

Nutrition in Older Adults Aged 70+ Years Evaluating Public Health Guidelines in the UK

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1 Introduction

Adequate nutrition in adults aged 70 years and over is essential for maintaining overall wellbeing and addressing the multiple barriers that may negatively impact dietary intake (Booth, 2026). This can include reduced mobility, social isolation, and dental problems (Booth, 2026). Nutrition is essential in support of cognitive function to prevent cognitive decline (Booth, 2026) and the prevention of chronic diseases such as sarcopenia (muscle loss) and osteoporosis (brittle bones) (Cristina, 2021; Putra, 2021).

Thus emphasises the importance of public health nutrition, why this is so important and put in place within this specific population is to minimise age related physiological changes related to decreased metabolism and malabsorption therefore, to try and prevent frailty and malnutrition (Roberts, 2021). Public health nutrition is therefore essential in addressing these challenges at a population level (Saranya, 2024). It entails the application of food science, nutrition, and behavioural science to promote improved health outcomes within certain age groups (Roberts, 2021). Public health nutrition focuses on improved food security, creating healthy food environments, and reducing nutritional disparities through policy, education, and community interventions (Saranya, 2024). The key policies in public health nutrition is a focus on populations that targets groups and communities (Nestle, 2021). Prevention of disease, policy and environmental, interventions, epidemiology, biostatistics, and addressing inequities (Nestle, 2021; Saranya, 2024).

In the UK nutritional guidance for older adults is informed by the dietary reference values (DRV) (Department of Health, 1991; GOV.UK, 2025). This national policy is put in place with the aim for the prevention of disease and the promotion of health (ref). This guide is a set of estimates for energy and nutrient requirements known as nutrient reference values (NRVs), NRVs play a crucial role in public health as it can translate complex nutrition science into clear, and easy to understand standards (Bajaj, 2025). Initially established in 1991 (Department of Health, 1991; GOV.UK, 2025) and has been used and updated since (ref) this tool has been used by health professionals for assessing diets (Bajaj, 2025). However, the effectiveness of this tool can be influenced by a range of social, economic, culture, and environmental factors (Bajaj, 2025). This easy will outline the nutritional requirements that is needed for adults aged 70 and

over, will evaluate nutritional guidelines and will investigate community-based interventions that are designed to improve nutritional requirements and overall well-being.

2 Nutritional requirements and the complications that can occur

For adults aged 70 years and older the DRVs change from younger adults (Booth, 2026). The older population's needs often shift towards a lower calorie energy intake, as people may become less active their metabolism may slow down and their energy requirements may decrease, the combination of all of this may mean they eat less (Booth, 2026). Research found that older adults need a higher and specific nutrient density within their diets as their ability to absorb and utilize nutrients becomes less efficient (Booth, 2026). This is due to reduced basal metabolic rate and a decreased in absorption (Booth, 2026).

2.1 Protein requirements

DRVs requirements for protein within this age group increases to 1.2g per kg of body weight daily on top of the standard 0.75g that a younger adult would need (Chapman, 2021). This is needed primarily to combat natural age-related muscle loss, otherwise known as sarcopenia (Chapman, 2021). As people age the body becomes less efficient at processing protein this is primarily due to anabolic resistance, this is where the body become less responsive to protein intake, this can also be due to a sedentary lifestyle (Deane, 2024). Therefore, this would require a higher consumption in protein to maintain and preserve muscle mass, strength, and overall mobility (Chapman, 2021).

This is crucial for this population as the need for mobility and strength is crucial to prevent the risks of falls (Deane, 2024). Studies have found that elderly people are at risk by 30% of mortality from a fall from a ground level compared to people under the age of 65 (Hamilton, 2024). Many deaths are not solely caused by the fall itself, but by underlying health conditions that may have been contributed by the trauma (Hamilton, 2024). Another factor is the body's ability to heal and recover from trauma, as for this specific age the recovery processes would take long compared to a younger adult (Li, 2023). This could lead to fractures or pneumonia (Li, 2023). As protein is essential for rebuilding muscle mass, another essential factor is repairing damaged tissue, strengthen bones, and supporting the immune system (Chapman, 2021).

2.2 Calcium and Vitamin D Requirements

in addition to protein micronutrients such as Calcium and vitamin D is essential for bone health (Voulgaridou, 2023). Calcium is essential in maintaining bone density and supporting the repair of fractures thus, can minimize the risk of falls and can prevent furthermore severe breaks in future (Voulgaridou, 2023). However, to enhance effectiveness a combination of vitamin D would help the absorption of calcium in the gut (Voulgaridou, 2023). Calcium is the key building block for bones as it mineralizes the bone callus and repairs the break (Zheng, 2023).

