MALNUTRITION QUALITY IMPROVEMENT INITIATIVE

Welcome to Today's Expert Webinar for the 2019 MQii Learning Collaborative:

"Extending the Reach of Hospital-Based Nutrition: Improving Patient Recovery Beyond the Acute Care Setting"

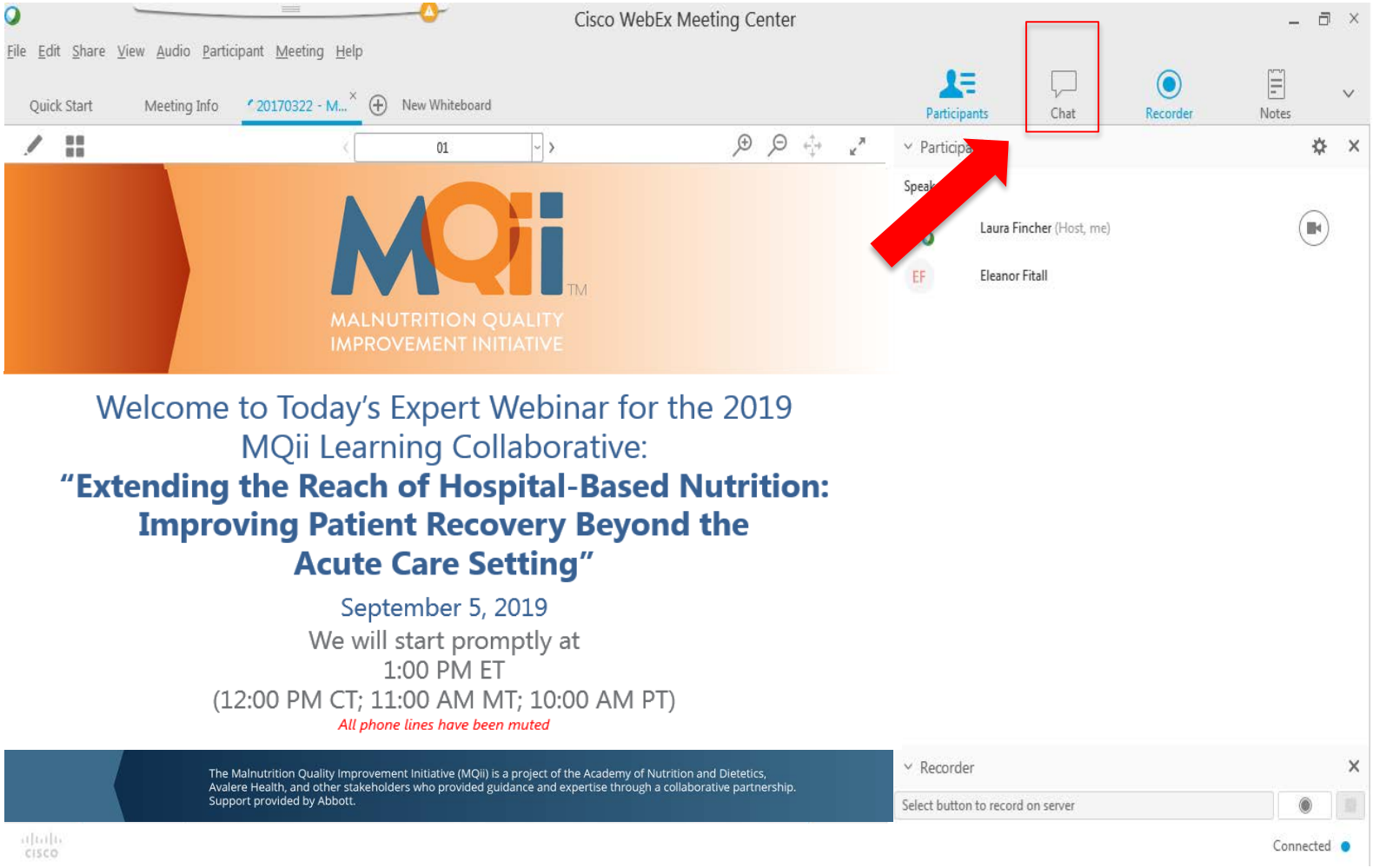
September 5, 2019

We will start promptly at
1:00 PM ET
(12:00 PM CT; 11:00 AM MT; 10:00 AM PT)

All phone lines have been muted

The Malnutrition Quality Improvement Initiative (MQii) is a project of the Academy of Nutrition and Dietetics, Avalere Health, and other stakeholders who provided guidance and expertise through a collaborative partnership. Support provided by Abbott.

