



Supporting People in Communities
St Patrick's Centre

ST. PATRICK'S CENTRE, KILKENNY

Policy Document

POLICY TITLE:

Food, Nutrition & Hydration Policy

Prepared by:
HSE

Approval Date:
2021

Review Date:
2023

Policy Number
12 – Schedule 5

Approval By

Signed: _____

CEO

Signed: _____

Board Member

Mission Statement

Utilising our resources and skills to provide intentional supports for the people we support; enabling them to live full and inclusive lives by contributing to and enriching the fabric of their local communities.

SPC partners with external agencies and community services to facilitate '*ordinary lives in ordinary places*'

Vision Statement

People supported will live a good life, in their own home, with supports and opportunities to become active, valued and inclusive members of their local communities.

Review Date: June 2021	Amendments Required Adoption of HSE Policy	New Revision Status June 2023
Reviewed By: Sarah Egan	Approved By: Signed: _____ CEO	

All people supported by SPC have the right to receive person-centred, high quality support and to have access to appropriate services in order to maximise independence, choice and live fulfilling lives.

SPC is committed to continually improve the quality and safety of nutritional care for people who access our service, provide nutritional support that meets each individual's health, cultural & lifestyle needs.

Each person supported by SPC has the right to be actively involved in determining the services they receive and will be encouraged to exercise their rights including their right to food choices, enjoyment of meals, food patterns and preferences, avail of a nutritious balanced diet in line with their will and preference and cultural beliefs.

St. Patrick's Centre (SPC) Kilkenny has adopted the Food, nutrition and Hydration policy for adults accessing disability services (HSE 2020)



Food, Nutrition and Hydration Policy

For Adults Accessing Disability Services 2020



Food, Nutrition and Hydration Policy for Adults Accessing Disability Services

Is this document a:

Policy ☒ Procedure ☐ Protocol ☐ Guideline ☐

Title of PPPG Development Group:	Technical Working Group for Food, Nutrition and Hydration Policy for Adults Accessing Disability Services		
Approved by:	Disability Services National Quality Improvement Governance Review Committee 23rd July 2020		
Reference Number:	National Disability Services Quality Improvement Offices: Nutrition Policy 1: first issue		
Version Number:	1		
Publication Date:	2020		
Date for revision:	2024		
Electronic Location:	https://www.hse.ie/eng/services/list/2/primarycare/community-funded-schemes/nutrition-supports/		
Version	Date Approved	List section numbers changed	Author

This is a controlled document: While this document may be printed the electronic version posted on the website is the controlled copy and can only be guaranteed for 24 hours after downloading.



**CLICKABLE CONTENT, GO DIRECTLY TO SECTIONS
AND SUBSECTIONS BY CLICKING BELOW**

Table of Contents

Part A

Food, Nutrition and Hydration Policy Recommendations

Section	Title	Page
1.0	Initiation	10
1.1	Purpose	11
1.2	Scope	11
1.3	Objectives	11
1.4	Outcomes	12
2.0	Nutritional Care for Adults Accessing Disability Services	13
2.1	Evidence Statement/Summary	14
2.2	Nutrition and Hydration Management Algorithm	16
2.3	Nutrition Screening	17
2.4	Nutrition Assessment	18
2.5	Food, Nutrition and Hydration Requirements	20
2.6	Monitoring Nutritional Care	23
2.7	Empowering Choice and Education	23
2.8	Communication	27
2.9	Key Recommendations for Provision of Nutritional Care	28

Section	Title	Page
3.0	Nutrition Standards for Food Provision	31
3.1	Evidence Statement/Summary	32
3.2	Nutrition Standards for Healthy Eating	34
3.3	Nutrition Standards for Micronutrients	36
3.4	Nutrition Standards for Hydration	37
3.5	Key Recommendations for Healthy Eating	38
3.6	Nutrition Standards for Personal, Cultural, Ethnic or Religious Diets	39
3.6.1	Key Recommendations for Food Provision for Personal, Cultural, Ethnic or Religious Diets	40
3.7	Nutrition Standards for Bone Health	40
3.7.1	Key Recommendations for Bone Health	44
3.8	Nutrition Standards for Constipation Management	44
3.8.1	Key Recommendations for Constipation Management	46
3.9	Nutrition Standards for Dementia	47
3.9.1	Key Recommendations to Optimise Nutrition for those with Dementia	48
3.10	Inherited Metabolic Disorders	50
4.0	Nutrition Standards for Adults Requiring Therapeutic Diets	51
4.1	Evidence Statement/ Summary	52
4.2	Nutrition Standards for Weight Loss	52
4.3	Nutrition Standards for Diabetes	54
4.4	Nutrition Standards for a No Added Salt Diet	55
4.5	Nutrition Standards for a High Fibre Diet	56
4.6	Nutrition Standards for an Energy Dense Diet	57
4.7	Nutrition Standards for a Gluten Free Diet	59
4.8	Nutrition Standards for a Renal Diet	60
4.9	Key Recommendations for the Provision of Therapeutic Diets	61

Section	Title	Page
5.0	Nutrition Standards for Adults Requiring Texture Modified Diets and Thickened Drinks (Liquids)	62
5.1	Evidence Statement/ Summary	63
5.2	Nutrition Standards for Texture Modified Diets	64
5.3	Nutrition Standards for Thickened Drinks (Liquids)	70
5.4	Key Recommendations for the Provision of Texture Modified Diets and Thickened Drinks (Liquids)	73
6.0	Food Service	74
6.1	Evidence Statement/ Summary	75
6.2	Menu Planning	75
6.2.1	Key Recommendations for Menu Planning	77
6.3	The Eating Environment (Making Mealtimes Matter)	77
6.3.1	Key Recommendations for Making Mealtimes Matter	78
6.4	Assistance at Mealtimes	79
6.5	Food Safety	79
6.5.1	Key Recommendations for Food Safety	80
6.6	Food Allergens	80
6.6.1	Key Recommendations for Food Allergens	81
7.0	Nutrition and Hydration at End of Life	82
7.1	Nutrition Considerations when Planning for End of Life Care	83
7.2	Oral Care	83
7.3	Enteral Feeding	83
7.4	Decision Making at End of Life	85
8.0	References	86
9.0	Appendices Part A	
	Appendix I: Criteria for Automatic Referral to the Dietitian for Nutrition Assessment	97
	Appendix II: Religious Food Restrictions	99
	Appendix III: Additional Resource	101

Section	Title	Page
10.0	Tables Part A	
Table 1	Global Leadership Initiative on Malnutrition (GLIM) phenotypic and aetiologic criteria for the diagnosis of malnutrition	18
Table 2	Food Provision for Different Dietary Needs	20
Table 3	Estimated Energy Requirements for Specific Disabilities	22
Table 4	Techniques to Support Behavioural Change	24
Table 5	Key Nutrients in each of the Food Groups and their Function in the Body	35
Table 6	Recommended Amount for Micronutrients per day	36
Table 7	Vitamin D Content of Foods Rich in Vitamin D	42
Table 8	Suitable Vitamin D Supplements	43
Table 9	Nutrition Issues at various Stages of Dementia	47
11.0	Figures Part A	
Figure 1	Data gathered from HSE community houses for adults with intellectual disabilities in Community Health Organisation Area 8 (2015)	14
Figure 2	Department of Health and Healthy Ireland Healthy Food for Life Food Pyramid (2016)	34
Figure 3	International Dysphagia Diet Standardisation Initiative (IDSSI)	63
Figure 4	The Food First Inverted Triangle (BAPEN 2007)	75

Part B

Food, Nutrition and Hydration Policy Development Cycle

Section	Title	Page
1.0	Initiation	104
2.0	Development of the Food, Nutrition and Hydration Policy	112
3.0	Governance and Approval	116
4.0	Communication and Dissemination	116
5.0	Implementation	116
6.0	Monitoring, Audit and Evaluation	119
7.0	Revision/Update	119
8.0	Appendices Part B	
	Appendix I Membership of the Community Services – Disability Guiding Principles Subgroup	120
	Appendix II Conflict of Interest Declaration Form	121
	Appendix III Membership of the Technical Working Group	122
	Appendix IV Membership of the Community Services – Disability Services National Quality Improvement Governance Review Committee	123
	Appendix V Focus Group Consultation Process	124
	Appendix VI Signature Sheet	129
	Appendix VII PPPG Checklist	130
9.0	Tables Part B	
	Table 10 Search Strategy for nutrition relating to disability - evidence and resources	113
	Table 11 Focus Group Details	115



Part

Food, Nutrition and Hydration Policy Recommendations

SECTION 1.0

Initiation

Section	Title	Page
1.0	Initiation	10
1.1	Purpose	11
1.2	Scope	11
1.3	Objectives	11
1.4	Outcomes	12

1.1 Purpose

The purpose of this policy is to improve the quality and safety of nutritional care for adults accessing disability services by developing a national policy for food, nutritional care and hydration provision.

1.2 Scope

The policy will apply to all staff involved in the provision and delivery of food, fluids and nutritional care in residential and day services for adults with a disability, including designated residential centres (congregated) and decongregated settings. This policy applies both to HSE settings and also to agencies funded by the HSE that are providing disability services. All staff involved in the provision of nutritional care should use the policy recommendations to review and develop services. This policy applies to adults with a physical, sensory or intellectual disability and/or autism, and adults with an acquired brain injury.

1.2.1 Exclusion criteria

The policy does NOT provide a framework for the following aspects of food, hydration and nutritional care provision:

1. Nutritional support with oral nutritional supplements, enteral tube feeding or parenteral nutrition.
2. Maternity and paediatric services.
3. Individuals with eating disorders.
4. Mental health related symptoms and treatment side effects that impact on compliance with Nutrition Standards for Food Provision.
5. Development of food specifications for HSE food procurement tenders.
6. Recommendations on infrastructure.
7. Needs assessment/business cases for resources.
8. Production of standardised recipes and/or menu cycles.
9. Catering for staff and visitors.

1.3 Objectives

The objectives of this policy are to:

- ▶ Ensure food and nutritional care is supported in a person centred manner.
- ▶ Improve the quality and safety of food and nutritional care in residential services for adults with an acquired, physical and sensory or intellectual disability.
- ▶ Support Schedule 5 (Policies and Procedures to be maintained in respect of the Designated Centre) of the Health Act (2007) Care and Support of Residents in Designated Centres for persons (children and adults with disabilities) Regulations 2013.
- ▶ Ensure that key areas of improvement recommended by the Health Information and Quality Authority (HIQA) are addressed.

1.4 Outcomes

The policy provides a framework for a standardised approach to food and nutritional care provision by all staff. It encompasses recommendations from existing national policies relevant to this policy, including:

- ▶ HSE Food, Nutrition and Hydration Policy For Adult Patients in Acute Hospitals (2018)
- ▶ Nutrition screening and use of oral nutrition support for adults in the acute care setting – National Clinical Guideline No. 22 (2020)
- ▶ Department of Health (DoH) and Healthy Ireland (HI). Healthy Food for Life. *The Healthy Eating Guidelines and Food Pyramid* (2016).

SECTION 2.0

Nutritional Care for Adults Accessing Disability Services

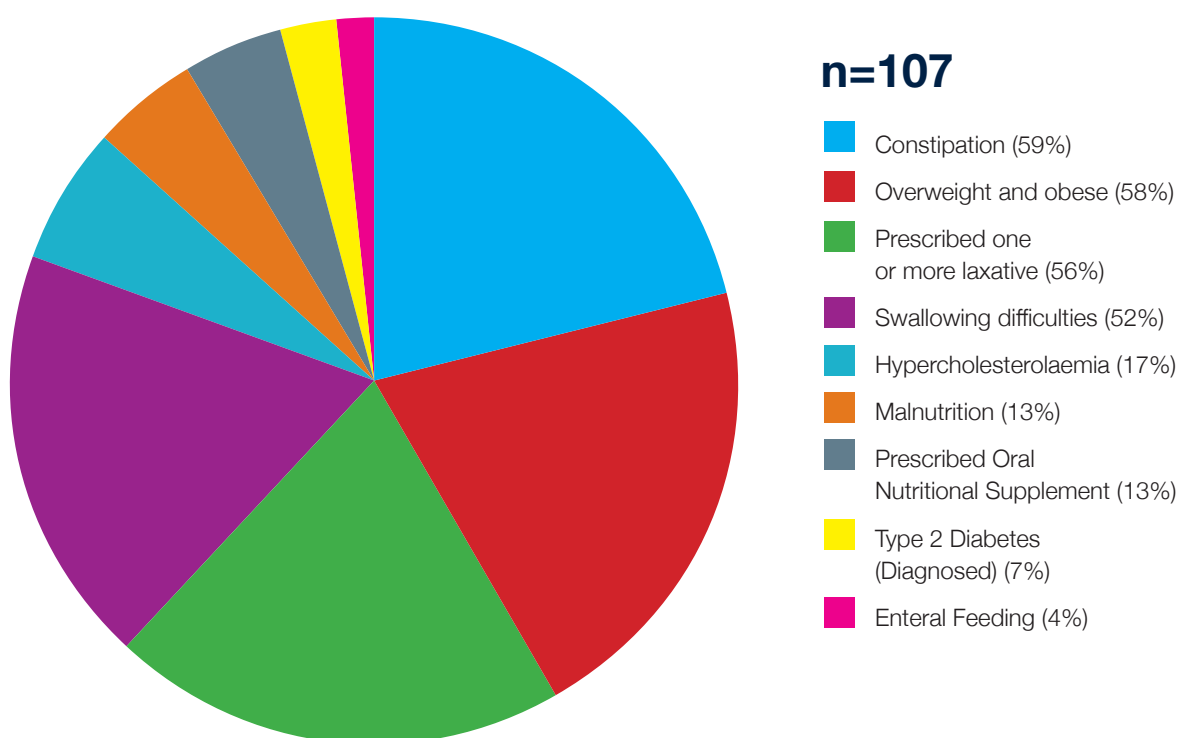
Section	Title	Page
2.0	Nutritional Care for Adults Accessing Disability Services	13
2.1	Evidence Statement/Summary	14
2.2	Nutrition and Hydration Management Algorithm	16
2.3	Nutrition Screening	17
2.4	Nutrition Assessment	18
2.5	Food, Nutrition and Hydration Requirements	20
2.6	Monitoring Nutritional Care	23
2.7	Empowering Choice and Education	23
2.8	Communication	27
2.9	Key Recommendations for Provision of Nutritional Care	28

2.1 Evidence Statement /Summary

Adults living in residential care have the right to receive person-centred, high quality support and to have access to the appropriate services in order to maximise independence and choice and enable them to lead a fulfilling life (HIQA, 2013). Building awareness of the impact of a well-balanced diet and providing support to enable healthy choices can have a positive impact on a person's health and well-being (Caroline Walker Trust, 2007).

Adults living with a disability are more likely to have nutrition-related ill health, have higher mortality rates and increased risk of early death when compared to the general population (Florioa and Trollor, 2015, Heslop and Glover, 2015, Perez *et al.* 2015). Chronic health conditions in this cohort increase with age; these include the rates of obesity, metabolic risk factors, constipation, osteoporosis, falls, eye disease, sensory impairment, gastrointestinal disease, dementia, epilepsy, oral health and polypharmacy (Sutherland *et al.* 2002, Traci *et al.* 2002, Koritsas and Iacono, 2011, Emerson *et al.* 2011, IDS-Tilda, 2017). People with an Intellectual Disability (ID) are vulnerable to obesity at a younger age (Rimmer and Yamaki, 2006, Melville *et al.* 2008, Stedman and Leland, 2010, Hsei *et al.* 2014).

Figure 1: Data gathered from HSE community houses for adults with ID in Community Health Organisation Area 8 (2015)



Ref: What are the primary nutrition care needs among service users in HSE community houses for adults with intellectual disabilities in the Midlands? D. Loane, S.Kennelly, C.Glennon. *Community Nutrition & Dietetic Service, Health Services Executive, CHO8* (2015).

An Irish study of adolescents and adults with ID, McGuire *et al.* (2007) reported that few participants complied with the recommended intake for fruit and vegetables, carbohydrates, dairy and protein, the exception being the intake of sugar and fat, which exceeded the recommended intake. Another study by Robertson *et al.* (2000) showed as little as 7-8% of adults with ID meet the criteria for a balanced diet. Respectively, Humphries *et al.* (2009) reported that community dwelling adults with a disability have nutritionally poor diets that are planned and prepared by staff who may not have adequate training (Humphries *et al.* 2009). Adults with a disability may also present with certain food preferences, restricted food interests and have specific routinised requirements around their mealtime environments, all of which can impact on the range and quantity of foods to which they are exposed (NSW, 2016).

Ireland ratified the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) in 2018, which indicates requirements for active participation and inclusion in all aspects of life, education, health and accessibility, including supported decision making. The right to live independently in a place of one's own choosing is a core value of the United Nations Convention on the Rights of Persons with Disabilities (United Nations, 2006).

Multidisciplinary teams can work alongside residents and their carers to facilitate changes where required and consolidate good practices already in place. Research indicates that improved nutritional status is directly associated with improved quality of life (Caroline Walker Trust, 2007).

Those with a disability have the right to:

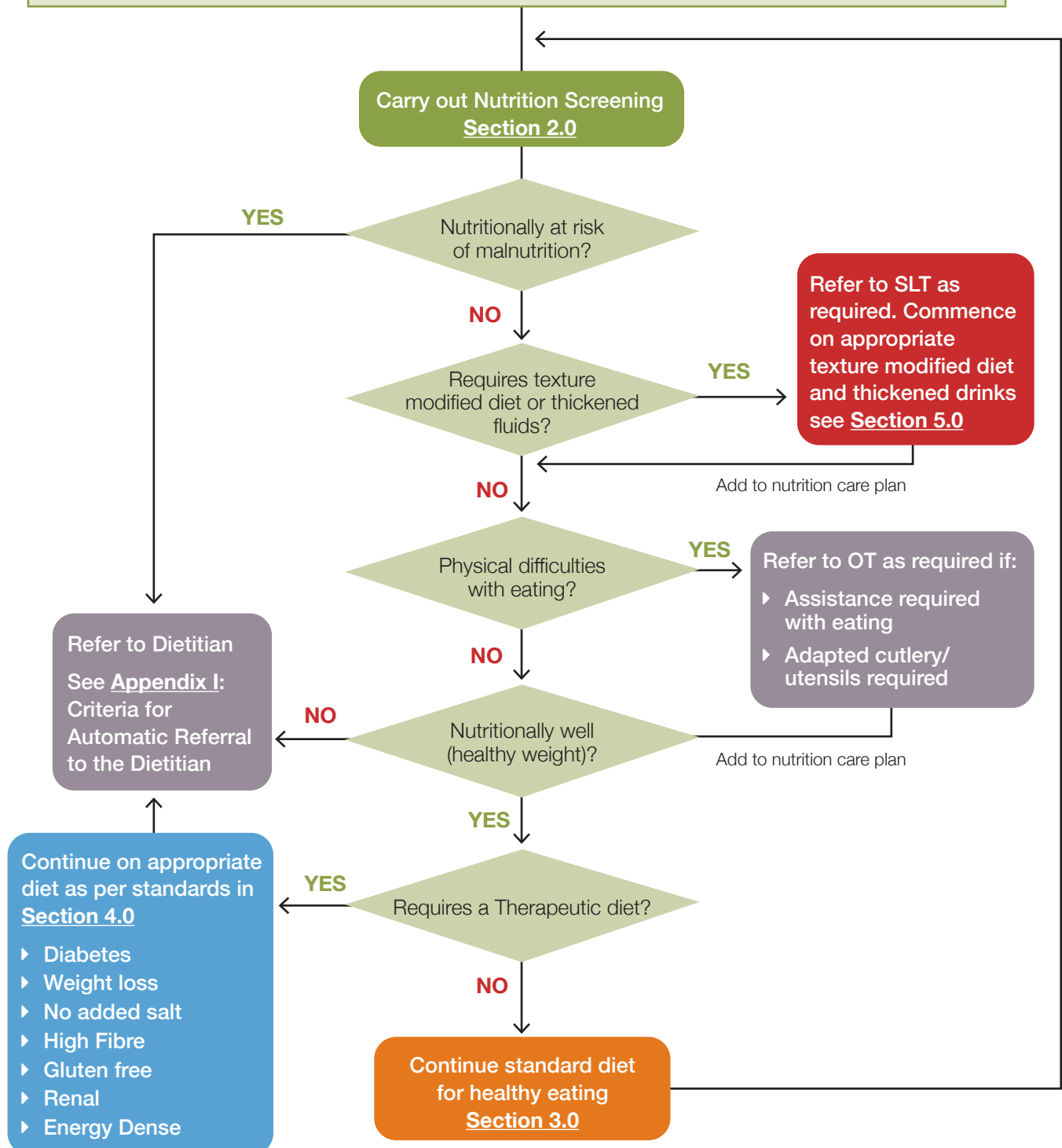
- ▶ Nutritional support from providers who respect their needs.
- ▶ Be actively involved in determining the services they receive and are empowered to exercise their rights including the right to food choices, enjoyment of meals, food patterns and food preferences.
- ▶ A nutritious and adequate diet based on scientific health and nutrition research (guidelines and recommendations provided in this policy).
- ▶ A culturally-acceptable diet that promotes the individual's health and meets individual needs.
- ▶ Safely-prepared and stored food served in a pleasant atmosphere.
- ▶ A varied diet of fresh, whole, and minimally-processed foods.
- ▶ Choices of foods to include or exclude from the individual's diet.
- ▶ On-going information, provided in a way people understand, about individual dietary needs and appropriate foods to meet those needs.
- ▶ Representation in population-based food and nutrition research studies, to ensure findings are relative to and are useful for people with disabilities.
- ▶ Fair and respectful treatment from those health care professionals involved in the provision of food and nutrition.

(Adapted from Academy of Nutrition and Dietetics, 2008).

2.2 Nutrition and Hydration Management Algorithm

Establish and Document Food, Nutrition and Hydration Requirements in the Care Plan of the Individual:

- ▶ Food and drinks likes and dislikes
- ▶ Appetite and portion size preference
- ▶ Personal diet, cultural, ethnic or religious dietary requirements
- ▶ Presence of medically diagnosed food allergies or intolerances
- ▶ Oral health status
- ▶ Preference for shared company during mealtimes or eating alone



2.3 Nutrition Screening

A 2009 study by Humphries *et al.* showed that significant nutrition related risks exist in adults with a disability, including poor diet, elevated rates of over and underweight, heart disease risk and secondary health conditions (Humphries *et al.* 2009). The 2009 study also suggested a need for nutrition standards and assessment guidelines specific to and appropriate for adults with a disability. Nutrition screening is the first step that all health care professionals can perform to identify residents who may be at nutrition risk and who may benefit from appropriate nutrition intervention, ideally led by a dietitian (BAPEN, 2003).

There is no international consensus on a single ‘best tool’. Over the past decades numerous nutrition screening tools have been developed, with the purpose to facilitate easy screening or assessment of a person’s nutritional status or to predict poor outcome related to under or over nutrition. Some of the tools have been endorsed by international nutritional societies e.g. ESPEN advises the use of the Malnutrition Universal Screening Tool (MUST) (BAPEN, 2003), Nutrition Risk Screening (NRS) (Reilly *et al.* 1995) and the Mini Nutritional Assessment (MNA) (Guigoz *et al.* 1996) for the general population. A 2011 study by Tsai *et al.* suggests that the MNA, a relatively simple, low-cost and non-invasive tool, is useful for screening adults with a disability. However, because the nutritional problems are quite diverse among various subtypes of disability, there is a need to develop subtype specific scales for identifying emerging malnutrition in this vulnerable group (Tsai *et al.* 2011). When weight cannot be recorded Subjective Global Assessment (SGA) will provide valid information for nutritional monitoring. SGA includes visual and clinical impressions of the person, based on observation of changes e.g. the person’s ability to perform daily activities, loss of appetite, reduced subcutaneous fat stores, signs of muscle wasting, looser fit of clothing/belt/body brace/second skin, etc. In the absence of weight measurements, such observations should be recorded in detail, and on a regular basis (St. Michael’s House, 2015).

Additional information on screening tools is available in **Section 2.0 of the Implementation Toolkit**.

Modified tools appropriate to the disability cohort have been developed locally by Nutrition and Dietetic Departments, an Irish example (MUST-ID) can be found in **Section 2.0 of the Implementation Toolkit**.

Table 1: Global Leadership Initiative on Malnutrition (GLIM) phenotypic and aetiologic criteria for the diagnosis of malnutrition

Phenotypic Criteria			Aetiologic Criteria	
Unintended weight loss (%)	Low body mass index (kg/m ²)	Reduced muscle mass	Reduced food intake or absorption	Inflammation ^c
> 5% within 6 months or > 10% beyond 6 months	< 20 if < 70 years < 22 if ≥ 70 years	Using validated body composition measuring technique ^a	≤ 50% of energy requirements for > 1 week or Any reduction for > 2 weeks or Any chronic GI condition ^b that adversely impacts on absorption	Acute disease/injury or Chronic disease/condition-related

- For example, fat-free or lean body mass measurement by anthropometry, physical examination, BIA, CT, DXA or MRI. Functional assessment measures, such as hand-grip strength, can be used as indicators of impaired muscle strength.
- Gastrointestinal (GI) Symptoms, for example dysphagia, nausea, vomiting, diarrhoea, constipation or abdominal pain.
- C-Reactive Protein (CRP) may be used as a biochemical indicator of inflammation

Ref: Department of Health Nutrition screening and use of oral nutrition support for adults in the acute care setting – National Clinical Guideline No. 22 (2020).

2.4 Nutrition Assessment (for dietitian use only)

A comprehensive nutrition assessment can only be carried out by a registered dietitian. People with a disability are nutritionally vulnerable and their needs should be assessed and managed appropriately. People with a disability should have access to appropriate dietetic services. Nutritional screening (described in section 2.3) is a valuable means of identifying people in need of dietetic referral and support, additionally there are certain conditions that indicate automatic referral to a dietitian (see Appendix 1: Criteria for Automatic Referral to the Dietitian for Nutrition Assessment).

The international Nutrition Care Process (NCP) was developed by the American Academy of Nutrition and Dietetics (AND) (White *et al.*, 2012), and has been endorsed by the Irish Nutrition and Dietetic Institute (INDI).

The NCP is a systematic method of recording nutrition care that provides a framework for critical thinking and decision-making in the dietetic management of residents and includes a diagnosis of malnutrition.

The NCP incorporates a detailed Nutrition Focused Physical Examination (NFPE). This is a methodical head-to-toe examination of an individual's physical appearance and function to help determine nutritional status by identifying signs of malnutrition, nutrient deficiencies and excesses.

Nutrition assessment should be performed by a dietitian on all residents identified as being at risk of malnutrition following screening.

Dietitians perform a comprehensive nutrition assessment which is step 1 in the Nutrition Care Process and Model (NCPM), a systematic approach to providing high quality nutritional care as outlined below (AND, 2003).

- A. Nutrition Assessment:** The dietitian collects and documents information such as food or nutrition-related history; biochemical data, medical tests and procedures; anthropometric measurements, nutrition-focused physical findings and resident's history.
- B. Diagnosis:** Data collected during the nutrition assessment guides the dietitian in selection of the appropriate nutrition diagnosis (that is, naming the specific problem).
- C. Intervention:** The dietitian then selects the nutrition intervention that will be directed to the root cause (or aetiology) of the nutrition problem and aimed at alleviating the signs and symptoms of the diagnosis.
- D. Monitoring/Evaluation:** The final step of the process is monitoring and evaluation, which the dietitian uses to determine if the resident has achieved, or is making progress toward, the planned goals.

Note: This is a continuous process for many residents who may require multiple interventions, on-going monitoring and evaluation due to changes in clinical condition.

The INDI NCP Nutrition Assessment Structure Checklist is contained in **Section 2 of the Implementation Toolkit**, along with a sample NCP form.

