Malnutrition in Primary Care: Sum Zero

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Disclosures

Michele

Part time Faculty, McMaster University: Michele MacDonald Werstuck

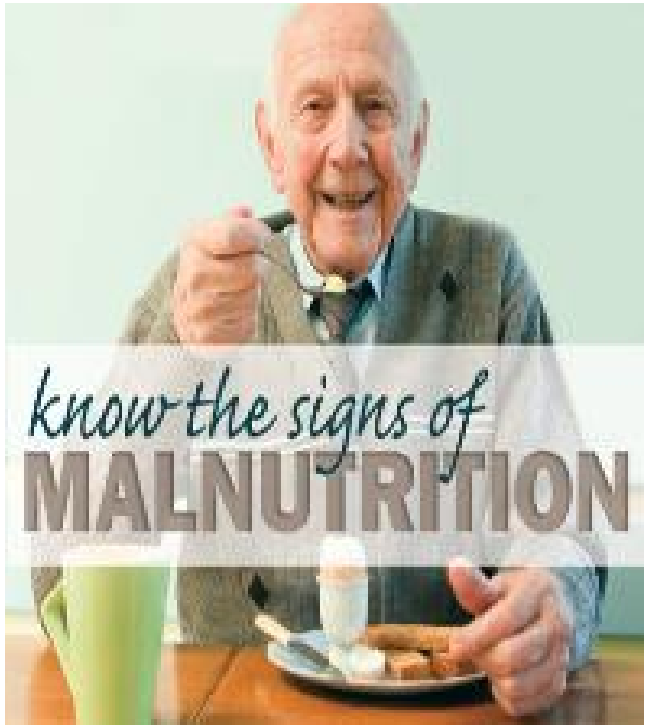
- Relationships with financial sponsors:
  - Grants/Research Support: Co-investigator,Nestle Health Sciences Dysphagia assessment and management practices in primary care across Canada
  - Speakers Bureau/Honoraria: Malnutrition presentations

Marg

AFHTO Board member and former President of AFHTO and PCDA, Co Chair of Primary Care Malnutrition Working Group – Canadian Nutrition Society/CMTF

Working together in primary care to:

- **Screen** seniors for nutritional risk (with validated tools)
- **C**hart risk factors (EMR tools/prompts)
- **R**efer to appropriate providers within team
- **E**ducate patients/families to correct/prevent malnutrition
- **E**valuate outcomes
- **N**etworks to facilitate transitions across health care



Why focus on malnutrition in primary care?

A gap analysis among primary care Registered Dietitians in Ontario in 2015 identified very low referrals in family practice for malnutrition nutrition counseling

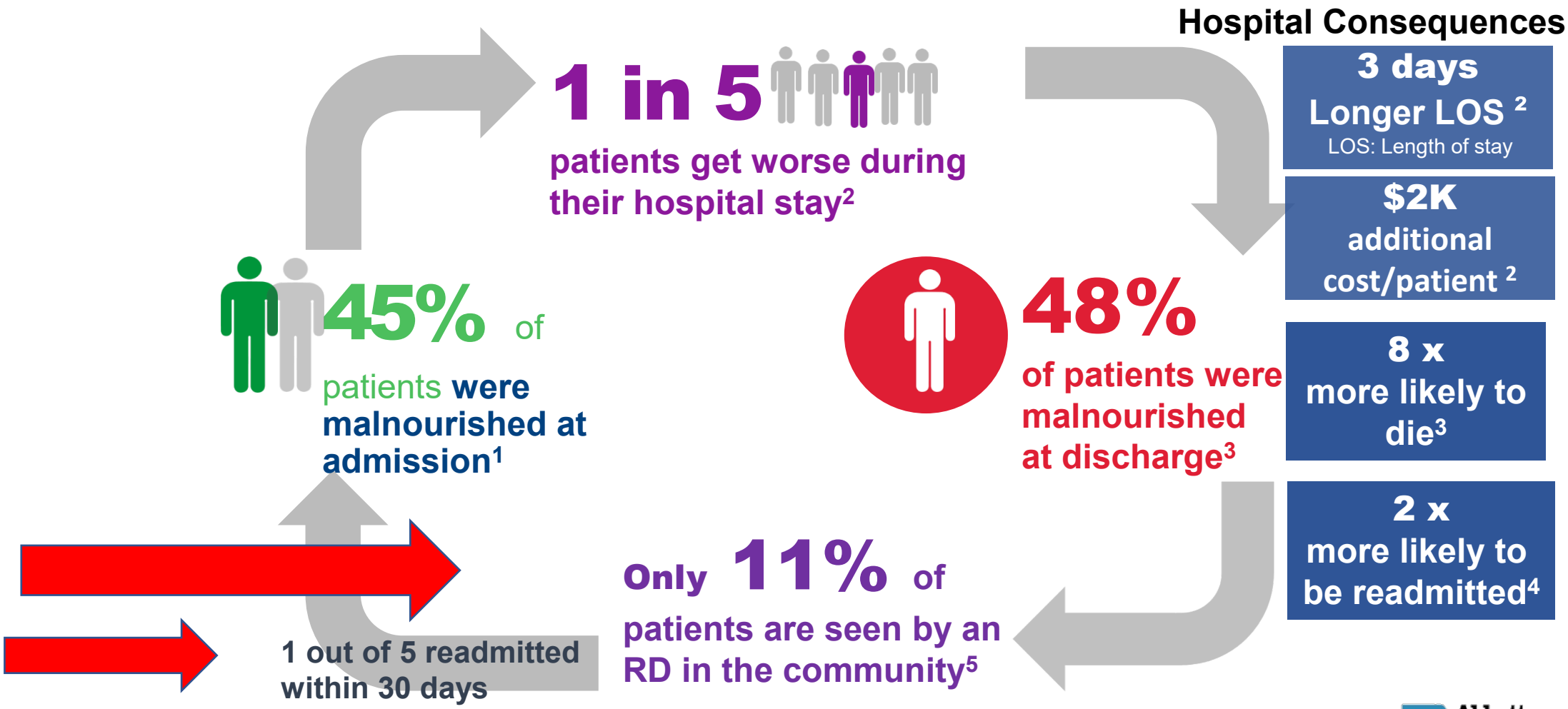
Despite strong evidence of malnutrition in the community + benefit of intervention

