



HEALTHY EATING HEALTHY AGEING

'PERSPECTIVES FROM A RURAL

COMMUNITY' STUDY

Dr Peter Orpin

Ms Kim Boyer

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University Department of Rural Health, Tasmania

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Table of Content

STUDY BACKGROUND.....	1
Healthy Eating Healthy Ageing.....	1
THE STUDY.....	1
Research Questions.....	2
Methodology.....	2
Data Collection.....	2
Interviews.....	2
Literature.....	3
Additional Data.....	3
Analysis.....	3
Ethics.....	3
The Research Team.....	3
Governance.....	3
FINDINGS.....	4
The Community.....	4
History.....	4
Two Populations.....	5
Generational Community.....	6
Food Supplies.....	6
Facilities and Infrastructure.....	7
Services for Older People.....	7
Eating and Nutrition.....	8
Nutrition Status.....	8
Food Preferences.....	9
Meals on Wheels.....	9
Other Providers.....	10
Eating With Others.....	11
Being and Eating with Others in New Norfolk.....	12
Those Who Care.....	12
The Pensioners Union.....	13
One-off.....	14
Social Groups.....	14
Clubs.....	14
Eateries and pubs.....	15
Distance, Transport and Mobility.....	15

Community, Self-Help and Falling Through the Cracks	16
The Regulatory Environment.....	18
CONCLUSIONS AND RECOMMENDATIONS.....	19
Generalisability	19
Nutritional Risk.....	19
Research Question 1: <i>What facilities, services, networks and arrangements exist, or could feasibly be developed, in New Norfolk that presently do, or potentially could, contribute to healthier eating among older residents</i>	19
Community as Duty of Care	20
Community as Action	21
Question 2 <i>What needs to happen to realise the full potential of these and to sustain them in the longer term?</i>	22
Programs and Models	22
Mobilising Community	23
Building Awareness	23
Organisers and Drivers.....	24
SUMMARY POINTS.....	25
RECOMMENDATIONS.....	26
ADDENDUM: GERIATRIC NUTRITIONAL RISK/SUB-OPTIMAL NUTRITION – A	
DISCUSSION.....	28
Implications for the Project	34
Implications for Policy and Practice	34
Education.....	34
Context	35
Implications for Future Research	37
Geriatric Sub-optimal Nutrition and wellbeing	37
Models for Social Eating and Social Engagement	38
REFERENCES.....	38

Study Background

Healthy Eating Healthy Ageing

There is ample evidence to claim that, all other things being equal, adequate and appropriate nutrition has a positive impact on morbidity and mortality in ageing; and conversely that inadequate and inappropriate nutrition carries mortality and morbidity risks (1). At the same time, the evidence is also strong for a correlation between ageing and poorer nutrition in terms of a decreased adherence to nutritional guidelines around recommended intakes of, particularly, nutritional energy, protein, minerals and vitamins (2-5).

The overall research agenda of which this study is a component is, therefore, driven by a quite simple and clear aim: to explore ways of improving the ageing experience of rural-dwelling older people by improving their nutrition. An earlier study in this research stream highlighted the high value placed on the social, compared to food quality or nutritional aspects of government provided meals services for rural dwelling older people (6). When this finding is considered in light of the well supported correlation between poorer nutritional habits and eating alone, (7-9), and recent figures which show that the rate of living alone rises steeply and steadily among Australians from the age of approximately 50, particularly for women, (25.9% of Australians 65+ live alone compared to 8.8% of those 15-64 (10)), a logical next step for this research was to explore ways of increasing social eating or shared meal opportunities for older rural individuals.

The Study

This six month research project was funded by a \$49,500 grant under the HACC Grants Program to conduct a case study of the social eating opportunities within a rural community. The community chosen for the study was New Norfolk in Tasmania's Derwent Valley. New Norfolk was chosen because, despite its official (frequently disputed) classification as RRMA 1 due to its proximity to Greater Hobart, the loss of its traditional economic base

has meant the disruption of the age structure of long established local families as younger members move out in search of work.

Research Questions

- What facilities, services, networks and arrangements exist, or could feasibly be developed, in New Norfolk that presently do, or potentially could, contribute to healthier eating among older residents?
- What needs to happen to realise the full potential of these and to sustain them in the longer term?

Methodology

The study sought to undertake three tasks:

- Map existing facilities, services, networks and arrangements;
- Assess their potential to contribute to healthy eating for older people;
- Speak to older people about the experience of ageing in New Norfolk, particularly in relation to eating and nutrition.

Data Collection

The research used a detailed case study approach largely based on semi-structured face-to-face interviewing.

Interviews

Small group and one-on-one interviews/discussions were conducted with a total of 40 individuals living and/or working within New Norfolk.

Participants were recruited through purposive sampling using local informants and 'snow-balling' to target individuals who may have been expected to be knowledgeable about the experience of ageing in New Norfolk. The sample included:

- Professional health and community service providers drawn from local and state government and NGOs;
- Community and business leaders;
- Volunteers involved in community activities most of whom belonged to the older age groups; and,

- A small number of independently living older people.

Literature

A comprehensive review of available literature on geriatric sub-optimal nutrition.

Additional Data

Phone and internet based information gathering on New Norfolk services and organisations.

Analysis

Interviews were mostly audio-taped and transcribed into note form (i.e. not verbatim), although in a small number of cases notes were taken by hand at the time of the interview. The data were subsequently subject to iterative thematic analysis using NVivo software.

Ethics

The study was approved by the Human Research Ethics Committee (Tas).

The Research Team

Ms Kim Boyer: Research Team Leader

Dr Peter Orpin: Principal Researcher

Ms Karen Herne: Research Assistant (extraordinaire)

Governance

The project was supported by a Steering Committee comprising:-

- Kim Boyer, Senior Research Fellow UDRH (chair)
- Judy Seal, Senior Nutritionist, Public Health, DHHS
- Julie Williams, Manager Community Nutrition Unit DHHS
- Steve Webber, HACC Unit, DHHS
- Dr Peter Orpin, Senior Research Fellow, UDRH (principal researcher)
- Karen Herne, Research Assistant UDRH and executive officer to the Steering Committee

The Steering Committee met four times during the course of the project and was invaluable in enabling the researchers to share findings and conclusions with senior health policy and service planning and to jointly explore options for further study needed to provide best evidence for service planning.

Findings

The Community

It would be presumptuous to attempt to provide an in-depth analysis of the New Norfolk community based on such short exposure and limited data. However, a number of broad issues emerge clearly that have relevance to the research questions.

History

Two issues from New Norfolk's 20th C history have ongoing impact on the community's present and future: the long dominance and then late century employment decline in two major industry employers: changes in ownership and a dramatic drop in employment in the former Boyer paper mill (and associated logging industry) and the progressive shut-down of the Royal Derwent Mental Hospital (RDH)/Willow Court Centre (WCC) complex which finally closed in 2001 with an accumulated loss of over 1,000 jobs. The presence of a large mental hospital and intellectual disability centre, and the loss of 1,000 jobs when they closed, shaped and continues to shape the identity and culture of the town. Even though closed now for almost a decade, the semi-derelict site still dominates the town and, importantly for our project, there are still many residents in the town who were either patients or staff who now find themselves interacting as aged care services consumers. There are a range of opinions about wider effects on community and the ability to get things 'moving' but these are difficult to characterise accurately without more extensive data and are not directly pertinent to the study.

