DEMENTIA AND NUTRITION IN THE HOME

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TALKING ABOUT ALZHEIMER’S ACROSS AUSTRALIA
FIGHTDEMENTIA.ORG.AU
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Research participants, especially the people living with dementia and family carers who shared their experience

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Alzheimer’s Australia NSW respectfully acknowledge the Traditional Owners of the land throughout Australia and their continuing connection to country. We pay respect to Elders both past and present and extend that respect to all Aboriginal and Torres Strait Islander people who have made a contribution to our organisation.

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ABBREVIATIONS

ACAT  Aged Care Assessment Team
ADI   Alzheimer’s Disease International
ARV   Anglican Retirement Villages
CALD  Culturally and Linguistically Diverse
CASS  Chinese Australian Services Society
CDC   Consumer Directed Care
CHSP  Commonwealth Home Support Program
DAA   Dietitians Association of Australia
HACC  Home and Community Care
HREC  Human Research Ethics Committee
GP    General Practitioner
MCI   Mild Cognitive Impairment
MNA   Mini Nutritional Assessment
MoW   Meals on Wheels
NDIS  National Disability Insurance Scheme
NSW   New South Wales
In July 2006, as the newly appointed Dementia Advisor for the Hornsby Ku-ring-gai region, I became involved in a year-long *Dementia and Nutrition* pilot project involving staff from my organisation (Mercy Community Care), two Meals on Wheels food services, and a dietitian. I was excited to be a part of the pilot, but knew little about nutrition, and was yet to fully comprehend the importance that adequate nutrition and hydration played in the lives of people with dementia, and in particular, those living alone.

I quickly learnt about the skeletally thin and frail clients who at first wouldn’t even allow people past their front door, let alone accept the offer of a meal. I heard stories of people who couldn’t recognise a ‘Meals on Wheels’ packaged meal as being ‘food’, or if they could recognise and open it, divided their ‘Meals on Wheels’ meal into four ‘to make it go further’, storing the remaining portion in a cupboard for days afterwards. Eventually I came to learn that some people would happily eat if they had someone to prompt them, or better still, if they had someone to sit with them for a meal and a chat. After all, eating a meal is as much a social activity as it is a means of simply ‘refuelling’ the body to survive.

Aside from their underlying dementia, all of the clients we followed in the pilot had multiple health issues, exacerbated by malnutrition and dehydration. Most were a ‘falls risk’ and many experienced delirium at different times, leading to multiple hospital admissions or visits to the GP. One client passed away, and many went into residential care before the pilot was completed. In the end we realised that most participants were reached too late in their ‘journey’ and for various reasons, could not be appropriately supported at home for long.

I have observed some ‘good news’ stories. One I think is worth mentioning, just to illustrate how positive change can occur with great patience and persistence in the picture. In 2007 I met Mrs N, a woman in her mid-60s with younger onset Alzheimer’s disease who was at risk of malnutrition, although it wasn’t obvious on first meeting. Her unit was immaculate, she communicated well, and she presented appropriately. She had once been a great cook, but it soon became apparent that she could no longer shop for, or prepare, daily meals, despite walking to the supermarket most days. In her ‘reality’, she was planning and purchasing ingredients to bake cakes and biscuits for her children to eat when they came home from school (both now grown men). So there was loads of butter in the fridge and multiple packets of flour and sugar in the cupboards, but little to actually eat, aside from sweet biscuits and ice-cream (favourite foods of many people with dementia).

Some obvious tell-tale signs for Mrs N were the recent dramatic weight-loss reported by her son, the dresses that she happily showed me were now three sizes too large, and the fluctuating delirium that led to her being found by police, wandering the streets on two occasions, confused and delusional, several kilometres from home. Fortunately for Mrs N, time was on her side. After some considerable persuasion, we were eventually able to put in place daily meal support, and other services over time that reduced her risk of malnutrition, dehydration and delirium, and allowed her to remain happily living in her home for three more years, before needing to go into residential care.

In late 2013, I approached Brendan Moore, General Manager, Policy, Research and Information at Alzheimer’s Australia NSW, about developing a discussion paper on ‘dementia and nutrition’ because I knew that all of these issues still existed for people with dementia, especially those living alone, and were likely to increase over time. Fortunately, he agreed with me and I am grateful that Alzheimer’s Australia NSW chose to shine a light on the subject. Brendan told me recently that more survey responses have been received for this discussion paper than any other, so clearly there are many other people who feel just as passionately about these issues as I do. I extend my thanks to everyone who contributed to this paper.

Mary Clifton
Younger Onset Dementia Key Worker, Alzheimer’s Australia NSW
Dementia Advisor 2006 – 2013
Malnutrition is an area of concern for people living with dementia. Yet there has been a lack of attention and research about this issue, and a lack of information for people about how to prevent malnutrition. There needs to be greater awareness about the significance of nutrition issues for people with dementia and what to do to ensure good nutrition.

Alzheimer’s Disease International (ADI) reports that undernutrition affects up to ten per cent of older people living at home, 30 per cent of those living in care homes, and 70 per cent of hospitalised older people. However, malnutrition is under-recognised and under-diagnosed. Although the prevalence of malnutrition in people with dementia living at home is not known, we do know that people with dementia are at greater risk of poor nutrition and malnutrition.

Malnutrition in people with dementia has significant impacts on cognitive and functional symptoms, and on the overall clinical prognosis. It can lead to greater functional impairment and dependence and increase the risk of morbidity, hospitalisation, institutionalisation and mortality. Undernourished people with dementia may enter residential care earlier and require longer and more frequent hospital stays.

Despite these poor outcomes, there is a lack of understanding about how policies and services can be improved to support people with dementia living at home to remain well-nourished and avoid malnutrition, particularly in this era of aged care and disability sector reform. Our fear is that policy changes could be making the situation worse for people with dementia and their carers, with a basic human need not being addressed adequately. Alzheimer’s Australia NSW conducted a mixed-method research project to investigate these concerns.

Our research found a high level of concern about the nutrition needs of people with dementia living at home, with 85% of service providers who responded to our survey indicating that this is a concern for them. Nutrition risk and malnutrition in people with dementia is not identified early though and many participants suggested that these issues should be addressed by health professionals before a crisis point is reached. People living alone with dementia are particularly vulnerable and require monitoring to ensure risk of malnutrition is mitigated.

Research participants identified the value of community services in supporting people with dementia to meet their nutrition needs as well as the limitations of the system. Concerns about recent changes in the delivery of community care services were front of mind, with considerable worry amongst service providers about the potential impact of changes in the aged care sector, most notably the transition to consumer directed care (CDC). As the aged care and disability reforms unfold and Australia progresses to fully consumer led and managed models, we need to ensure that consumers have access to meals and dietitians through policy changes and consumer awareness of the importance of these. The Australian health care system also has a key role to play in supporting people with dementia living at home to be as well as possible by addressing nutritional needs.

