the materials and answer questions that they may have. SJH staff will not answer questions about the study and will direct all questions to EAAA staff (Tracy Kinney). EAAA staff will be trained to review the informed consent document and will direct individuals who have additional questions about the study to connect with Center on Aging study staff members. Study participants will be told their participation is voluntary and that they are free to withdraw from the study at any time (see Appendix K). Individuals in the intervention group who withdraw from the study will not be eligible to continue to receive the 10 weekly medically tailored meals. Such individuals will receive follow-up from EAAA nutrition services for a Meals on Wheels assessment if nutrition continues to be a concern for the individual. Individuals in both groups who withdraw from the research study are eligible to continue to receive their Ibis Program services. Individuals who unenroll in Ibis services will not be allowed to continue in the research study as the Ibis Program is an essential component of the pilot model under study.

Due to study blinding, individuals will not be informed to which condition they have been assigned. Some individuals will not receive meals as part of their study assignment and therefore the informed consent form does not discuss the receipt of meals as part of the study design. Individuals in the intervention group will be informed by EAAA staff about their meals during their second home visit.

5. Confidentiality:

This study is designed to be confidential. All information and data collected will be identified by number (not names) and stored on a secure computer at the Center utilizing password protection and file encryption. This ID list will be shared with Senscio, Ibis Health, and EAAA so that staff can remove names from their file transfers prior to submission to CoA staff. All information will be password protected so the information is secure and only those with permission can access the deidentified information. The ID list will be maintained in an Excel file that is securely stored on Google Drive, shared directly with staff who have data sharing responsibilities, and password protected using AES 256 bit encryption in Excel. The deidentified data will be kept by the Center on Aging indefinitely. Data will be coded and encrypted using industry standards. The key linking ID numbers with names will be destroyed at the conclusion of the study (September 2023) by all project partners (EAAA, Senscio, SJH, and Center on Aging). All study documents including baseline and follow-up assessments will be coded using this ID code system.

All data transferred from Senscio to the Center on Aging will be transferred without identifying information using the established participant ID code system. A copy of signed informed consent forms will be provided to both EAAA and Senscio which will serve as documentation for the consent of release of this information for research purposes. EAAA, Ibis Health and Senscio Systems will obtain release of information (ROI) forms from participants (see Appendix L for ROI forms) prior to releasing data to the UM Center on Aging. These forms have been developed by UM legal counsel and deemed to meet HIPAA requirements. No PHI will be released from SJH to UM.

Sponsors, funding agencies, regulatory agencies, and the Institutional Review Board may review the research records. Copies of signed consent forms will be maintained by the principal co-investigator (Dr. Crittenden) for at least 3 years after the project is complete before it is destroyed (approximately September 2026). The consent forms will be stored in a secure location that can be accessed by Center on Aging staff named in the personnel section of this application. A copy of each signed consent will be sent to each partner organization to ensure data transfers are completed in a timely fashion.

Data reported from this effort will be aggregate in nature and will include a variety of formats for lay, professional, and academic audiences including research reports and briefs and conference presentations. Data will also be reported out in aggregate format for the funding source via semiannual project reports.

6. Risks to participants:

The risks of this study are minimal. Risks include time and inconvenience needed to complete the study assessments. Some participants may feel uncomfortable answering personal questions about their health and wellness. Participants will be reminded that their involvement in the study is completely voluntary and that they may withdraw from the study at any time or skip any questions they do not wish to complete. There are also risks with data transfers. To ensure that data are carefully protected, no data will be transferred between partners with names or identifying information attached. All data will be transferred and analyzed using a unique project ID assigned to each individual at project intake.

7. Benefits:

All individuals enrolled in the program will receive Ibis Program services (health self-management support). In addition, those within the intervention group will receive 10 weekly medically tailored meals for free. All individuals referred to the project will be screened for appropriate services and supports from EAAA regardless of the study condition to which they have been assigned. In addition, this research will provide valuable insight into interventions that have the potential to help older adults to better manage their own health through technology and nutrition supports.

8. Compensation:

All participants will receive a $20 Walmart gift card for participation in each assessment for the project (baseline, 3 months, and 6 months). Participants will have the opportunity to earn a total of $60 in gift card compensation based on the assessment schedule. Participants will need to complete at least half of the assessment packet to receive the gift card compensation.

Appendix A: St. Joseph Screening and Referral Protocols

Eastern Area Agency on Aging Nutrition Innovations Project
St. Joseph's Staff Script and Protocol

Screening script (for all patients): *"Nutrition is an important part of your health and recovery. As part of our discharge planning process we ask all of our patients about their ability to maintain their nutrition and get the food they need for good health."*

Standard SJH Hunger Screen Questions:

In the last 30 days did food/groceries run out and you did not have money for more?

Yes No

In the last 30 days did food/groceries run out and you did not have access for more?

Yes No

If they answer yes to either of these questions:

"Your answers tell me that you may benefit from some support with your nutrition and health management. Would you like me to put in a referral to Eastern Area Agency on Aging? Their staff will get in touch with you about support that is available to help you manage your health and nutrition. You qualify for an in-home health management system called the Ibis. Here is some information about that system (give them the Ibis brochure)."

If yes -> Complete referral form for nutrition innovations program. If they do not meet program criteria, they are still able to get assistance from EAAA if they are age 60 and older and live in Penobscot, Piscataquis, Washington, or Hancock County. The nutrition innovations referral form has more information about program criteria and submitting a referral to EAAA if someone does not meet criteria.

Program criteria:

- √ Age 60+
- √ Has a PCP through St. Joseph Healthcare
- √ Lives in Penobscot, Piscataquis, Hancock, or Washington Counties
- √ At-risk for hunger based on hunger signs screen
- √ Has at least two of the chronic conditions (see questions 11 and 11a on the project referral form).
- √ Currently planning for a discharge to home with or without home health or is currently residing at home following a hospitalization in the last 90 days.
- √ Individual is able to understand and follow simple instructions without significant assistance

Nutrition Innovations Referral Form

Instructions: Use this form to refer potential clients into the Eastern Area Agency on Aging (EAAA) Nutrition Innovations program.

Program criteria:

- √ Age 60+
- √ Has a PCP through St. Joseph Healthcare
- √ Lives in Penobscot, Piscataquis, Hancock, or Washington Counties
- √ At-risk for hunger based on hunger signs screen
- √ Has at least two of the chronic conditions (see questions 12 and 12a below).
- √ Currently planning for a discharge to home with or without home health or is currently residing at home following a hospitalization in the last 90 days.
- √ Individual is able to understand and follow simple instructions without significant assistance

All referrals should be scanned and sent by secure e-mail to: nasadmin@eaaa.org

****If the patient does not meet criteria for the program but is at-risk for nutrition, you may submit a regular referral to EAAA using their online portal: https://www.eaaa.org/homepage/provider-portal/**

1. Name of person referring : _____

2. Phone number of referring person : _____

3. Consumer name : _____

4. Consumer DOB : _____

5. Consumer Sex: Male Female

6. Planned date of hospital discharge, or last discharge if currently at home (MM/DD/YY): ___/___/_____

7. Consumer Town of Residence : _____

8. Contact person phone number : _____

9. Should a Caregiver be contacted? Yes _____ No _____

10. Caregiver's Name: _____

11. Caregiver's Phone Number: _____

12. Must have at least one of the following diagnoses (check all that apply):

- ☐ COPD
- ☐ Heart failure (CHF)
- ☐ Diabetes

12a. Participants must have two or more chronic diseases to participate in the pilot. If the individual has only one condition listed in question 12 above, they must have at least one of the following diagnoses in addition to the condition checked above.

Check or list at least one other diagnosis (chronic condition that is expected to last at least 12 months, or until death of the patient, and poses a risk of death, acute exacerbation/decompensation, or functional decline)

- ❑ Alzheimer's Disease
- ❑ Alzheimer's Disease-Related Disorders or Dementia
- ❑ Anemia
- ❑ Asthma
- ❑ Atrial Fibrillation
- ❑ Benign Prostatic Hyperplasia
- ❑ Cancer, Colorectal
- ❑ Cancer, Endometrial
- ❑ Cancer, Breast
- ❑ Cancer, Lung
- ❑ Cancer, Prostate
- ❑ Other
- ❑ Cataract
- ❑ Depression
- ❑ Diabetes
- ❑ Glaucoma
- ❑ Heart Failure
- ❑ Hip / Pelvic Fracture
- ❑ Hyperlipidemia
- ❑ Hypertension
- ❑ Ischemic Heart Disease
- ❑ Osteoporosis
- ❑ Rheumatoid Arthritis / Osteoarthritis
- ❑ Stroke / Transient Ischemic Attack

13. Does this patient have a PCP through St. Joseph's Healthcare?

- ☐ No-Use regular EAAA referral form they do not qualify for this program
- ☐ Yes

If yes, who is their PCP? _____

14. Please provide current weight and height information. This information assists with nutritional assessment:

_____lbs _____inches

Hunger Vital Sign (Please ask patient the following questions)

15. Within the last 3 months I worried whether food would run out before I got money to buy more. (Circle the answer given)

Often true Sometimes true Never true

16. Within the past 3 months the food I bought just didn't last and I didn't have money to get more. (Circle the answer given)

Often true Sometimes true Never true

All referrals should be scanned and sent by secure e-mail to: nasadmin@eaaa.org

****If the patient does not meet criteria for the program but is at-risk for nutrition, you may submit a regular referral to EAAA using their online portal: https://www.eaaa.org/homepage/provider-portal/**

Questions about Nutrition Innovations? Tracy Kinney at 941-2865 ext. 165 or tkinney@eaaa.org

your health was simple?

Solution

Using a unique mix of technology and personal touch, we offer our members a chance to transform the way they manage their health. Compassionate qualified people and an easy to use touchscreen monitor work together to give you peace of mind and the ability to know you're being cared for in the way you deserve.

Your personal IbisHub puts you in command of your health

Simplifying Complex Care

Over 95%
of users recommend Ibis to their family & friends

Ibis™

A better way to manage complex health conditions at home

Please call us to learn more.
Toll-Free (888) 626-9995
www.IbisHealthServices.com

§ Senscio Systems
See what's ahead

What if self-management of your health was simple?

The Ibis

The Ibis program supports self management of your health right where you live. Through daily reminders, self-rescue measures, and a dedicated Care Team, Ibis puts you in control of your health. Achieving the healthiest version of yourself is easier than you think.

Be Safe

Do you worry about not being able to get help when you need it?

Using the IbisHub, a touchscreen monitor, tells your Care Team that you're up and taking care of yourself. If you stop using Ibis, your dedicated Ibis Program Specialist will call to check on any problems.

"I'm not scared anymore. I don't feel alone. I used to forget my medicine, but now I don't."

- Jo

Be Healthy

Do you worry about declining health?

One of the best way to maintain your health is to take your medications. Ibis will remind you to do that and will also help your doctors track your vital signs. If your symptoms get worse, Ibis and your Care Team will help you recover.

"It's an easy and efficient way to stay on top of managing your health."

-Constance

Be Independent

Do you want to continue to live independently?

With Ibis, you are always connected to your Care Team. That peace of mind and confidence will keep you living on your own for as long as it is safe.

"By constantly tracking my vitals, I can catch a small problem before it becomes a larger issue."

- Lyndon

FAQs

How much does Ibis cost?

For most seniors, the cost is covered by state and federal programs. There is no long term obligation.

I've never used a computer before, how does this work?

If you have used a microwave or a touchtone phone, then using the IbisHub will be easy because of its large colorful touchscreen. And we assist you every step of the way.

How does Ibis work for me?

Think of Ibis as a friend who knows about you, your health, your Care Plan and how faithfully you follow your Plan. When Ibis sees that you need a reminder, it gently nudges you in the right direction.

Appendix B: Eastern Area Agency on Aging Project Protocols for First and Second Visits

Project Intro Script and Protocols for EAAA Staff

Nutrition Innovations

"Based on your referral form from St. Joseph's, you qualify for a new pilot program at EAAA. Under this new program, you would receive an in-home system that will help you to manage your health by providing you with access to an in-home unit that will help you manage your health and staff who will be in touch with your periodically to help you manage your health. They can give you appointment reminders, medication reminders, and periodic phone check-ins. Under this pilot program, these supports are available at no-cost to you. Would you like to schedule a time for a staff member to call you to discuss the system?"

If yes -> Schedule first visit, mail out packet containing release forms and two copies of the study consent form.

First Visit Protocol (by phone)

- Provide an overview of the Ibis system. Introduce them to the study using the informed consent form. To participate in the study they must:
  - Agree to receive the Ibis system and actively participate with the Ibis system
  - Consent into the study (sign consent form)
- Bring two copies (or mail) of the study consent form: They need to sign both and keep one copy for themselves
- Review the EAAA, Ibis, and Senscio HIPAA authorization forms and instruct them to sign and return
- Complete the Senscio enrollment agreement with the individual and instruct them to sign and return
- Explain that they can expect to receive follow-up call from an Ibis Health provider to finish their enrollment with Ibis.
- Staff should maintain a log of any questions (in the EAAA participant telephone log) asked during this first visit and document any discussion that takes place with the consumer about the project or the Ibis system.
- Schedule second phone visit. Add this information to the Google Drive Tracker
- Add client ID to the ID file on Google Drive Tracker. The ID number will be their SAMS number.
- Fill out referral information transmittal form in the shared Google Drive folder and place in the file drop folder.

Signed consent form, signed HIPAA authorization forms (EAAA, Ibis, and Senscio), Referral form information should be placed in the file drop folder. Send an e-mail to: kelley.morris@maine.edu to alert Kelley that there are forms in the folder. Mail the hard copy of the UMaine study informed consent form to Kelley at 25 Texas Ave, Camden Hall, Bangor, ME 04401. Place the referral transmittal form in the file drop.

Transmit Senscio consent forms to Senscio and Ibis Health forms can also go to Senscio.

Prior to the second telephone visit, David or another CoA staff member will be in touch to let you know to which study arm the participant has been assigned.

Second visit should be scheduled after the Ibis health assessment and intake.