2.5 Food, Nutrition and Hydration Requirements

Food provision to a varied group with different dietary needs can be broadly described as below in Table 2:

Table 2: Food Provision for Different Dietary Needs

Resident Type	Description
Nutritionally Well	Post nutrition screening these residents have not been identified as being at risk of malnutrition. These residents have similar dietary needs to the general population and have a normal appetite.
Nutritionally at risk	<p>Post nutrition screening these residents have been identified as being at risk of malnutrition and may have:</p> <ul style="list-style-type: none"> ▶ a poor appetite or ▶ have a poor appetite and higher nutritional requirements due to their clinical condition or ▶ unintentional weight loss.
Overweight or obese, nutritionally well without therapeutic or texture modified dietary requirements	Following nutrition screening, residents identified as being overweight or obese and nutritionally well should be provided with a diet based on healthy food for life guidelines as part of the Nutrition Standards for Food Provision in Section 3.0 . In addition, where possible and appropriate, brief intervention should be provided as per the Making Every Contact Count (MECC) Pathway by staff with MECC training. MECC encourages residents to make healthier lifestyle choices during routine contacts (HSE, 2016).
Require a therapeutic diet e.g. Diabetes, No Added Salt, Renal, Energy Dense etc.	<p>Therapeutic dietary requirement needs to be identified on admission (see 2.2 Nutrition and Hydration Management Algorithm). These residents may also be subdivided into:</p> <ul style="list-style-type: none"> ▶ nutritionally well (healthy weight) ▶ at risk of malnutrition ▶ overweight or obese. <p>Nutrition Standards for adults requiring a therapeutic diet is contained in Section 4.0.</p>
Requires a Texture Modified diet	<p>Texture modified dietary requirement needs to be identified on admission by a CORU registered Speech and Language Therapist with the necessary Feeding, Eating, Drinking and Swallowing (FEDS) experience (see 2.2 Nutrition and Hydration Management Algorithm). These residents may also be subdivided into:</p> <ul style="list-style-type: none"> ▶ nutritionally well (healthy weight) ▶ at risk of malnutrition and or ▶ having higher energy requirements. <p>Residents requiring a texture modified diet and/or thickened drinks are at a higher risk of malnutrition due to dietary restrictions and require close monitoring of intake. Nutrition Standards for adults requiring a texture modified diet is contained in Section 5.0.</p>

In the majority of cases an adequate dietary intake can be achieved by:

1. Providing residents with a choice of nutritious, safe food
2. Ensuring appropriate support is in place to provide assistance to eat and drink if required
3. Facilitating a regular meal pattern, ensuring that meals are not missed.

A sample eating, drinking and nutrition needs assessment form is contained in **Section 2.2 of the Implementation toolkit.**

For residents identified as being at risk of malnutrition, oral nutrition support may be required to ensure adequate intake. The following methods alone or in combination can be used to provide oral nutrition support:

- ▶ Modification of food and fluids by food fortification with additional protein, carbohydrate and /or fat and /or minerals/micronutrients (vitamins and trace elements).
- ▶ Provision of snacks and/or oral nutritional supplements in addition to regular meals.
- ▶ Changing of meal patterns.

Note: The provision of proprietary oral nutritional supplements is included in the HSE Nutrition Supports Prescribing Pathway for the Initiation and Renewal of Standard Oral Nutritional Supplements (ONS) for Adults Living in the Community (HSE, 2019).

Energy dense resources are provided in **Section 5.4 of the Implementation Toolkit.**

2.5.1 Calculating Energy Requirements (for dietitian use only)

Daily energy or calorie requirements can be calculated as part of the nutrition assessment (section 2.4) carried out by a registered dietitian. Calculation of energy requirements for the population with a disability may depend on the severity of the disability, degree of spasticity, mobility status, number of medications and oral motor or swallowing problems (AND, 2008). There are several equations that can be used, the most common being the Henry-Oxford equation. The Mifflin-St. Jeor equation is the method most strongly recommended by the Academy of Nutrition and Dietetics (AND, 2008). As a basic guide weight should be closely monitored and calorie intake adjusted as required.

Table 3: Estimated Energy Requirements for Specific Disabilities

Disability	Energy Requirement Guide
Cerebral Palsy Note: This has been developed for children but can be a starting point for adults	13.9 kcal/cm 5-11 years Mild to moderate activity level 11.1 kcal/cm 5-11 years Severe restriction in activity
Down Syndrome	Males: 16.1 kcal/cm Females: 14.3 kcal/cm
Prader-Willi Syndrome	10-14 kcal/cm – weight maintenance 7-8 kcal/cm – weight loss 1,000 kcal/day or more, encourage daily aerobic exercise and control access to food
Spina Bifida Note: This guide has been developed for children but can be a starting point for adults	7kcal/cm for weight loss and as low as 500 kcal/day for those severely immobilised. As a general recommendation, use 50% of normal kcal requirements

Adapted from The Adult with Intellectual and Developmental Disabilities: A Resource Tool for Nutrition Professionals. ©Behavioural Health Nutrition Dietetic Practice Group of American Dietetic Association 2008.

2.5.2 Hydration Requirements

Poor hydration is a hugely significant concern for people with a disability (Adolfsson *et al.* 2008, McGuire *et al.* 2007). The medical evidence for good hydration demonstrates that it can assist in preventing or treating problems, such as: pressure ulcers, urinary infections and incontinence, heart disease, diabetes, dizziness and confusion leading to falls, poor oral health, cognitive impairment, low blood pressure, kidney stones and constipation (Royal College of Nursing and NHS National Patient Safety Agency, 2007). See Section 3.0 of this policy for Nutrition Standards for hydration provision for adults accessing disability services, and see **Section 2.0 of the Implementation Toolkit** for guidelines on Care Planning for Hydration Management.

2.5.3 Anthropometry

Anthropometry is defined as the measurement of the human body; this includes weight, height and measurement of body composition. Accurately measured height and weight are essential in determining nutrition status. Anthropometric measurements can be difficult to obtain in an individual with a disability due to contractures, kyphosis and scoliosis, as well as neuromuscular, sensory and compliance issues (AND, 2008). Oftentimes, it is essential to use two or more anthropometric measurements and compare to take an average of these measurements (AND, 2008). These measurements are then recorded and used to determine ideal body weight, establish a nutrition diagnosis and intervention strategies and to monitor overall health status. **Section 2.0 of the Implementation Toolkit** contains guidelines for Anthropometric measurements.

2.6 Monitoring Nutritional Care

Nutritional needs can change depending on medical condition and therefore monitoring is necessary to inform measures that need to be put in place to optimise food and fluid intake.

- ▶ Weight should be recorded on admission to a residential unit and monthly thereafter.
- ▶ Nutrition screening should be carried out on admission and repeated every 3-6 months or in line with risk category recommended by nutrition screening tool (AND, 2008, BDA, 2017). Poor food and fluid intake, even in a nutritionally well resident, can significantly impact on quality of life.
- ▶ Where there is concern about a resident's nutritional and/or hydration status, a 3-day food and fluid record should be commenced, for analysis by a dietitian if access is available. See **Section 2.0 of the Implementation toolkit** for a sample Food and Fluid Record Chart.

2.7 Empowering Choice and Education

People taking responsibility for their own health is part of the government's public health strategy (DoH, 2013) and equally applies to those living with a disability, who should be supported to live healthily and take responsibility for their own health (HIQA, 2013). Those living in residential services should be actively involved in determining the services they receive and should be empowered to exercise their rights, including the right to decline a service or some element of a service, and to exit a particular service in favour of another one in order to live independently (HIQA, 2013). However, service providers have a duty of care to be cognisant of the capacity of the person with a disability to reach an informed decision.

Good nutrition knowledge among care staff is essential as they have a primary role in food provision. Limited carer nutrition knowledge may compromise their ability to plan and adapt meals to support a healthy and appropriate diet for those living with a disability in their care (Hamzaid *et al.* 2018). However, it is often challenging for care workers to balance their role of protecting the resident's long-term health, whilst at the same time adhering to the resident's right to exercise choice and control in their daily life in accordance with their preferences (Standard 1.4, HIQA, 2013). Standard 7.3 of the HIQA standards also state that 'staff are supported and supervised to carry out their duties to protect and promote the care and welfare of people living in the residential services' (HIQA, 2013). If staff are not educated in providing nutritious meals, which includes meals which need to be texture modified, then a person living in supported accommodation full-time can develop nutritional deficiencies (NSW, 2003).

On balance the managers of disability services have a duty of care to ensure their residents' health needs are met, which includes implementing the nutrition standards in this policy, while at the same time endeavouring to facilitate informed choices of an individual where possible and appropriate.

Where there is a need for behavioural change to improve health outcomes some techniques and related actions are outlined in Table 4.

Table 4: Techniques to Support Behavioural Change

Technique	Actions
Availability & Convenience	<ul style="list-style-type: none"> ▶ Ensure there is always cooled tap water in the fridge at eye level, in attractive bottles ▶ Ensure healthy options are accessible and visible in kitchen areas, offer at start of meal and at snack times ▶ Chop fruit and vegetables and place them beside the resident at snack times or when they are watching TV or listening to music ▶ Only offer salt at the table if resident asks for it, a salt cellar should not be visible on the table ▶ Encourage activity by ensuring appropriate clothing, footwear and sports equipment are easily accessible
Replacement	<ul style="list-style-type: none"> ▶ Use puréed fruit as a sauce for ice cream instead of sugar based sauces ▶ Use reduced fat cheese instead of full fat cheese ▶ Use higher fibre white bread (or wholemeal) instead of standard white bread ▶ When roasting potatoes oven bake part-boiled potatoes using reduced fat oil ▶ Use reduced-fat spreads ▶ Only have low-sugar / sugar-free drinks available in the fridge ▶ Grill or bake foods instead of frying
Fading	<ul style="list-style-type: none"> ▶ If sugar is usually added to hot drinks, add slightly less sugar over time ▶ Dilute squashes a little more, use no-added sugar squashes and offer water instead of squash when the resident requests a drink ▶ Replace some biscuits on a plate with fruit, gradually increasing the amount of fruit over time ▶ Reduce the salt in cooking over time ▶ Encourage resident to walk to one bus stop further away on regular journeys
Association	<ul style="list-style-type: none"> ▶ Link happy and fun events to healthy food choices ▶ Food should never be offered as a reward for good behaviour or to prevent the escalation of challenging behaviour

Technique	Actions
Role modelling	<ul style="list-style-type: none"> ▶ Cook together, eat together, talk together, and make mealtimes an enjoyable unhurried occasion ▶ If sharing a meal with residents choose vegetables, fruits and wholegrains
Involvement of Individual	<ul style="list-style-type: none"> ▶ In menu planning and shopping ▶ In food preparation ▶ In safe cooking ▶ In household activities such as table setting, tidy-up, washing and gardening

Adapted from Eating well for children and adults with learning disabilities. Caroline Walker Trust (2007)

Obesity presents a substantial threat to the livelihood of persons with a disability and may have an effect on community participation, independent living, and healthy years of life (Rimmer and Yamaki, 2006). Feeding problems are serious and frequently occur in the population with a disability; however, such problems can be anticipated and treated largely by manipulating environmental variables which maintain these problems (Matson *et al.* 2005). Adults with a disability are more nutritionally vulnerable than the general population for a number of reasons. These may include:

- ▶ food 'poverty' – poor or limited availability of fresh food in socio-economically deprived areas
- ▶ difficulties with travel and transport
- ▶ social isolation
- ▶ social exclusion
- ▶ limited training for healthcare staff
- ▶ limited nutritional knowledge of the person with a disability and/or their carers
- ▶ limited budgeting/cooking skills of the person with a disability and/or their carers
- ▶ reduced ability to understand and apply health messages, read or understand food labels
- ▶ reduced ability/opportunity to make informed choices
- ▶ dependence on others for food and drink adequacy and provision
- ▶ dependence on others for assistance with eating and drinking.

(BDA, 2011)

People with a disability may not be able to access and respond to uniformly delivered health interventions. Public bodies have a legal duty to make 'reasonable adjustments' to policies and practices to provide fair access and treatment for people with ID (Croot *et al.* 2018). Staff are encouraged to access appropriate health information and education both within the disability service and in the local community, including information on diet and nutrition (HIQA, 2013). An Irish cookery programme tailored for adults accessing disability services has been developed in the Irish Midlands by a senior community dietitian; further details are contained in **Section 2.0 of the Implementation Toolkit**.

At a local level, managers of services need to be aware of the role staff plays in supporting people with a disability, especially around their food choices (BDA, 2011). It is incumbent on management to provide staff with training and development opportunities that equip them with the necessary skills required to meet the needs of people with disabilities (HIQA, 2013), enabling staff to access appropriate training available in the community (see **Section 2.0 of the Implementation Toolkit**).

Many care workers already have the skills and knowledge to promote good eating habits and should be encouraged and supported to share good practices within their teams and with individuals in their care. Empowering carers is as important as empowering residents. In some circumstances there may be a need to address specific issues pertaining to care workers' skills base, such as:

- ▶ varying levels of interest in food and exercise
- ▶ having little or no experience in planning healthy menus
- ▶ understanding that some residents do not require the same amount of food as they do, and so providing smaller portions is acceptable
- ▶ bringing their individual theories and practices to the meal provision process
- ▶ perceiving residents as not having fulfilled lives and seeking to redress this in some way using food.

(Adapted from Eating well for children and adults with learning disabilities, Caroline Walker Trust 2007).

A suite of resources are provided in Section 4.0 of the Implementation Toolkit (Healthy Food for Life Guidelines and Resources) to aid with supportive training.

Family, friends and support staff may find the following suggestions useful when considering how to support residents to make healthy food choices:

- ▶ Partaking in snack and meal times with residents provides an opportunity for discussion around food choices, and residents may be more tempted to try new foods and drinks if others around them are enjoying them.
- ▶ Keeping a record with the resident of their typical eating and drinking patterns over a few days and using this to talk about the foods and drinks they like, the quantities they have and their preferred routines, to see if they are aware of and actually enjoying their current choices.
- ▶ Using pictures or photographs of different types of foods and drinks, in different portion sizes, to encourage people to think about new foods and drinks or the balance of foods and drinks they have – **a Communication Toolkit is provided in section 3.0 of the Implementation Toolkit to aid with communicating choice.**
- ▶ Small changes over time are likely to be more effective. If a resident consumes large amounts of one particular food or drink (for example 2 or more fizzy drinks a day), suggest that one drink be swapped for a healthier alternative.
- ▶ Gently distracting a person from a food or drink habit which may be harmful to their health by spending time with the person and sharing an alternative.

- ▶ Ensuring that food being offered as an alternative is attractively presented. Using colourful plates with good contrast to the food can be helpful.
- ▶ If a resident needs to lose weight, consider some of the suggestions in the Weight Management Meal Plan in **Section 5.0 of the Implementation Toolkit**.
- ▶ Looking at food labels together and explaining how to make choices between similar foods. Details of how to obtain a helpful Food Shopping Card for reading labels is contained in **Section 4.0 of the Implementation Toolkit**.

Adapted from Eating well for children and adults with learning disabilities. Caroline Walker Trust 2007.

2.8 Communication

The HIQA National Standards for Residential Services for Children and Adults with Disabilities recommends that each person has access to information, provided in a format appropriate to their communication needs (HIQA, 2013).

When supporting adults with a disability, it is essential to consider their communication skills. 80% of adults with a disability are reported to have communication difficulties, with 50% having significant difficulties (RCSLT, 2009). These communication difficulties can range from someone who uses non-verbal means to communicate, someone having speech that is hard to understand, someone not being able to read or understand pictures. These difficulties can impact on many aspects of mealtimes; from food preferences to the mealtime itself. Communication regarding food and fluid provision should be completed on a regular basis using a total communication approach. It is very important to consider an individual's level of understanding and how best to present the information that is being delivered. To support this it is recommended to link in with an SLT (or SLT guidelines that may be in place). The following are areas to consider when working with people who have communication difficulties:

- **Your Communication style.** Aim to communicate using a Total Communication Approach. This means using all forms of communication that may be needed for that individual e.g. spoken word, gesture, Lámh signs, visuals, objects.
- **Capacity.** Staff should consider that each person has the capacity to make their own decisions regarding their nutrition and hydration needs, unless indicated otherwise. When required, it is important that each individual is supported to make an informed decision; this is achieved by providing the correct information, in the format that is most easily understood and that an adequate amount of time is allowed to process this information.

A Communication Toolkit (located in Section 3.0 of the Implementation Toolkit) provides general communication strategies, as well as more specific strategies to use when communicating with someone who has communication difficulties.

2.9 Key Recommendations for Provision of Nutritional Care

Nutrition Screening

1. On moving to a new care home a food, nutrition and hydration needs assessment should be undertaken to identify and document individual requirements.
2. Nutrition screening using a validated tool for adults should be carried out every 3-6 months or according to local policy, using accurate and reliable instruments.
3. Weight should be recorded on admission to a care home and monthly thereafter.
4. Weighing Equipment appropriate to individual needs should be used e.g. wheelchair scales with beams for wheelchair users, hoist scales where it is not possible for individual to sit into chair scales or chair/stand-on scales for mobile individuals.
5. Weighing scales should be of a medical grade and calibrated annually.
6. Staff involved in nutrition screening should be trained and be competent to undertake screening and implement management guidelines post screening.
7. The results of nutrition screening should be linked to a comprehensive care plan.
8. The practice of nutrition screening should be audited regularly, minimum annually.
9. All residents identified as being at risk of malnutrition should be referred to a dietitian.

Nutrition and Hydration Assessment

10. The food, nutrition and hydration needs assessment should accurately identify and record the following:
 - ▶ Measured weight and height, with the date and time that these measurements were taken (if estimates are used, this should be stated and a rationale provided)
 - ▶ Body Mass Index (BMI) if appropriate. Please note BMI may not be appropriate for those that are small in stature
 - ▶ Food allergies or intolerances
 - ▶ Eating and drinking likes and dislikes
 - ▶ Existing therapeutic or texture modified dietary requirements
 - ▶ Existing requirements for nutrition support (oral nutritional supplements, enteral tube feeding, parenteral nutrition)
 - ▶ Physical difficulties with eating and drinking, including swallowing difficulties as diagnosed by a Speech and Language Therapist
 - ▶ Appetite
 - ▶ Requirements for assistance with eating and drinking including level of support required (for example requirement for total assistance from another person to eat food provided)
 - ▶ Presence of medically diagnosed food allergies or intolerances
 - ▶ Personal, cultural, ethnic or religious dietary requirements
 - ▶ Oral health status
 - ▶ Behaviour issues or distress around food or at mealtimes
 - ▶ Conditions that require a dietitian referral (see Appendix I).

Nutrition and Hydration Assessment (*continued*)

11. Based on findings from the needs assessment, referrals should be sent to relevant Health and Social Care Professionals (H&SCP), for example, dietitian, speech and language therapist, occupational therapist, dental and oral health practitioner.
12. Information about the resident's food, nutritional and hydration needs should be clearly communicated and documented in their healthcare record.
13. A summary of nutritional care should be provided if the resident is being transferred to another service or hospital as appropriate.

Food, Nutrition and Hydration Requirements

14. This policy advocates for the least restrictive dietary practices. This means that the resident will have the most typical and healthy diet possible, whilst at the same time acknowledging specific therapeutic nutrition and hydration needs.
15. Each resident should be provided with food and fluid of adequate quantity and quality, of correct texture and in an environment conducive to eating.
16. All diets provided are produced in accordance with the Nutrition Standards outlined in section 3.0, 4.0 & 5.0 of this policy.
17. Where a person needs to be supported with eating and drinking, staff members should provide the minimum amount of support required so as to encourage as much independence as possible, appropriate eating and drinking aids should be provided where required, for example, to aid with independence at mealtimes.

Monitoring Nutritional Care

18. Residents identified at risk of malnutrition should have their food and fluid intake recorded in accordance with local policy.

Empowering Choice and Education

19. Residents should be actively involved in determining the services they receive and be empowered to exercise their rights, including the right to decline a service or some element of a service. However, staff have a duty of care to ensure the optimum health needs of those in their care, which includes adherence to the nutrition standards in this policy, while at the same time endeavouring to facilitate informed choices where possible and appropriate.
20. Menu planning should be undertaken by staff with knowledge of food preparation and the person's food preference and therapeutic requirements (e.g. diabetic diet). Consultation with residents on menu planning is essential. For menu ideas see **Section 7.0 Food Service in the Implementation Toolkit**.
21. Where appropriate visual aids should be used e.g. pictures or photographs of different types of foods and drinks, in different portion sizes, to support individuals in making healthy food choices.

Empowering Choice and Education *(continued)*

22. Managers of disability services, and all those who contract and supply staff to support adults with a disability, should ensure that those they employ, including agency staff, have had and continue to have suitable on-going training about healthy eating guidelines, including access to the practical resources in the Implementation toolkit accompanying this policy.
23. The nutrition standards and practical guidelines for Healthy Food for Life (**Section 4.0 of Implementation Toolkit**) in this policy should be used as part of training and guidance for staff supporting adults accessing disability services.
24. All those who support people with a disability should have training in recognising and managing swallowing difficulties (dysphagia) provided by a CORU registered Speech and Language Therapist.
25. Training in the provision of dental care for adults with learning disabilities and the importance of advising adults with learning disabilities and their families, friends and care staff on food and drink choices which impact on oral health should be provided by the management of disability services.
26. All those who support adults with a disability should have access to dietitian devised cookery education programmes in the community. See details in **Section 2.0 of the Implementation Toolkit**.

SECTION 3.0

Nutrition Standards for Food Provision

Section	Title	Page
3.0	Nutrition Standards for Food Provision	31
3.1	Evidence Statement/Summary	32
3.2	Nutrition Standards for Healthy Eating	34
3.3	Nutrition Standards for Micronutrients	36
3.4	Nutrition Standards for Hydration	37
3.5	Key Recommendations for Healthy Eating	38
3.6	Nutrition Standards for Personal, Cultural, Ethnic or Religious Diets	39
3.6.1	Key Recommendations for Food Provision for Personal, Cultural, Ethnic or Religious Diets	40
3.7	Nutrition Standards for Bone Health	40
3.7.1	Key Recommendations for Bone Health	44
3.8	Nutrition Standards for Constipation Management	44
3.8.1	Key Recommendations for Constipation Management	46
3.9	Nutrition Standards for Dementia	47
3.9.1	Key Recommendations to Optimise Nutrition for those with Dementia	48
3.10	Inherited Metabolic Disorders	50

3.1 Evidence Statement/Summary

Dietary factors are the most important risk factors undermining health and wellbeing in every single country in the World Health Organisation European Region (WHO, 2002). Research shows that excess consumption of foods high in fats, salt and sugar, as well as low levels of vegetables and fruit intake, plays a significant role in increasing the risk of developing chronic diseases such as heart disease, type 2 diabetes and cancer (DOH, 2017). A 2017 study examining the nutritional intake and anthropometric status of individuals with intellectual disabilities, reported the mean energy intakes from sugar, fat and saturated fat were above recommendations and few participants met micronutrient recommended daily amounts. This study also highlighted the alarming prevalence of overweight and obesity amongst individuals with intellectual disabilities (Hoey *et al.* 2017). The Irish Healthy Food for Life – Healthy Eating Guidelines and Food Pyramid (2016) provides practical food based guidance to achieve a balanced diet, consistent with an evidence-based approach for a healthy lifestyle (DOH and Healthy Ireland, 2016). Nutritional requirements appear to be similar in adults with a disability to those of the general population (AND, 2008). Exceptions to the Nutrition Standards for Food Provision are discussed in Sections 4.0 (Therapeutic diets) and 5.0 (Texture Modified diets and Thickened drinks).

Development of the Standards

The Nutrition Standards for Food Provision were developed using an evidence based best practice approach to ensure applicability to all disability services. Specific focus was placed on ease of interpretation and to provide flexibility to enable local implementation. To inform the development of these standards, the following resources were reviewed:

- ▶ HSE Food, Nutrition and Hydration Policy For Adult Patients in Acute Hospitals (2018)
- ▶ Department of Health Nutrition screening and use of oral nutrition support for adults in the acute care setting - National Clinical Guideline No. 22 (2020)
- ▶ HSE Nutrition Supports Website (<https://www.hse.ie/eng/services/list/2/primarycare/community-funded-schemes/nutrition-supports/>)
- ▶ Department of Health (DOH) and Healthy Ireland (HI). Healthy Food for Life. *The Healthy Eating Guidelines (HEG) and Food Pyramid* (2016)
- ▶ Food Safety Authority of Ireland (FSAI) Healthy eating, food safety and food legislation. A guide supporting the Healthy Ireland Food Pyramid (2019)
- ▶ IDS-TILDA (2017) Health, Wellbeing and Social Inclusion: Ageing with an Intellectual Disability in Ireland. Evidence from the First Ten Years of the Intellectual Disability Supplement to The Irish Longitudinal Study on Ageing
- ▶ Academy of Nutrition and Dietetics (AND). Behavioural Health Nutrition Dietetic Practice Group of American Dietetic Association. *The Adult with Intellectual and Developmental Disabilities: A Resource Tool for Nutrition Professionals* (2008)
- ▶ The British Dietetic Association (BDA). Professional Consensus Statement. *The Nutritional Care of Adults with a Learning Disability in Care Settings* (2017)
- ▶ The British Dietetic Association (BDA). Weight Management for Adults with a Learning Disability Living in the Community. Consensus Statement produced by the Learning Disabilities Obesity Group (LDOG) of the BDA Mental Health Group (2011)

- ▶ The Caroline Walker Trust. Eating Well: children and adults with learning disabilities (2007)
- ▶ Cope Foundation. Bone Health Policy and Guidelines (2018)
- ▶ Cope Foundation. Nutrition and Hydration Policy (2017)
- ▶ HSE Dublin Mid-Leinster (Midlands Area). CNDS 024/RID082. Nutrition Screening & First Line Dietary Advice – Use of ‘MUST’ and ‘Intellectual Disabilities Nutrition Checklist’ for adults with Intellectual Disabilities residing in HSE Community Houses (2015)
- ▶ HSE Dublin Mid-Leinster (Midlands Area). ROP050/RID050. Provision of Nutritionally Balanced Meals in Residential Care for Older people and Intellectual Disabilities (2013)
- ▶ St. Michael’s House, Department of Nutrition and Dietetics. Monitoring and Documentation of Nutritional Intake Policy (2015)
- ▶ NSW Department of Ageing, Disability and Home Care. Nutrition in Practice Manual (2003)
- ▶ NSW Department of Family and Community Services (FACS), and Cerebral Palsy Alliance (CPA). Dietetic Core Standards outlining the skills and knowledge required for dietitians working with people with disability (2016)
- ▶ Department of Health, Social Services and Public Safety UK. Promoting Good Nutrition: A Strategy for good nutritional care for adults in all care settings in Northern Ireland (2012)
- ▶ Irish Nutrition and Dietetics Institute (INDI) Nutrition Support Reference Guide (2015)
- ▶ Health Products Regulatory Authority of Ireland (<https://www.hpra.ie/>)

Application of the Standards

The standards should be applied to all adults accessing disability services. Following the identification of a resident’s food, nutrition and hydration needs, an appropriate diet should be planned that meets the recommended nutrition standards in this policy (see 2.2 Nutrition and Hydration Management Algorithm).

Sample meal plans and menu ideas have been provided in the Implementation Toolkit to provide assurance that residents can meet the standards set for nutrition care in this policy.

3.2 Nutrition Standards for Healthy Eating

The Nutrition Standards are a combination of nutrient and food-based standards. The standards are underpinned by the nationally recognised Department of Health Healthy Eating Guidelines (HEG) and Food Pyramid (2016). The HEG provide recommendations on the number of portions each day required from the four main food groups:

1. Vegetables, salad and fruit
2. Wholemeal cereals and breads, potatoes, pasta and rice
3. Milk, yogurt and cheese
4. Meat, poultry, fish, eggs, beans and nuts.

In total, this contributes to a balanced dietary intake of macro and micronutrients which is required for good health. In addition the HEG contributes to an overall healthy eating plan by combining healthy choices from across all food groups (limiting intake of foods high in sugar, fat and salt), while also paying attention to calorie limits and physical activity daily targets.