The research identified several implications for service providers across the spectrum of dementia support including increased awareness and diagnosis of nutrition risk and malnutrition; timely and appropriate responses to the issue; effective in-home and community-based interventions; the need for workforce and carer education; and the operation of service systems.
Based on the findings of our research, Alzheimer’s Australia NSW recommends the following:

**Australian Government**

1. Appoint a celebrity ambassador to champion good nutrition for older people.
2. Provide information resources to consumers to help them make informed decisions about their service options.
3. Develop national nutrition guidelines for Government-funded meal delivery services.
4. Ensure 2017 Aged Care Assessment processes include a focus on nutrition and hydration.
5. Develop a referral pathway for home care clients at risk of malnutrition.
6. Amend the Quality of Care Principles 2014 to allow for meals delivered by organisations like Meals on Wheels to be received under a home care package.
7. Fund the development of a range of education resources on nutrition including:
   - online training module of home care and support workers
   - module in Certificate 3 and 4 in aged care
   - an App for service providers which would include a checklist, mini nutritional assessment and referral pathway
   - Carer education program (targeting male carers especially).
8. Fund further research into the issue of malnutrition of older Australians, especially vulnerable populations such as people with dementia, culturally and linguistically diverse, Aboriginal and Torres Strait Islander, and rural and remote communities.

**NSW Government**

1. NSW Health implement hospital avoidance programs that incorporate the following:
   - Access to dietitians and nutritionists in the home
   - Monitoring of at-risk people identified by the above
   - Nutrition screening is conducted during discharge planning and supports are put in place prior to discharge.
2. NSW Family and Community Services support local governments through the Liveable Communities Grants to conduct activities that facilitate people with dementia having meals in social settings that overcome social isolation.
“Nutrition is not on the agenda. People don’t understand the impact of malnutrition.” (Dietitian)

This discussion paper explores the complex issues of ensuring good nutrition and avoiding malnutrition for people with dementia who live at home.

Access to food and good nutrition is a basic human right, and is fundamental to wellbeing. Food is also enjoyable and sharing a meal is a social experience. Meeting nutritional needs for people with dementia can be complicated for a range of reasons as will be explored in this paper. Poor nutrition can result in malnutrition which, for people with dementia, can lead to greater functional impairment and dependence, and increase the risk of morbidity, hospitalisation, institutionalisation, and ultimately, mortality.

As one of our Alzheimer’s Australia NSW staff members stated:

“If you don’t eat, you die. None of the other stuff matters if you are malnourished.”

Despite this, there is a lack of research and understanding about how services and communities can support people with dementia living at home to remain well-nourished and avoid malnutrition.

Alzheimer’s Australia NSW therefore conducted a research project which aimed to:

- examine the impact of malnutrition for people with dementia, their carers, and the health and community aged care systems
- examine the benefits and limitations of the Australian aged care system in supporting good nutrition for people with dementia living in their own home
- identify strategies and good practice in ensuring proper nutrition for people with dementia at home

This discussion paper reports the findings of the project and the implications for policy design and service delivery. Recommendations are made for Governments and service providers to reduce the risk of malnutrition for people living with dementia at home. It is hoped that this paper will put the issue of nutrition of people living with dementia on the public agenda and start a discussion about what can be done to address this very important and complex issue.
What is good nutrition?

Nutrition is the intake of food in relation to the body’s dietary needs. Good nutrition – an adequate, well-balanced diet – is fundamental to good health. Poor nutrition can lead to reduced immunity, increased susceptibility to disease, impaired physical and mental development, and reduced productivity. Although older people often have smaller appetites than younger people, they need more of certain nutrients including protein and some vitamins and minerals. Older people have unique nutritional needs and challenges and therefore require age appropriate advice and support. Good nutrition assists in the maintenance of independence and supports people to continue living at home. Frailty and an inability to nourish oneself are reasons for admission to residential care, and contribute to increased health risks and costs of healthcare.

Signs of poor nutrition

Signs of poor nutrition include changes in physical, psycho-social and environmental factors, such as:

**Physical**
- Obvious unintentional weight loss or muscle wasting
- Loose rings, watches or dentures
- Ill-fitting clothing or wearing too many clothes
- Prominent bones such as ribs, cheeks, shoulders
- Slow chewing, dribbling food or pooling in cheeks, and difficulty swallowing

**Psycho-social**
- Depression, sadness or grieving
- Isolation or not going to social outings
- Not having enough money to purchase foods and other essential items

**Environmental**
- Empty fridge or pantry
- Leftover meals or food
- Poor personal hygiene
- Inappropriate or inadequate food choices
- Empty alcohol containers
- Needing to take multiple medications

Impact of poor nutrition

People who have poor nutrition require more complex support and care are less likely to be able to live independently, and have more frequent and longer stays in hospital. They are also more likely to experience unintentional weight loss; slower wound healing; increased risk of infection and slower recovery; increased risk of pressure ulcers; and increased risk of falls. In addition, poor nutrition affects cognition and quality of life, and increases morbidity and mortality. People with poor nutrition are more likely to be malnourished. Malnutrition is harder and more expensive to treat than to prevent.

What is malnutrition?

Malnutrition results mainly from eating an inadequate diet in which either the quantity and/or quality of nutrients does not meet an individual’s needs.

Malnutrition is either:
- Overnutrition – an excess food/calorie intake, or;
- Undernutrition – the depletion of body energy stores and loss of body mass through insufficient calories, protein or other nutrients needed for tissue maintenance and repair.

This discussion paper is focused on the undernutrition of people with dementia.
Prevalence of malnutrition

Undernutrition is the most common nutritional problem, affecting up to ten per cent of older people living at home, 30 per cent of those living in care homes, and 70 per cent of hospitalised older people. Alzheimer’s Disease International (ADI) reports that the prevalence of undernutrition among older people from low and middle income countries is likely to be even higher, particularly in rural and less developed settings, and that it increases with age.

Risk factors for malnutrition in older people include their social, economic and environmental situation; problems with their mouth, teeth and swallowing; mental, neurological and other chronic physical diseases; inappropriate use of restrictive diets, and; side effects of long-term treatment with certain drugs. Consequences of undernutrition include frailty, reduced mobility, skin fragility, an increased risk of falls and fractures, exacerbation of health conditions, and increased mortality.

“Despite the significant physical, social and economic consequences of malnutrition and significant prevalence in the older population, there is strong evidence to show malnutrition is under-recognised and under-diagnosed in the community setting.” (Marshall et al., 2013: 645)

International estimates on the prevalence of malnutrition in older people living in the community range from 15 per cent to 60 per cent. In Australia, the prevalence of malnutrition in the community is estimated to be 10 to 30 per cent with older adults at higher nutritional risk.