Before We Get Started…



Today's Agenda

Agenda Item	Presenter
Welcome and Introduction to the Webinar	Christina Badaracco, MPH, RD, *Research Scientist at Avalere Health*
Overview of the *MQii Learning Lab: Assessing Transitions of Care to the Community*	Wendy Everett, ScD, *Senior Advisor at Avalere Health*
Delivering Meals to Reduce the Impact of Malnutrition	Gerry Howick, MBA, RD, CD, *Clinical Nutrition Supervisor at Legacy Health*
Malnutrition Across the Continuum of Care at James A. Haley Veterans' Hospital	Jessica Settles, RDN, LDN, *Clinical Dietitian, Flowers Hospital*
Questions – 15 min	

MALNUTRITION QUALITY IMPROVEMENT INITIATIVE

Wendy Everett, ScD
Senior Advisor
Avalere Health

- Highlight the importance of malnutrition care across settings
- Share the background and approach to the *MQii Learning Lab: Assessing Transitions of Care to the Community*
- Review key takeaways and high-level findings

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The Challenge of Missing Nutrition Status in Care Transitions

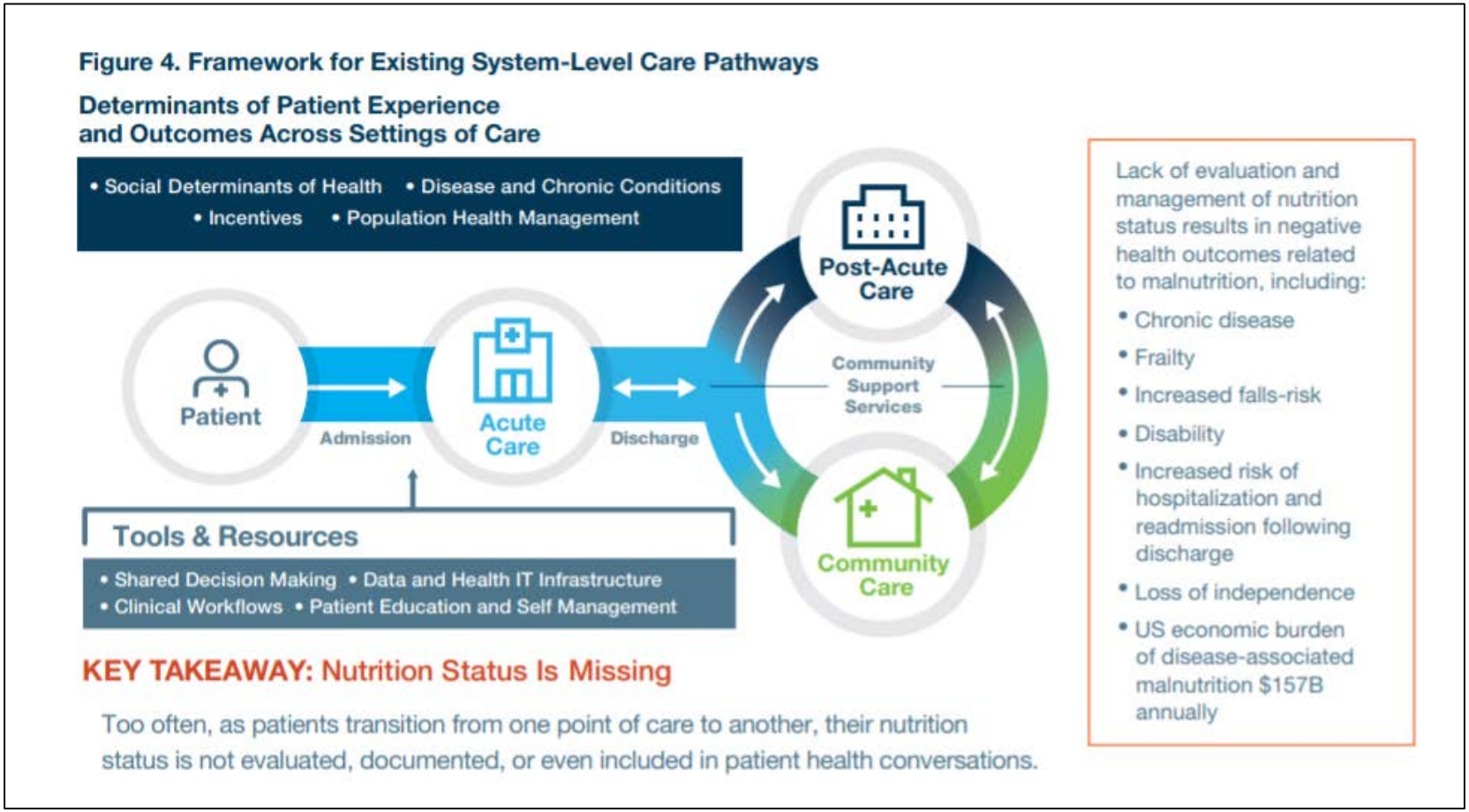

Figure Source: *Dialogue Proceedings / Advancing Patient-Centered Malnutrition Care Transitions*

