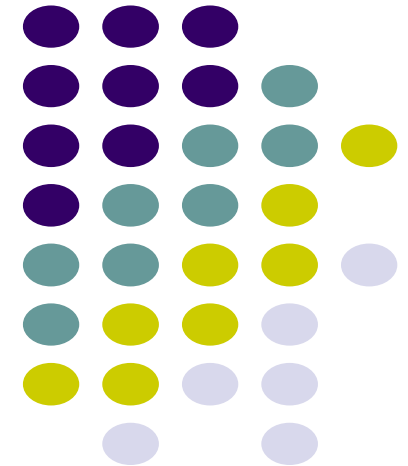
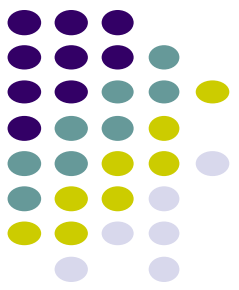


# Identifying and treating malnutrition risk in primary care –The Midlands Model

Dr. Sharon Kennelly PhD  
Senior Community Dietitian  
HSE Dublin Mid-Leinster (Midlands Area)



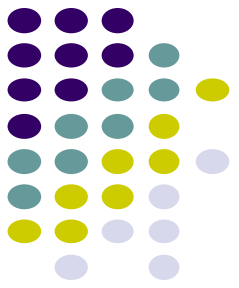
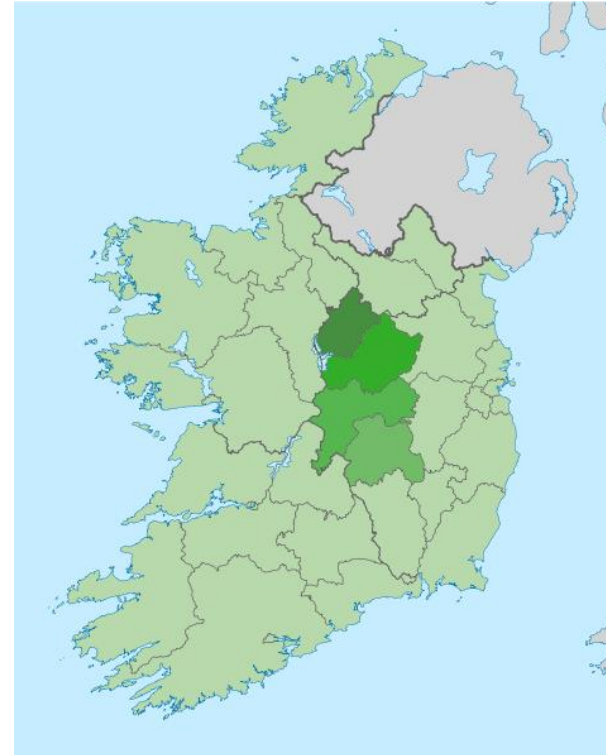
Féiliméanacht na Seirbhíse Sláinte  
Health Service Executive



Picture Source : [Journeyintostuff.blogspot.com](http://Journeyintostuff.blogspot.com)

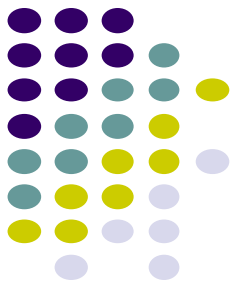
# Presentation Outline

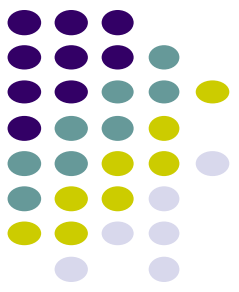
- Background
- Midlands Model -Explained
- Role of Primary Healthcare Professionals
- Who are the patients we treat ?
- Outcomes of the model
- Lessons learned from local policy development
- National Rollout-What would it take ?



# Inception & Background

- 15 years since inception of Midlands Model
- (2000-2002) Needs assessment (1)
- (2004) Funding as a value for money project granted.
  - Support from HSE GMS payments board
- (2005-2008) Development and pilot of model in one county-
  - Part-time MPhil/ PhD linked with Dublin Institute of Technology
- (2009-2011) Implementation and National Dissemination
- (2011-Present) Maintenance and ongoing evaluation





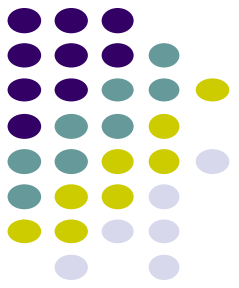
# The Midlands model - explained

- Evidence based structured approach to the management of malnutrition in the primary care setting.

