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**Men's Sheds and other gendered  
interventions for older men: improving  
health and wellbeing through social  
activity**

**A systematic review and scoping of the  
evidence base**

**A report for the Liverpool-Lancaster Collaborative  
(LiLaC) and Age UK**

**by**

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## **Abstract**

### ***Background***

Men consistently lead shorter lives than women, and relatively affluent men have longer lives than more deprived men. These differences are not inevitable, and may be ameliorated through processes of active ageing. There is an association between strong social relationships, activity and good health, but the evidence suggests that older men are less likely to participate in generic social activity than women. Men in Sheds provide a space for older men to meet to take part in woodworking and other socially beneficial activities. Men in Sheds has been developed as an intervention designed to promote social activity amongst older men, but a robust evidence base for its effectiveness is not yet established.

### ***Aims and Methods***

A systematic review was undertaken, to examine the effects of Men's Sheds and other gendered interventions on older men's physical and mental health and social wellbeing.

The aims of this study were to summarise evidence for the effectiveness of Sheds and other gendered social activity interventions for older men at influencing health and wellbeing; identify effective components of a Shed and other gendered interventions; synthesise theory on the likely process of change; and review outcome measures used in studies to assess health and wellbeing.

The reviews involved electronic and manual searches of published academic research, third sector, local and central government reports and grey literature, using specified key terms and explicit inclusion and exclusion criteria. Quality assessment of papers being considered for inclusion was undertaken. A common data extraction tool was used, and reviews were informed by the MRC guidance on complex interventions. An interpretive data synthesis was performed to draw out common, overarching themes. These were situated within an analytical framework informed by the WHO's Determinants of Disadvantage and Fields of Wellbeing.

### ***Findings***

Twenty five studies met the inclusion criteria, 15 for Men in Sheds and 11 for other gendered interventions. There was considerable heterogeneity in the outcome measures used across these studies. Most studies were qualitative and/or had small sample sizes and were unable to exclude important sources of bias.

These studies provided limited evidence that involvement in Men's Sheds or other gendered interventions has a significant effect on the physical health of older men. There was some evidence on a positive effect on the mental health of older men, although this was largely based on self-report from participants. There was also some evidence of the beneficial effects of interventions on older men's social wellbeing, although this is limited by conceptual imprecision. Finally, there was limited evidence about the acceptability, accessibility and effectiveness of Men in Sheds or other gendered interventions for older men from differing backgrounds, or with specific health conditions.

The interpretive data synthesis indicated that the beneficial effects of Men in Sheds are likely to be mediated through reductions in social inclusion and isolation, with voluntary participation leading to the building of friendships, strengthening of social networks and providing a sense of purpose and identity.

## **Conclusions**

Links between social activity, health and wellbeing exist, but directions of causality are not established. However, qualitative research provides insights into the workings of social capital, including the re-creation of masculinity post-retirement. Men's Sheds and other gendered interventions may play a vital and valued part in the lives of some older men, including promoting 'health by stealth'. However there is an urgent need for high quality research to provide evidence for potential funders and guidance for good practice.

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## **Chapter One**

### **Men's health: Shedding new light on old issues**

#### **Introduction**

This chapter provides an overview of men's health and explores a range of factors that affect it. The first section covers demography and health inequalities, highlighting how men consistently lead shorter lives than women and how relatively affluent men have longer lives than their more deprived neighbours. These differences vary considerably between nations suggesting that they are not inevitable and can be changed if appropriate steps are taken. There is, then, a strong case for more people to enjoy active ageing through the maintenance of physical and social activities as they grow older. This poses particular challenges for men. The second section considers the literature on how social isolation, and relationships in particular, affect the health of older people. There is a strong association between having robust social relationships (through leisure and other forms of activity) and good health. However, this literature is subject to a number of limitations, including conceptual and measurement issues; uncertainty over the direction of causality between social engagement and health; as well as differences between older men and women when it comes to different forms of social activity.

The final section explores why men, particularly older men, are generally less likely to participate in social activity than women. Masculinity theory provides a framework for analysing why men are often reluctant to actively engage with their health needs and service provision. Hegemonic masculinity, for example, valorises physical dominance, emotional control and achievement through paid work but post-retirement, this ideal is difficult for older men to maintain. Further, older age is often claimed to have been 'feminised' as, to date, older women have received far more scholarly attention than older men. This is important when it comes to developing interventions that older men would find acceptable. Making the transition from paid work to a post-work identity can be difficult for older men, so finding a replacement role is likely to be beneficial for their health and wellbeing, but this can be difficult. Volunteering is a socially acceptable option, but as research demonstrates, it tends to appeal more to older men who are relatively affluent and middle class rather than more deprived working class men. Finding social interventions that are acceptable and accessible to disadvantaged older working class men is a challenge. The final section outlines how the Men's Sheds intervention has grown in Australia and spread to other parts of the world. Sheds provide a space for older men to meet to take part in woodworking and other types of hands on activity that may also be beneficial to the local community. A growing number of studies have researched the achievements of Men's Sheds and this will provide the focus for the systematic review that follows.

#### **Demography and health inequalities for men**

The health of men is a relatively neglected global public health issue (World Health Organisation, 2000; Meryn and Jadad, 2001) (White et al, 2011). Between 1990 - 2010, the average male life expectancy world wide increased from an estimated 62.8 years (62.3-63.3, 95% CI) to 67.5 years (66.9-68.1, 95% CI). This lags behind average female life expectancy which increased from 68.1 years (67.6-68.6, 95% CI) to 73.3 years (72.8-73.8 95% CI) (Wang et al, 2012). Over the same period in the United Kingdom, average life expectancy at birth increased from 72.9 years to 77.8 years for males 78.3 years to 81.9 years for females (Salomon et al, 2012).

Despite these gender differences in LE, it is evident from the disparities in health outcomes for men both within and across different countries, and over time, that inequalities are amenable to change (Wang et al, 2012; World Health Organisation Commission on Social Determinants of Social Health, 2008; Marmot et al, 2010). Premature mortality and morbidity amongst men is not a biological inevitability, and can be influenced by a range of socio-economic and behavioural factors including unhealthy lifestyle choices and preventable risk factors. Men are more likely than women to smoke tobacco, regularly drink alcohol at harmful levels, be overweight or obese, eat an unhealthy diet, take illicit drugs, engage in risky sexual behaviour and experience injury or death due to accidents and violence. There is a strongly gendered element to these choices and risky health behaviours, but they also have to be considered within the wider context of social, economic, cultural and environmental factors that also influence health (White et al, 2011).

As life expectancy has improved over successive decades, many wealthy societies have experienced a demographic shift with an increasing number and proportion of older people. There is widespread agreement among demographers that there will be fewer people of working age and an increase in the number and proportion of older people in the United Kingdom and across Europe. The Office for National Statistics (ONS) estimates that the number of men aged 50 years and over in the United Kingdom will increase from 10,097,000 in 2010 to 13,835,000 by 2035 (Office for National Statistics, 2011). By 2035, ONS estimates 23 per cent of the UK population to be aged 65 and over, although the United Kingdom will rank as one of the least aged countries in the European Union, particularly compared to Germany (31%) and Italy (28%) (Office for National Statistics, 2011).

This demographic shift should be seen as a major success story, however it does pose challenges for how we develop and structure economic and social policies to ensure that active ageing is extended to an ever growing number of people. Active ageing involves "...growing older without growing old through the maintenance of physical, social, and spiritual activities throughout a lifetime." (World Health Organisation, 2000:1). It presents particular challenges to older men who are generally less likely than older women to maintain these types of activities or use preventative health care services (Hoglund et al, 2009; Arber, 2005; Wang et al, 2012). As demonstrated above, not only do men have a shorter average life expectancy than women, but they also enjoy fewer years in good health. This raises important question about how we address these inequalities.

### **Social isolation and older men: a brief overview of the literature**

Participating in a range of physical, social and spiritual activities that foster strong social relationships has long been recognised as beneficial to health, particularly amongst older people. House et al's (1988) seminal paper, highlighted how prospective studies of community populations which controlled for baseline health status consistently showed an increased risk of death amongst people with a low quantity, and sometimes low quality, of social relationships. They concluded:

Social relationships, or the relative lack thereof, constitute a major risk factor for health—rivalling the effect of well-established health risk factors



such as cigarette smoking, blood pressure, blood lipids, obesity and physical activity (House et al, 1988: 541).

In their view the evidence for the influence of social relationships and isolation on health was similar, but less specific than the range of potential harms associated with smoking in the Surgeon General's report of 1964. They called for studies to develop a greater understanding of the mechanisms and processes linking social relationships to health in order to formulate interventions to reduce social isolation (ibid). An overview of the consequent body of research and reviews of the social identity literature is presented in relation to general themes relevant to older men.

#### *Conceptual differences and measurement issues*

Conceptual differences and measurement issues have continued to be a feature of this body of research in the quarter century since House and colleagues' work. Researchers across the disciplines use concepts such as loneliness, social isolation and interaction without definition, and in relation to a wide array of activities across a diverse set of populations in varying circumstances. This has produced a broad division between studies that have investigated physical and mental health benefits, which have tended to be reported in medical journals, and social wellbeing benefits which are more likely to be found in the psycho-social literature, particularly sociology and gerontology. This broad division and the absence of a common theoretical framework presents challenges in synthesising literature (Betts et al, 2011; Levasseur et al, 2010).

Activity theory is one of the few conceptual frameworks that can be found in the literature on social activity and health. It contends that health and wellbeing among older people is promoted by high levels of participation in social and leisure activities and role replacement when an established role must be relinquished (Betts Adams et al, 2011). Activities are varied and can include informal social interaction, such as regular social contact with family or friends, or formal participation in groups undertaking a range of leisure pursuits, social endeavours or spiritual worship. Activities can be predominantly solitary or communal; involve physical activity; or be largely intellectual, cultural and sedentary. They can take place regularly or relatively infrequently and be socially purposeful or economically productive. Role replacement generally refers to the transition from paid work, a particularly important source of social identity to men (Granville et al, 2008), into retirement. A variety of measures have been used across studies, ranging from probability of survival through degrees of disability to self-rated health, making comparisons and synthesis difficult. However, Betts Adams et al., in a review of 42 studies, concluded that despite differences in definition and measurement that made it difficult to draw inferences from this literature, there were, nevertheless, methodologically rigorous studies that found positive associations between activity and wellbeing (op.cit.).

#### *Issues with causality*

It is, however, difficult to determine whether the relationship between activity and health is causal, and in which direction it operates (Betts Adams et al, 2011). In other words, are older people more likely to be healthy because of the activities they participate in, or are they more active due to the good health they enjoy. Consistent positive associations between activity and health and wellbeing across a range of quantitative studies do not provide an adequate causal explanation. For example, Bennett's longitudinal study of social

engagement among older people over eight years found that it was a useful predictor of subjective physical health - measured by how people rated their present health - but not their objective health (which was measured by an index taking into account symptoms, disability and medication use). This suggests a complex interplay of psycho-social factors between social engagement and subjective health that may not be present in relation to objective health (Bennett, 2005).