Dementia, eating behaviours and poor nutrition

Poor nutrition is a major health problem for many older people, however maintaining good nutrition presents additional challenges for people with dementia. People with dementia may:

- Experience a loss of appetite
- Develop an insatiable appetite or a craving for sweets
- Forget to eat and drink
- Forget how to chew or swallow
- Experience a dry mouth, or mouth discomfort
- Be unable to recognise the food and drink they are given

ADI suggests that progressive malnutrition and weight loss occur almost inevitably in people with dementia, resulting from an imbalance between nutrient/energy intake and needs. However, not every person with dementia will lose weight and some may start to gain excessive weight if they develop a preference for sweet flavours or unhealthy snack foods.

Evidence suggests that dementia-related brain atrophy may impact on brain regions implicated in appetite control and energy balance, with metabolism in these regions significantly reduced in dementia. Cognitive and behavioural symptoms of dementia impact on dietary habits in different ways at different stages of dementia. In addition, aversive feeding behaviours are common in people with dementia. These can severely disrupt dietary intake, necessitate assistance at mealtimes, and be a cause of anxiety and strain for family carers.

Evidence on the association between dementia and weight loss is strong, with epidemiological studies confirming that people with dementia experience a significantly more marked weight loss in older age, which likely starts sometimes in late mid-life. This may even be an early marker of dementia however the causes and mechanisms involved are not yet fully understood.

Weight loss and undernutrition in people with dementia can have a significant impact on the course of the disease including on cognitive and functional symptoms, and on the overall clinical prognosis. Weight loss may be part of the clinical expression of dementia, worsen the clinical course of dementia, lead to greater functional impairment and dependence, and increase the risk of morbidity, hospitalisation, institutionalisation, and mortality.
Undernourished people with dementia may enter residential care earlier and require longer and more frequent hospital stays. Survival is significantly shorter in people with dementia who are severely malnourished.

Poor oral health and dental problems can also contribute to poor nutrition in people with dementia. Tooth decay and loss leads to an inability to chew and grind up food to swallow. Dental problems can be painful and a person with dementia may not be able to communicate this to others. Subsequently, oral health issues can force people to adopt a diet low in fibre and micronutrients, and high in saturated fats and cholesterol (foods that are often easier to chew) which can lead to micronutrient deficiencies, undernutrition and exacerbation of cognitive impairment.

Once a person is diagnosed with dementia good nutrition is often overlooked. Poor nutritional intake and lack of fluids can contribute to the development of delirium in people with dementia which can lead to a rapid decline in mental state and behaviour. It cannot be assumed that family carers or community aged care providers are equipped with the knowledge and skills to assess and manage the complex nutritional needs of a person with dementia.

**Prevalence of malnutrition in people living with dementia**

Studies reviewed in the 2014 ADI report, Nutrition and Dementia, indicate that up to 45 per cent of people living with dementia experience clinically significant weight loss over one year, and up to half of people with dementia in residential aged care have inadequate food intake.

Roque et al. aimed to assess the nutritional status, measured by the Mini Nutritional Assessment (MNA), of people living with dementia in the community and identify clinical risk factors for nutritional risk or malnutrition by cross-sectional analysis of a cluster randomised clinical trial involving 940 participants. The results indicated that 5.2 per cent of participants were classified as being malnourished, 42.6 percent as being at risk of malnutrition and 52.2 per cent as well nourished. Malnutrition was more frequent in dementia with Lewy bodies (18.2 per cent) than in other types of dementia. This study found that worse nutritional status is significantly related to more advanced age and worse cognitive, functional and behavioural profile, as well as increased burden for caregivers.

Rullier et al. conducted a cross-sectional study comprised of 56 people with dementia living in the community and 56 family carers to explore the associations of individual characteristics of both people with dementia and family caregivers with the nutritional status of people with dementia. They found that 58.9 per cent of people with dementia were at risk of malnutrition and 23.2 per cent presented a poor nutritional status, and among the family caregivers, 32.1 per cent and 5.4 per cent, respectively. This research highlights the value of investigating nutritional deficiencies in dementia within the caregiving dyad (relationships).

Few studies have been conducted to determine the prevalence of malnutrition in people with dementia living in the community internationally. To our knowledge, no studies have calculated or estimated the prevalence of malnutrition in people with dementia in Australia. There is therefore a need for further research to investigate the extent of the problem. Until such time we are reliant on anecdotal evidence which indicates that the risk of malnutrition of people in dementia living in the community is a significant concern which must be addressed.

**Screening for and diagnosing malnutrition**

Malnutrition is poorly recognised and difficult to treat. Nutrition screening aims to identify people who are at risk of developing malnutrition and then provide early intervention strategies to prevent the development of malnutrition. Weight alone is not a good indicator of nutritional status.

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ii. The MNA is a validated nutrition screening and assessment tool that can identify people over the age of 65 years who are malnourished or at risk of malnutrition. It is the most well validated nutrition screening tool for the elderly. The current MNA consists of six questions and streamlines the screening process (for more information see: http://www.mna-elderly.com).
Diagnosis of malnutrition requires assessment of anthropometry\(^{iii}\), biochemistry, clinical features (such as muscle wasting) and dietary intake\(^{ii}\).

Although there are best practice guidelines for the management of nutrition, managing nutrition in the context of dementia is difficult due to the complex nature of the condition. Typical strategies that rely on the cognitive capacity of individuals to manage malnutrition are challenging to implement in people with dementia\(^{ii}\).

**Policy and service provision context**

Australia is currently undergoing a period of significant reform in the primary, community and allied health, aged care and disability sectors which are impacting, or will impact, on services and support for people living with dementia. This section provides an overview of the Government-funded services\(^{iv}\) that are available to assist people with dementia and their carers within the changing policy context. Despite the existence of these supports, there are still considerable gaps in the system especially for people living alone with dementia.

**Health services**

Primary, community and allied health services have key roles to play in supporting people with dementia living at home to be as well as possible. This extends to ensuring that nutritional needs and concerns are addressed within a paradigm of keeping people healthy and well, and the absence of ill health. As with all chronic conditions, prevention is a better approach to managing malnutrition than responding to the outcome by way of higher cost interventions in acute care hospitals.

**Commonwealth Home Support Program**

The Commonwealth Home Support Program (CHSP) brings together four programs: Commonwealth Home and Community Care (HACC), National Respite for Carers, Day Therapy Centres, and Assistance with Care and Housing for the Aged. The CHSP provides entry-level home support for older people who need assistance to keep living independently at home and in their community\(^{ii}\).

With regard to nutrition, services that were previously HACC funded (including Meals on Wheels and centre-based meal services) are now provided under the CHSP.

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\(^{iii}\) Anthropometry is a simple, reliable method for quantifying body size and proportions by measuring body length, width, circumference, and skinfold thickness.