Second Phone Visit Protocol

- Walk them through turning on their system, provide the same core training information for both groups of participants
- Revisit study information and complete baseline study packet with the individual; Complete items A-E on the Mini Nutritional Assessment. CoA will complete item F with height and weight info from the study referral form.
    - Explain that staff from the University of Maine Center on Aging will be in touch with them by phone to complete an additional packet in three months and again in 6 months
- Mail out with their research incentive payment ($20 gift card) after they complete their baseline assessment
- Participant must sign the incentive log indicating receipt of their gift card. Send a receipt form to them by mail.
- For those in the intervention arm only, review the meals delivery information including when they can expect their first meals delivery, anticipated or sample meals menu, etc.
- For intervention arm only, let the participant know the dietician will be in touch to discuss options
- For those in the intervention arm only, discuss the nutrition module
- For those in the control arm, discuss how they can access the brochure on their Ibis system.
- Put scanned copies of the Baseline Packet into the file drop folder. Email: Kelley.morris@maine.edu to let her know there are files in the folder. Use only the ID number on the form, do not include the individual's name in the packet. Mail the original to Kelley at UM Center on Aging, 25 Texas Ave, Bangor, ME 04401

Additional Instructions

- For any e-mail correspondence, ensure that the ID number information is never included with the person's name. The only place that the ID number and name should be linked is in the password protected tracker on the Google Drive.
- Any contact related to the project, including follow-up questions, e-mails, calls should be logged in SAMS for each participant, regardless of the study arm they have been assigned to. Track questions separately in the participant telephone log.
- Participants should not be informed of which study arm they are in. Do not discuss the medically tailored meals or the nutrition module option with anyone in the control group.

Appendix C: Tipsheet for Control Group Participants

USDA

10 tips
Nutrition Education Series

choosing healthy meals as you get older

ChooseMyPlate.gov

10 healthy eating tips for people age 65+

Making healthy food choices is a smart thing to do—no matter how old you are! Your body changes through your 60s, 70s, 80s, and beyond. Food provides nutrients you need as you age. Use these tips to choose foods for better health at each stage of life.

1 drink plenty of liquids

With age, you may lose some of your sense of thirst. Drink water often. Low-fat or fat-free milk or 100% juice also helps you stay hydrated. Limit beverages that have lots of added sugars or salt. Learn which liquids are better choices.

2 make eating a social event

Meals are more enjoyable when you eat with others. Invite a friend to join you or take part in a potluck at least twice a week. A senior center or place of worship may offer meals that are shared with others. There are many ways to make mealtimes pleasing.

3 plan healthy meals

Find trusted nutrition information from ChooseMyPlate.gov and the National Institute on Aging. Get advice on what to eat, how much to eat, and which foods to choose, all based on the Dietary Guidelines for Americans. Find sensible, flexible ways to choose and prepare tasty meals so you can eat foods you need.

4 know how much to eat

Learn to recognize how much to eat so you can control portion size. MyPlate's SuperTracker shows amounts of food you need. When eating out, pack part of your meal to eat later. One restaurant dish might be enough for two meals or more.

5 vary your vegetables

Include a variety of different colored vegetables to brighten your plate. Most vegetables are a low-calorie source of nutrients. Vegetables are also a good source of fiber.

(over)

NIH National Institute on Aging

United States Department of Agriculture
Center for Nutrition Policy and Promotion
DG TipSheet No. 42
July 2015

6 eat for your teeth and gums

Many people find that their teeth and gums change as they age. People with dental problems sometimes find it hard to chew fruits, vegetables, or meats. Don't miss out on needed nutrients! Eating softer foods can help. Try cooked or canned foods like unsweetened fruit, low-sodium soups, or canned tuna.

7 use herbs and spices

Foods may seem to lose their flavor as you age. If favorite dishes taste different, it may not be the cook! Maybe your sense of smell, sense of taste, or both have changed. Medicines may also change how foods taste. Add flavor to your meals with herbs and spices.

8 keep food safe

Don't take a chance with your health. A food-related illness can be life threatening for an older person. Throw out food that might not be safe. Avoid certain foods that are always risky for an older person, such as unpasteurized dairy foods. Other foods can be harmful to you when they are raw or undercooked, such as eggs, sprouts, fish, shellfish, meat, or poultry.

9 read the Nutrition Facts label

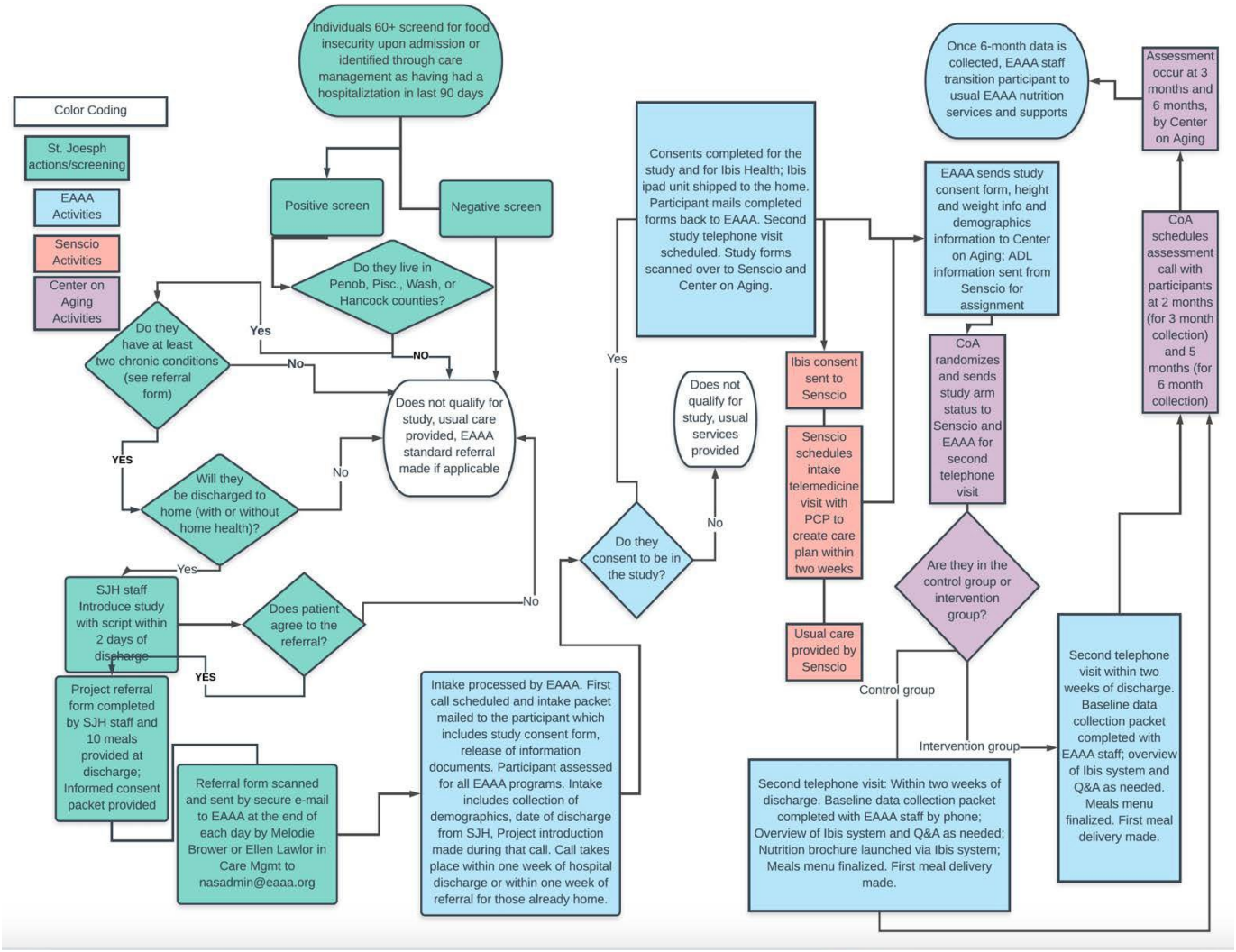
Make the right choices when buying food. Pay attention to important nutrients to know as well as calories, fats, sodium, and the rest of the Nutrition Facts label. Ask your doctor if there are ingredients and nutrients you might need to limit or to increase.

10 ask your doctor about vitamins or supplements

Food is the best way to get nutrients you need. Should you take vitamins or other pills or powders with herbs and minerals? These are called dietary supplements. Your doctor will know if you need them. More may not be better. Some can interfere with your medicines or affect your medical conditions.

Go to www.ChooseMyPlate.gov and www.nia.nih.gov/health/topics/nutrition for more information.

Appendix D: Project Flowchart



Appendix E: Demographic Questions (Baseline only)

1. Gender

❑ Male ❑ Female ❑ Other

2. Age _____

3. Diagnosis

❑ Diabetes ❑ Heart Failure ❑ COPD ❑ Depression ❑ Hypertension

❑ Other:_____

4. I frequently prepare well-balanced meals for myself at home

❑ Strongly agree ❑ Agree ❑ Neutral ❑ Disagree ❑ Strongly disagree

5. I have physical limitations that make it difficult to prepare and cook meals for myself at home

❑ Strongly agree ❑ Agree ❑ Neutral ❑ Disagree ❑ Strongly disagree

6. I am unable to shop for groceries and/or it is difficult to access to nutritious food where I live

❑ Strongly agree ❑ Agree ❑ Neutral ❑ Disagree ❑ Strongly disagree

Appendix F: Hunger Signs & Loneliness Screens (Baseline, 3 mo., 6 mo.)

Hunger Signs

1. Within the last 12 months we worried whether our food would run out before we got money to buy more. (Circle the answer given)

Often true Sometimes true Never true

2. Within the past 12 months the food we bought just didn't last and we didn't have money to get more. (Circle the answer given)

Often true Sometimes true Never true

UCLA Loneliness Scale

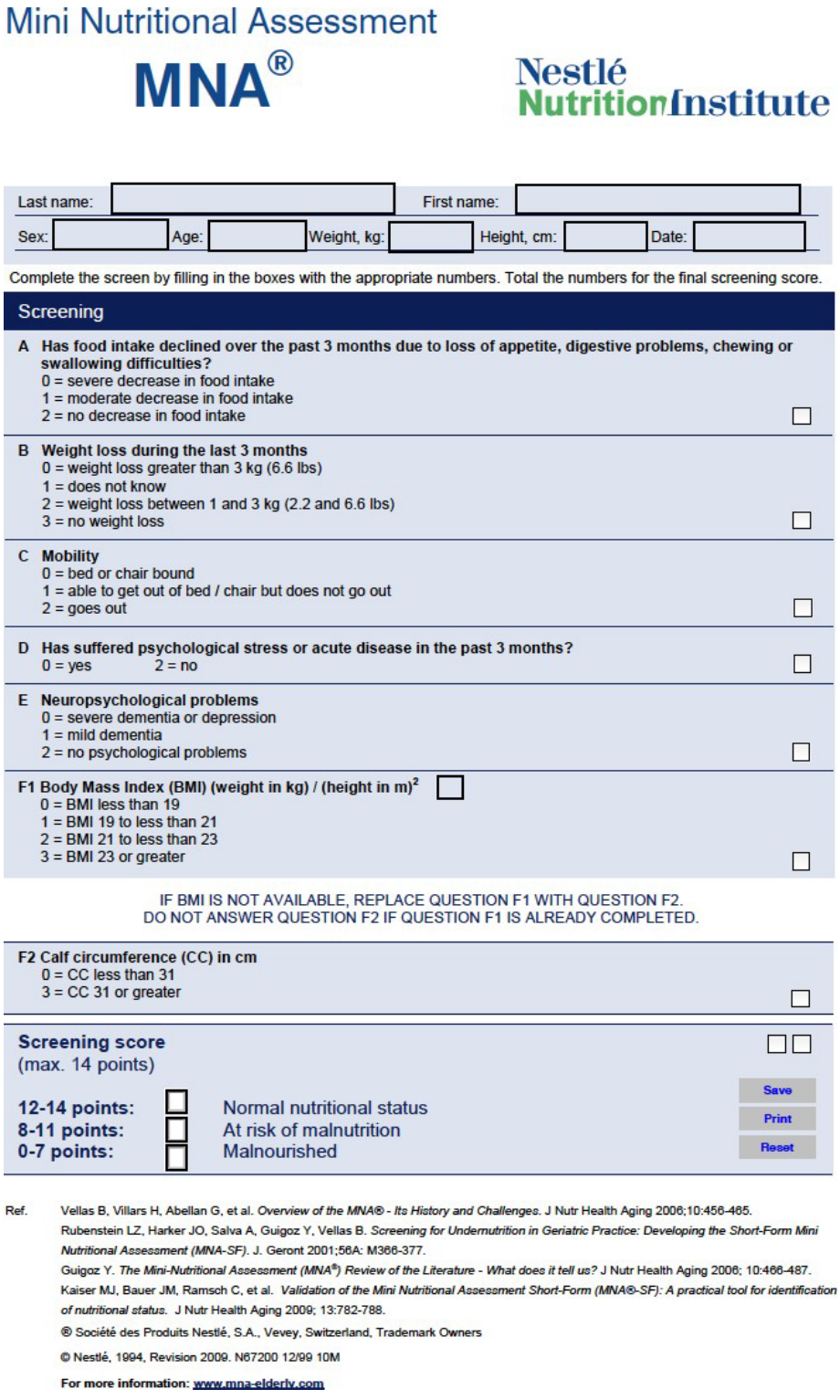
The next questions are about how you feel about different aspects of your life. For each one, tell me how often you feel that way.

1. First, how often do you feel that you lack companionship: Hardly ever, some of the time, or often?
1 [ ] Hardly Ever
2 [ ] Some of the Time
3 [ ] Often

2. How often do you feel left out: Hardly ever, some of the time, or often?
1 [ ] Hardly Ever
2 [ ] Some of the Time
3 [ ] Often

3. How often do you feel isolated from others? (Is it hardly ever, some of the time, or often?)
1 [ ] Hardly Ever
2 [ ] Some of the Time
3 [ ] Often

Appendix G: Mini Nutritional Assessment (Baseline 3 mo., 6 mo.)



Mini Nutritional Assessment

MNA®

Nestlé Nutrition Institute

Last name: First name:

Sex: Age: Weight, kg: Height, cm: Date:

Complete the screen by filling in the boxes with the appropriate numbers. Total the numbers for the final screening score.

Screening

A Has food intake declined over the past 3 months due to loss of appetite, digestive problems, chewing or swallowing difficulties?
0 = severe decrease in food intake
1 = moderate decrease in food intake
2 = no decrease in food intake ☐

B Weight loss during the last 3 months
0 = weight loss greater than 3 kg (6.6 lbs)
1 = does not know
2 = weight loss between 1 and 3 kg (2.2 and 6.6 lbs)
3 = no weight loss ☐

C Mobility
0 = bed or chair bound
1 = able to get out of bed / chair but does not go out
2 = goes out ☐

D Has suffered psychological stress or acute disease in the past 3 months?
0 = yes 2 = no ☐

E Neuropsychological problems
0 = severe dementia or depression
1 = mild dementia
2 = no psychological problems ☐

F1 Body Mass Index (BMI) (weight in kg) / (height in m)^2 ☐
0 = BMI less than 19
1 = BMI 19 to less than 21
2 = BMI 21 to less than 23
3 = BMI 23 or greater ☐

IF BMI IS NOT AVAILABLE, REPLACE QUESTION F1 WITH QUESTION F2.
DO NOT ANSWER QUESTION F2 IF QUESTION F1 IS ALREADY COMPLETED.