Older adult are at an increased risk of vitamin D deficiency (Giustina, 2022). This is due to limited sun exposure, skin synthesis, and an inadequate dietary intake (Giustina, 2022) therefore, the UK guidelines from the scientific advisory committee on nutrition (SACN) have a recommended daily amount of 10 micrograms per day particularly during the winter months as sunlight exposure is unattainable (GOV. UK, 2024).

Vitamin D deficiency is also linked to an increased risk to osteoporosis thus increases the risk of a fall this is why these nutrients are a concern in this age group (Giustina, 2022). If unfortunately, a fall were to occur and a bone to break or fracture, then the likelihood of this age group would experience rapid bone loss following the injury due to the individual, there would be a high risk in becoming immobile and a reduction in activity (Smit, 2024). Thus, leading to a drastic reduction in mechanical loading on the bones (Lunt, 2024). It is essential that bones need stress to maintain their density (Smit, 2024). Without this bone resorption it can outpace formation and can cause rapid disuse osteoporosis (Rolvien, 2021). Therefore, and inadequate intake of vitamin D and calcium is essential in this age group and can help prevent decline (National Institutes of Health Office, 2022).

3 UK nutritional policies and guidelines

There are several UK nutritional policies for the public are designed to support health and wellbeing across the population including older adult (Nutrition Regulations and Policies, no date) The guidance relevant for this age group and informed by organisations such as public health England and public health Wales, these governed professional bodies that provides support and access in order to maintain health and well-being (Nutrition Regulations and Policies, no date). While both rely on the eat well

guide with same national recommendations the two policies do differ on guidance for older adults in care settings (Institute for Government, 2020). While England 's focus is on stronger emphasis on self-care, healthy aging, supporting people with long term illnesses and reduce mortality (office of health improvement and disparities, 2022). Wales specifically focuses on care home settings with a focus on preparing meals that are full fat, and food fortification this is added nutrients to standard food for patients with dementia (Cwm Taf Morgannwg, no date; Welsh government, 2019). The nutritional guidelines for the elderly that is advised and guided by Public Health England is now replaced as the Office for Health Improvement and disparities (OHID) (Nutrition Regulations and Policies, no date). Both are endorsed by bodies like the British Dietetic Association (BDA) and the British Nutrition Foundations, the committee on medical aspects of food and nutrition policy (COMA) (1992), The Scientific Advisory Committee on Nutrition (SACN) their role is to use scientific evidence to promote a nutrient-dense, and varied diet that is aimed at maintaining, health, preventing disease, and in supporting functional ability in later life (Dorrington, 2020).

The Scientific Advisory committee on nutrition (SACN) is an independent advisory public body (GOV.UK, no date). It is designed to provide independent scientific advice on nutrition and risk assessments that is related to health and nutrition (GOV.UK, no date). It is an expert committee of the OHID, with its main role to provide scientific advice on nutrition and health (GOV.UK, no date). The strengths in nutritional recommendations for adults 70 years and older is to address specific age-related physiological changes that may occur such as sarcopenia, bone mineral loss and the decline of immune function (SACN, 2021). Through using scientific and evidencing proof can target what are their nutrient intake requirements to prevent physiological changes (SACN, 2021).

3.1 Strengths of UK Nutritional Guidelines

A curial policy tool of UK dietary guidelines is the NHS Eatwell Guide this is an accessible site with resources that emphasizes nutrient dense foods to maintain muscle mass, bone strength, and help with cognitive health (NHS, 2022). The Eatwell guide emphasizes on the maintenance of these specific health outcomes to help maintain longevity rather than just weight management (NHS, 2022). While it is based on the general Eatwell Guide, the recommendations for this age group dose differ, as it focuses more on macronutrients such as protein, and micronutrients such as calcium,

and hydration, this is to combat frailty and malnutrition to prevent age related diseases (NHS, 2022). The Eatwell guide is specialised by expert committees, SACN and COMA both focus on complex specific requirements, which this could require different approaches to eating in older adults (Public Health England, 2016).