Advancing Patient-Centered Malnutrition Transitions of Care

In 2018, Avalere Health, the Academy of Nutrition and Dietetics, and the Defeat Malnutrition Today (DMT) Coalition convened a national meeting in Washington, DC, entitled “Advancing Patient-Centered Malnutrition Transitions of Care”

SPECIFIC OBJECTIVES OF THE DAY-LONG SESSION WERE TO:

- Evaluate the current state of care transitions for malnourished patients and patients at-risk for malnutrition
- Identify high priority care transition gaps and opportunities to address these gaps across the care continuum
- Outline key considerations for integrating malnutrition care into system-level care pathways to support patient goals and improve outcomes

Approach of the Learning Lab

Hospitals and primary care practices that indicated they had in place or were planning to implement transitions of care programs were identified

Avalere contacted these sites' nutrition directors or managers to request interviews about their transitions of care programs

14 identified hospitals	15 identified primary care practices

Avalere conducted interviews with interested and responsive hospitals and practices

10 interviews with hospital-based nutrition managers/directors	6 interviews with primary care practice-based care managers

Results of Learning Lab

Few Established Programs	• Fewer transition of care programs had been fully implemented than anticipated
Top Barriers in Hospital Settings	• Lack of nutrition care in discharge planning • Lack of champions among administration for a nutrition-focused care transitions program • Lack of staffing and prioritization for dietitians' services
Top Barriers in Primary Care	• Lack of compatible electronic health records and communication avenues from hospitals • Lack of awareness of proper malnutrition care among medical staff • Lack of engagement with dietitians
Top Barriers in Community	• Lack of effective means of identifying and addressing nutritional risk
Necessary Improvements	• Better integrating nutrition-focused documentation in EHRs, including nutrition care in discharge planning • Providing nutrition-focused education and resources to physicians • Developing a standardized transitions-of-care protocol that addresses nutrition needs

Interview process revealed several innovative programs as transition of care "gems" that we'll highlight for you today

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Gerry Howick, MBA, RD, CD
Food and Nutrition Manager
Salmon Creek Legacy Health

- Share background and approach to addressing malnutrition in the community
- Review key takeaways

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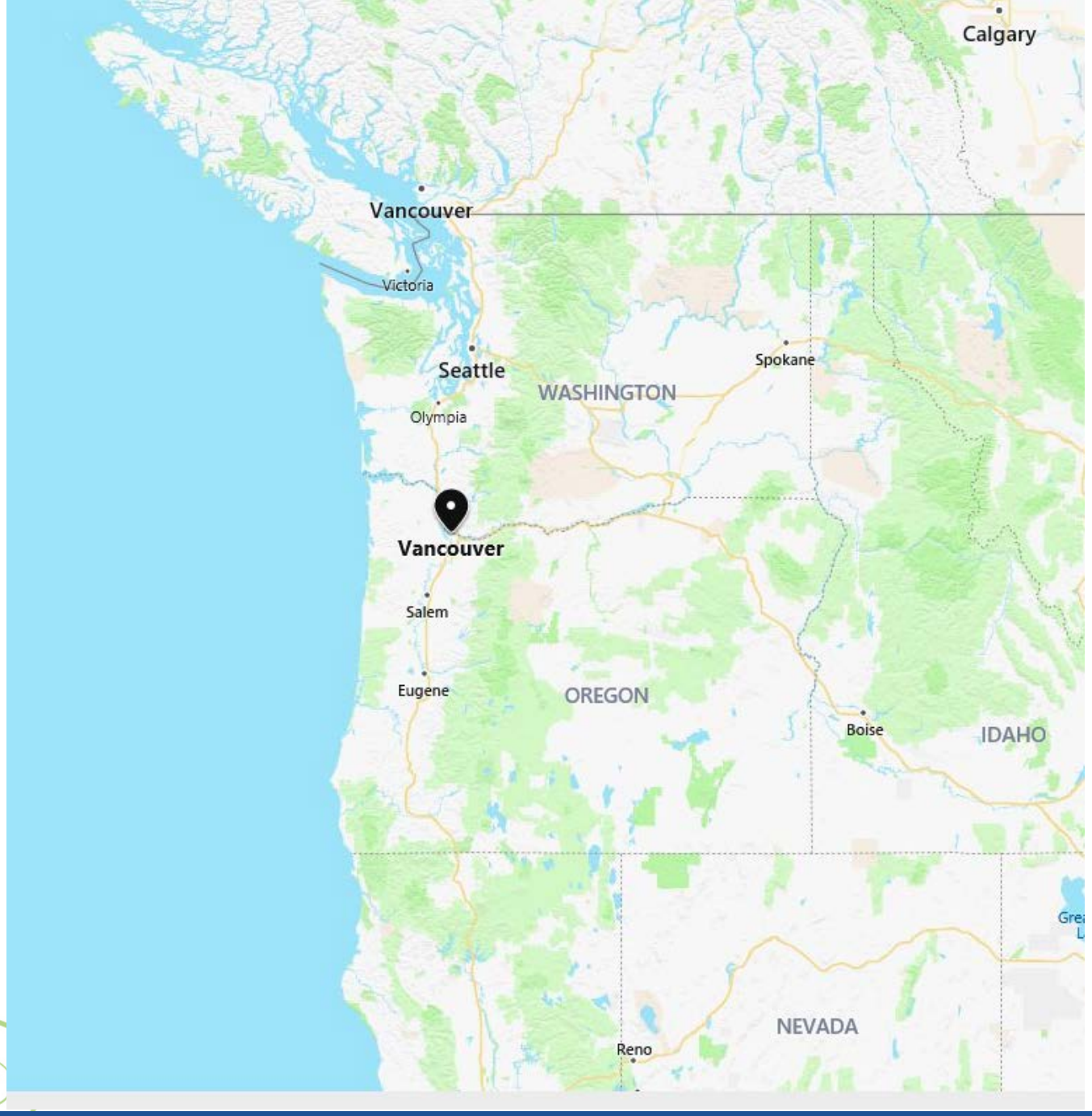
Calgary
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Reno