F2 Calf circumference (CC) in cm
0 = CC less than 31
3 = CC 31 or greater ☐

Screening score ☐☐
(max. 14 points)

12-14 points: ☐ Normal nutritional status
8-11 points: ☐ At risk of malnutrition
0-7 points: ☐ Malnourished

Save Print Reset

Ref. Vellas B, Villars H, Abellan G, et al. *Overview of the MNA® - Its History and Challenges.* J Nutr Health Aging 2006;10:456-465.
Rubenstein LZ, Harker JO, Salva A, Guigoz Y, Vellas B. *Screening for Undernutrition in Geriatric Practice: Developing the Short-Form Mini Nutritional Assessment (MNA-SF).* J. Geront 2001;56A: M366-377.
Guigoz Y. *The Mini-Nutritional Assessment (MNA®) Review of the Literature - What does it tell us?* J Nutr Health Aging 2006; 10:466-487.
Kaiser MJ, Bauer JM, Ramsch C, et al. *Validation of the Mini Nutritional Assessment Short-Form (MNA®-SF): A practical tool for identification of nutritional status.* J Nutr Health Aging 2009; 13:782-788.

For more information: www.mna-elderly.com

Screening (MNA®)

Complete the screen (Questions A – E) by filling in the boxes with the appropriate numbers. Then, add the numbers together to determine the screening score. A score of 12 or greater indicates the person is well nourished and needs no further intervention. A score of 8-11 indicates the person is at risk of malnutrition. A score of 7 or less indicates the person is malnourished. If the score is 11 or less, you may continue with the remaining questions for additional information on factors that may impact nutritional status.

Key Points

Ask the patient to answer questions A – E, using the suggestions in the shaded areas. If the patient is unable to answer the question, ask the patient's caregiver to answer, or check the medical record.

A

Has food intake declined over the past three months due to loss of appetite, digestive problems, chewing or swallowing difficulties?

Score 0 = Severe decrease in food intake
1 = Moderate decrease in food intake
2 = No decrease in food intake

Ask patient or caregiver or check the medical record

- *"Have you eaten less than normal over the past three months?"*
- If so, *"is this because of lack of appetite, chewing, or swallowing difficulties?"*
- If yes, *"have you eaten much less than before or only a little less?"*

B

Involuntary weight loss during the last 3 months?

Score 0 = Weight loss greater than 3 kg (6.6 pounds)

1 = Does not know

2 = Weight loss between 1 and 3 kg (2.2 and 6.6 pounds)

3 = No weight loss

Ask patient / Review medical record (if long term or residential care)

- *"Have you lost any weight without trying over the last 3 months?"*
- *"Has your waistband gotten looser?"*
- *"How much weight do you think you have lost? More or less than 3 kg (or 6 pounds)?"*

Though weight loss in the overweight elderly may be appropriate, it may also be due to malnutrition. When the weight loss question is removed, the MNA® loses its sensitivity, so it is important to ask about weight loss even in the overweight.

C

Mobility?

Score 0 = Bed or chair bound

1 = Able to get out of bed/chair, but does not go out

2 = Goes out

Ask patient / Patient's medical record / Information from caregiver

- *"How would you describe your current mobility?"*
- *"Are you able to get out of a bed, a chair, or a wheelchair without the assistance of another person?"* – if not, would score 0
- *"Are you able to get out of a bed or a chair, but unable to go out of your home?"* – if yes, would score 1
- *"Are you able to leave your home?"* – if yes, would score 2

D

Has the patient suffered psychological stress or acute disease in the past three months?

Score 0 = Yes

2 = No

Ask patient / Review medical record / Use professional judgment

- *"Have you been stressed recently?"*
- *"Have you been severely ill recently?"*

E

Neuropsychological problems?

Score 0 = Severe dementia or depression
1 = Mild dementia
2 = No psychological problems

Review patient medical record / Use professional judgment / Ask patient, nursing staff or caregiver

- *"Do you have dementia?"*
- *"Have you had prolonged or severe sadness?"*

The patient's caregiver, nursing staff or medical record can provide information about the severity of the patient's neuropsychological problems (dementia).

F

Body mass index (BMI)?
(weight in kg / height in m^2)

Score 0 = BMI less than 19
1 = BMI 19 to less than 21
2 = BMI 21 to less than 23
3 = BMI 23 or greater

Determining BMI
BMI is used as an indicator of appropriate weight for height (Appendix 1)

BMI Formula – US Units

- BMI = (Weight in Pounds / [Height in inches x Height in inches]) x 703

BMI Formula – Metric Units

- BMI = (Weight in Kilograms / [Height in Meters x Height in Meters])

1 Pound = 0.45 Kilograms
1 Inch = 2.54 Centimeters

Appendix H:
Self-Efficacy for Managing Chronic Disease
(Baseline, 3 mo., 6 mo.)

We would like to know how confident you are in doing certain activities. For each of the following questions, please choose the number that corresponds to your confidence that you can do the tasks regularly at the present time.

1. How confident do you feel that you can keep the fatigue caused by your disease from interfering with the things you want to do?

Not at all confident	1	2	3	4	5	6	7	8	9	10	Totally confident

2. How confident do you feel that you can keep the physical discomfort or pain of your disease from interfering with the things you want to do?

Not at all confident	1	2	3	4	5	6	7	8	9	10	Totally confident

3. How confident do you feel that you can keep the emotional distress caused by your disease from interfering with the things you want to do?

Not at all confident	1	2	3	4	5	6	7	8	9	10	Totally confident

4. How confident do you feel that you can keep any other symptoms or health problems you have from interfering with the things you want to do?

Not at all confident	1	2	3	4	5	6	7	8	9	10	Totally confident

5. confident do you feel that you can do the different tasks and activities needed to manage your health condition so as to reduce your need to see a doctor?

Not at all confident	1	2	3	4	5	6	7	8	9	10	Totally confident

6. How confident do you feel that you can do things other than just taking medication to reduce how much your illness affects your everyday life?

Not at all confident	1	2	3	4	5	6	7	8	9	10	Totally confident

Scoring

The score for each item is the number circled. If two consecutive numbers are circled, code the lower number (less self-efficacy). If the numbers are not consecutive, do not score the item. The score for the scale is the mean of the six items. If more than two items are missing, do not score the scale. Higher number indicates higher self-efficacy

Appendix I: Meal Ratings (collected on the IbisHub system for intervention group)

Meal Ratings

1. Did you eat breakfast today?

❑ Yes ❑ No

If yes: Did you eat one of your delivered meals?

❑ Yes ❑ No

If yes: Which meal number did you eat? _____

a. How much of your meal did you eat?

❑ All of it ❑ Most of it ❑ Some of it

b. Please rate the meal's taste and overall appeal (5=excellent, 1=poor)

❑ 1 star ❑ 2 stars ❑ 3 stars ❑ 4 stars ❑ 5 stars

2. Did you eat lunch today?

❑ Yes ❑ No

If yes: Which meal number did you eat? _____

a. How much of your meal did you eat?

❑ All of it ❑ Most of it ❑ Some of it

b. Please rate the meal's taste and overall appeal (5=excellent, 1=poor)

❑ 1 star ❑ 2 stars ❑ 3 stars ❑ 4 stars ❑ 5 stars

3. Did you eat dinner today?

❑ Yes ❑ No

If yes: Which meal number did you eat? _____

a. How much of your meal did you eat?

❑ All of it ❑ Most of it ❑ Some of it

b. Please rate the meal's taste and overall appeal (5=excellent, 1=poor)

❑ 1 star ❑ 2 stars ❑ 3 stars ❑ 4 stars ❑ 5 stars

Appendix J: Program Satisfaction Survey (3 mo. & 6 mo.)

(Questions 1,2,3,4,5,7 for all participants, questions 1-10 for intervention group)

1. I have received clear instructions about how to use the IbisHub system.

❑ Strongly agree ❑ Agree ❑ Neutral ❑ Disagree ❑ Strongly disagree

2. On a scale from 1-5 (with 1 being easy and 5 being difficult), how challenging have you found it to use the IbisHub?

❑1 ❑2 ❑3 ❑4 ❑5

3. The health reminders and alerts I get help me to better manage my health.

❑ Strongly agree ❑ Agree ❑ Neutral ❑ Disagree ❑ Strongly disagree

4. Staff members are prompt in returning my calls.

❑ Strongly agree ❑ Agree ❑ Neutral ❑ Disagree ❑ Strongly disagree

5. How satisfied are you with the information you get about Eastern Area Agency on Aging programs and services from the IbisHub?

❑ Very satisfied ❑ Satisfied ❑ Neutral ❑ Unsatisfied ❑ Very unsatisfied

6. How satisfied are you with the nutrition information you get from Ibis (recipes, tips, etc.)?

❑ Very satisfied ❑ Satisfied ❑ Neutral ❑ Unsatisfied ❑ Very unsatisfied

7. Please indicate how much you agree or disagree with the following statement. There are enough healthy food options that I like.

❑ Strongly agree ❑ Agree ❑ Neutral ❑ Disagree ❑ Strongly disagree

8. Have you been able to use the nutrition information you receive from Ibis?

Yes No

9. Have you been able to use the recipes you receive from Ibis?

Yes No

9a. If yes: which recipes did you like the best?

9b. If you answered no, what would help you to use the information you get?

10. Do you have any questions or comments about how to improve the program?

_____

_____

Appendix K: Informed Consent

UNIVERSITY OF MAINE CENTER ON AGING
Research Informed Consent Form

Project Title: EAAA Innovations Pilot Project

About This Study

- You are invited to participate in a research project being conducted by Dr. Jennifer Crittenden and Dr. Lenard Kaye.

- Staff members at the University of Maine Center on Aging (CoA), Eastern Area Agency on Aging (EAAA), Ibis Health, and Senscio Systems are testing a new program that provides in-home health support to older adults like you.

- The purpose of this research is to learn more about how different types of supports can help older adults with chronic diseases (like COPD, diabetes, heart disease) manage their health.

- This research involves completing three survey packets. One you will complete during your next telephone visit, one you will do in 3 months, and another you will do in 6 months.

- This research project is voluntary, meaning you can stop participating at any time.

- Risks include that you may feel uncomfortable answering questions about your health.

- Benefits of this study include getting supports to help you manage your health. This study will also help us to better understand how to best support older adults who have chronic disease.

- The alternative to being in this study is for you to receive standard services available through Eastern Area Agency on Aging. You can receive Ibis Program services if you decline to participate in the study. However, you will not be eligible for additional supports that study participants receive.

This research project is referred to as a “randomized controlled trial,” meaning that there is a control group that receives one version of the support program, as well as an experimental group that receives a different version. You will be randomly assigned to one group or the other and have an equal chance of being in each group, but will not know what group you are assigned to.

You have been invited to participate in this study because:

- You have two or more chronic diseases
- You are age 60 or older
- You live in your own home or apartment
- You live in one of these counties: Penobscot, Piscataquis, Washington, Hancock.
- You have recently been discharged from the hospital
- You have agreed to receive an Ibis Program system in your home

What Will You Be Asked to Do?

If you decide to participate, you will be asked to complete a survey packet at three different times. You will complete one at your next telephone visit with Eastern Area Agency on Aging, another one in three months, and another one in 6 months. The surveys will include questions about your health and well-being as well as the services you are receiving from Ibis.

You will complete your first packet at your next telephone visit with EAAA staff. For months 3 and 6, a staff person from the UMaine Center on Aging will be in touch with you by phone to complete your survey packet.

Examples of questions we will ask:

- How confident do you feel that you can do things other than just taking medication to reduce how much your illness affects your everyday life?

- How often do you feel isolated from others?

You will be randomly selected to one of 2 groups, either the control group that receives one support program, or the experimental group that receives the support program that the research is designed to test.

You will use your Ibis unit as instructed and receive Ibis health support as needed during the pilot project.

As part of the study, the Center on Aging will access a limited amount of information about your health and the services you receive from Senscio, Ibis Health, and EAAA. A list of this information is included in this form.

What kind of information are you getting from Senscio, Ibis Health, and EAAA?

The Center on Aging is working closely with Senscio, Ibis Health, and EAAA so that we can get an accurate picture of the health of our study participants. We will collect the following information from these partners during the 6-month study period. You must agree to this data sharing in order to participate in the study.

Ibis Health:

- Number of activities of daily living you are currently able to complete
- Hospital readmissions that occur during the 6-month study period
- Number of urgent care visits during the 6-month study period
- Number of ER visits 3-months before the study
- Number of ER visits during the 6-month study period
- How often you are participating in your Ibis support calls
- How many and what types of referrals to other agencies Ibis is making to help you manage your health

Senscio Systems:

- Any health-related alerts you get from the Ibis system (how many and the type of alerts)
- How often you are using the Ibis system (number of tasks you do each day)
- Satisfaction ratings and feedback that may be collected by the Ibis system

EAAA:

- Tracking of any services you receive from EAAA including what type and how often
- Your weight and height as provided on your program referral form
- Number of contacts you have with EAAA staff
- The type of chronic conditions you currently have based on your Nutrition Innovations program referral.
- Your hunger screen responses provided on your Nutrition Innovations program referral form.
- Your sex (male/female) and date of birth provided on your Nutrition Innovations program referral form.

Risks

- There is the possibility that you may become uncomfortable answering the questions. You may skip any questions that make you uncomfortable
- Because this study will collect information about your health and personal conditions, the research team is taking many steps to protect your information including removing your name from study files.
- This program is designed to help improve health, and the tasks asked by you do not require anything that is considered dangerous.

Benefits

- You will be provided with tools through the Ibis Program to help manage your health conditions.
- Regardless of which group you are in (experimental or control) you will have the opportunity to be screened and receive additional services through EAAA.

- Based on the results of this study, your participation will help us learn more about how different supports to improve the health of older adults with chronic illness.

Compensation

- We will provide you with a $20.00 Walmart gift card after each assessment period, totaling in $60.00 for the entire study.
- You will need to complete at least half of the study packet questions to receive the gift card compensation.

Confidentiality

- This study is designed to be confidential, this means that your name will not be connected to the information you provide, instead there will be a number used in place of your name.
- The file linking your ID and your name will be maintained by the Center on Aging and will be provided to Senscio, Ibis Health, and Eastern Area Agency on Aging to help us gather the information needed for the study.
- All information collected (surveys and health data) will be identified by number (not your name) and stored on a secure computer at the Center on Aging which is only accessible by research staff. All information will be password protected so the information is secure and only those with permission can access the information.
    - Your survey responses will be kept by the Center on Aging indefinitely (forever).
    - Your healthcare data will be kept indefinitely (forever) by the Center on Aging.
    - Data will be coded and encrypted using industry standards.
    - No individually identifiable information will be collected from EAAA or Senscio about you.
    - The ID list linking names to ID number will be destroyed at the end of the study by UMaine, Ibis Health, Senscio, and EAAA (September 2023)
- A copy of your signed consent form will be kept for at least 3 years after the project is complete before it is destroyed (September 2026). The consent forms will be stored in a secure location that can be accessed by only certain research members. EAAA, Ibis Health, and Senscio will keep a copy of your consent form in order to share your information with us. All partner copies of these forms will be destroyed by September 2026.
- Sponsors, funding agencies, regulatory agencies, and the Institutional Review Board may review the research records. This includes Eastern Area Agency on Aging, the University of Maine Orono, Ibis Health, and Senscio Systems.