Two Populations

What is very clear is that the loss of jobs from both Boyer and RDH/WCC in the 1990s has led to a prolonged period of decline and despondency that only now appears to be beginning to dissipate. In terms of the project, the effects of this can be seen particularly in the presence of two distinct population groups: those whose outlook, culture and connections are shaped by long term residency through the ups and downs of the 20th C and an increasing number of incomers, who share in none of this beyond an attraction to the rural community setting. The interview data suggest that, over time, longer term residents have developed an interesting mixture of inward looking support structures – that is, a willingness and capacity to look after their own – and a certain learned helplessness in terms of changing the wider environment that several informants identified as resulting from a long reliance on paternalistic employers, now gone. Newcomers would appear to have a more optimistic and ‘can do’ approach and a genuine affection for, and commitment to, the community but look well beyond the local community for many of their supports and services. They are also generally younger, and even when older, have more resources than longer term locals; with better education, more economic and social resources and better health.

This means that many of the findings of this study, based predominantly on the data from longer term residents – simply because they make up more of the old-old at-risk demographic – may not apply in the same way to the needs of many of the coming ageing cohorts. The latter contain a greater proportion of incomers who appear, on one hand, to have more socio-economic resources and, on the other, less in the way of the long-established family and friendship networks that are so important in protecting those at risk of ‘falling through the cracks’ in extreme senescence.

There appears to be little doubt that, long term or incomer, New Norfolk is a ‘caring’ community. That is, people are aware of, and feel obligated to look after, each other. In the case of long-term residents this revolves around long established networks and, especially, family. Time and time again (see discussion below), both community member and professional alike, when

asked about older people 'falling through the cracks' and becoming isolated and malnourished, said that nobody could do so without others noticing and the family could always be relied on to prevent this happening. This is not the case with incomers who, while perhaps even more enthusiastic than long term residents in engaging in 'community' often have little or no local family connections, and community connections that are more dependent on shared involvement and interest in community activities than the long standing, deeply-rooted-in-biography network around the long term residents. It is difficult to predict what the ageing trajectory and needs of this group will be.

Generational Community

While generational community in some ways parallels long-term and incomer – with new commuter estates blossoming in the town – there is also a nutritional community divide on generational lines. The present ageing cohort is one that, despite a certain anecdotal lack of culinary sophistication, is used to eating 'well', often growing their own vegetables. Many of the interviewees expressed more concern for the younger generations than their own, in that the former 'eat a lot of rubbish' and 'don't know how to cook properly'. Most felt that if older people were not eating well it was more because they lacked the energy and motivation to cook, not for any lack of knowledge about good nutrition.

Food Supplies

It is difficult to sort through the differing views on the quality, variety and affordability of food supplies especially fruit and vegetables. There are a range of outlets with a reasonable range of choice within the town - most of whom offered a delivery service within radius of the town although these were only utilised by a handful of older people - and most of the aged care accommodation is sited within walking distance of the town centre for someone with modest mobility. That said, there were a lot of comments that choice in these outlets was frequently limited, erratic, poor quality and expensive. Those with cars were likely to travel to at least the Vegetable Shed in Bridgewater or more likely to Glenorchy – one, very elderly person travelled

to the Hill Street Grocer in Hobart. There were limited delivery services from most suppliers but only within the town boundary. Some people used taxis for their local town shopping (there are four taxis) – various comments that this was ‘expensive’ or ‘quite affordable and there are community transport options for HACC eligible clients which can be used for shopping in Glenorchy or Hobart. The Metro Tasmania service between New Norfolk and Glenorchy/Hobart has recently been privatised but the fares and timetables (8 outward and 4 inward Monday to Friday) remain unchanged There were a lot of comments about numbers who continue to grow their own vegetables and a long-standing tradition of sharing and bartering but, like all such informal community arrangements, they are hard for an outside researcher to identify and pin down. The overall sense was that, although some older people may be restricted in their choice due to affordability and access issues, it is unlikely to be a major factor in poor nutrition among this group.

Facilities and Infrastructure

The boom and bust history of New Norfolk has left it with an abundance of facilities and infrastructure, but in common with most towns with this history, much of it is under-used and inadequately maintained. This is slowly being turned around but in terms of the project it is noted that there is an abundance of commercial kitchens in the town, at least five of which are either substantially underutilised or not used at all. Although the retail heart of the town is slowly being revitalised there appears to still be ample centrally located premises for anyone seeking to set up a business or service or looking for spaces in which to conduct one off community events. The clubs (discussed below) are generally large and well equipped and most notably the kitchen and dining area of the former Pensioners Union eatery (see below) remains vacant. The council has recently conducted a program to improve access to community facilities for the less able bodied.

Services for Older People

It was not specifically within the brief of the project to address overall services for ageing but when asked about access to such services most said that they

were good or satisfactory and that they had no problems with the community as a 'place to get old'. The Corumbene Nursing Home reports that there are not long waiting lists for anyone who qualifies for either resident places or Community Care Packages. A range of other services directly related to social eating are discussed below. One point is worth making here that relates directly to the possibility of 'falling through the cracks'. While this has no bearing on the professionalism or care or competency of individual practitioners there did appear to be some advantage in having providers who are a resident in the community within which they practiced in terms of local knowledge and understanding and the chance of early identification and appropriate intervention for those at risk of becoming isolated and/or malnourished.

Eating and Nutrition

Nutrition Status

It was well outside the scope of this project to make any objective clinical assessment of the level of nutrition among older people within this community. However, none of those we spoke to, professional or non-professional (admittedly this did not include a nutritionist) felt that this was a problem to their knowledge, or within their practice, beyond a small number of individuals who were well identified and under active care. These individuals were generally identified as having a range of psycho-social problems that contributed to both social isolation and poor nutrition making them unlikely candidates for a 'social eating' intervention. There are clear qualifications here; it may well be – in fact it is very likely - that at least small numbers of such people simply exist below the radar of both community and professional (see Discussion) and/or that these judgments, based at best on subjective visual, social and functional judgements are underestimating nutritional status and risk. However, in terms of day to day functioning and overall health it was not identified as a major problem in this community and therefore not high on the list of priorities to be addressed. There is a growing literature on the malnutrition in the elderly (and the problems around identifying at risk individuals) which needs testing in a rural context but there is certainly a

perception in this community, and some suggestion in other work undertaken by this team, that at least in closer knit rural communities, higher level nutritional risk in older people is less likely to go un-noticed than in relatively loose knit urban settings. This is worthy of further research.

As mentioned above, many older people commented that failure to eat among their peers was not likely to be due to any lack of nutritional knowledge or understanding or culinary skills but rather a form of 'choice' driven by circumstances and factors related to the physical, physiological, social and psychological process of ageing: a loss of desire, capacity, energy and/or motivation to cook or eat 'proper' meals. This adds weight to the thesis underlying the study. While many of these processes associated with ageing are inevitable and largely irreversible, there are other factors that can be addressed to, at least, ease the way to maintaining appropriate eating practices. Principal among these are the social contexts of eating where the social impetuses and rewards around the shared preparation and/or consumption of meals in convivial surroundings may to some extent balance out inhibitors such as loss of appetite, sensory enjoyment and capacity. The remainder of this report addresses some of the issues around making this happen.