- 1 of 3 older adults at nutritional risk (Ramage-Morin, 2013, Statistics Canada)
- 1 of 2 adults are malnourished on hospital admission (Canadian Malnutrition Task Force)
- Strong evidence showing benefit of nutrition support and team-based care to improve outcomes
- Training teams to catch malnutrition with validated screening tools and clinical care pathways with early referrals to RDs is feasible, can improve outcomes **and is easy!**

Compared to well nourished seniors, malnourished seniors

- make more visits to the family doctor
- are 73% more likely to fall
- are more likely to be admitted to hospital or nursing home
- have increased medication use
- reduced quality of life

Undetected and Undertreated Malnutrition and Patient Consequences in Canada



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5. Keller H. et al. Patient-reported dietetic care post hospital for free-living patients: a Canadian Malnutrition Task Force Study; J Hum Nutr Diet. 2017.

Compiled by Vancouver Coastal Health Community Registered Dietitians

Abbott Nutrition

Nutrition Support can Reduce Costs of Malnutrition

30 day readmissions and LOS were significantly lowered for malnourished inpatients by use of an:

- ✓ EMR-cued Screening
- ✓ prompt provision of ONS
- ✓ patient/caregiver education
- ✓ and sustained nutrition support

(Sriram et al, JPEN J Parenter Enteral Nutr. 2017;41:384-391)

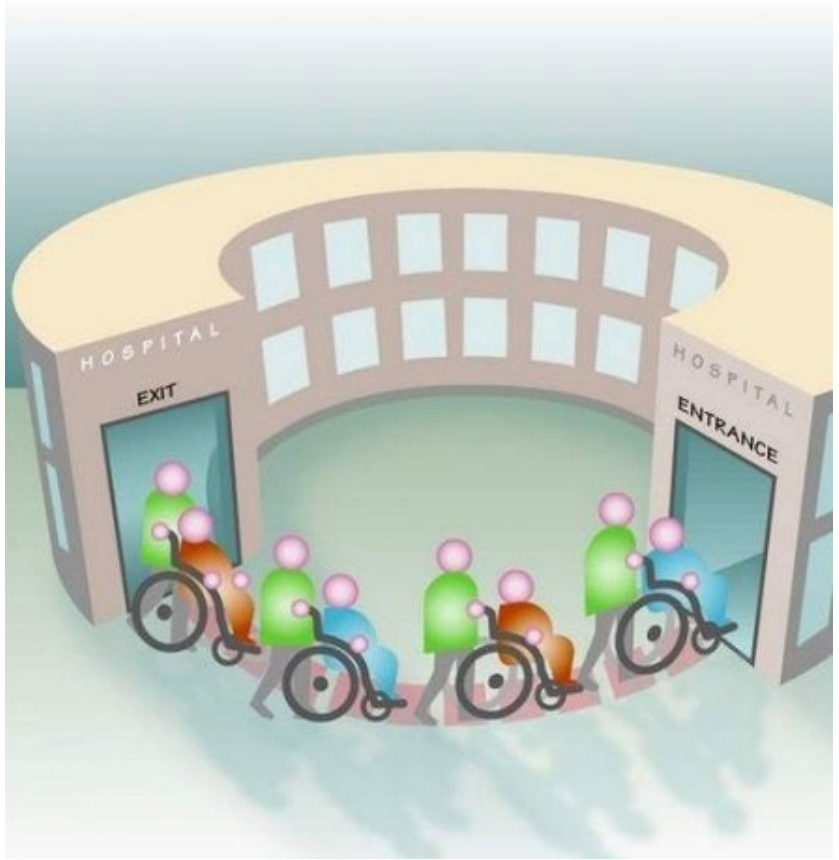
$1500 savings per patient

Reducing Hospitalizations and Costs: A Home Health Nutrition-Focused Quality Improvement Program. 2019

Katie Riley, RN1 ; Suela Sulo, PhD2; Firas Dabbous, PhD1;Jamie Partridge, PhD2; Sarah Kozmic, MEd1; Wendy Landow, MPH1; Gretchen VanDerBosch, RD1; Mary Kay Falson, RN1; and Krishnan Sriram, MD1