Information	Where it will be stored	How long will we store it?
Surveys you complete	On a secure computer at the Center on Aging; Surveys will also be stored online in UMaine's secure Qualtrics survey site.	Indefinitely (forever)

Your signed informed consent form (this form you are signing now)	Stored in a secure filing cabinet at the Center on Aging with a scanned copy maintained on a secure computer; Ibis Health, Senscio, and EAAA will receive a scanned copy which they will secure.	Until September 2026
The ID list linking your name to your ID number	Stored on a secure computer at the Center on Aging; Ibis Health, Sensio, and EAAA will receive a copy to help us get the correct health information. Each of them will secure the ID list on a secure password protected computer.	September 2023
Your health information	Stored on a secure, password protected computer at the Center on Aging	Indefinitely (forever)

Voluntary

- Your participation is voluntary. Your decision to participate will have no impact on your current or future relations with Senscio, Ibis Health, EAAA, and the Center on Aging.
- You may skip or refuse to answer any question in the survey packet for any reason.
- You are free to withdraw from this research study at any time, for any reason. If you do withdraw, you can continue to receive the Ibis Program services.
- You must receive Ibis Program services to participate in the study. If at any time you opt out of receiving the Ibis Program, you will be unenrolled in the research study.
- If you unenroll from the study, EAAA will work with you to ensure your health and support needs are met.
- You will be informed of any significant findings developed during the course of the research that may affect your willingness to participate in the research**.**

Contact Information

- The researchers conducting this study are Lenard Kaye and Jennifer Crittenden. For questions or more information concerning this research you may contact Dr. Kaye at 207-262-7922 or len.kaye@maine.edu and Dr. Crittenden at 207-262-7923 or jennifer.crittenden@maine.edu
- If you have any questions or concerns about your rights as a research subject, you may contact the Office of Research Compliance, University of Maine, 207-581-2657 or by e-mail at umric@maine.edu.

Will I receive a copy of this consent form?

- You will sign two copies of this form. One you will keep for yourself and the other will be given to the Center on Aging. A copy of your signed form will be kept by

EAAA, and a copy will be sent to Senscio Systems and Ibis Health so that they can release your health information for the study.

Participant's Statement

Your signature below indicates that you have read the above information and agree to participate. You will receive a copy of this form. Please contact me using the information below for study follow-up surveys.

_____ _____

Participant's signature or Legally authorized representative

Date

_____

Printed name

Best Phone Number to Call for the 3 month and 6 month survey (with area code):

_____

Best E-mail address to use to schedule the 3 month and 6 month survey:

_____

Best Address to use for contacting you about the study:

_____

_____

_____

Appendix L: Release of Information Forms (EAAA, Ibis Health & Senscio)

AUTHORIZATION for the Use and/or Disclosure
of HEALTH INFORMATION
(Not to be used for Psychotherapy Notes)

Name:_____ Address: _____.

Telephone: _____ DOB: _____.

Instructions: Please complete all of the sections of this form. Please note incomplete or inaccurately completed forms will not be honored.

I hereby authorize Eastern Area Agency on Aging to disclose my health information to the Recipient identified below and authorize use of that health information by the Recipient for the Purpose described below. List the type and amount of information to be used or disclosed, and dates of service if applicable:

Tracking of any services you receive from EAAA including what type and how often. Service dates for this information will include the date of this authorization through the next six months.

Number of contacts you have with EAAA staff. Service dates for this information will include the date of this authorization through the next six months.

The type of chronic conditions you currently have based on your Nutrition Innovations program referral.

Your hunger screen responses provided on your Nutrition Innovations program referral form.

Your sex (male/female) and date of birth provided on your Nutrition Innovations program referral form.

Your height and weight as from your Nutrition Innovations program referral form.

I understand that my specific consent is required to use and/or disclose information pertaining to treatment and/or diagnosis of mental health conditions, substance abuse and/or HIV status. Please fill out all of the sections even if one or more of them are not applicable to you. Any of the following sections not completed will be presumed to be a refusal to authorize use and/or disclosure of such information. (The information below will not be FAXED even if disclosure is authorized.)

(A) HIV status information. I DO/DO NOT (Circle one) authorize use and/or disclosure of health information related to testing, diagnosis or treatment of HIV, ARC or AIDS.

(B) Substance Abuse Treatment Information. I DO/DO NOT (Circle one) authorize use and/or disclosure of health information related to treatment, testing or diagnosis of alcohol or substance abuse. Substance abuse treatment information may not be re-disclosed without my express written authorization or as otherwise permitted by law. Unless otherwise revoked, this SPECIFIC authorization will expire on September 30, 2023 or 6 months from the date of signing whichever comes first.

(C) Mental Health Treatment Information. I DO/DO NOT (Circle one) authorize use and/or disclosure of health information related to mental health treatment, not including "Psychotherapy Notes" which cannot be disclosed pursuant to this Authorization.

The Purpose of Use and/or Disclosure is: Research Purposes
Release Information to: The University of Maine System, acting through the University of Maine Center on Aging ("Recipient")
Address: 325 Camden Hall, 25 Texas Ave., Bangor, Maine 04401-4324

Subsequent Disclosures: I DO /DO NOT (Circle one) authorize subsequent disclosures to be made of the health information identified above. This does not apply to re-disclosure of alcohol or substance abuse treatment information disclosed under section (B) above.

* I understand I have the right to revoke this authorization at any time by sending a written revocation to Tracy Kinney – Eastern Area Agency on Aging, 240 State Street Brewer, ME 04412. I understand the revocation will not apply to information that has already been released in response to this authorization and may be the basis for the denial of health benefits or other insurance coverage or benefits.
* Unless otherwise revoked, this authorization will expire on September 30, 2023, or 30 months from the date of signing whichever comes first.
* I understand that authorizing the use or disclosure of this health information is voluntary.
* Partial or incomplete disclosures, as compared to the information requested to be disclosed, will be labeled as such.
* I can refuse to sign this authorization. I need not sign this form in order to assure treatment, payment, enrollment in a health plan or eligibility for benefits (if applicable), except (a) if my treatment is related to research, then an authorization may be required; or (b) if the purpose of the health care is solely to create health information to be provided to a third party, then an authorization may be required.
* I may refuse to disclose all or some health information, but that refusal may result in improper diagnosis or treatment, denial of coverage or claim for health benefits or other insurance or other adverse consequences.
* I understand that I have a right to a copy of this authorization.
* I understand any disclosure of information carries with it the potential for unauthorized re-disclosure and the information may not be protected by federal or state confidentiality rules anymore.
* If I have questions about use or disclosure of my health information, I may contact Tracy Kinney at 207-941-2865.

Signature: _____ Date: _____

Parent/Guardian: _____ Date: _____.
(if under 18 years of age)

Personal Representative: _____ Date: _____.

IF NOT SIGNED BY THE INDIVIDUAL, PLEASE PROVIDE THE FOLLOWING INFORMATION:

Relationship to the Individual: _____

Describe Authority to Act for Individual: _____

RE-DISCLOSURE OF MEDICAL RECORD INFORMATION IS STRICTLY FORBIDDEN BY RECIPIENT UNLESS DULY AUTHORIZED BY THE INDIVIDUAL.

ADDITIONAL NOTICE TO RECIPIENTS OF SUBSTANCE ABUSE TREATMENT INFORMATION: This information has been disclosed to you from records protected by federal confidentiality rules (42 CFR Part 2). The federal rules prohibit you from making any further disclosure of this information unless further disclosure is expressly permitted by the written consent of the person to whom it pertains or as otherwise permitted by 42 CFR Part 2. A general authorization for the release of medical or other information is NOT sufficient for this purpose. The federal rules restrict any use of the information to criminally investigate or prosecute any alcohol or drug abuse patient.
Revised: 04/16/2020

Ibis Health Services-Maine, LLC

AUTHORIZATION for the Use and/or Disclosure of HEALTH INFORMATION (Not to be used for Psychotherapy Notes)

Name:_____ Address: _____

Telephone: _____ DOB_____

Instructions: Please complete all of the sections of this form. Please note incomplete or inaccurately completed forms will not be honored.

I hereby authorize **Ibis Health Services-Maine, LLC** to disclose my health information to the Recipient identified below and authorize use of that health information by the Recipient for the Purpose described below. List the type and amount of information to be used or disclosed, and dates of service if applicable:

- Number of activities of daily living you are currently able to complete
- The number and types of chronic conditions you currently have (for example, diabetes, heart disease, COPD, etc.)
- Hospital readmissions that occur during the 6-month study period
- Number of urgent care visits during the 6-month study period
- Number of ER visits 3-months before the study
- Number of ER visits during the 6-month study period
- How often you are participating in your Ibis support calls
- How many and what types of referrals to other agencies Ibis is making to help you manage your health

I understand that my specific consent is required to use and/or disclose information pertaining to treatment and/or diagnosis of mental health conditions, substance abuse and/or HIV status. Please fill out all of the sections even if one or more of them are not applicable to you. Any of the following sections not completed will be presumed to be a refusal to authorize use and/or disclosure of such information. (The information below will not be FAXED even if disclosure is authorized.)

(A) HIV status information. I DO/DO NOT (Circle one) authorize use and/or disclosure of health information related to testing, diagnosis or treatment of HIV, ARC or AIDS.

(B) Substance Abuse Treatment Information. I DO/DO NOT (Circle one) authorize use and/or disclosure of health information related to treatment, testing or diagnosis of alcohol or substance abuse. Substance abuse treatment information may not be re-disclosed without my express written authorization or as otherwise permitted by law. Unless otherwise revoked, this SPECIFIC authorization will expire on September 30, 2023 or 6 months from the date of signing whichever comes first.

(C) Mental Health Treatment Information. I DO/DO NOT (Circle one) authorize use and/or disclosure of health information related to mental health treatment, not including "Psychotherapy Notes" which cannot be disclosed pursuant to this Authorization.

The Purpose of Use and/or Disclosure is: Research Purposes
Release Information to: The University of Maine System, acting through the University of Maine Center on Aging ("Recipient")
Address: 325 Camden Hall, 25 Texas Ave., Bangor, Maine 04401-4324

Subsequent Disclosures: I DO /DO NOT (Circle one) authorize subsequent disclosures to be made of the health information identified above. This does not apply to re-disclosure of alcohol or substance abuse treatment information disclosed under section (B) above.

- I understand I have the right to revoke this authorization at any time by sending a written revocation to Ibis Health Services-Maine LLC, Gary Janko, Manager and HIPAA Security Officer, c/o Senscio Systems, Inc., 1300 Massachusetts Avenue, Boxborough, MA 0171. I understand the revocation will not apply to information that has already been released in response to this authorization and may be the basis for the denial of health benefits or other insurance coverage or benefits.
- Unless otherwise revoked, this authorization will expire on September 30, 2023, or 30 months from the date of signing whichever comes first.
- I understand that authorizing the use or disclosure of this health information is voluntary.
- Partial or incomplete disclosures, as compared to the information requested to be disclosed, will be labeled as such.
- I can refuse to sign this authorization. I need not sign this form in order to assure treatment, payment, enrollment in a health plan or eligibility for benefits (if applicable), except (a) if my treatment is related to research, then an authorization may be required; or (b) if the purpose of the health care is solely to create health information to be provided to a third party, then an authorization may be required.
- I may refuse to disclose all or some health information, but that refusal may result in improper diagnosis or treatment, denial of coverage or claim for health benefits or other insurance or other adverse consequences.
- I understand that I have a right to a copy of this authorization.
- I understand any disclosure of information carries with it the potential for unauthorized re-disclosure and the information may not be protected by federal or state confidentiality rules anymore.
- If I have questions about use or disclosure of my health information, I may contact Ibis Health Services-Maine, LLC, Gary Janko, Manager and HIPAA Security Officer, c/o Senscio Systems, Inc., 1300 Massachusetts Avenue, Boxborough, MA 01719, 1-978-972-2800, gary@sensciosystems.com

Signature: _____ Date: _____

Ibis Health Services-Maine, LLC

Parent/Guardian (if under 18 years of age): _____ Date: _____

Personal Representative: _____ Date: _____

IF NOT SIGNED BY THE INDIVIDUAL, PLEASE PROVIDE THE FOLLOWING INFORMATION:

Relationship to the Individual: _____

Describe Authority to Act for Individual: _____

RE-DISCLOSURE OF MEDICAL RECORD INFORMATION IS STRICTLY FORBIDDEN BY RECIPIENT UNLESS DULY AUTHORIZED BY THE INDIVIDUAL.

ADDITIONAL NOTICE TO RECIPIENTS OF SUBSTANCE ABUSE TREATMENT INFORMATION: This information has been disclosed to you from records protected by federal confidentiality rules (42 CFR Part 2). The federal rules prohibit you from making any further disclosure of this information unless further disclosure is expressly permitted by the written consent of the person to whom it pertains or as otherwise permitted by 42 CFR Part 2. A general authorization for the release of medical or other information is NOT sufficient for this purpose. The federal rules restrict any use of the information to criminally investigate or prosecute any alcohol or drug abuse patient.

Senscio Systems, Inc.

AUTHORIZATION for the Use and/or Disclosure of HEALTH INFORMATION (Not to be used for Psychotherapy Notes)

Name:_____Address: _____

Telephone: _____ DOB_____

Instructions: Please complete all of the sections of this form. Please note incomplete or inaccurately completed forms will not be honored.

I hereby authorize **Senscio Systems, Inc.** to disclose my health information to the Recipient identified below and authorize use of that health information by the Recipient for the Purpose described below. List the type and amount of information to be used or disclosed, and dates of service if applicable:

- Any health-related alerts you get from the Ibis system (how many and the type of alerts)
- How often you are using the Ibis system (number of tasks you do each day)
- Satisfaction ratings and feedback that may be collected by the Ibis system

I understand that my specific consent is required to use and/or disclose information pertaining to treatment and/or diagnosis of mental health conditions, substance abuse and/or HIV status. Please fill out all of the sections even if one or more of them are not applicable to you. Any of the following sections not completed will be presumed to be a refusal to authorize use and/or disclosure of such information. (The information below will not be FAXED even if disclosure is authorized.)

(A) HIV status information. I DO/DO NOT (Circle one) authorize use and/or disclosure of health information related to testing, diagnosis or treatment of HIV, ARC or AIDS.