Figure 2: Department of Health and Healthy Ireland Healthy Food for Life Pyramid (2016)

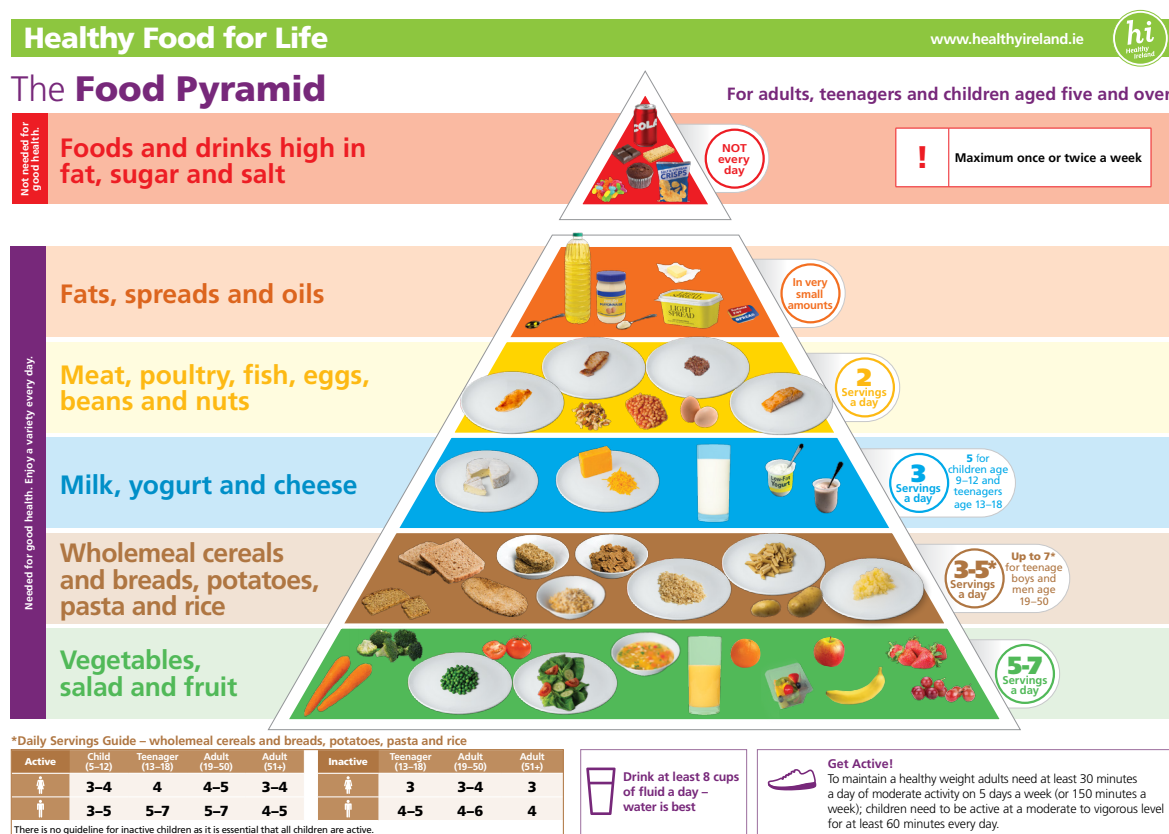


Table 5: Key Nutrients in each of the Food Groups and their Function in the Body

Food Group	Key Nutrient(s)	Function
Vegetables, Salad and Fruit	Carbohydrate, Fibre Vitamins (A, B group, C) Minerals (potassium)	Vitamin A: Healthy Eyes & skin Vitamin C: Wound healing, helps fight infection and helps absorb Iron Potassium: Essential for Heart Health
Wholemeal cereals and breads. Potatoes, Pasta, Rice	Carbohydrate, Fibre Vitamins (B group) Minerals (Zinc)	Energy source needed to fuel body's activity Help prevent constipation* B Vitamins: Essential for function of brain and nervous system Zinc: Required for healthy immune system and wound healing The less active an individual is, the less of this food group should be eaten, see Section 4 of the Implementation Toolkit for guidelines on portion sizes <small>*fluids need to increase as fibre increases, otherwise a person can become more constipated</small>
Milk, Yogurt and Cheese	Protein, Carbohydrate Vitamins (vitamin D) Minerals (Calcium & Zinc)	Calcium: Necessary for healthy bones and teeth Vitamin D: Needed to absorb calcium, helps prevent disease
Meat, Poultry, fish, eggs, beans and nuts	Protein, Fat Fibre (nuts, seeds, beans, lentils) Vitamins (A, D, B Group) Minerals (Iron & Zinc)	Protein is required for building and maintenance of muscle mass Iron: required for regeneration of red blood cells (prevents anaemia)
Fats, Spreads and Oils	Fat Carbohydrate	Fat can act as an energy source for the body. Unsaturated fat (found in olive oil, avocados, fatty fish, nuts and seeds) is healthier and can help lower LDL-cholesterol, reduce inflammation and build stronger cell membranes in the body. Both unsaturated (healthy) and saturated (unhealthy) fats are high in calories.
Food and Drinks high in fat, sugar and salt	Carbohydrate (simple sugars) Fat (saturated) Mineral (Sodium)	Saturated fats, simple sugars and sodium found in these products are of very little nutritional value to the body.

3.3 Nutrition Standards for Micronutrients

The recommended daily amounts (RDA's) for Ireland was published by the Food Safety Authority of Ireland (FSAI) in 1999. More up to date vitamin and mineral recommendations are available from the European Food Safety Authority (EFSA) and the US Institute of Medicine (IOM). Upper limits for vitamin and mineral intakes have been recommended based on the EFSA and IOM in the report of FSAI Scientific Committee Report: The Safety of Vitamins and Minerals in Food Supplements – Establishing Tolerable Upper Intake Levels and a Risk Assessment Approach for Products Marketed in Ireland (FSAI, 2018). In line with this approach, micronutrient requirements for adults are based on the EFSA recommendations.

Table 6: Recommended Amount for Micronutrients per day

Micronutrients	Amount Recommended per Day	Main Dietary Sources
Iron	11-16mg Recommended daily allowance for premenopausal women is 16mg per day	Haem iron is found in foods of animal origin such as beef, lamb, liver and kidney. Non-haem iron is found in foods of plant origin such as peas, beans, lentils, dried fruits and green vegetables. Haem iron is more readily absorbed into the body than non-haem iron.
Calcium	1,000-1,150mg	Milk, Cheese, Yoghurt, Tinned fish (eaten with the bones e.g. sardines). Pulses such as beans, lentils and chickpeas, dried fruit.
Vitamin D	15µg*	Oily fish such as salmon, trout, sardines and mackerel. Egg yolk. Some fortified milks and breakfast cereals.
Folate	330µg	Green leafy vegetables and salads, liver, oranges and other citrus fruits.
Vitamin C	110mg	Most fruits and vegetables and fresh juices. Good sources include citrus fruits such as oranges and green vegetables such as broccoli, green cabbage and spinach.
Vitamin A	750µg	Liver, carrots, mango, apricots, green leafy vegetables.

FSAI (2018) Report of the Scientific Committee of the Food Safety Authority of Ireland. The Safety of Vitamins and Minerals in Food Supplements Establishing Tolerable Upper Intake Levels and a Risk Assessment Approach for Products Marketed in Ireland.

*Adequate Intake for Vitamins. Adequate intake is an estimated value when requirements cannot be determined.

3.4 Nutrition Standards for Hydration

Group suitability	This standard applies to all residents who do not have any therapeutic requirement for fluid restriction (See Section 4.0 for specific therapeutic diets & 5.0 for thickened drinks).
Rationale and evidence base for the dietary recommendation	<p>Water is essential to health, but is often overlooked. This can result in vulnerable individuals missing out on the support they need to help maintain an optimal hydration status. The medical evidence for good hydration shows that it can assist in preventing or treating ailments such as:</p> <ul style="list-style-type: none"> ▶ Constipation ▶ Pressure ulcers ▶ Urinary infections and incontinence ▶ Kidney stones ▶ Heart disease ▶ Low blood pressure ▶ Diabetes (management of) ▶ Cognitive impairment ▶ Dizziness and confusion leading to falls ▶ Poor oral health ▶ Skin conditions. <p>(RCN and NHS, 2007, BDA, 2017)</p>
Nutrition standards for Hydration	<p>Adults should be provided with fluids daily to meet specified requirements (INDI, 2015)</p> <p>18-60 years 35 ml/kg/day* >60 years 30 ml/kg/day*</p> <p>*Persons who are small of stature may require less fluid (see Hydration Management in Section 2.0 of the Implementation Toolkit)</p> <p>Each resident should have access to chilled water where possible 24 hours a day. Residents should be offered drinks with and between meals.</p>
Precautions/ additional considerations	<ul style="list-style-type: none"> ▶ This standard does not apply to residents requiring a fluid restricted diet (in the case of cardiac or renal disease). ▶ High sugar fluids such as sugar sweetened beverages should be taken in small amounts only, or ideally not at all, as they have little nutritional value (BDA, 2017). ▶ Fruit juices and smoothies, although high in sugar, do provide water and other nutrients. Only one small portion (150 ml) of fruit juice or smoothies per day is recommended (PHE, 2017). ▶ All residents must have access to fresh drinking water throughout the day, drinking water should only be obtained from confirmed suitable sources. Ice should be made from a drinkable water source only. ▶ Fluids should be provided to residents at the correct temperature. ▶ An open regular cup or bowl should be provided to all residents for fluids and or soup, unless otherwise advised by OT or SLT.

3.5 Key Recommendations for Healthy Eating

1. Adults with a disability should be supported by care staff, family and friends to eat a varied diet. Foods from each of the four main food groups should be eaten daily to ensure a balanced diet.

Fruit and Vegetables	5 -7 portions*
Bread, rice, potatoes and starchy foods	3 - 5 portions*
Milk and Dairy Products	3 portions*
Meat, poultry, fish and alternatives such as eggs, peas, beans, lentils and nuts	2 portions*

*see **Section 4.0 of the Implementation Toolkit for portion size guidance**

2. At least 5 portions per day of a variety of different coloured vegetables, salad and fruit should be encouraged, more is better. Fruit juice should be limited to unsweetened, once a day only.
3. Reduced-fat or low-fat varieties of milk, yogurt and cheese should be encouraged, choose milk and yogurt in preference to cheese.
4. Encourage lean meat, poultry (without skin) and fish. Choose oily fish up to twice a week, such as salmon, trout, mackerel, herring or sardines.
5. Choose eggs, peas, beans, lentils and nuts as an alternate protein source. Limit processed salty meats such as sausages, bacon and ham.
6. Fat, spreads and oils should be used in small amounts. Choose polyunsaturated and monounsaturated spreads. Limit mayonnaise, coleslaw and salad dressings as they contain saturated fats. Always cook with as little fat or oil as possible – grilling, oven-baking, steaming, boiling or stir-frying are best methods of cooking, in place of frying or deep frying.
7. There is no recommended serving for top shelf foods and drinks (sugary drinks, biscuits, cakes, crisps, ice cream) because they are not required for good health, and are high in calories, saturated fat, sugar and salt.
8. Those who are overweight or obese should be supported in replacing high fat and high sugar foods, drinks and snacks with more fruit and vegetables and other lower-fat and lower-sugar alternatives (see **Food Shelf fact sheet in Section 4.0 of the Implementation Toolkit**).
9. The amount of high-salt foods and snacks should be gradually reduced, along with the amount of salt used in cooking and at the table.
10. Residents should be supported in finding enjoyable ways to be physically active every day. Balancing food intake with active living will protect against disease and prevent weight gain.

Micronutrients

11. All diets/menus should meet the nutrition standards for micronutrients. Intake of micronutrients should be sufficient by ensuring:
 - a. Diets/ menus are produced in accordance with key recommendations for food services (section 6.0).
 - b. A variety of food choices are available daily.
 - c. The recommended number of portions from each food group are provided daily.

Hydration

12. Residents should be supported to drink at least 8 cups of fluid per day, preferably water, particularly those prone to constipation, unless otherwise indicated (see **Hydration Management in Section 2.0 of the Implementation Toolkit**).
13. Free, fresh tap water should always be offered with meals and regularly throughout the day. Always check Speech and Language Therapist guidelines if person requires drinks to be thickened (see Section 5.0).
14. The amount of soft drinks available should be limited since these offer little nutritional benefit and may suppress appetite and prevent intake of more nutritious foods.

3.6 Nutrition Standards for Cultural, Ethnic or Religious Diets

Data from the 2017 Irish Census showed that there is a range of ethnicities living in Ireland, there is also a range of religious practices. Therefore, there is a requirement to provide diets that meet cultural or religious needs.

Recognition of the distinct health and care needs of individuals from diverse cultures and ethnic backgrounds needs to be considered when planning food services. Ethnic groups possess their own cultural identity, language, customs and practices, some of which impact on food choices. Religious diversity adds another important dimension to many people's ethnic and cultural identities. Dietary practices between and within the different cultural and ethnic groups can be quite diverse. In addition, it is important to acknowledge that a proportion of residents from these populations may not speak or read English (HSE, National Intercultural Health Strategy, 2007-2012). Although the standard range of menus available for residents will meet most cultural and religious food needs, there may be requirements for alternative food choices and/or adaptations. It is essential to understand the residents' specific food needs to ensure that a suitable choice of foods can be offered (NHS Scotland, 2016).

Personal Diets

The rights of the individual to a personal diet should be respected, up to and including the exclusion of certain food groups. The extent to which foods are excluded needs to be planned with the individual, taking into account existing clinical conditions. Exclusion of certain foods or food group items requires careful planning of meal options between caterers/ care staff and dietitians, to ensure that alternative foods are included in the diet to prevent any nutritional inadequacies (for example, alternative dairy products may need to be sourced and provided).

3.6.1

Key Recommendations for Food Provision for Cultural, Ethnic or Religious Diets

1. Diet provision should consider the local ethnic, religious and cultural needs of the resident.
2. Guidance in Appendix II: Religious food restrictions should be used when planning diet provisions.
3. Alternative menus for personal diets should meet the nutrition standards for a healthy diet (section 3.2 of this policy).
4. A vegetarian option should be available once daily (see menu options in **Section 7.0 of Implementation Toolkit**).
5. Provision of appropriate options for personal diets, particularly those on a therapeutic or texture modified diet, requires input from a dietitian.

3.7 Nutrition Standards for Bone Health

Individuals with a disability are known to have a high prevalence of low bone mineral density and are at increased risk of osteoporosis and fractures. (Srikanth *et al.* 2011, Vanlint & Nugent, 2006, Jaffe *et al.* 2005). Research has shown that poor bone health, falls and seizure activity combine to produce increased fracture rates. It is likely that some of these fractures are sustained primarily because of bone fragility and are associated with minimal or no obvious trauma (Vanlint & Nugent, 2006).

Regarding Irish data, Wave 2 of the Intellectual Disability Supplement to the Irish Longitudinal Study on Ageing (IDS-TILDA, 2014), included objective measurement of bone status of people with ID aged 40 years and over. Measurement results found that 70% of people with ID indicated osteoporosis or osteopenia. Follow-up research published in Wave 3 of IDS-TILDA (2017) highlighted that more people with intellectual disability are now attending for DXA screening, with an almost four-fold increase of screening from 11.1% to 42.1% between Waves 1 and 3, respectively. This test is currently the most accurate and reliable means of assessing bone strength and risk of breaking a bone.

Recognised risk factors for poor bone health include (but are not limited to) the following:

- ▶ Family history / genetics
- ▶ Recurrent fractures / falls
- ▶ Increasing age (natural bone loss begins from age 35 years approx.)
- ▶ Reduced mobility
- ▶ Ethnicity (persons with darker skin are at higher risk of poor bone health)
- ▶ Medications e.g. anti-epileptic medications, steroids, anti-psychotic medications
- ▶ Low body mass / underweight
- ▶ Low vitamin D status
- ▶ Low calcium intake

- ▶ Disability with spasticity e.g. Cerebral Palsy
- ▶ Down Syndrome / other syndromes causing hypotonicity
- ▶ Endocrine disorders e.g. hyperparathyroidism, menopause, hypogonadism.
- ▶ Renal disorders
- ▶ Liver disorders
- ▶ Lifestyle Factors: smoking / excessive alcohol / excessive caffeine
- ▶ Reduced bone size
- ▶ Psychological stress (related to increased Cortisol and Prolactin levels)

(Adapted from Cope Foundation. Bone Health Policy and Guidelines, 2018)

Residents with one or more of these risk factors are deemed to be at high risk of poor bone health and associated fractures (Srikanth *et al.* 2011, Jaffe *et al.* 2005), and therefore should have a multi factorial bone health assessment and intervention plan implemented (see **sample Bone Health Assessment Form and Action Plan in Section 4.0 of the Implementation Toolkit**, adapted from Cope Foundation. Bone Health Policy and Guidelines, 2018).

Vitamin D Guidelines

Vitamin D is important for bone health, and vitamin D deficiency may contribute to other disorders (e.g. autoimmune, infections, cancer, degenerative, diabetic and vascular). Enzyme-inducing antiepileptic drugs have been particularly implicated for osteoporosis risk given their effects on vitamin D (Teagarden *et al.* 2014).

At Ireland's latitude (51–55° north), from March to September, people can make vitamin D from strong sunlight, but exposure to sunlight is a high risk factor for skin cancer and sunscreen prevents the skin from making Vitamin D. Residents should always have access to the outdoors, particularly during the summer months, but exposure to direct sunlight should be limited and sunscreen always applied on sunny days.

Therefore to obtain an adequate daily intake of vitamin D for good health (15µg) it is necessary to eat foods that are rich in Vitamin D (FSAI, 2019). Oily fish (salmon, trout, sardines and mackerel) are the best food source of vitamin D and should be eaten at least twice a week. Oily fish is also a source of essential fatty acids (DHA and EPA) which protects against heart disease and stroke (FSAI, 2019). **See Table 7 for most common food sources of vitamin D.**

The Department of Health published a new recommendation in November 2020 advising that adults aged 65 and older take a vitamin D supplement to ensure they get the essential vitamin D needed for bone and muscle health. The recommendation is to take a vitamin D supplement of 15 micrograms (15µg) every day to ensure those aged 65 and older get the essential vitamin D needed for bone and muscle health (DoH 2020).

This vitamin D supplement can be taken in three ways: as a multi-vitamin supplement that contains 15µg of vitamin D; as a calcium and vitamin D supplement that 15µg of vitamin D or as a vitamin D only supplement that contains 15µg of vitamin D.

People who are currently taking a vitamin D supplement that has been prescribed by a doctor or a nurse and that contains more than 15µg can continue to take the supplement prescribed (DoH 2020).

Table 7: Vitamin D Content of Foods Rich in Vitamin D

Food	Serving	Vitamin D Content
Trout	100 g	10 µg
Mackerel	100 g	8.6 µg
Salmon	100 g	8 µg
Sardines	100 g	5 µg
Tuna	100 g	3 µg
Eggs	1 egg	2 µg
Milk with added Vitamin D	200 ml glass	4 µg
Yoghurt with added Vitamin D	125 g pot	0.8 – 5 µg
Cereal with added Vitamin D	30-40 g	1.5 – 2.9 µg

(Source: FSAI Healthy eating, food safety and food legislation, 2019)

If a person does not eat the foods listed in Table 7 regularly and has poor exposure to sunlight, then a vitamin D supplement may be indicated (always discuss first with a medical practitioner before commencing any supplement).

Table 8: Oral Vitamin D Supplements

Supplement	Form	Recommended Dose	Vitamin D3 (per dosage unit)	Calcium (per dosage unit)	GMS Reimbursed (Medical Card Scheme)
Sona D1000®	Tablet	One tablet daily	25 µg (1000 iu)	Nil	No
Osteocare Tablets	Tablet	Two tablets daily	25 µg per 2 tablets	800 mg per 2 tablets	No
Cadelius®	Orodispersible Tablet	One tablet daily	25 µg (1000 iu)	600 mg	Yes
Osteofos D3®	Sachet	One Sachet daily	20 µg (800 iu)	1200 mg	Yes
Desunin® 800 iu	Tablet	1 Tablet daily. No more than 5 tablets (4000 iu) daily	20 µg (800 iu)	Nil	Yes
Calcichew D3 Forte®	Chewable tablet	One tablet twice daily	20 µg (400 iu) per 2 tablets	1000 mg per 2 tablets	Yes
Ideos®	Chewable Tablet	One tablet twice daily	20 µg (400 iu)	1000 mg	Yes
Osteocare®	Liquid	10 ml twice daily	7.6 µg (304 iu) per 20 ml	600 mg per 20 ml	No
Decavit®	Tablet	One tablet daily	5 µg (200 iu)	Nil	No
Centrum Advance®	Tablet	One tablet daily	5 µg (200 iu)	162 mg	No
Osteocare®	Liquid	10 ml twice daily	7.6 µg (304 iu) per 20 ml	600 mg (per 20 ml)	No

This list is not exhaustive.

Please consult product literature for current full prescribing details - Summary of Product Characteristics (SPCs) available on www.hpra.ie

AFFINITY National Falls and Bone Health project

The HSE AFFINITY National Falls and Bone Health project (2018-2023) has been set up to bring focus, coordination and clear direction to the spectrum of falls and fracture prevention service improvement initiatives currently underway in the residential, community and acute services across the country. Further information can be found at <https://www.hse.ie/eng/services/list/4/olderpeople/falls-prevention-and-bone-health/>

3.7.1 Key Recommendations to Optimise Bone Health

1. To minimise the possibility of low bone mineral density, residents should be as mobile as possible, spend time outside in the summer sunshine safely, and have adequate vitamin D and calcium intake.
2. It is recommended that a Bone Health Assessment be completed for individuals who have one or more risk factors for poor bone health (see section 3.7) and consequent bone fracture, and reviewed as clinically indicated (See **Section 4.0 of the Implementation Toolkit**).
3. Residents who have little regular exposure to summer sunshine should be considered for vitamin D supplementation. Where this is the case, advice should be sought from a medical practitioner.
4. DXA scanning should be made available where appropriate for residents deemed at risk of poor bone health, and as recommended by a medical practitioner.
5. Standards of care in the areas of achieving a healthy body weight, calcium and vitamin D intake are in line with nutrition standards in this policy.
6. Specific osteoporosis treatments should be administered under the instruction of a medical practitioner. These treatments should aim to reduce risk of fracture, prevent bone loss or increase bone formation.

3.8 Nutrition Standards for Constipation Management

Irish data has shown that there was a large increase in reported diagnosis of constipation from Wave 1 of IDS-Tilda (2010) to Wave 3 of IDS-TILDA (2017) from 17.3% to 43.5%, with women presenting with higher prevalence (48.8%) compared to men (36.8%). Levels of constipation were also found to increase with level of severity of intellectual disability from 30.9% (n=42) for those with mild intellectual disability, 43.8% (n=112) for those with moderate level to 58.3% (n=98) for those with severe/profound level of intellectual disability. For those who reported constipation in Wave 3 (2017), 74.5% (n=240) were taking medication to manage the condition and 56.8% (n=183) reported they had made lifestyle changes to address the condition. Of those with constipation, 37.6% (n=204) reported never having a normal stool without the use of laxatives (IDS-TILDA, 2017).

However, the reliance on laxatives as a management response for constipation may be inappropriate. Clinical trials show that most laxatives achieve poor results (Jiang Xu *et al.* 2015). Many community-based individuals have poorly controlled constipation despite receiving laxatives regularly, with complex, ineffective and/or inappropriate laxative prescribing linked to suboptimal bowel care (Robertson *et al.* 2018).

The principal aims of treatment for constipation are to relieve symptoms, to restore habitual bowel activity and to improve quality of life while minimising adverse effects (Rao, 2009).

It is important to consider the possible underlying physiological and/or external cause for the disorder when initiating specific therapy; constipation may be managed with a combination of dietary and behavioural modifications together with judicious use of pharmacological therapies including laxatives (Gallagher *et al.* 2008). A summary of the most commonly used laxatives is contained in **Section 4.0 of the Implementation Toolkit**.

Several bodies of literature have proposed treatment algorithms or hierarchical series of diagnostic, therapeutic and management options for constipation (Emly & Marriott, 2017). The common feature of these algorithmic sets is that non-pharmacological interventions, which include lifestyle and dietary modifications, are the preferred first-line treatment methods for constipated adults (see **Section 4.0 of Implementation Toolkit for an Algorithm for Management of Chronic Constipation of Adults within the Community**). There is significant polypharmacy in this population, with polypharmacy remaining high in Wave 3 of IDS-TILDA (2017) at 39.5% and excessive polypharmacy at 32.7% with 47.4% of those taking 3-4 medications at Wave 2 having progressed to taking 5-9 medications at Wave 3 (IDS-TILDA, 2017). Reducing reliance on laxative usage through dietary measures would help to effectively reduce polypharmacy and in turn improve quality of life for these adults.

One dietary modification that has proved effective in the dietary management of constipation is the introduction of linseed or flaxseed (Soltanian & Janghorbani, 2018). Linseed is a naturally occurring seed. The use of milled linseed added to food has been shown to reduce symptoms of constipation i.e. straining, presence of hard stool, and pain with bowel movements (Soltanian & Janghorbani, 2018). For guidelines relating to the introduction of linseed/flaxseed into the diet and for dietary measures on the management of constipation through the implementation of a high fibre diet see **Section 5.0 of the Implementation Toolkit - Nutrition Standards for Adults Requiring Therapeutic Diets**.

In order to effectively manage constipation it is necessary to establish the severity of constipation by carrying out a full assessment of the factors that can contribute to constipation. Assessment should include:

- ▶ Detailed history of bowel patterns
- ▶ Stool assessment using Bristol stool chart (see **Section 4.0 of Implementation Toolkit**)
- ▶ Physical examination
- ▶ Food (high/low fibre foods) and Fluid Intake
- ▶ Medications (for those associated with constipation see **Section 4.0 of Implementation Toolkit**)
- ▶ Medical history (for conditions associated with constipation see **Section 4.0 of Implementation Toolkit**)
- ▶ Functional ability, including level of mobility
- ▶ Activity level.

HSE has specific guidance on continence and bowel assessments for adults, available on the HSE website at <https://www.hse.ie/eng/services/list/2/primarycare/community-funded-schemes/continence/>.

3.8.1 Key recommendations for Constipation Management

Assessment and Education

1. Establish severity of constipation and impact on quality of life by carrying out a full assessment of factors that can contribute to constipation.
2. Based on assessment, develop an individualised bowel management plan addressing identified problems, with continual documented assessment.
3. Educate individual, carer or family on outcomes of assessment and management plan.

Diet and Fluid

4. Ensure a high fibre diet is followed as part of the recommended Nutrition Standards for Food Provision for adults accessing disability services. A high fibre and fluid fact sheet is contained in **Section 5.0 of the Implementation Toolkit**.
5. Fibre supplementation is a safe alternative to laxatives (see guidelines on administration of linseed in **Section 4.0 of Implementation Toolkit**). Increase fibre and fluid gradually for best effect.

Exercise

6. If mobile consider increasing daily activity to include walking to aid comfortable defecation.
7. If immobile consider a strength and flexibility exercise programme.

Toileting

8. Promote and support regular toilet habits.
9. Consider toileting posture (see 'Correct position for opening your bowels' in **Section 4.0 of the Implementation Toolkit**).

Other Strategies

10. Consider non-invasive approach of abdominal massage.
11. Rectal digital stimulation only to be considered under medical supervision and only in the case of impaction.

Laxative Use

12. Consider laxative use only when other non-pharmacological methods have been tried and have been ineffective.
13. Be aware of laxatives that are not indicated for long term use (see **Section 4.0 of Implementation Toolkit**).
14. Review laxative type and dosage every 3 months, in conjunction with bowel habits.

3.9 Nutrition Standards for Dementia

In all three Waves of IDS-TILDA, the prevalence of dementia has increased, from 5.8% in Wave 1 (2011) to 9.1% (n=55) in Wave 3 (2017). Of the 27 people who received a new diagnosis of dementia between Waves 2 and 3, 74% (n=20) had Down Syndrome (IDS-TILDA, 2017). Some people may experience problems with eating and drinking as dementia progresses (INDI OPDIG, 2016).

Table 9: Nutrition Issues at various Stages of Dementia

Stage of Dementia	Nutrition Issues
Early Stages	<ul style="list-style-type: none"> ▶ Failing to recognise spoiled food ▶ Forgetting to eat ▶ Forgetting having already eaten ▶ Eating food which is too hot ▶ Changes in food preferences ▶ Unusual food choices ▶ Gorging (particularly on sweet food)
As Dementia Progresses	<ul style="list-style-type: none"> ▶ Holding food in mouth ▶ Food may not be chewed sufficiently ▶ Non-food items may be eaten ▶ Increase in activity levels (pacing/agitation) ▶ Decrease or Increase in appetite ▶ Loss of ability to use cutlery or self-feed
Advances Stage/ End Stage	<ul style="list-style-type: none"> ▶ Not recognising foods ▶ Refusal to open mouth and turning head away when food is offered ▶ Aphasia: cannot ask for food and fluids ▶ Apraxia: cannot initiate movements to open mouth to chew ▶ Dysphagia: Impaired swallow

Adapted from Nutrition and Dementia booklet (INDI OPDIG, 2016).

3.9.1

Key recommendations to Optimise Nutrition for those with Dementia

Dining Area

1. A room dedicated for eating may help develop familiarity. Going into the dining room/ kitchen may signal that a mealtime is approaching.
2. A dining area as close as possible to the kitchen allows the smell of food to act as a cue for mealtime and stimulates appetite.
3. Encourage the person to sit in the same place for each meal to provide familiarity.

Support with Mealtime preparation

4. Plan for enough time to prepare the meal and afford the person enough time to eat the meal at his/her own pace.
5. A short walk or time outdoors before a meal may encourage appetite.
6. Encourage the person to get involved at mealtimes. Helping prepare food or laying the table can remind a person that it is time to eat.
7. Ensure the person is ready to eat – glasses on, hearing aid working, and dentures, if in situ, are clean and fit well and in place. Ensure the person is seated comfortably and does not need the toilet during the meal.

Table settings

8. Table settings should be kept simple. Minimise the number of items on the table. Remove salt, pepper, condiments, vases, candle holders, napkin holders etc. Only include essential items for the meal.
9. The person with dementia may not always identify his/her own space at the table and take food belonging to someone else. Use a placemat or tray to help the person to recognise their place.
10. Dementia can make it difficult to see the difference between plates and bowls from the surface they are placed on. Use plain, non-patterned, plates and bowls with a contrasting colour to the table cloth or plate setting, for example, white plate on green table cloth. Choose a plain tablecloth as the person may try to pick items off a patterned tablecloth.



Mealtimes

11. Adding in new or strong flavours can be beneficial. Foods which were previously liked may not seem appealing now, extreme flavours such as very sweet, salty or spicy foods may be more appealing to the person. Experiment with different flavoured dishes and desserts. Consider making savoury foods sweet e.g. chutney, relish, apple sauce, sweet chilli sauce or sweet and sour sauce.

