Malnutrition Advocacy Day

Defeat Malnutrition Today
September 26, 2016
Bob Blancato
National Coordinator
Defeat Malnutrition Today
Introduction

• What is malnutrition?
• What is the impact of older adult malnutrition in the United States?
• What can we do about malnutrition?
Update on Malnutrition Diagnoses: New AHRQ Data

Peggi Guenter, PhD, RN, FAAN
Senior Director of Clinical Practice, Quality, and Advocacy
American Society for Parenteral and Enteral Nutrition
Malnutrition Definitions

Malnutrition is an acute, subacute or chronic state of nutrition, in which a combination of varying degrees of undernutrition with or without inflammatory activity have led to a change in body composition and diminished function. For our purposes: undernutrition.

Nutrition insufficiency is inadequate nutrition to meet metabolic needs. More appropriate term in hospitalized patients who often have lower nutrition intake at the same time as increased metabolic needs.
IF IT WAS EASY TO SEE, IT WOULD BE EASY TO DIAGNOSE

Learn more at www.nutritionaware.org/maw
Incidence of Malnutrition over the Years

Surveys Based on Selected Hospitalized Populations

- Bistrian 1974 Surgical patients 50%
  1976 Medical patients 44%
- McWhirter 1994 Med-surg patients 40%
- Braunschweig 2000 Med-surg patients 54%
- Robinson 2003 Med-surg patients 50%
- Somanchi 2011 Medical patients 53%
- Nicolo 2014 Med-surg and ICU patients 39%

These surveys used a wide array of diagnostic tools but the malnutrition incidence is high when surveyed for.
Impact on Malnutrition on Outcomes

Frequently Measured Patient Outcomes

• Length of Stay
• Infection Rate
• Wound Complications
• Pressure Ulcers
• Mortality Rate
• Readmission Rate
• Cost of Hospitalization
Impact on Malnutrition on Outcomes

- Studley 1936  Found mortality rate almost 10 times higher in surgical patients who lost >20% BW
- Barker 2011 review found higher readmission rates, costs, and mortality with malnutrition
- Fry 2011 used HCUP NIS data and found higher infection rates and pressure ulcers in patients diagnosed with malnutrition
- Corkins 2014 used HCUP NIS data and found higher LOS, costs, mortality, and use of post-discharge home care
- Kassin, Allaudeen, Mudge 2011-2012  Three studies found higher readmission rates in malnourished patients.
<table>
<thead>
<tr>
<th>ICD-9-CM diagnosis code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>579.3</td>
<td>Other and unspecified postsurgical nonabsorption</td>
</tr>
<tr>
<td><strong>Nutritional neglect</strong></td>
<td></td>
</tr>
<tr>
<td>995.52</td>
<td>Child neglect (nutritional)</td>
</tr>
<tr>
<td>995.84</td>
<td>Adult neglect (nutritional)</td>
</tr>
<tr>
<td><strong>Cachexia</strong></td>
<td></td>
</tr>
<tr>
<td>799.4</td>
<td>Cachexia</td>
</tr>
<tr>
<td><strong>Protein-calorie malnutrition</strong></td>
<td></td>
</tr>
<tr>
<td>260</td>
<td>Kwashiorkor</td>
</tr>
<tr>
<td>261</td>
<td>Nutritional marasmus</td>
</tr>
<tr>
<td>262</td>
<td>Other severe protein-calorie malnutrition</td>
</tr>
<tr>
<td>263.0</td>
<td>Malnutrition of moderate degree</td>
</tr>
<tr>
<td>263.1</td>
<td>Malnutrition of mild degree</td>
</tr>
<tr>
<td>263.2</td>
<td>Arrested development following protein-calorie malnutrition</td>
</tr>
<tr>
<td>263.8</td>
<td>Other protein-calorie malnutrition</td>
</tr>
<tr>
<td>263.9</td>
<td>Unspecified protein-calorie malnutrition</td>
</tr>
<tr>
<td><strong>Weight loss, failure to thrive</strong></td>
<td></td>
</tr>
<tr>
<td>783.21</td>
<td>Loss of weight</td>
</tr>
<tr>
<td>783.3</td>
<td>Feeding difficulties and mismanagement</td>
</tr>
<tr>
<td>783.41</td>
<td>Failure to thrive (child)</td>
</tr>
<tr>
<td>783.7</td>
<td>Adult failure to thrive</td>
</tr>
<tr>
<td><strong>Underweight</strong></td>
<td></td>
</tr>
<tr>
<td>783.22</td>
<td>Underweight</td>
</tr>
<tr>
<td>V85.0</td>
<td>Body Mass Index less than 19, adult</td>
</tr>
<tr>
<td>V85.51</td>
<td>Body Mass Index, pediatric, less than 5th percentile for</td>
</tr>
</tbody>
</table>
AHRQ HCUP NIS