(B) Substance Abuse Treatment Information. I DO/DO NOT (Circle one) authorize use and/or disclosure of health information related to treatment, testing or diagnosis of alcohol or substance abuse. Substance abuse treatment information may not be re-disclosed without my express written authorization or as otherwise permitted by law. Unless otherwise revoked, this SPECIFIC authorization will expire on September 30, 2023 or 6 months from the date of signing whichever comes first.

(C) Mental Health Treatment Information. I DO/DO NOT (Circle one) authorize use and/or disclosure of health information related to mental health treatment, not including "Psychotherapy Notes" which cannot be disclosed pursuant to this Authorization.

The Purpose of Use and/or Disclosure is: Research Purposes
Release Information to: The University of Maine System, acting through the University of Maine Center on Aging ("Recipient")

Senscio Systems, Inc.

Address: 325 Camden Hall, 25 Texas Ave., Bangor, Maine 04401-4324

Subsequent Disclosures: I DO /DO NOT (Circle one) authorize subsequent disclosures to be made of the health information identified above. This does not apply to re-disclosure of alcohol or substance abuse treatment information disclosed under section (B) above.

- I understand I have the right to revoke this authorization at any time by sending a written revocation to Senscio Systems Inc., 1300 Massachusetts Avenue, Boxborough, MA 01719. I understand the revocation will not apply to information that has already been released in response to this authorization and may be the basis for the denial of health benefits or other insurance coverage or benefits.
- Unless otherwise revoked, this authorization will expire on September 30, 2023, or 30 months from the date of signing whichever comes first.
- I understand that authorizing the use or disclosure of this health information is voluntary.
- Partial or incomplete disclosures, as compared to the information requested to be disclosed, will be labeled as such.
- I can refuse to sign this authorization. I need not sign this form in order to assure treatment, payment, enrollment in a health plan or eligibility for benefits (if applicable), except (a) if my treatment is related to research, then an authorization may be required; or (b) if the purpose of the health care is solely to create health information to be provided to a third party, then an authorization may be required.
- I may refuse to disclose all or some health information, but that refusal may result in improper diagnosis or treatment, denial of coverage or claim for health benefits or other insurance or other adverse consequences.
- I understand that I have a right to a copy of this authorization.
- I understand any disclosure of information carries with it the potential for unauthorized re-disclosure and the information may not be protected by federal or state confidentiality rules anymore.
- If I have questions about use or disclosure of my health information, I may contact Gary Janko, COO and HIPAA Security Officer, Senscio Systems, Inc., 1300 Massachusetts Avenue, Boxborough, MA 01719, 1-978-972-2800, gary@sensciosystems.com

Signature: _____ Date: _____

Parent/Guardian (if under 18 years of age): _____ Date: _____

Personal Representative: _____ Date: _____

IF NOT SIGNED BY THE INDIVIDUAL, PLEASE PROVIDE THE FOLLOWING INFORMATION:

Relationship to the Individual: _____

Senscio Systems, Inc.

Describe Authority to Act for Individual: _____

RE-DISCLOSURE OF MEDICAL RECORD INFORMATION IS STRICTLY FORBIDDEN BY RECIPIENT UNLESS DULY AUTHORIZED BY THE INDIVIDUAL.

ADDITIONAL NOTICE TO RECIPIENTS OF SUBSTANCE ABUSE TREATMENT INFORMATION: This information has been disclosed to you from records protected by federal confidentiality rules (42 CFR Part 2). The federal rules prohibit you from making any further disclosure of this information unless further disclosure is expressly permitted by the written consent of the person to whom it pertains or as otherwise permitted by 42 CFR Part 2. A general authorization for the release of medical or other information is NOT sufficient for this purpose. The federal rules restrict any use of the information to criminally investigate or prosecute any alcohol or drug abuse patient.

Appendix M: References

1. National Council on Aging. (2016). *Chronic disease self-management facts*. Retrieved from https://www.ncoa.org/news/resources-for-reporters/get-the-facts/chronic-disease-facts/

2. National Council on Aging. (2017). *Ten Common chronic conditions for adults 65+*. Retrieved from https://www.ncoa.org/wp-content/uploads/10-Common-Chronic-Conditions-Older-Adults-ncoa.png

3. Buttorff, C., Ruder, T., & Bauman, M. (2017). *Multiple chronic conditions in the United States*. Retrieved from https://www.rand.org/content/dam/rand/pubs/tools/TL200/TL221/RAND_TL221.pdf

4. Auerbach, A. D., Kripalani, S., Vasilevskis, E. E., Sehgal, N., Lindenauer, P. K., Metlay, J. P., . . . Schnipper, J. L. (2016). Preventability and causes of readmissions in a national cohort of general medicine patients. *JAMA Internal Medicine*, *176*(4), 484

5. Ziliak, J. P., & Gunderson, P. (2017). *The state of senior hunger in America 2015: An annual report*. Retrieved from https://www.feedingamerica.org/sites/default/files/research/senior-hunger-research/state-of-senior-hunger-supplement-2015.pdf

6. Ziliak, J. P., & Gundersen, C. (2017). *The health consequences of senior hunger in the United States: Evidence from 1999-2014 NHANES*. Retrieved from: https://www.feedingamerica.org/sites/default/files/research/senior-hunger-research/senior- health-consequences-2014.pdf

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8. Jih, J., Stijacic-Cenzer, I., Seligman, H. K., Boscardin, W. J., Nguyen, T. T., & Ritchie, C. S. (2018). Chronic disease burden predicts food insecurity among older adults. *Public Health Nutrition*, *21*(9), 1737-1742. doi:10.1017/S1368980017004062

9. Berkowitz, S. A., MD, Seligman, Hilary K., MD, MAS, & Choudhry, Niteesh K., MD, PhD. (2014). Treat or eat: Food insecurity, cost-related medication underuse, and unmet needs. *American Journal of Medicine*, *27*(4), 303-310.e3. doi:10.1016/j.amjmed.2014.01.002

10. United States Census Bureau. (2017). *2013-2017 American Community Survey 5-year estimates: Demographic and housing estimates; Penobscot, Piscataquis, Washington, and Hancock, Maine, Counties.*

11. Kaiser Family Foundation. (2018). *How many seniors are living in poverty? National and*

state estimates under the official and supplemental poverty measures in 2016. Retrieved from http://files.kff.org/attachment/Data-Note-How-Many-Seniors-Are-Living-in-Poverty-National-and-State-Estimates-Under-the-Official-and-Supplemental-Poverty-Measures-in-2016

12. United States Census Bureau. (2017). 2013-2017 *American Community Survey 5-year estimates: Selected economic characteristics; Penobscot, Piscataquis, Washington, and Hancock, Maine, Counties*

13. United States Department of Agriculture. (2017). *Household food security in the United States in 2016*. Retrieved from https://www.ers.usda.gov/publications/pub-details/?pubid=84972

Appendix B

Application Narrative:

Title: Older Adult Nutrition Innovation Pilot: Administrative Operations Committee Interviews

1. Funding

Funding Agency: Administration for Community Living via Eastern Agency on Aging (lead org)
Project # NSN928 (GL Project # 5407980 and PARS submission #2019630)

2. Summary

A nutritional enhancement and self-management project has been developed by the Eastern Area Agency on Aging in partnership with St. Joseph Healthcare, Senscio Systems, and the University of Maine. The project innovatively uses technology to improve nutrition for older adults with multiple chronic diseases. The goal of this three-year project is to improve the nutritional and health status of rural adults 60 and older with multiple chronic conditions immediately following hospital discharge.

Anticipated outcomes for older adults include: 1) Decreased nutritional risk; 2) Improved health and health-related quality of life; 3) Improved ability to age in place; and 4) High levels of satisfaction with services.

Project partners are administering the program and therefore retain valuable information about the project implementation project and the value of the project's work to-date. Therefore, interviews with project partners will yield information on project performance. These interviews will focus on evaluating planned and actual accomplishments, explore any implemented course corrections, identify value added to healthcare and aging services, lessons learned, unexpected developments, and opportunities for local and national expansion.

Background

Over 15% of the Maine population aged 60 or over experience a threat of hunger[1]. Food insecurity has also been found to be more prevalent among those with chronic conditions[2]. The combination of food insecurity with chronic conditions compounds the poor health outcomes of older adults[3]. Additionally, limited financial resources can result in hospital readmissions when patients are forced to choose between purchasing food or medication[4].
Hospital readmissions can be reduced by providing interventions that continue to support the patient after discharge from hospital[5], such as by providing increased dietary and nutrition supports in their own home.

Methods

Semi-structured interviews, consisting of 15 open-ended questions, will be conducted with project partners via phone call or Zoom. Interviews will be conducted by Rachel Coleman and Jennifer Jain, both on graduate assistantships at the UMaine Center on Aging. Interviews will be recorded and anticipated to take approximately 30-45 minutes. The questions guiding the

interview can be found in Appendix A. All interviews will be recorded, transcribed, and subjected to thematic content analysis.

These project interviews will be conducted at the conclusion of each project year to monitor the development of the project and accumulate lessons learned over the course of the project.

Citations

1. Ziliak, J. P., & Gunderson, P. (2017). *The state of senior hunger in America 2015: An annual report.* Retrieved from

https://www.feedingamerica.org/sites/default/files/research/senior-hunger-research/state-of-senior-hunger-supplement-2015.pdf

2. Jih, J., Stijacic-Cenzer, I., Seligman, H. K., Boscardin, W. J., Nguyen, T. T., & Ritchie, C. S. (2018). Chronic disease burden predicts food insecurity among older adults. *Public Health Nutrition, 21*(9), 1737-1742. https://doi.org/10.1017/S1368980017004062

3. Garcia, S. P., Haddix, A., Barnett, K,. (2018). Incremental health care costs associated with food insecurity and chronic conditions among older adults. *Preventing Chronic Disease, 15*, 180058. http://dx.doi.org/10.5888/pcd15.180058

4. Berkowitz, S. A., MD, Seligman, Hilary K., MD, MAS, & Choudhry, Niteesh K., MD, PhD.
(2014). Treat or eat: Food insecurity, cost-related medication underuse, and unmet needs. *American Journal of Medicine, 27*(4), 303-310.e3.
https://doi.org/10.1016/j.amjmed.2014.01.002

5. Auerbach, A. D., Kripalani, S., Vasilevskis, E. E., Sehgal, N., Lindenauer, P. K., Metlay, J. P.,
. . . Schnipper, J. L. (2016). Preventability and causes of readmissions in a national cohort of
general medicine patients. *JAMA Internal Medicine, 176*(4), 484.
https://doi.org/10.1001/jamainternmed.2015.7863

3. Personnel:

Dr. Lenard Kaye, Professor of Social Work and Center on Aging Director, is the project Co-PI and will be involved in study oversight. Dr. Kaye is Professor of Social Work at the University of Maine School of Social Work and Director of the University of Maine Center on Aging. Dr. Kaye has been the principal investigator of numerous assessments of innovative community services for older adults, including projects funded by the AARP Andrus Foundation, Families USA, Brookdale Foundation, Maine Health Access Foundation, Pew Foundation, Bingham Program, John Harford Foundation, and U.S. Administration on Aging. He has been the principal investigator of the MeHAF-funded Maine Partners for Elder Protection (MePEP), the principal investigator of the Health Services Initiative of the Eastern Maine Transportation Collaborative

Community Needs Assessment Project and has been the co-principal investigator for the Maine Primary Partners in Caregiving Project funded through the U.S. Administration on Aging. Dr. Kaye has extensive human subjects experience spanning his 35+ year career.

Dr. Jennifer Crittenden, Assistant Professor of Social Work and Center on Aging Associate Director, will train project research staff and provide day-to-day oversight of project activities. She will assist with project recruitment, data analysis, and reporting. Dr. Crittenden is the Associate Director at the University of Maine Center on Aging and is serving as the subaward co-PI for this research project. Dr. Crittenden has over fifteen years of experience in professional and community education, program evaluation and program planning and she has over 17 years of human subjects experience. Dr. Crittenden has been involved in implementing and evaluating a wide range of research, training, and community service initiatives including serving as the Program Manager for Encore Leadership Corps, an innovative volunteer leadership program for Mainers 50+ and served as Project Manager for the National Institutes of Health-funded Balancing Act Clinical Trial, a research study testing a falls prevention program among older adults with visual impairments.

David Wihry, Center on Aging Senior Project Manager, will serve as the project data manager and will assist in managing interview data and working with the project graduate assistants to ensure that project data are properly transcribed, managed, and coded. David has over seven years of experience in human subjects research conducting a variety of tasks including human subjects recruitment, interviewing, surveying, and data management.

Rachel Coleman and **Jennifer Jain** will both conduct project interviews and assist in transcription clean-up, data analysis and reporting under the guidance of Dr. Kaye, Dr. Crittenden and David Wihry. Rachel is a PhD student in the department of Ecology and Environmental Sciences and Jennifer Jain is currently an IPhD student. Both students are graduate assistants at the Center on Aging and both have completed their IRB training and will receive additional training in interview protocol prior to the start of data collection. Both students have at least one year of human subjects experience through involvement in other research projects at UMaine.

Jacob Ackroyd will assist in transcribing interviews and cleaning up Zoom recording transcriptions. Jacob is a work-study student at the Center on Aging and he has completed the human subjects training. Jacob has been a work study student at the Center on Aging for the past two years and during that time has provided administrative support to various research projects at the Center.

4. Participant recruitment:

All project partners from the project's Administrative Operations Committee (AOC) will be invited to participate in the interview via email. It is estimated that 7-10 individuals will participate in interviews each year. As a member of the AOC, Dr. Crittenden will be alerting the group that they will be receiving contact from a project graduate assistant to introduce this component of the project evaluation. The email to be sent to project partners and consent form can be found in Appendix B and Appendix D. All partners are aware of this interview

component as they have all received a copy of the project work plan which includes participation in an annual interview process.

Dr. Crittenden will provide the graduate assistants with e-mail addresses for all AOC members. All members are professional staff members and designated staff on this project and thus there are no privacy concerns around sharing e-mail addresses.

5. Informed consent

The informed consent form (Appendix B) will be provided to the interviewee as part of the recruitment e-mail and this form will also be reviewed at the start of the interview. Consent to participate in the study will be attained via email from participants prior to the interviews and again orally at the start of the phone or zoom interviews. Follow-up contact indicating interest in scheduling an interview will signal initial acceptance of the informed consent and invitation. Participation in an interview will indicate consent.

An introductory script is included in Appendix C and will be utilized prior to the start of the interview to ensure consent is covered.