Mealtimes *(continued)*

12. Cutting down on choice at mealtimes can help reduce distress or frustration, setting the table with only what is needed. If the person prefers to use a spoon, just put out a spoon. However, this should be balanced with maintaining the person's independence and autonomy for as long as possible.
13. Providing choices through non-verbal means e.g. pictures and photographs may be a helpful support strategy if verbal communication both receptive and expressive has become more challenging. Consult with the Speech and Language Therapist for strategies in general for enabling the person's communication skills around food, food preferences and the mealtime environment in general.
14. Use a familiar mug/china cup/plate as this may help to orientate the person.
15. Encourage the person to eat independently for as long as possible, assist with meals when appropriate.
16. Use non-slip placemats or dinnerware with suction pads to prevent dishes from sliding. Ensure that cutlery is easy to reach; lightweight, coloured, adapted cutlery is best and can help maintain independence. Consult with Occupational Therapist for advice on adapted eating and drinking utensils.
17. When it is obvious that the person can no longer use a spoon or fork, continue to encourage self-feeding using finger foods (full list available in Dementia resource in **Section 4.0 of the Implementation Toolkit**).
18. A person with dementia may eat better in company, as they may copy others and this can help to prompt memory.
19. Prompt the person to eat by placing cutlery or a cup in their hand if they have forgotten what to do next at mealtimes.
20. Keep a good level of eye contact if the person is holding eye contact and it doesn't appear to be causing distress.
21. Ask if the food is too hot or too cold, describe which food or drink you are serving.
22. Serve half portions and keep the rest of the food warm until the first portion is finished. Insulated plates may be useful.
23. Offer drinks after the meal instead of at the same time, or offer small amounts during the meal. Drinks can be filling and they may put someone with dementia off their meal.
24. Colourful foods are more appealing.
25. Avoid serving meals of the same colour, for example chicken, cauliflower and potato on a white plate. Dark-coloured plates highlight light-coloured food well.

Timing of Meals

26. Appetite can vary at certain times of the day. Some people eat more as the day progresses or some people may eat better in the morning. If a person with dementia eats better at a certain time of the day, change their meal time to suit them, rather than trying to make them fit in with a regular meal pattern.

3.10 Inherited Metabolic Disorders

The incidence of metabolic disorders is higher in the Irish population when compared to world-wide trends; Phenylketonuria (PKU) is an example with an incidence of 1 in 4,500 births (NNSL, 2001). Currently, there are a population of people with late diagnosed PKU living in long term residential care in Ireland who were born prior to new born screening, introduced to the Irish population in 1966 (<https://www.hse.ie/eng/health/child/newbornscreening/>). These individuals have varying degrees of intellectual disability arising from previously untreated PKU. Dietary intervention has been shown to dramatically improve quality of life leading to improvement in the behavioural, emotional and psychological welfare of individuals (Fitzgerald *et al.* 2000, Koch & Moseley, 1999, Williams, 1998). The changes in an individual can lead to both reduced staffing levels and overall cost of looking after individuals in a long term care setting (Brown and Guest, 1999).

An INDI Disability audit carried out in 2005 put the number at 32 with a late diagnosis of PKU living in long term residential care in Ireland (INDI, 2005) and it is envisaged that this number has further reduced in the ensuing years. A small number of residents were deemed appropriate for dietary management of PKU post diagnosis; these residents are under the care of specialist metabolic adult services at the Mater Misericordiae University Hospital, for further information please see <https://www.mater.ie/services/adult-metabolic-service/index.xml>.

SECTION 4.0

Nutrition Standards for Adults Requiring Therapeutic Diets

Section	Title	Page
4.0	Nutrition Standards for Adults Requiring Therapeutic Diets	51
4.1	Evidence Statement/ Summary	52
4.2	Nutrition Standards for Weight Loss	52
4.3	Nutrition Standards for Diabetes	54
4.4	Nutrition Standards for a No Added Salt Diet	55
4.5	Nutrition Standards for a High Fibre Diet	56
4.6	Nutrition Standards for an Energy Dense Diet	57
4.7	Nutrition Standards for a Gluten Free Diet	59
4.8	Nutrition Standards for a Renal Diet	60
4.9	Key Recommendations for the Provision of Therapeutic Diets	61

4.1 Evidence Statement/Summary

Issues relating to body weight (both underweight and overweight), swallowing difficulties, gastro-oesophageal reflux disorder, diabetes, bowel disorders and bone disorders are frequently reported among people with a disability (BDA, 2017, Caroline Walker Trust, 2007). This section documents the nutrition standards for the provision of therapeutic diets which may be prescribed for an individual. The standards for therapeutic diets are a combination of nutrient and food-based standards that have been modified from the regular diet to meet requirements prescribed by a dietitian or the medical team in response to a specific clinical need. It can form part of the clinical treatment, or in some cases it can be the principle treatment for a condition. Many therapeutic diets will have similar nutrient goals to those requiring a regular healthy eating diet (Section 3.0) but will require different food choices, and/or modified cooking techniques to achieve nutrient goals.

Referral to a dietitian is necessary for safe and appropriate implementation of a therapeutic diet and menus for therapeutic diets must be developed in conjunction with a dietitian.

4.2 Nutrition Standards for Weight Loss

Evidence suggests that people with intellectual disabilities are more likely to experience obesity at a younger age than the general population (Melville *et al.* 2005, IDS-TILDA, 2017). It is known that overweight (BMI 25 – 29.9 kg/m²) and obesity (BMI 30 kg/m² or above) are linked to an increased risk of developing coronary heart disease, type 2 diabetes, certain cancers, stroke and osteoarthritis (WHO, 2002). The health gains associated with good nutritional care include enhanced quality of life and improved disease outcomes (Astor & Jeffreys, 2000).

Group suitability	<ul style="list-style-type: none"> ▶ Individuals who have been identified as overweight or obese and nutritionally well. ▶ To support the clinical management of dyslipidaemia, cardiovascular risk and hypertension (European Guidelines, 2016).
Rationale and evidence base for the dietary recommendation	Maintaining a healthy weight and adhering to the principles of healthy eating (Section 3.2) contribute to the management and prevention of cardiovascular disease, dyslipidaemia, hypertension and diabetes (European Guidelines, 2016, ADA, 2018, Diabetes UK, 2018).
Nutrition standards for a Weight Loss diet	<p>A Weight Loss diet should provide the following:</p> <ul style="list-style-type: none"> ▶ Micronutrients (vitamins and minerals) should be provided as per Section 3.0 ▶ 20-35% of energy (calories) from fat (FSAI, 2011) ▶ < 10% of energy from saturated fat (FSAI, 2011) ▶ < 1% energy from trans fats (DOH HEG, 2016) ▶ < 10% of energy from sugars (WHO, 2015) ▶ > 25g fibre (FSAI, 2011) ▶ No more than 5-6g salt (DOH, HEG, 2016) ▶ Main meal salt content: should provide < 1.5g salt per portion served (BDA, 2017).
Food Based Standards for a Weight Loss diet	<p>This diet must contain the following types and amounts of foods daily to meet the nutrient standards as above:</p> <ul style="list-style-type: none"> ▶ At least 5 portions of fruit and vegetables per day. ▶ 3-5 servings of wholemeal cereals and breads, potatoes, pasta and rice per day. Those who are inactive require the lower end of recommended servings per day. ▶ 3 servings of reduced-fat or low-fat dairy products per day. ▶ 2 servings of lean meat, poultry, fish, eggs, beans or nuts per day. ▶ Oily fish should be provided twice weekly (Diabetes UK, 2018). ▶ Processed salty meats such as sausages, bacon and ham should be avoided. ▶ All cooking oils and spreads must be based on mono or polyunsaturated fats and should be used sparingly. ▶ Eggs should be limited to no more than seven eggs per week (FSAI, 2011).
Precautions/ additional considerations	This menu is only suitable for adults identified as overweight or obese and who, as a result of nutrition screening (Section 2.3), are deemed not to be at risk of malnutrition.

See **Section 5.0 of the Implementation Toolkit** for a sample Weight Management Meal Plan and Weight Management resources.

4.3 Nutrition Standards for Diabetes

Type 2 diabetes is a condition which occurs when the body is no longer able to absorb glucose circulating in the blood. When food is eaten, in particular carbohydrates (starches and sugars), the level of glucose in the blood increases. In response the pancreas produces insulin, a hormone that allows the body to store and regulate glucose as an energy source for the body. When a person has Type 2 diabetes the pancreas may not produce enough insulin or the insulin produced may not work as effectively as it should, often due to a disproportionate ratio of fat to muscle cells, where fat cells exceed muscle cells; this is referred to as insulin resistance. Both a lack of insulin and insulin resistance lead to increased levels of blood glucose called hyperglycaemia. Consistent hyperglycaemia (i.e. poorly controlled diabetes) can cause damage to blood vessels, particularly those areas of the body that are highly vascularised like eyes and kidneys, and can also contribute to cardio-vascular disease (CVD) which includes heart disease and stroke (INDI DIG, 2017).

Group suitability	To support clinical management of individuals with type 1 and type 2 diabetes (ADA, 2018, Diabetes UK, 2018).
Rationale and evidence base for the dietary recommendation	Therapeutic dietary management of diabetes is based on the principles of healthy eating (section 3.2), also relevant for the management of cardiovascular disease, dyslipidaemia and hypertension (European Guidelines, 2016, ADA, 2018, Diabetes UK, 2018).
Nutrition standards for a Diabetic diet	<p>A Diabetic diet should provide the following:</p> <ul style="list-style-type: none"> ▶ < 10% of energy from sugars (non-milk extrinsic sugars to include table sugar, syrups, fruit juice and sugars added to cakes, biscuits, confectionary, breakfast cereals, sweets, soft drinks, tinned and stewed fruit, jams, preserves, yogurts and milk puddings), progressively reducing to ≤ 5% (WHO, 2015) ▶ ≥ 25 g fibre (FSAI, 2011).
Food Based Standards for a Diabetic diet	<p>This diet must contain the following types and amounts of foods daily to meet the nutrient standard as above:</p> <ul style="list-style-type: none"> ▶ At least 5 portions of fruit and vegetables per day ▶ 3-5 servings of wholemeal cereals and breads, potatoes, pasta and rice per day [note: those who are inactive require the lower end of recommended servings per day] ▶ Oily fish should be provided twice weekly (Diabetes UK, 2018) ▶ No high fat processed salty meats such as sausage, bacon, salami and ham ▶ Fruit juice should be limited to one portion daily (150 ml).
Precautions/ additional considerations	This menu is only suitable for adults with a diagnosis of Diabetes and who, as a result of nutrition screening (Section 2.3), are deemed not to be at risk of malnutrition.

See **Section 5.0 of the Implementation Toolkit** for resources to help manage Diabetes.

4.4 Nutrition Standards for a No Added Salt Diet

A no added salt diet requires modification of food choices available on the regular diet to reduce salt intake.

Group suitability	<p>A no added salt diet may be prescribed to support the medical management of individuals with clinical conditions such as:</p> <ul style="list-style-type: none"> ▶ Hypertension (HTN) (AND, 2015) ▶ Congestive Cardiac Failure (CCF) (Fitchett <i>et al.</i> 2004) ▶ Liver disease with ascites (EASL, 2010) ▶ Chronic kidney disease (CKD) (INDI, 2015) ▶ Acute Kidney Injury (AKI) (NSH, 2015).
Rationale and evidence base for the dietary recommendation	<p>In 2016, the Food Safety Authority of Ireland (FSAI) recommended through its “Salt and Health” report (revision 1) that an achievable salt intake target for the Irish population was 6 g salt per day (2.4 g sodium) (FSAI, 2005, 2017). Whilst the FSAI considers this an achievable target for the Irish population, it does not regard it as an optimal or ideal level of consumption. The World Health Organisation (WHO) currently recommends a daily intake of no more than 5 g salt per day for adults (WHO, 2012).</p>
Nutrition standards for a No Added Salt diet	<ul style="list-style-type: none"> ▶ A no added salt diet should limit total sodium intake to no more than 5-6 g salt (80 – 100 mmol sodium) per day. ▶ Main meal salt content should contain < 1.5 g salt (BDA, 2017).
Food based standards for a No Added Salt diet	<ul style="list-style-type: none"> ▶ Avoid adding salt when cooking ▶ Remove salt cellar/sachets from the table ▶ Avoid processed meats, especially rashers, sausages, bacon, corned beef, canned meats and deli meat like salami ▶ Avoid high-salt snacks like crisps, peanuts, salted popcorn, olives ▶ Avoid drinks/gravies high in salt e.g. Bovril, packet soups ▶ Avoid supermarket ready prepared meals, frozen meals and takeaways.
Precautions/ additional considerations	<p>It is essential that individuals with clinical conditions such as end stage kidney disease, liver disease or CCF are referred to a dietitian in order to review appropriateness of dietary restrictions.</p>

See **Section 5.0 of the Implementation Toolkit** for a sample No Added Salt Meal Plan.

4.5 Nutrition Standards for a High Fibre Diet

Fibre facilitates appropriate bowel function by increasing stool bulk and plasticity which decreases colonic transit time and promotes stool propulsion (Gallegos-Orozco *et al.* 2012, Vazquez & Bouras, 2015).

Group suitability	<p>A high fibre diet may be prescribed to support the medical management of:</p> <ul style="list-style-type: none"> ▶ Those with a history of constipation ▶ Those with a poorly balanced diet with low fibre content ▶ Those with a reliance on long term laxative use ▶ Gut dysmotility ▶ Constipation as a result of polypharmacy ▶ Those with a lack of urge to defecate.
Rationale and evidence base for the dietary recommendation	<ul style="list-style-type: none"> ▶ Normalises bowel movements. Dietary fibre increases the weight and size of a stool and softens it. A bulky soft stool is easier to pass, decreasing instances of constipation. ▶ Helps maintain bowel health. A high-fibre diet may lower the risk of developing haemorrhoids or diverticular disease. Some studies have found that a high-fibre diet likely lowers the risk of colorectal cancer (Aune <i>et al.</i> 2011). ▶ Lowers cholesterol levels. Soluble fibre helps lower total blood cholesterol levels by lowering low-density lipoprotein (LDL). Studies also have shown that a high-fibre diet may have other heart-health benefits, such as reducing blood pressure and inflammation. ▶ Helps control blood sugar levels. For those with diabetes, dietary fibre, particularly soluble fibre, can slow the absorption of glucose molecules and help improve blood glucose levels (INDI DIG, 2017). ▶ Aids in achieving healthy weight. High fibre foods tend to be more filling, maintaining the feeling of satiety longer (INDI GIG, 2013).
Nutrition standards for a High Fibre diet	<ul style="list-style-type: none"> ▶ A regular healthy diet should contain ≥ 25 g fibre per day (FSAI, 2011). ▶ A high fibre diet should contain 25-38 g fibre per day (Moblely <i>et al.</i> 2014).

Food based standards for a High Fibre diet	<p>Soluble fibre is fermented in the gut, helping the healthy bacteria in the gut reproduce, improving bowel health. Found in:</p> <ul style="list-style-type: none"> - Beans and lentils such as chickpeas, green beans, baked beans - Vegetables such as green vegetables, cauliflower and carrots - Fruits such as blueberries, bananas, strawberries and apples - Grains such as oats, barley, rye, buckwheat. <p>Insoluble fibre promotes the passage of material through the digestive system and increases stool bulk, so it can be of benefit to those who have a history of constipation or irregular stools. Found in:</p> <ul style="list-style-type: none"> - High fibre breakfast cereals, wholemeal breads, grains, pasta and rice - Vegetables and fruits with skins and pips - Potatoes with skins - Nuts and seeds (linseeds/flaxseeds contain both soluble and insoluble fibre).
Precautions/ additional considerations	<ul style="list-style-type: none"> ▶ Fibre intake should always be increased gradually, as going from a little to a lot can cause abdominal discomfort. ▶ Adequate fluid intake is necessary, and fluid intake must be increased in line with an increase in fibre intake. ▶ A high fibre diet may not be suitable for those that are deemed to be at risk of malnutrition as a result of nutrition screening (section 2.3)

See **Section 5.0 of the Implementation Toolkit** for a sample High Fibre Meal Plan.

4.6 Nutrition Standards for an Energy Dense Diet

Undernutrition can affect every system in the body. It negatively impacts on physical, psychosocial wellbeing and disease outcomes (NICE, 2006). A review of 25 studies by Gravestock (2000) concluded that between 35% and 72% of people with severe learning disabilities were significantly underweight (BMI < 18 kg/m²). This was mostly confined to those who were immobile, unable to feed themselves and those who experienced eating, drinking and swallowing difficulties. Significant underweight/under-nutrition is associated with increased susceptibility to infection, poor wound healing, enhanced muscle weakness and reduced cough reflex, poor concentration and impaired learning, bone demineralization/fractures, impaired gastrointestinal/cardio/respiratory/cerebral function, increased hospitalisations and increased morbidity (Gravestock, 2000). It is essential that all staff are alert to under-nutrition and are trained to identify signs that food intake is inadequate as early as possible (Caroline Walker Trust, 2007).

The Energy Dense diet contains smaller portions of food, fortified foods and foods that are high in fat and sugar.

Group suitability	<p>An Energy Dense diet should be considered for adults who have:</p> <ul style="list-style-type: none"> ▶ A reduced appetite and/or ▶ Poor food intake ▶ Physical difficulty with eating and drinking ▶ Early satiety ▶ Higher energy requirements that relates to a clinical condition (e.g. active Inflammatory bowel disease, wound healing) ▶ High energy requirements relating to any condition that may result in frequent pacing (e.g. poor mental health, dementia).
Rationale and evidence base for the dietary recommendation	<p>One of the key aims of this diet is to provide food with concentrated energy and nutrients in smaller portions, preferable in the form of 3 meals and 2 snacks per day. A choice of menu items of adequate energy density should be available to allow those with small appetites/intakes to achieve the recommended daily energy and protein requirements.</p>
Food based standards for an Energy Dense diet	<p>An energy dense diet should contain:</p> <ul style="list-style-type: none"> ▶ 3 fortified reduced portion size main meals ▶ 2 desserts each day (at midday and evening meal) fortified or served with custard, ice-cream or cream. ▶ 2 nourishing snacks between meals (see Section 5.0 of the Implementation Toolkit for high calorie snack ideas) ▶ Full fat milk to be offered with all meals.
Precautions/ additional considerations	<ul style="list-style-type: none"> ▶ This diet is not suitable for adults identified as being nutritionally well with a normal appetite. ▶ For those with a reduced appetite it may not be possible to meet all micronutrient and protein requirements by diet alone and supplementation may be required. Menu adequacy should be assessed by a dietitian at least once a year. ▶ This diet needs to be adapted by a dietitian for individuals who also require a therapeutic or texture modified diet.

See **Section 5.0 of the Implementation Toolkit** for a sample High Calorie High Protein Meal Plan, along with ideas for food fortification and provision of high calorie snacks.

4.7 Nutrition Standards for a Gluten Free Diet

A Gluten Free diet is a diet that is required for individuals who have a medically documented intolerance to gluten or a documented diagnosis of coeliac disease.

Group suitability	Individuals with Coeliac disease.
Rationale and evidence base for the dietary recommendation	Coeliac disease is an autoimmune condition in which an individual reacts abnormally to the ingestion of gluten and other cereal protein. For those with a documented diagnosis of Coeliac disease, the gluten free diet should be followed for life (Coeliac Society of Ireland).
Nutrition Standards for a Gluten Free diet	<ul style="list-style-type: none"> ▶ Meals should have no more than 20 parts per million (ppm) or 20 mg/kg or less of gluten (BDA, 2017, FSA, 2012). ▶ “Gluten-free” means that the food contains less than 20 mg/kg gluten (www.coeliac.ie). ▶ Calcium intake of $\geq 1,000$ mg /day (Ludvigsson <i>et al.</i> 2014). ▶ The nutrition standards for energy, protein, fibre and micronutrients (vitamins and minerals) should also be provided to ensure nutritional adequacy (see Section 3.0).
Food Based standards for a Gluten Free diet	<ul style="list-style-type: none"> ▶ All foods containing wheat, barley and rye should be avoided. ▶ Although some people with coeliac disease can include oats in their diet, oat products are at high risk of contamination from other gluten-containing cereals including wheat and barley, therefore they should not be offered as part of a gluten free diet (NHS, Scotland, 2016). ▶ Gluten free oats are available (see www.coeliac.ie). ▶ The Coeliac Society of Ireland produce a list of “Gluten-Free Manufactured Products”, also referred to as the “Food List” booklet, compiled in accordance with current EU legislation. The booklet also features ‘own brand’ products that are gluten-free and available from the main supermarket chains. Updates are available in the member’s area of the Coeliac Society of Ireland’s website (www.coeliac.ie).
Precautions/ additional considerations	<ul style="list-style-type: none"> ▶ Cross contamination: It is essential that non gluten containing ingredients are protected from the risk of contamination with gluten during their storage, preparation, transportation or during serving e.g. toaster bags, separate butter/jam containers. ▶ Ingredients that are non-gluten containing must be prepared using separate utensils, chopping boards and containers (FSA, 2012). ▶ Care must be taken with any change to ingredients in relation to gluten free menu items, to ensure they remain gluten free. ▶ Standard communion wafers are not gluten free. If an individual wishes to receive holy communion a gluten free communion wafer should be provided.

See **Section 5.0 of the Implementation Toolkit** for a sample Gluten Free Meal Plan.

4.8 Nutrition Standards for a Renal Diet

A renal diet is a diet that is low in salt, potassium and phosphate, with adequate energy and protein. It is required for those with kidney disease.

Group suitability	<p>The Renal Diet should meet the needs of:</p> <ul style="list-style-type: none"> ▶ Individuals with Chronic Kidney Disease (CKD) ▶ Individuals with End Stage Kidney Disease (ESKD) who are receiving dialysis (Haemodialysis or Peritoneal Dialysis) ▶ Individuals with high blood potassium levels ▶ Individuals with high blood phosphate levels ▶ Individuals with Diabetes who also have CKD/ESKD.
Rationale and evidence base for the dietary recommendation	<p>Individuals with CKD display a variety of metabolic and nutritional abnormalities. Depending on their medical condition it may be necessary to modify any or all of the following aspects in their diet: Protein, Potassium, Phosphate, Salt, Energy and Fluid. The renal diet is one of the cornerstones of the treatment of CKD and reduces the generation of nitrogenous wastes and inorganic ions, which may cause many of the clinical and metabolic disturbances characteristic of uraemia (AND, 2010). The renal diet also aids in the management of hyperkalaemia, hyperphosphataemia, metabolic acidosis, and other electrolyte disorders experienced by those with CKD (AND, 2010).</p>
Nutrition Standards for a Renal Diet	<p>A Renal diet should provide the following nutrient composition per day:</p> <p>A. Protein:</p> <ul style="list-style-type: none"> - 0.8 - 1g protein / kg Ideal Body Weight (IBW) for individuals with CKD not on dialysis - 1 - 1.2g protein / kg IBW for those requiring haemodialysis - 1.2 - 1.3g protein / kg IBW for those requiring peritoneal dialysis (INDI RIG Guidelines, 2006) <p>B. Salt: no more than 5 – 6g (80-100mmol) (INDI RIG 2006, NHS Scotland 2016, BDA 2017)</p> <p>C. Potassium: <60 – 70 mmol (INDI RIG, 2006)</p> <p>D. Phosphate: < 15 mg/g protein (INDI RIG, 2006).</p>

**Precautions/
additional
considerations**

- ▶ **SPECIAL CONSIDERATION: Individuals with a Dry Body Weight of < 50 kg:** Adaptation may be required where portion size is reduced. It is recommended that an individualised diet is planned in conjunction with a dietitian (ideally one with renal experience).
- ▶ The renal menu must also meet the needs of the Individual with both CKD and Diabetes. It is estimated that the prevalence of CKD in the general population who already have a diagnosis of Type 2 diabetes is as high as 43.5% (Bailey *et al.* 2014).
- ▶ Some Individuals with kidney disease may be identified as at risk of malnutrition due to the nature of their illness and compounded by the specific dietary restrictions they require. As kidney disease progresses, the risk of malnutrition also increases. Therefore, the renal menu is often required to ensure a nutritionally complete diet is available for both the nutritionally well and the CKD/ESKD Individual identified at risk of malnutrition. Additional snacks may be required to meet energy and protein needs (NHS, Scotland, 2016).

See **Section 5.0 of the Implementation Toolkit** for a sample Renal Meal Plan.

4.9

**Key Recommendations for the Provision
of Therapeutic Diets**

1. Menus for therapeutic diets must be developed in conjunction with a dietitian and reviewed at least once a year.
2. All therapeutic diets must be provided in line with Nutrition Standards for Food Provision set out in this policy in Section 3.0.
3. It is essential that there is a choice of food and fluid options available for those prescribed a therapeutic diet.
4. Care sites must develop procedures for provision of therapeutic diets that are not required regularly and also for the provision of a bespoke menu for individuals requiring a combination of therapeutic diets (e.g. diabetic and renal diet).

SECTION 5.0

Nutrition Standards for Adults Requiring Texture Modified Diets and Thickened Drinks (Liquids)

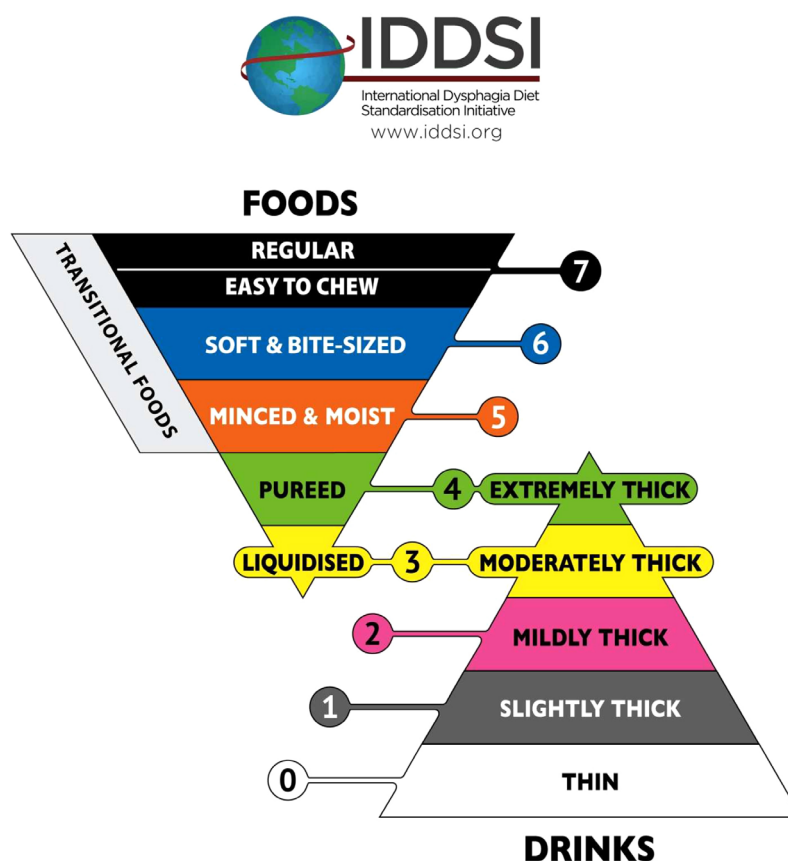
Section	Title	Page
5.0	Nutrition Standards for Adults Requiring Texture Modified Diets and Thickened Drinks (Liquids)	62
5.1	Evidence Statement/ Summary	63
5.2	Nutrition Standards for Texture Modified Diets	64
5.3	Nutrition Standards for Thickened Drinks (Liquids)	70
5.4	Key Recommendations for the Provision of Texture Modified Diets and Thickened Drinks (Liquids)	73

5.1 Evidence Statement/Summary

Texture modification of foods and thickening of drinks (liquids) forms a routine part of the assessment and treatment of oropharyngeal dysphagia (swallowing difficulties). Oropharyngeal dysphagia contributes to reduced dietary intake and potentially to malnutrition, choking and aspiration (Cichero & Murdock, 2006). The National Patient Safety Agency (NPSA, 2004) states that Feeding, Eating, Drinking and Swallowing (FEDS) disorders are more common in people with a disability, however they are often under-recognised. As a result, the reported prevalence rates vary, however, some studies estimate that between 39-56% of people with intellectual disabilities present with dysphagia (Reilly *et al.* 1996). A texture modified diet is prescribed by a Speech and Language Therapist (SLT) for individuals with oropharyngeal dysphagia.

If this recommendation is not followed or the consistency of drinks/diet is incorrect, the individual may face serious health consequences. The standard terminology for the management of texture modified diets and thickened drinks in Ireland, is the International Dysphagia Diet Standardisation Initiative (IDDSI) 2016. IDDSI was implemented in Ireland between November 2019 and mid-2020. The IDDSI is a global standard with terminology and definitions to describe texture modified foods and thickened liquids used for individuals with dysphagia of all ages, in all care settings, and for all cultures. It is important to note that prior to the introduction of the IDDSI framework, The Irish Consistency Descriptors for Modified Fluids and Food: Consensus Document (Nov 2009) was used to manage modified consistency diet and fluids. Individuals requiring a texture modified diet will have similar nutrient goals to those on a regular diet but require different food choices and texture to remain nutritionally well.