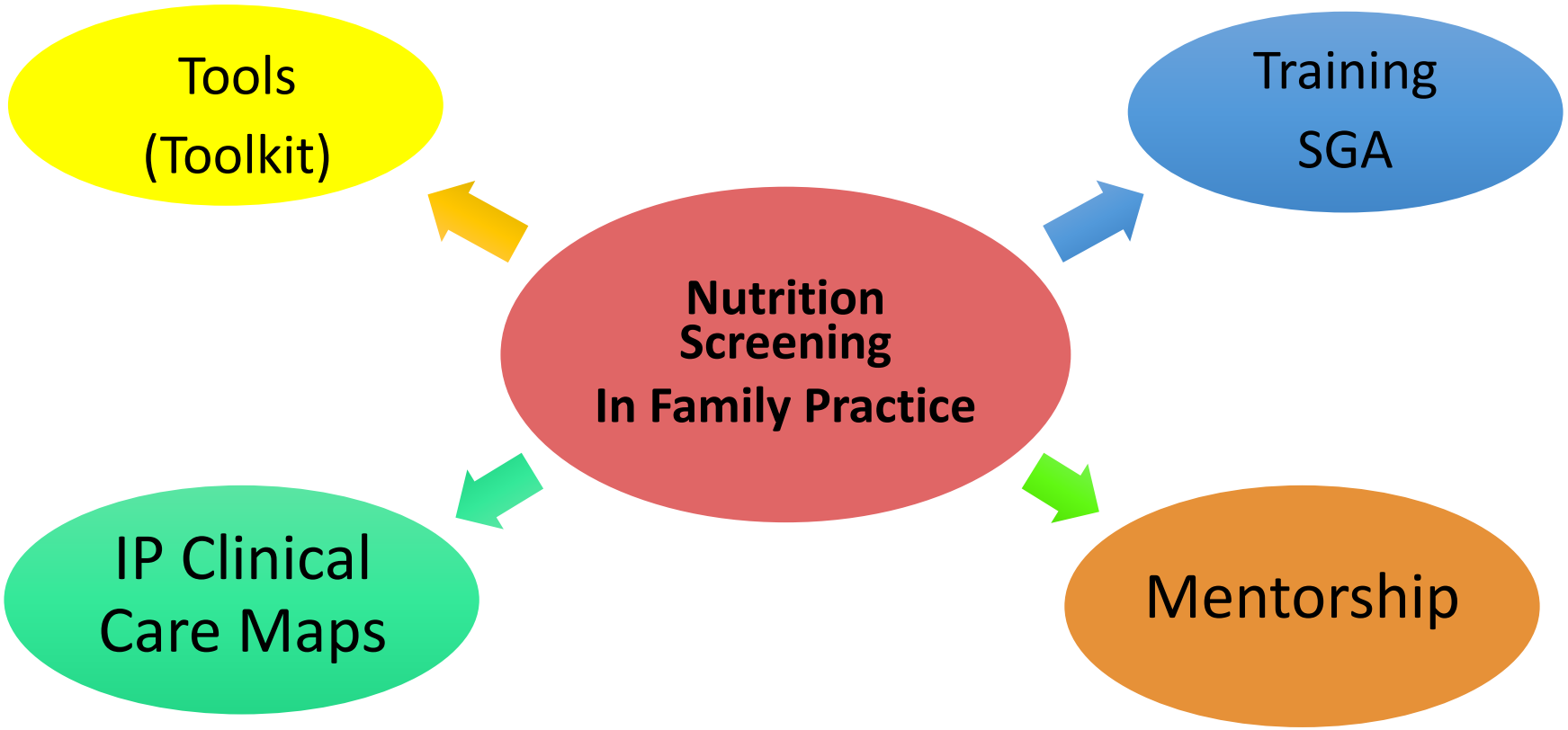
Why screen post discharge?

“ Adding a dietitian to the discharge Liaison-Team after discharge of geriatric patients can improve nutritional status and may reduce the number of times hospitalized within 6 months”



Beck A, Anderson U, Leedo E . Does adding a dietitian to the liaison team after discharge of geriatric patients improve nutritional outcomes: A randomized control trial Clin Rehabil 2014 Dec 31 pii 0269215514564700

Create an Active Screening Program for Primary Care



Training >250 PHC RDs across Ontario/Canada

- Training sessions
  - PHCAG annual RD Research Days
  - AFHTO RD ½ days
  - June 2021 – PCDA & CNS Malnutrition Launch