## **It involves 4 main community dietitian-led elements**

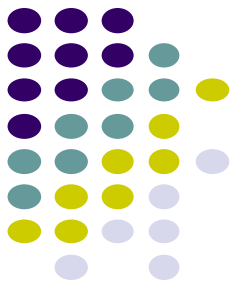
- **(1) Education sessions for key healthcare professionals (2,3)**
  - **(2) A validated nutrition screening tool i.e. MUST (4,3)**
  - **(3) A pathway for referral to a Community Dietitian service (2,3)**
  - **(4) Community Dietitian led strategies to ensure appropriate prescribing of ONS (1,2,5)**
- The model is encompassed by an overarching guideline (PPG)
  - Peer- led malnutrition prevention programme for older persons has been developed and piloted.

# Roles of Primary Care Health Care Professionals in Midlands Model



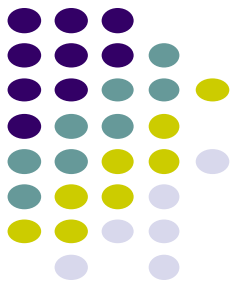
- **Community Dietitian** –As part of a general primary care role
  - Provides education on first line management of malnutrition & MUST
  - Treats patients-provides nutritional interventions
  - Advises GP on Oral nutritional supplement prescriptions
  - Oversees policy development
  - Oversees research and audit
  - Works within the primary care team structure
- **Community Nurse (PHN/RGN/Management ) \* Key Healthcare Professional Group**
  - Screens patients using MUST-Onward referral to Community Dietitian
  - Addresses underlying factors causing malnutrition
  - Provides first line dietary advice
  - Carry's out audit and is involved in policy development
  - Opportunistic monitoring

# Roles of Primary Care Health Care Professionals in Midlands Model



- **General Practitioner (GP)**
  - Screens patients using MUST-Onward referral to Community Dietitian
  - Addresses underlying factors causing malnutrition
  - Provides first line dietary advice
  - Prescribes Oral nutritional Supplements
  - Opportunistic monitoring
- **Others**
  - Practice Nurses do not to have a huge role generate less than 1 % of referrals
  - OT/Social Work/SLT -no direct role in screening but may attend education sessions and send referrals
  - Hospital Dietitians –clear pathway for transfer or care/tracking

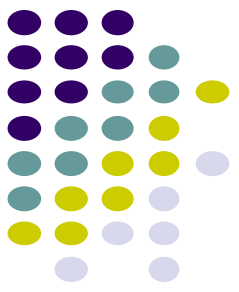
# Who are the malnourished patients in the community ?



- **Demographics**
  - Older females
  - Average age 78 years
  - Chronic Disease-COPD, Malignancy
  - Psychiatric Diagnoses-Dementia, Depression
  - Younger patients –Chronic disease, substance abuse, psychiatric diagnoses, physical and learning disability.
  - ‘Normal’ BMI’s (5,6)
- **Social Circumstances**
  - Living alone
  - Difficulties cooking and shopping
  - Not always enough money for food (2)







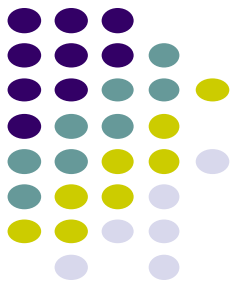
# Key Results & Outcomes

## Needs Assessment 2002 & 2005

### -The starting point !

- (2002 ) GPs and Community Nurses poor knowledge, lack of evidence-based practice, little training and resources (1)
- Little or no evidence based practices such as nutritional assessment
  - No weight recorded in medical chart (80% cases)
  - No structured nutrition screening
  - 1/3 ONS unnecessarily prescribed (2)

# Key Outcomes of the Model- Results of the Pilot 2005-2008



- **Nutrition knowledge improved**

- Significant increase in knowledge among health care professionals sustained at 6 months ( $P < 0.000^*$ ) (3)