Figure 3: International Dysphagia Diet Standardisation Initiative (IDDSI)



5.2 Nutrition Standards for Texture Modified Diets

Texture Modified Diets, as prescribed by an SLT, relates to food with altered texture to enable an individual to chew and swallow safely.

Group suitability	<p>A texture modified diet is required for the following:</p> <ul style="list-style-type: none"> ▶ Adults with oropharyngeal dysphagia ▶ Adults at risk of choking ▶ Adults at risk of aspiration <p>A texture modified diet may also be required in the following on request by a member of the medical team:</p> <ul style="list-style-type: none"> ▶ Adults with altered oesophageal anatomy as well as gastrointestinal strictures ▶ Post upper gastrointestinal /oral surgery, for example, post jaw wiring <p>It may also be requested for:</p> <ul style="list-style-type: none"> ▶ Adults who chose to eat a modified texture diet ▶ Adults with poor dentition/sore mouth or throat
Rationale and evidence base for the dietary recommendation	<p>Texture modification of foods and thickening of fluids forms a routine part of the assessment and treatment of oropharyngeal dysphagia (swallowing difficulties). Oropharyngeal dysphagia contributes to reduced dietary intake and potentially to malnutrition, choking and aspiration (Cichero & Murdock, 2006). Some individuals may require specific modifications. These will be prescribed on an individual basis following assessment by an SLT. The International Dysphagia Diet Standardisation Initiative (IDDSI) Framework, 2016 consists of a continuum of 8 levels (0-7). It provides a systematic approach to consistent production and easy testing of texture modified foods and thickened drinks. Food and drinks' levels are identified by labels, numbers and colour codes to improve individual safety and easy identification of those in need of a modified diet.</p>

Nutrition Standards for Texture Modified diets

Within the IDDSI framework, there are 5 levels of food texture (Levels 3-7). There are specific standards for each food texture. A description and characteristic, rationale and precautions for each food texture level are provided below.

Level 7: Regular diet

Description/ Characteristics: There are no texture restrictions at this level. Normal, everyday foods of various textures are allowed. Foods may be hard, crunchy or naturally soft. Regular diet includes hard, tough, chewy, fibrous, stringy, dry, crispy, crunchy or crumbly foods.

Precautions: Nil precautions

Level 7a: Regular – Easy to Chew

Description /Characteristics:

- Normal foods with soft/tender textures
- Any method can be used to eat
- Range of sizes
- May include mixed consistencies
- Must be able to break apart easily with the side of a fork or a spoon

Rationale:

- Biting is required
- Chewing is required
- No increased risk of choking and do not have swallowing problems
- Chewing ability to break down soft/tender foods into pieces without help
- Tongue force and control to move the food for chewing and to keep it in the mouth during chewing
- Tongue force is required to move the bolus for swallowing

Precautions:

- Does not include: hard, tough, chewy, fibrous, stringy, crunchy, or crumbly bits, pips, seeds, fibrous parts of fruit, husks or bones
- Ability to chew soft & tender foods, so they are safe to swallow without tiring easily
- Ability to remove bones, gristle or other hard pieces that cannot be swallowed safely from your mouth without help or direction from others

**Nutrition
Standards for
Texture Modified
diets** *(continued)*

Level 6: Soft & Bite-Sized diet

Description /Characteristics:

- Can be eaten with a fork/ spoon
- Can be mashed/ broken down with pressure from fork/ spoon.
- A knife is not required to cut these foods, but may be used to help load a spoon/ fork
- Chewing is required before swallowing
- Soft, tender and moist throughout but with no separate thin liquid
- "Bite size" pieces as appropriate (1.5 cm. x 1.5 cm)

Rationale:

- Biting is not required
- Chewing is required
- Tongue force and control to move the food for chewing and to keep it in the mouth during chewing
- Tongue force is required to move the bolus for swallowing
- Pain or fatigue on chewing
- Poor dentition / Poorly fitting dentures

Precautions:

- Food particle size no bigger than 1.5 cm x 1.5 cm
- All sauces and gravies must be thickened to the appropriate level for individuals on modified/thickened fluids
- Fibrous parts of fruit are not suitable
- No bread allowed unless assessed as suitable by the speech and language therapist on an individual basis

**Nutrition
Standards for
Texture Modified
diets** *(continued)*

Level 5: Minced and Moist Diet

Description/Characteristics

- Can be eaten with a fork/ spoon
- Can be scooped and shaped into a ball shape on a plate
- Soft and moist with no separate thin liquid
- Small viable lumps within the foods – no bigger than 4 mm
- Lumps are easy to squash with tongue

Rationale:

- Biting is not required
- Minimal chewing is required
- Tongue force alone can be used to break soft particles in this texture
- Tongue force is required to move the bolus
- Pain or fatigue on chewing
- Missing teeth, poorly fitting dentures

Precautions:

- Food particle size is 2-4 mm
- All gravies/sauces must be extremely thick, smooth and non-pouring in consistency
- Rice: Not sticky or glutinous (particularly short grain rice) and should not be particulate or separate into individual grains when cooked and served (particularly long grain rice).

**Nutrition
Standards for
Texture Modified
diets** *(continued)*

Level 4: Pureed

Description /Characteristics

- Usually can be eaten with a spoon
- Does not require chewing
- Can be piped, layered or moulded
- Shows some very slow movement under gravity but cannot be poured
- Falls off a single spoonful when tilted and continues to hold shape on a plate
- No lumps
- Not sticky
- Liquid must not separate from solid

Rationale:

- If tongue control is significantly reduced, this category may be easiest to manage
- Requires less propulsion than Minced & Moist (Level 5), Soft (Level 6) and Regular (Level 7) but more than Liquidised (Level 3)
- No biting or chewing is required
- Increased residue is a risk if too sticky
- Any food that requires chewing, controlled manipulation or bolus formation is not suitable
- Pain on chewing or swallowing
- Missing teeth, poorly fitted dentures

Precautions:

- Ensure all sauces/ gravy is extremely thick, smooth and non-pouring.

Nutrition Standards for Texture Modified diets <i>(continued)</i>	<p>Level 3: Liquidised</p> <p>Description/ Characteristics</p> <ul style="list-style-type: none"> – Can be drunk from a cup – Cannot be piped, layered or moulded onto a plate – Cannot be eaten with a fork because it drips slowly in dollops through the prongs – Can be eaten with a spoon – No oral processing or chewing required- can be swallowed directly – Smooth texture with no “bits” (lumps, fibres, bits of shell or skin, husk, particles of gristle or bone) <p>Rationale:</p> <ul style="list-style-type: none"> – Needs some tongue propulsion effort – Pain on swallowing <p>Precautions:</p> <ul style="list-style-type: none"> – Due to the liquid nature of this diet, it will not be suitable for those who require Level 4: Extremely Thick Drinks. <p>The nutrition standards for a regular healthy diet (Section 3.0) should also be provided in each diet level to ensure nutritional adequacy of the diet.</p>
Precautions/ Additional considerations	<ul style="list-style-type: none"> ▶ Within the IDDSI Framework, food descriptors are supported by simple measurement methods that must be used by staff/ caregivers, clinicians or food service professionals to confirm the food adheres to the characteristics of the correct level. ▶ If the texture modified diet is produced in house extreme care needs to be taken to ensure the texture of the diet meets the IDSSI specific requirements (BDA, 2017). If the texture of the diet cannot be guaranteed when produced in house, it may be necessary to purchase texture modified meals from an alternative provider which comply with texture modified guidelines. ▶ Presentation and taste of texture modified diets must be optimised to aid intake. Level 4 Pureed diets can be piped, layered or moulded (IDDSI, 2016) ▶ Food fortification and supplementation may be required due to restrictions on food types allowed on a texture modified diet.

5.3 Nutrition Standards for Thickened Drinks (Liquids)

Thickened Drinks (Liquids) are drinks which have their consistency altered (made thicker) to enable a resident to swallow the drink safely.

Group suitability	<ul style="list-style-type: none"> ▶ Adults with oropharyngeal dysphagia (as assessed by an SLT) ▶ Adults at risk of choking ▶ Adults at risk of aspiration
Rationale and evidence base	The rationale and evidence base is the same as for texture modified foods. The standard terminology for the management of modified/ thickened drinks is the IDDSI 2016 framework.
Nutrition Standards for provision of thickened drinks	<p>Within the IDDSI framework, there are 5 levels of drinks (Level 0-4). There are specific standards for each drinks level. A description of characteristics and the rationale for each drinks level is provided below.</p> <p>Level 0: Thin</p> <p>Description /Characteristics:</p> <ul style="list-style-type: none"> - Flows like water - Fast flow - Can drink through any type of cup/ straw <p>Rationale</p> <ul style="list-style-type: none"> - Functional ability to safely manage liquids of all types. <p>Level 1: Slightly Thick</p> <p>Description/Characteristics</p> <ul style="list-style-type: none"> - Thicker than water - Requires a little more effort to drink than thin liquids - Flows through a straw/ syringe <p>Rationale</p> <ul style="list-style-type: none"> - To provide thickened fluids of a slightly thick consistency when thinner fluids are unsafe

**Nutrition
Standards for
provision of
thickened drinks**
(continued)

Level 2: Mildly Thick

Description/Characteristics

- Flows off a spoon
- Sippable, pours quickly from a spoon, but slower than thin drinks
- Effort is required to drink this thickness through standard bore straw (standard bore straw= 0.209 inch or 5.3 mm diameter)

Rationale

- If thin drinks flow too fast to be controlled safely, these Mildly Thick liquids will flow at a slightly slower rate
- May be suitable if tongue control is slightly reduced

Level 3: Moderately Thick

Description/Characteristics

- Sippable, pours slowly off a spoon
- Flows slowly from a spoon or cup: easier to control
- Difficulty to suck through a standard bore or wide bore straw (wide bore straw= 0.275 inch or 6.9 mm)
- Needs some tongue propulsion effort

Rationale

- If tongue control is insufficient to manage Mildly Thick drinks (Level 2), this Moderately Thick level may be suitable
- Allows more time for oral control

Level 4: Extremely Thick

Description/Characteristics

- Holds its shape on a spoon
- Flows very slowly under gravity
- Cannot be sucked through a straw

Rationale

- If tongue control is significantly reduced, this level may be easiest to manage
- Increased residue is a risk

**Precautions/
additional
considerations**

- ▶ Within the IDDSI Framework, food descriptors are supported by simple measurement methods that must be used by caregivers, clinicians, food service professionals or care staff to confirm drinks provided adhere to the characteristics of the correct level.
- ▶ Suitability of foods of a fluid texture must be assessed by a speech and language therapist (SLT) and coded as per level of suitability e.g. soup, smoothies, fortified drinks, prune juice etc.
- ▶ Individuals requiring thickened fluids may be at increased risk of dehydration and require monitoring of fluid intake and hydration status.

A HSE IDSSI Implementation pack is available on HSELand at <https://www.hseland.ie/>

5.4

Key Recommendations for the Provision of Texture Modified Diets and Thickened Drinks (Liquids)

1. All texture modified diets must provide the nutrition standards for a regular healthy diet outlined in Section 3.0, unless prescribed a specific therapeutic diet (Section 4.0).
2. It is essential that there is a choice of food and fluid options available on texture modified diet menus (menu ideas provided in **Section 7.0 of the Implementation Toolkit**).
3. Menu options for texture modified diets must be developed in conjunction with the SLT and the Dietitian and reviewed at least once a year.
4. Within the IDDSI Framework for texture modified diets and thickened drinks (liquids), food and drinks descriptors are supported by simple measurement methods. These measurement methods must be used to confirm a food and drink consistency level (Refer to <http://iddsi.org>).
5. For individuals prescribed a therapeutic diet and a textured modified diet, each menu item provided should be assessed by a Speech and Language Therapist (SLT) to determine suitability for inclusion on the menu for the individual.
6. All care and medical staff who support people with disabilities should have training in recognising and managing swallowing difficulties (dysphagia), which includes knowledge of the relevant texture modified diet and thickened drinks (see **Section 6.0 of the Implementation Toolkit for Signs and Symptoms of Dysphagia**). Staff should link with SLT department as available.
7. All care staff who prepare meals for adults accessing disability services must have training in the preparation of texture modified meals to IDDSI standards.

SECTION 6.0

Food Service

Section	Title	Page
6.0	Food Service	74
6.1	Evidence Statement/ Summary	75
6.2	Menu Planning	75
6.2.1	Key Recommendations for Menu Planning	77
6.3	The Eating Environment (Making Mealtimes Matter)	77
6.3.1	Key Recommendations for Making Mealtimes Matter	78
6.4	Assistance at Mealtimes	79
6.5	Food Safety	79
6.5.1	Key Recommendations for Food Safety	80
6.6	Food Allergens	80
6.6.1	Key Recommendations for Food Allergens	81

6.1 Evidence Statement/Summary

It is a fundamental human right that everyone should have access to food and drinks that are both nutritionally adequate and culturally acceptable. It is important to work together to ensure that adults accessing disability services are supported to make healthy choices and understand the importance of eating well (BDA, 2017). Person-centred care aims to ensure that the individual remains the most important person in determining how they are supported, and promotes the rights of everyone to maximum independence and choice (Caroline Walker Trust, 2007). The nutrition standards in Section 3.0 provide a framework around which caterers and care staff can plan suitable menus for adults accessing disability services.

6.2 Menu Planning

Menu planning should take cognisance of the care setting and population it will serve. Menu provision requires regular review, along with consultation with residents. Research has shown that a community-based health promotion intervention can improve menu planning and dietary adequacy while being responsive to the needs of residents, direct care staff and administrators (Humphries *et al.* 2009). The aim of menu planning should be to maximise the potential for individuals to meet their nutritional requirements, utilising a food first approach. The food first approach is the term used for general dietary guidance to improve food intake. It includes strategies such as increasing food frequency, modifying food intake and fortifying foods to increase the consumption of energy and nutrient-dense foods (DOH, Social Services and Public Safety UK, 2012).

Figure 4: The Food First Inverted Triangle (BAPEN 2007)



Adapted from BAPEN (2007)

Range of Menus Required

A Range of Menu options are required to meet Nutrition Standards for Food Provision for adults accessing disability day services contained in Sections 3.0, 4.0 & 5.0 of this policy. Options include:

- ▶ Healthy Eating Menu (standard menu)
- ▶ Diabetes options
- ▶ No added Salt options
- ▶ Gluten free options
- ▶ High Fibre options
- ▶ Renal diet
- ▶ Energy dense diet.

Some residents will require multiple therapeutic diets (combination diet) as a result of their co-morbidities, for example renal diabetic also requiring a modified textured diet due to recent stroke and resulting swallowing impairment (acute illness). Local assessment of combination diets required should be conducted to ensure these complicated menu requirements can be adequately catered for and that sufficient food choice is available (an 'Eating, Drinking and Nutrition Needs Assessment' form is contained in **Section 2.0 of the Implementation Toolkit**). A menu planning resource is provided in **Section 7.0 of the Implementation Toolkit**.

Range of Snacks Required

It is important that nutritious snacks are offered regularly to individuals who have a small appetites and who therefore need to eat frequently or 'little and often', to those who may need to eat a greater amount of calories per day, or to those who are fussy or selective eaters (Caroline Walker Trust, 2007).

For those individuals who are gaining weight or who have been advised to lose weight, snacks that are high in fat and sugar (such as confectionery, savoury snacks, soft drinks, cakes, biscuits and ice cream) should be kept to a minimum as these frequently contribute significant extra calories to the diet. The best snacks are those which provide essential nutrients without adding additional salt, fat and sugar to the diet (Caroline Walker Trust, 2007).

A range of snacks should be available that:

- ▶ provide the nutrition standard for a healthy balanced diet (Section 2.0)
- ▶ are suitable for individual therapeutic diets (Section 4.0)
- ▶ are suitable for texture modified diets (Section 5.0)
- ▶ provide individuals with a choice.

A list of appropriate snack choices is provided in **Section 7.0 of the Implementation Toolkit**.

6.2.1 Key Recommendations for Menu Planning

1. Menu planning should incorporate food likes and dislikes of the individual, provide adequate variety, healthy food choices and a balanced diet in line with Section 3.0 Nutrition Standards for Food Provision.
2. Standardised recipes and portion control must be used to ensure consistent nutritional quality and cost.
3. Food and drinks should be accessible at all times, and offered regularly throughout the day to ensure adequate nourishment and hydration each day.
4. A choice of snacks meeting the nutrition standard for regular healthy diet (Section 3.0) and suitable for therapeutic (Section 4.0) and texture modified diets (Section 5.0) must be available.
5. Meals should be presented in an attractive manner and served without delay.
6. When a modified meal at Level 5: Minced & Moist or Level 4: Pureed is presented each item must maintain their position without 'bleeding' into one another. These foods should be blended separately.
7. When discussing menu options consider the Total Communication Approach e.g. are visuals needed? What Lámh signs should be used? (See **Communication Toolkit in Section 3.0 of the Implementation Toolkit**).
8. If a resident has been prescribed dysphagia guidelines by an SLT, ensure that foods considered during the menu planning stage are appropriate to the resident's specific guidelines and meet the individual's preferences where appropriate.
9. Packed lunches should be nutritious and varied (see **Recipes for a Healthy Balanced Diet in Section 4.0 of the Implementation Toolkit**).

6.3 The Eating Environment (Making Mealtimes Matter)

Creating a calm eating environment where individual needs are met at mealtimes is an important factor when encouraging people to eat well. Inadequate or inappropriate nutrition in those living with a disability can be partly due to environmental factors (Robertson, 2000). Adults with a range of physical and behavioural difficulties require mealtime support to ensure safety and adequate nutrition (Ball *et al.* 2012).

It is important to ensure that people arrive at mealtimes ready for the eating occasion, for example having had the opportunity to go to the toilet and wash their hands, or collect their hearing aid, glasses or dentures, and having been informed of the eating occasion ahead. Ensuring everyone has the correct cutlery and crockery for their needs and the appropriate seating is also important. Care staff should also consider how the choice of table setting and layout of the room impact on people's mealtime experience (Caroline Walker Trust, 2007).

6.3.1 Key Recommendations for Making Mealtimes Matter

1. All residents should be respected as individuals and their food preferences and religious and cultural requirements around food should be accommodated.
2. Food should be appetising and attractively served. This is particularly important if the food has its form or texture changed for people with swallowing difficulties.
3. The timing of meals and snacks throughout the day should be organised to fit around the needs of the individual being supported. It may be appropriate for some people to have frequent small meals and snacks throughout the day.
4. It is important to ensure that everyone has enough time to eat and drink and that, where necessary, food is kept warm safely during the meal for those who eat and drink slowly. It is important to monitor for signs of fatigue during mealtimes, as this places the person at increased risk of aspiration or choking.
5. Where possible, individuals should have the opportunity to serve themselves at mealtimes and independence in eating should be supported. The appropriate cutlery, crockery, tables and chairs should be available to ensure that everyone is as comfortable and independent as possible.
6. Assistance should be available for eating and drinking as required.
7. To make mealtimes a time of pleasant social sharing individuals should be supported to eat meals in a group settings, and when possible, staff should sit with the people they support during meals and snacks, and if appropriate share the same meal.
8. Provision to eat alone should be facilitated if this is an individual preference.

The Mealtime Environment – calm, quiet and soothing

9. Mealtimes offer an opportunity for support staff to model eating skills and to encourage social interaction and conversation. To encourage this, the dining area should be free from distraction and excessive noise such as television or loud music. Taking phone calls during mealtimes should be avoided.
10. The dining area should be well lit to help easily identify food and cutlery.
11. Mirrors in the dining area can create disorientation and it may be useful to remove them completely from dining area.
12. Vacuum cleaners and washing machines should not be turned on during meals.
13. Soothing background music may be comforting, however, preference for music is personal and must be assessed individually.
14. Meals should be relaxed and unhurried. If staff are stressed or in a hurry it can affect a person's desire to complete a meal.
15. When eating as a group, avoid removing plates until everyone is finished. Removing plates early can be seen as a signal to stop eating.
16. Avoid any unnecessary movements or staff entering or leaving the room during mealtimes.

6.4 Assistance at Mealtimes

Providing adequate and appropriate assistance may help an individual have a more positive mealtime experience and also ensures the person is obtaining adequate nutrition. Having someone sit with a person helping them to eat rather than simply feeding them will allow the person to maintain a level of independence.

6.5 Food Safety

Poor food safety practices can put individuals at risk and help to spread germs that cause food poisoning. This can lead to serious illness, even death, especially among the very old or sick who are particularly at risk from food poisoning (FSAI, 2017). Good food safety practices during purchase, storage, preparation and serving of food reduce the risk of individuals getting sick from the food they eat.

There are many rules for good food safety including:

- ▶ Proper cleaning and disinfection of all surfaces, equipment and utensils.
- ▶ Good personal hygiene practices, especially hand-washing.
- ▶ Good storage, chilling and cooking practices, especially regarding temperature, the environment and the equipment used.
- ▶ Good pest control practices.
- ▶ Proper handling of ready-to-eat food.
- ▶ Training of catering and care staff to understand food poisoning, food allergies and food intolerance. A helpful guide to the level of training required by different staff members is available from the FSAI: the FSAI Guide to Food Safety Training Level 1 and 2 (available from www.fsai.ie).

What are the regulations governing food safety in Ireland?

One of the most important pieces of food safety legislation in Ireland is EC Regulation No 853/2004 on the hygiene of foodstuffs. This regulation applies to all food businesses, including hospitals, care homes, hotels, restaurants, shops, supermarkets, public houses and B&Bs. Everybody involved in food preparation is responsible for ensuring that the production, processing and distribution of food under their control is carried out in a safe manner. In addition, there is a long list of food safety legislation that is revised and updated on a regular basis. The list includes various Acts, Regulations and Orders made at national level as well as directives and regulations made at EU level. An itemised list can be found on the FSAI website at <https://www.fsai.ie/>. The Environmental Health Service is responsible for enforcement of relevant food safety legislation.

It is also necessary to develop protocols for serving snacks, the FSAI 'Safe Food to Go' document recommends that vulnerable food should be left at room temperatures for no longer than two hours. A link to the FSAI 'Safe Food to Go' document may be found here: https://www.fsai.ie/food_businesses/training/food_safety_training_resources.html. The snack protocol should include control measures to ensure the food is eaten or discarded after the safe time period has elapsed. This only applies to snack foods such as yogurts and wrapped single portion cheeses, etc. It does not apply to the main meal service.

6.5.1 Key Recommendations for Food Safety

1. All staff involved in the handling and provision of food should always apply the proper food safety principles.
2. Access to food safety training must be available.
3. Food must be prepared and produced in accordance with food safety legislation.

6.6 Food Allergens

A food allergy is the response of the body's immune system that occurs soon after eating a certain food. Examples of food that cause allergies are peanuts, milk and eggs. For most people these substances (allergens) pose no problem, but in allergic individuals eating a tiny amount of the allergen can trigger side effects. For some people, an allergic reaction to a particular food may be uncomfortable but not severe. For other people, an allergic food reaction can be life-threatening. Food allergy symptoms usually develop within a few minutes to two hours after eating the offending food.

The most common food allergy signs and symptoms include:

- ▶ Tingling or itching in the mouth
- ▶ Hives, itching or eczema
- ▶ Swelling of the lips, face, tongue and throat or other parts of the body
- ▶ Wheezing, nasal congestion or trouble breathing
- ▶ Abdominal pain, diarrhoea, nausea or vomiting
- ▶ Dizziness, light-headedness or fainting.

(Mayo Clinic, 2018)

Anaphylaxis: In some people, a food allergy can trigger a severe allergic reaction called anaphylaxis. This can be life threatening. To ensure that an individual with a food allergy can make a safe food choice, it is important that all care staff have full information on an individual's food allergy and that the allergy is carefully recorded in care plans and is communicated to schools, workplaces, day centres and any other place the person may visit regularly. It is important that food allergies are medically diagnosed.

People with a disability, their family, friends and support staff should be discouraged from attempting to restrict a person's diet due to a perceived allergy or intolerance, as this may make it difficult for the person to get all the nutrients they need. This is particularly true if foods such as milk and milk products or bread and other cereals are avoided.

6.6.1 Key Recommendations for Food Allergens

1. Food allergies must be medically diagnosed and recorded in the individual's medical notes/history.
2. Full information relating to an individual's food allergy should be carefully recorded in care plans and communicated to all support care staff, schools, work places, day centres and any other place the person may visit regularly.

Advice on compliance with these regulations may be found on the FSAI website and in the FSAI booklet *Allergen Information for Non-Prepacked Food* a link to which may be found here: https://www.fsai.ie/legislation/food_legislation/food_information_fic/allergens.html

SECTION 7.0

Nutrition and Hydration at End of Life

Section	Title	Page
7.0	Nutrition and Hydration at End of Life	82
7.1	Nutrition Considerations when Planning for End of Life Care	83
7.2	Oral Care	83
7.3	Enteral Feeding	83
7.4	Decision Making at End of Life	85

As a person approaches the end of their life, decreased interest in food is common (Harwood, 2014). The body's decreasing ability to absorb nutrients is often accompanied by loss of appetite and thirst and can sometimes also be accompanied by swallowing difficulties (Slomka, 2003). However, the body adapts physiologically at the end of life, which prevents any physical suffering as a result of the absence of food or fluids (Van der Vathorst, 2014). Thus, a decreased interest in food is a useful trigger to prompt a compassionate discussion of the aim of nutritional care and end-of-life treatment wishes (Hanson *et al.* 2013).

7.1 Nutrition Considerations when Planning for End of Life Care

Planning for end-of-life care is characterised by coordinating and integrating person-centred care in order to promote quality of life for people with life-limiting conditions and their families. It involves assessing need, promoting and preserving choice, predicting likely problems and planning for the future in the context of a changing and deteriorating clinical condition (HSE, 2014). People with life-limiting conditions should be supported with care planning to the extent that they are able to and wish to be involved. Families and carers should be consulted as part of this process if the person is unable to express their preferences (HSE, 2014). Foods and drinks should be offered "as tolerated" but the person should never feel pressurised to eat or drink if they have no desire to do so. There may also come a time when the person completely declines food and drinks. This is part of the natural process and does not cause the person distress or discomfort (Royal College of Physicians and British Society of Gastroenterology, 2010). Respectful and dignified care is the priority at this stage. Therefore, there are a number of key factors to be considered before considering alternative feeding practices, including:

- ▶ Respecting the individual's wishes and, in the absence of capacity, acknowledging the person's preferences if they are known to the family or main carer
- ▶ Allowing the individual, if competent, to decide whether they want to eat or not
- ▶ Acting in the individual's best interests
- ▶ Maintaining wellbeing and the best possible quality of life
- ▶ Providing supportive care

(European Parkinson's disease Association, 2018)

7.2 Oral Care

In the dying phase, good mouth care, rather than attempting to feed the person, becomes the more appropriate intervention. Good oral health is important to maintain the pleasure of eating. The person's lips should be kept moist and clean and appropriate oral care products should be administered (Pace & McCulloch, 2010).

7.3 Enteral Feeding

For those who are severely cognitively impaired, there is little evidence that hunger or thirst is perceived significantly (Royal College of Physicians and British Society of Gastroenterology, 2010). Indeed, some individuals may resist the efforts by carers to offer food or fluids. The dilemma then arises of whether to continue feeding assistance or consider alternative feeding practices (Snyder *et al.* 2013).

Relatives may feel that their family member may deteriorate further if not eating and may request alternative feeding in the form of enteral nutrition (e.g. liquid supplements or tube feeding). In this instance the physiological processes resulting in a reduced metabolic rate need to be conveyed with compassion, explaining that it is the disease itself causing the deterioration, and that, for example, a feeding tube (e.g. a naso-gastro tube) will not alter the inevitable course of the disease (Cervo *et al.* 2016). In fact existing evidence suggests that tube feeding rarely achieves its intended clinical goals of prolonging life, improving quality of life, providing better nourishment or decreasing the risk of pressure sores when death is imminent (Volkert *et al.* 2006), and insertion of a feeding tube is associated with discomfort and hazard (Cervo *et al.* 2016).

If a decision is taken by the medical team, in collaboration with the individual and/or carer/family, to place a Naso-Gastro (NG) tube or Percutaneous Endoscopic Gastrostomy (PEG) then there must be clear goals for such a decision, which include:

- ▶ Decrease in discomfort/symptoms as medication can be given via the feeding tube
- ▶ Improvement of healing of pressure injury
- ▶ Reversal of confusion.

The decision making process and rationale for tube feeding should be clearly documented in the resident's medical records.