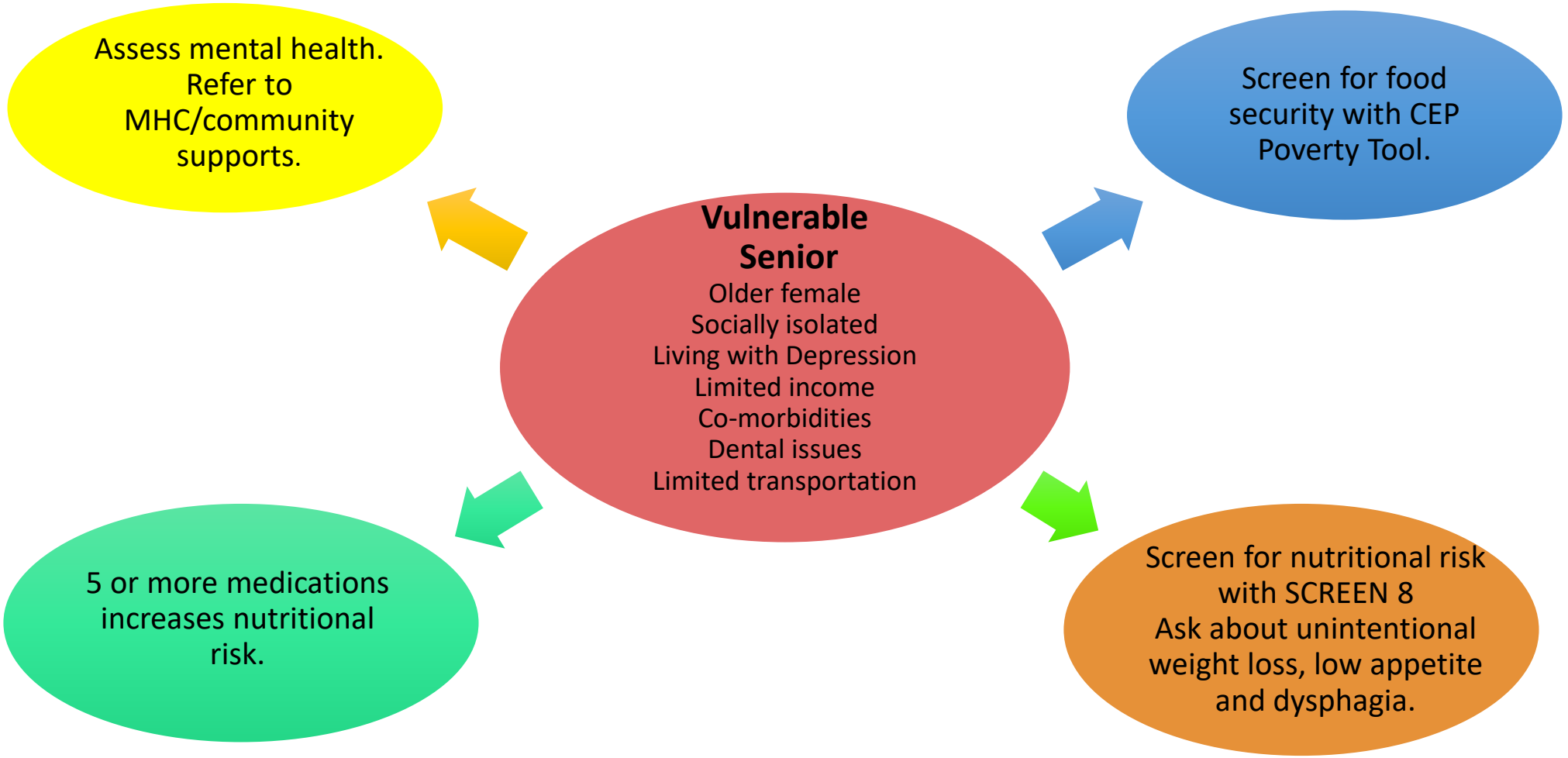
- Standardized EMR templates with validated screening and assessment instruments

- SGA training

- Process and outcome indicators shared with Quality Improvement and Decision Support Specialist (QIDSS) network
- Mentorship and ongoing coaching

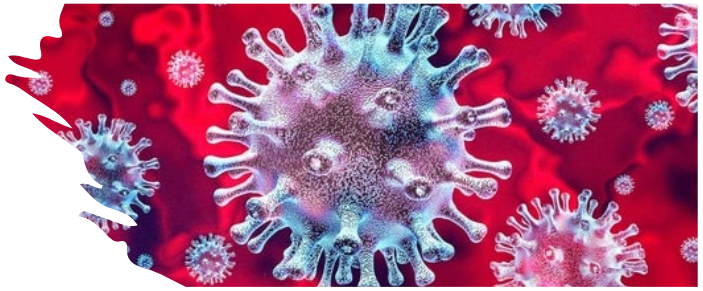
Team Training

Malnutrition Strategy: Screen, Assess, Diagnose, Intervene



Record weight in EMR at least once a year.

The Screening Process
Step 1: Who to Screen?



68 yr with mild cognitive impairment

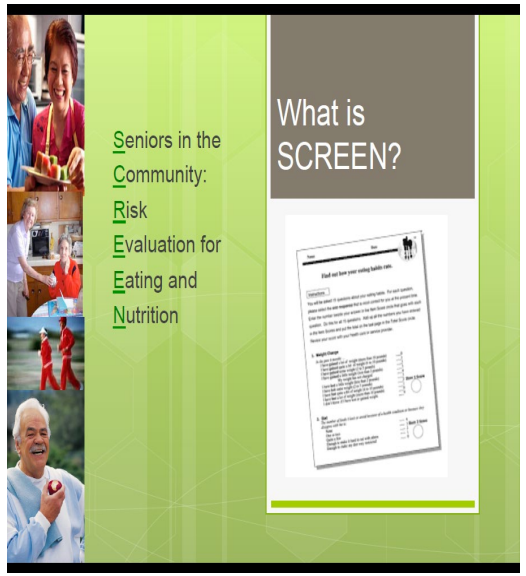
75 yr older adult recently discharged from hospital

Senior coming into an existing clinic
Eg. DM, INR, memory

Other Vulnerable Seniors?