Food Preferences

One issue that emerged very clearly from the interviews is that for this population at least, food preferences are quite narrow and very widely and strongly held. It is 'meat and tatas' - always 'tatas', and a limited range of vegetables, or (literally) nothing. This make the task both easier and harder. Easier in that it is quite easy for those providing food to predict what will and wont be acceptable; harder in that this is out of step with preferences and techniques of even the most unadventurous commercial chef or eating establishment. This strengthens the argument for systems that involve older people cooking for each other.

Meals on Wheels

Meals of Wheels (MOW) is a stalwart of meals provision to the home dwelling older population. It provides nutritionally sound meals for an affordable price. The frequent and increasing criticism of the meals provided by the program – and the manner of its provision – was echoed strongly within the data, although it has to be said, largely by those who had had no direct experience of the meals. Much of the criticism of MOW has a systemic rather than an individual program basis. Three factors in particular seem to work against it: the regulatory and economic framework in which it operates – especially in the nature of the containers in which it has to be delivered - could render even the most *cordons bleu* cooking unappetising; the centralisation of provision, in order to gain economies of scale, reduce the capacity to respond to individual need and preference; and, most importantly, it is widely acknowledged, and confirmed in our work, that the social contact with the deliverer is as valuable to the recipient, or often more so, than the meal, yet this extended engagement by deliverers is expressly discouraged by the state-wide framework.

That said, the present New Norfolk program, which provides 15-20 meals a week cooked at a local hotel is a case study in how at least some of these limitations can be overcome. The (unpaid) coordinator is a health professional with an extensive and intimate local knowledge and in a position, and of a disposition, to devote considerable effort to responding to individual needs, preference and concerns. The (paid) deliverer is also similarly deeply locally connected and knowledgeable about the clientele. This is probably as good as MOW can be given the framework in which it operates but the continuation of this is absolutely dependent on the continued willingness of the current team to go 'above and beyond'.

Other Providers

There are small numbers receiving home delivered meals from commercial city-based providers (for example Mums Meals). These are somewhat more expensive than MOW but those who opt for this option apparently see them as better quality and more appetising, although we have no data to test this. More interestingly, a number of people spoke about a local semi-commercial provider of home cooked meals who was working out of a domestic kitchen serving former regulars from the now closed Pensioners Union facility (see below). We cannot verify if the service continues to operate or on what scale and opted not to enquire further since this would raise considerable risk management and food regulation issues. It clearly was, and may still be, meeting a need that, debatably, may not be satisfactorily met with other existing programs.

Eating With Others

It is easy when considering an eating-with-others intervention to lose sight of how complex and intimate a social exercise sharing a meal is. Even without difficulties with socialisation and/or the act of eating arising from age related disability, older people are no less discriminating than the rest of us about who they eat with. This raises one of the central arguments of this report: **one size will never fit all**. Eating with others is a group activity which is subject to the dynamics of grouping – that is, group memberships and boundaries – and groups – that is the internal dynamics. This becomes particularly complex in a rural community where grouping and group patterns are already well established. This suggests the need for multiple models and programs and the flexibility to handle a high degree of dynamic complexity over time and space – a requirement that poses major dilemmas for a highly structured bureaucracy.

A number of people raised the issue of cliquishness in groups which was seen as a barrier to many people joining. Without at this point going into the theory of group dynamics, it can be argued that what is seen as cliquishness from the outside, is the same quality that attracts and retains those who are on the inside. A number of perceptive comments noted that the most supportive groups took some effort to 'break in to' and providers and those who care

often stopped too soon in their efforts to engage older people in these groups. How ever much courage and effort that first visit may have required it is still probably less than that required to go a second and a third time.

It is particularly important at this point to make a distinction between eating well and sharing the occasional meal. The social eating opportunities identified in the interviews occur at best only weekly and in many cases monthly or even yearly. In addition, while all appear to very satisfactorily address the socialisation needs of those who participate, few of them provide either the quantity or quality of food needed to address healthy nutrition needs. This is not to downplay the importance of such groups or to totally dismiss their nutritional contribution but they are clearly not a solution to the problem addressed in this research. In fact, a major disappointment of this study is that there was very little identified that could be said to be a social eating approach to maintaining day-to-day nutrition. However, as a review of the literature (below in Discussion) shows, any socialisation opportunity, regardless of its nutritional content, can be expected to lower the risk of geriatric sub-optimal nutrition through its effects on the complex of factors that contribute to decline in ageing.

Being and Eating with Others in New Norfolk

Those Who Care

New Norfolk is richly supplied with individuals, both professionals and lay, who put in huge effort providing older people (and in many cases younger isolated and/or disabled) with opportunities to socialise with others, often involving the sharing of food. This is a rich resource which, even in government funded services, means limited funding is stretched much further with generous volunteer effort and goodwill.

Glengrey House

The HACCC funded day care respite service provides a wide range of older residents with one day a week social interaction, diverting activities, intellectual stimulus and at least one good meal. The service appears to be

highly regarded and effective. Two of its great strengths are its transport resources which mean nobody misses out because of mobility or distance issues, and its level of connection into the community which greatly increases the chance of anyone requiring their services being identified and getting access. Operating over five days a week with different groups allows for some degree of segregation into communities of interest.

Meals provision to those in need.

The Salvation Army, Uniting Church and the Anglican Church all have or have in the recent past had mechanisms for the provision of meals to the needy. In the case of the Anglican Church this involved stockpiling home cooked frozen meals in freezers and providing these as the need arises – mostly to needy families rather than older people. This is another case where the dilemma arises over food safety versus need and as with the home delivered meals is perhaps better not probed too deeply. The Salvation Army provide a weekly community meal to all comers irrespective of age, which a few older community members attend.

The Pensioners Union

For some years the Pensioners Union operated a dining service from premises in the centre of the town which provided an affordable, 'good plain meal' to anyone who came in off the street. It is widely quoted as an exemplar of what was needed; older people could come in, have their cheap meal in an unthreatening and comfortable environment, free to choose their level of interaction and taking their time. The service closed some 12 months ago. The reasons behind the closure are a rich subject for gossip and opinion, however, it is reasonably clear that the service in its existing form was struggling to meet both commercial and regulatory requirements. Attractive though the model was, it is difficult to see how it could be structured to meet all the requirements of a complying, financially viable operation without losing many of the qualities that made it so attractive to older people in the first place.

One-off

The community, over any given year, provides a range of one-off socialisation opportunities for older people where a shared lunch or morning tea forms the foundation for prolonged 'catching up'. Examples are the Lachlan Hall lunch (designed primarily for those who have moved away from the area into town as they have aged), the Lord Mayor's morning tea and the Cancer Council morning tea. These are eagerly anticipated and generally well attended. They are mostly catered for by volunteers who prepare food in either in their own homes or in one of the many commercial kitchens (see below for discussion on regulatory implications). However, the value here is social rather than nutritional due to their infrequency and, in some cases, to the nature of the food served.

Social Groups

In addition to a very large range of special interest groups which involve older people, especially incomers, New Norfolk has a small number of purely social groups for older people most of which have some religious affiliation or facilitation and include the sharing of food. Examples which meet monthly are the Friendly Circle Club run by a former Salvation Army Officer and the Friends and Neighbours Group run by the Anglican Church. They are clearly not everyone's 'cup of tea' but they do provide a valuable social outing for many people. The food is more likely to be 'finger food' than substantial fare.