End of life and Withdrawal of Nutrition Support or Hydration

If a person already has a feeding tube in situ (NG/PEG) when actively dying, it is often appropriate to reduce the volume of feed, or even to stop because of the body's diminishing ability to metabolise fluid or nutrition (Teno *et al.* 2012). Continuing nutrition at this stage may even exacerbate some symptoms such as respiratory secretions. The discontinuation of IV fluids must also be considered, as in the dying phase IV fluids often only serves to exacerbate pulmonary oedema, peripheral oedema and increased secretions, which a semi-conscious person is unable to manage (Royal College of Physicians and British Society of Gastroenterology, 2010). End of life care should encompass high quality compassionate person-centred care, prioritise an individual's choice and comfort and should avoid over medicalising what is a natural stage in an individual's life cycle. The ultimate aim of end-of-life care is to afford a person a peaceful and dignified death.

7.4 Decision Making at End of Life

The Irish Assisted Decision Making (Capacity) Act was signed into law on the 30th December 2015. This Act applies to everyone and is relevant to all health and social care services. Part 8 of the Act provides a legislative framework in Ireland confirming the validity of Advance Healthcare Directives (AHD). Under these provisions, a person aged 18 and over, who has capacity, can make an Advance Healthcare Directive. The person making the directive can decline medical treatment in advance provided the conditions set out in the act are satisfied; this includes tube feeding, compliance with therapeutic diets and texture modified diets, along with thickened fluids.

Draft codes of practice in relation to nominating a 'designated healthcare representative' in relation to Advance Healthcare Directives have been developed and submitted to the director of the HSE Decision Support Service for consideration. It is envisaged that a person can nominate a 'designated healthcare representative' who will be legally recognised as acting on the person's behalf at a time when he or she loses capacity and can ensure the AHD is enforced. The designated healthcare representative may also be given general power to consent to or to decline treatment up to and including declining life-sustaining treatment (HSE, 2017). The latest update on the HSE Assisted Decision-Making Implementation Programme can be found at: <https://www.hse.ie/eng/about/who/qid/other-quality-improvement-programmes/assisteddecisionmaking/assisted-decision-making.html>



The '**Think ahead**' form includes an Advance Care Directive compliant with 2015 legislation. Available to download from The Irish Hospice Foundation at <https://hospicefoundation.ie/>

SECTION 8.0

References

ACI (2011b) *Therapeutic Diet Specifications for Adult inpatients*. Retrieved from https://www.aci.health.nsw.gov.au/data/assets/pdf_file/0006/160557/ACI_AdultDietSpecs-march2017.pdf on 22nd May 2019.

American Diabetes Association (ADA) (2018) *Standards of Medical Care in Diabetes*. Retrieved from http://carediabetesjournals.org/content/41/Supplement_1/S1 on 13th May 2019.

Adolfsson P., Mattsson Sydner Y., Fjellström C., Lewin B. & Andersson A. (2008) Observed dietary intake in adults with intellectual disability living in the community. *Food and Nutrition Research*. **52**:10.3402/fnr.v52i0.1857.

Academy of Nutrition and Dietetics (AND) (2003). Nutrition Care Process and Model (NCPM). Retrieved from www.andeal.org/ncp on 21st March 2019.

AND (2008). Behavioural Health Nutrition Dietetic Practice Group of American Dietetic Association. The Adult with Intellectual and Developmental Disabilities: A Resource Tool for Nutrition Professionals.

AND (2010) *Chronic Kidney Disease. Evidence Based Practice Guidelines*. Retrieved from <https://www.andeal.org/topic.cfm?menu=3927> on 22nd May 2019.

AND (2015) *Hypertension evidence-based nutrition practice guideline*. Retrieved from https://www.research-gate.net/publication/317308640_2015_Evidence_Analysis_Library_Evidence on 13th May 2019.

Astor R. & Jeffreys K. (2000) Positive initiatives with people with learning disabilities; promoting healthy lifestyles. London: MacMillan Press Ltd.

Aune D., Chan DSM., Lau R., Vieira R., Greenwood DC., Kampman E., Norat T. (2011) Dietary fibre, whole grains, and risk of colorectal cancer: systematic review and dose-response meta-analysis of prospective studies. *BMJ* **343**:d6617

Ball SL., Panter SG., Redley M., Proctor CA., Byrne K., Clare IC. & Holland AJ. (2012) The extent and nature of need for mealtime support among adults with intellectual disabilities. *Journal of intellectual disability research* 56(4): 382-401.

Bailey RA., Wang Y., Zhu V. & Rupnow MFT. (2014) Chronic Kidney Disease in US adults with type 2 diabetes: an updated national estimate of prevalence based on Kidney Disease: Improving Global Outcomes (KDI- GO). *BMC Research Notes* **2**(7), 415.

BAPEN (2003) Malnutrition Universal Screening Tool (MUST). Retrieved from www.bapen.org.uk on 21st March 2019.

BAPEN (2007) Organisation of Food and Nutritional Support in Hospitals (BAPEN). Retrieved from www.bapen.org.uk on 4th June 2019.

BAPEN (2012) Russell CA. & Elia M. *Nutrition Screening Survey in the UK and Republic of Ireland in 2011*. Retrieved from <https://www.bapen.org.uk/pdfs/nsw/nsw-2011-report.pdf> on 7th June 2019.

BDA (2011). Weight Management for Adults with a Learning Disability Living in the Community. Consensus Statement produced by the Learning Disabilities Obesity Group (LDOG) of the BDA Mental Health Group.

BDA (2017). Professional Consensus Statement. The Nutritional Care of Adults with a Learning Disability in Care Settings.

- BDA (2017) *The Nutrition and Hydration Digest Improving Outcomes Through Food and Beverage Services*. Retrieved from <https://www.bda.uk.com/publications/professional/NutritionHydrationDigest.pdf> on 7th May 2019.
- Braunschweig CL., Gomez S., Sheean P., Tomey KM., Rimmer J. & Heller T. (2004) Nutritional status and risk factors for chronic disease in urban dwelling adults with Down syndrome. *American Journal on Mental Retardation* **109**, 186–193.
- Breen HB. & Ireton-Jones CS (2004). Predicting energy needs in obese patients. *Nutrition in Clinical Practice* **19** (3), 284-289.
- Brown MC & Guest JF (1999). Economic impact of feeding a phenylalanine restricted diet to adults with previously untreated PKU. *Journal of Intellectual Disability Research* **43**(Pt 1), 30-37.
- Caroline Walker Trust (2007) *Eating well for children and adults with learning disabilities*. Available from the CWT website www.cwt.org.uk. Accessed 6th May 2019.
- Cervo FA., Bryan L., Farber S. (2006) To PEG or not to PEG: a review of evidence for placing feeding tubes in advanced dementia and the decision-making process. *Geriatrics* **61**(6), 30-35.
- Cichero JA. & Murdock BE. (2006) *Dysphagia: Foundation, Theory and Practice*. Retrieved from [https:// books.google.ie/books](https://books.google.ie/books) on 27th May 2019
- Croot L., Rimmer M., Salway S., Hatton C., Dowse E., Lavin J., Bennett SE., Harris J & O'Cathain A. (2018) Adjusting a mainstream weight management intervention for people with intellectual disabilities: a user centred approach. *Int J Equity Health* 17,159.
- Department of Health (DoH) (2009) *Food and Nutritional Care in Hospitals Guidelines for Preventing Under-Nutrition in Acute Hospitals*. Retrieved from <https://health.gov.ie/blog/publications/food-and-nutritional-care-in-hospitals-guidelines-for-preventing-under-nutrition-in-acute-hospitals/> on 4th June 2019.
- Department of Health (DoH) (2013) *A Framework For Improved Health And Wellbeing 2013–2025* Available at: <https://health.gov.ie/wp-content/uploads/2014/03/HealthyIrelandBrochureWA2.pdf>.
- Department of Health (DoH) and Healthy Ireland (2016) *Healthy Food for Life. The Healthy Eating Guidelines (HEG) and Food Pyramid*. Retrieved from <https://health.gov.ie/blog/publications/your-guide-to-healthy-eating-using-the-food-pyramid/> on 20th July 2019
- Department of Health (DoH) (2017) *Healthy Ireland Survey 2017*. Retrieved from <https://health.gov.ie/blog/publications/healthy-ireland-survey-2017/> on 2nd June 2019.
- Department of Health, Social Services and Public Safety UK (updated 2012). *Promoting Good Nutrition: A Strategy for good nutritional care for adults in all care settings in Northern Ireland 2011-2016*. Retrieved from <https://www.health-ni.gov.uk/publications/promoting-good-nutrition-strategy-and-guidance> on 7th June 2019
- Department of Health (DoH) (2020) *Nutrition screening and use of oral nutrition support for adults in the acute care setting – National Clinical Guideline No. 22*. Retrieved from <https://www.gov.ie/en/collection/bf15f5-nutrition-screening-and-use-of-oral-nutrition-support-for-adults-in-/> on 19th June 2020.

Diabetes UK (2018) *Evidence-based nutrition guidelines for the prevention and management of diabetes*. Retrieved from <https://www.diabetes.org.uk/professionals/position-statements-reports/food-nutrition-lifestyle/evidence-based-nutrition-guidelines-for-the-prevention-and-management-of-diabetes> on 13th May 2019.

Department of Health (DoH) (2020) New advice on Vitamin D supplement for people aged 65 years and older. Retrieved from <https://www.gov.ie/en/press-release/7d595-new-advice-on-vitamin-d-supplement-for-people-aged-65-years-and-older/> on 11th January 2021.

EASL (European Association for the study of the Liver). (2010) Clinical practice guidelines on the management of ascites, spontaneous bacterial peritonitis and hepatorenal syndrome in cirrhosis. *Journal of Hepatology* **53**(1), 397-417.

European Parkinson's disease Association (EPDA) (2018). *End of Life Ethical Issues*. Retrieved from <https://www.epda.eu.com/about-parkinsons/late-in-life/end-of-life-ethical-issues/> on 27th May 2019.

European Guidelines. (2016) European Guidelines on cardiovascular disease prevention in clinical practice. *European Heart Journal* **37**(29), 2315 -2381.

Emerson E., Baines S., Allerton L. & Welch V. (2011) *Health Inequalities & People with Learning Disabilities in the UK: 2011*. Improving Health and Lives: Learning Disabilities Observatory, England.

Emly, M. & Marriott A. (2017). Revisiting constipation management in the community. *British Journal of Community Nursing* **22**, 168–172.

Ford AC., Moayyedi P., Lacy BE., Lembo AJ., Saito YA., Schiller LR. *et al.* (2014) American College of Gastroenterology monograph on the management of irritable bowel syndrome and chronic idiopathic constipation. *Am J Gastroenterol* **109** Suppl 1, S2-26.

Ferro-Luzzi A. & James WPT (1996). Adult Malnutrition: simple assessment techniques for use in emergencies. *British Journal of Nutrition* **75**: 3-10.

Florio T. & Trollor J. (2015) Mortality among a cohort of persons with an intellectual disability in New South Wales, Australia. *Journal of Applied Research in Intellectual Disabilities* **28**, 383–93.

Fitchett D., Rockwood K., Chan BT., Schultz S., Bogaty P., Gillis A., Arnold M., Miller F., Graham MM. *et al.* (2004). Canadian Cardiovascular Society Consensus Conference 2002: Management of heart disease in the elderly patient. *Canadian Journal of Cardiology* **20**, Suppl A, 7A-716

Fitzgerald B., Morgan J., Keene N., Rollinson R., Hodgson A. & Dalrymple-Smith J. (2000). An investigation into diet treatment for adults with previously untreated phenylketonuria and severe intellectual disability. *Journal of Intellectual Disability Research* **44**(Pt 1). 53-59.

FSA (2012) *Claims about gluten in food: a guide for caterers*. Retrieved from <https://www.reading.ac.uk/foodlaw/pdf/uk-11017-gluten-free-factsheet.pdf> on 22nd May 2019.

FSAI (2005) *Food, Salt and Health. Review of the Scientific Evidence and Recommendations for Public Policy in Ireland*. Retrieved from www.fsai.ie on 13th May 2019.

FSAI (2011) *Scientific Recommendations for Healthy Eating Guidelines in Ireland*. Retrieved from www.fsai.ie on 13th May 2019.

FSAI (2017) *Safe Food to Go*. Retrieved from www.fsai.ie on 4th June 2019.

FSAI (2018) *Report of the Scientific Committee of the Food Safety Authority of Ireland. The Safety of Vitamins and Minerals in Food Supplements - Establishing Tolerable Upper Intake Levels and a Risk Assessment Approach for Products Marketed in Ireland*. Retrieved from https://www.fsai.ie/vitamins_minerals_supplements.aspx on 7th May 2019.

FSAI (2019) *Healthy eating, food safety and food legislation A guide supporting the Healthy Ireland Food Pyramid*. Retrieved from https://www.fsai.ie/news_centre/press_releases/healthy_eating_guidelines_28012019.html on 30th July 2019.

Gallegos-Orozco JF., Foxx-Orenstein AE., Sterler SM. & Stoa JM (2012). Chronic Constipation in the Elderly. *The American Journal of Gastroenterology*. **107**(1),18-25.

Gallagher PF., O'Mahony D. & Quigley EM. (2008) Management of chronic constipation in the elderly. *Drugs Aging* **25**(10),807-821.

Gravestock, S. (2000) Review – Eating Disorders in adults with intellectual disability. *Journal of Intellectual Disability Research* **44**(6), 625-637.

Guigoz Y., Vellas B., Garry J. (1996) Assessing the nutritional status of the elderly: the mini nutritional assessment as part of the geriatric assessment. *Nutrition Review* **54**, 59S-65S.

Hanson, LC., Ersek, M., Chang Lin F., Carey TS. (2013) Outcomes of Feeding Problems in Advanced Dementia in a Nursing Home Population. *Journal compilation* © 2013, *The American Geriatrics Society* **61**, 1692–1697.

Hamzaid NH., Flood VM., Prvam T & O'Connor HT. (2018) General nutrition knowledge among carers at group homes for people with intellectual disability. *Journal of Intellectual Disability Research* **62**(5), 422-430.

Harwood RH. (2014) Feeding decisions in advanced dementia. *Journal of the Royal College of Physicians Edinburgh* **44**, 232-237.

Heslop P. & Glover G. (2015) Mortality of people with intellectual disabilities in England: A comparison data from existing sources. *Journal of Applied Research in Intellectual Disabilities* **28**, 414–422.

Hoey E., Staines A., Walsh D., Corby D., Bowers K., Belton S. *et al.* (2017). An examination of the nutritional intake and anthropometric status of individuals with intellectual disabilities: Results from the SOPHIE study. *J Intellect Disabil* **21**(4), 346-365.

HIQA (2013) *National Standards for Residential Services for Children and Adults with Disabilities*. Retrieved from <https://www.hiqa.ie/reports-and-publications/standard/national-standards-residential-services-children-and-adults> on 18th January 2019

HSE (2014) *Palliative Care Competence Framework*. Ryan K., Connolly M., Charnley K., Ainscough A., Crinion J., Hayden C., Keegan O., Larkin P., Lynch M., McEvoy D., McQuillan R., O'Donoghue L., O'Hanlon M., Reaper-Reynolds S., Regan J., Rowe D., Wynne M. Palliative Care Competence Framework Steering Group.

HSE (2016) *Making Every Contract Count (MECC)*. Retrieved from <https://www.hse.ie/eng/about/who/healthwellbeing/making-every-contact-count/about/about.html> on 28th May 2019.

HSE (2017) *Advanced Healthcare Directives*. Retrieved from <https://www.hse.ie/eng/about/who/qid/other-quality-improvement-programmes/assisteddecisionmaking/advance-healthcare-directives.html> on 27th May 2019.

HSE (2018) *HSE Wound Management Guidelines*. Retrieved from <https://www.hse.ie/eng/about/who/onmsd/practicedevelopment/wound-management/> on 21st March 2019.

HSE (2018) *Food, Nutrition and Hydration Policy for Adult Patients in Acute Hospitals*. Retrieved from <https://www.hse.ie/eng/about/who/acute-hospitals-division/food-nutrition-and-hydration-policy-for-adult-patients/> on 28th May 2019

HSE (2019) *Prescribing Pathway for the Initiation and Renewal of Standard Oral Nutritional Supplements (ONS) for Adults Living in the Community*. Retrieved from <https://www.hse.ie/eng/services/list/2/primarycare/community-funded-schemes/nutrition-supports/healthcare-professionals/prescribing%20pathway%20and%20list.pdf> on 24th May 2019

Hsei K., Rimmer JH. & Heller T. (2014) Obesity and associated factors in adults with intellectual disability. *Journal of Intellectual Disability Research* **58**, 851–63.

Humphries K., Traci MA., Seekins T. (2009) Nutrition and adults with intellectual or developmental disabilities: systematic literature review results. *Journal of Intellectual & Developmental Disabilities* **47**(3), 163–85.

Humphries K., Pepper A., Traci MA., Olson J. & Seekins T. (2009) Nutritional intervention improves menu adequacy in group homes for adults with intellectual or developmental disabilities. *Disability and Health Journal* **2**(3): 136–144.

INDI (2005) Submission to the Department of Health and Children on the Nutritional and Dietetic Needs of People with Disabilities.

INDI Renal Interest Group (RIG) (2006). Nutritional requirements for chronic renal disease, Nutrition Support Reference Guide, page 37, INDI, Ashgrove House, Kill Avenue, Dun Laoghaire, Dublin.

INDI Gastroenterology Interest Group (GIG) (2013). *The Facts on Fibre 2013*. Retrieved from <https://www.indi.ie/diseases,-allergies-and-medical-conditions/digestive-health/681-the-facts-on-fibre.html> on 20th May 2019.

INDI (2015) Nutrition Support Reference Guide, INDI, Ashgrove House, Kill Avenue, Dun Laoghaire, Dublin.

INDI Older Person and Dementia Interest Group (OPDIG) (2016) *Nutrition and Dementia*. Retrieved from <https://www.healthpromotion.ie/publication/fullListing?category=Dementia&searchHSE=> on 22nd May 2019.

INDI Diabetes Interest Group (DIG) (2017) *HEALTHY EATING FOR PEOPLE WITH TYPE 2 DIABETES*. Retrieved from https://www.indi.ie/images/fact_sheets/Healthy-Eating-for-people-with-Type-2-diabetes-2017-AC5.pdf on 13th May 2019.

IDS-TILDA (2017) Health, Wellbeing and Social Inclusion: Ageing with an Intellectual Disability in Ireland. Evidence from the First Ten Years of The Intellectual Disability Supplement to The Irish Longitudinal Study on Ageing.

International Dysphagia Diet Standardisation Initiative. International Dysphagia Diet Standardisation Initiative. Available from: <http://iddsi.org/>. Accessed on 13th May 2019.

Institute of Medicine (IOM) (2001), National Academy of Sciences Dietary reference intakes: proposed definition of dietary fiber. Washington, DC: National Academy Press; 2001.

- Jaffe JS., Timell AM., Elenia R. & Thatcher SS. (2005) Risk factors for low bone mineral density in mineral density in individuals residing in a facility for the people with intellectual disability. *Journal of Intellectual Disability Research* **49** (6), 457–462.
- Jiang C., Xu, Q., Wen X, Sun H. (2015) Current developments in pharmacological therapeutics for chronic constipation. *Acta Pharmaceutica Sinica* **5**, 300–309.
- Koritsas S. & Iacono T. (2011) Secondary conditions in people with developmental disabilities. *American Journal on Intellectual and Developmental Disabilities* **116**, 36–47.
- Koch R. & Moseley K. (1999) Long-term beneficial effects of the Phenylalanine-Restricted diet in late diagnosed individuals with Phenylketonuria. *Molecular Genetics & Metabolism* **67**, 148–155.
- Lacey BE., Mearin F., Chang L., Chey WD., Lembo AJ., Simren M. & Spiller R. (2016) Bowel Disorders - Gastroenterology. *Gastroenterology*. **150**(6), 1392–1407.
- Lijoi D., Ferrero S., Mistangelo E., Casa ID., Crosa M., Remorgida V. & Alessandri F. (2009). Bowel preparation before laparoscopic gynaecological surgery in benign conditions using a 1 week low fibre diet: a surgeon blind, randomised and controlled trial. *Arch Gynecol Obstet* **280**(5), 713–718.
- Ludvigsson JF., Bai JC., Biagi F., Card TR., Ciacci C., Ciclitira PJ. *et al.* (2014) BSG Coeliac Disease Guidelines Development Group. & British Society of Gastroenterology. Diagnosis and management of adult coeliac disease: guidelines from the British Society of Gastroenterology. *Gut* **63**(8), 1210–1228.
- Matson JL., Mayville SB., Kuhn DE., Sturmey P., Laud R., Cooper C. (2005) The behavioral function of feeding problems as assessed by the questions about behavioral function (QABF). *Research in Developmental Disabilities* **26**, 399–408.
- Mayo Clinic. (2018) *Food Allergy*. Retrieved from <https://www.mayoclinic.org/diseases-conditions/food-allergy/symptoms-causes/syc-20355095> on 7th May 2019.
- McGuire BE., Daly P. & Smyth F. (2007) Lifestyle and health behaviours of adults with an intellectual disability. *Journal of Intellectual Disability Research* **51**, 497–510.
- Melville CA., Cooper SA., McGrother CW. (2005). Obesity in adults with Down Syndrome: a case-control study. *Journal of Intellectual Disability Research* **49**(2), 125–133.
- Mobley AR., Miller Jones J., Rodriguez J., Slaving J & Zelman KM. (2014) Identifying Practical Solutions to Meet America's Fiber Needs: Proceedings from the Food & Fiber Summit. *Nutrients* **6**(7), 2540–2551.
- Nguyen T. & Lau D. C. W. (2012) The Obesity Epidemic and Its Impact on Hypertension. *Canadian Journal of Cardiology* **28**, 326–33.
- NICE (2006) *Clinical Guideline 32: Nutrition support in adults: oral nutrition support, enteral tube feeding and parenteral nutrition*. Retrieved from <https://www.nice.org.uk/guidance/cg32> on 13th May 2019.
- The National Patient Safety Agency. (2004). Right Patient – Right Care. NPSA UK. Retrieved from <https://www.npsa.nhs.uk/EasySiteWeb/GatewayLink.aspx?allid=3234> on 15th August 2019.
- National Newborn Screening Laboratory (NNSL) (2001). A Practical Guide to Newborn Screening in Ireland. The Children's University Hospital, Temple Street, 2nd Edition, 2001.

NHS (2015) *Overview of nutritional considerations in the treatment of adult patients with acute kidney injury in hospital*. Retrieved from <https://www.thinkkidneys.nhs.uk/aki/wp-content/uploads/sites/2/2015/12/Think-Kidneys-Nutrition-Guide.pdf> on 13th May 2019.

NHS Scotland. (2016) *Food in Hospitals National Catering and Nutrition Specification for Food and Fluid Provision in Hospitals in Scotland*. Second Version Retrieved from <http://www.hfs.scot.nhs.uk/publications-/guidance-publications/?keywords=food§ion=&category=&month=&year=&show=10> on 23rd May 2019.

NSW Department of Ageing, Disability and Home Care (2003). *Nutrition in Practice Manual*.

NSW Department of Family and Community Services (FACS), and Cerebral Palsy Alliance (CPA) (2016). *Dietetic Core Standards outlining the skills and knowledge required for dietitians working with people with disability*.

Pace CC. & McCullough GH. (2010). The Association Between Oral Microorganisms and Aspiration Pneumonia in the Institutionalized Elderly: Review and Recommendations. *Dysphagia* **25**,307-322.

Perez CM., Ball SL., Wagner AP., Clare ICH., Hoallnd AJ., Redley M. (2015) The incidence of healthcare use, ill health and mortality in adults with intellectual disabilities and mealtime support needs. *Journal of intellectual disability research* **59**(7),638-652.

Public Health England (PHE) (2017) *Healthier and more sustainable catering, A toolkit for serving food to adults*. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/648743/healthierandmoresustainablecateringadulttoolkit.pdf on 7th May 2019.

Rao SS. (2009) Constipation: evaluation and treatment of colonic and anorectal motility disorders. *Gastrointest Endosc Clin N Am* **19**(1), 117-139.

Reilly S., Skuse DH., Poblete X. (1996). The prevalence of feeding problems and oral motor dysfunction in children with cerebral palsy: A community survey. *Journal of Paediatrics*, **129**, 877-882.

Regnard C., Reynolds J., Watson B., Matthews D., Gobson L., Clarke C. (2007) Understanding distress in people with severe communication difficulties: developing and assessing the Disability Distress Assessment Tool (DisDAT). *Journal of Intellectual Disability Research* **51** (4), 277-292.

RCN. & NHS. (2007) *Water for Health Hydration best practice toolkit for hospitals and healthcare*. Retrieved from https://matrix.rcn.org.uk/data/assets/pdf_file/0003/70374/Hydration_Toolkit_-_Entire_and_In_Order.pdf on 7th May 2019.

Royal College of Speech & Language Therapists (RCSLT) (2009). *Resource Manual for Commissioning and Planning Services for SICN – Aphasia*. Retrieved from <https://www.rcslt.org/-/media/Project/RCSLT/> on 29th November 2019.

Rimmer JH. & Yamak K. (2006) Obesity and intellectual disability. *Mental Retardation & Developmental Disabilities Research Reviews* **12**, 22–7.

Reilly HM., Martineau JK., Moran A., Kennedy H. (1995) Nutritional screening – evaluation and implementation of a simple nutrition risk score. *Clinical Nutrition* **14**, 269-73.

Robertson J., Emerson E., Gregory N., Hatton C., Turner S., Kessissoglou S. *et al.* (2000) Lifestyle-related risk factors for poor health in residential settings for people with intellectual disabilities. *Research in Developmental Disabilities* **21**: 469- 486.

- Robertson J., Baines S., Emerson E. & Hatton C. (2018) Constipation management in people with intellectual disability: A systematic review. *J Appl Res Intellect Disabil* **31**(5), 709-724.
- Royal College of Nursing and NHS National Patient Safety Agency (2007). Water for Health, Hydration Best Practice Toolkit for Hospitals and Healthcare.
- Royal College of Physicians and British Society of Gastroenterology (2010). *Oral feeding difficulties and dilemmas: A guide to practical care, particularly towards the end of life*. London: Royal College of Physicians.
- Rurangirwa, J., Van Naarden Braun, K., Schendel, D., & Yeargin-Allsopp, M. (2006). Healthy behaviors and lifestyles in young adults with a history of developmental disabilities. *Research in Developmental Disabilities* **27**, 381–399.
- Slomka J. (2003). Withholding nutrition at end of the end of life: clinical and ethical issues. *Cleveland Clinic Journal of Medicine* **70**(6), 548-552.
- Snyder EA., Caprio AJ., Wessell K., Lin FC. & Hanson LC. (2013) Impact of a decision aid on surrogate decision-makers' perceptions of feeding options for patients with dementia. *Journal of the American Medical Directors Association* **14**(2), 114-118.
- Soltanian N. & Janghorbani M. (2018) A reandomized trial of the effects of flaxseed to manage constipation, weight, glycemia and lipids in constipated patients with type 2 diabetes. *Nut Metab (Lond)* **15**, 23.
- Srikanth R., Cassidy G., Joiner C. & Teeluckdharry S. (2001) Osteoporosis in People with Intellectual Disabilities: a Review and a brief study of risk factors for osteoporosis in a community sample of people with intellectual disabilities. *Journal of Intellectual Disability Research* **55**(1), 53-62.
- Stedman VS. & Leland LS. (2010) Obesity and intellectual disability in New Zealand. *Journal of Intellectual & Developmental Disability* **35**, 112–5.
- Sutherland G., Couch M. A. & Iacono T. (2002) Health issues for adults with developmental disability. *Research in Developmental Disabilities* **23**, 422–45.
- Teagarden DL., Meador MD. & Loring DW. (2014) Low Vitamin D Levels Are Common in Patients with Epilepsy. *Epilepsy Res* **108**(8), 1352-1356.
- Teno JM., Gozzalo PL., Mitchell SL., Kus S., Rhodes RL., Bynum JP. & Mor V (2012) Does feeding tube insertion and its timing improve survival: *J Am Geriatr Soc* **60**(10), 1918-1921.
- Traci M. A., Seekins T., Szalda-Petree A. & Ravesloot C. (2002) Assessing secondary conditions among adults with developmental disability: A preliminary study. *Mental Retardation* **40**, 199–131.
- Tsai AC., Hsu HY. & Chang TL. (2011) The Mini Nutritional Assessment (MNA) is useful for assessing the risk of malnutrition in adults with intellectual disabilities. *Journal of Clinical Nursing*. 20(23-24), 3295-3303
- Tuck CJ., Barrett JS., Muir JG. & Gibson PR. (2014) Fermentable oligosaccharides, disaccharides, mono- saccharide and polypols : role in irritable bowel syndrome. *Expert reviews in Gastroenterology and Hepatology* **8**(7), 819-834.