Well elderly
"Welderly"
Stay healthy + age well

Step 2: SCREEN 8



Interview Version for Primary Care

Instructions: For each question, check only one box. Add up item subscripts for score.
Ask first 3 items. If score 22+, no nutrition risk. If score < 22 continue with remaining items.

1. Has your weight changed in the past 6 months?

- ₀ ☐ Yes, *I gained* more than 10 pounds
- ₂ ☐ Yes, *I gained* 6 to 10 pounds
- ₄ ☐ Yes, *I gained* about 5 pounds
- ₄ ☐ No, my weight stayed within a few pounds.
- ₄ ☐ Yes, *I lost* about 5 pounds
- ₂ ☐ Yes, *I lost* 6 to 10 pounds
- ₀ ☐ Yes, *I lost* more than 10 pounds
- ₀ ☐ I don't know how much I weigh or if my weight has changed.

2. How would you describe your appetite?

- ₄ ☐ Very good
- ₄ ☐ Good
- ₄ ☐ Fair
- ₀ ☐ Poor

3. Do you cough, choke or have pain when swallowing food OR fluids?

- ₀ ☐ Never
- ₀ ☐ Rarely
- ₂ ☐ Sometimes
- ₀ ☐ Often or always

SCORE

If Score is < 22, continue with remaining questions

4. Do you skip meals?

- ₀ ☐ Never or rarely
- ₄ ☐ Sometimes
- ₂ ☐ Often
- ₀ ☐ Almost every day

Hamirudin AH, Charlton K, Walton K. Outcomes related to nutrition screening in community living older adults: A systematic Literature review 2016. Archives of Gerontology and Geriatrics 62:9-25.

Step 3: Positive Screen-
Refer to RD for Further Assessment

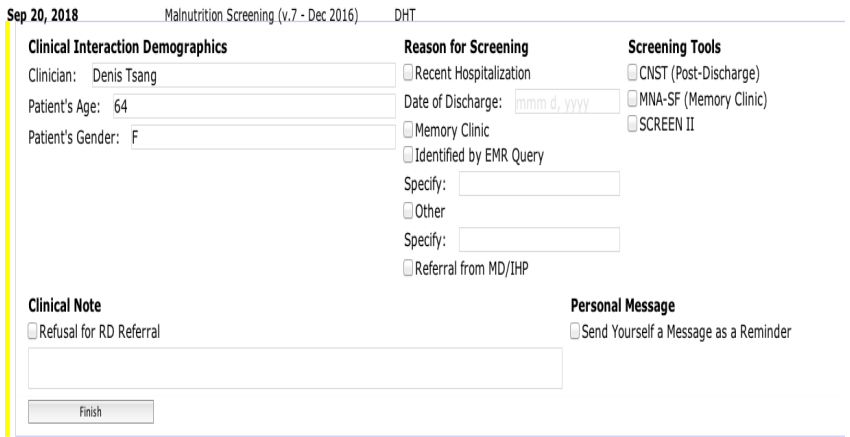
- Define level of malnutrition (SGA)
- Optimize intake
- Correct nutrient deficiencies
- Prevent involuntary weight loss
- Preserve lean muscle mass
- Prevent further decline
- Manage co-morbidities
- Improve quality of life

Measuring Outcomes

- **Process**: Referrals, Team Feedback

- **Patient outcomes**
- # screens completed
- # positive screens/positivity rate
- # identified as SGA B or C

- **Pre/post Measures**
- SCREEN 8 scores
- SGA scores
- Weight, BMI
- Falls, hospitalizations



PHCAG 4 FHT Malnutrition QI Project

- Screening Vulnerable Seniors
- Recently discharged seniors
- Seniors attending IP memory clinics
- Seniors >75 yrs seeing RD for any reason

  - City of Lakes FHT (Sudbury)
  - Upper Grand FHT (Wellington County)
  - NOTL FHT (Niagara)
  - Hamilton FHT (Hamilton)

4 FHT Malnutrition QI Results

Sudbury FHT	Upper Grand FHT
CNST Ocean tablets/waiting room 10% positivity Only 15 seeing RD Linked with falls prevention	SCREEN II Geriatric/memory clinic- geriatric RN 38% positivity Reluctance to see RD Phone calls preferred
Hamilton FHT	**Niagara FHT**
CNST + SCREEN II Post DC, Healthy aging, opportunistic <30% positivity Phone calls very popular New - intergenerational cooking with high school students/seniors	MNA-SF- Memory clinic CNST- post discharge SCREEN II- Aging at Home program Intergenerational cooking with tweens/seniors

Spread and Scale

- ✓ Working with their teams to identify nutritional risk
- ✓ Hospital discharged patients - COVID
- ✓ Using validated tools and clinical care pathways