Cattan et al. (2003), through in-depth interviews with older people in the north of England, distinguished between loneliness, social isolation and aloneness, and how these concepts related to health and wellbeing:

- Loneliness was a subjective negative feeling often associated with the loss of a partner, retirement, moving home or children relocating;
- Social isolation was viewed as an imposed isolation from normal social networks due to deteriorating general health, loss of mobility and physical isolation. Causes of physical isolation included unsuitable or poor housing, lack of transport, lack of money and lack of opportunity to make social contacts. The terms social isolation and isolation are often used interchangeably, but the former is best defined as an objective state about the lack of contact with other people, while the latter are subjective feelings linked to a perceived lack of desirable social contacts; and
- Aloneness was described as an intense feeling of loneliness associated with being alone for longer periods of time and having no social contact during that time.

All three concepts had links to health and wellbeing, although aloneness (as more intensely perceived loneliness) was felt to be more detrimental to health than social isolation (Cattan et al, 2003). Similarly Godfrey et al (2004) used life story interviews with older people in Leeds and Hartlepool to explore what constituted a good life in old age. They found that being part of a community which values older people and had organic mutual support was critically important to active ageing. These social relationships, along with leisure activities and an interest in the world and in other people were how their sample of 84 older people defined living a good life. Similar findings emerged from studies with older people in north America who valued functional independence allowing day to day autonomy, a strong sense of community and making a social contribution through interpersonal engagement as features of leading a good life in old age (Michaels Miller and Iris, 2002; Howell and Cleary, 2007).

Although the precise causal links between social activity and health are not fully understood, Cacioppo and Patrick (2008) suggest that there are five causal pathways along which chronic loneliness adversely affects health, including: greater risk of self-destructive behaviours such as smoking, excessive drinking or over-eating; greater exposure to stress; a lack of emotional support; damage to the immune and cardiovascular system; and, difficulty sleeping leading to negative effects on metabolic, neural and hormonal regulation. These multiple pathways reinforce Betts Adams et al's view that there are multiple and reciprocal effects between activity and health that are difficult to untangle (op.cit.).

Social isolation is harmful to health but amenable to change. Holt-Lunstad et al's (2010) meta-analysis of the influence of social relationship on mortality risk included 308,849

participants in 148 studies around the globe covering periods ranging from 3 months to 58 years. They found a 50% increase in the overall odds of survival as a function of social relationships. The magnitude of this effect is comparable with smoking cessation and greater than other risk factors such as obesity or physical inactivity. The greater the amount of social activity, the larger the dose effect with the odds of survival increasing by 91% for people with strong social relationships from multiple forms of integration from social interactions. The more positive social activity that people experienced, the more likely they were to survive compared to those with lower levels of social interaction. This analysis reinforces the findings of House et al more than 20 years earlier:

Physicians, health professionals, educators, and the public media take risk factors such as smoking, diet, and exercise seriously; the data presented here make a compelling case for social relationship factors to be added to that list (Holt-Lunstad et al, 2010: 14).

The history of advances in public health includes numerous examples of progress without fully understanding the causal relationship. The growing evidence for the impact of social isolation and loneliness on health and wellbeing is similarly persuasive.

#### *Gendered activity*

There are also important issues to consider around gender and the types of activities involved in social engagement. As mentioned earlier, this covers a wide variety of activities including formal or informal socialising, solitary or social activities, those which are predominantly physical or intellectual.

Numerous quantitative studies suggest that there are important differences between health effects for older men and women. Agahi and colleagues found that older people participating in few leisure activities doubled their mortality risk compared to those with the highest levels of participation - even after controlling for age, education, walking ability and other health indicators. Social activities had the strongest effects on survival among women, whereas men seemed to benefit from solitary activities (Agahi and Parker, 2008). A similar study followed a nationally representative sample of 457 people for 25 years and found that regardless of earlier activities and health, engagement in leisure in later life was associated with enhanced survival, particularly among men, and even at high ages. This suggests that it is never too late to engage and benefit from leisure activities (Agahi et al, 2011). Cornwell's (2011) study on social networks and social capital found that older women tended to have larger social networks and maintain more ties to people outside of the household than older men. This wider and denser set of social networks gave older women greater likelihood of having bridging potential across their social networks, making them more resilient to changes in health status compared to older men.

It is worthwhile considering the influence of gender on the links between social activities and health as there are important issues such as the solitary or collective element, and the physical activity or social support elements of interventions which are relevant for both Men in Sheds and other activities aimed largely at older men. Betts Adams et al, in their interpretation of relevant studies, found that men's survival was particularly helped by solitary hobbies and the physical activity of gardening (op.cit.). Hoglund et al were rather

more definitive and expansive in their assessment of the links between particular types of activity and health benefits for older men (see Table 1).

**Table 1:**

<b>Productive activity</b>	<b>Health benefits</b>
Paid work	Lower mortality, lower depressive symptoms
Volunteering	Fewer depressive symptoms, better life satisfaction, positive affect
Gardening	Greater longevity
Hobbies	Greater longevity
Instrumental social participation (volunteering, service clubs)	Better self-reported health
Political groups	Lower cognitive impairment

(Hoglund et al, 2009)

While the ability to generalise about the links between forms of activity and health benefits is subject to interpretation, it is clear that there are important differences between the form of social activities older people engage in and the relationship this has with their health and wellbeing. An understanding of gender differences, such as the acceptability and use of service provision, is important in any assessment of the available evidence in this area.

### **Men and masculinity**

There are a series of points around gender differences, particularly notions of masculinity, and national cultural contexts, which should be critically examined when assessing the links between activity and health - particularly when considering potential interventions. As White et al (2011) noted:

Public debate on men's health tends to be dominated by negative portrayals of men and masculinity, whereby men are blamed for failing the health services by not attending, for being violent and for taking risks. This report supports a positive and holistic approach to men's health, one that addresses the underlying causal factors that can be attributed to men's poorer health outcomes and that create health-enhancing environments for boys and men (White et al, 2011: 41).

Masculinity is a social construction of relations and practices that go beyond biological differences between the sexes and is shaped, in part, by specific cultures, the prevailing historical circumstances and particular locales. In many contemporary affluent societies, the aspiration to hegemonic masculinity (Connell, 1987) is seen to manifest in high risks behaviours linked to drinking and smoking, avoidance of preventative healthcare services, ignoring information about health risks and delaying treatment when problems do occur. The drive toward the construction of a hegemonic masculinity is seen begin in childhood where boys and young men are encouraged to exhibit emotional control ('big boys don't cry'), toughness through independence ('take it like a man') and to promote and celebrate physical risk involving aggression and physical strength. During adulthood, the hegemonic 'ideal' is strongly associated with building a social identity and sense of worth through paid work, engaging in a variety of risky behaviours that can be harmful to health (either immediately or in the long-term) and stoicism in relation to illness. Based on Connell's (op cit.) conceptualisation of masculinity, the hegemonic 'ideal' is seen to be based on

heterosexuality, assertiveness, physical dominance and emotional control. Clearly this is a cultural construction, but it is particularly valid in Western cultures as well as other parts of the world. Those men who do not achieve the hegemonic ideal (or at least some traits of it) can experience marginalisation and subordination. This is particularly likely to affect older men who are no longer able to sustain the hegemonic masculine ideals of physical strength, emotional resilience, invulnerability and high socio-economic status achieved through the world of work. Hence as Connell and others note, we cannot speak solely of 'masculinity', but recognise that there are multiple masculinities, and these are manifest in different ways in different places at different times (Evans et al, 2011; Courtenay, 2000; Hearn 2007). How this affects older men is particularly important to these reviews.

To date, the work on masculinity and older men is limited. One systematic review of men's experiences of coronary heart disease in Scotland, however, found that, while many drew on discourses associated with hegemonic masculinity, such as stoicism, through delaying seeking professional help, some accounts challenged this dominant discourse (Emslie et al, 2009). In an earlier study they also explored the concept of masculinity among older men in the West of Scotland and found that social class and mobility were important factors in shaping men's attitudes towards gender roles, paid work and health. More privileged older men tended to construct masculinity rather differently compared to their relatively deprived neighbours, suggesting that a more nuanced approach to masculinity is required, particularly in relation to social class (Emslie et al, 2004).

Coles et al (2010) in their study of men's health needs and a men's health promotion project in a socially deprived area of North West England identified several relevant points. Hegemonic masculinity was a strong feature of men's notions of health – hence having medical problems was seen as being a 'failure' as a man, but attempting to change unhealthy lifestyles was seen to transgress gender norms – hence many men were willing to delegate managing their health to their wives or partners. Despite this aspiration to hegemonic masculinity, Coles et al noted that men were keen to talk about their health needs and to engage with health care services. However, they experienced barriers to access where: provision was not in the right place at the right time; they felt embarrassment in dealing with receptionists and clinicians; as well as their fear of being ill. This highlighted the need for a more nuanced approach to the construction of their masculinities that was contingent on understanding the context of their lives and views on health rather than accepting those negative characteristics of hegemonic masculinity that reduced the concept to a singular stereotype (Coles et al, 2010). Masculinity theory is thus a useful conceptual tool for understanding men's health, but a more nuanced understanding of how masculine identities are constructed and reconstructed amongst older men is required.

Contemporary discourses suggest that ageing is essentially 'feminised' as: a) women have a greater life expectancy than men; and b) older women are a comparatively disadvantaged group, hence the focus of more scholarly attention than their male counterparts. Fleming (1999) contended that this academic 'blind spot' for older men was evident in a conspicuous absence of work on masculinities and older men, and where the dominant discourse focused on younger and middle-aged men. The relative invisibility of older men in academic research has been recognised by gerontologists such as Fennell and Davidson (2003) and Arber et al, (2005) who note that while there have been substantial advances in social scientific understanding of the lives of older women, the position of older men has been largely

neglected. The comparative lack of research on older men remains an issue and is evident in the relative paucity of intervention studies in our reviews.

As noted earlier, social interventions and service provision for older people is far more likely to be used by older women than older men. Davidson et al (2003), for example, explored older men's attitudes towards participation in a wide range of leisure and social organisations that primarily catered for the needs of older people, and which were seen to provide beneficial social engagement. These included provision such as day centres, luncheon and social clubs run by a variety of organisations, pensioner groups, sports and leisure groups and the University of the Third Age. Although there were important differences between older men, in general their views on this kind of provision ranged from reluctance, to being highly resistant because they provided passive pursuits:

"I wouldn't be seen dead in a place like that – it means you've had it, you've give up...People in day centres are just sitting there waiting to die..."  
(Davidson et al, 2003: 85-86).

Those older men who did belong to social organisations tended to: a) have joined when they were younger; b) be involved in dual purpose social and active function-orientated organisations that undertook voluntary work; c) were still married; and/or d) tended to be middle class. It is therefore important to recognise that older men are not homogenous and can vary by age, health, marital or partner status, be divorced, widowed or single. They can be lone-dwelling, living with a partner, family or friend. There can also be important social class differences that influence their participation in beneficial social activities. As Davidson et al concluded:

Once attracted to leisure interests not associated with women's activities, our research reveals that men are more amenable to partaking in health-promoting pursuits such as ballroom and line dancing, and indoor bowls. More importantly, they find themselves in an environment which enhances quality of life owing to increased social involvement and concomitant reduction in social isolation. In order to attract older men, attention should be paid by local authority and voluntary organisations to offering appropriate facilities and activities for older men so that they may be supported in leading socially integrated and independent lives within the community (Davidson et al, 2003: 88).