Clubs

A central thesis of this research was the possibility that those (mainly sporting) clubs with substantive premises and commercial kitchens may, perhaps with a little assistance and re-organisation, provide important social eating options for older people. New Norfolk has a number of such clubs that meet the criteria: the golf club, the football club, the RSL and the bowls club. These, particularly the bowls club, do provide important social hubs for certain sectors of the older population but none of them, despite more than adequate facilities and past histories of meals provision, now provide anything much more than occasional casual food prepared by members for member

occasions. All are unanimous that it simply is not worth their while especially compared with the drawing power, profitability of and ease of management of bar services. Past experience has shown that the local commercial market is too small and too inconstant to support the effort needed to sustain a professional set-up and regulations limit what can be done on a non-professional basis. Also in the case of the golf and football clubs, they are too far out of town to be convenient for older clients without ready transport. It is highly unlikely that any form of subsidy would overcome this, particularly since members are quite protective of their space and are unlikely to be comfortable with casual public access.

Eateries and Pubs

There is a good range of café style eateries in the town centre catering for a range of tastes from traditional to upmarket. All seem to have their regulars among the older population and Passions, an upmarket coffee shop, actively encourages small social groups. These, again however, are really social not nutritional activities with an emphasis on 'special treats' rather than nutrition.

Two of the local pubs still serve regular meals. Of these, the New Norfolk Hotel in the centre of town (universally still called Smiths) was singled out by a number of our informants as a place that served affordable (\$10) and good quality half size meals for older people in a setting in which most would feel comfortable – although, with a prominent gambling area next to the dining room this may not suit some older people. The team were unable to interview the proprietor despite a number of attempts.

Distance, Transport and Mobility

These are perennial issues for both the aged and for rural communities, a 'double whammy' for rural aged. New Norfolk is no exception. That said, there are a number of things working in the community's favour. The majority of aged care accommodation is close to the town shopping centre. A large percentage of people, even among the old-old still have their licences even if they are reluctant to drive much beyond the town environs. Most groups indicate that they have informal volunteer systems and arrangements to cater

for members who need transport to get to meetings. There are also a range of community provided transport options for older people (judging by community nurses comments, more options than in many other rural centres in the area) although they still appear to suffer from the usual problems of complex, sometimes inflexible and often not well understood rules around appropriate usage. These appear to provide at least reasonable access to Glenorchy and Hobart for a full range of purposes. Four local taxis are available, seen generally as 'user friendly' and are used by at least some older people for local shopping; however whether they are seen as an affordable option depends very much on differing financial resources. There is a reasonable public transport system for travel between New Norfolk and Glenorchy/Hobart (four return journey opportunities per day at Metro Tasmania prices) but almost nothing in terms of public transport within the local district.

Community, Self-Help and Falling Through the Cracks

The stated aim of this research, to identify community resources with the potential to increase social eating has, underlying it, certain assumptions about need. A growing literature suggests that sub-optimal nutrition is prevalent among the elderly – although its impact on health and wellbeing is less clear (see below) - and that this is at least partly related to loss of social contact and structure which combines with reduced capacity and changes in appetite - and a complex range of other processes – to lead to poorer nutrition. A driving concern of this research was the possibility that an increasing number of rural older people were 'falling through the cracks' of social care and support, and existing funded programs, and entering on a steepening curve of social isolation and nutritional neglect. There is at least anecdotal evidence that this is occurring in the urban setting and it is a reasonable assumption that it may also be occurring in rural areas particularly for those living outside rural town boundaries.

There is a powerful logic working against any research that has isolation or disconnection as a variable; such individuals are hard to identify and even harder to engage, in research as in other areas of social life. In addition, it is

an unwarranted assumption that isolation is involuntary and people will welcome intervention. These both came out in our work.

All attempts to gather data on older community members who may be sufficiently isolated to be at serious risk of clinical malnutrition elicited similar responses. There well may be such people, but they are likely to be very few, although some had the occasional story about the identification and 'rescue' of such an individual. The health professionals interviewed were unanimous that it was very unlikely, at least with the present old-old cohort, for people in the community to 'fall through the cracks' in this manner; principally because most had either family and/or community networks looking out for them. Those that were at risk were generally well known to the health professionals and carers, and facing complex and intractable psycho-social issues. The major qualification was that the risk was likely greater for incomers who frequently lack these networks but most are yet to reach the age or life-stage of major risk. As discussed below, the failure among carers, both lay and professional, to recognise nutritional risk may well be grounded in a lack of knowledge and or complacency about the nature of the risk.

Similar problems beset attempts to gain reliable data on what are undoubtedly multiple 'community' mechanisms for ensuring that those at risk were cared for. It was easy to elicit first and second hand stories of community caring; family friends and neighbours providing meals and domestic help and support for those facing hardship – temporary or long-term. Although not put explicitly in those words there was a strong narrative of 'looking after our own' and a 'caring community'. Again, this may be a generational cohort phenomenon that will not continue for those who come into the district in later life. While these people have a very strong sense of community, the bonds are more 'community of interest' than 'community of origin and identity'.

Somewhat paradoxically, this caring community came with a strong sense of respect for individual choice and privacy. Many informants, both professionals and community volunteers, had stories of individuals who stayed on in their own homes under less than ideal conditions - individuals who were likely to

be neglecting both their nutrition and their hygiene – but concern was always tempered by a strong respect for their right to live their life as they choose. The approach of choice was to keep a watching brief and provide help only as far as it was welcome.

The Regulatory Environment

There is an evident tension between government and system level and community and individual level attempts to ‘look after’ people. Although not the only areas where this is apparent – liability insurance is another – food handling and safety regulations, have possible implications for much of what the community does to help itself in the area of social eating. While the Food Act 2003 applies only to food for sale – and therefore does not apply to the purely charitable provision of food without charge - a good proportion of the social eating for older people activities that take place within the community probably operate at least on the margins of these regulations in that a small charge for many events includes the provision of food. In most cases, where food is an incidental and functions are held at relatively long or irregular intervals this is unlikely to constitute a significant issue. However, any social eating intervention that involves the regular provision of food for a charge, will need to take account of the tighter regulatory environment. For example, the Pensioners Union dining room mentioned above, could by all accounts have found it difficult to survive in the present stricter regulatory environment; at least without significant reorganisation. It would be easy to overplay this issue in the ‘bureaucracy stifling community’ vein seen in recent years in discussion around liability insurance. However, from discussion with responsible agencies it appears likely that, with appropriate community education and sensitive application of the Act, it is unlikely to prove a major stumbling block to community driven activities although it may discourage commercial ventures into the field by larger organisations. Certainly, from the interviews, there is no reason to believe that even the oldest among the community volunteers would have significant difficulties with any education and training required as long as it was ‘sold’ and delivered in an appropriate manner – especially one that acknowledges and values existing knowledge and skills.

Conclusions and Recommendations

Generalisability

New Norfolk is New Norfolk. It presents its own unique combination of conditions and culture and cannot be necessarily generalised, at least in terms of specifics, to other rural communities. That said, most of the major elements and issues that make up the history, culture, dynamic and demographics of New Norfolk will likely find broad echoes and recognition in many other Australian rural communities and, therefore, there are good reasons for arguing that the major issues discussed below, rather than the specific details of how they play out on any given community, will have relevance across other rural towns in this state and this country.