- ✓ Screening in innovative ways
  - Opportunistic screening – at RD visits
  - Waiting room eg. Ocean tablets to EMR
  - In house clinics eg. INR, DM, Memory
  - Blitz screening eg. Senior, osteoporosis, nutrition month
  - Home visits
  - Healthy aging groups
  - Malnutrition screening now part of QI plans

Teams Adopting Best Practices

- Screening for malnutrition in seniors >65 yrs at least once a year
- **Weighing seniors at least once a year and recording in EMR**
- Watching for BMI <23
- No longer telling seniors to lose weight
- Catching nutritional deficiencies caused by medication interactions, inadequate intake (eg. B12, D, Mg)

Lessons Learned: Capacity

- Start small
- Think of your senior populations and choose an easy group to start
- Fewer positives than we expected- within capacity
- Need to support our teams to provide basic nutrition information and encourage referrals to RD
  - Some seniors not wanting to meet with RD and/or Not wanting to change their diet

Facilitating Nutrition Discharge Planning

Hamilton Health Sciences — Juravinski Hospital and Cancer Centre

Hospital Discharge: Nutrition Summary

Attn Physician: _____

RE: Patient: _____

Your patient was recently discharged from hospital. During their stay, they were identified as being at nutritional risk. In an attempt to prevent readmission related to this, please consider following up and monitoring this patient.

Reason your patient is at nutritional risk:

1. **Canadian Nutrition Screening Tool**
   - ☐ Your patient screened "at risk" for malnutrition (unintentional weight loss + poor intake)

2. **Subjective Global Assessment (SGA)** – Your patient was assessed and determined to be:
   - ☐ SGA B (mild/moderately malnourished)
   - ☐ SGA C (severely malnourished)

3. **Other**
   - ☐ Poor oral/dietary intake
   - ☐ Unintentional weight loss
   - ☐ Loss of muscle mass
   - ☐ Risk for malabsorption or maldigestion
   - ☐ Vitamin/mineral deficiencies
   - ☐ Food security/access issues
   - ☐ Chewing/swallowing impairment
   - ☐ Other _____ _____

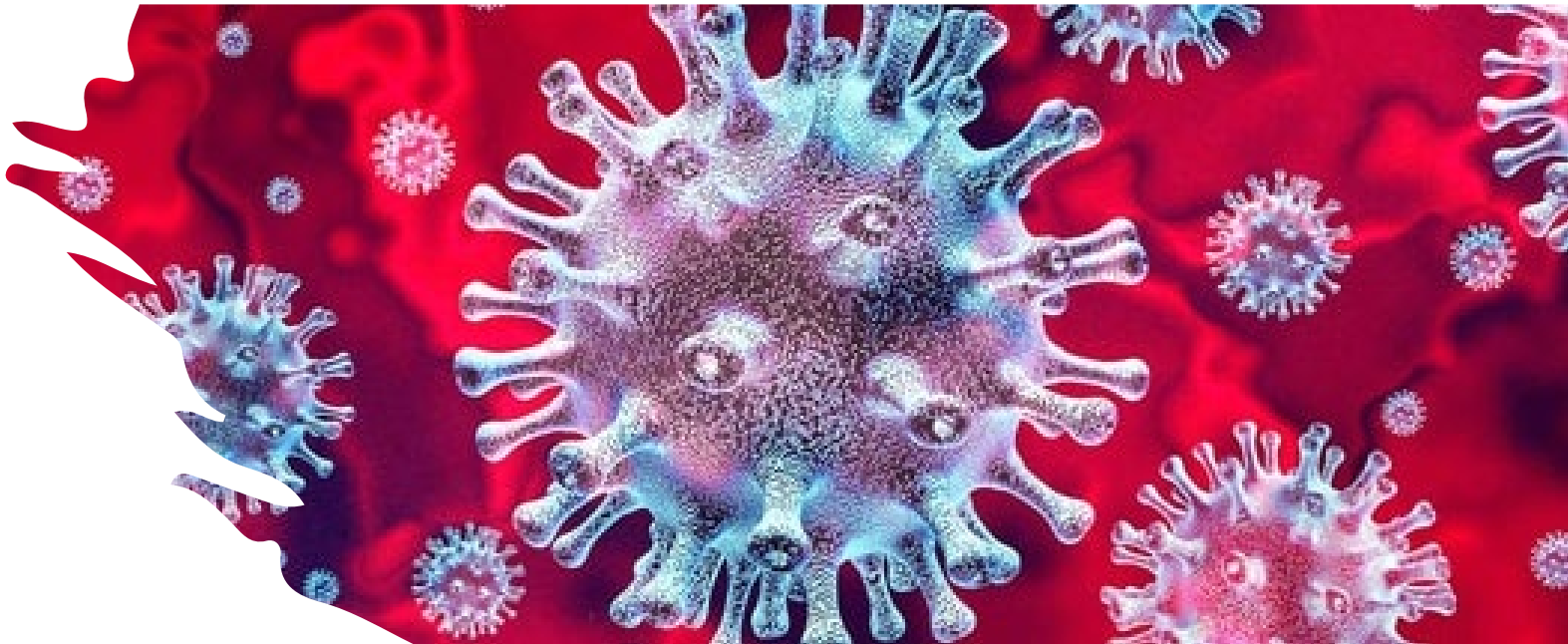
Additional Information:

If you have a Registered Dietitian associated with your practice, please refer this patient to them for nutritional follow up and monitoring.