Hence, while older men share many characteristics, there are also important differences among them. In relation to living status, older people who live alone are more likely to report poor health, greater difficulties in the activities of daily life, poorer memory and mood, lower physical activity and poorer diet, hazardous alcohol use and greater risk of social isolation (Kharicha et al, 2007). Bennett's longitudinal study looked at older people three times over eight years, with participants being either married or widowed throughout this period, or married at the first but widowed at the third interview. She found that long-term and newly widowed participants reported lower morale and social engagement than their married counterparts (Bennett, 2005a). It has been estimated that more than 15% of older people are at risk of social isolation with older men, older persons who live alone, and people with mood or cognitive problems at an elevated risk (Iliffe et al, 2007). Yet as Davidson et al (2003)

note, older divorced and never-married men are more susceptible to social isolation and poor health than married men, but their resistance to social engagement is often the greatest. It is therefore crucial that social activities appeal to older men who live alone as they are most likely to be at risk of social isolation and poor health.

Providing appropriate activities and facilities for older men is also likely to involve taking into account class differences between older men which can influence the likelihood of social engagement. Gray's (2009) study of social capital, networks and older people used British Household Panel Survey data to examine the relationship between types of social support, such as that from informal social contacts with family, friends and neighbours compared with formal contacts through participation in leisure and social organisations, and class status. Older people who were childless or without a partner were more likely to have poor social support while relatively rich support was found amongst elders who had frequent contact with other people, interacted regularly with their neighbours and regarded their neighbourhood as a positive social environment. These informal and neighbourhood factors were much more significant for social support than participation in many different forms of organisational activity such as religious activities or leisure and sports clubs. There was also an important distinction between social support for working class older people who had been in manual occupations, even those with strong social networks, which was perceived to be of lower quality than that of middle class older people who had worked in professional and managerial occupational groups.

This inequality between older people of different social class indicates that older working class men are likely to face particularly challenging circumstances. Given the wide range of social determinants of health to consider, social and leisure activities are likely to form only one strand of a raft of interventions required to address these inequalities. Dolan's (2011) study with working class men in a relatively deprived and a more affluent area of a post-industrial city in the West Midlands, for example, explored the interactions between social class, gender and men's health practices and found that risky behaviours were firmly rooted in the material reality of their lives and not simply in their construction of masculinity. The men tended to reproduce accounts of traditional hegemonic masculinity based on physical and emotional toughness, coupled with authority and achievement based on working lives premised on action, strength and risk-taking in an often hazardous workplace. Consequently, they invariably took the view that visiting a health care professional for anything other than a serious complaint was a sign of weakness. This particular performance of hegemonic masculine behaviour stemmed from their position in a social structure that restricted the range of work opportunities open to them and constrained their ability to speak out about health hazards at work. This highlights how differences in health behaviours amongst men can be rooted in the material conditions experienced through work.

The possibility of socio-economic differences need to be recognised if interventions to promote social engagement are to be attractive to those older men who could benefit the most from such activities. Men's health behaviours may be harmful to their health, but this is only a partial explanation for health inequalities between the genders and within the male population. Structural socio-economic and cultural factors also need to be acknowledged.

### **Developing acceptable interventions for older men?**

Older men have generally poorer health seeking behaviours than women and are often reluctant to engage with generic social activities. This means that there is a real challenge in developing acceptable health promoting social and leisure interventions, particularly for working class older men. Social and leisure activities along with service provision for older people tend to be feminised domains and this greatly hinders the scope for older men to benefit from social engagement. Hence, there is clearly scope for developing interventions that will appeal to older men.

The wider health and social benefits of volunteering as a form of social activity for older people are well established (Betts Adams et al, 2011). In the United Kingdom it is estimated that more than a quarter of older people are volunteers across a wide variety of roles. Working in groups in social and club activities is particularly popular, and it appears that if people can be introduced to the idea of volunteering just before or after they retire then there is an increased likelihood that they will continue to do so (Hill, 2006). Given that a substantial number of older people are volunteers it clearly has significant appeal for those who want to engage in healthy and/or active ageing. Bryant et al (2001) study with older people who had participated in a primary health care intervention found that volunteering to do something meaningful and worthwhile was an essential part of healthy ageing. This requires a balance between abilities and challenges, appropriate resources to enable older people to participate in volunteering and a positive attitude that they could still make a contribution (Bryant et al, 2001). However, the evidence suggests that volunteers are more likely to be middle class and female rather than working class and male (Greenfield et al, 2004). Hence the challenge to develop acceptable interventions that would appeal to older people in all social groups, remains.

In England, the Grouchy Old Men Project was intended to raise awareness of the mental health needs of older men with health and social care services along with housing and voluntary organisations and to support service improvements to better meet older men's often under-reported mental health needs. A key finding from the project was the need for caution when using the language of 'mental health' with older men because of the stigma it carried for a generation who considered having mental health problems to be a sign of weakness or not being a 'real' man. A second important finding was that for many older men, their lives, including their social networks, have been shaped by work, and the experience of retirement may bring with it a sense of loss of role, identity, status, income and friendships. Consequently, activities or services that seem most successful in engaging older men and helping to reduce isolation are those related men's to hobbies, interests and previous working lives – often with the banter that goes with it – with an emphasis on what men can continue to offer and do, rather than the help or support they are perceived to need (Williamson, 2011).

### **Men's Sheds**

The precise history of Men's Sheds is unclear but can be traced back at least to the late 1970s and the pioneering work of the Australian gerontologist Leon Earle. Earle identified that older men were going to community-based sheds and noted the wider health and social benefits they derived from the activity. Sheds provided a communal space for men, often older men, to engage in practical activities such as woodwork or other 'DIY' activities that often, they could no longer do at home either because they no longer had their own shed or because they preferred to go to a Shed to be with other men (often from a similar



background). Men's Sheds usually develop from the bottom up in local communities with the aim of having a positive impact on their area through undertaking socially useful tasks like repairing and making nesting boxes, public benches, children's toys, notice boards or furniture. Woodwork, along with other activities such as community gardening or doing metalwork, provide older men with hands-on activities that they enjoy, either alone or with others, that made a difference to their local community and may be beneficial to the men (The Australian, 2011).

Evidence on the benefits of Sheds will be covered in detail in the review but it is sufficient for now to acknowledge that they provided an important space for men to undertake a useful activity and to develop friendships 'shoulder to shoulder, rather than face to face' as is more common amongst women (Australian Men's Sheds Association). Older men come together in Men's Sheds to maintain and learn skills, to see friends, to feel useful and to talk about how well they are faring when it comes to their health and wellbeing (ibid).

This range of possible achievements should not be dismissed lightly but they do need to be critically examined if Sheds are to continue grow and receive funds from the public purse. It is estimated that across Australia there are more than 550 Sheds with 40-50,000 active members - men known as 'Shedders'. There has been considerable interest and recognition of this movement in Australia, with at a financial input of at least \$7 million from the Australian Commonwealth and state governments and further support from local sources as part of its national male health policy (Australian Commonwealth Government, 2010; The Australian, 2011). Whilst these sums are relatively small in comparison to wider spending on health and social care or cash benefits for older people, it is still important to have a good understanding of the health and wellbeing impacts of Sheds on older men so that potential funders can make well informed, evidence-based decisions. This is particularly important given that Sheds have now spread to New Zealand, parts of Canada and the USA (where they are known as Men's Dens), Ireland and the United Kingdom with reports of interest from Finland, Belgium, Croatia and even Uganda (Wilson and Cordier, 2013).

Men's Sheds are not the only potential form of activity intervention aimed at older men, so it is also worthwhile considering other alternatives in order to improve our understanding of complex social interventions. By comparing and contrasting insights from Men's Sheds with alternative forms of provision there is scope to learn lessons that can contribute to improving the health and wellbeing of relatively disadvantaged older men. This project contributes to that process by providing systematic reviews of both Men's Sheds and other gendered interventions in order to provide a critical overview of the relevant evidence base.

## **Methods**

### ***Background and research questions***

The systematic reviews on Men's Sheds and other gendered interventions for older men were designed to be distinct but linked projects that allowed a common approach for both reviews to be adopted. This approach also allowed for the development of a cross-review synthesis of themes along with the identification of similarities and differences between interventions. Two researchers were respectively assigned lead responsibility for: a) the Men's Sheds reviews; and b) the other gendered interventions. The researchers were part of

a wider research team with whom they worked collaboratively throughout the process. The project had the following aims outlined below.

- a) A summary of the evidence for the effectiveness of Sheds and other gendered social activity interventions for older men at influencing health and wellbeing amongst older men, including differential outcomes by socio-economic status and for black and minority ethnic groups;
- b) The identification of the effective components of a Shed and other gendered interventions;
- c) A synthesis of relevant theory on the likely process of change, to support the subsequent evaluation of Shed interventions; and,
- d) A review of outcome measures used in studies to assess health and wellbeing outcomes of interventions, to inform proposed evaluation of Men in Sheds.

A clear set of research questions to be addressed was developed prior to commencement of the reviews, providing a framework for the work of the reviewers. Our primary research question was:

***What are the effects of Men's Sheds and other gendered interventions on older men's physical and mental health and social wellbeing?***

A secondary set of more detailed research questions was also constructed as follows:

- Are Men's Sheds and other gendered interventions acceptable, accessible and effective for older men from different socio-economic, cultural and ethnic backgrounds?
- What is the evidence for the effectiveness of Men's Sheds and other gendered interventions at improving wellbeing for men with specific health conditions?
- What effects do Men's Sheds and other gendered interventions have on the wellbeing and quality of life of the caregivers of participants?
- Drawing on the wider literature, what are the effective components of Men's Sheds and other gendered interventions?
- What promotes the sustainability of a Men's Sheds and other gendered interventions? What are the characteristics that lead to failure?
- Which theoretical frameworks (from social, health or behavioural sciences) will enhance our analysis and understanding of how Men's Sheds and other gendered interventions bring about change?
- What health and wellbeing outcome measures have been used in evaluations of Men's Sheds and other gendered interventions? Which, if any, would be suitable for use in the evaluation phase of the work?

***Search strategy and study selection procedure***

The reviews involved a search of published academic research, third sector, local and central government reports and grey literature that focuses on Men's Sheds and other gendered interventions for older men. Studies were identified by both electronic and manual searching. The electronic databases and search terms used are outlined in Table 2 below. Manual searching involved 'pearl growing' through citation chasing from the bibliographies and references lists of relevant papers, along with the contact with leading authors in the field.