\(^{iv}\) In addition to Government-funded services, people may elect to pay for private services to meet their needs.
Meals on Wheels

Meals on Wheels originated in Britain during the Second World War to assist frail older people who needed help to remain living in their own homes. In Australia, Meals on Wheels started in 1952 in South Melbourne. In March 1957 Sydney City Council started Meals on Wheels in NSW. Now, local Meals on Wheels service volunteers deliver meals, provide social interaction and check up on clients’ wellbeing. In the course of a year, over 14.8 million meals are delivered by more than 78,700 volunteers to about 53,000 recipients across Australia in cities, regional and rural areas. Of these, about 4.5 million meals are delivered by 35,000 volunteers in NSW each year30.

Home Care Packages and Consumer Directed Care

A Home Care Package provides a coordinated package of services tailored to meet the specific care needs of an older person to enable them to remain living in their own home for longer. The services that can be provided in a Home Care Package include, but are not limited to:

- support services – such as help with washing and ironing, house cleaning, gardening, basic home maintenance, home modifications, and transport to help with shopping, doctor visits or attend social activities
- personal care – such as help with showering or bathing, dressing and mobility
- nursing, allied health and other clinical services – hearing services and vision services
- care coordination and case management31

There are four levels of home care packages available and a ten per cent dementia supplement is available following assessment of eligibility. As of July 1 2015 all home care packages are delivered on a consumer directed care (CDC) basis. CDC is designed to enable recipients to:

- get more say in the care and services accessed, how it is delivered and who delivers it
- have conversations about their needs and goals
- work in partnership with their service provider to develop a care plan
- agree to the level of involvement in managing their care package
- have a greater understanding about how their package is funded and how those funds are spent through an individualised budget and monthly income and expense statement32

A home care package can be used to support meal preparation (support clients to cook for themselves), provide assistance with and monitoring of eating meals. Package funds cannot be used to purchase food (except as part of enteral feeding requirements)33.

National Disability Insurance Scheme

The National Disability Insurance Scheme (NDIS) supports people with a permanent and significant disability that affects their ability to take part in everyday activities and gives people with disability more choice and control over how, when and where supports are provided34. People living with younger onset dementia (under the age of 65 years) will be eligible for the NDIS however there are concerns that those in the earlier stages of dementia will not meet the functional disability requirement to access the program. The goal-based nature of NDIS plans for individuals suggests that if nutrition needs are identified as a goal then funds will be allocated to support those needs.

Role of good nutrition in dementia risk reduction

A well-nourished and well-developed brain likely leads to ‘cognitive reserve’, the spare capacity that reduces the impact of neurodegeneration and delays or prevents the onset of dementia. Regular intake of fish, fruits and vegetables and a ‘Mediterranean diet’ (high consumption of unrefined cereals, fruits, vegetables and olive oil) are associated with reduced risk of developing dementia and a lower conversion rate from mild cognitive impairment to dementia35. Following a healthy diet is a key pillar of the Australian dementia risk reduction program, Your Brain Matters36.
Alzheimer’s Australia NSW conducted a mixed-method research project. The project was approved by the Macquarie University Human Research Ethics Committee (HREC) and the informed consent of all participants was obtained. The following methods were used to collect qualitative and quantitative data from a range of sources.

**Literature review**

A review of national and international academic and policy (grey) literature was conducted to identify gaps in existing knowledge to inform the development and focus of this research project.

**Survey**

An online survey was conducted of staff working in the community aged care sector, with 366 valid responses received. Demographic data of survey respondents is provided in the appendix. Quantitative data was analysed using frequencies and cross-tabulations. Qualitative data was analysed for key themes.

**Interviews with key stakeholders**

Semi-structured interviews were conducted with nine key stakeholders including dietitians, case managers, and allied health professionals. The interviews investigated participants’ experiences, concerns and suggestions in relation to the nutritional needs and risk of malnutrition for people living with dementia in the community.

**Interviews with carers of people with dementia and people with dementia**

Semi-structured interviews were conducted with ten individuals living with dementia (family carers and people with a diagnosis of dementia). Participants were recruited through Calvary Community Care, Anglican Retirement Villages (ARV), Chinese Australian Services Society (CASS) and Alzheimer’s Australia NSW networks. A diverse sample was recruited in terms of age, cultural background, location, and living arrangement. The interviews explored participants’ experiences, concerns and advice for others living with dementia in relation to nutrition, food and mealtimes.

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v. The sample included four participants from Chinese-speaking backgrounds and one of Greek background; one person with dementia living alone; and a variety of carer relationships including spouses, and parent and child relationships. Participants ranged in age from mid-forties to late-eighties and lived in different areas of NSW including Sydney metropolitan, Hunter, and South Coast.
Our literature review identified international research about the experiences of carers of people with dementia, the need for nutrition education for carers and staff, and the role of service providers. A brief overview of this research is provided below.

**Experiences of carers of people with dementia**

Papachristou et al. conducted a qualitative study to explore the impact of dementia on food-related processes from the perspectives of 20 carers of people with dementia. Through semi-structured interviews they found that carers noticed a set pattern of decline, with food shopping being the first ability to decline, followed by food preparation and then the ability to eat. Carers adapted as the dementia progressed and described their adaptations as stressful yet satisfying as they regarded food provision as a part of their caring role and meal times as important social opportunities. The authors concluded that educating carers about the likely adaptations to food processes (including shopping, preparation and eating) may increase food satisfaction for both carers and people with dementia.

In an exploratory qualitative study Ball et al. conducted interviews with 14 family carers of people living with dementia at home. They found that carers feel unsupported and uninformed with respect to nutrition-related care. They concluded that health professionals need to enhance the support and education provided to family carers, including recommending low-risk strategies that have been tried and tested by experienced family carers.

Fjellstrom et al. examined how carers of people with Alzheimer’s disease perceive food choices, cooking, and food-related care work. They conducted three focus groups with 17 family carers (11 women and 6 men) and found that carers struggle with either taking on a new role as a food provider or extending it. The men in this study expressed the greatest concern and perceived themselves as inexperienced food providers and carers.

**Training and education for carers**

Keller et al. reported the findings of two studies about the education needs and resources about dementia and nutrition in the community. The first study consisted of interviews with 14 care service providers to identify concerns about nutrition. In the second study, 17 (out of 74) Canadian Alzheimer Society chapters responded to a survey designed to determine nutrition concerns and education resources provided to clients. They concluded that most resources provided to clients were considered low quality and did not match the concerns expressed by the care providers, highlighting a knowledge translation gap about nutrition and dementia.