Nutritional Risk

As is frequently the case with research, in the process of addressing the research questions, the project found unexpected issues. The one that stands out in this study is the generally low level of recognition and understanding of what might be termed nutritional risk in older people (see below for an extended discussion on terminology). Deteriorating nutritional intake appears to be widely associated and entwined with the ageing process yet the process is so insidious that it frequently goes unrecognised until it is quite far advanced and even when recognised is frequently normalised as part of the ageing process and therefore left untreated. While this may appear to be a side issue to the specific research questions in this study, its implications for this project, and the whole wider Healthy Eating, Healthy Ageing agenda, are sufficiently important to justify detailed discussion in a separate section that follows the study conclusions and recommendations.

Research Question 1: *What facilities, services, networks and arrangements exist, or could feasibly be developed, in New Norfolk that presently do, or potentially could, contribute to healthier eating among older residents?*

The broad answer to this question - however banal it might sound – is ‘community’. The term as used here encompasses not just facilities, services, networks and arrangements but more importantly the social elements and qualities that meld these into a social resource that could be harnessed to address the healthy eating healthy ageing issue. There are at least two aspects to this: duty of care and community as action.

Community as Duty of Care

The original proposal sought to address the exacerbation of nutritional risk among rural aged as the result of the loss of the social context of eating by identifying resources within the community that might be mobilised to provide opportunities for older people to eat together. While the problem of nutritional risk will cover a wide spectrum from marginal risk to clinical malnutrition (see discussion below), underlying this research was a particular concern for those who may be ‘falling through the cracks’. That is, for those who become so socially isolated and invisible from and within their community that they enter a downward spiral into decrepitude driven at least in part, by inadequate nutrition. Social eating was seen as both a way of preventing and/or arresting this downward cycle by addressing both social and nutritional issues in one intervention.

In New Norfolk, at least for longer term residents, historical ties of community and family are highly protective against this form of falling through the cracks. The longer term residents know (and know about) each other, and are very conscious of, and conscientious about, duty of care, especially but not only where there is a family connection. This duty of care appears to transcend even negative affect – you look after people because they are part of your historical community, whether you like them or not. We can reasonably confidently state that few if any longer term residents are ‘falling through the cracks’ in the extreme sense outlined above.

We cannot be so confident about newer residents. Many seem to have made particular efforts to foster, and become part of the community in its most traditional sense, but these ties inevitably lack the depth and breadth that

underlies community as developed by long term residents through time, experience and family relationships. At present most of the older 'incomers' are yet to enter the stage (rather than age) in their lives where they are at high risk (possibly protected in part by their greater personal resources) and only time will tell whether community will work for them in the same way when they do.

These findings have to be qualified in respect of the less extreme case. If the focus is on a more subtle longer term trajectory where reduced social contact and structure contributes to a gradually worsening nutritional status which in turn contributes to a general decline in health and wellbeing – insofar as these factors can be separated – it is likely that there is little protection in this community and most others given that it is simply unlikely to be recognised by health services providers, let alone family and friends, as an issue that should and/or can be addressed (see below). This is not surprising given the number of unanswered questions around the relationship between geriatric nutritional risk and all the other social, physiological and psychological processes of ageing.

Community as Action

New Norfolk is richly blessed with infrastructure. There is no shortage of venues and facilities that could feasibly support a range of social eating opportunities. Both this study, and another recent study into volunteer activity in New Norfolk (11), reveal a core of community action and community actors driving an eclectic range of activities. This suggests at least some capacity to support new social eating initiative – in fact, many of the present community based activities have a social eating component although it is generally incidental rather than structured. There are however, reservations to this. Much of the activity appears to be generated by a quite limited pool of increasingly aged and overstretched volunteers limiting sustainability and new opportunities. Volunteer activity is largely driven by interest and enthusiasm which results an eclectic range of activities arising from a rather *ad hoc* process of identifying and addressing need. This is an important factor in trying to address nutritional risk through social eating. When the problem is

not widely recognised, even by health professionals, it is unlikely that it will be a high priority for the focus of 'bottom up' driven volunteer activity. There may well be the community energy to address this issue but it will not happen without 'top down' facilitated and funded intervention; to educate, focus, facilitate and support (see below).

All of this is complicated by changes in the nature of rural 'community' as exemplified in New Norfolk. Very few, if any rural communities in this country have been immune to major population changes which threaten this protective community, either by the loss of traditional support networks, especially family, through out-migration and the movement of women into the paid workforce and/or by an increasing proportion of in-migrants who have neither the local support networks nor the shared history as a basis for constructing social networks that will remain functional as they lose capacity for active contribution.

New Norfolk has substantial physical resources, and at least a core of the social activities and resources capable of supporting a range of social eating interventions but there is much to be done to harness this potential. This will require a flexible, organic, bottom-up approach combined with externally driven, 'top down' action to organise and focus those resources and to support and supplement local action.

Question 2 What needs to happen to realise the full potential of these and to sustain them in the longer term?

Programs and Models

Normally addressing this question would lead to suggestions for programs and a search for possible models. However, the complex interpersonal issues that underlie social eating in the community context suggest that a less structured, more flexible approach may be more appropriate.

Geriatric nutritional risk has a large social element in its aetiology (see discussion below) and therefore is amenable to social interventions. This makes it not only highly suitable for community driven and resourced

interventions but virtually mandates such approaches. To the degree that the problem has its roots in loss of personal community it can only be effectively addressed by restoration of that lost community, in all its messy complexity.

The decision to 'break bread' with others – with whom and in what circumstances - is a highly individual and personal one and not amenable to 'one size fits all' solutions or ideal models that are transferable *in toto* from one grouping or community to another. Certainly there may be models and approaches that will work for certain groups at certain points – for example, the earlier, initially successful but now defunct, Eating with Friends group - but the emphasis needs to be on flexibility and responsiveness to individual needs and contexts and change over time. Heavy systemic and professional investment in more formal structured models carries with it the danger of reducing flexibility and responsiveness to changing needs and dynamics and may lead to less attention and underinvestment in a wider range of smaller and/or less structured initiatives. Capturing and harnessing the community resources identified in Question 1 will require an emphasis on maximising the 'bottom up' element to identifying individual needs and harness community energies. This may mean embracing programs/projects with organic life-spans being born, growing, change and die as the community evolves.

Mobilising Community

If geriatric nutritional risk is, at least in part, a form of failure of community, the key question becomes what is required to harness the undoubted infrastructural and social resources in New Norfolk towards this deficiency for those at risk. Two elements needed for this to happen appear to be missing: an awareness and knowledge about the nature, size and importance of the issue and the organisational resources, skills and energies needed to drive effective action.

Building Awareness

Given that many, if not most, health and human service professionals (see below) are yet to properly recognise and understand the nature of the problem of nutritional risk in the elderly, it's not surprising that communities themselves

are not mobilised to address the issue. There is, therefore, an urgent need for those who do have insights into the issue to direct resources towards raising awareness and knowledge among not only health professionals but also families, communities and carers. Communities are unlikely to mobilise without that awareness. As discussed below, this is hampered somewhat by both a lack of current reliable evidence on the extent of the problem among particular populations and gaps in current understandings of the mechanisms involved, the extent and nature of consequences for wellbeing and effective strategies for addressing the issue, particularly in the primary health care setting. Addressing these gaps is a research priority and a necessary forerunner to effective action. Notwithstanding the above, there was a ready recognition of the phenomenon among participants when it was raised in interview but it was largely accepted (even by health professionals) as a 'normal' process of ageing and not necessarily one that warranted the invasion of personal space in order to address.