Disclosures

none

Background

- Audit in 2017: Average 30% of patients malnourished
  - > Discharged with higher rate of readmission
- Patients identified as malnourished stay longer
  - > Not long enough to impact a change to their condition of malnutrition
- Identified need to support patients when they are home
  - > Patients think more about nutrition after discharge (1)
  - > Reported barriers to adequate nutrition:
    - Food insecurity
    - Fear of eating the wrong food
    - Too weak to shop/store/prepare/cook/eat meals
    - Limited mobility
    - No appetite so less motivation to eat
    - Limited resources available in community

Getting Started

- Grant funded by hospital foundation
- New process, so small pilot
  - > 10 patients in 1 year
- 4 weeks of food provided
  - > Limited evidence in literature but based on reduced readmissions within 30 days
- Support from leadership and nursing staff
- Eligibility screen with patients identified with malnutrition
  - > Approx. 1 per week
- Long term view to scale up to meet need

Starting the Process – Asking Questions

- How will we…
  - > Identify patients for program
  - > Get the food to the patient?
    - Safety of staff
    - Food safety
  - > Cover liability?
  - > Communicate the menu?
  - > Storage/heating instructions?
  - > Collect data and review outcomes?
- What food will we serve?

Eligibility Criteria

	Questions	Yes	No
Information from EHR	Inpatient at Salmon Creek		
	Identified as malnourished? Or at high risk of becoming malnourished		
	Discharging home		
	Discharging to home county		
	No food allergies in chart		
	No listed food dislikes		
	No diagnosis of eating disorder		
	On “general,” “high protein/calorie,” “heart healthy,” “ 60 gm CHO,” or “no added salt” diet		
	No hx of VIW		
Information from Patient and/or Family	Home has working fridge, freezer and space to accommodate 1 weeks’-worth of food		
	Home has working microwave		
	Patient agrees to participate (and has signed agreement)		
	No known food allergies		
	Food dislikes are not in more than one food group		
	Pt or SO available to receive food		

Answering the Questions

- All patients are screened for meal delivery program if diagnosed with malnutrition
- Delivering meals
  - > Weekly – to each patient – by volunteers
  - > 2 delivery options per week
  - > Transported in 2 coolers
    - Frozen
    - Refrigerated
- Meals and labels

Creekside **Meal Service**
Meal: Day: 1 2 3 4 5 6 7
Breakfast / Lunch / Dinner
Best by Date:

Keep Frozen until ready to eat
Remove lid, and place loosely back on top
Heat from frozen in microwave for **2-4** minutes.
(times may vary for your microwave)
Stir contents half way through cooking
Allow to cool for **3-5** minutes before eating

LEGACY HEALTH | SALMON CREEK MEDICAL CENTER

Answering the Questions – Food Provided

- Food served to patients
  - > Balanced
  - > 30g protein per meal, 2000 kcal per day
  - > Variety
  - > Reduced volume (where possible)
  - > All meals taste-tested
- 7-day cycle
- Worked with executive chef to create menus
  - > Food made during tray-line where possible
  - > Salad items made one day ahead of delivery
  - > Food gathered by chef/cooks
  - > Food pulled for delivery by RDs