**Table 2: Search strategy**

Strategy	Actions
An electronic search of:	ASSIA, British Nursing Index, CINAHL, Cochrane Library, DARE, Embase, Ingenta, King's Fund, MEDLINE, Proquest, PsycINFO, PubMed, Scopus, Social Sciences Citation Index, Social Care Online, Web of Science.
An electronic and hand search of:	Grey literature including that held by Third Sector, Shed Organisations and research centres. Key journal, including: Health and Place, Ageing and Society, Social Science and Medicine, International Journal of Men's Health, Men's Health, The Journal of Men's Health and Gender, American Journal of Men's Health, Journal of Public Health, Health and Social Care in the Community
Older people	Aged, ageing, geriatric(s), middle aged, retirement, retired, elder(s), older, senior(s), old age, old person, old people, senior citizen(s)
Men	Male(s), men, gender, gender identity
Activity	Intervention, intervention studies, programme evaluation, sheds, men-in-sheds, hut(ers), social activity, social contact, social engagement, social environment, social integration, social participation, social networks, community participation, community support, community involvement, community engagement, friendship, mentors, self-help, befriending, peer(s), promotion, prevention, education
Health and wellbeing	Health, health status, physical health, mental health, quality of life, wellbeing, self esteem, self efficacy, loneliness, social isolation, social distance, social alienation, dementia, Alzheimer's, disability.

The titles and abstracts of articles to be considered for retrieval were downloaded into an EndNote X5 database with inclusion and exclusion criteria independently applied by the two reviewers.

#### *Inclusion criteria*

- *Publications:* Articles, books, book chapters and reports, websites, newspaper reports containing substantive empirical data.
- *Languages:* Reflecting the language skills of the research team, publications in English, French, Italian and Spanish languages were to be included.
- *Time and Place:* Databases will be searched from 1990 to date.
- *Intervention:* Studies to be included if they describe interventions that provide an opportunity for older men to come together face to face, in a specified place, for social activities, learning and teaching, or receipt of advice.
- *Study participants:* Data to be included from Shed users and (where relevant) their family caregivers, Shed funders and organisers and involved health and social care professionals; the analysis to distinguish between different populations.
- *Outcomes:* Included studies should consider any measure of how the intervention impacts on health, quality of life or wellbeing of participants or their families. The outcomes included in the review will depend in part on those considered by studies but might include health status, loneliness or service utilisation, for example.

- *Study designs:* No study design to be excluded.

#### *Exclusion criteria*

- Studies that solely consider interventions or activities where the primary focus is sport or leisure activities in clubs or religious activity, formal education, paid work or volunteering, or part of statutory service provision (e.g. local authority day centres) or disease specific support groups.
- Studies that review interventions not designed specifically for older people.
- Research from low-income countries.

The search strategy aimed to include all relevant studies of Men's Sheds and other gendered interventions that were exclusively or *predominantly* focused on older men. Being an older man was defined as being over the age of 50 years but the issue of an intervention being predominantly focused on this group was subject to interpretation. Initially, a predominant focus was interpreted as a study with a sample that contained three quarters of the overall total being older men but such a stringent approach would have limited the number of studies included in the review and the loss of potentially valuable insights. As it became increasingly apparent that older men have been relatively neglected in the research literature compared to older women (Fennel & Davidson, 2003; Arber et al, 2005), a pragmatic decision was taken to include studies that had older men forming the *majority* of the sample. This was defined as fifty per cent plus one of participants in the sample population regardless of its size and when there was clear data from only older males.

During the process of searching and screening it became apparent that the reviews were likely to contain largely qualitative papers or mixed methods studies with a preponderance of qualitative data. This made identifying all potentially relevant studies from the grey literature, an issue of concern in terms of the comprehensiveness of the reviews (Evans, 2002; Lloyd Jones, 2004).

A combination of time and resource constraints limits searches and screening in all systematic reviews and there is a case for questioning whether comprehensiveness is an attainable or desirable goal for systematic reviews of qualitative evidence. The concept of 'saturation' as understood within the collection of primary qualitative data may be argued to have been reached in a systematic review when new studies cease to provide any fresh data or insights (Mays et al, 2005). As Lorenc and et al (2012) note, however, it is far from clear that the concept of 'saturation' can be readily transferred from primary research to systematic reviewing. However, when the final qualitative studies are confirming themes from other papers rather than adding novel findings, it may be appropriate to say that thematic saturation has been reached, although *conceptual saturation* associated with grounded theory approaches to evidence synthesis may not have been achieved. A satisfactory resolution to the issues of comprehensiveness and saturation in searches during systematic reviews exclusively, or even predominantly, based on qualitative evidence thus remains elusive. While concerted efforts were made to be comprehensive during our searches, we acknowledge that it is possible that some potentially useful grey literature may not be identified - although the value and utility of it to the reviews is likely to be marginal. The data from the included studies provides a broadly coherent picture of 'what might work' in relation to interventions for older men, but the evidence base is modest and findings are

probabilistic rather than clear cut. It is unlikely that any studies that were not identified during our searches would have significantly changed this situation.

### **Search results**

For the review of other gendered interventions, electronic searches were conducted in August and September 2012 using Endnote X5 and a total of 8,116 records were identified. The abstracts were screened by the lead reviewer (DN) with a more than ten per cent sample (1,000 records) also viewed by a second reviewer (PI) to ensure accuracy and consistency in the application of inclusion and exclusion criteria. Several authors in the field were contacted and a pending publication journal article associated with an included study was forwarded for inclusion in the review.

The websites of age-related and male orientated voluntary organisations in the United Kingdom, Australia, New Zealand, Ireland, Canada and the United States were searched for relevant grey literature. The websites of appropriate Government departments in these countries were also searched with the same purpose and the OpenGrey Repository (formerly OpenSIGLE) covering European grey literature was also searched for suitable literature. The first fifty results from combinations of Google and Google Scholar searches for older men and interventions were also screened for possible inclusion (Appendix 3).

For the review of other gendered interventions, 224 papers were identified as being of potential relevance and retrieved for more detailed screening by the reviewers. Some 21 papers were identified as being potentially suitable for inclusion in the review and the bibliographies of these papers were searched for further papers but no additional papers for consideration were found. The reviewers agreed on inclusion or exclusion recommendations for the full research team who jointly made final decisions on the 11 studies that were included in the review of other gendered interventions.

The Men's Sheds review adopted identical inclusion and exclusion criteria but as this is an emerging area for research the number of relevant articles was more limited. The core definition of Men's Sheds in this review were that they were voluntary and social organisations providing hands-on activities for men aged 50 years of age and older who were co-participants in a defined space. Sixty one academic studies, seven grey publications and four policy documents specific to Men's Sheds were identified by the electronic and manual searches. This relatively low yield was due to the novelty of research into the Men in Sheds movement (Wilson and Cordier, 2013). Grey literature was only included if an academic paper was available and in the public domain. Manual searching involved checking bibliographies and reference lists of included papers, as well as relevant conference papers and presentations. In addition, individual contact was made with all the Men's Sheds in the UK and selected 'experts' in Australia to identify patterns and trends. Internal communications relating to Sheds were also provided by Age UK.

A search log recorded the search process and the titles and abstracts of articles considered for retrieval were downloaded into reference management software. Two researchers reviewed these articles and independently applied the inclusion and exclusion criteria to judge relevance to the study questions. The full text of included studies was then obtained, and the criteria reapplied to exclude any irrelevant articles from the final review. Papers that

could not be retrieved were listed in a database, along with foreign language documents that have not been translated, although Men's Sheds are a feature of the Anglophone world.

### **Quality assessment**

The quality assessment of the studies in both reviews involved critical appraisal by both reviewers independently using the tool developed by Hawker and colleagues (Hawker et al, 2002) for systematically reviewing disparate data from different paradigms. The body of research on Men's Sheds was relatively homogenous given it was examining a clearly defined phenomenon largely within the cultural context of contemporary Australia and has been influenced by the pioneering work of Golding and colleagues who came to the area from a background of adult education research. The literature on other gendered interventions was more heterogeneous in terms of the forms of interventions and the disciplinary labels of the researchers. Studies were conducted by academics from the social sciences such as sociology, gerontology, psychology and adult education research as well as nursing. Each of these disciplines has its own traditions as well as varying epistemological and methodological approaches that provided data from disparate paradigms. Appraising the quality of research, particularly qualitative work, can be difficult where ontological and epistemological positions may not be clearly stated beyond a statement that principles and methods of qualitative research are different from those of quantitative research (Lewis et al, 2006). Using the tool developed by Hawker and colleagues provided a common framework for the appraisal of studies that could be readily applied by the reviewers and assessed by wider research team.

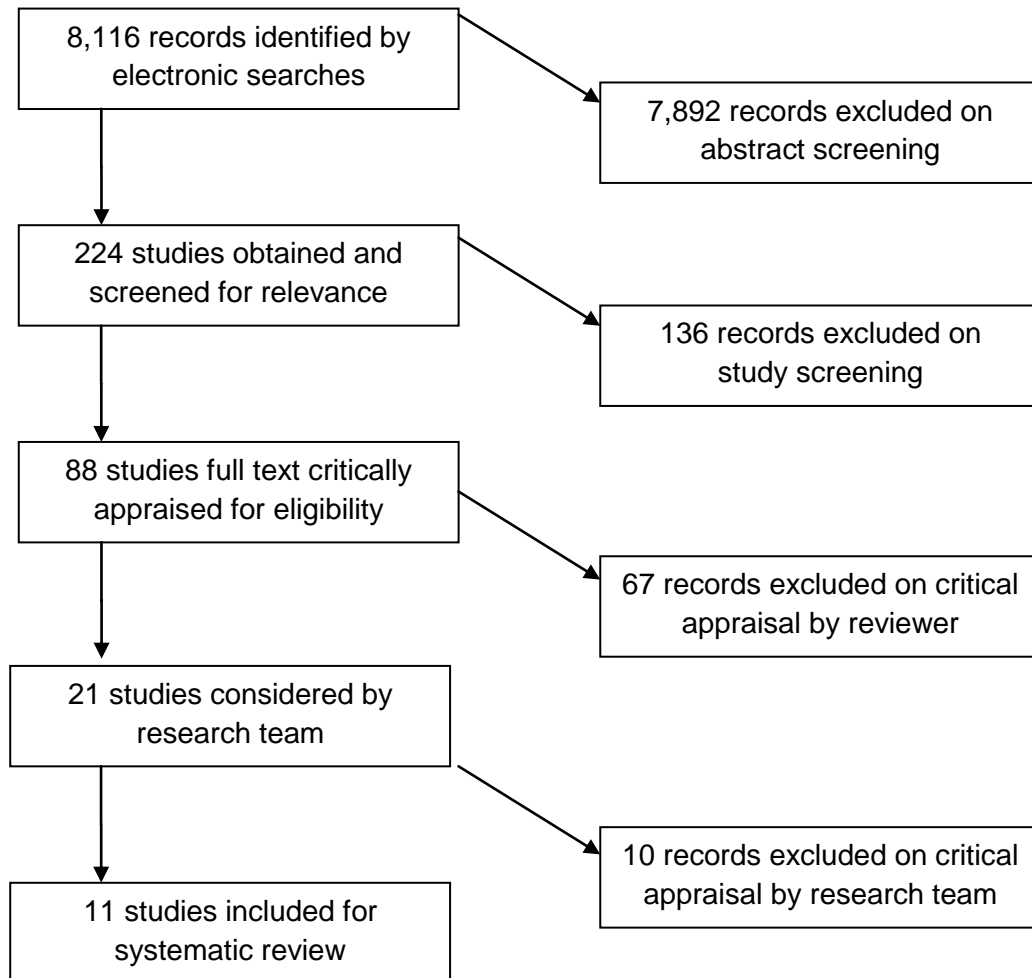
The quality assessment tool allowed a consistent approach to be used by the research team across the two sets of literature to assess methodological rigour and clarity of reporting. The tool uses a scale of one (very poor), two (poor), three (fair) and four (good) across nine domains to assess the paper leading to an aggregate score ranging from a minimum of 9 through to a maximum of 36 that is indicative of the quality of the paper (Appendix 2).