Organisers and Drivers

Interventions to increase social eating opportunities lend themselves well to community development approaches. On one hand, by their nature they need to arise from, and remain firmly embedded within, community. That is, they need a substantial bottom up element. On the other hand, they are unlikely to happen without 'top down' initiation, facilitation and support. The trick is to find the balance between providing the necessary top down drivers and support mechanisms to mobilise and sustain community action without stifling action through disempowerment and, less obviously, continuing to push and support an initiative that has lost community relevance and support simply because it has become institutionalised within the bureaucratic system.

There are a number of good examples, within the study, of small organisations where one or two funded professional staff are working with the community to 'make things happen' rather than 'doing for' or 'providing services to' the community. This requires professional staff who are equally comfortable in the bureaucratic and community environments and who can translate between the two. Mobilising local interests, connections and

energies in this way would not only provide low cost interventions but also, by minimising their bureaucratisation would allow maximum flexibility in responding to need and personal preference.

Summary Points

- **The most significant finding of this study, and the greatest barriers to developing strategies and approaches to addressing nutritional risk in older rural residents, is the very low level of recognition and understanding of the problem – not only among individual older people, family, friends and community but among the health professionals and carers.** Even where the problems is recognised, it is normalised to ageing and given low treatment priority.
- New Norfolk has a good range of socialisation opportunities designed for, or that are inclusive of, older people, many of which involve the sharing of food. However, in most of these the food is incidental and not of sufficient nutritional quality or regularity to effectively address participants' nutritional needs.
- The study identified substantial physical and social resources that if properly mobilised and organised would be capable of supporting a range of social eating interventions. However, there is considerable work to be done and obstacles to be overcome to realise this potential.
- The study team do not attempt to identify and/or recommend specific opportunities or models because social eating interventions need to be developed 'bottom up' in a way that is flexibly responsive to the needs of particular individuals, in particular contexts, at particular times. Older people, like the rest of us, are very discriminating in who they are prepared to share the intimate social experience of eating with. This means that a one size fits all approach is not feasible and any one model or program will only ever meet the specific preferences of a fraction of all of those in need.

This suggests the need for multiple models and small scale programs with considerable built-in flexibility.

- This issue appears best suited to a community development approach. By that is meant an approach where one or more paid professionals adopt the role of initiators, facilitators and supporters of bottom-up community-driven action. Programs that are too closely embedded in the bureaucratic structure are likely to lack the flexibility to respond to the social complexities associated with geriatric nutritional risk among community dwelling older people.
- While approaches to address nutritional risk among older people certainly need to include specific nutritional aims, their effectiveness will be severely limited without a social element. The reverse may not hold – there is evidence that increasing social engagement even without a nutritional component may well improve overall nutritional behaviour.

Recommendations

- 1) That considerably more attention be given to educating firstly, health professionals and secondly, the community, about geriatric nutritional risk, especially in regard to identifying risk, its health and wellbeing implications and the necessity and feasibility of addressing that risk. It is suggested that this be referred to the Nutrition Unit for their action.**
- 2) That dedicated professional community development time and resources be allocated to developing and supporting a range of social eating approaches aimed at addressing geriatric nutritional risk in rural communities. The UDRH research team, with input from its Steering Committee, will proceed to develop an action research project proposal on this recommendation to be submitted to HACC for its consideration.**
- 3) That priority be given to research to:**

- a) Conduct a systematic review of the literature to identify models and approaches that may be applicable to reducing the nutritional risk to act as a resource for further actions under Recommendation 2. This review will be undertaken in the near future using funds remaining from the current project.**
- b) Obtain accurate data on the nature and prevalence of the problem of geriatric nutritional risk in both rural and urban areas of the state**
- c) To explore the relationship between nutritional risk, geriatric malnutrition, and overall health and wellbeing in community dwelling older people – preferably through some form of in-depth, longitudinal study design.**

Research recommendations 3 b) and c) constitute a major research project. The UDRH team will approach the Nutrition Unit and other possible research partners to work up a longer term strategy to find funding to support this research.

Addendum: Geriatric Nutritional Risk/Sub-optimal Nutrition – A Discussion

The most surprising aspect of this study, given emerging concerns in the literature about suboptimal nutrition in older people, was the very low level of awareness in the community of any problem. It is most likely that a significant proportion of older people in this community, as in most others, are at risk of sub-optimal nutrition, even severe clinical malnutrition, yet it goes largely unrecognised not only by friends and families but also health professionals. This is less surprising when considered in light of the considerable gaps in understanding of the issue revealed in the literature. Geriatric sub-optimal nutrition is inextricably entwined with a constellation of other factors associated with the ageing process. This makes it extremely difficult to disentangle multiple contributing factors to clarify cause and effect relationships and opens up areas of ambiguity around 'normal' versus pathological processes of ageing – and, therefore, what can, and should be, therapeutically addressed; and how in might be addressed. This overall lack of conceptual and diagnostic clarity makes it difficult even to establish reliable data on prevalence rates because of confusion around operational measures.

A range of local, national and international studies have consistently found high levels of risk of malnutrition and/or actual malnutrition among older people (12).

There is no dispute that as people age, their patterns of food consumption change towards lower – and frequently less than recommended daily intake of nutrient and energy dense foods, minerals (especially calcium, magnesium and zinc) and vitamins (3-5, 13). It is not at all clear, however, what this means for individual health and wellbeing.

At the extreme, severe malnutrition and/or vitamin or mineral deficiency undoubtedly have major health consequences (8) and are relatively unproblematic to measure and treat although they frequently present,

particularly in the hospital setting, as part of a constellation of physical and cognitive conditions that may be associated with terminal decline – what Robertson and Montagnini term a ‘geriatric failure to thrive’. (14). This point is, however, most likely the end point of a long journey of gradually reducing quality, and quantity in daily food consumption. There is a considerable silence in the literature about the nature of this journey from increasing nutritional risk to life threatening malnutrition, with at present few if any longitudinal studies. It will be difficult to formulate and promote interventions to address the problems until we have a much greater understanding of this trajectory, the interaction between nutritional and other factors in ageing and how these work together to effect day to day quality of life and wellbeing.

The changes in type and volume of food intake in ageing, are related to a multitude of physiological, cognitive, sensory and sociological changes associated with senescence including: reduced muscle mass and activity levels, changes in taste, smell, satiation mechanisms, altered food absorption and metabolism chronic low grade inflammatory processes and medications. (2, 15), changes in patterns of social engagement and function and difficulties in accessing and preparing foods. This is at a time when nutritional, as against energy, needs may well rise (5). The crucial questions that then arise are, firstly, identifying the point at which this ceases to be just a ‘normal’ part of the ageing process and begins to impact on overall quality of life and health to the point that it requires therapeutic intervention and, secondly, how to effectively intervene when its aetiology and contribution to morbidity (cause or effect or both) are obscured by multiple other health and wellbeing issues with which it is inevitably entangled. This interdependency suggests that addressing any of these issue: social, psychological and/or physiological, is likely to have positive impact on all.