AHRQ=Agency for Healthcare Research and Quality
HCUP=Healthcare Cost and Utilization Project

- Family of healthcare databases and software tools
- Federal-State-Industry partnership
- Creates national information on encounter level data

NIS= National Inpatient Survey
- National database of hospital inpatient stays
- Representative of all hospitals and all payers
- Representative of 95% of all hospitals

http://www.hcup.us.ahrq.gov
Malnutrition Diagnoses in Hospitalized Patients: United States, 2010

Mark R. Corkins, MD, CNSC, FAAP¹; Peggi Guenter, PhD, RN²; Rose Ann DiMaria-Ghalili, PhD, RN, CNSC³; Gordon L. Jensen, MD, PhD⁴; Ainsley Malone, MS, RD, CNSC⁵; Sarah Miller, PharmD, MS, BCNSP⁶; Vihas Patel, MD, FACS, CNSC⁷; Steve Plogsted, PharmD, BCNSP, CNSC⁸; Helaine E. Resnick, PhD, MPH²; and the American Society for Parenteral and Enteral Nutrition
National Coded Incidence

Total number of diagnoses
ICD-9-CM all-listed diagnosis codes 579.3, 995.52, 995.84, 799.4, 260, 261, 262, 263.0, 263.1, 263.2, 263.8, 263.9, 783.21, 783.3, 783.41-783.41, 783.7, 783.22

Years

Total number of diagnoses


0 500,000 1,000,000 1,500,000 2,000,000 2,500,000
Characteristics of Hospital Stays Involving Malnutrition, 2013

Audrey J. Weiss, Ph.D., Kathryn R. Fingar, Ph.D., M.P.H.,
Marguerite L. Barrett, M.S., Anne Elixhauser, Ph.D., Claudia A.
Steiner, M.D., M.P.H., Peggi Guenter, Ph.D., R.N., and Mary Hise
Brown, Ph.D.

Introduction

Highlights

- In 2013, there were nearly 2 million hospital inpatient stays involving malnutrition. The most common type was protein-calorie malnutrition (63.9 percent of all malnutrition stays), accounting for 4.5 percent of all inpatient stays and 9.1 percent of aggregate costs (nonmaternal and nonneonatal only).
2013 NIS data

- 1.95 million hospital stays that involved malnutrition (7.1% of nonmaternal, nonneonatal hospital stays)
- Highest category was protein-calorie malnutrition at 1.25 million or 64%

![Pie chart showing distribution of malnutrition types]

- Protein-calorie malnutrition: 1,249,559 (63.9%)
- Weight loss, failure to thrive: 421,335 (21.6%)
- Underweight: 85,275 (4.4%)
- Postsurgical nonabsorption: 33,485 (1.7%)
- Nutritional neglect: 2,830 (0.1%)
- Cachexia: 161,955 (8.3%)
Older Adults

Malnutrition Related Hospital Stays per 100,000 Population

- Aged 85+ years: 6000
- Aged 65-84: 2000
- Under 65: 1000
In lowest income communities

Malnutrition Related Hospital Stays per 100,000 Population
Longer Hospital Stays
Most hospital stays were 2x longer

47%-71% of patients with malnutrition did not have a routine discharge
Human Cost
Most malnutrition-related stays have a substantially higher proportion of in-hospital deaths
1.5x to 5x higher than those unrelated to malnutrition
Economic Burden