1. Abstract and title: Did they provide a clear description of the study?
2. Introduction and aims: Was there a good background and clear statement of the aims of the research?
3. Method and data: Is the method appropriate and clearly explained?
4. Sampling: Was the sampling strategy appropriate to address the aims?
5. Data analysis: Was the description of the data analysis sufficiently rigorous?
6. Ethics and bias: Have ethical issues been addressed, and what has necessary ethical approval gained? Has the relationship between researchers and participants been adequately considered?
7. Results: Is there a clear statement of the findings?
8. Transferability or generalisability: Are the findings of this study transferable (generalisable) to a wider population?
9. Implications and usefulness: How important are these findings to policy and practice? (Hawker et al, 2002)

The reviewers applied the quality assessment tool to all of the papers included in both reviews. Although the quality of the papers in the review was variable, ranging from a low score of 13 up to a high of 34, there was a high degree of agreement between the reviewers on the aggregate scores for the studies included in both reviews. The quality assessment scores for the studies in both reviews are presented in summary tables. The reviewers and

the wider research team considered exclusion or weighting on the basis of quality assessment score but given the relatively small number of included studies and the broad similarities in findings from high and low quality papers, it was decided not to exclude any papers.

**Figure 1: Electronic searches for gendered interventions for older men**



**Data extraction**

A common mapping and data extraction tool was developed covering 18 substantive domains ranging from location and methodology through intervention and sample description to results/findings and limitations (Appendix 1). This extraction tool was tested by the reviewers on a sub-sample of three papers from both reviews with a high degree of concordance and it was agreed by the research team that it was suitable for use. PI independently applied the data extraction tool to the studies of Men’s Sheds while DN applied it to all but one of the studies in both reviews. There were minor differences between the reviewers in the reporting of the data extracted from the studies but these were readily reconciled through discussions during and after the process. There was strong agreement between the reviewers on the key features of each paper, the main findings from individual studies along with the methodological strengths and weaknesses.

**Analytical framework**

Both reviews were informed by the Medical Research Council guidance on complex interventions (Craig et al, 2008; Medical Research Council, 2008) which outlines a number of key points for consideration. An intervention is defined as complex when it has the following characteristics.

- Number of interacting components within the experimental and control interventions
- Number and difficulty of behaviours required by those delivering or receiving the intervention
- Number of groups or organisational levels targeted by the intervention
- Number and variability of outcomes
- Degree of flexibility or tailoring of the intervention permitted (Craig et al, 2008)

Men's Sheds and other gendered interventions clearly satisfies the definition of being a complex intervention in terms of having a number of interacting components, seeking to influence behaviours, having a multiplicity of groups and organisations involved with variability in the outcome measures. There is clearly a great degree of flexibility and complexity in the implementation of this type of intervention and it would be a mistake to view all Men's Sheds as being identical. They share many common characteristics but they have distinguishing features that are shaped by their development, physical environment, membership, management / group leadership, the wider social situation of the community and a myriad of other factors.

In terms of their *descriptive features*, other gendered interventions are clearly more diverse than Men's Sheds. A cooking club for older men, a community allotment and a 'Gentleman's Club' in a residential care setting are clearly different forms of intervention but they all have older men as participants in voluntary social activity that is theoretically intended to improve their health and wellbeing. As they share this *essential characteristic*, some inferences on adequate causal links can be made (Buss, 1999) although there are clearly many potential confounding factors that mean links are at best probabilistic. The long standing weaknesses in the reporting of complex interventions is apparent across these studies (Craig et al, 2008), but they still provide an evidence base that offers some useful insights and valuable themes.

The Cochrane Collaboration guidelines for systematic reviews on health promotion and public health interventions also provided useful guidance during the course of this project (Armstrong et al, 2007). Broader issues such as intervention effectiveness ('how does the intervention work?') along with theoretical understanding ('why does it work?') provided further coherence to the review process. The heterogeneity of studies in terms of differing foci and variability in study design, samples, locations and findings also posed a methodological challenge for data synthesis.

### **Data synthesis**

The studies included in the reviews contained some quantitative data, predominantly from surveys in mixed methods papers, but there was a predominance of qualitative data offering potentially valuable insights into the perceptions of older men and the processes involved in Men's Sheds and other gendered interventions. Given the preponderance of qualitative data, an 'interpretive synthesis' (Noblit and Hare, 1988) approach that involved both induction and



interpretation was used in both reviews to produce a narrative summary to address the research questions set as part of the study design. An interpretive synthesis is concerned with the development of concepts and the development of mid-range theory that is grounded in the data reported in the studies. The alternative approach is an 'integrative synthesis' that is concerned with amalgamating data in the search for theories of causality and generalisability. In reality, integrative and interpretive syntheses overlap depending on the data and research questions to be addressed (Dixon-Woods et al, 2005). As Dixon-Woods and colleagues noted:

Whilst most forms of synthesis can be characterised as being either primarily interpretive or primarily integrative in form and process, every integrative synthesis will include elements of interpretation, and every interpretive synthesis will include elements of aggregation of data. The choice of the form of synthesis is likely to be crucially related to the form and nature of the research question being asked (Dixon-Woods et al, 2005: 46).

These reviews were primarily interpretive given the data and research questions although there was also a degree of integration as there were issues of causality and generalisability that were of interest. A three step process of organising the description of the studies into logical categories, analysing the findings *within* each of the categories and synthesising the findings *across* all included studies to develop a narrative analysis was followed (Petticrew and Roberts, 2006: 170-181). Analysis by study category included dividing the studies by country of origin to compare and contrast studies from Australia with non-Australian studies while single site studies were similarly analysed with multiple site studies. The similarities and differences between the Men's Sheds literature and the other gendered interventions studies was also compared and contrasted.

The guidance on narrative synthesis in systematic reviews from the Economic and Social Research Council (Popay et al, 2006) and the Cochrane Collaboration was used to review the studies. This is based on a four step process:

1. Develop a theoretical model of how the intervention works, why and for whom;
2. Develop a preliminary synthesis of findings of included studies;
3. Explore relationships in the data;
4. Assess the robustness of the synthesis.

(Popay et al, 2006; Armstrong et al, 2007)

Narrative synthesis involved line by line coding to develop *descriptive themes* that remained 'close' to the primary studies to provide a 'data-driven' synthesis that directly addressed the research questions. Simultaneously, this process of coding also allowed the development of *analytical themes* that seek to go beyond the findings of the primary studies by translating concepts across studies to generate deeper understandings and hypotheses informed by appropriate theories. This is the most difficult to describe and "...potentially, the most controversial, as it is dependent on the judgement and insights of the reviewers." (Thomas and Harden, 2008: 52). These analytical themes will be presented separately and after the narrative synthesis of both reviews have directly addressed the research questions. There are potential risks in such an approach, particularly the over-interpretation of study data

(Popay et al, 2006), but it does offer a variant on meta-ethnography and grounded theory approaches to reviewing qualitative research (Barnett-Page and Thomas, 2009).

## **A systematic review of the literature on Men's Sheds**

### **Overview of studies**

A total of 14 studies met the inclusion criteria and are summarised in Appendix 3. Apart from three recent studies, two in the UK (Healthbox and CIC, 2012; Milligan et al., 2012) and one in Canada (Reynolds, 2011), all studies were conducted in Australia. While the two UK studies were evaluative, the Australian studies tended to be descriptive and coalesced into two main groups – large scale surveys (Golding et al., 2006; Golding et al., 2007b; Golding et al., 2009a; Golding et al., 2009b; Misan, 2008) or small scale qualitative investigations into, and within, specific sheds (Ballinger et al., 2009; Cass et al., 2008; Ormsby et al., 2010). A notable exception is the evaluation of an early shed by Graves (2001). The Australian surveys were based on mixed methods approaches that combined an extensive literature review and case studies (Misan, 2008), or quantitative questionnaires with qualitative interview and focus group information; whereas the small scale study data was primarily collected through self-reports and interviews. One study (Cass et al., 2008) also used participatory action research methodology. Of the remaining non-Australian studies, Healthbox CIC (Healthbox and CIC, 2012) involved quantitative and qualitative survey data, while Milligan et al. (2012) and Reynolds (2011) employed mixed methods drawing on a range of observational, focus group and interview data. All studies incorporated convenience (non-random) sampling but only the Cass et al's study (2008) extended over a two-year (longitudinal) period. No studies utilised randomised control trial or prospective research designs.

Participants in the small Australian studies all numbered below ten, while the respondents in the larger surveys ranged from 154 to 219. Although the primary target group was older men participants, some studies included women (Golding and Foley, 2008; Misan, 2008), family members and carers (Cass et al., 2008; Milligan et al., 2012), key informants such as organisers, managers and coordinators, and health and social care professionals (Cass et al., 2008; Golding and Foley, 2008; Misan, 2008; Milligan et al., 2012) and specific groups (Golding and Foley, 2008). The age of study participants also differed, with Golding et al., (2007c) examining Sheds involving young men and women of secondary school age, and Ormsby et al (2010) investigating the experiences of older male Shed members aged between 67 and 92.

The definition of 'older' varied between the studies. However, most provided a comprehensive demographic profile of participants, usually indicating employment situation e.g. employed, retired or younger men attending Sheds as a recipient of Australian social benefits; marital and living arrangements, e.g. living with a partner or caregiver, single - separated, divorced, widowed, never married; and socio-economic status, especially social class and or education level. The majority (but by no means all) of Sheddors were working class men (Golding et al., 2006). In some cases ethnic background was also referred to. By contrast, information about health status, mostly based on self-report, was inconsistent and highly subjective across the studies.

The myriad of community based Shed models is noted by Golding et al., 2007b; Golding et al., 2009a; Golding et al., 2009b), Misan (2008) and most recently, Wilson and Cordier's (2013) review of the literature.

Wide differences in the involvement of women, type of activity, and degree of accessibility were also noted across the studies. For instance, while Reynolds (2011) described older men gardening, cooking, playing games, walking, constructing model aircraft, working on renovation projects and relaxing with coffee and conversation in the two Canadian Sheds; wood-working was the primary, and often only, activity in most Sheds. Similarly, Golding and Foley (2008) determined that even though women in professional health, learning, wellbeing

and aged care roles were generally accepted in Sheds, some older men felt that all women should be excluded from 'Men's' Sheds. Access to Sheds was also diverse, with some Sheds offering unlimited access, whilst others restricted availability to prescribed opening periods.