In the previously cited ADI review, two randomised controlled trials and a controlled non-randomised study which evaluated nutrition education programs for informal carers were identified (Salva, Andrieu, Fernandez, Schiffrin, Moulin, Decarli et al., 2011; Riviere, Gillette-Guyonnet, Voisin, Reynish, Andrieu, Lauque et al., 2001; and Pivi, da Silva, Juliano, Novo, Okamato, Brant et al., 2011 cited in ADI, 2014). The format of the training programs was similar, comprising group sessions conducted by a dietitian or other health professional. Topics covered included the importance of a healthy balanced diet; dietary challenges in dementia; monitoring food intake, weight and nutritional status; advice on enriching dietary protein and energy content; and strategies to manage aversive eating behaviours. The largest trial indicated a moderate positive benefit for overall nutritional status, but no change in weight. The other trial indicated statistically significant weight gain of people with dementia, but with a smaller effect size than for people randomised to an oral nutritional supplement.

ADI found little evidence to suggest that training and education interventions for care staff in residential aged care facilities or for family carers of people living with dementia at home result in clinically meaningful improvements in the nutritional
status of people with dementia. However, this does not mean that there may not be benefits with ADI concluding that training and education on diet and nutrition is appreciated by caregivers, and that there is a clear need for support particularly when aversive feeding behaviours and feeding difficulties occur. Basic information should be provided to all families, with more specific training and dietitian services offered to those developing feeding difficulties or undernutrition.

In reporting the findings of a qualitative thematic content analysis of 2000 responses to an Alzheimer’s Society (UK) ‘Food for Thought’ questionnaire, Watson et al. suggested that rather than viewing carers as needing education and instruction, service providers and professionals should emphasise carers’ own skills and knowledge. They argued that simple and one-way models of education do not show improvements in recipients’ psychological well-being and what is required instead is mutual understanding and recognition of carer experience from service providers.

Role of service providers and the service system

Winter identified several potential points of screening for malnutrition in the Australian community aged care service system including general practice (GPs and practice nurses); (then) HACC services (assessment officers, home delivered meal services, care workers); community nursing, and; community support packages (case managers). Dementia advisors and dementia monitoring services also have a significant role to play. Marshall et al. noted that due to changes in the aged care workforce, non-clinical care workers and informal carers may have the most important role in the provision of services to prevent malnutrition in older people living in the community.

In 2006, the NSW Department of Ageing, Disability and Home Care (ADHC) Metro North Region funded Hornsby Meals on Wheels (MoW), Ku-ring-gai MoW and Mercy Community Care to undertake a pilot project on models of food service provision to address the needs of people with dementia living in the community which were not being met by existing service arrangements. The final project report concluded that the HACC system is integral and needs to urgently prioritise nutrition, and that a cooperative, responsive and integrated approach is required to address the ‘malnutrition epidemic’.

Lipski noted that older people may experience a loss of motivation to eat due to social isolation and that eating alone leads to undernutrition and weight loss. Conversely, an extensive friendship network may be positively related to appetite and nutrient intake. He concludes that providing nutritional food via special social programmes including Meals on Wheels may not overcome eating problems associated with social isolation.

Following a systematic review, Marshall et al. concluded that interventions involving informal carers and non-clinical community care workers are an effective method to address malnutrition in older people without increasing the burden of care or cost of management. They noted that this may improve nutritional status and prevent decline in functional status and quality of life however suggest that disease state, community setting, available resources, multidisciplinary health professional involvement and the degree of training and supervision to care workers all need to be considered.

Overall, our review of the literature found scarce Australian research on nutrition issues specifically for people living with dementia in their own home in the community. Most of the international research in this area consists of small-scale qualitative studies. Australian researchers are investigating the nutrition of people with dementia in residential aged care however very little research has been conducted on how to best address the nutritional needs and prevent malnutrition for people with dementia living in the community in the Australian context.
This section discusses the findings of the Alzheimer’s Australia NSW research project. The data is from our interviews with key stakeholders and people with dementia and carers, and the online survey (with respondent roles displayed below in graph one).

**Understanding of nutrition issues for people with dementia**

Survey respondents were asked whether the nutritional needs of people with dementia were a concern for them and 85.5 per cent of respondents answered yes (see graph two).

**Respondents who answered yes were then asked if they feel confident in supporting clients with dementia to meet their nutritional needs. Forty-seven per cent of survey respondents indicated that they feel confident, with 10.5 per cent responding ‘no’ and 42.5 per cent ‘sometimes’ (see graph three).**

**This data should be read with caution as it displays self-reported feelings of confidence and not an indication of ability or capacity to support people with dementia to meet their nutritional needs. Our sense is that many of the ‘sometimes’ respondents probably are not confident but did not want to respond ‘no’. When analysed alongside the qualitative data in response to questions about what respondents do to support people with dementia to meet their nutritional needs, it also appears that some respondents have an over-inflated sense of confidence. The qualitative data suggests that although respondents might feel confident, many of them are not actually doing anything that would be helpful or effective or they are only doing one thing in isolation (for example, checking a clients’ fridge for out-of-date food).**

Respondents who answered ‘no’ or ‘sometimes’ to the confidence question were asked what would help them and many indicated that they lack knowledge about nutrition and would appreciate further training and education to help them to support their clients better. Alzheimer’s Australia NSW recommends that service providers, especially home care support workers, are provided with training about nutrition.

**DISCUSSION OF RESEARCH FINDINGS**

**Graph one**

**Graph two**

**Graph three**
"I am a support worker, not specialised in nutrition, so it is hard to advise [clients] about nutrition. We just report to our supervisor if we think clients are not getting enough nutrition or water so that the supervisor, service coordinator or case manager can help them. Honestly, I do not know much about nutrition other than basic knowledge; I don’t know the particular relationship between people with dementia and nutritional needs. If there is a guideline for when to report to our supervisor, that will be helpful; also, some education for support workers would be helpful.” (Support / care worker)

Identification of people with dementia at risk of malnutrition

“I have seen unopened delivered meals covering a kitchen bench and no one recognising that this is a health issue. I have seen a mountain of rotting food on cupboards and fridges and again no one thinking this is a problem! This includes service providers and visiting family. I have seen people suffering malnutrition in amongst the piles of food and no one recognising that there is a problem!” (ACAT staff member)

Survey respondents who indicated that the nutritional needs of people with dementia living at home were a concern for them were asked what percentage of their clients with dementia they thought were at risk of malnutrition. Responses to this question varied, as shown in graph four.

Graph four

It must be acknowledged that this question was asked of people who do not necessarily have the requisite knowledge to determine if a client is at risk of malnutrition. However, the above statistics do give a general sense of the scope of the problem.

What came through very strongly in the interviews with expert stakeholders is that nutrition risk and malnutrition in people with dementia is not identified early. Many participants suggested that these issues should be addressed by health professionals before a crisis point is reached.