6. Confidentiality:

Interviews will be confidential. Recordings will be stored on a shared Google Drive folder that is only accessible to the Center on Aging team named above until transcriptions are completed. Once transcriptions are completed, recordings will be destroyed. Recordings will be conducted via Zoom and saved to the Zoom Cloud and will be transcribed using the Zoom auto transcribe feature. For those participants who choose the call-in option, the Zoom conference call line option will be used to capture recordings. These recordings will also be saved to the Zoom Cloud. Zoom recordings will be reviewed for accuracy and cleaned by project personnel noted above. Zoom recordings will be deleted from the cloud once the transcript has been cleaned and finalized and no later than the end of the project (September 2023). Transcripts will be kept indefinitely. Reporting will be done in aggregate looking at themes across respondents. Any quotes and excerpts shared from project interviews will be deidentified. Sponsors, funding agencies, regulatory agencies, and the Institutional Review Board may review the de-identified research records. This includes Eastern Area Agency on Aging, the University of Maine Orono, Ibis Health, and Senscio Systems.

7. Risks to participants:

The risks to participants are time and inconvenience. Participants will be reminded that their involvement in the study is completely voluntary and that they may withdraw from the study at any time or skip any question they do not wish to address.

8. Benefits:

There are no direct benefits to the participants from the proposed interviews. One potential benefit of the interviews is that interviewees may enjoy providing their perspective and reflecting

on their own work and project accomplishments to-date. Participation will provide an understanding of the successes and challenges experienced in the program thus far which can be used to improve project activities into the future.

9. Compensation:

There will be no compensation for participating in the study.

Appendix A – Interview Questions

Implementation To-Date

1. What is your assessment of project implementation to date?

2. In thinking about the progress made to date, what factors have helped facilitate the implementation of this project?

3. What do you see as the major accomplishments thus far of the project?

4. What have been the challenges or barriers to full implementation?

5. What have been the major obstacles with recruiting participants?

6. What do you see as potential solutions to those obstacles?

7. In thinking about your role with the project, have you had to make any course corrections thus far? If so, please describe those.

8. Considering your role within the project, have there been any unexpected developments?

9. If someone were looking to start a project like this one, what advice would you give?

Lessons Learned and Value to the Field

10. What value do you see this project having currently for...
    a. The healthcare field
    b. Older adults themselves
    c. Aging services

11. What lessons have been learned thus far that could be applied to your role within the project?

12. What lessons have you learned thus far with regards to the project that could be shared with others in the field?

13. Would you recommend any changes if this service were to be expanded and scaled up?

14. Do you see any opportunities for this project to be scaled or expanded either locally, on a state-level or nationally?

15. Are there any additional comments you would like to share about the project at this point in time?

Appendix B - Informed Consent

UNIVERSITY OF MAINE CENTER ON AGING
Research Informed Consent Form

Project Title: Older Adult Nutrition Innovation Pilot

About This Study

- You are invited to participate in a research project being conducted by Dr. Jennifer Crittenden, Assistant Professor of Social Work and Center on Aging Associate Director,and Dr. Lenard Kaye, Professor of Social Work and Center on Aging Director, at the University of Maine.
- Staff members at the University of Maine Center on Aging (CoA), Eastern Area Agency on Aging (EAAA), Ibis Health, and Senscio Systems are testing a new program that provides in-home nutrition and health support to older adults (Nutrition Innovations).
- The purpose of this research is to learn more about Nutrition Innovations project implementation, challenges, and potential for future replication of this work in the field.
- This research project is voluntary, meaning you can stop participating at any time.
- Risks include that you may feel uncomfortable answering questions about the implementation and progress of the program or your role in the program.

You have been invited to participate in this study because:

- You are a member of the Nutrition Innovations Project Administrative Operations Committee
- You are familiar with the successes and challenges that the program has faced so far

What Will You Be Asked To Do?

If you decide to participate, you will be asked to complete an interview, lasting approximately 30-45 minutes, about how the program is faring so far.

Examples of questions we will ask:

- What do you see as the major accomplishments thus far of the project?
- What have been the major obstacles with recruiting participants?

You will be contacted by a staff member from the Center on Aging to organize a time for the interview.

The interview will be conducted via zoom or phone call. Phone call options will be conducted using the Zoom conference call line feature.

Risks

- The only risks involved include your time and the inconvenience.

Benefits

- There are no direct benefits to you for participating in an interview.
- You may find that you enjoy providing your perspective and reflecting your work and project accomplishments to-date.
- Your participation will provide an understanding of the successes and challenges experienced in the program thus far which can be used to improve project activities into the future.

Confidentiality

- This study is designed to be confidential, this means that your name and other identifying details will not be connected to the information you provide.
- Transcript files with your name and identifying information will be maintained by the Center on Aging. Only Center on Aging research team members will have access to these files.
- The Center on Aging will record and transcribe the interview. The interviews will be recorded to the Zoom Cloud. Once transcribed, the recordings will be immediately removed from the cloud and destroyed (no later than September 2023). The transcriptions will be stored in a shared Google Drive folder to which only assigned staff have access. Transcripts will be kept indefinitely. Reporting will be done in aggregate looking at themes across respondents. Any quotes and excerpts shared from project interviews will be deidentified.
- All recordings are subject to Zoom's privacy policies.
- Timelines for data storage:
    - Your recording will be kept on the cloud for transcription purposes and deleted immediate (no later than September 2023)
    - Your transcribed interview responses will be kept by the Center on Aging indefinitely (forever).
- Sponsors, funding agencies, regulatory agencies, and the Institutional Review Board may review the de-identified research records. This includes Eastern Area Agency on Aging, the University of Maine Orono, Ibis Health, and Senscio Systems. Because this study will

collect information about your views on the program, the research team will be removing your name and identifying information from any reports provided to the public or to project partners (EAAA, Senscio, St. Joseph's Healthcare).

Voluntary

- Your participation is voluntary.
- You may skip or refuse to answer any question in the interview for any reason.
- You are free to withdraw from this research study at any time, for any reason. If you do withdraw, you can still choose to be interviewed in a later stage.

Contact Information

- The researchers conducting this study are Lenard Kaye and Jennifer Crittenden. For questions or more information concerning this research you may contact Dr. Crittenden at 207-262- 7923 or jennifer.crittenden@maine.edu and Dr. Kaye at 207-262-7922 or len.kaye@maine.edu
- If you have any questions or concerns about your rights as a research subject, you may contact the Office of Research Compliance, University of Maine, 207-581-2657 or by e-mail at umric@maine.edu.

Consent

By scheduling an interview appointment with a Center on Aging staff and completing an interview, you are consenting to participate in this study.

Appendix C – Introductory Script

Instructions for Day of Interview

- Make sure that you are in a quiet interview space that allows for a comfortable, confidential interview.

- Provide a refresher overview of the purpose of the study. You can use this text:

The purpose of the research is to understand the successes and challenges thus far of the older adult nutrition program using the Ibis system.

- Ask the person being interviewed if they have been able to read the informed consent document that was given to them. If they have not, give them time to read it. If you think they may have trouble reading it, you can review the sections with them out loud.

- Even if they say they have read the informed consent document, please review these key points with them:
    - This research is voluntary and may be stopped at any time.
    - The interview will be recorded.
    - They do not have to answer all the questions if they do not want to and can skip any questions they do not want to answer.
    - The information from their interview will be included in reports to the public and the project funder. However, any information that could identify them would not be included.

- Ask if the person has any questions and address their questions if they do.

- Begin interview.

Appendix D – Email Script

Dear_____,

Thank you for your participation so far in the Nutrition Innovations project. The University of Maine Center on Aging would like to assess the progress of the project from the perspective of health partners. As a member of the project Administrative Operations Committee, we would like to interview you via zoom or phone call to get your feedback on the project. The interview will be approximately 30-45 minutes and guided by questions relating to the project; please see attached for questions. Your participation will be confidential but we would like your permission to record them to enable transcription of the interview for later analysis.

The results of interviews with the Nutritions Innovations project partners will be included in public reports, professional publications and presentations as well as reporting made to the project funder.

Please review the attached informed consent form for more information about this evaluation component.

If you are willing to participate, then please respond to this e-mail indicating some potential dates and times within the next two weeks that will work for you to conduct a project interview. We are hoping to complete all interviews by November 13th.

Thank you for your time. We hope you'll participate!

This project was supported, in part by grant number 901NNU0015, from the Administration for Community Living, U.S. Department of Health and Human Services, Washington, D.C. 20201. Grantees undertaking projects with government sponsorship are encouraged to express freely their findings and conclusions. Points of view or opinions do not, therefore, necessarily represent official ACL policy.

Appendix C

Funding: Administration for Community Living via Eastern Agency on Aging (lead org)

Funding #: NSN928 (GL Project # 5407980 and PARS submission #2019630)

Title: Older Adult Nutrition Innovation Pilot **(Case studies)**

1. Summary:

Eastern Area Agency on Aging, in partnership with St. Joseph Healthcare, Senscio Systems, and the University of Maine are testing an innovative, technology-driven nutrition enhancement and self-management program for older adults with multiple chronic diseases. The goal of this three-year project is to improve the nutritional and health status of rural adults 60 and older with multiple chronic conditions immediately following hospital discharge.

Anticipated outcomes include: 1) Improved nutritional status; 2) Improved health and health-related quality of life; 3) Improved ability to age in place; and 4) High levels of satisfaction with services. Additional outcomes at the program level include increased revenue and use of technology in program delivery and decreased food waste. At the systems-level, it is anticipated that this project will result in a sustainable partnership and decreased healthcare costs.

In year three of the project, the focus will shift to evaluating the program process to understand the extent to which outcomes were achieved by identifying factors that aided or hindered the implementation of the project. The current IRB application focuses on interviews with participants in the study to inform case studies on the issues of recruitment, retention, and participation satisfaction.

Significance

The majority of adults 65 and older (80%) have at least one chronic disease. Medicare reports that 68% of beneficiaries have two or more chronic conditions and about a third of those individuals have four or more chronic conditions.[1] Ranking among the top chronic diseases are chronic obstructive pulmonary disease (COPD) and heart failure, which each impact approximately one in 10 older adults, and diabetes, which affects over one in four older adults.[2] Chronic conditions result in increased emergency department visits, inpatient hospital stays, outpatient visits, and prescriptions. For inpatient stays, 3% of people with no chronic conditions will have at least one inpatient stay in a year, compared with 6% of individuals with 1-2 chronic conditions, and 24% with five or more chronic conditions.[3] It is argued that a quarter of hospital readmissions can potentially be prevented using interventions "that span the continuum of care, prioritize efforts to prepare patients more effectively for discharge, and provide better ability for patients, caregivers, and health care professionals to support patients and improve outcomes during the period after hospitalization."[4]

In addition to chronic disease, food insecurity is a growing national concern with as many as one in ten older adults either at-risk for food insecurity or facing hunger. In Maine, there are similar proportions of at-risk individuals currently facing hunger with an additional 16%

experiencing a threat of hunger.[5] Chronic diseases and functional limitations are more prevalent in food insecure older adults.[6] A variety of health conditions are linked to food insecurity in older adults including asthma, diabetes, CHF, osteoporosis, and hypertension.[7] Furthermore, a powerful link exists between the cost of managing chronic disease and the financial and nutritional status of older adults.[8] Low-income patients are routinely readmitted to hospitals because they had to choose between buying food and purchasing medication. This "treat or eat" dilemma effects as many as one in three chronically ill older adults, yet most self-management interventions do not include nutritional supports.[9]

An additional challenge is the cost of maintaining a nutritionally sound diet that is aligned with the clinical guidelines necessary to properly manage chronic disease. For clients with chronic disease, managing special diets across co-occurring conditions can be complicated and costly. Medically tailored meals (MTMs) are currently available to older adult clients through the Eastern Area Agency on Aging (EAAA) Meals on Wheels (MOW) program. However, clients must self-identify and self-select their meals, leaving room for error in the process, especially when that individual has more than one chronic condition. Without the support of a dietician and the billing structure to cover costs, it is impossible for EAAA to offer customized MTMs.

The Rural Imperative: Eastern Maine's low-income older adults are at considerable risk of food insecurity and accompanying health issues making it a critical location for offering nutritional and health innovations. EAAA's four, largely rural service counties have a significant poor older adult population: nearly 49,000 residents are over 65, with poverty rates ranging from 8.1% to 11.4%.[10] A recent study notes 43% of Maine's older adults are low-income, a risk factor for food insecurity and poor health.[11] [12] Some 16% of Maine households are food insecure. This rate of food insecurity places Maine in the top 10 states facing food insecurity.[13] Innovations in rural areas are needed that are accessible to older adults and are efficiently delivered by host agencies.

Methods

The Center on Aging will be conducting key informant interviews (questions listed in Appendix A) in the Spring of 2022 with individuals who have enrolled in the currently ongoing Older Adult Nutrition Innovation Pilot study. Key informant interviews will be conducted over the telephone and will be approximately 45 minutes in length. Interviews will be recorded using a digital recorder.

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5. Ziliak, J. P., & Gunderson, P. (2017). *The state of senior hunger in America 2015: An annual report*. Retrieved from https://www.feedingamerica.org/sites/default/files/research/senior-hunger-research/state-of senior-hunger-supplement-2015.pdf

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12. United States Census Bureau. (2017). 2013-2017 *American Community Survey 5-year estimates: Selected economic characteristics; Penobscot, Piscataquis, Washington, and Hancock, Maine, Counties*

13. United States Department of Agriculture. (2017). *Household food security in the United States in 2016*. Retrieved from https://www.ers.usda.gov/publications/pub-details/?pubid=84972

2. Personnel:

Dr. Lenard Kaye is the project Co-PI and will be involved in study oversight. Dr. Kaye is Professor of Social Work at the University of Maine School of Social Work and Director of the University of Maine Center on Aging. Dr. Kaye has been the principal investigator of numerous assessments of innovative community services for older adults, including projects funded by the AARP Andrus Foundation, Families USA, Brookdale Foundation, Maine Health Access Foundation, Pew Foundation, Bingham Program, John Harford Foundation, and U.S. Administration on Aging. He has been the principal investigator of the MeHAF-funded Maine Partners for Elder Protection (MePEP), the principal investigator of the Health Services Initiative of the Eastern Maine Transportation Collaborative Community Needs Assessment Project and has been the co-principal investigator for the Maine Primary Partners in Caregiving Project funded through the U.S. Administration on Aging. Dr. Kaye has 30+ years of experience in research with human subjects.

Dr. Jennifer Crittenden will provide oversight to the research project. Dr. Crittenden is the Associate Director at the University of Maine Center on Aging and is serving as the subaward co-PI for this research project. Dr. Crittenden has over seventeen years of experience in professional and community education, program evaluation and program planning. Dr. Crittenden has been involved in implementing and evaluating a wide range of research, training, and community service initiatives including serving as the Program Manager for Encore Leadership Corps, an innovative volunteer leadership program for Mainers 50+ and served as Project Manager for the National Institutes of Health-funded Balancing Act Clinical Trial, a research study testing a falls prevention program among older adults with visual impairments. Dr. Crittenden has 17 years of experience in research with human subjects.