Hospital stays involving malnutrition accounted for

$42 billion
## Related Diagnostic Categories with Protein-Calorie Malnutrition

<table>
<thead>
<tr>
<th>Primary Condition Grouping</th>
<th>Percent of Protein-Calorie Malnutrition Stays</th>
<th>Rank Among Condition Groupings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infectious and parasitic</td>
<td>17.1%</td>
<td>1</td>
</tr>
<tr>
<td>Digestive system</td>
<td>14.6%</td>
<td>2</td>
</tr>
<tr>
<td>Respiratory system</td>
<td>12.7%</td>
<td>3</td>
</tr>
<tr>
<td>Circulatory system</td>
<td>11.7%</td>
<td>4</td>
</tr>
<tr>
<td>Injury and poisoning</td>
<td>9.9%</td>
<td>5</td>
</tr>
</tbody>
</table>
MALNUTRITION IN HOSPITALIZED PATIENTS
ASSOCIATED WITH HIGHER COSTS, LONGER STAYS & INCREASED MORTALITY

1.95 million hospital stays involved malnutrition in 2013

Malnutrition is associated with:

**Economic Burden**
Hospital stays involving malnutrition accounted for $42 billion

**Human Cost**
Most malnutrition-related stays have a substantially higher proportion of in-hospital deaths 1.5x to 5x higher than those unrelated to malnutrition

**Longer Hospital Stays**
Most hospital stays were 2x longer

47%-71% of patients with malnutrition did not have a routine discharge

Rate of malnutrition is highest:

In lowest income communities

Older Adults

Understand the impact of malnutrition. Learn more at: www.nutritioncare.org/malnutrition

Longitudinal Data Collection

• Documentation and coding are key
• Needs to be ongoing
• Next AHRQ statistical brief is on readmissions related to malnutrition
• Need to match what we are seeing clinically and in selected surveys with national databases based on coding so that we can begin to measure impact of interventions on malnutrition at a national level
References


References


Electronic Clinical Quality Measures

eCQMs

Sharon McCauley
Academy of Nutrition and Dietetic Quality Management

Advocacy Day

September 26, 2016
The four electronic clinical quality measures (eMeasures or eCQMs) for Malnutrition are:

- NQF #3087: Completion of a Malnutrition Screening within 24 hours of Admission
- NQF #3088: Completion of a Nutrition Assessment for Patients Identified as At-Risk for Malnutrition within 24 hours of a Malnutrition Screening
- NQF #3089: Nutrition Care Plan for Patients Identified as Malnourished after a Completed Nutrition Assessment
- NQF #3090: Appropriate Documentation of a Malnutrition Diagnosis
NQF #3087: Completion of a Malnutrition Screening within 24 hours of Admission

• Fully specified for use with electronic health records measuring the proportion of malnutrition screenings for patients admitted to inpatient care that occur within 24 hours of admission.

• Multiple studies addressing the early identification and subsequent treatment of malnutrition demonstrate that malnutrition and malnutrition risk are independent predictors of mortality, increased hospitalization costs and length of stay.
NQF #3088: Completion of a Nutrition Assessment for Patients Identified as At-Risk for Malnutrition within 24 hours of a Malnutrition Screening

- Fully specified for use with EHRs measuring the proportion of nutrition assessments completed for patients at-risk of malnutrition identified by a completed malnutrition screening

- Nutrition assessment is recommended for patients who are identified to be at risk of malnutrition by screening
NQF #3089: Nutrition Care Plan for Patients Identified as Malnourished after a Completed Nutrition Assessment

• Hybrid eMeasure partially specified for use with EHRs and partially requiring chart abstracted measure data

• Calculates the proportion of patients age 65 years and older who have documented findings of malnutrition as a result of a nutrition assessment and also have a nutrition care plan documented in the patient’s medical record

• Findings from the nutrition assessment serve as the basis for determining the appropriate way to address the patient’s condition
NQF #3090: Appropriate Documentation of a Malnutrition Diagnosis

• Hybrid eMeasure partially specified for use with EHRs and partially requiring chart abstracted measure data

• In the 2017 Inpatient Prospective Payment System (IPPS) Final Rule issued by CMS, the agency responded to stakeholder comments supporting the inclusion of malnutrition-focused quality measures:
  – Ensure proper discharge planning and/or transitions of care to a post-acute provider such as a long-term care hospital (LTCH)
  – Including malnutrition diagnosis in the patient’s medical record would support the follow through of care planning for malnutrition continues after discharge
Summary

• This set of performance eMeasures addresses:
  
  – malnutrition quality in patients’ ages 65+ years in the hospital setting by utilizing specific steps for recommended care
  
  – establishing consistent standards of practice and a clinical workflow process that demonstrates best practices of quality service and intervention delivery
Eleni Towns
Manager of Legislative Affairs
Feeding America
TOGETHER WE CAN SOLVE SENIOR HUNGER

Federal Nutrition Safety Net for Seniors
The population of food-insecure seniors will double if food insecurity remains constant.