“The biggest challenge and concern is that malnutrition is recognised too late. It needs to be addressed in the initial stages following a diagnosis. We need to have frank and open discussions about nutrition issues – good nutrition is preparing someone for the future, ensuring good nutrient stores, quality food not quantity.” (Dietitian)

“I don’t believe people with dementia are meeting their nutritional need as often this is not discussed with the clients and their carer in the early diagnosis phases. Hence, clients and their carers often seek advice and support about nutrition too late in the diagnosis.” (Dietitian)

My Aged Care has nutrition risk screening questions embedded in its national screening and assessment process, meaning that people entering the system who are at nutrition risk will be identified. This includes questions about oral health concerns, swallowing problems, appetite and taste changes, unintentional weight loss, nutritional concerns and hydration. However it is not known what the referral pathway is and what support or services people at risk will receive.

Benefits and limitations of the service system in addressing nutrition risk and malnutrition

The research identified the value of services in supporting people with dementia to meet their nutritional needs as well as the limitations of the system. Concerns about recent changes in the
delivery of community aged services were front of mind for many participants.

“[People with dementia are meeting their nutritional needs] in a very ad hoc way. It is more good luck than anything.” (ACAT staff member)

“Most clients are sort of muddling through and others are struggling with meeting their nutritional needs.” (Dementia advisor / key worker)

“Some people thrive when they go into residential aged care because they eat!” (Physiotherapist)

Meals on Wheels

Research participants noted that MoW and other meal delivery services are a possible way to support people with dementia to meet their nutritional needs. They also acknowledged that there are limitations in the effectiveness of these services for a range a reasons including a lack of monitoring, the provision of only one meal a day, the meal may not be eaten, and concerns about food poisoning if food is not stored or reheated correctly.

“When I am with a client we talk about their daily meals, however I am sure that what they say they eat and what they actually eat is totally different. I am a care worker in the community and many elderly people still live alone. A lot have Meals on Wheels which go uneaten as the containers are outside on the lawn for the stray cat.” (Support / care worker)

The nutritional needs of people with dementia were not a concern for 30 per cent of MoW volunteer survey respondents. Given that these are volunteers that took the time to respond to a survey about dementia and nutrition, we could reasonably assume that the rate of lack of concern would be higher across the broader volunteer base. MoW volunteers need to be supported to know more about dementia as it is likely that a considerable proportion of their clients have dementia or mild cognitive impairment (MCI) that could progress to dementia. They could also be the first person to notice changes in clients.

“Nutrition is a huge issue – people are suffering from malnutrition and there is a lack of guidance and advice.” (MoW coordinator)

Our understanding is that there is no compulsory dementia education for MoW volunteers. Alzheimer’s Australia NSW recommends that all MoW service coordinators and volunteers be provided with education about dementia to enable them to better support their clients living with dementia.

The Dietitians Association of Australia (DAA) has expressed concerns that there are no guidelines for food and nutrition for HACC (now CHSP) funded services including day centres and MoW. For example, the DAA reports that there are various guidelines used by MoW depending on the jurisdiction and that these guidelines are not always followed. This concern was also expressed in our interviews with dietitians. Alzheimer’s Australia NSW supports the DAA recommendations that nutrition training is provided to staff of CHSP services and that national nutrition guidelines are developed for MoW and day centre services.

Home care packages

Home care packages have traditionally been able to provide clients with services such as meal monitoring, shopping support and meal preparation. Carers who were interviewed reported the value of these types of services and supports.
Case study: Edward & Maureen

Eighty-seven-year-old Edward cares for his 85-year-old wife, Maureen in a regional area of NSW. Maureen was diagnosed with dementia in 2003 and also has a number of other conditions which impact on her mobility and ability to undertake personal care activities. Edward bathes, toilets, dresses and feeds Maureen, and carries her up and down the stairs of their two-story home.

Edward was initially resistant to receiving support from home care services but two years ago he relented and started on a home care package. Now, a home care worker visits Edward and Maureen three times a week to assist with Maureen’s personal care, provide respite so that Edward can attend appointments, and help Edward prepare meals for the week. Maureen was the cook of the family and as Edward told us: “We wouldn’t have survived if I was the cook!”

The meal preparation is an important component of the package in ensuring that both Maureen and Edward stay well-nourished. As her dementia progresses Maureen is losing the ability to chew and swallow properly and she is now on a diet consisting of pureed and soft foods and semi-liquids. Edward and the home care staff prepare appropriate food for Maureen and full meals for Edward that he can reheat throughout the week.

Edward and Maureen’s experience demonstrates the importance of including meal preparation services in home care packages. Although it may be regarded as time consuming and resource intensive it is extremely valuable to clients and supports people with dementia and their carers to remain living in their own home.

Of the 137 support workers who completed the survey, nutrition for people with dementia was a concern for 79 per cent. Sixty-two percent then reported that they feel confident in supporting people with dementia to meet their nutritional needs. Qualitative survey responses highlighted the challenges home care staff face in supporting their clients including the small amount of time they have with each client.

“’It’s very hard because as support workers we only see our clients for such a small part of their week, sometimes for half an hour, 45 minutes or at most an hour. Unless we are with them for a respite shift, which usually means they have a fulltime carer. It’s what they eat when we are not there that I worry about.” (Support / care worker)

“Compliance is a challenge. We are looking after clients in an uncontrolled environment, not 24 hour care. We are suggesters only; we can’t make sure they do anything [to improve nutrition].” (Home care staff educator)

Case study: David & Betty

David cares for his 83-year-old mother, Betty. Betty was diagnosed with vascular dementia in 2009. David thinks it is very important that carers of people with dementia seek out good advice on nutrition. Betty used to attend an exercise clinic and a dietitian based there provided David with helpful advice. Betty takes a range of vitamins and supplements each day to support her nutritional needs. She also has a protein-enriched drink every morning and sources of protein are included in all of her meals. David says: “We need more dietitians trained in the needs of older people and meal services that are nutritionally enhanced.”

David also advises other carers to get support for meal provision and to be regimented about meal times. In caring for his mother he has found that she is better when she eats at roughly the same time every day and when her utensils and cutlery are in the right order to avoid confusion. David bought red plates for Betty and finds that she eats more when her meals are served on those as her food stands out.

Although Betty lives with David, he works four days a week so isn’t always home to assist at meal time. He has found that he has to provide very clear and explicit instructions to the home care staff who visit Betty at dinner time. From his experience David believes that more information, education and training is needed for home care staff about dementia, meal times and nutrition.
The research found considerable concern amongst service providers about the potential impact of changes in the aged care sector, most notably the transition to consumer directed care (CDC). It is not known whether people will choose to spend their CDC funding on meals, food and nutrition services, and dietitians. Many interview participants expressed concerns that these supports may not be prioritised. The sentiment that service delivery is still focused on the convenience of the service provider rather than the needs of the client was also evident.

“CDC is not creating more choice or a better environment for ageing. If a consumer doesn’t know, how will they ask for it?” (Dietitian)

Our findings indicate that service providers will need to highlight the fundamental role good nutrition plays in living well with dementia and the risks of poor nutrition (including increased risk of falls and other health complications) to their clients in establishing client goals and plans.