3.2 Limitations of UK Nutritional Guidelines

However, despite these strengths, there are several limitations to the NHS Eat Well Guide, while it is suited for the general population when applied for adults over 70 it does not quite fit this populations nutritional requirements and has no separate guide (BDA, 2023). As its main focus is primarily applies to adult of all ages with the focus on preventing chronic diseases and more focused on the prevention of obesity, rather than preventing bone and muscle loss, malnutrition, and frailty in older age (Dorrington, 2020). Although it highlights the importance of the of protein intake, calcium, and hydration, the guidance remains generalized and does not address the complex needs for the older population (Dorrington, 2020). Such as factors in reduced appetite, mobility limitations, that can severely impact an individual's ability to meet these recommendations (Dorrington, 2020).

The UK health professionals heavily rely on the COMA report and SACN to accurately determine the correct energy requirements for specific age groups for the elderly however, there are fewer well evidenced specific guidelines that exists in the UK (Dorrington, 2020). This can have significant barriers when delivering nutritional needs to this population specially nutrients that play key physiological roles such as calcium and B vitamins (Dorrington, 2020).

4 Global Strategies

The World Organized Health Organization strategy provides a comprehensive framework for healthy ageing, its effectiveness is dependent on national implementation, which could very significantly depend on resources and policy differences (WHO, 2026) This sustainable goal is to improve lives and help their communities (WHO, 2026). Their action plan involves several strategies to address the barriers that may affect this population such as age-friendly environments this will address social isolation and help combat mental health within this population (WHO, 2026). Eradicate discrimination, integrated care and improve services to meet the persons individual's needs, and long-term care to provide better access to good quality

care using national analyses to long term care (WHO,2026). While its strategic plan covers most aspects of the barriers faced the implementation may vary across regions and local compacity to achieve this goal may be limited within some country's (WHO, 2026).

4.1 National UK Strategies

The NHS understands the need for more health and social care support for this growing population (NHS England, no date) while people are living longer than ever before, this has created a significant strain on the system, and statistics show that the number is increasing from 14.9 million from 2014 to 18.5million from 2025 (NHS England, no date). How the NHS plans to support the elderly is to take active steps to slow down or reverse health challenges (NHS England, no date). However, the NHS faces many challenges not with just the aging population but many other chronic conditions whether its chronic diseases, acute conditions (BMA, 2026). The NHS has already stated a state of emergency, with extreme staff burn out, a high amount of mental health workloads, record waiting time, and systemic failures (BMA, 2026). Statistics indicate in Wales May 2025, more than 796,000 people are waiting for NHS treatment (BMA, 2026). While secondary work force is growing the BMA states Wales's population is growing and aging and increasing chronic diseases such as type two diabetes is on the rise and there is simply not enough workforce to meet demand (2026).

5 Local Community Programs

Many local community programs have formed in Wales and are generally having a positive impact (GOV. Wales, 2026). The Welsh Government has provided funding to local authorities with the mind set of developing age-friendly communities (Age Friendly Wales) Overall the funding has a significant positive impact (GOV. Wales, 2026). The Welsh Government has paid out £3.85 million over four years, £50,00 per local authority per year (GOV. Wales, 2026). With 11 local authorities joining the WHO Global network of age friendly cities and communities, with most others are going through the application progress (GOV. Wales, 2026).

There is clear evidence that this is having a positive impact on the elderly as it has reduced loneliness, improved confidence, better support in physical activity, and mental health (GOV. Wales, 2026). With reports on local authorities reporting stronger

social connections, better access to information and services, more volunteering, and more involved in decision-making (GOV. Wales, 2026). However, there are some barriers, the main and biggest issue is transportation, especially in rural areas, where bus services are poor, costly taxis can limit older people joining activities, and digital exclusion can create barriers as many older people are not online or lack confidence using digital tools (GOV. Wales, 2026).

6 Conclusion

In conclusion the nutrition requirements for adults over 70 years and over are influenced by combination of physiological ageing, reduced dietary intake, and social determinants of health. Age-related changes such as decreased metabolism, reduce nutrient absorption, and increased chronic illness has highlighted the importance of a nutrient-dense diet such as protein, calcium, and vitamin D to support muscle mass, bone health, and overall functional ability.

UK nutritional guidelines such as SACN, and the NHS eat well guide frameworks, provide strong scientific and evidential foundation it is providing and promoting healthily ageing to the public and health professionals. However, they do demonstrate gaps within the guidelines and do not fully express the complex needs of this population.

Overall, this suggests while current public health nutrition shows robust in theory, with Wales data indicating that positive change is happening and is following the WHO global strategies. However, there remains significant gaps within the system and healthcare region, this indicates a more targeted approach is needed. Ensuring greater accessibility, better care, and a reduction in inequalities, in order to suite the needs of wellbeing and nutritional needs of the ageing population.

Word Count 2,546

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