Creekside Meal Service Menu Template for General

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Breakfast	Souffle Turkey Sausage Whole milk Apple Sauce	Frittata 2 Turkey sausage Whole fruit Orange Juice Whole milk	French Toast 2 2 turkey sausage Butter & Syrup Applesauce Whole milk Orange Juice	Oatmeal, Raisins Walnuts Brown sugar Orange Juice Whole milk 2 hardboiled eggs	Ham scramble Peaches Milk	Cheese Omelet sausage Apple sauce Orange Juice Whole milk	Breakfast Bake sausage Apple Sauce Cranberry Juice Whole Milk
Lunch	Chicken Salad Orange Roll Chocolate Pudding	Pork Loin Mashed Potatoes Gravy Broccoli Cheesecake	Chef Salad Ranch Dressing Roll Orange Vanilla pudding	Baked fish Rice Asparagus Lemon slice butter Chocolate pudding Mixed Fruit	Turkey Meatloaf Mashed potatoes Broccoli Pears	BBQ chicken Corn Dinner roll Peaches Choc Chip Cookie	Chicken Casserole Carrots Ranch Mixed fruit
Dinner	Hamburger Condiments Relish plate Chips Apple Lemon Bar	Northwest Salad with Chicken Berry Dressing Bread Roll Jammer	Chicken Orzo Green beans Brownie	Pork Carnitas Black beans corn Peanut butter cookie	Almond Chicken pasta Pasta sauce Green beans Vanilla Pudding	Sloppy Joe pub bun Green Beans Snickerdoodle	Roast Turkey Mash potatoes Broccoli Peanut Butter Cookie

Data Collection

- Patient survey
  - > Before and after program participation
- Hand grip strength
  - > Before and after program participation
- Food intake survey
  - > Every meal, all days
- Frailty score
  - > Before and after program participation
- Readmission rates
  - > Within 30 days of discharge

Patient Experience - Qualitative Measures

- Experience = Education
  - > Improved understanding for the importance of:
    - Eating regularly
    - Eating variety
    - Protein
- Reduced confusion about what they should eat based on their clinical condition
  - > Confidence in eating meals
- Relief for relatives knowing their loved ones are getting nutritious meals to eat 3 times per day
- Relief for patients experiencing food insecurity
- Independence in their home
- Barriers to be able to eat meals removed
- Stronger/improved mobility
- Ensures balanced nutrition during overwhelming and exhausting post-discharge period

Quantitative Measures

- Reduced readmission rate
- Improved hand grip strength
- Improved frailty scores