The lack of clarity around the first question is reflected in measurement approaches and associated terminology. The term ‘malnutrition’ is relatively unproblematic: ‘a state of nutrition in which a deficiency, excess or imbalance of energy, protein or other nutrients, including vitamins and minerals, causes *measurable adverse effects on body function and clinical outcome* (Kopelman & Lennard-Jones, 2002 cited in (16): 3 *Italics added*). The problem is

measuring adverse effects and clinical outcomes of given, especially less severe levels of malnutrition, net of multiple confounding health issues. Research in the area has, therefore, moved into composite, status-and-risk measures which combine measures of process (dietary intake) and clinical (cognition, weight change and biochemistry) and environment (social and spatial) and what has been termed food security (17) (a measure of food access) in an attempt to account for the degree to which nutrition is embedded in a complex of other factors (12). The major distinction is between instruments which are designed to primarily measure risk (or food security) - that is weighted towards environment and process – and those weighted towards measures of nutrition status and consumption patterns measures.

This complexity has given rise to a range of screening instruments with a range of indicators and therefore a wildly variable spread of findings of prevalence depending on the instrument used and the residential status of the study participants. Measures using the Mini Nutritional Assessment which is widely used despite criticisms of its tendency to produce overestimated risk (16) has produced figures for 'under nutrition' ranging from a low of 1% (community dwelling) to 85% (hospitalised) (18). Despite this huge range there does appear to be a certain degree of broad consistency across the range of studies with a range of measures for malnutrition generally on the low side of the 5-10% range and measures focussed on nutritional risk and/or 'under-nutrition' yielding figures generally on the low side of the 35-60% range (16), (18) (See Attachment A for a limited review). The picture is further complicated by the fact that many studies recruit participants from among care client groups thereby selecting for more advanced senescence. For example a Tasmanian study using a purpose built instrument did find 60.8% of 343 Meal on Wheels recipients to be at 'high risk' of malnutrition (19) but this may be partly explained by the relatively high level of incapacity and vulnerability among Meals on Wheels recipients.

Looking across these studies, even with the variation arising from different definitions and tools, there is one very clear trend, the steep rise in rates from community dwelling, to nursing home to hospitalised older people with the

latter consistently yielding risk measures in the 40-85% range (8, 18). That is, there appears to be a substantive correlation between increasing nutritional risk and increasing debility/disablement. However the nature of that correlation and, in particular, to what extent nutrition is a contributing causal factor, rather than a reflection of, increasing dependency, and by what mechanisms, is not at all clear from existing research. The development of protective strategies and interventions will, to a large extent, depend on being able to develop an understanding of these relationships.

In summary, it is safe to assume that there are a significant, but unknown, number of older people living in the New Norfolk community who are at least 'at risk' of malnutrition. That they remain largely unnoticed is a concern but not surprising in view of the present state of knowledge regarding the health and wellbeing implications for independently living older people of being 'at risk'; as distinct from clinically malnourished.

The language in the literature is telling (*italics added*): inadequate nutrition '*may* increase the risk of diet related illnesses and so pose a health problem' (2); 'Intervention *should* improve chronic conditions and enhance wellbeing' (4). Sub-optimal nutrition is clearly associated with decrements in activities of daily living (20). However, the central problem is that reduced nutritional intake is so deeply entwined with a raft of other physiological, cognitive and social changes associated with ageing that it is extremely difficult, on one hand to disentangle cause and effect relationship and on the other, to decide what issues/conditions warrant treatment – that is, where cost (economic and social) justify gains - and can be most feasibly and effectively treated.

The major decision point for intervention action – whether that be the individual themselves, family and friends and/or health professionals – will be the perceived impact on health and wellbeing, that is, quality of life (QOL) impact. It is unlikely that either the person themselves or associated carers will take significant action to address nutritional issues until and unless they are convinced that this will provide significant quality of life and health returns. Yet there appears to be a large gap in the literature in regard to studies that can answer these questions, probably because they require sophisticated and

complex study design in order to explore the complicated relationship between the multiple factors involved in determining QOL outcomes. That is, we simply do not know with any surety, which, and in what way, each of many of the changes associated with ageing, including sub-optimal nutrition impact on wellbeing: '[We need] . . . more studies that integrate nutrition research, public health and interventions and outcomes research' (2). Simply, we don't really know what being 'at risk' of malnutrition means for quality of life (QOL) except at the extreme end of the continuum which frequently means the acute setting. Even to the extent that implications for QOL are recognised, there is a lot of knowledge and clarity about how to address this in the community setting. This leads to a complacency and a failure to diagnose and treat among many health professionals (21)

In the acute setting the resources are available and the setting suited to at least partially disentangling, assessing and treating the range of factors contributing to the admission state. In the community setting, the imperative, and the feasibility, are much less.

The range of individual risk and protective factors for malnutrition in ageing are reasonably well delineated. They include a whole raft of general physiological changes (see above), cognitive deficits, low affect including depression, poly pharmacy, difficulties with food access and preparation, living alone – including loss of spouse, social isolation/loneliness, lack of social structure (22, 23) and a deficit of the skills needed to seek and build support (24, 25). Two things are notable about this list. Firstly, the number of factors that are likely irreversible sequela of the ageing process and difficult if not impossible to reverse. This has major implications for the recognition of nutritional risk and any decision whether or not to seek to intervene. If it is seen simply as 'part of getting old' especially when any contribution to decreased QOL is not well recognised there will be a lack of recognition of it as an issue (by everyone including health professionals) and a reluctance to intervene. Secondly, the list is notable for the large number of psychosocial factors including, many of which appear, unlike the other factors, to be at least partially modifiable. Stated broadly, it appears that the majority of feasible and likely most effective intervention points in the process are social; aimed at

improving the environmental context of the ageing experience. While this clearly does not preclude directly addressing physiological factors the likely beneficial flow-on effects of the social in terms of the psychological and physiological are much greater than the reverse.

Interestingly, there appears to be no indication in the literature that lack of nutrition knowledge, as against a lack of awareness of the day-to-day quality of life implications of poor nutrition, is a factor in nutrition risk. On reflection this is not surprising given that, in the absence of significant cognitive decline, it is unlikely the older person should have suddenly lost the understanding of nutrition developed and followed over a long life-span. This suggests that any intervention based on knowledge building should focus not on basic nutritional information (as much of it does at present) but on building the individual's awareness of the changing eating patterns in their own life and all players understanding of how efforts to modify this process can lead to tangible improvement in quality of life. Poor nutrition has to be seen as having an element of choice in the cognitively competent older person and, as much as that 'choice' is constrained by circumstance, any intervention aimed at altering context and understanding in a way that tips the balance towards a different choice. That is, in convincing the individual, and those around them, that regardless of whether they feel like it or not, eating better will have both immediate and longer term 'real world' pay-offs. This is a difficult task given the lack of understanding around the nutrition-wellbeing relationship in ageing, even among health professionals. An important distinction to be made here is that between the sort of public health nutritional interventions that are aimed at improving long term dietary habits among the population – which, as Chernoff (1) points, out is probably quite rightly seen as relatively ineffective in old age – and interventions to combat the nutritional risk related to senescence. Such conflation is likely to result in ineffective design and targeting of interventions. Another factor, mentioned above, comes in here. The steep rise in malnutrition from community to aged care to acute care mentioned above suggests that the pattern of the nutrition-ageing relationship is not a simple straight line but rather that clinical malnutrition is frequently part of an end of life syndrome and in important ways a different phenomenon

to nutritional risk in community dwelling. An understanding of the trajectory of this relationship – and, in particular, the degree to which sub-optimal nutrition is a causal agent versus an expression of senescence - is therefore crucial in designing appropriate interventions at given points in the ageing trajectory.