The smaller scale studies complemented these large scale analyses by adding a fine grained layer to Sheds in specific contexts. For example, Cass et al., (2008) and Milligan et al (2012) investigated a Shed catering to ethnic and minority groups; Golding et al., (2007a) examined purpose 'built' Sheds for war veterans and residents in aged care; and Milligan et al., (2012) compared Sheds for disadvantaged men in urban and rural settings.

A summary of included studies, research design, sample size and key findings are outlined towards the end of this report in Appendix 3. A more detailed analysis of the findings is outlined in the following section and structured to directly address the core aims and objectives of the review.

## **Findings**

### **1) Primary research question:**

In 12 of the 14 studies, the benefit of attending Men's Sheds was reported to have a direct and or indirect positive impact on the men's physical and mental health, and their social and emotional wellbeing. To tease out specific influences, the primary research question has been separated into three component parts:

#### ***What are the effects of Men's Sheds on the physical health of older men?***

There is no substantive evidence that involvement in Men's Sheds has any significant effect on the physical health of older men. Despite the widespread acceptance and availability of many objective scales, none of the studies used any validated measure to assess physical, or even functional, change. This omission is unexpected as it is widely recognised in the literature that one of the primary benefits of Sheds is participating in physical activity. However, while Milligan et al (2012, p. 2) suggested that older men's physical health might be altered by attending Men's Sheds, they also cautioned that this tentative conclusion requires more robust and detailed longitudinal evaluation.

#### ***What are the effects of Men's Sheds on the mental health of older men?***

The evidence base for Men in Sheds interventions resulting in a positive effect on older men's mental health and wellbeing is slightly more extensive. However, in most of the studies, these benefits were largely based on largely self-report accounts, and were predominantly mediated through cognitive stimulation (Milligan et al, 2012, p. 22-13) and social factors such as a meaningful re-energised contribution to society (Ormsby et al., 2010, p. 611). According to Golding et al., (2007, p. 8) "Men experience a range of very positive benefits as a result of participating. They feel better about themselves, are happier at home, have a strong sense of belonging and enjoyment and greatly appreciate the opportunity to be accepted by, and give back to, the community through what they make and do." Again, in the context of the challenge of engaging older men in health care, these findings are based on self-report rather than objective validated measures designed to assess mental health status (Milligan et al., 2012, p. 22; Misan, 2008, p.11). As Misan (2008, pp. 41-42) notes, older men "were less concerned about physical health, and more worried about social, emotional and mental health and well-being, about the effects of retirement and about the changing nature of rural communities. Some of these areas overlap. Men comment that sheds are important environments in which men offer support for each other for these issues."

#### ***What are the effects of Men's Sheds on the wellbeing of older men?***

Most of the studies included in this review suggest that community-based Men's Sheds provide an array of benefits for older men at risk of:

- 1) Social exclusion – countered by Sheds facilitating a greater:
  - sense of purpose - learning new skills, sharing knowledge;
  - sense of accomplishment – personal achievement, contributing to the community;
  - sense of control – co-participants in decisions and activities;
  - social engagement – opportunity to meet and interact with others, a physical place to spend time, develop friendships, enjoyment and fun;
- 2) Social isolation and loneliness – countered by Sheds improving individual:
  - self-esteem, self worth, self image – feeling positive and valued;

- support – belonging, ‘kinship’ with other men, a sense of community.

Perhaps the main benefit of community based Men’s Sheds is the provision of an environment in which older men can share their health concerns and experiences in a supportive forum, in what Milligan et al (2012) refer to as ‘health by stealth’. In fact, Ballinger, Talbot and Verrinder (2009, p. 26) maintain that “a Men’s Shed should not be used as a vehicle for traditional individualistic health education activity but valued for (their) intrinsic health benefits...”

## **2) Secondary research questions:**

### Are Men’s Sheds acceptable for older men from different backgrounds?

Community based Men’s Sheds were generally regarded as welcoming and tolerant places for all older men in the studies. Socio-economic differences was not an identifiable issue (Golding et al, 2006, 2007), indeed, for many men, contact with a wide cross-section of society was a valued benefit of attending a Shed: “Coming to the shed has meant being around people, learning and accepting...like tolerance is something you need to have to deal with other individuals, especially completely different individuals. Steven” (Ballinger et al, 2009, p. 24).

As noted previously, only two studies investigated Sheds oriented towards older men from ethnic and minority backgrounds. Cass et al, (2008) focused primarily on the Portuguese community, and Milligan et al, (2012) evaluated an inner city Shed in the UK consisting of approximately 25% black and ethnic minority participants. All of the men in the Cass et al (2008) study interacted well together, and even though one member felt that cultural differences created barriers, some of the men met independently as friends outside formal Shed activities.

While Golding et al (2007) determined that purposive Sheds directed towards older men with dementia, disability and acquired brain injury in residential facilities provided a familiar and comfortable environment, Milligan et al (2012) found that men with cognitive and physical impairments attending ‘regular’ Men’s Sheds were not always as well accepted. Here it is important to note that all the UK sheds were integrated and accepted older men with occasional, low and high level support needs as members, whereas the sheds for older men in aged care facilities (Golding et al., 2007) were segregated and specifically designed to cater for dementia, disability and acquired brain injury.

### Are Men’s Sheds accessible for older men from different backgrounds?

As most Sheds are formed and operate at an organic ‘grass-roots’ local level, they are largely accessible to all older men. In fact, Ballinger et al, (2009) indicated that some of the explicit characteristics of Men’s Sheds were autonomy, inclusiveness and accessibility, where “Inclusiveness and accessibility refers to structures that allow full participation in all aspects of (Shed) activities and provides meaningful opportunities to become involved” (p. 26) in internal decision-making processes and linking with the wider community. However, there is some question whether this ‘generic’ accessibility for older men from different backgrounds always translates into actual engagement. For example, in their evaluation of the two UK Sheds with ethnic and minority representation, Milligan et al (2012, pp. 30-31) found some evidence that men from different backgrounds did not attend Sheds on a regular

basis. The constraints of their research remit did not allow them to pursue this situation further.

#### Are Men's Sheds effective for older men from different backgrounds?

Cass et al's (2008) qualitative study of a Shed centred on minority ethnic (predominantly Portuguese) older men presented a comparison of two years as recorded by the project facilitator. The facilitator's diary reports cover: the physical setting of the Shed, transportation issues, the men's self-direction, satisfaction with activities, communication and conversation, mood and motivation, conflicts and tension, friendships developing, skill sharing, commitment to the group and an 'other' (unclassified) feedback section. Most of the issues raised in year one were successfully resolved in year two. This change was particularly noteworthy in the facilitator's report on conflicts and tension, noting: "The cultural differences between the men gradually became less of an issue as time went on...and after initial months the group did not consistently remain in groups according to their cultural background, but tended to cluster according to skill and activity." (op cit. p. 48) This evidence differs from the UK findings by Milligan et al (2012), offering an opportunity for further research, especially in the context of the cultural mix of the shed, organisational arrangements and international transferability.

#### What is the evidence for the effectiveness of Men's Sheds at improving wellbeing for men with specific health conditions?

For some men in Ballinger et al's study (2009) attendance at the community Shed was a life changing enabler for their recovery from depression, or drug and alcohol addiction: "The shed has been like a stepping stone for my depression, helped me get back to the right track and to come out of my shell, and start to socialise with people. Trevor" (p. 24) Other studies make similar observations as in Golding et al's (2010) study on Shed members who were war veterans with post-traumatic stress syndrome, and men with dementia, disabilities and acquired brain injury in residential care...hands-on, shed-based experiences are regarded as positive, therapeutic, educative and transformative (p. 10). Milligan et al (2012) also found that Men's Sheds provided a 'lifeline' for early stage dementia sufferers and their families: "The fact of being wanted, and of making a real contribution to something feels really important not just to the men, but also to their wives (Shed coordinator)" (p.23).

In the majority of the studies however, the relationship between Men's Shed participation and wellbeing is tenuous, as health information was based on a participant's recall, often encompassed a confusing mix of imprecise symptoms and conditions, such as high blood pressure, depression, back problems, injuries to arm or leg and ulcers (Cass et al., 2008; Graves, 2001; Misan, 2008).

#### What effect do Men's Sheds have on the wellbeing and quality of life of the caregivers of participants?

Many of the studies indicated that older men participated in Sheds with the active support of their partners and caregivers. However specific information about the wellbeing and quality of life of caregivers was captured by Cass et al (2008) and Milligan et al., (2012) when they asked about the impact of participating in Men's Sheds on relationships and family life. In both studies, the majority of the partners reported a positive impact on their relationship, and for the Cass et al., this was mediated through the men's increased happiness, interest in the family, and help with household chores – all attributed to attending the Shed. However, as

most of the literature focused primarily on the men's experiences rather than the wellbeing and quality of life of their caregivers, this again is a significantly under-researched area.

#### What are the effective components of Men's Sheds?

According to Golding et al., (2007) and Misan (2008), the functional attributes of a successful Shed include a suitable location; a wide range of activities; extended opening hours; strong local support; secure funding; a sound business plan; a skilled manager and management group; an opportunity to learn from other Sheds and affiliation with a Men's Shed support organisation as early as possible. In addition, Ballinger et al. (2009) suggest that when Sheds are run in relatively unstructured and informal ways, the men feel comfortable and the Shed "becomes more than a place to do things but also a place of belonging, friendships and purpose." (p. 26)

#### What promotes the sustainability of Men's Sheds and what are the characteristics of interventions that fail?

While the previous 'instrumental' factors contributed to engagement and continued participation in a Shed, Reynolds (2011) discovered that individual characteristics such as the need to stay occupied, loneliness and social influence created the impetus to become involved in a Men's Shed at first. Interestingly, in studies by Golding et al (2006) and Ormsby et al (2010), the reverse occurred. For these participants, the social dimension of Sheds increased in importance once the initial attraction of activities wore off. To date, none of these models has been formally evaluated to determine 'best practice' or clarify this discrepancy. Here though, it is important to note that Graves' (2001) identification of the factors for men's continued participation or withdrawal from an early Shed became a benchmark for future Men's Sheds in Australia.

By contrast, there is a gap in the evidence base relating to Sheds that fail. In this review, the exceptions are Misan (2008) who identified inadequate infrastructure before inception as a cause of the failure of new Sheds; and Milligan et al. (2012) who outlined significant financial obstacles to the continuity of Sheds.

#### Which theoretical frameworks will enhance our analysis and understanding of how Men's Sheds interventions bring about change?