- United Nations (2006). Convention on the Rights of Persons with Disabilities. New York: UN General Assembly.
- Van der Vathorst S. (2014) Artificial nutrition at the end of life: ethical issues. *Best Practice and Research Clinical Gastroenterology* **28**, 247-253.
- Vanhouwaert E., Matthys C., Verdonck L. & De Preter V. (2015). Low residue diets and low-fibre diets in Gastrointestinal Disease Management. *Adv Nutr* **6**(6), 820-827.
- Vanlint S. & Nugent M. (2006). Vitamin D and fractures in people with intellectual disability. *Journal of Intellectual Disability Research* **50** (10), 761-767.
- Vazquez Roque M. & Bouras EP. (2015) Epidemiology and management of chronic constipation in elderly patients. *Clin Interv Aging* **10**: 919-930.
- Volkert D., Berner YN., Berry E., Cederholm T., Bertrand PC., Milne A. & Lochs H. (2006) ESPEN guidelines on enteral nutrition: geriatrics. *Clinical Nutrition* **25**(2), 330-360.
- White JV., Guenter P., Jensen G., Malone A., Schofield M., Academy Malnutrition Working Group., A.S.P.E.N. Malnutrition Task Force & A.S.P.E.N. Board of Directors. (2012) Consensus Statement: Academy of Nutrition and Dietetics and American Society of Parenteral and Enteral Nutrition: Characteristics Recommended for the Identification and Documentation of Adult Malnutrition (Undernutrition). *Journal of Parenteral and Enteral Nutrition* **36**(3), 275-283.
- Wick JY. (2012) Diverticular disease: eat your fibre! *Consult pharm* **27**(9), 613-618.
- Williams K. (1998) Benefits of normalising plasma phenylalanine: Impact on Behaviour and Health. A case report. *Journal of Inherited Metabolic Disease* **21**(8), 785-790.
- Woolner JT. & Kirby G. (2000). Clinical audit of the effects of low fibre diet on irritable bowel syndrome syndrome. *J Hum Nutr Diet* **13**(4), 249-253.
- WHO (2002) The World Health Report 2002: Reducing Risks, Promoting Healthy Life. Geneva: WHO.
- WHO (2012) *Guideline: Sodium Intake for Adults and Children*. Retrieved from http://apps.who.int/iris/bitstream/handle/10665/77985/9789241504836_eng.pdf?sequence=1 on 13th May 2019.
- WHO (2015) *Sugar Intake for Adults and Children*. Available: Food Safety Authority of Ireland. (2011). *Scientific Recommendations for Healthy Eating Guidelines in Ireland*. Retrieved from https://www.who.int/nutrition/publications/guidelines/sugars_intake/en/ on 13th May 2019.

SECTION 9.0

Appendices Part A

Section	Title	
9.0	Appendices Part A	96
	Appendix 1: Criteria for Automatic Referral to the Dietitian for Nutrition Assessment	97
	Appendix II: Religious Food Restrictions	99
	Appendix III: Additional Resource	101

Part A

Appendix I

Criteria for Automatic Referral to the Dietitian for Nutrition Assessment

The reasons for referral to a Dietitian are set out below. It is important to refer to local guidelines for referral criteria also.

A. Nutrition Support

1. Enteral Tube Feeding Assessment
2. Parenteral Nutrition Assessment
3. Identified at Risk of Malnutrition post Nutrition Screening

Conditions Requiring Nutrition Support include:

4. Unintentional weight loss and/or history of low body weight
5. Overweight/weight gain
6. Constipation/chronic laxative usage
7. Food allergies
8. Dehydration or poor fluid intake
9. Wound management or skin breakdown
10. Dyslipidaemia
11. Hypertension
12. Osteoporosis
13. Anaemia
14. Alcohol or substance abuse
15. Aspiration pneumonia
16. Increased metabolic needs (i.e. infection, surgery)
17. Active Inflammatory Bowel Disease (IBD)
18. Gastro-intestinal disorders (GORD, gluten intolerance, irritable bowel, lactose intolerance)
19. Chronic Disease State (cancer, kidney Disease (CKD)/(ESKD), dementia)
20. Guidance in relation to non-evidence based use of herbal medications or alternative therapies

B. Therapeutic Intervention and Education

21. Newly diagnosed Diabetes
22. Newly commencing on insulin
23. Diabetic Ketoacidosis (DKA) /uncontrolled diabetes
24. New colostomy or ileostomy
25. Newly diagnosed coeliac disease
26. Newly diagnosed dysphagia or change in treatment plan
27. Newly diagnosed CKD
28. New start on dialysis
29. CKD/ESKD with abnormal biochemistry
30. Acute Kidney Injury with abnormal biochemistry
31. Inherited Metabolic Disease
32. Post stroke/CVD event
33. Poor eating habits/dietary compliance or inadequate intake
34. Need for assistance with menu planning and developing and preparing healthy meals

Appendix II

Religious Food Restrictions

Many religions have rules or guidelines about foods which may not be eaten, or which may be restricted at certain times of the year. Below is a list of the religious restrictions that may affect the foods served to some Individuals.

	ROMAN CATHOLIC	MUSLIM	JEWISH	HINDU
Beef	Some prefer to avoid meat on Fridays and during Lent	Halal	Kosher	NA
Pork	Some prefer to avoid meat on Fridays and during Lent	NA	NA	Rare
Lamb	Some prefer to avoid meat on Fridays and during Lent	Halal	Kosher	Some
Chicken	A	With fins and scales	With scales, fins and backbone	With fins and scales
Fish	Some prefer to avoid meat on Fridays and during Lent	NA	NA	Rare
Shellfish	A	Halal	NA	Some
Milk/Yogurt	A	Without rennet	Not eaten with meat	Without rennet
Cheese	A	Vegetarian	Not eaten with meat	Some
Eggs		No blood spots	No blood spots	Some
Tea/coffee/cocoa	A	A	A	A
Fruit/vegetables/pulses/nuts	A	A	A	A
Alcohol	A	NA	A	Some
Fasting	Some will fast for 1 hour before communion	Ramadan	Yon Kippur	

KEY:

A: Allowed

NA: Not Allowed

Some/Rare: Some variations will occur, check with individual about preferences

	BUDDHIST	SIKH	RASTAFARIAN	MORMON	7th Day Adventist
Beef	Varies, many prefer a vegetarian or vegan diet	NA	Some	A	Some
Pork	Varies, many prefer a vegetarian or vegan diet	Some, not hallal or kosher	NA	A	NA
Lamb	Varies, many prefer a vegetarian or vegan diet	Some, not hallal or kosher	Some	A	Some
Chicken	Varies, many prefer a vegetarian or vegan diet	Some, not hallal or kosher	Some	A	Some
Fish	Varies, many prefer a vegetarian or vegan diet	Some	A	A	Some
Shellfish	NA	Some	A	A	NA
Milk/Yogurt	A	A	A	A	Most
Cheese	A	Some	A	A	Most
Eggs	Some	Some	A	A	Most
Tea/coffee/cocoa	A	A	A	NA	NA
Fruit/vegetables/pulses/nuts	A	A	A	A	A
Alcohol	NA	A	NA	NA	NA
Fasting	New and full moon and all holy days after midday	Varies		24 hours once a month	

KEY:
A: Allowed

NA: Not Allowed

Some/Rare: Some variations will occur, check with individual about preferences

Appendix III

Additional Resources

Disability Distress Assessment Tool (DisDAS): <https://www.stoswaldsuk.org/how-we-help/we-educate/education/resources/disability-distress-assessment-tool-disdat/>

Easyhealth (UK website where easy accessible health information is available using words and pictures): <http://easyhealth.org.uk/>

HealthPromotion.ie: <https://www.healthpromotion.ie/>

INDI Nutrition and Dementia Booklet (2016): <https://www.healthpromotion.ie/hp-files/docs/HNC01205.pdf>

INDI Healthy Eating for People with Type 2 Diabetes (2017):
<https://www.healthpromotion.ie/publication/fullListing?category=Diabetes&searchHSE=>
https://www.indi.ie/images/fact_sheets/Healthy-Eating-for-people-with-Type-2-diabetes-2017-AC5.pdf

Happy Bones. A guide to good bone health and falls awareness for people with an intellectual disability:
<https://www.happybones.ie/>

HSE Food, Nutrition and Hydration Policy For Adult Patients in Acute Hospitals
<https://www.hse.ie/eng/about/who/acute-hospitals-division/food-nutrition-and-hydration-policy-for-adult-patients/>

HSE Nutrition Support Website:
<https://www.hse.ie/eng/services/list/2/primarycare/community-funded-schemes/nutrition-supports/>

HSE National Guidelines for Wound Management: <https://www.hse.ie/eng/services/publications/primary/wound-management.html>

HSE Health Passport – For people with an intellectual disability in contact with a healthcare setting:
<https://healthservice.hse.ie/filelibrary/onmsd/hse-health-passport-for-people-with-intellectual-disability.pdf>

HSE Healthy Eating and Active Living Programme:
<https://www.hse.ie/eng/about/who/healthwellbeing/our-priority-programmes/health/>

HSELandD Resources (<https://www.hseland.ie/>)

- ▶ HSE Nutrition Education Modules
- ▶ HSE Education Modules for Malnutrition Screening
- ▶ HSE IDSSI Implementation Pack

Involving people with learning disabilities in production of practical guides DH (2010):
<https://www.mencap.org.uk>

Irish Heart Foundation Resources and Publications: <https://irishheart.ie>

Irish Heart Foundation Recipes: <https://irishheart.ie/recipes/>

NICE Guidelines (2018): Care and support of people growing older with learning disabilities:
<https://www.nice.org.uk/guidance/ng96>

NICE Evidence Services: <https://www.nice.org.uk>

Promoting Good Nutrition – Guidance and resources to support the use of ‘MUST’ across all care settings, available at https://www.health-ni.gov.uk/sites/default/files/publications/dhssps/pgn-must_0.pdf

Promoting Good Nutrition A Strategy for good nutritional care for adults in all care settings in Northern Ireland 2011-2016, available at: https://www.health-ni.gov.uk/sites/default/files/publications/dhssps/promoting-good-nutrition_0.pdf

Tayside Nutrition (NHS). Learning Disabilities Website: <http://www.knowledge.scot.nhs.uk/taysidenutrition/learning-disabilities.aspx>

Part

B

Food, Nutrition and Hydration Policy Development Cycle

Part B

Food, Nutrition and Hydration Policy Development Cycle

Section	Title	Page
1.0	Initiation	104
2.0	Development of the Food, Nutrition and Hydration Policy	112
3.0	Governance and Approval	116
4.0	Communication and Dissemination	116
5.0	Implementation	116
6.0	Monitoring, Audit and Evaluation	119
7.0	Revision/Update	119
8.0	Appendices Part B	120
	Appendix I Membership of the Community Services – Disability Guiding Principles Subgroup	120
	Appendix II Conflict of Interest Declaration Form	121
	Appendix III Membership of the Technical Working Group	122
	Appendix IV Membership of the Community Services – Disability Services National Quality Improvement Governance Review Committee	123
	Appendix V Focus Group Consultation Process	124
	Appendix VI Signature Sheet	129
	Appendix VII PPPG Checklist	130
9.0	Tables Part B	
	Table 10 Search Strategy for nutrition relating to disability - evidence and resources	113
	Table 11 Focus Group Details	115

1.0 Initiation

1.1 Purpose

Please see Part A: Section 1.0 of this document for purpose.

1.2 Scope

Please see Part A: Section 1.0 of this document for scope.

1.3 Objectives

Please see Part A: Section 1.0 of this document for objectives.

1.4 Outcomes

Please see Part A: Section 1.0 of this document for outcomes.

1.5 National Policy Development Group (NPDG)

The Community Services – Disability Services Guiding Principles (formerly PPPG) Subgroup for the Nutrition and Hydration Policy for Adults Accessing Disability Services undertook the content development within an agreed project plan and under the guidance of a project lead and chairperson. The NPDG was established post consultation with stakeholders and had a range of multidisciplinary members. Additional information was sought from the target population using focus groups. A technical working group was established with a dedicated project lead from the national policy development group.

Work-streams were established which included:

Work-stream 1: Nutritional Care for Adults accessing Disability Services

Work-stream 2: Nutrition Standards for Food Provision

Work-stream 3: Nutrition Standards for Adults requiring Therapeutic Diets

Work-stream 4: Nutrition Standards for Adults requiring Texture Modified Diets and Thickened Drinks

Work-stream 5: Food Service

See Appendix I for Membership of the NPDG. See Appendix II for NPDG Policy Conflict of Interest Declaration Form. See Appendix III for Membership of the Technical Working Group.

1.6 Food, Nutrition and Hydration Policy Governance Group

The Community Services – Disability Services National Quality Improvement Governance Review Committee provided governance for the project and policy development. See Appendix IV for Membership of the governance committee.

1.7 Supporting Evidence

Relevant legislation/PPPGs/Standards/Reports were identified and aligned to the development of the Policy. These were identified as:

- 1.7.1** Department of Health Regulations - Statutory Requirement: S.I. no 367 – schedule 5 (Policies to be maintained in respect of the Designated Centre) of the Health Act (2007) Care and Support of Residents in Designated Centres for persons (children and adults with disabilities) Regulations 2013.
- 1.7.2** HIQA (2013) National Standards for Residential Services for Children and Adults with Disabilities.
- 1.7.3** HSE Food, Nutrition and Hydration Policy for Adult Patients in Acute Hospitals (2018).
- 1.7.4** Department of Health (DoH) and Healthy Ireland (HI). Healthy Food for Life. The Healthy Eating Guidelines and Food Pyramid (2016).
- 1.7.5** Department of Health Nutrition screening and use of oral nutrition support for adults in the acute care setting – National Clinical Guideline No. 22 (2020).
- 1.7.6** Regulation (EC) No 853/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs.
- 1.7.7** Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety.
- 1.7.8** Report on the Scientific Committee of the Food Safety Authority of Ireland 2018. The Safety of Vitamins and Minerals in Food Supplements- Establishing Tolerable Upper Intake Levels and a Risk Assessment Approach for Products Marketed in Ireland.
- 1.7.9** United Nations Convention on the Rights of Persons with Disabilities (UNCPRD) 2006.
- 1.7.10** HSE National Framework for developing Policies, Procedures, Protocols and Guidelines (PPPGs) 2016.

1.8 Glossary of Terms

Term	Definition
Ascites	Ascites is the abnormal build-up of fluid in the abdomen (peritoneal cavity). Symptoms may include increased abdominal size, increased weight, abdominal discomfort, and shortness of breath. It can be a symptom of cirrhosis of the liver, cancer within the abdomen, congestive heart failure or tuberculosis.
Body Impedance Analysis (BIA)	BIA can make an estimation of body composition (e.g. quantities of fat mass and fat-free mass) by running a small electrical current throughout the body using a specific machine.
Body Mass Index	Body Mass Index is a key index for relating weight to height. BMI is a person's weight in kilograms (kg) divided by his or her height in meters squared.
Chronic Kidney Disease (CKD)	Chronic kidney disease describes the gradual loss of kidney function. Kidneys are used to filter wastes and excess fluids from the blood which are then excreted in the urine. When chronic kidney disease reaches an advanced stage, dangerous levels of fluid, electrolytes and wastes can build up in the body.
Congestive Cardiac Failure (CCF)	CCF is a chronic progressive condition that affects the pumping power of the heart muscles. While often referred to simply as 'heart failure', CCF specifically refers to the stage in which fluid builds up around the heart and causes it to pump inefficiently.
Dementia	<p>Dementia is an umbrella term used to describe a set of symptoms and behaviours that occur when the brain stops working properly. This results in loss of independent function for the person with dementia.</p> <p>The most common forms of dementia are</p> <ul style="list-style-type: none"> ▶ Alzheimer's disease ▶ Vascular dementia ▶ Lewy Body disease ▶ Fronto-temporal dementia ▶ Early Onset Dementia.
Combination Diet	A combination diet is required when an individual has a number of dietary requirements to manage existing conditions/comorbidities and /or coupled with acute clinical requirements for example a gluten free (coeliac), texture modified diet (due to swallowing difficulties post stroke).
Decongregated Settings	An appropriate range of housing and related support services, delivered in an integrated and sustainable manner with the aim of promoting equality of opportunity, individual choice and independent living. The service is designed around each individual and choice and control rests with the person.

Designated Residential Centre (Congregated setting)	Homes, centres, institutions (or parts of them) where residential services (including residential respite) are provided in relation to a disability and which are provided by the Health Service Executive (HSE) or other service providers or individuals funded by or through the HSE. In Ireland this tends to be settings with 10 or more residents.
Dietitian	Dietitians are registered healthcare professionals, who assess specific nutritional requirements of population groups or individuals through the lifespan. They translate this into interventions, which maintain health, reduce risk of poor health or restore health. Using evidence based approaches dietitians work to empower individuals, families and groups to provide or select food that is nutritionally optimal, safe, tasty and sustainable. Beyond healthcare dietitians improve the nutritional environment for all through government, industry, academia and research.
Dry Body Weight	Dry body weight is weight without the excess fluid that builds up between dialysis treatments. This weight is similar to what a person with normal kidney function would weigh after urinating.
Dysphagia	Dysphagia refers to an impaired swallow leading to a difficulty in the passage of food and fluids. The impairment can occur from the mouth to the stomach.
Dyslipidaemia	Dyslipidaemia is a broad term describing a number of conditions, including hypercholesterolaemia, hyperlipidaemia and mixed dyslipidaemia, in which disturbances in fat metabolism lead to changes in the concentrations of fats (lipids) in the blood.
EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid)	These are the two main types of long-chain omega-3 fatty acids found in polyunsaturated fats that are considered healthy fats and may reduce heart disease risk, when eaten in moderation and when used to replace saturated fat and trans fat in the diet. Sources include nuts, seeds and sunflower oil.
Nasogastric (NG) tube	A nasogastric tube (NG tube) is a special tube that carries food and medicine to the stomach through the nose.
End Stage Kidney Disease (ESKD)	End-Stage Kidney disease (ESKD) or Kidney Failure is the last stage of Chronic Kidney Disease (CKD). When the kidneys fail, it means they have stopped working well enough for the person to survive without dialysis or a kidney transplant.
FEDS	Feeding, Eating, Drinking and Swallowing
Fading	Fading is the technical behavioural term that refers to systematically altering the physical properties of a stimulus e.g. stimulus fading in the case of sugar used in drinks means adding slightly less sugar over time.
Food Based Standards	These are targets relating to specific foods, rather than the nutrients they contain.

Gut dysmotility	Dysmotility is the term used to describe a variety of symptoms that occur when the gut muscles of the digestive system become impaired and changes occur in relation to the movement of contents (food, drink, tablets etc.) along the digestive organs.
HDL Cholesterol and LDL Cholesterol	HDL (high-density lipoprotein, or “good” cholesterol) and LDL (low-density lipoprotein, or “bad” cholesterol) are two types of lipoproteins that carry cholesterol in the blood to and from the body’s cells.
Health Care Professional	A healthcare professional is a person associated with either a speciality or a discipline and who is qualified and allowed by regulatory bodies to provide a healthcare service to an individual.
Healthy Ireland (HI)	Healthy Ireland is a Government-led initiative which aims to create an Irish society where everyone can enjoy physical and mental health, and where wellbeing is valued and supported at every level of society.
Hyperglycaemia	Hyperglycaemia means too much glucose (simple sugars) is circulating in the blood and, when it is consistently high, it means the person has diabetes.
Hyperphosphataemia	Hyperphosphataemia is an electrolyte disorder in which there is an elevated level of phosphate in the blood. It is often associated with chronic kidney disease (CKD). Lowering the phosphate load and maintaining serum phosphorus levels within the normal range are considered important therapeutic goals to improve clinical outcomes in CKD patients.
Hyperkalaemia	Hyperkalaemia is the medical term that describes an elevated potassium level in the blood. Potassium is an electrolyte that is critical to the function of nerve and muscle cells, including those of the heart. Hyperkalaemia occasionally leads to life-threatening cardiac arrhythmias.
Hypertension	High blood pressure
Ideal Body Weight (IBW)	This is the weight for height that enables a recommended BMI for a healthy adult.

Inflammatory Bowel Disease (IBD)	<p>Inflammatory Bowel Disease (IBD) is the name used to describe two separate yet similar conditions:</p> <ul style="list-style-type: none"> ▶ Crohn's Disease ▶ Ulcerative Colitis. <p>Both conditions are life-long with phases of remission (gut free of inflammation and no symptoms) and relapse/flare (active inflammation with symptoms). The main difference between these two conditions is the part of the gut that is affected.</p> <p>Crohn's Disease</p> <p>The inflammation (red and swollen gut lining) and sores (ulcers) can occur anywhere in the gut from mouth to anus. The most commonly affected areas are the small bowel (ileum) and large bowel (colon).</p> <p>Ulcerative Colitis</p> <p>The inflammation only affects the large bowel or colon. It can affect the whole of the colon or just a part or portion of it.</p>
Inherited Metabolic Disorder	Inherited metabolic disorders are genetic conditions that result in a defective gene leading to an enzyme deficiency, causing problems in the metabolism of certain foods. Examples include Phenylketonuria (PKU) and Galactosaemia.
Irish Nutrition and Dietetics Institute (INDI)	The professional body that represents dietitians in Ireland.
IrSPEN	The Irish Society for Clinical Nutrition and Metabolism (IrSPEN) is a multi-disciplinary organisation dedicated to optimising the identification and management of patients at nutritional risk, both in hospital and community settings.
Lámh	Lámh is a sign system designed for and with people with intellectual disabilities and other communication needs in Ireland. It is a sign system that uses speech and signs key words in each phrase/sentence.
Macronutrients	Nutrients that are used or can be used to supply energy to the body: carbohydrate, protein and fat.
Malnutrition	A state of nutrition in which a deficiency, excess or imbalance of energy, protein or other nutrients, including minerals and vitamins, causes measurable adverse effects on body function and clinical outcome.
Micrograms (µg)	A Microgram is one millionth of a gram.
Micronutrients	Essential nutrients required by the body in small quantities: vitamins, minerals and trace elements.

Multi-disciplinary team (MDT)	A multidisciplinary team is a group of health care professionals who work together as a team. Members of different disciplines are represented (professions such as doctor, nurse, Dietitian, SLT, OT, Physiotherapist, Social Worker, Psychologist etc.), each providing specific services to the individual based on their area of expertise.
NICE	The National Institute for Health and Care Excellence (NICE) in the United Kingdom provides national guidance and advice to improve health and social care. This is an independent organisation responsible for providing national guidance on promoting good health and preventing and treating ill health.
Nutrient Standards	These are targets defined for minimum/maximum provision of a range of nutrients that should be provided in a meal/menu.
Nutrition	The process of providing or obtaining the food necessary for health and growth.
Nutrition Care Plan	A nutrition care plan is developed by a dietitian outlining the individual nutritional interventions and outcomes to be monitored. The nutrition intervention chosen is directed to the root cause of the nutrition problem identified by nutrition assessment and is aimed at alleviating the signs and symptoms of the problem.
Nutrition Screening	A rapid, simple and general procedure used by trained healthcare staff, often at first contact with the resident, to detect those who have significant nutritional problems or are at significant risk of such problems, in order that clear guidelines for action can be implemented, e.g. simple dietary measures or referral for expert help.
Occupational Therapist (OT)	Occupational Therapists have a broad education in the health, social, psychological and occupational science which equips them with the skills and knowledge to work collaboratively with people, individually or in groups, to bring about positive life changes to enable them to participate in the activities of everyday life. OTs work with people with a wide range of health needs, including those who have an impairment of body structure or function, to enhance their ability to engage in the activities and occupations they aspire to, or by modifying the environment to better support occupational independence.
Oropharyngeal Dysphagia	Oropharyngeal Dysphagia is the term used to describe a feeding, eating, drinking and swallowing disorder usually resulting from a neurological or physical impairment of the oral, pharyngeal or oesophageal mechanisms.
Percutaneous Endoscopic Gastrostomy (PEG)	Percutaneous endoscopic gastrostomy is a procedure in which a flexible feeding tube is placed through the abdominal wall and into the stomach. PEG feeding allows nutrition, fluids and/or medications to be put directly into the stomach, bypassing the mouth and oesophagus.

Polypharmacy	Polypharmacy is the concurrent use of multiple medications by an individual.
Procurement	The action of obtaining or buying goods and services.
Renal	Relating to, involving, affecting, or located in the region of the kidneys.
Satiety	The feeling of being full after eating.
Standard	A level or quality or achievement that is acceptable.
Saturated Fats	Saturated fat is a type of dietary fat that is considered one of the unhealthy fats, along with trans fat. These fats are most often solid at room temperature e.g. butter, cheese, coconut oils, red meat.
Speech and Language Therapist (SLT)	Speech and language therapists provide screening, assessment, diagnosis, management and prevention of speech, language and communication disorders and dysphagia. The objective of speech and language therapy is to improve individuals' quality of life by optimising their ability to communicate and/or swallow safely in their environment.
Texture Modified Diet	Foods that have been physically altered to change their texture/consistency for those with a diagnosis of dysphagia. Altering food texture has demonstrated a therapeutic benefit for reducing the risk of choking.
Therapeutic diet	A therapeutic diet is modified from a 'normal' diet and is prescribed to meet a medical or special nutritional need e.g. diabetes, coeliac disease. It is part of a clinical treatment and in some cases can be the principle treatment of a condition.
Thickened Drinks/Modified fluids	Fluids to which there has been an addition of a commercially available thickener.
Uraemia	Uraemia refers to a raised level in the blood of urea and other nitrogenous waste compounds that are normally eliminated by the kidneys. Uraemia more commonly develops with chronic kidney disease (CKD), especially the later stages of CKD.
Vascularised	Providing a body tissue or structure with vessels, especially blood vessels. A highly vascularised organ (e.g. eyes) means it has many blood vessels.
World Health Organisation (WHO)	The WHO is a specialised agency of the United Nations concerned with international public health.

2.0 Development of the Food, Nutrition and Hydration Policy

2.1 Search Methods

A review of grey literature was conducted, including policies, resources and guidelines already in existence, both nationally and internationally. In reviewing and adapting existing resources for inclusion in the policy specific focus was placed on ease of interpretation and to provide flexibility to enable local implementation. A list of national and international grey literature is contained in section 3.1 of Part A of this policy.

A primary literature search was then conducted to address the research questions outlined in next section.

2.2 Research Question

Four policy research questions were devised using the PICO (Population, Intervention, Comparison and Outcome) framework:

1. Nutrition based research relating to adults with a disability living in a supported care setting
 - P:** Adults with a Disability
 - I:** Application of Nutrition Standards for Food Provision
 - C:** International Best Practice based on evidence based practices
 - O:** Optimal Nutrition Care
2. Adults with a disability living in a supported care setting requiring a specific therapeutic diet
 - P:** Adults with a Disability
 - I:** Application of Nutrition Standards for Adults with a disability requiring a therapeutic diet
 - C:** Established best practice relating to the efficacy of compliance with a prescribed therapeutic diet
 - O:** Improved Clinical outcomes for the adult adhering to a prescribed therapeutic diet
3. Adults with a disability living in a supported care setting requiring a texture modified diet or thickened fluids
 - P:** Adults with a Disability
 - I:** Application of Nutrition Standards for Adults with a disability requiring a texture modified diet or thickened fluids
 - C:** Established best practice relating to the efficacy of compliance with a texture modified diet
 - O:** Reduced risk of aspiration or choking when compliant with recommendations

4. Food Service and Mealtime experience for the adult with a disability living in a supported care setting

P: Adults with a Disability

I: Application of Nutrition Standards for Food Provision and mealtime practices

C: Established best practice where a positive mealtime experience improves quality of life

O: Improved quality of life relating to optimal food service

2.3 The Literature Search Strategy

A primary literature search was undertaken in collaboration with HSE library servers to address the four research questions, using the search strategy outlined in Table 10.

Table 10: Search Strategy for nutrition relating to disability - evidence and resources

Date	07-11-2018	
Research Topic	Nutritional care research for people with a disability accessing residential services	
Search Strategy	Key concepts	Synonyms/alternative terminology (consider regional variations here also) – combine using OR
		<p>Disability or Intellectual* or disab* or “learning disability” or “learning disabilities” or Mentally Disabled Perso* or Developmental Disabilit* or mental* disab* or retard* “mental retard* or “cognitive impairment” or “cognitively impaired” or intellectual impair* or handicap* or subnormal* or sub-normal* or feeble-mind* or “learning disorder” or “learning disorders” or angelman* or bardet-biedl* or brachmann-de lange* or cri-du-chat* or coffin-lowry* or crying cat* or de lange* or down’s syndrome or downs syndrome or “fragile x syndrome” or labhart-willi* or laurence-moon* or laurence-moon-biedl* or martin-bell or prader-labhart-willi* or prader-willi or “retts syndrome” or rubinstein* or rubinstein-taybi* or willi-prader* or william* or beuren*</p> <p>AND</p> <p>Nutrition* or diet* or dietary or overweight or weight management or therapeutic diet or modified diet</p> <p>AND</p> <p>Residential* or Resident* or independent* or care setting* or community* or decongregate* or congregate*</p>

An initial literature search produced very few papers, a decision was taken to remove the last condition of the search strategy (Residential* or Resident* or independent* or care setting* or community* or decongregate* or congregate*) and a second search was carried out which produced over 200 papers. Research articles specifically relating to paediatric disabilities were excluded, along with articles relating to acute or respite settings.