The research also found concerns about the uncertainty surrounding future funding for HACC-funded dietitians. Dietitians reported that although some funding will likely be available, it is not known what the model of service delivery will be. There are concerns that only a clinic-based model will be funded as opposed to a home visit service. There are significant limitations to a clinic model, especially for people living with dementia.

Case study: Madeleine & Harry

Madeleine cares for her 86-year-old father, Harry. Harry lives alone in inner-Sydney and was diagnosed with dementia two years ago. Madeleine states that “I want him to be self-sufficient for as long as possible” and thinks Harry would deteriorate quickly if she moved him into a residential aged care facility.

Ensuring that Harry eats enough and is well-nourished has been a particular concern for Madeleine and she has established daily routines for him to support meal times. Breakfast for Harry is cereal and fruit. He prepares this himself and is in a routine established over many years of eating the same foods for breakfast. Lunch is provided at the two community centre programs he attends during the week. On weekends, Madeleine and her family visit Harry or he will go to their home.

Madeleine told us that:

“Dinner is absolutely a challenge and he needs someone to prepare it. He has never cooked in his life and you can’t teach an 86-year-old to cook.”

They tried Meals on Wheels but Harry couldn’t use the microwave to heat up the meal and a hot meal couldn’t be delivered at 5.30pm for dinner. To overcome this challenge, Harry goes to a local café each evening for dinner. Madeleine has set up a tab arrangement with the owners at the café where Harry has his own personalised menu to choose from. This helps to avoid confusion and anxiety in trying to choose a healthy option from the full café menu.

Madeleine reported that the social aspect of meal times impacts on how much Harry eats. She finds that he eats more when he has dinner with her family. Madeleine told us about her idea for a takeaway meal club for older people who live alone which could meet not only their nutritional needs but also their need for socialisation and companionship.

Harry and Madeleine’s experience highlights the important role that community services and local communities can play in supporting people with dementia to eat well and remain living independently in their own homes.
Additional issues for ‘special needs’ groups

This research identified issues specific to ‘special needs’ groups including people from Culturally and Linguistically Diverse (CALD) backgrounds and people living alone with dementia.

CALD communities

With regard to CALD communities, the need for culturally appropriate meals was raised by research participants. This includes home delivered meals, centred-based meal services and in-home meal preparation. For example, one service provider told of providing recipe cards and teaching home care workers how to make Macedonian meals to assist Macedonian clients with meal preparation as they would not eat the food being delivered to them.

Four carers from Chinese-speaking backgrounds were interviewed and their experiences also demonstrated the importance of culturally-appropriate meals. One carer reported that her husband ate too many biscuits and sweets when he attended a general dementia café and that this was not good for him. The people the interviewees care for attend a Chinese-specific dementia day program and an important component of this program is the lunch provided. The food was familiar and incorporated ingredients that are healthy and that they enjoy.

Although the importance of culturally-appropriate meals was identified through this research, the needs and concerns of CALD communities was not a specific focus of the project. There is therefore a need for further research to understand the needs, concerns and challenges of CALD communities with regard to dementia and nutrition.

People living alone with dementia

People living alone with dementia were identified by survey respondents and professional interview participants as particularly vulnerable to poor nutrition and malnutrition risk. When someone with dementia lives alone food and nutrition issues are exacerbated and are more complex for home care staff and other service providers to support.

“If they live on their own this compounds the issue as there is no one to share a meal with, and no one to oversee their food intake. Meals on Wheels has a role in monitoring client food intake, yet services are unable to support these people with every meal. Social dining works well as people generally eat more and better in a group.” (MoW coordinator)

Previous research by Alzheimer’s Australia NSW found that people with dementia who live alone are, on average, placed in residential care earlier than people who live with others and that this may be related to the increased risk of malnutrition and subsequent illness and fall-related injuries among people with dementia who live alone.

“We need more resources and services, especially for people living alone…We also need to get families involved. It is not just about the role of services.” (Care coordinator / case manager)

Case study: Georgina

Georgina is 74 years old and was diagnosed with Alzheimer’s disease in 2012 after complaining to her GP for several years about memory problems. She lives alone in a small regional town.

Georgina has always been health conscious and continues to follow a very healthy and nutrient-dense diet. She takes ten supplements a day to support her nutritional needs including vitamin E, fish oil, Q10 and selenium.

“I can still cook and prepare meals. I do eat well but have put on a little bit of weight.”

Georgina is very independent and does not require the support of home care services. She does her own shopping and has developed a list system to ensure that she doesn’t forget to buy essential items. When she noticed she was gaining weight she referred herself to a dietitian.

Georgina’s meals include lots of fruit, green juices, eggs, soups and meat and vegetables. She cooks all her own meals and thinks that being very organised is the key to her success in remaining independent in her own home and living well with dementia.
Alzheimer’s Australia NSW has identified several implications of this research for policy and service provision.

**Policy**

As the aged care and disability reforms unfold and Australia progresses to fully consumer led and managed models, the value attached to nutrition screening, planning and support by consumers is uncertain. Recipients of services have been able to access individual services based on need and they will now have to weigh up options that they do not have a high level of information about. In these future arrangements, we need to ensure that meal preparation and dietitians are prioritised and, at least, consumers are aware of the value to them in their care and support arrangements. A gap is evident between CHSP where MoW food is readily available, however, package funds cannot be used to purchase food.

Models of care have traditionally been based on overcoming functional losses or deficits. A positive change in home care services are the restorative and reablement approaches, which when applied to nutrition, will see greater support given to clients in helping them prepare meals.

With goal-based planning, decisions will be made by consumers about which functional loss is more important to them to have service provision ameliorate. It will be interesting to learn which choices are made and what options are prioritised over others.

The Australian health care system has a key role to play in supporting people with dementia living at home to be as well as possible by addressing nutritional needs within a paradigm of keeping people healthy and well. Prevention of malnutrition is more effective than responding to the problem through treating people with dementia in acute care hospitals. People with dementia are over-represented in acute care settings and identifying and responding to malnutrition risks earlier could contribute to lower rates of admissions and shorter stays. GPs, allied health and community health services should manage these risks as they are responsible for chronic disease management and preventing ill health.