Ballinger et al (2009) proposed that the 'Fields of Well-being' model captures the interdependence of most people's experience of health. The model (or theoretical framework) is derived from cross-cultural research, combined with the World Health Organisation (WHO) definition of health as physical, mental and social well-being, and consists of six elements:

- 1) Vitality, full of energy
- 2) Positive social relationships
- 3) A sense of control over one's life and one's living conditions
- 4) Enjoyable activities
- 5) A sense of purpose in life
- 6) A connectedness to 'community'

The relationship of Men in Sheds and the wider community was also embedded in Cass et al's (2008) reference to community empowerment. In their study, the researchers quantitatively measured eight indicators (transfer of skills and knowledge, self-direction,



group cohesion, communication and connectedness, links with outside groups and organisations, leadership, organisation, problem solving) to map community participation and capacity. Positive outcomes for the men were recorded in: transfer of skills and knowledge, organisation, leadership, group cohesion, organisation, and problem solving. By linking their research with theoretical frameworks, these authors have attempted to demonstrate how the Men in Sheds interventions bring about change in older men's lives.

What health and wellbeing outcome measures have been used in evaluations of Men's Sheds and which, if any, would be suitable for use in the evaluation phase of the work?

Graves (2001) used the PRECEDE (predisposing, reinforcing and enabling causes in educational diagnosis and evaluation) framework to assess health education needs in a community setting; and Reynolds (2011) administered the abbreviated six-item version of the Lubben Social Network Scale (LSNS-6) to gauge social isolation and social connectedness, and a three-item measure of loneliness, developed by Hughes et al. (2004) to address how often individuals felt a lack of companionship, left out, or isolated from others. Healthbox CIC (2012) administered the validated RAND questionnaire to assess self-perceived health across number of domains (physical health, emotional wellbeing, social functioning and quality of life) in the Cheshire group of Men's Sheds in the UK. Age UK also attempted to incorporate quality of life measures in their Men in Shed's projects in England as reported by Milligan et al., (2012). However, in each case, the study failed to fully capitalise on the survey outcomes to make a substantive link between the Men in Sheds intervention and older men's health and wellbeing.

Alternatively, the studies by Cass et al. (2008), Ballinger et al (2009), Golding et al (2009a) and Golding, et al (2009b) adopted a 'softer' social determinants of health approach to link the benefits of older men's participation in Sheds with the men's health and wellbeing. However the evidence underpinning the claims of enhanced wellbeing was generally weak, and again rested on subjective self-reported data. Validated measures were rarely used.

**Summarising 'Shed Work'**

Overall, Men in Sheds is presented in the studies included in this systematic review as an intervention that provides a safe place for older men to participate in purposeful physical activities, primarily related to woodwork, on a voluntary basis. These activities may be performed individually or collaboratively, involve the learning or sharing of skills, and are mutually decided by the Shed co-ordinator with the men in the context of 'participant volunteers' rather than clients. The products of the participants 'work' may be for personal use, but are more commonly donated or sold to benefit the wider community and or recoup some of the Shed's operating costs. This opportunity to 'give back to the community' contributes to the men's sense of achievement, accomplishment, value and altruism. Similarly, Sheds create and foster social interaction and connections, and a sense of camaraderie for older men who may experience a loss of identity on retirement and social isolation if they live alone, or the 'underfoot syndrome' if they have a partner. Consequently, Men in Sheds seek to influence the broader social determinants of health by providing a relatively disadvantaged group (participants are often, although not exclusively, working class men) with an intervention that is acceptable, accessible, and despite the paucity of substantive evidence, appears to be somewhat effective in addressing complex health and wellbeing issues (Milligan et al., 2012).

The Men in Sheds movement has gained momentum over the past 20 years, with approximately 600 Sheds throughout Australia at the end of 2012, with growing numbers in New Zealand, Ireland and the UK. In Australia, Sheds are actively supported with significant proactive Government policies and funding, and sponsorship and representation by two national associations – the Australian Men’s Shed Association (AMSA) and Mensheds Australia (Misan, 2008; Wilson & Cordier, 2013). It is thus surprising that this major success has not been matched by an equally strong research agenda and evidence base. This deficit may be partly due to the early articulation of Men’s Sheds with adult and community-based learning by the dominant research group (Golding and colleagues). Although Golding has reoriented his focus towards health and wellbeing in recent studies (see Golding et al, 2009a; Golding et al., 2009b), this systematic review indicates that the evidence base relating the Men in Shed’s intervention and older men’s health status continues to be weak. The research imperative to rigorously capture the ‘Magic of the Shed’ is exemplified by one of Graves (2001, p. 6) participants: “Long may the Shed continue, I live alone, I meet blokes, I make things, the Shed makes it for me.”

## **Systematic review of other gendered interventions for older men**

### **Overview of studies**

A total of 11 studies met the inclusion criteria and are summarised in Appendix 4. The studies consisted of four separate studies from Australia (Golding et al, 2009 and 2009a; Hayes et al, 2005; Macdonald et al, 2001). Golding and colleagues' studies explored a multiplicity of social activities undertaken by older men as alternatives to Men's Sheds in a wide variety of sites across Australia ranging from small and remote towns to suburban areas. These studies were particularly insightful for the comparative dimension between the views of older men who were socially active in communities in which Men's Sheds were operating. Hayes and colleagues explored the role that older men played in volunteer emergency services, a particularly important local institution in many rural and remote parts of Australia. Macdonald and colleagues study of OM:NI (Old Men: New Ideas) explored an intervention that was more commonly suburban and appeared to attract more middle class participants. There were four studies from the UK (Milligan et al, 2004; Pretty et al, 2007) including two that reported on the same intervention for older men in residential care homes in Cornwall (Gleibs et al, 2011; Gleibs et al, forthcoming). Milligan and colleagues study of a community allotment in Carlisle provided a high quality evaluation of a small scale but replicable public health intervention with widespread policy implications. Pretty and colleagues study of various types of 'green exercise' across ten sites in the four nations of the United Kingdom provided validated measures of effects and further useful policy implications. Gleibs and colleagues two studies of a 'gentlemen's club' for older residents in residential care homes in Cornwall also provided validated measures of positive effects from social activity on older men supplemented with qualitative insights from participants.

A study from Norway of a rehabilitation centre (Batt-Rawden and Tellnes, 2005) provided qualitative insights into a health promoting salutogenic approach towards social activity. Keller and colleagues study of cooking classes for older men in Canada demonstrated that behaviour change was possible among a group that are more usually considered to be set in established patterns. Drummond's study of older men taking part in a walking group in a shopping centre was not clearly geographically located, but provided insights into masculinity and the friendships, social networks and camaraderie that were common threads running through these studies.

In terms of study design and methods, data from observational qualitative studies were common and limited to self-reported effects (Batt-Rawden and Tellnes, 2005; Drummond, 2003; Golding et al 2009 and 2009a). However, Pretty and colleagues study was immediately before and after the intervention while Gleibs et al's first study is longitudinal though relatively short-term with data collection at four and twelve weeks after the start of the intervention. The long-term process evaluation studies of Keller et al on a cooking club for older men and Milligan et al on a community allotment for older people provided rich data of how a complex social intervention developed and influenced participants' behaviour, health and wellbeing. The Australian studies contained surveys with good sized samples, ranging from 187 to 339 participants, which are useful in terms of indicating the views of older men on social activities. However, the authors acknowledge that while they are not of sufficient size to give a comprehensive national overview they provided a potentially useful framework for comparative research in other countries.

The samples in the studies covered older men, defined as being over the age of 50 years, and it is important to recognise that this is a diverse group. Some men in this age group are among the most active in voluntary organisations while still being employed and having family responsibilities for children, whilst others have left the labour market. Those who were economically inactive had left the labour market largely due to health reasons (long-term sickness and disability) or retirement (voluntary or involuntary) and had often experienced a major transition in their lives away from the world of paid work. There were also very elderly male participants who had undergone a further transition in their lifecourse having moved into supported or residential care from independent living. The older men in these studies had some common features, such as the impact of participation on their health and wellbeing, but they also had different capabilities and needs. Participation in volunteer emergency services (Hayes et al, 2004; Golding et al 2009) can require considerable physical exertion and courage when dealing with incidents, whereas the oldest old men were limited to activities such as jointly tending an allotment that required less intense physical activity (Milligan et al, 2004; Golding et al 2009a). It seems clear that gendered interventions for older men do not fall into the category of 'one size fits all' but need to be, tailored to the preferences and requirements of different groups of older men with different levels of ability and different interests.

Given the diversity of interventions, the aims and research questions of studies included in this review were far from uniform making it more difficult to make comparisons and to synthesise across studies in comparison to the relatively coherent literature on Men's Sheds. The aims and components of interventions were varied from geographical place to cultural location. The scale of interventions was mixed with some being small scale and unique to a particular culture and context (cooking club for older Canadian men) while others were part of a 'movement' (Old Men: New Ideas) or a long-established tradition (volunteer emergency services in rural locations). This variation was expected and needs to be recognised as a feature of this review and in making comparisons with Men's Sheds.

Overall, the studies covered a diverse range of interventions for older men in a variety of situations. Some interventions were exclusively for older men, such as the cooking club and the 'gentlemen's club' in residential care, but many also involved older women or younger men. Consequently, they lack the coherence of the literature on Men's Sheds but they do provide potential alternative forms of intervention and insights on the motivations and views of older men that are an important complement to the review of the literature on Men's Sheds.

## **Findings**

### ***What are the effects of gendered interventions on the physical health of older men?***

There is very limited evidence of positive effects on physical health from these studies. Improvements are based on self-report and hence subjective accounts, hence there were no generalisable, objective measures of health status on the benefits of social activity for older men. Physical activity was reported to make participants feel physically better in numerous studies (Batt-Rawden & Tellnes, 2005; Drummond, 2003; Golding et al, 2009 and 2009a; Milligan et al, 2004) but this finding needs to be treated with caution. Self-reported and subjective reports of improvements in physical health status provide useful insights, but they need to be verified over a period of time using validated measures in order to assess their wider generalisability. So whilst there is qualitative evidence that physical health may be improved through participation in such gendered interventions, the current evidence base as drawn from the literature in this review, would benefit from further study drawing on validated health and well-being measures in a longitudinal study design.

### ***What are the effects of gendered interventions on the mental health of older men?***

The literature in this review reports positive effects on mental health and wellbeing, but again the evidence is drawn largely from self-report and subjective accounts and thus the generalisability of the findings are limited. However, validated measures were used to assess changes in mental health status in two studies (Pretty et al, 2007 and Gleibs et al, 2011). Both studies used composite administered research instruments containing questions from validated questionnaires, such as the Profile of Mood States test and the Hospital Anxiety and Depression Scale, to assess mental health status before and after the social activity. Both studies found significant positive effects in terms of improved mental health and wellbeing among participants immediately before and after (Pretty et al, 2007) and over a period of 12 weeks (Gleibs et al, 2011).

Self-report and subjective accounts of benefits from participation in a wide variety of social activities were frequently reported across the rest of the literature. It is notable that older men often talked candidly about their own mental health experiences, about feeling anxiety, depression and suicide given the traditional masculine reluctance to openly acknowledge these issues. These findings are consistent with the wider social activity literature and it is likely that such gendered interventions provide a 'safe place' for older men to talk and share their life experiences and thus forge friendships that provide valuable peer support.