2.4 Evidence Appraisal

Results from the literature search were then reviewed by members of the technical working group (see appendix III for membership of group) which provided a degree of confidence that all relevant literature and current practice was identified.

2.5 Summary of the Evidence

A summary of the evidence is not included as it was considered that part A identifies each recommendation clearly and provides a comprehensive summary of evidence at the beginning of each section.

2.5 Formulation of Recommendations

The recommendations in this policy were formulated by the technical group (see appendix III) based on the evidence gathered. Using a systematic approach to content development, this policy provides a number of recommendations for food, nutrition and hydration care of adults accessing disability services. A set of recommendations are provided for each section within Part A of the policy.

2.6 Target Population Preference and Views

Three separate focus groups were consulted. 14 questions were devised (see list in Appendix V) with input from Speech and Language Therapists working in disability services.

Details of the focus group sessions are summarised in Table 11.

Table 11: Focus Group Details

Venue	Date	No. Of Attendees	Description of Focus Group
Irish Wheelchair Association Day Centre and Rehabilitation Training Unit. Clontarf, Dublin 3	21st November 2019	13 Adults	5 people who use a wheelchair to mobilise, 4 living in independent accommodation, remainder living with family member(s). All in a position to answer questions/contribute to discussion without help of additional aids or trained facilitator.
MyLife, Moorehall Living, Hale Street, Ardee, Co. Louth	25th November 2019	16 Adults	1 person who uses a wheelchair to mobilise, 3 people who use mobility aids. All are verbal and functioning on a mild to moderate range of ID. All in a position to answer questions/contribute to discussion without help of additional aids or trained facilitator.
St. John of God, Carmona Services, Glenageary, Co. Dublin	17th December 2019	8 Adults	Adults with moderate intellectual disability. 5 are living in community residential units, 3 are living at home with family member(s). All are independently mobile. All in a position to answer questions/contribute to discussion with the help of a day centre staff member who was in attendance. Visual aids in the form of imitation food items helped prompt answers to questions.

With special thanks to Anne Lowry, Irish Wheelchair Association, Barbara Murphy, MyLife Mooreall Living, Eucemia O'Leary, Saint John of God and Marian McBride, Project Dietitian.

See Appendix V for further details on the target population preferences and views.

2.7 External Stakeholders

Once the policy was agreed by the national working group it went for wider consultation to external stakeholders in February 2020.

List of External Stakeholders

- ▶ Nurse Managers Group (Intellectual Disabilities)
- ▶ Nurse Managers Group (Physical Disabilities)
- ▶ National Federation of Voluntary Bodies
- ▶ Community Dietitian Managers
- ▶ Professional bodies – INDI, AOTI, IASLT, ISCP
- ▶ Shaping the Future of Intellectual Disability Nursing in Ireland Professional Development Group
- ▶ Shaping the Future of Intellectual Disability Nursing in Ireland Education Group

3.0 Governance and Approval

3.1 Policy Development Standards

This policy was developed within the template of HSE National Framework for developing Policies, Procedures, Protocols and Guidelines (2016).

3.2 Formal Governance Arrangements

After a period of national consultation, the HSE National Food Nutrition and Hydration Policy for Adults accessing Disability Services 2020 was submitted for approval to the Disability Services National Quality Improvement Governance Review Committee in July 2020. This was accompanied by the signed PPPG Checklist (refer to appendix VII) to confirm that all the required stages in the development of the policy have been completed and meet the HSE National Framework for developing Policies, Procedures, Protocols and Guidelines (PPPGs) 2016. The policy was approved by the Disability Services National Quality Improvement Governance Review Committee on 23rd July 2020.

4.0 Communication and Dissemination

A communication and dissemination plan, including stakeholder engagement and consultation process, was developed and endorsed by the Community Services – Disability Services Guiding Principles (formerly PPPG) Subgroup.

Staff will be made aware of this Policy through the relevant professional bodies. The Policy will be available on-line on the HSE website under Disability Services.

5.0 Implementation

5.1 Implementation Plan

The supporting Implementation Toolkit was designed to provide tools to enable local implementation. All disability services will be responsible for developing local implementation plans. Standard operating procedures will then be required to apply policy recommendations locally. There are also significant nutrition related knowledge gaps which will require education and training across relevant staff to increase food and nutrition knowledge. Close collaboration between all key stakeholders will be essential to implement the policy.

5.2 Education/Training required to implement the Food, Nutrition and Hydration Policy

It is recommended that each local setting will identify the educational and training requirements of each staff discipline that are required to implement this policy. The level of training will differ between staff categories and therefore different models of training will be required, for example in-service education sessions, continuous professional development updates or stand alone on-line training modules. Food Safety training is required for all staff involved in food provision to individuals in designated centres.

5.3 Specific Roles and Responsibilities

Specific roles and responsibilities are centred on achieving key recommendations to deliver person-centred food, nutrition and hydration care. On admission to a disability service identification of food, nutrition and hydration needs provides the individual/carer/family with the opportunity to inform staff of existing nutritional requirements, for example level of assistance required with eating and drinking, food preferences etc.

5.3.1 CEO/General Manager

The CEO/General Manager/registered provider has the ultimate responsibility for creating the environment that makes it possible for the nutritional needs of residents to be met.

5.3.2 General Medical Practitioner

The medical prescriber has a responsibility to integrate nutrition as an important component of the residents' overall clinical care plan.

5.3.3 Clinical Nurses Manager (CNM)/Service Manager/Director of Care

The CNM/Service Manager/Director of Care has responsibility to ensure that staff are aware of this policy and monitor its implementation in practice. They should promote and maintain an environment that facilitates each individual's nutritional needs in conjunction with the recommendations in this policy.

5.3.4 Care Staff/Carer/Nurses/Social Care Leaders

Day to day responsibility for ensuring that:

- Individuals receive appropriate meals and drinks as per Nutrition Standards in this policy.
- The individual's nutritional needs are identified on admission and reassessed as relevant according to local policy (see 2.2 Nutrition and Hydration Management Algorithm).
- Nutrition screening is undertaken on admission and every 6 months thereafter, or as per local policy.
- Individuals are weighed monthly, unless otherwise indicated.
- Assistance with eating and drinking intake is provided if required.
- Recording and reporting on the individual's food and hydration status and putting a plan in place where deficits are identified, including referral to appropriate health care professional (see 2.2 Nutrition and Hydration Management Algorithm).

5.3.5 Catering Manager (if this is part of the structure in Designated Centres)*

The Catering Manager is responsible for overseeing all aspects of food production and food service. This includes ensuring that:

- Food is produced and served in compliance with all relevant food safety legislation.
- Strategies are in place to monitor and reduce food waste.
- Food produced meets the nutrition standards in this policy for meals for residents and for meals provided for staff and visitors.
- Menus with appropriate food choices are available.

5.3.6 Staff involved in Food Service (if this is part of the structure in Designated Centres)*

The Food Service Staff are responsible for providing:

- An appropriate food choice.
- A detailed description of all menu and food items that are available.
- Food at the correct temperature and time.
- Access to water throughout the day.
- Food served in compliance with all relevant food safety legislation.
- Food served in compliance with local infection control policies and procedures.

*In many community settings there are no catering managers or dedicated food service staff. It is acknowledged that the resident, with staff, will create a shopping list based on choices and dietary recommendations. The resident should also be supported to shop for food in the community. The resident may also support food preparation and serve it. This is not the case in all instances e.g. when person is unable or chooses not to.

5.3.7 The Dietitian

The dietitian (if involved) is responsible for:

- Assessing nutritional status of individuals.
- Providing individually adapted nutritional plan for those who require therapeutic diet.
- Devising an appropriate care plan to empower and support the malnourished individual to select nutritionally adequate, safe (if requiring therapeutic or texture modified diet) and appetising food options.
- Providing dietary advice to alleviate discomfort for individuals receiving palliative care.
- Assessing, planning, monitoring and evaluating all nutritional treatment prescribed.
- Advice and training on menu planning, food service and all aspects of nutritional care.

5.3.8 The Speech and Language Therapist (SLT)

The SLT (if involved) works as part of a multidisciplinary team in the management of a Feeding, Eating, Drinking and Swallowing (FEDS) disorder. The SLT is responsible for:

- Providing timely and effective assessment of individuals with feeding, eating, drinking and swallowing disorders.
- Training and supporting the staff, resident/carer/family member on texture modified diet and thickened fluids as appropriate.
- Training and supporting staff in the provision of safe texture modified diets.

5.3.9 The Occupational Therapist (OT)

The OT (if involved) is responsible for assessing individuals who have difficulty with feeding due to a physical, cognitive or psychological disability. The OT can suggest adaptations, techniques, positioning and/or aids and equipment to facilitate and maintain independence.

5.3.10 All clinical staff:

All clinical staff should comply with this policy and related guidelines, procedures and protocols. Clinical staff should adhere to their professional scope of practice guidelines. Refer to appendix VI for a copy of the signature sheet. This should be signed to record that all staff have read, understood and agree to adhere to this Policy.

6.0 Monitoring, Audit and Evaluation

6.1 Monitoring

The registered provider is responsible for monitoring the implementation of this policy.

6.2 Audit

An audit using key performance indicators should be undertaken to identify where improvements are required and to enable changes as required. An audit should also be undertaken to provide evidence of continuous quality initiatives in conjunction with this policy. A sample audit tool is contained in Section 8.0 of the Implementation Toolkit.

6.3 Evaluation

Evaluation of the effectiveness of the policy should be undertaken locally. Implementation of the policy requires the establishment of robust governance and accountability processes for monitoring and evaluation. It is recommended that formal evaluation of the Policy is undertaken on an annual basis until it is fully implemented.

7.0 Revision/Update

7.1 Procedure for the update of the National Food Nutrition and Hydration Policy

The policy will be due for revision three years from publication. The procedure for update will be aligned to the HSE PPPG Policy (2016). In the event of new evidence emerging which relates directly to the Policy a working group will be convened to revise and amend the Policy if warranted.

8.0 Appendices (Part B)

Appendix I

Membership of the Community Services – Disability Services Guiding Principles Subgroup

(In alphabetical order)

Anne Marie Bennett (project lead)

HSE Project Dietitian for Social Care

Eadaoin Brennan

HSE Residential Services, CHO 5

Joanne Fitzpatrick

Project Co-Ordinator

National Disability Services Quality Improvement Offices

Nicole Lam

Quality Improvement Research Officer

National Disability Services Quality Improvement Offices

Anne Lowry

National Medication Manager

Irish Wheelchair Association

Padraig Manning

HSE Librarian

Dr. Steevens' Hospital

Marian McBride

Project Dietitian

HSE Strategic Planning and Transformation

Eucemia O'Leary

Occupational Therapy Manager

Saint John of God Dublin South East

Barbara Murphy

Director of Care

My Life, Moorehall Living, Ardee, Co. Louth

Marie Kehoe-O'Sullivan (Chair)

National Disability Specialist

National Disability Services Quality Improvement Offices

Judy Ryan

Director

Nursing and Midwifery Planning and Development South East

Elaine Teague

HIQA Officer

St. Michael's House

Appendix II

Conflict of Interest Declaration Form (Template)



CONFLICT OF INTEREST DECLARATION

This must be completed by each member of the PPPG Development Group as applicable

Title of PPPG being considered:

Please circle the statement that relates to you

1. I declare that I DO NOT have any conflicts of interest.

2. I declare that I DO have a conflict of interest.

Details of conflict (Please refer to specific PPPG)

(Append additional pages to this statement if required)

Signature

Printed name

Registration number (if applicable)

Date

The information provided will be processed in accordance with data protection principles as set out in the Data Protection Act. Data will be processed only to ensure that committee members act in the best interests of the committee. The information provided will not be used for any other purpose.

A person who is covered by this PPPG is required to furnish a statement, in writing, of:

(i) The interests of the person, and

(ii) The interests, of which the person has actual knowledge, of his or her spouse or civil partner or a child of the person or of his or her spouse which could materially influence the person in, or in relation to, the performance of the person's official functions by reason of the fact that such performance could so affect those interests as to confer on, or withhold from, the person, or the spouse or civil partner or child, a substantial benefit.

Appendix III

Membership of the Technical Working Group

(In alphabetical order)

Anne Marie Bennett (project lead)
Project Dietitian for Social Care
HSE Strategic Planning and Transformation

Ronán Brady
SLT – Adult Team
St. Michaels’s House, Ballymun road,
Dublin 9
IASLT Representatives – Adult ID SIG

Hilary Colgan
Senior Dietitian
Stewarts Care, Palmerstown, Dublin 20

Brendan Harold
Dietitian Manager of Mental Health
HSE Dublin South, Kildare & West Wicklow

Michelle Hurley
Senior Dietitian
Cope Foundation, Montenotte, Cork

Dorothy Loane
Clinical Specialist Community Dietitian
Midlands Louth Meath CHO

Marian McBride
Project Dietitian
HSE Strategic Planning and Transformation

Niamh O’Keeffe
SLT
Adult Services, Daughters of Charity
Disability Support Services, Navan Road,
Dublin 7.
IASLT Representatives – Adult ID SIG

Jennifer O’Toole
Dietitian Manager
St. Michaels’s House, Coolock,
Dublin 17

Teresa Stenson
Senior Dietitian
St. Mary’s Hospital, Phoenix park, Dublin 20

Jacqueline Boyle
Dietitian Manager
Peamount Healthcare, Newcastle,
Co. Dublin

Kevin Conroy
Catering Manager
Peamount Healthcare Newcastle, Co. Dublin

Julie Dagg
Senior Community Dietitian Adult Disability
HSE Services, St. Patrick’s Centre, Kilkenny

Caroline Howorth
Head of Speech and Language Therapy
St. Michaels’s House, Ballymun road,
Dublin 9
IASLT Representatives – Adult ID SIG

Orla Kelleher
SLT
Cope Foundation, Middle Glanmire Road,
Cork
IASLT Representatives – Adult ID SIG

Anne Lowry
National Medication Manager
Irish Wheelchair Association

Barbara Murphy
Director of Care
My Life, Moorehall Living
Ardee, Co. Louth

Eucemia O’Leary
Occupational Therapy Manager
Saint John of God Dublin South East

Judy Ryan
Director
Nursing and Midwifery Planning
and Development South East
Representing the office of the Nursing
and Midwifery Service Director (ONMSD)

Gethin White
HSE Librarian supported literature reviews
Dr. Steevens’ Hospital

Appendix IV

Membership of the Community Services – Disability Services National Quality Improvement Governance Review Committee

(In alphabetical order)

James Cawley

Representative

Independent Living Movement Ireland

Dr. Philip Crowley (Chairperson)

National Director

HSE Quality Improvement

Leigh Gath

Confidential Recipient

Margaret Glacken

Representative

Federation of Voluntary Bodies

Helen McDaid

Representative

HSE Disability Operations

Suzanne Moloney

Representative

HSE Disability Strategy

Clodagh Nolan

Representative

CORU

Mark O'Connor

Representative,

Inclusion Ireland

Ruth O'Reilly

Representative

National Disability Authority

Chris White

Representative

Not-for-profit organisations

PJ Wynne

Representative

Quality Patient Safety, Community Operations

Appendix V

Focus Group Consultation Process

List of Questions for Attendees using visual cues to help answer questions

1. **What foods do you like/what are your favourite foods?**
[Use Visuals – allow person to pick out items - organise in categories – healthy vs. unhealthy, dinner/lunch vs. snacks, fizzy drinks vs. healthier option]
2. **What foods do you dislike?**
[Use visuals as above]
3. **Do you help make up the shopping list? [Yes/No]**
[Show visual example]
4. **Do you like to help with shopping?**
[Supermarket picture & trolley]
5. **Do pictures help you choose food you want to eat?**
[show examples of food types]
6. **Can you pick what you like to eat?**
7. **Can you get a drink when you want one?**
8. **What do you drink?**
[Use visuals [milk/Water/coke bottle]
9. **How many drinks do you have every day?**
[Use glass/cup to help with answer]
10. **Can you get food from the kitchen when you want it?**
11. **Is the food you eat good for you?**
[use visuals of food items to help with answer]
12. **Who do you talk to about the food you eat?**
13. **Do you help cook your food? [Yes/No]**
14. **Would you like to help cook the food you eat?**

Summary of Feedback from 3 Focus Group Consultations

Topic	Answer
Favourite foods	<ul style="list-style-type: none"> ▶ Spaghetti bolognaise. ▶ Lasagne. ▶ Steak. ▶ Sunday dinners. ▶ Chicken curry & rice. ▶ Bacon & cabbage. ▶ Fish & Chips. ▶ Waffles and beans. ▶ Carbonara/Pasta/Pizza. ▶ Take away once a week. ▶ Broccoli/Cauliflower (this caused a lively discussion as majority disliked vegetables especially cauliflower, but on further exploration the majority ate vegetables most days – cabbage, turnip, salads). ▶ Liked fruit in preference to vegetables – apples, oranges, pears, bananas but don't eat every day 'not as much as I should' ▶ About 50% liked fish and eat regularly – salmon, smoked cod, white fish, sardines, tuna. ▶ Good awareness of what is classified as healthy food choices and most understood that foods high in fat and sugar are treat foods, not for everyday. ▶ Treat foods include trifles, cheese cake, chocolate biscuits, sticky toffee pudding, mince pies.
Foods Disliked	<ul style="list-style-type: none"> ▶ Cauliflower/Broccoli/Carrots ▶ Eggs ▶ Bananas ▶ Mushrooms ▶ Chilli
Help with Food Shopping	<ul style="list-style-type: none"> ▶ Those living independently shop for themselves (Dunnes/ SuperValu/Tesco) and wheelchair users living independently have 'no problem' shopping for themselves. ▶ Wheelchair buses mean that all individuals are able to do this. ▶ Choices are given verbally as well as through pictures. ▶ Some shopping is delivered after phone order but many individuals shop when supported by staff (Centra/ SuperValu). ▶ In one day centre some individuals shop for the ingredients to make their own lunch (usually sandwiches) in Tesco, local to the day centre with the help of staff from the day centre.

Do Pictures help you choose food you want to eat?	<ul style="list-style-type: none"> ▶ “Sometimes it helps when we are choosing our shopping lists and when we talk about what we are going to eat today we use it in some houses”. ▶ One individual uses a talking mat to consider his food choices. ▶ In one instance individuals responded better to food models used as visual aids to prompt conversation relating to what food they like/dislike.
Can you pick what you like to eat?	<ul style="list-style-type: none"> ▶ Those living on their own (4 from IWA) have full autonomy and displayed good knowledge of healthy eating guidelines – had lots of question, very engaged and expressed a desire to learn more. ▶ Others who live at home said they ate the meal prepared for rest of family, didn’t express any dissatisfaction with this arrangement. ▶ The group attended the day centre 2-5days/week – most have their lunch in day centre on these days, some members bring their own lunch. ▶ They have not been consulted on lunch menus at the day centre but did not express any dissatisfaction with the choice each day, but they would like to be consulted. ▶ In another unit residents meet weekly to consider food choices at a house meeting and some individuals in the group said they can tell staff what to cook. ▶ In another centre the staff decide what to cook without any consultation.
Can you get a drink when you want one?	<ul style="list-style-type: none"> ▶ Yes in all cases. ▶ Yes. Often can go to the shop independently to get a drink. ▶ Some individuals living in residential care must ask staff for permission to get a drink and those at home are allowed to help themselves.
What do you drink?	<ul style="list-style-type: none"> ▶ Mostly tea & coffee (4-5 cups per day). ▶ 1 person had a glass (diet) coke per day with medications. ▶ Some of the younger members drank fizzy drinks most day, mainly 7-Up and Coca-Cola/PepsiMax, others drank lucozade, red lemonade, red bull. ▶ Diluted orange/blackcurrant. ▶ Very few drank water every day, but said they ‘try to drink water’ and knew it was better for them than fizzy drinks. ▶ Some had alcoholic drinks on occasions and reported having 1-2 drinks on these occasions - west coast cooler, Shandy, Blue WKD, wine, Guinness.

How many drinks (water, tea/coffee, fizzy drinks) do you have each day?	<ul style="list-style-type: none"> ▶ Only 1 person had at least 1L water per day. ▶ Only those drinking lots of tea/coffee would reach recommendation of 8 cups fluid/day. ▶ Members expressed surprise when asked if they drank 8 cups/day as they were not aware they needed to drink that much each day. ▶ Some individuals report drinking “lots” each day but the quantity was difficult to determine.
Can you get food from the kitchen when you want?	<ul style="list-style-type: none"> ▶ Mostly Yes. ▶ Yes, but most stick to regular meal times with family members. ▶ Some people have own cupboards or boxes in fridge. ▶ “Mobility stops me but staff help”. ▶ Others reported yoghurt and fruit are available from the kitchens in residential homes.
Is the food you eat good for you?	<ul style="list-style-type: none"> ▶ Mostly had a good understanding of a healthy diet and what was good for them. ▶ Good foods: Fruit, vegetables, nuts, smoothies, berries. ▶ Some have fruit (blueberries mainly) and nuts (unsalted) with breakfast. ▶ “When I eat porridge it is good”. ▶ Most individuals were aware that fizzy drinks are bad for your teeth and that water is the best drink to have. With regard to food, they were aware that mayonnaise is “fattening” and that chocolate, pizza and chippers are treats.
Who does the cooking?	<ul style="list-style-type: none"> ▶ Those living on their own (4) shop and cook for themselves. ▶ Those living at home it was mostly Mum or other family member – brother/sister. ▶ For some residential units it was staff only who do the cooking, in others it was the resident themselves with help from staff. ▶ Other individuals help with cooking in residential care homes or at their parents’ home. Some individuals reported “Not allowed near the cooker” or “Not allowed to help”.

Would you like to help cook food you eat?	<ul style="list-style-type: none"> ▶ Some are very interested in cooking and others are not interested in learning how to cook. ▶ All 13 attendees at IWA day centre said they would like a cookery course. ▶ At least 70% said they would 'love' a cookery course. ▶ Some attendees had attended an IWA cookery course in the past and would 'love' to do another one. ▶ Another individual goes to cooking classes in work - The Lisnadara programme. ▶ Other individuals report that staff help and teach them how to cook.
Other	<ul style="list-style-type: none"> ▶ Some IWA members expressed a wish to have a monthly talk on nutrition (in format of question & answer sessions where their questions/dietary queries could be answered). All were interested in food & nutrition and asked lots of question specifically: <ul style="list-style-type: none"> - Diet yogurts (in relation to diabetes) - Hidden sugars in food - Eggs – how many allowed? - Benecol and cholesterol - How to lose/maintain weight when a wheelchair user - Weight loss diet - How to make changes to existing diet in order to lose weight - Sugar vs. sweetner - A healthy diabetic diet. ▶ One individual has a recipe in a book published by REHABCARE. ▶ One individual features every Tuesday in the Angelus with a staff member helping her to bake bread. ▶ The St. John of God, Carmona Services Day Centre provides cooking classes every Wednesday by a staff member. They are very interested in having a cookery programme that ensures they are teaching the individuals to make healthy meals and to learn consistent and correct messages about healthy eating. They would find any additional resources beneficial.

I have read, understand and agree to adhere to this Policy, Procedure, Protocol or Guideline:

[illegible]

Appendix VII

PPPG Checklist

Title of PPPG: Food, Nutrition and Hydration Policy for Adults Accessing Disability Services

STANDARDS FOR DEVELOPING THE POLICY	
Stage 1 Initiation	Checklist
The decision making approach relating to the type of PPPG guidance required (policy, procedure, protocol, guideline), coverage of the PPPG (national, regional, local) and applicable settings are described.	<input checked="" type="checkbox"/>
Synergies/co-operations are maximised across departments/organisations (Hospitals/Hospital Groups/Community Healthcare Organisations (CHO)/ National Ambulance Service (NAS)), to avoid duplication and to optimise value for money and use of staff time and expertise.	<input checked="" type="checkbox"/>
The scope of the Policy is clearly described, specifying what is included and what lies outside the scope of the Policy.	<input checked="" type="checkbox"/>
The target users and the population/patient group to whom the PPPG is meant to apply are specifically described.	<input checked="" type="checkbox"/>
The views and preferences of the target population have been sought and taken into consideration (as required).	<input checked="" type="checkbox"/>
The overall objective(s) of the Policy are specifically described.	<input checked="" type="checkbox"/>
The potential for improved health is described (e.g. clinical effectiveness, patient safety, quality improvement, health outcomes, quality of life, quality of care).	<input checked="" type="checkbox"/>
Stakeholder identification and involvement: The Policy Development Group includes individuals from all relevant stakeholders, staff and professional groups.	<input checked="" type="checkbox"/>
Conflict of interest statements from all members of the Policy Development Group are documented, with a description of mitigating actions if relevant.	<input checked="" type="checkbox"/>
The Policy is informed by the identified needs and priorities of service users and stakeholders.	<input checked="" type="checkbox"/>
There is service user/lay representation on Policy Development Group (as required).	<input checked="" type="checkbox"/>
Information and support is available for staff on the development of evidence-based clinical practice guidance.	<input checked="" type="checkbox"/>

Stage 2 Development	Checklist
The clinical question(s) covered by the Policy are specifically described.	<input checked="" type="checkbox"/>
Systematic methods used to search for evidence are documented (for PPPGs which are adapted/adopted from international guidance, their methodology is appraised and documented).	<input checked="" type="checkbox"/>
Critical appraisal/analysis of evidence using validated tools is documented (the strengths, limitations and methodological quality of the body of evidence are clearly described).	<input checked="" type="checkbox"/>
The health benefits, side effects and risks have been considered and documented in formulating the Policy.	<input checked="" type="checkbox"/>
There is an explicit link between the Policy and the supporting evidence.	<input checked="" type="checkbox"/>
Policy guidance/recommendations are specific and unambiguous.	<input checked="" type="checkbox"/>
*The potential resource implications of developing and implementing the Policy are identified e.g. equipment, education/training, staff time and research.	<input checked="" type="checkbox"/>
There is collaboration across all stakeholders in the planning and implementation phases to optimise patient flow and integrated care.	<input checked="" type="checkbox"/>
*Budget impact is documented (resources required).	<input checked="" type="checkbox"/>
Education and training is provided for staff on the development and implementation of evidence-based clinical practice guidance (as appropriate).	<input type="checkbox"/>
Three additional standards are applicable for a small number of more complex PPPGs: Cost effectiveness analysis is documented. A systematic literature review has been undertaken. Health Technology Assessment (HTA) has been undertaken.	<input type="checkbox"/>
*Resource implications will need to be identified at local level; any additional costs associated with implementation of the policy will need to be included in the respective service estimates.	

Stage 3 Governance and Approval	Checklist
Formal governance arrangements for Policy at local, regional and national level are established and documented.	<input checked="" type="checkbox"/>
The PPPG has been reviewed by independent experts prior to publication (as required).	<input type="checkbox"/>
Copyright and permissions are sought and documented.	<input checked="" type="checkbox"/>

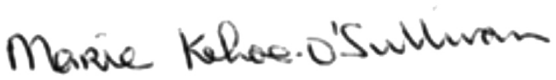
Stage 4 Communication and Dissemination	Checklist
A communication plan is developed to ensure effective communication and collaboration with all stakeholders throughout all stages.	<input checked="" type="checkbox"/>
Plan and procedure for dissemination of the PPPG is described.	<input checked="" type="checkbox"/>

The PPPG is easily accessible by all users e.g. PPPG repository.	<input checked="" type="checkbox"/>
Stage 5 Implementation*	Checklist
Written implementation plan is provided with timelines, identification of responsible persons/units and integration into service planning process.	<input checked="" type="checkbox"/>
Barriers and facilitators for implementation are identified, and aligned with implementation levers.	<input checked="" type="checkbox"/>
Education and training is provided for staff on the development and implementation of evidence-based PPPG (as required).	<input type="checkbox"/>
There is collaboration across all stakeholders in the planning and implementation phases to optimise patient flow and integrated care.	<input type="checkbox"/>
Implementation is the responsibility of the local service A toolkit has been developed to support local implementation	
Stage 6 Monitoring, Audit, Evaluation	Checklist
Process for monitoring and continuous improvement is documented.	<input checked="" type="checkbox"/>
Audit criteria and audit process/plan are specified.	<input checked="" type="checkbox"/>
Process for evaluation of implementation and (clinical) effectiveness is specified.	<input checked="" type="checkbox"/>
Monitoring audit and evaluation is the responsibility of the local service	
Stage 7 Revision/Update	Checklist
Documented process for revisions/updating and review, including timeframe is provided.	<input checked="" type="checkbox"/>
Documented process for version control is provided.	<input checked="" type="checkbox"/>

I confirm that the above Standards have been met in developing the following:

Title of PPPG: Food, Nutrition and Hydration Policy for Adults Accessing Disability Services

Name of Person(s) signing off on the PPPG Checklist:

Name: Marie Kehoe-O'Sullivan Title: National Disability Specialist National Disability Services Quality Improvement Offices	 Signature: _____ Date: 23rd July 2020
---	--

This signed PPPG Checklist must accompany the final PPPG document in order for the PPPG to be approved.

Please note this Checklist must not be altered or changed.