David C. Wihry, MPA, Senior Project Manager at the UMaine Center on Aging will be analyzing project data. David has 11 years of experience in research with human subjects through numerous grant-funded research and evaluation projects on issues important to older adult health and wellbeing including falls, transportation, home-based services, and age-friendly communities.

Jennifer Jain is Graduate Research Assistant with the UMaine Center on Aging. Jennifer has three years of experience with human subject research. She has worked on Aging farmers (2018-20); technology and learning (2020-21) and grant funded projects for the Center on Aging. Jennifer will be recruiting participants, conducting interviews and transcribing interview recordings.

All staff have completed required training on research with human subjects.

3. Participant recruitment:

Approximately 12 participants will be recruited from the pool of participants who either completed or withdrew from the ongoing Older Adult Nutrition Innovation Pilot. Participants will be older adults, age 60 and older, who were originally recruited from St. Joseph Hospital in Bangor, Maine, upon discharge or within 90 days of discharge during 2020-2021. The proposed number of participants is determined by the number of individuals who completed the study (8), and those who had difficulty meeting the criteria of the study and were discharged, such as maintaining meal delivery or ability to use technology such as recording meals on the provided tablet (4). Participants who transitioned to assisted living, long term care facilities, or end of life care during the study period, will not be considered for recruitment. We anticipate at least 8 individuals will agree to participate.

To assist with recruitment, a staff member from Senscio Systems will send out a study information letter (Appendix B) along with the informed consent form (Appendix C) to potential participants to notify them that a staff member from the University of Maine Center on Aging (CoA) will contact them to inquire about participation in a follow-up interview. Senscio Systems is the provider of the Nutrition Innovations intervention and has close and regular contact with the pool of potential research participants. The goal of the letter from Senscio Systems is to give participants foreknowledge that the Center on Aging will be contacting them, as well as to support study recruitment by having a trusted source initially introduce the study. Within a week of participants receiving the packet with informed consent and study information letter, Center on Aging staff member Jennifer Jain will contact the individual via phone (script in Appendix D) and they can either agree or opt out of participating. If they agree the staff from CoA will set-up a time to complete the recorded interview. The prospective participant's phone number is on file with the Center on Aging. Individuals in the original Nutrition Innovations study authorized the phone number to be given to the Center on Aging for follow-up data collection.

4. Informed consent:

The informed consent form will have been mailed to the participant with the recruitment letter. The participant will be asked to give verbal consent after the staff member from CoA summarizes the study informed consent form (Appendix C) immediately preceding the recorded session. The staff member will answer any question the individual may have prior to the interview. The individual will be told their participation is voluntary and that they are free to withdraw from the study at any time. If the individual doesn't give verbal consent, then the interview will not proceed.

5. Confidentiality:

This study is confidential. For the purposes of this study, a key will be established that links the participants' name and phone number to a unique ID. The key will be maintained in an Excel file that is securely stored on a Center on Aging Google Drive, shared only with staff named in this application. The Excel sheet would be password-

protected using AES 256 bit encryption in Excel. The names and phone numbers of potential participants are already known to the Center on Aging from their participation in the ongoing Older Adult Nutrition Innovations pilot where they provided consent to have their name and contact information shared with the Center on Aging for the purposes of follow-up data collection. The key linking ID numbers with names will be destroyed at the conclusion of the study (August 31, 2022).

Conversations will be recorded using a digital recorder placed next to a speaker phone. At the completion of the interview, Jennifer Jain will upload the audio file to a Google Drive folder for storage and delete the recorder file within four hours of the interview. The Google Drive file folder will be accessible only to individuals named in this application. Files will be named using the unique ID of the participant. The Drive folder will also be separate from the folder containing the key. The audio file will be transcribed by Center on Aging staff. Audio files will be deleted upon study completion by August 31, 2022. Transcripts will be kept indefinitely in a Center on Aging Google Drive folder.

6. Risks to participants:

The only risks of this study are participants' time and inconvenience.

7. Benefits:

There are no direct benefits to individuals from participating in the research. Overall, this research may help inform how older people with chronic conditions can be better supported using tools like the Ibis tablet.

8. Compensation:

All participants will receive a $50 Hannaford gift card for participating in the study. Participants will receive a gift card even if they only partially complete an interview. The card will be mailed to participants.

Appendix A - Questions

Thank you for taking part in the interview today. Before beginning, I'd like to review a few points about how this study is being conducted.

- This study is confidential – we will not have your name attached to any information when reporting results.
- I'll be recording the interview – we will be securely storing the audio recording and will be deleting it once we have a transcription of the conversation, no later than August 31, 2022.
- You can skip any questions you don't want to answer, and you can end the interview at any time.

Do you have any questions before we begin?

Do you consent to proceed with the interview?

<u>Recruitment</u>

1. Why did you choose to participate in the project?

Follow-up questions/prompts

   a. Did you have anyone, like a family member or provider who motivated or discouraged you from participating in the project?

      i. Who?

      ii. What were the reasons or concerns?

   b. Did name recognition of EAAA, UMaine and St. Joe's influence your participation? How so?

   c. What, if anything, did you find attractive about the meals and the Ibis system?

2. Tell me about how you were approached to participate in program to receive meals on wheels and use the tablet. When were you asked to join and by whom?

   a. Was the timing to participate convenient for you?

   b. If not, when would it have been a better time introduce these resources to you?

   c. If yes, why did the timing work for you?

3. In general, do you think there is a better time to recruit participants into the program?

   a. When?

   b. Where?

4. What was your experience with paperwork required to sign-up for the program?

a. What worked well about the sign-up experience?

b. What would you recommend we do to improve the sign-up experience?

Retention

5. Did you feel the Ibis tablet and meals were helpful in managing your health conditions?
6. Did you have a caregiver, family member, or friend who helped you with the program?
    a. Such as help record your meals
    b. Use your tablet
7. What was your experience using the IBIS Hub?

Follow-up questions/prompts

What aspects of using the Hub did you find most difficult?

What aspects of using the Hub did you find to be most easy?

If you could improve the Ibis Hub experience, what would you recommend?

a. Internet connection

b. Recording meals (for those in the intervention group)

8. What parts of the IBIS hub and meals did you enjoy the most? What did you enjoy the least?
9. Was the amount of food delivered through the program too much, just right, or not enough?

Follow-up questions/prompts

a. Did you share your meals with anyone?

b. Did you have leftovers or did you save meals?

c. Do you have any recommendations in regards to customizing meals?

Satisfaction

11. Was your experience with Ibis and meals different from what you thought it would be when you were first introduced to the project?
12. What do you feel worked best for you to stay motivated to use the Ibis tablet?
13. Were there any aspects of the program that you could have done without?

14. Do you have any suggestions to improve the supports that are offered to others?

Appendix B Study Information Letter

Dear _____,

I'm writing to let you know about an opportunity to give feedback related to your experience with the Ibis Hub. The University of Maine is asking people who took part in the Ibis Hub research study if they would be willing to give 45 minutes of their time to have a conversation about what they liked and think could be improved about the Ibis supports and the research study process. The interview would be done over the phone and would be recorded. UMaine will be providing a $50 Hannaford gift card for those participating. We hope you consider taking part in the study. If you decide you don't want to be interviewed, this will not impact your current services through Ibis.

Jennifer Jain from the University of Maine Center of Aging will be calling you in the next couple weeks to answer any questions and to set up a time if you are interested in participating in the follow-up interview.

If you're interested in learning more, the attached informed consent document has additional details.

Thank you.

Sincerely,

Grace Ellrodt

Program Manager / Member Advocate
Ibis Program / Senscio Systems
(207) 401-2300 Ext. 5

Appendix C - Informed Consent

Research Informed Consent Form

You are invited to participate in a research project being conducted by Dr. Len Kaye and Dr. Jennifer Crittenden, researchers at the UMaine Center on Aging. The purpose of the research is to learn about how satisfied participants were with the Ibis research project and ways that supports for older adults with chronic conditions could be improved in the future.

What Will You Be Asked to Do?

If you decide to participate, you will be asked to take part in a 45-minute phone interview with a staff member at the UMaine Center on Aging. The interview will be recorded. The interview will ask about your experience with participating in the Ibis research project and your satisfaction with the project.

Sample questions:

1. Why did you choose to participate in the project?
2. What was your experience with paperwork required to sign-up for the program?
3. What aspects of using the Hub did you find most difficult?

Risks

Except for your time and inconvenience, there are no risks to you from participating in this study.

Benefits

While this study will have no direct benefit to you, this research may help us learn more about how older people with chronic conditions can be better supported using tools like Ibis.

Compensation

You will receive a $50 Hannaford's gift card via mail for taking part in the interview. You will receive the gift card even if you do not want to answer all the questions.

Confidentiality

The interview is confidential. Your name will not be on the interview transcript. A code number will be used to protect your identity. The interview transcript and recording will be stored in password protected electronic file folders. A key linking your name to the transcript will be kept separate from the data in a password protected electronic file folder. The electronic key file will be stored on a password protected computer with additional security. The key will be destroyed at the end of the study, no later than August 31, 2022. The de-identified interview transcript will

be kept indefinitely on a Center on Aging Google Drive folder. The audio recording of the interview will be destroyed no later than August 31, 2022. The data will only be accessible to researchers at the University of Maine. Your name or other identifying information will not be reported in any publications.

Voluntary

Participation is voluntary. If you choose to take part in this study, you may stop at any time. You may skip any questions you do not wish to answer. You will still receive the $50 gift card even if you choose not to answer all the questions.

Contact Information

If you have any questions about this study, please contact David Wihry, Project Manager at the UMaine Center on Aging at 207-262-7928. If you have any questions about your rights as a research participant, please contact the Office of Research Compliance, University of Maine, 207-581-2657 (or e-mail umric@maine.edu).

Appendix D – Phone Script

Hello, this is Jennifer Jain and I am a Graduate Research Assistant at the University of Maine. We have previously talked to do the surveys as part of the study you're involved in related to the Ibis tablet. You had given us your phone number as part of that study. I'm following up on a letter Senscio Systems had sent you about taking part in an interview.

I am calling because we're conducting follow-up research to learn about how satisfied participants were with the Ibis research project and ways that supports for older adults with chronic conditions could be improved in the future.

I'd appreciate it if you would be willing to let me interview you. The interview would be over the phone. The interview should take 45 minutes and would be recorded.

If you would be interested in participating in this interview, we can set up a time now or you can let me know when a good time would be to schedule it.

If interested, researcher will set up date and time and will provide participant with researcher contact information:

- I have scheduled you for an interview on (*date and time*). If you have any questions, I can be reached at (*phone number*). Thank you for your help.

If participant is not interested, investigator will end the call.

- Thank you for your time.

This project was supported, in part by grant number 901NNU0015, from the Administration for Community Living, U.S. Department of Health and Human Services, Washington, D.C. 20201. Grantees undertaking projects with government sponsorship are encouraged to express freely their findings and conclusions. Points of view or opinions do not, therefore, necessarily represent official ACL policy.

Appendix D

This project was supported, in part by grant number 901NNU0015, from the Administration for Community Living, U.S. Department of Health and Human Services, Washington, D.C. 20201. Grantees undertaking projects with government sponsorship are encouraged to express freely their findings and conclusions. Points of view or opinions do not, therefore, necessarily represent official ACL policy.

Funding

Funding: Administration for Community Living via Eastern Agency on Aging (lead org)

Funding #: NSN928 (GL Project # 5407980 and PARS submission #2019630)

Title: Older Adult Nutrition Innovation Pilot (Meals on Wheels Survey)

Summary

Rationale

Eastern Area Agency on Aging, in partnership with St. Joseph Healthcare, Senscio Systems, and the University of Maine are testing an innovative, technology-driven nutrition enhancement and self-management program for older adults with multiple chronic diseases. The goal of this three-year project is to improve the nutritional and health status of rural adults 60 and older with multiple chronic conditions immediately following hospital discharge.

Anticipated outcomes include: 1) Improved nutritional status; 2) Improved health and health-related quality of life; 3) Improved ability to age in place; and 4) High levels of satisfaction with services. Additional outcomes at the program level include increased revenue and use of technology in program delivery and decreased food waste. At the systems-level, it is anticipated that this project will result in a sustainable partnership and decreased healthcare costs.

In year three of the project, the focus has shifted to evaluating the program process to understand the extent to which outcomes were achieved by identifying factors that aided or hindered the implementation of the project. The current IRB focuses on a survey of Meals on Wheels participants to identify preferences for use of technology to support health and wellbeing and barriers to technology use.

Significance

The majority of adults 65 and older (80%) have at least one chronic disease. Medicare reports that 68% of beneficiaries have two or more chronic conditions and about a third of those individuals have four or more chronic conditions.[1] Ranking among the top chronic diseases are chronic obstructive pulmonary disease (COPD) and heart failure, which each impact approximately one in 10 older adults, and diabetes, which affects over one in four older adults.[2] Chronic conditions result in increased emergency department visits, inpatient hospital stays, outpatient visits, and prescriptions. For inpatient stays, 3% of people with no chronic conditions will have at least one inpatient stay in a year, compared with 6% of individuals with 1-2 chronic conditions, and 24% with five or more chronic conditions.[3] It is argued that a quarter of hospital readmissions can potentially be prevented using interventions "that span the continuum of care, prioritize efforts to prepare patients more effectively for discharge, and provide better ability for patients, caregivers, and health care professionals to support patients and improve outcomes during the period after hospitalization."[4]

In addition to chronic disease, food insecurity is a growing national concern with as many as one in ten older adults either at-risk for food insecurity or facing hunger. In Maine, there are similar proportions of at-risk individuals currently facing hunger with an additional 16% experiencing a threat of hunger.[5] Chronic diseases and functional limitations are more prevalent in food insecure older adults.[6] A variety of health conditions are linked to food insecurity in older adults including asthma, diabetes, CHF, osteoporosis, and hypertension.[7] Furthermore, a powerful link exists between the cost of managing chronic disease and the financial and nutritional status of older adults.[8] Low-income patients are routinely readmitted to hospitals because they had to choose between buying food and purchasing medication. This "treat or eat" dilemma effects as many as one in three chronically ill older adults, yet most self-management interventions do not include nutritional supports.[9]

An additional challenge is the cost of maintaining a nutritionally sound diet that is aligned with the clinical guidelines necessary to properly manage chronic disease. For clients with chronic disease, managing special diets across co-occurring conditions can be complicated and costly. Medically tailored meals (MTMs) are currently available to older adult clients through the Eastern Area Agency on Aging (EAAA) Meals on Wheels (MOW) program. However, clients must self-identify and self-select their meals, leaving room for error in the process, especially when that individual has more than one chronic condition. Without the support of a dietician and the billing structure to cover costs, it is impossible for EAAA to offer customized MTMs.