- **High levels of satisfaction & acceptability**

- 100% healthcare professionals reported format and content of the nutrition education programme was useful
- 80% of healthcare professionals reported that 'MUST' was
- an acceptable nutrition screening tool (3)



- **Improvement in nutrition care practice**

- 62% increase in nutritional screening
- 67% increase in measuring body weight
- Increased in identification of malnourished patients .(Approx 30% community dietitian caseload)
- Improvement in quality of ONS prescribing (5)



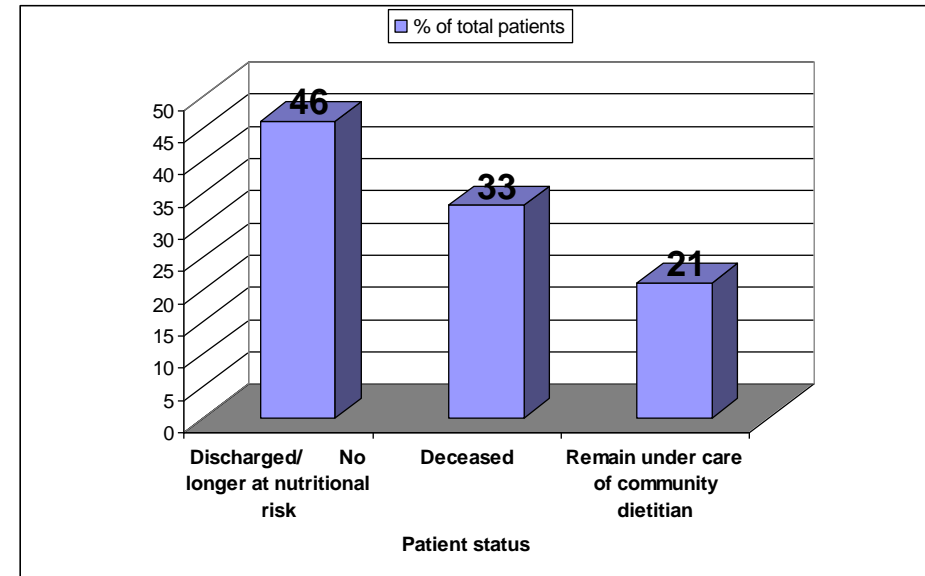
# Key Outcomes of the community dietetic intervention



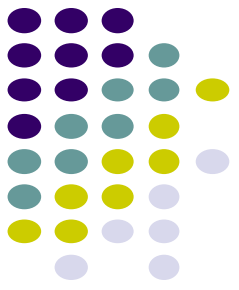
- **Improvement in patient anthropometric measures**
  - Significant increase in weight and BMI at 3 months ( $P < 0.005$ )
  - Plateau after 6 months (7)
- **Positive patient experience**
  - High satisfaction with the community dietetic (CD) intervention
  - Despite CD intervention patients struggle due to illness and difficult social circumstances (7)

• Approximately 1/3 of malnourished patients require domiciliary community dietetic intervention

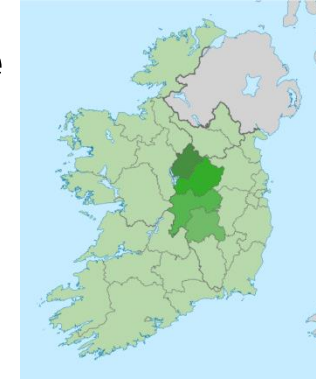
**Patient Status 12 months post referral**



# Development of Policy /Guideline for management of malnutrition in community



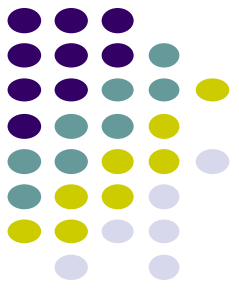
- **Joint Community Dietitian /Community Nurse initiative**
  - Guideline developed and implemented
  - across 4 counties in 2009-unique in the ROI setting
- **Key aspects (2014)**
  - Annual MUST screening for
    - All adults over age 75 years/ or any age with chronic disease
  - Screening within 1 month for new patients
  - Involve community dietitian in ONS prescribing decisions
  - Community dietitians offer education annually- updates every 2 years for existing staff
- **First audit 2011**
  - > 90% community nurses aware of guideline and received training
  - Evidence of MUST screening in approximately 1/3 of care plans
  - 460 referrals in a 2 year period to Community Dietetic Service from community nurses (75% MUST completed correctly) (8)