Thank you

Referring Dietitian: _____

Challenges since 2019



85% of seniors with covid identified as malnourished

Post Covid-19 Nutrition Care Pathway for Primary Care

Hamilton Family Health Team
Better care, together.

June 2021- 21,150 Covid-19 cases in Hamilton, 399 deaths, 6.9% ever hospitalized, 95.2% resolved

Nutrition related issues in recovery including:

- Lingering symptoms post virus of low appetite, taste and sensory changes, fatigue
- 29% reporting dysphagia
- 85% admitted with Covid-19 identified at high nutritional risk
- Increased risk of malnutrition for socially isolated older adults with multiple co-morbidities and limited access to food.

Our goal is to meet the nutritional needs of our patients to optimize recovery, improve respiratory and cardiac health and reduce the risk of malnutrition and malnutrition related hospital admissions and 30 day re-admissions.

- **Healing at Home**
- **Post Discharge (ICU stay)**
- **Increased risk of malnutrition due to social isolation**

→

Identify Post Covid-19 Issues

- ✓ Unintentional weight loss
- ✓ Low appetite
- ✓ Taste Changes
- ✓ Dysphagia
- ✓ Higher protein/energy needs
- ✓ Risk of malnutrition and frailty
- ✓ Nutritional deficiencies (Vit D, B12)
- ✓ Hydration needs
- ✓ Food fortification
- ✓ ONS Supplementation
- ✓ Food access-Meal/grocery delivery
- ✓ Unique needs of older adults with co-morbidities
- ✓ Wound healing/bed sores
- ✓ Cardiac (eg. Stroke)

→

Refer to RD to assess/ monitor
Intake (food/fluid)
Supplements + ONS
Safe swallowing
Appetite
Weight
BP
SBGM

→

Refer to MHC

- ✓ Depression/mental health
- ✓ Sleep
- ✓ Substance abuse
- ✓ Addictive behaviours

Refer to PT

- ✓ Strength training
- ✓ Rehabilitation
- ✓ System navigation

Assess for function and physical signs of wasting/malnutrition/frailty using:

- Physical Assessment Prompting Questions during phone assessment
  OR
- SARC-F function assessment

Nutrition Support Post Covid

At home with symptoms or post discharge with good appetite

1) Healthy eating advice to stay hydrated, eat regular balanced meals and snacks
2) Pt can call back if need more nutrition support from a dietitian or refer to RD .
3) Older adults may benefit from increased protein intake eg. 1.2-1.5 g protein/kg to meet increased needs with inflammation
4) Ensure appropriate supplementation (eg. Vitamin D) and hydration
3) Handouts: (available in HFHT Nutrition Resources)
    - Local Food Delivery (HFHT Food Access Online Grocery Shopping and Meal Kit Delivery, Food Banks in the city)
    - Nutrition and Hydration Tips for Recovering from COVID-19

Recovering at home or post discharge with reduced appetite and unintentional weight loss

1) Refer to RD for assessment and counseling
2) RD to Screen for nutritional risk with Screen 11 AB (valid for 55 yrs+) and malnutrition with SGA or RD assessment (dietary, physical signs of wasting, muscle loss, note obesity can mask sarcopenia). Consider virtual visit to see visible signs of wasting or use physical assessment prompting questions.
3) Recommend higher protein intake 1.2-1.5 g protein/kg to meeting increased needs with inflammation
4) Ensure adequate supplementation and hydration. Consider ONS supplementation to meet increased protein needs.
3) Handouts: (available in HFHT Nutrition Resources)
    - Local Food Delivery (HFHT Food Access Online Grocery Shopping and Meal Kit Delivery, Food Banks in the city)
    - Nutrition and Hydration Tips for Recovery Post Covid
    - High calorie, high protein

Recovering at home or post discharge from ICU stay with reduced appetite and underweight and/or unintentional weight loss

1) Refer to RD for assessment and counseling

2) Screen for dysphagia post intubation

3) Screen for nutritional risk with SCREEN II AB (valid for 55 yrs+) and malnutrition with SGA and/or RD assessment (dietary, physical signs of wasting, muscle loss, note obesity can mask sarcopenia). R-Mapp is another screening tool using MUST to assess nutritional risk and SARC-F to assess frailty. Consider virtual visit to see visible signs of wasting or use physical assessment prompting questions.

4) Recommend higher protein intake 1.2-1.5 g protein/kg (possibly up to 2 g protein/kg) to meeting increased needs with inflammation

5) Ensure adequate supplementation and hydration. Include ONS supplementation to meet increased protein needs

6) Handouts: (available in HFHT Nutrition Resources)

Adapted from: www.malnutritionpathway.co.uk/covid19resources More Info: https://nutritionscreening.ca/resources-and-tools/primary-community-care

Local Food Delivery (HFHT Food Access Online Grocery Shopping and Meal Kit Delivery, Food Banks in the city)

Primary Care Dietitians' Association

Blending the Science of Nutrition and the Art of Food

HYDRATION AND NUTRITION TIPS AS YOU RECOVER FROM COVID-19

Drink fluids at least every hour

Eat 6 times a day

Choose foods high in protein (meats, dairy, nuts/seeds, eggs, legumes)