Source: U.S. Census Bureau Projections of the Population by Age and Sex for the United States: 2010 to 2050
Food Insecure Seniors Require a Continuum of Interventions

- **80%** Not Homebound
  - SNAP Assistance & Commodities

- **12%** Homebound, Can Cook
  - Commodities and Congregate Meals

- **8.0%** Homebound, Cannot Cook
  - Home-delivered meals

Source: Special Analysis of NHANES Data from Craig Gunderson | December 2019
**Most Mobile Seniors**

Seniors are able to leave their homes, shop for groceries, participate in community meal programs, and/or pick up food packages and prepare meals at their home.

**Least Mobile Seniors**

Seniors have limited ability to leave their homes, shop or prepare meals.

Homebound seniors are unable to shop or prepare meals.

### Programs

- **Supplemental Nutrition Assistance Program (SNAP)**
- **Senior Farmers' Market Nutrition Program (SFMNP)**
- **Commodity Supplemental Food Program (CSFP)**
- **The Emergency Food Assistance Program (TEFAP)**
- **Congregate Meals**
- **Home-Delivered Meals**

**Charitable grocery and meal programs**, such as food banks, mobile pantries, grocery bags, and congregate and home-delivered meal programs, such as Meals on Wheels.
Supplemental Nutrition Assistance Program supports more than 4 million seniors nationwide
Supplemental Nutrition Assistance for Older Adults – by the numbers

Only 41% of eligible seniors are enrolled in SNAP

82% of seniors receiving SNAP live alone

$110 is the average benefit; $16 is the minimum
Strengthening SNAP for Seniors

- Benefit adequacy
- Simplifying Application & Recertification Processes
- Online purchases & home-deliveries
ACCESS TO HEALTHFUL PRODUCE AND COMMODITIES

Commodity Supplemental Food Program (CSFP)

The Emergency Food Assistance Program (TEFAP)

Senior’s Farmers Market Nutrition Program
Congregate & Home-Delivered Meals

Reaching 2.5 million Seniors at senior centers or homes

We can provide a senior Meals on Wheels for 1 YEAR for roughly the same cost as 1 DAY in a hospital.
Upcoming Vehicles for Strengthening Senior Nutrition Programs

• Appropriations for Older Americans Act, CSFP, & TEFAP

• Farm Bill in 2018 for SNAP, CSFP, TEFAP
Thank you!

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Diverse Older Adults and the Dilemma of Malnutrition

Cecilia Pozo Fileti, MS, RD, FADA, FAND
President, Latino Health Communications
Latino Integrative Nutrition Initiative Project Director

Congressional Briefing
September 26, 2016
Overview

• Increasing Diversity of the Older American Population

• Healthy Aging ... Off Course

• Malnutrition

• Stepping Towards Solutions
Increasing Diversity of the Older American Population

Figure 4.
Projected Population Aged 65 and Over by Race for the United States: 2010 to 2050

Note: Unless otherwise specified, data refer to the population who reported a race alone. Populations for each race group include both Hispanics and non-Hispanics, as Hispanics may be of any race.

Source: U.S. Census Bureau, 2008.
Increasing Diversity of the Older American Population: A Focus on Hispanics

Figure 8.
Percent Hispanic for the Older Population by Selected Age Groups for the United States: 2012 to 2050

Increasing Diversity of the Older American Population: Hispanic Diversity

The 10 Largest Latino Ethnic Groups in the U.S.

- Mexicans
- Colombians
- Hondurans
- Ecuadorians
- Peruvians
- Guatemalans
- Dominicans
- Salvadorans
- Cubans
- Puerto Ricans

Source: Pew Hispanic Center
Malnutrition: Key Indicator of Older Adult Health Status
Chronic Conditions: Leading Cause of Death for

U.S. Adults aged 65 and older

Multiple chronic conditions among Medicare fee-for-service beneficiaries

*chronic obstructive pulmonary disease.*

Source: Centers for Medicare & Medicaid Services. *Chronic Conditions Among Medicare Beneficiaries.*
The Rise of Community-Based Care

According to the U.S. Census Bureau, 37% of adults age 65+ have a disability. These patients generally use more health services. But most of these patients also have functional limitations, so they often need assistance from family members to perform activities of daily living.