Implications for the Project

These findings from the literature have implications both for the present project and for the wider research agenda. These can be divided into policy/practice and research implications.

Implications for Policy and Practice

Judging from the literature, geriatric sub-optimal nutrition is almost certainly present in the study community, yet the study finds that it is unquantified, poorly recognised and largely unaddressed. While there are strong arguments for the need to develop a better evidence base (see below), there is sufficient evidence in the literature to justify and guide more immediate action.

Education

The original research aim was focussed on a particular strategy; the use of existing community resources to increase social eating opportunities. The study finding is that such opportunities are lacking in our study community and, where they do exist, are somewhat *ad hoc* and lack both good coverage across the social spectrum and, because they occur only at long and/or irregular intervals and consist mainly of 'finger food' when they do, make very limited contribution to better nutrition. Any intervention to address this, will need to be two pronged: to educate older people and those who care about, and for them, that this is an issue that they need, and can do something to address; and to create as far as possible an environment that makes the decision of older people to eat well as easy as possible.

An education approach will be somewhat hampered by our present state of evidence and knowledge regarding this specific phenomenon. Present mainstream public health nutritional messages are simply not applicable to

geriatric nutritional issues. This is not about addressing long-term nutritional habits and knowledge, even if those are sub-optimal, but addressing an acute, life-stage related issue overlaid on lifetime patterns. This is not about teaching older people how to eat 'properly' but to raise all player's awareness of the specific nutritional risks of ageing and, more importantly, convincing them that it can be at least managed and that doing so has substantial quality of life benefits. The study community would seem an ideal one in which to develop and trial such a campaign.

Context

Many factors in geriatric sub-optimal nutrition, both physiological and social, are irreversibly associated with ageing; reduced energy needs, changes in satiation and sensory enjoyment of food, decreasing physical capacity, and loss of certain social contexts of food preparation and consumption such as partners and children. There is ample evidence, however, of the importance of the impact of the social, not only in the direct contexts of food consumption – eating alone for example (26) – but also on the broader effects of levels of social engagement on the ageing experience (12, 27). There is therefore much that can be done in terms of social context to make the choice to eat well easier. The most successful intervention in this respect, Meals on Wheels, addresses this in the most direct way by relieving the individual of everything but the need to heat and eat to obtain optimal nutrition. Though this addresses the issue at the most basic level, but in totally de-contextualising eating from its social, and much of its sensory elements, in its present form, it does little to counteract many of the more subtle factors driving geriatric suboptimal nutrition (22). Access to, and the affordability of, foodstuffs, especially fresh fruit and vegetables often appears anecdotally but apart from very isolated settings there is no strong evidence in our study, or in the literature, that this is a significant factor in geriatric sub-optimal nutrition. The major modifiable factors would appear to be those around the social context of eating, or even social engagement more broadly since there are studies that have shown that social engagement even where there is no food element, is associated with better self-care and a higher nutritional status

(Price, 1979; Clancy, 1975; and Rowe, 1978 all cited in (26)). The mechanisms behind this are not well understood but follow logically from the effects of isolation and disconnection on the structure of day-to-day life and physical and cognitive wellbeing.

This argues strongly that interventions which maximise social inclusiveness and engagement for older people, especially when these include a nutritional element, are likely to be feasible and effective in addressing not only geriatric malnutrition specifically, but that constellation of factors into which it is inextricably linked. Social eating interventions are not new with the Eating with Friends and Day Centre meals models operating in Tasmania for many years - Meals on Wheels could not be described as a social eating model. An earlier successful New Norfolk Eating with Friends has now folded due to a range of factors. This study set out to explore an alternative model based on the use of existing infrastructure and resources such as clubs and hotels. The findings suggest that for economic and regulatory reasons opportunities are limited for this approach.

What did become clear in the study was that social eating and socialisation opportunities need to reflect the complexities of the older people themselves and the community of which they are part. This means an approach that can embrace an eclectic mix of models involving groups of all sizes and compositions which might arise, thrive and disappear over time as the make-up of the both the community as a whole and the older sector change. This approach would require a substantial amount of built-in flexibility in order to respond to 'bottom-up' community driven initiatives and opportunities as they wax and wane. It is acknowledged that this approach is not altogether a comfortable fit with bureaucratic structures and processes where dominant and relatively enduring models with a substantial element of top-down implementation are a easier to fund and manage.

Data from this and other rural ageing studies in which this team has been involved repeatedly highlight the pivotal role of funded professional facilitator/coordinators in this context. These are people who are sufficiently 'of' the community to understand its dynamics and to identify both needs and

opportunities as they arise yet have behind them, not only the resources of the bureaucracy, but also the knowledge and understanding to act as buffer, broker and translator between it and the community. For example, in the case of recent tightening of food handling regulations it is clear that no matter how well justified and sensibly applied, these do pose a difficulty for many community driven activities that involve the provision of food. It appears from our study that these difficulties might largely be overcome with careful translation, education and application; that once community members were 'onside' with the need for and the sense of such regulation, they would soon find the ways of complying.

Implications for Future Research

This study identifies two quite different but related areas of enquiry for future research to follow on from this project: to elucidate the role that geriatric sub-optimal nutrition plays in the ageing trajectory and overall quality of life over that trajectory, for rural community dwelling older people; and to explore the full range of possible models for increasing social engagement and social eating opportunities for this group and how these might be implemented and supported.

Geriatric Sub-optimal Nutrition and Wellbeing

A likely reason for the lack of knowledge about the role and QOL impact of geriatric sub-optimal nutrition outside of the acute stage and setting, is the complexity of the research design needed to unpack this phenomenon. Not only are physiological, psychological and sociological factors intertwined in unknown but undoubtedly complex, cause and effect relationships, these will evolve over time and life-stage. To unpack this fully will therefore require a mixed method longitudinal study which includes measures across the three domains (physiological, psychological and social) and follows individuals over time as they age. In addition it would need to collect data from family, close friends and confidants and health service providers.

A study of this nature would have to be large, well designed and well resourced to be truly useful and therefore would fall into the realm of major

competitive grant funding. This is well outside the capacity of the present team at this stage of development but like all such grants, there is ample scope to work up to such a grant through scoping and pilot studies which would:

1. Build evidence around the extent and nature of the problem
2. Develop and test a research methodology.

In addition to providing a useful addition to the present knowledge in the field, this would lay the groundwork for a future major research funding application.

Models for Social Eating and Social Engagement

The more important questions for researchers and practitioners seeking to test intervention models are not whether a particular rigid model ‘works’ in a particular setting. Given the complexity of the social world in which even minor changes of context can produce large differences in outcome (28), the key to successful interventions lies in flexible ‘mixing and matching’ of models to suit variations across time and place. Therefore rather than pursue a research agenda to trial one or more intervention models, it is suggested that the way forward is to scour the literature to compile a comprehensive typology of approaches to social engagement and social eating to serve as a flexible ‘toolkit’ for a trial in which a local professional facilitator is used to foster and support a range of local initiatives. Such initiative would be flexibly tailored to the interests, preferences and affiliations of different individuals and sectors of the community and may range anywhere from very small scale, very local, informal arrangements – such as two or three older people meeting in their own homes to cook and/or eat together to larger scale more structured initiatives such as seeking to build a stronger social element into the present Meals on Wheels program.

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