Add generous amounts of high energy foods (avocado, butter, margarine, sour cream)

Consider using oral nutritional supplements

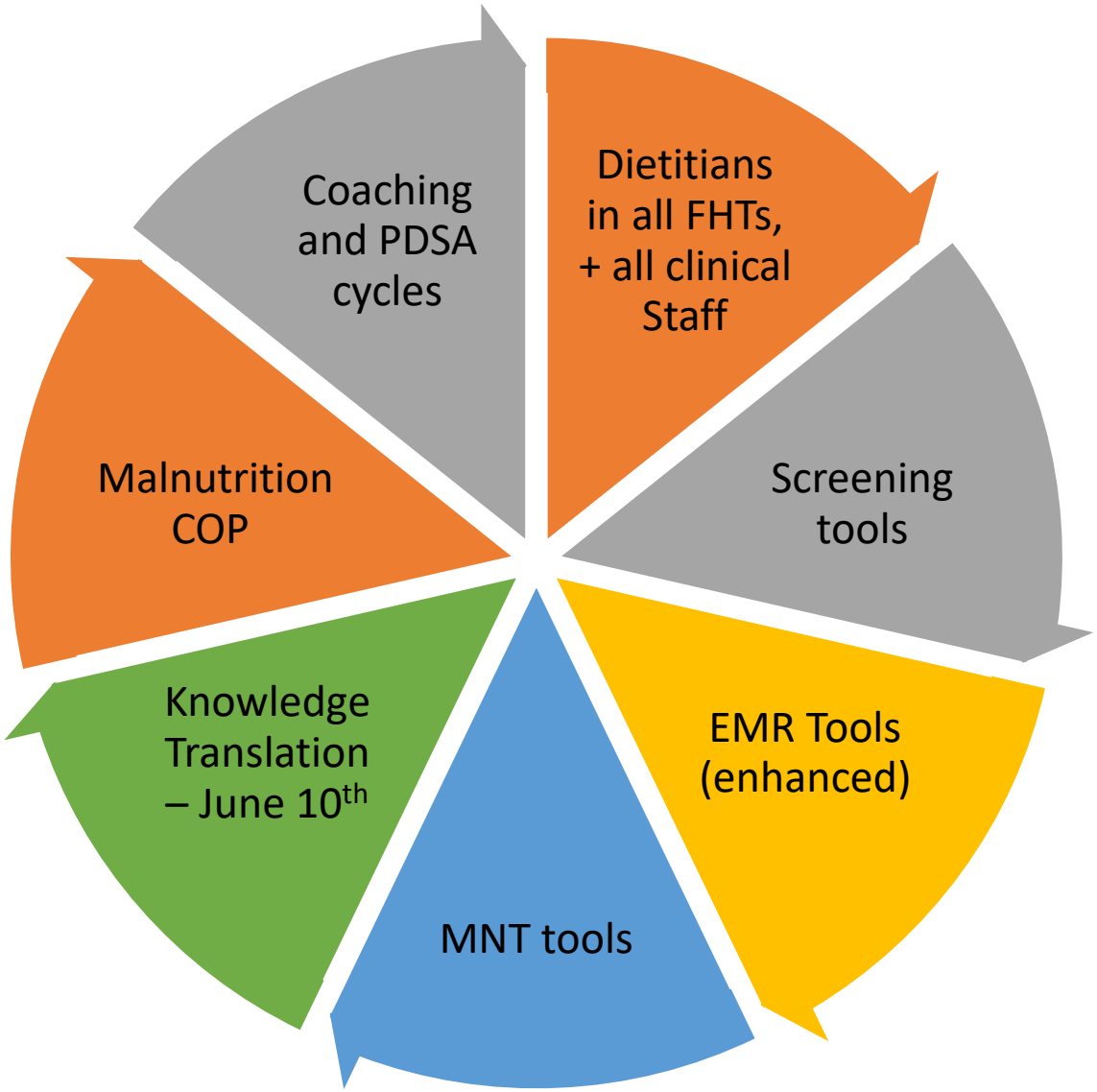
Try adding extra spices or citrus if you have lost your sense of taste

Speak to a Registered Dietitian for more ideas

Key Takeaways

- Nutrition screening is feasible in FHTS using validated screening tools and providing teams with clear clinical pathways
- Early detection and intervention can improve patient outcomes
- Referring patients at risk to PHC RD improves intake and quality (Mitchell, 2017), may reduce hospital re-admissions at 6 months (Beck 2014)
- Physician endorsement for nutrition treatment dramatically enhances patient's success with dietary changes (Endevelt, 2014)

Sum Zero Investment for Malnutrition



The Time is right to…

- Renew our screening efforts and keep our seniors healthy and independent
- Malnutrition Toolkit – free + monthly mentorship for <u>all team members</u>
- Malnutrition in seniors is preventable and treatable and no additional HHR nor funding is needed. Rather malnutrition needs to become a priority.

https://nutritioncareincanada.ca/resources-and-tools/primary-community-care/malnutrition-toolkit

Acknowledgements and Thank You

- Malnutrition working group of DC PHCAG
- CMTF Primary Care Malnutrition working group
- Thank you for listening in today

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