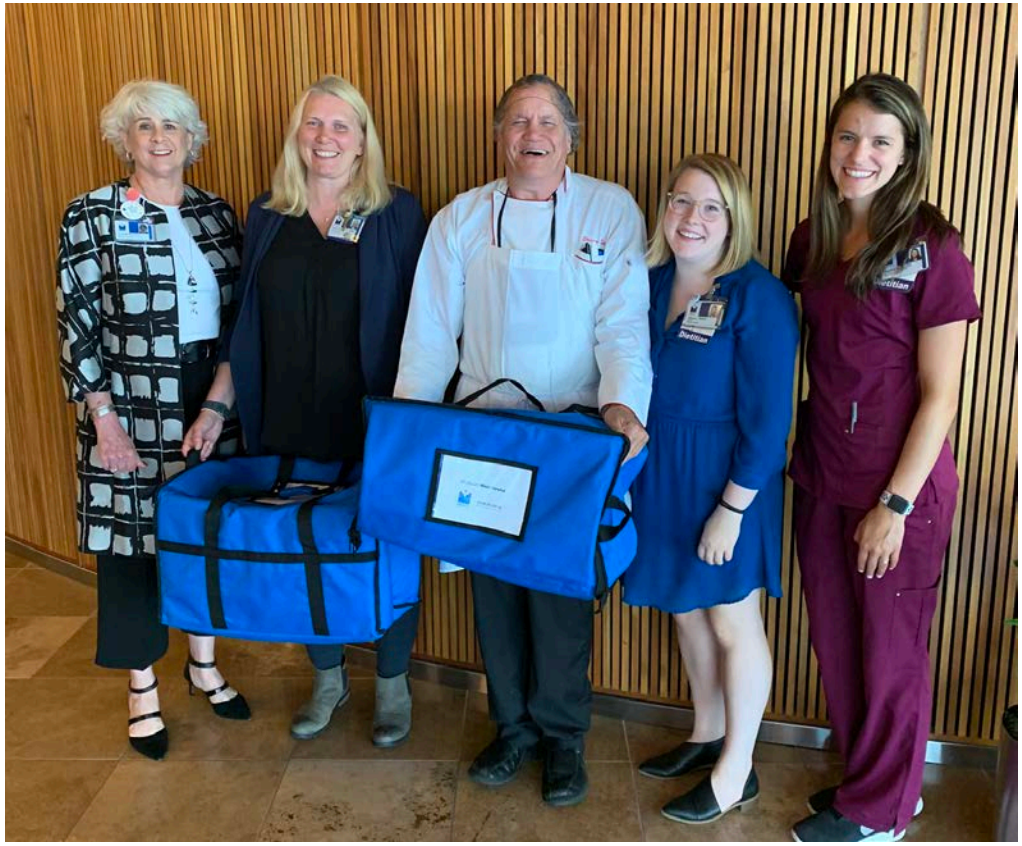
Tips for a New Program

- Regular PDSA (Plan/Do/Study/Act) meetings after initiation
- Flexibility for unexpected changes
- Be very clear on expectations with patients (e.g., delivery date, time, and menu)
- Screen thoroughly
- 4 weeks works…if planning for longer, add more meal options
- Close communication with the RD coordinator, kitchen staff, and driver
- Information on program in new *JAND* Supplement article
  - https://jandonline.org/article/S2212-2672(19)30501-5/fulltext

Next Steps

- Continue to improve on current menu
- Offer an opportunity to purchase and pick up at the hospital
- Focus more on patients at risk of malnutrition
- Continue to follow data to show the need
- Present findings to administrators/leadership

The Team



From left to right:
Laura Walsh, (Volunteer Manager),
Gerry Howick (Food and Nutrition Manager),
Brian Seto (Executive Chef),
Alison Lambert (RD),
Ashley Harmon (RD)

References

1) Merriweather JL, et al. Appetite during the recovery phase of critical illness: a cohort study. *Eur J Clin Nutr*, 2018 Jul;72(7):986-992.

MALNUTRITION QUALITY IMPROVEMENT INITIATIVE

Jessica Settles, RDN, LDN
Clinical Dietitian
Flowers Hospital

- Describe the retrospective research study measuring the impact of malnutrition identification in a veteran ambulatory setting
- Present study findings
- Highlight best practices and evaluate future directions

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Research Project Background

Background: In 2015, the VA Nutrition and Food Service Strategic Planning Goals addressed the identification and treatment of malnutrition

Researchers: Jessica Settles, RDN, LD/N; Sherri Lewis, MS, RD, LD/N; Claire Bell, MSPH, RD, LD/N, CSG; Dustin Lawhorne, RD, LD/N

Goal: Determine the impact of RD identification of malnutrition in VA outpatient and home-based primary care (HBPC) settings on patient's clinical improvement

Hypothesis: Identification of malnutrition in the primary care setting will lead to clinical improvements

Background on Malnutrition Clinical Characteristic Implementation at JAHVH

- Extensive and comprehensive hands-on in-service training of James A. Haley employees using the AND/ASPEN criteria
  - Simulations
  - Continual opportunities to retrain each year
- HBPC RDs becoming board certified specialist in Gerontological Nutrition (CSG)
- Pocket cards
- Malnutrition rounds
- Internship

Challenges

- Continual need for staff training given frequent turnover
- Need to train not only RDs but also providers in the process
  - Adherence to ONS criteria