The Affordable Care Act has led to an increase in disabled older adults remaining at home. Federal funds are given to states that provide home and community-based health services to individuals with disabilities in the community.


http://aspe.hhs.gov/daltcp/reports/ltcwork.htm#section1
A Hidden Epidemic of Malnutrition

Today, there is a focus on...

...which most people define as...

Poor Nutrition

Overweight & Obesity
Hispanic Americans are 1.2x more likely to be obese than Non-Hispanic Whites

Food Insecurity
1 in 4 Hispanic older adults face food insecurity vs. the national average of ~1 in 7

Hunger
Thousands of Hispanic older Americans go to bed hungry on a daily basis

...but a hidden epidemic of under nutrition and malnutrition must also be addressed

http://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlid=70
Malnutrition simply means **poor nutrition.**

It can be related to:

- An excessive or imbalanced diet
- Clinical conditions that impair the body’s absorption or use of foods
- A diet that lacks essential nutrients

It can look like this... Or it can look like this...

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**What about sarcopenia?**

- **A progressive loss of muscle protein stores and strength.**
- Occurs when an older adult does not get enough dietary protein to meet their needs, the risk for sarcopenia
- Sarcopenia increases the risk of frailty, falling, functional disability and impaired immune response.
- Overweight older adults are not protected
  - The aging of the population and the obesity epidemic have converged to create a new public health malnutrition problem: **sarcopenic obesity**

  “The ‘fat frail’ have the worst of both worlds as they age—increased weakness due to sarcopenia and a need to carry greater weight due to obesity”

  - Ronenn Roubenoff, *Obesity Research*

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Where is malnutrition happening?

In the Emergency Room
As many as 60% of adults aged 65+ present to the ER malnourished or at risk for malnutrition, regardless of education levels, sex, or area of residence.

On Admission to the Hospital
1 in 3 hospitalized patients is malnourished upon admission.

As a Hospital Patient
Declines in nutritional status occur among about 31% of adult patients from admission to discharge.

After a Hospital Stay
Nearly 20% of Medicare patients are readmitted to the hospital within 30 days of discharge, which can often be related to poor nutrition following a hospital stay.

In Rehab Clinics, Nursing Homes, and the Community
The prevalence of malnutrition among older adults is estimated to be as much as 50% in rehabilitation settings, 13.8% in nursing homes, and 5.8% in the community.

Malnutrition can affect people ANYWHERE.
In this Increasingly Quality- and Value-Centered Market, Malnutrition Has a Significant Impact

MALNUTRITION IS ASSOCIATED WITH A HIGH BURDEN OF DISEASE, INCREASED COMORBIDITIES, AND SIGNIFICANT ECONOMIC COSTS.

1 in 3 patients are malnourished upon admission\(^1,2\)

31 percent of patients experience declines in nutrition status during their hospital stay\(^3\)

Malnutrition-associated outcomes include depression of the immune system, impaired wound healing, and muscle wasting\(^4\)

Malnutrition increases length of stay by 4 to 6 days\(^4\)

Malnutrition increases costs by up to 300 percent\(^5\)

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Mission

The Latino Integrative Nutrition Initiative supports evidence-based informed choices by U.S. Hispanics in the access and provision of culturally and linguistically appropriate nutrition services and nourishment for all family members, especially those at high risk with the right foods, at the right times, in the right way to:

- Optimize health throughout life
- Reverse negative consequences of malnutrition and obesity
- Link people, products, tools and resources in support of healthy Hispanic living

www.liniproject.org
Stepping Towards Solutions

- Join LINI and the Defeat Malnutrition Today Coalition
- Focus on vulnerable populations: Older Adults & Diverse Populations
- Promote CLAS Malnutrition Services:
  - Prevent
  - Identify
  - Treat
- Begin TODAY ... Support adoption by CMS of the four new electronic clinical quality measures for Hospital In-Patient Quality Reporting Program.
Meredith Ponder  
Policy Director 
Defeat Malnutrition Today
In Closing...

• What is our ask today?
  – For Members of Congress to sign a letter urging CMS to adopt quality measures regarding malnutrition
Questions?

info@defeatmalnutrition.today

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