**Service provision**

This research has highlighted a number of issues for service provision in supporting the nutrition needs of people with dementia living at home. The issues fall into the following categories:

| Awareness and diagnosis | • Increase awareness of nutrition issues, especially to identify clients who are at risk of malnutrition  
| | • Enhancement of Detect Early to include nutrition screening by GPs  
| | • Medical professionals start conversations about nutrition early – proactive, preventative approach rather than reactive and crisis management  
| | • People with dementia and families request advice, support and referrals from health professionals and community care staff if concerned about nutrition  
| | • Primary Health Networks provide education and support to GPs on preventing malnutrition which contributes to achieving the goal of hospital avoidance |
| Response | • Develop referral pathways for clients who are at risk of malnutrition  
| | • Nutrition plan is included as an essential part of care plans |
| In home & community-based interventions | • Recipes cards and cooking classes are provided to clients  
| | • The capacity of volunteer organisations is developed to support people with dementia (dementia-friendly communities) |
| Workforce and carer education | • Training/education becomes mandatory for all home care staff  
| | • Carer education courses include nutrition needs/concerns  
| | • Early intervention programs include a session on nutrition  
| | • Dementia training is provided to MoW volunteers |
| Service organisation systems | • MoW service centres adhere to nutrition policies/guidelines  
| | • Home care staff can specialise in dementia and nutrition and be appropriately compensated (similar to medication management) |
CONCLUSION

This discussion paper has highlighted the impact of nutrition risk and malnutrition for people with dementia, their carers, and the health, disability and community aged care systems. The paper has also examined the benefits and limitations of the service systems in supporting good nutrition for people living with dementia in their own home. In doing so we have identified some existing strategies to support people with dementia living at home to stay well-nourished, yet our research also found that more needs to be done to address this issue. The NDIS and aged care systems can provide support to overcome or manage the functional losses experienced by people with dementia that impact on nutrition, while the health system has an important role in assisting people with dementia to avoid malnutrition and responding in instances where there is poor nutrition. Still, there remain gaps in our knowledge and there is a need for further research to enable Governments and service providers to better understand the issues and respond appropriately for the wellbeing of people living with dementia and their carers.
Based on the findings of this research, Alzheimer’s Australia NSW makes the following recommendations:

**Australian Government**

1. Appoint a celebrity ambassador to champion good nutrition for older people.
2. Provide information resources to consumers to help them make informed decisions about their service options.
3. Develop national nutrition guidelines for Government-funded meal delivery services.
4. Ensure 2017 Aged Care Assessment processes include a focus on nutrition and hydration.
5. Develop a referral pathway for home care clients at risk of malnutrition.
6. Amend the Quality of Care Principles 2014 to allow for meals delivered by organisations like Meals on Wheels to be received under a home care package.
7. Fund the development of a range of education resources on nutrition including:
   - online training module of home care and support workers
   - module in Certificate 3 and 4 in aged care
   - an App for service providers which would include a checklist, mini nutritional assessment and referral pathway
   - Carer education program (targeting male carers especially).
8. Fund further research into the issue of malnutrition of older Australians, especially vulnerable populations such as people with dementia, culturally and linguistically diverse, Aboriginal and Torres Strait Islander, and rural and remote communities.

**NSW Government**

1. NSW Health implement hospital avoidance programs that incorporate the following:
   - Access to dietitians and nutritionists in the home
   - Monitoring of at-risk people identified by the above
   - Nutrition screening is conducted during discharge planning and supports are put in place prior to discharge.
2. NSW Family and Community Services support local governments through the Liveable Communities Grants to conduct activities that facilitate people with dementia having meals in social settings that overcome social isolation.
HELPFUL RESOURCES

You may find the following resources helpful if you are living with dementia, caring for someone with dementia or supporting clients with dementia.

- Nutrition Matters @Home video https://www.youtube.com/watch?v=PS57VilzGa8&feature=youtu.be
- Nutrition screening tool - Developed by Dietitians Association of Australia (Victoria Branch) in 2001 for use by HACC Service Providers

![Mini Nutritional Assessment (MNA)](image-url)

**NUTRITIONAL RISK SCREENING AND MONITORING TOOL**

**CLIENT:**

**DATE:**

**INSTRUCTIONS:**

Fill in the client’s name and the date you use the tool; tick the box when the answer to your observation is YES

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obvious underweight-frailty?</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Unintentional weight loss?</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Reduced appetite or reduced food and fluid intake?</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Mouth or teeth or swallowing problem?</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Follows a special diet?</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Unable to shop for food?</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Unable to prepare food?</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Unable to feed self?</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Obvious overweight affecting life quality?</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Unintentional weight gain?</td>
<td>Yes, No</td>
</tr>
</tbody>
</table>

**SIGNATURE:**

**POSITION:**

**OUTCOME:**

1. Yes to one or more questions means that nutritional risk exists
2. Nutritional risk increases when the person is affected by an increasing number of general needs assessment factors
3. In particular, deterioration in health and loss of independence can result from undernutrition and perhaps malnutrition

**ACTION:**

1. Try two weeks of simple intervention strategies (less time if severe weight loss); if no response refer to a specialist
2. Monitoring at monthly intervals (or more frequently) by a team member is required to ensure that nutritional risk has decreased through the most effective intervention
Survey demographic data

- **How long have you been in this role?**
  - Less than one year: 10%
  - One to two years: 10%
  - Two to five years: 15%
  - Five to ten years: 25%
  - Ten to fifteen years: 20%
  - More than fifteen years: 15%

- **What sort of area do you primarily work in?**
  - Metro: 35%
  - Regional: 30%
  - Rural: 20%
  - Remote: 15%

- **What State or Territory do you work in?**
  - NSW: 50%
  - VIC: 20%
  - QLD: 15%
  - TAS: 5%
  - WA: 5%
  - NT: 2.5%
  - ACT: 2.5%

- **Do you speak a language other than English?**
  - Yes: 20%
  - No: 80%
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OUR OFFICES

ADMINISTRATION
Alzheimer’s Australia NSW
Macquarie Hospital Campus
Building 21, Gibson-Denney Centre
120 Coxs Road (Cnr. Norton Rd)
North Ryde, NSW 2113
PO Box 6042 North Ryde, NSW 2113
T: 02 9805 0100
F: 02 9805 1665
E: NSW.Admin@alzheimers.org.au
W: www.fightdementia.org.au

NORTHERN NSW
Central Coast*: 02 9805 0100
Coffs Harbour: 02 6651 6415
Forster: 02 6554 5097
Hunter: 02 4962 7000
Port Macquarie: 02 6584 7444

SYDNEY REGION
North Ryde: 02 9888 4268
St George/Sutherland: 02 9531 1928
Blacktown*: 02 9805 0100

SOUTHERN NSW
Bega Shire: 02 6492 6158
Eurobodalla Shire: 02 4474 3843
Bateman’s Bay: 02 6492 6158
Cooma, Bombala & Snowy Mountains Shires: 02 6452 3961
Yass, Young, Goulburn, Queanbeyan, Harden, Upper Lachlan & Palerang Shires: 02 6241 0881
Moss Vale: 02 4869 5651
Wagga Wagga: 02 6932 3095
Wollongong*: 02 9805 0100

WESTERN NSW
Orange: 02 6369 7164

* Younger Onset Dementia Key Worker

NATIONAL DEMENTIA HELPLINE
1800 100 500

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