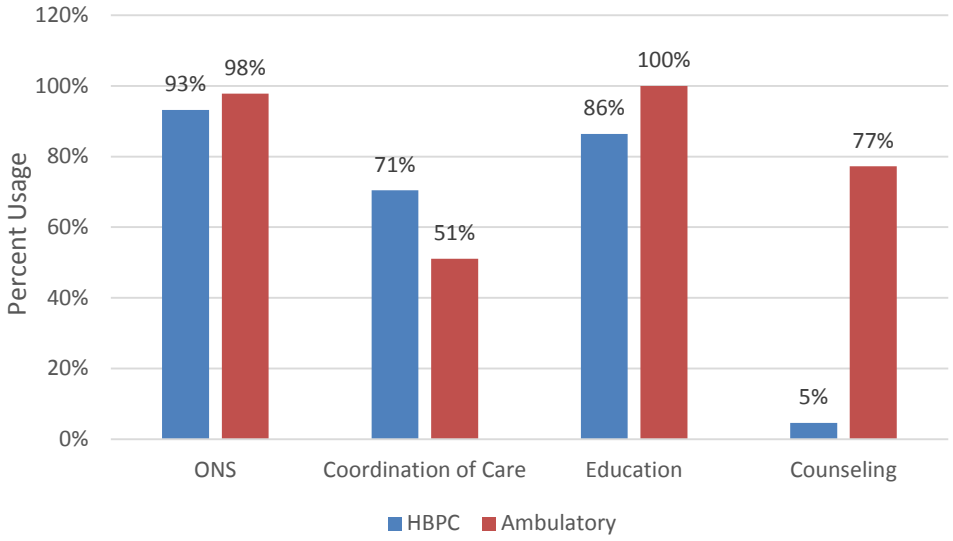
Methods and Design

Design: Retrospective study on quality improvement
Data Collection: Chart reviews
Sample: 98 patients identified as malnourished between March 2016 and March 2018
Exclusion criteria: Active oncology treatment, hospice admission, death within study timeframe
Outcomes studied:

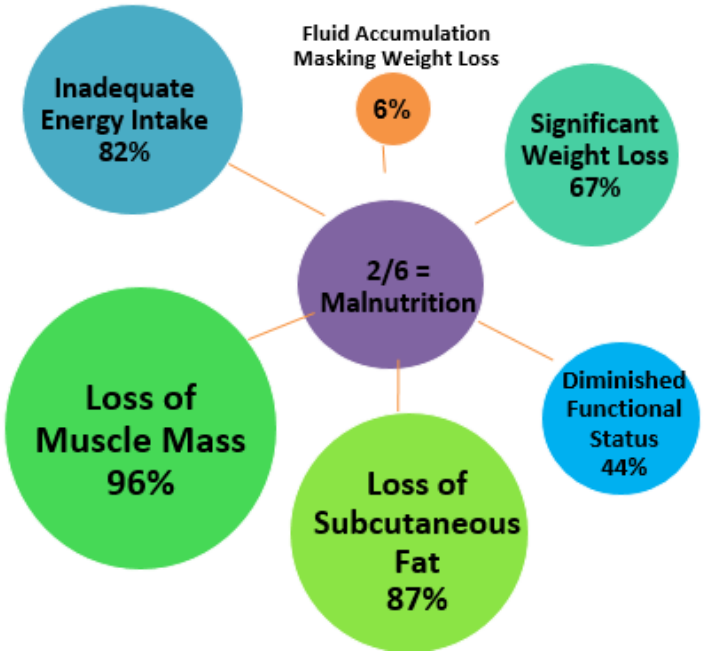
- Malnutrition clinical characteristics
- Length of stay
- Morse fall risk
- Number of falls
- Zaritt caregiver burden
- Number of dehydration-related ER visits
- Osmolality
- Number of hospital admissions