The Rural Imperative: Eastern Maine's low-income older adults are at considerable risk of food insecurity and accompanying health issues making it a critical location for offering nutritional and health innovations. EAAA's four, largely rural service counties have a significant poor older adult population: nearly 49,000 residents are over 65, with poverty rates ranging from 8.1% to 11.4%.[10] A recent study notes 43% of Maine's older adults are low-income, a risk factor for food insecurity and poor health.[11] [12] Some 16% of Maine households are food insecure. This rate of food insecurity places Maine in the top 10 states facing food insecurity.[13] Innovations in rural

areas are needed that are accessible to older adults and are efficiently delivered by host agencies.

The proposed study will better help practitioners to understand healthcare technology preferences and barriers to technology use among the Meals on Wheels population. This information may assist in the design of services to those who could potentially benefit from interventions that utilize technology to support health and wellbeing.

Methods

The proposed study will involve the distribution of paper survey packets to 881 individuals enrolled in the Meals on Wheels program administered by the Eastern Area Agency on Aging in their four county service area of Penobscot, Piscataquis, Washington, and Hancock counties. Drivers for the Meals on Wheels program will distribute survey packets to prospective study participants during regular meal deliveries. The study is being conducted in spring/summer of 2022. Packets will contain an introductory letter, informed consent form, paper survey (Appendix A), gift card form and prepaid return envelope. Upon submission of the survey, participants will be prompted to return their survey and gift card form to the UMaine Center on Aging using their prepaid envelope. An option will be provided for individuals to take part in the survey by phone. Participants submitting the survey will be eligible to be entered into a drawing for one of three $50 Hannaford Gift Cards. The survey will be confidential. Individuals must be 18 or older to participate.

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Personnel

Lenard Kaye, DSW, PhD is a project Co-PI. Dr. Kaye is Professor of Social Work at the University of Maine School of Social Work and Director of the University of Maine Center on Aging. Dr. Kaye has been the principal investigator of numerous assessments of innovative community services for older adults, including projects funded by the AARP Andrus Foundation, Families USA, Brookdale Foundation, Maine Health Access Foundation, Pew Foundation, Bingham Program, John Harford Foundation, and U.S. Administration on Aging. He has been the principal investigator of the MeHAF-funded Maine Partners for Elder Protection (MePEP), the principal investigator of the Health Services Initiative of the Eastern Maine Transportation Collaborative Community Needs Assessment Project and has been the co-principal investigator for the Maine Primary Partners in Caregiving Project funded through the U.S. Administration on Aging. He has 30+ years of experience with human subjects research. Dr. Kaye will have oversight of the survey recruitment and response processes and will be regularly updated by the project team on the progress of data collection and analysis.

Jennifer Crittenden, MSW, PhD is a Co-PI and will contribute to study oversight including data collection, data analysis, and reporting. Dr. Crittenden is an assistant professor in the UMaine School of Social Work and the Associate Director at the University of Maine Center on Aging. Dr. Crittenden has over 17 years of experience in professional and community education, program evaluation and program planning. This time frame includes human subjects activities from interviewing to focus group and survey data collection. Dr. Crittenden has been involved in implementing and evaluating a wide range of research, training, and community service initiatives including serving as the Program Manager for Encore Leadership Corps, an innovative volunteer leadership program for Mainers 50+ and served as Project Manager for the National Institutes of Health-funded Balancing Act Clinical Trial, a research study testing a falls prevention program among older adults with visual impairments. She has 17 years' experience with human subjects research. Dr. Crittenden will have oversight of the survey recruitment and response processes and will be regularly updated by the project team on the progress of data collection and analysis.

David Wihry, MPA is a Senior Project Manager at the Center on Aging. David will be coordinating survey distribution and will be analyzing data and generating reports. David has ten years of human subjects research experience and has coordinated or contributed to a number of grant-funded research projects focused on aging issues including the NIH-funded Balancing Act Study, ACL-funded Nutrition Innovations project.

Jennifer Jain is Graduate Research Assistant with the UMaine Center on Aging. Jennifer has three years of experience with human subject research. She has worked on Aging farmers (2018-20); technology and learning (2020-21) and grant funded projects for the Center on Aging. Jennifer will be assisting with data entry, analysis, and reporting. Jennifer will also complete phone surveys with participants.

Participant Recruitment

Study participants consist of 881 individuals who receive Meals on Wheels services through the Eastern Area Agency on Aging. Individuals are living in Eastern Area Agency on Aging's four county service area of Penobscot, Piscataquis, Washington, and Hancock counties. The population of potential study participants is primarily individuals 65+ (88%) with the remainder of individuals being under 65.

To recruit study participants, Eastern Area Agency on Aging, the organization administering Meals on Wheels and partner on the Nutrition Innovations grant, has agreed to distribute survey packets to participants during regular meals on Wheels deliveries. When dropping off food, drivers will hand each individual a study packet and inform them that it contains information about a research study of Meals on Wheels participants being done by the University of Maine Center on Aging and Eastern Area Agency on Aging. Included in the packet will be five items: 1) recruitment letter and instructions (Appendix C), 2) informed consent form (Appendix B), 3) Survey, 4) gift card registration form (Appendix D), and 5) a prepaid return envelope. The anticipated response rate is 25% based on the Center on Aging's experience with other mailed surveys.

Informed Consent

An informed consent form will be enclosed in the packet that is provided to prospective study participants. The informed consent form will indicate to participants that submitting the survey implies consent to participate.

Confidentiality

The survey will be confidential. Because the gift card registration form will be mailed in the same pre-paid envelope, the survey will not be anonymous. This decision to only utilize a single envelope was made for two reasons: 1) the added cost of an extra 881 pre-paid envelopes and postage and 2) the increase in complexity of instructions and procedures for participants who would need to handle mailings of multiple envelopes. Given the low-risk nature of the survey, it is believed that anonymity isn't crucial for the integrity of the data or protection of participants.

Prepaid return envelopes will be received at the UMaine Center on Aging. On receipt of the envelopes, they will be opened and surveys and gift card forms will be separated. Both forms will be stored in a locked file cabinet at the Center on Aging. Paper survey data will be entered into a SPSS file stored on a password protected Center on Aging Google Drive account. Gift card registration form data will be entered into an Excel spreadsheet and stored in a password

protected Center on Aging Google Drive account. In the case of phone surveys, paper surveys and gift card forms will be completed by the interviewer and stored as outlined above. Both paper and electronic survey data will be stored indefinitely. Gift card registration data will be destroyed upon completion of the gift card drawing in July 2022.

Risks to participants

The only risks to participants are their time and inconvenience.

Benefits

There are no direct benefits to study participants. The overall benefit of the study will be to identify potential services and supports that will be beneficial and accessible to the study participant population to support their health and wellbeing.

Compensation

Individuals who submit the survey (or submit it via the phone) along with the completed gift card registration form will be entered into a drawing for one of three $50 Hannaford gift cards. Participants do not have to answer all questions to be eligible to enter the gift card drawing.

Appendix A - Survey

This survey asks about the value of a potential technology device to you. When answering the following questions, please think of an electronic device (computer, tablet, or smartphone) that could be used in your home to support your health and wellness.

1. What is the one feature of an electronic device that would be most valuable to you? (Check one option)

- Web-based video trainings for caregivers
- Support groups for caregivers that I can join from my device
- Video visits with my doctor
- Live group exercise classes that I can join from my device
- Coaching on how to stay healthy and control chronic conditions
- Classes and events through Eastern Area Agency on Aging that I can join from my device
- Tracking my blood pressure, oxygen, heart rate, or other information that can identify health problems early

2. What is the one feature of an electronic device that would be least valuable to you? (Check one option)

- Web-based video trainings for caregivers
- Support groups for caregivers that I can join from my device
- Video visits with my doctor
- Live group exercise classes that I can join from my device
- Coaching on how to stay healthy and control chronic conditions
- Classes and events through Eastern Area Agency on Aging that I can join from my device
- Tracking my blood pressure, oxygen, heart rate, or other information that can identify health problems early

3. Which of the following features would be valuable to you in your Meals on Wheels program? (Check all that apply)

- Being able to pick the meals I get
- Having meal choices that meet my medical needs (such as low sugar, high protein, etc.)
- A way to use technology to tell staff my about my meal preferences
- Other (write in):

  _____

Please rate your agreement with the following statements (check your response).

4. I've had good experiences with doing doctor visits over a computer/smartphone/tablet

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree
- Not applicable – I've never had a doctor visit over a computer/smartphone/tablet

5. I am comfortable using computers, smart phones, or tablets

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

6. I'm interested in using a computer, smart phone, or tablet to help me manage my health

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

7. I have the money to afford a computer/smartphone/tablet

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

8. I am concerned about privacy or scams when using the internet

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

9. I have difficulty using computers, smartphones, or tablets due to vision problems

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

10. I have someone who could help me if I have problems using a computer, smartphone, or tablet

- Yes
- No
- Not Sure

11. I have a fast internet connection available to me

- Yes
- No
- Not Sure

Please answer these questions about yourself

12. What electronic devices do you currently use? (check all that apply)
- Desktop computer
- Laptop computer
- Smartphone (Phone that can get on the internet, send e-mail, etc.)
- Tablet (such as an iPad or a Kindle)
- Apple Watch or another smartwatch that can monitor health
- Smart home device such as an Echo Dot or a Google Home/Google Nest
- Other (please write in) _____
- None, I don't have any electronic devices

13. What is your gender? (check one)
- Male
- Female
- Another gender (please specify): _____

14. What is your age? (fill in) _____years

15. What is the zip code of the community you live in (fill in) _____

16. What is your living arrangement? (check one)
    - I live alone
    - I live with another person (spouse, significant other, adult child, etc.)

17. Do you have any of the following medical conditions (check all that apply)
        - Hypertension
        - Chronic kidney disease
        - High cholesterol
        - Heart failure
        - Arthritis
        - Depression
        - Ischemic/coronary heart disease
        - Alzheimer's disease or dementia
        - Diabetes
        - Chronic Obstructive Pulmonary Disease (COPD)
        - Prefer not to answer

    Other (please write-in): _____

18. How would you rate your health? (check one)

    - Very poor
    - Poor
    - Neither Poor or Good
    - Good
    - Very Good

19. How would you rate your ability to concentrate? (check one)

    - Very poor
    - Poor
    - Neither Poor or Good
    - Good
    - Very Good

20. Please use this space below to share any other thoughts you have about technology:

Appendix B - Informed Consent

You are invited to participate in a research project being conducted by Dr. Lenard Kaye, Director of the UMaine Center on Aging and Dr. Jennifer Crittenden, Associate Director of the UMaine Center on Aging. The study is being done in partnership with the Eastern Area Agency on Aging. The purpose of the research is to 1) learn about your views on technology that might help support your health and wellbeing and 2) learn about your comfort with technology. You must be receiving Meals on Wheels to participate.

What Will You Be Asked to Do?

If you decide to participate, you will be asked to take a confidential survey. The survey can be done on paper or over the phone. It should take you about 10 minutes to participate. If you are doing a paper survey, please put the survey in the prepaid return envelope and put it in the mail when you are ready to submit it.

Risks:

Except for your time and inconvenience, there are no risks to you from participating in this study.

Benefits

While this study will have no direct benefit to you, this research may help inform how Area Agencies on Aging support the health and wellbeing of people they serve by using survey information to identify new or improved services that can potentially be provided in the home through technology or Meals on Wheels.

Compensation

You may enter a drawing to win one of three $50 Hannaford Gift cards using the enclosed gift card drawing form and returning it with your survey (or providing information over the phone if you are completed the survey that way). You don't have to answer every question on the survey to be eligible to enter the drawing. The gift card drawing will be held in July of 2022 and you will be notified if you win a gift card. The chance of winning is approximately 1%.

Confidentiality

This survey is confidential. Please do not write your name on the survey. Survey data (phone or paper) will be kept on a password-protected computer (electronic files) and locked file cabinet (paper files) at the Center on Aging indefinitely. Because information for the drawing will be returned with your survey responses, we will know your identity if you submit a gift card form. However, gift card drawing information will be stored separately from your survey data in a locked file cabinet and will be destroyed after the drawing is completed in July 2022. Although researchers will know who entered the drawing, the gift card form will be separated from the survey responses as soon as the researchers receive them.

Voluntary

Participation is voluntary. If you choose to take part in this study, you may stop at any time. Choosing not to take part will not impact your ability to continue receiving Meals on Wheels. You may skip any questions you do not wish to answer. Submission of the survey implies consent to participate.

Contact Information

If you have any questions about this study, please contact Project Manager David Wihry at david.wihry@maine.edu or 207-262-7928. If you have any questions about your rights as a research participant, please contact the Office of Research Compliance, University of Maine, 207-581-2657 (or e-mail umric@maine.edu).

Appendix C - Introductory Letter

Dear Meals on Wheels participant,

Eastern Area Agency on Aging is partnering with the UMaine Center on Aging on a research study looking at how Meals on Wheels participants value technology that can be used to support their health and wellbeing. The study also looks at Meals on Wheels participants' comfort with using technology. The study is being led by Dr. Lenard Kaye, Director and Dr. Jennifer Crittenden, Associate Director, at the Center on Aging.
We invite you to take the survey that is included in this packet. It takes about 10 minutes to participate. The survey asks about what technology may be valuable to you and whether you have any challenges using technology. The survey also asks questions about you such as your age and health. The survey is confidential. You must be 18+ to participate.
If you choose to participate, you will be eligible for a drawing to win one of three $50 Hannaford gift cards.

Instructions
If you want to participate in the research study, please:

1. Read the enclosed "informed consent" form which explains more about the study.
2. Fill out the enclosed survey.
3. Fill out the gift card drawing form (if you are interested in taking part in the gift card drawing)
4. Put your survey and gift card drawing form (if you want to participate in the drawing) in the postage-paid return envelope, seal the envelope, and put it in the mail.

If you would like to submit the survey over the phone with a member of the study staff, please call 207-262-7928. A member of the staff will call you within 72 hours to conduct the survey over the phone.
Thank you for your time. We hope you consider participating. If you have questions about this study, please contact the Project Manager, David Wihry at david.wihry@maine.edu or 207-262-7928.

Sincerely,

Tabatha Caso, Chief Program Officer
Eastern Area Agency on Aging

Lenard Kaye, DSW/PhD, Director
UMaine Center on Aging

Jennifer Crittenden, PhD, Associate Director
UMaine Center on Aging

Appendix D - Gift Card Form

Please complete this form and return it with your survey to enter for a chance to win a $50 Hannaford gift card.

Prize Entry Form**

Name:

Mailing Address:

Phone:

E-mail:

**Please note: The information you give us above will be stored separately from your survey. This information will be stored in a secure office at the Center on Aging. Only research project staff will have access to this information and will use it only for the purposes of drawing and contacting gift card recipients. Gift card entry forms will be deleted upon completion of the drawing in July 2022.