# Malnutrition Screening

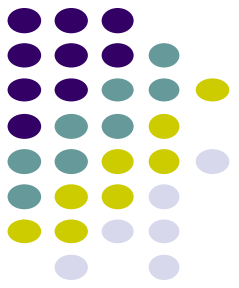
## Local Policy Development

### Lessons Learned



- Involve the key stakeholders from the beginning
- Regular policy/guideline review by MDT working group
- Regular audit – multifaceted
- Use champions to combat resistance
- Don't give up !

**But why can't we  
just use  
our clinical  
judgement ?**



# Tackling malnutrition

Despite rising obesity levels and our developed status, there are still a surprising number of cases of malnutrition in Ireland

**G**IVEN THE coverage Ireland's obesity epidemic receives and our standing as a still wealthy developed-world nation, it is difficult to believe that large numbers of Irish people suffer from malnutrition.

"There is a lot of focus on obesity but there is a problem at the other end of the scale with people suffering from malnutrition," says HSE Dublin Mid-Leinster Region community dietician and PhD candidate Sharon Kennelly. "It affects people

thing to be done about this problem a number of years ago."

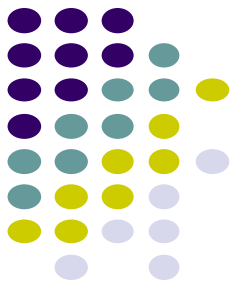
There was evidence from research carried out in the Britain and locally in Ireland that the healthcare professionals mainly responsible for the nutritional management of patients at risk had a lack of knowledge and resources in relation to the management of malnutrition and the use of oral nutritional supplements (ONS) and that the majority of these wanted further support and education in this area.

This led Kennelly to seek funding from the HSE to carry out a research project in the area. The aim of the project was to

asses and changes in prescribing patterns of ONS before and after the intervention were measured.

The intervention was found to have a number of positive outcomes. There was an increase in the nutrition knowledge of healthcare professionals after the intervention compared to before. There was also an improvement in key nutrition care practices by healthcare professionals for patients at risk of malnutrition in line with best practice. Patients were weighed more often, they received basic dietary advice from healthcare professionals more often, nutrition screening for risk of malnutrition was carried out more often by

# National Roll Out –What Would It Take ?



## (2009-2011) Dissemination to other community dietetic departments-

- **Midlands took a leadership role**
  - Sharing of resources & research
  - Led to replication of the model
  - Supported by a national working group
    - chaired by Dr. Joe Clarke – report to Laverne McGuinness

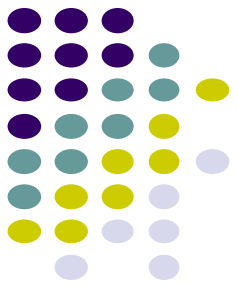


## ● **National Roll-out : What would it take ?**

- Leadership from HSE management – National Project Implementation Group
- Performance Indicator /Mandatory screening
- Adequate Community Dietitian -Staff & Management
- Community Nurse buy in- essential ?
- GP buy in -desirable but not essential ?
- Hospital Screening/ Hospital Community Interface
- **Other Considerations** : Equipment , Staff release for education sessions, Screening tool re –paper resources



# Where are we now - Challenges



## Reality !

- Since 2011 greatly reduced support to other community dietetic departments
- 2015 , We do not have adequate dietetic staff to continue model implementation in midlands
- No support from HSE management

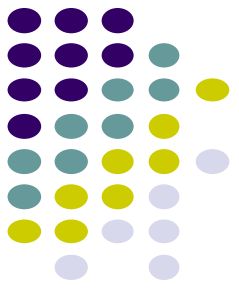
## In an ideal world....

- We need to improve outcome measures – healthcare utilisation and economic outcomes
- How to increase screening uptake among GPs and community nurses
- Define most effective '*package of care*' for malnourished patients in the community





# References



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- (7) Unpublished data to be presented at IRSPEN conference 2015 by poster presentation
- (8) Unpublished data . Local community nursing care plan audit 2011