Results Highlights

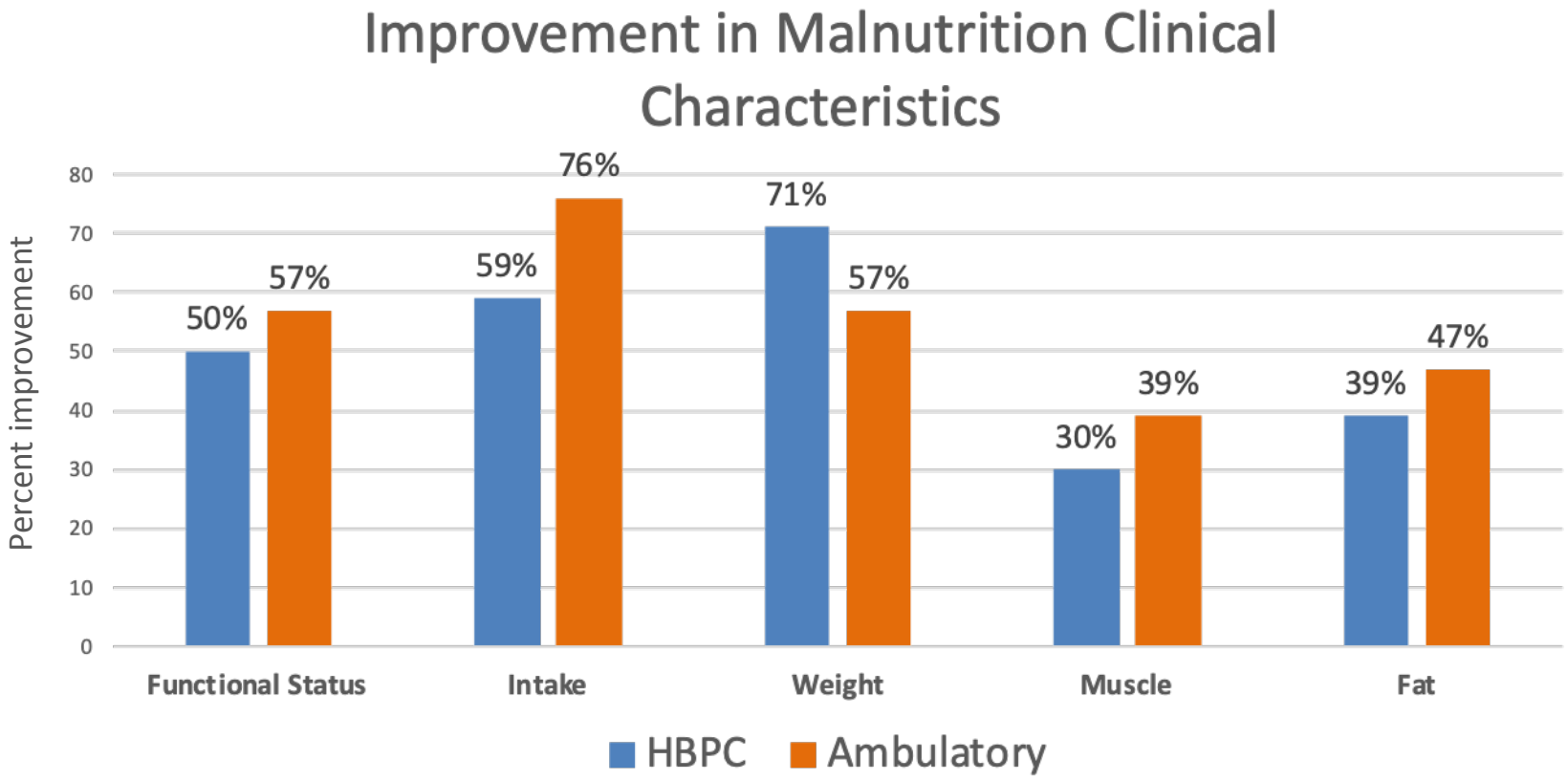
Intervention Utilization



Usage of the MCCs to Identify Malnutrition



Results, continued



Results, continued

Outcomes	Setting	N	Pre intervention (mean +/- std. dev.)	Post-intervention (mean +/- std. dev.)	Avg. Change	P-value
Dehydration-related ER visits	Total	89	0.06 +/- 0.28	0.05 +/- 0.28	-.011	0.708
	Outpatient	45	0.02 +/- 0.15	0.04 +/- 0.21	0.02	0.57
	HBPC	44	0.09 +/- 0.29	0.05 +/- 0.30	-0.45	0.323
Osmolarity	Total	57	290.39 +/- 9.57	290.53 +/- 9.57	0.14	0.912
Weight (lbs)	Total	77	135.76 +/- 12.75	139.30 +/-12.75	3.54	0.017†
	Outpatient	45	132.03 +/- 24.05	131.64 +/- 26.39	-0.20	0.141
	HBPC	44	141.83 +/- 28.53	148.03 +/- 33.68	5.98	0.023†
Hospital Admissions	Total	89	0.48 +/- 0.82	0.26 +/- 0.82	-0.22	0.015*†
	Outpatient	45	0.44 +/- 0.94	0.24 +/- 0.71	-0.76	0.449
	HBPC	44	0.52 +/- 0.82	0.27 +/- 0.69	-1.82	0.44
Length of Stay (days)	Total	89	3.19 +/- 6.23	1.91 +/- 6.23	-1.28	0.009*†
	Outpatient	45	2.44 +/- 5.37	1.69 +/- 5.46	-0.20	0.14
	HBPC	44	3.95 +/- 7.43	1.91 +/- 5.85	-0.76	0.45
Falls	Total	45	0.25 +/- 0.86	0.17 +/- 0.86	-0.08	0.522
Fall Risk Score	Total	19	2.69 +/- 0.23	2.63 +/- 0.23	-0.05	0.331
Caregiver Burden	Total	18	2.00 +/- 2.89	2.28 +/- 2.89	0.28	0.688

†Statistically significant, *P-value determined by Wilcoxon-signed rank test for these variables. All others were normally distributed and significance was generated using two-tailed t-test.

Conclusions and Further Directions

- Identification by an RD significantly improved hospital LOS, number of admissions, and patient's condition when evaluated based on the malnutrition clinical characteristics
- Due to decreases in hospital LOS and admissions, RD identification may result in improved hospital ratings as well as better patient outcomes and reduced hospital burden
- VA's excellent continuity of care establishes a best practice for private sector hospitals
- Future studies are needed to determine whether RD intervention intensity and duration between visits has an impact on patient malnutrition outcomes
- A larger sample size is needed in future studies to determine whether specific interventions lead to better outcomes

Questions?

15 mins