### ***What are the effects of gendered interventions on the wellbeing of older men?***

There was some evidence on the beneficial effects of interventions on older men's social wellbeing (Batt-Rawden and Tellnes, 2004; Drummond, 2003; Hayes et al, 2004; Golding 2009 and 2009a) although there was limited conceptual precision in these discussions. Self-reported improvements in subjective wellbeing are not intrinsically problematic as they give an insight into how people are feeling about their life. Older men are at risk of reduced social wellbeing as a result of transitions in later life, for example, from paid work to retirement, from health to ill-health and from married/partnership to bereaved status. The transition from paid work to retirement in particular, can cause a loss of social identity and status, hence paying greater attention to how they feel about their lives when they have left the labour force is worthwhile. However, whilst wellbeing is considered in these studies, there is no explicit mention of the division between hedonic and eudaimonic conceptions of wellbeing (Ryan and Deci, 2001; Deacon et al, 2009). The hedonic approach focuses on pleasure

attainment and pain avoidance while the eudaimonic conception concentrates on meaning, self-realisation and the degree to which a person is fully functioning. The eudaimonic approach based on older men achieving a greater sense of coherence to their lives is implicit in most of the discussions of wellbeing in these studies. Interventions which enable older men to exercise autonomy, experience personal growth and re-create a sense of purpose in life appear to have a positive effect on older men's sense of wellbeing.

### ***Are interventions acceptable for older men from different backgrounds?***

The acceptability of the gendered interventions was conceptualised in terms of older men's views of participating in the various social activities considered during this review. The key issue with understanding the acceptability of these interventions is that the studies focus on those engaged in the interventions, with no data on those who either did not want to participate, or who participated and left. Hence we have an abundance of positive views from participants but virtually none from non-participants. The vast majority of participants are there voluntarily so it is hardly surprising that they regard participating in their particular form of purposeful activity as acceptable.

There are considerable practical and methodological issues about how a non-participant sample could be ethically generated to explore why they do not participate in this type of social activity. In place of this there is very limited data from older men who did participate on why their friends and other older men did not participate which revolved around the notion that it was a 'place for old men and not for the likes of them' (Golding et al, 2009 and 2009a). It was not possible to gauge the acceptability of interventions for older men from different socio-economic, cultural and ethnic backgrounds due to limitations in the scope and scale of studies included in the review. It seems reasonable, however, to acknowledge the view of Golding and colleagues on the acceptability of interventions who comment that: "While male-specific organisations like community men's sheds are important for some particularly vulnerable men, they are clearly not for all older men." (Golding, 2009: 66-67)

### ***Are interventions accessible for older men from different backgrounds?***

Intervention accessibility was considered in practical terms such as proximity, mobility and the availability of either public or private means of transport. In the few studies in which these issues were considered to any extent (Golding et al, 2009 and 2009a), they tended to be identified as potential barriers to participation due to the long distances that can be involved – especially in rural and remote Australia. There was very little data on accessibility, although older men are likely to experience declining mobility as they age and this could prevent them from attending such interventions. It is not possible to say with any degree of confidence how older men from different socio-economic, cultural and ethnic backgrounds were affected by accessibility issues although it is likely that this limits participation in social activities.

### ***Are interventions effective for older men from different backgrounds?***

Intervention effectiveness was conceptualised as including physical and mental health along with social wellbeing but also going beyond these participant centred notions to include possible benefits to the wider community. The effectiveness of interventions on participants is best summarised as being generally positive but modest, although differences in effectiveness are noted in several studies (Batt-Rawden & Tellnes 2004; Milligan et al, 2004; Pretty et al, 2007; Gleibs et al, 2011). It is also important to note that while this type of

intervention is significant to the health and wellbeing of some older men, for others they represent no more than a pleasant distraction or hobby. There is insufficient evidence to outline the characteristics of those who report the greatest benefits from these interventions with any confidence. Lone older men were reported to benefit from learning cooking skills compared to married men (Keller et al, 2004) and those with low self-esteem were shown to enjoy particular benefits from green exercise (Pretty et al, 2007).

***What is the evidence for the effectiveness of gendered interventions at improving wellbeing for men with specific health conditions?***

Specific health conditions that could be considered typical for older men, such as hypertension and type II diabetes (Keller et al, 2004) or muscular-skeletal limitations (Batt-Rawden & Tellnes, 2004), were rarely mentioned. Mental health conditions, such as anxiety and depression, were more frequently discussed (Golding et al, 2009 and 2009a; Macdonald et al, 2001) and participation in a social activity was widely considered to be a protective factor. Staving off the limitations to physical health associated with old age was also present in these studies (Drummond, 2003; Golding et al, 2009 and 2009a) but there was no substantive data on dementia, prostate cancer or other long-term conditions associated with old age.

***What effect do gendered interventions have on the wellbeing and quality of life of the caregivers of participants?***

There was no data directly from the partners of participants in gendered interventions and proxy responses in only a few studies (Macdonald et al, 2001; Keller et al, 2004; Golding et al 2009 and 2009a). These studies invariably reported supportive views from wives, partners and families of older men's participation in social activities. There was very little evidence on the effects on wellbeing and quality of life of caregivers of participants that can be drawn from these studies due to their limited scope and scale.

***What are the effective components of gendered interventions?***

This was considered in terms of what elements underpinned the effectiveness of interventions; how they operated and why they may have been successful in improving the health and wellbeing of older men. Common explanations included voluntary participation leading to the building of friendships between older men and the consequent strengthening of social networks. The only study not to identify these factors was Pretty et al's quantitative study of green exercise. The evidence on relationships that older men built with each other during the course of these interventions suggests that this may go beyond friendship to the development of bonds of camaraderie (Golding, 2009 and 2009a; Hayes et al, 2004; Gleibs et al, 2013) which may have a deeper meaning to these older men than the mere acquaintance of many friendships.

As previously suggested, the interventions also provided a sense of identity and purpose for older men following the transition from paid work into retirement (Golding 2009 and 2009a; Drummond 2003; Macdonald et al, 2001) or into the female dominated area of residential care (Golding 2009; Gleibs et al 2011) depending on the composition of the sample.

The expertise of a leader to co-ordinate activities was also highly valued by participants who exercised some degree of choice over the programme (Batt-Rawden and Tellnes, 2004; Drummond, 2003; Gleibs et al, 2013; Keller et al, 2004).

There was some evidence that benefits to the wider community from the purposeful activities undertaken by older men were a factor in successful gendered interventions. This was most obviously apparent in volunteer emergency services, that are often the first to respond to fires and road traffic accidents, but was also evident in a range of other activities. These wider benefits included charitable fundraising events, sharing experiences and skills with younger people, along with making wooden items for the community (Hayes et al, 2004; Golding et al, 2009 and 2009).

***What promotes the sustainability of a gendered intervention and what are the characteristics of interventions that fail?***

There was limited evidence on what promotes the sustainability of gendered interventions beyond having adequate resources. These can include the paid time of a co-ordinator (Gleibs et al, 2011; Golding et al, 2009 and 2009a; Keller et al, 2004; Milligan et al, 2004), or the commitment of a core of volunteers to socially useful activities (Hayes et al, 2004; Golding et al 2009 and 2009a). They also included access to a suitable venue at low cost (Golding et al, 2009 and 2009a; Keller et al, 2004) or free (Milligan et al, 2004). There **was** **were** very limited data on the characteristics of interventions that failed, beyond the loss of resources that brought a premature end to the gentlemen's club in residential care studied by Gleibs and colleagues (Gleibs et al, 2011 and 2013). It is likely that a lack of command over these resources over time is the key characteristic of why such gendered interventions fail, but such failures are notable by their absence in a body of literature that is generally positive on the benefits for older men of such interventions.

***Which theoretical frameworks will enhance our analysis and understanding of how gendered interventions bring about change?***

A range of theoretical frameworks were used in these studies that can enhance our understanding of how gendered interventions work to bring about change for older men. The rehabilitation centre in the study by Batt-Rawden and Tellnes used a salutogenic approach, which emphasised factors contributing to health and wellbeing such as a sense of coherence and continuity in life that seemed to favour resistance to disease, as the basis for their purposeful activities. This was a social approach to rehabilitation based on participation rather than pharmacological interventions. Drummond's study of older men at a walking group conceptualised issues through the lens of masculinity and phenomenology to explore how older men experienced ageing and the steps that they (literally in this case) took to address it. Gleibs and colleagues studies were clearly situated in social identity theory that postulates that membership of a social group is critical in forming a shared sense of identification through which people are able to understand who they are and gain the social support they need to enhance and protect their health and wellbeing. When group membership is internalised as part of a person's social identity it provides individuals with a sense of belonging and connection and the stronger this sense of identification is the more beneficial it is to their health and wellbeing.

Golding and colleagues studies used the World Health Organisations Determinants of Disadvantage as a framework to assess the utility of interventions used by older men. The framework identifies a series of factors that underpin the social disadvantages that contribute to health inequalities such as social exclusion, unemployment, difficult past life experiences, the stresses of ageing and transitions from paid work to retirement and substance abuse



issues, particularly relating to alcohol, that affect many men including older men. Hayes and colleagues (which included Golding) used a number of ethnographic principles to gather insider experiences of volunteers within public safety organisations and follow up issues identified in an accompanying survey. Given the dearth of previous research in this area, this was essentially exploratory research to identify views on motivation for participation and training needs among older men who formed the core of most voluntary organisations.

Keller and colleagues in their evaluation of a cooking intervention identified 'anticipatory care giving anxiety' as a possible motivation for older men to learn new cooking skills but did not explicitly state a theoretical framework. Macdonald and colleagues in their study of Old Men: New Ideas participants also did not explicitly state a theoretical stance for their work. Similarly, Milligan and colleagues drew on the geographical concept of 'therapeutic landscapes' in their analysis of a community gardening initiative which draws on the relational link between health and wellbeing and contact with nature. Pretty and colleagues explicitly stated their hypothesis – that physical activity in the countryside at a range of energy intensity and times has at least short-term positive effects on mental and physical health measures for participants – as part of the general contention that there are synergistic benefits between physical activities while exposed to nature, in what they term as 'green exercise' which can be seen as part of the biophilia hypothesis.

While the theories, frameworks and methods used in these studies vary according to disciplinary preferences, they tend to share a core assumption with activity theory which contends that health and wellbeing amongst older people is promoted by high levels of participation in social and leisure activities and role replacement when an established role must be relinquished.

***What health and wellbeing outcome measures have been used in evaluations of gendered interventions and which, if any, would be suitable for use in the evaluation phase of the work?***

A range of research instruments were used to produce a variety of health and wellbeing outcome measures, although the utility of them in a future evaluation phase of Men's Sheds and other gendered interventions is perhaps limited. The survey instrument developed by Golding and colleagues (see Appendix 1 of Golding et al 2009 and 2009a) could provide a useful tool for comparative research and has been promoted by the author as a suitable template. There is certainly some merit in using such a survey instrument to provide comparative data, although the scale of any future evaluation would shape such a decision. The composite questionnaires developed by Gleibs and colleagues for older men in residential care and by Pretty and colleagues for green exercise participants are likely to be useful. They provide validated measures of mental health status as a result of social participation in purposeful activity over time that could be helpful in identifying the strength of possible causal pathways between participation with health and wellbeing.

The variety of qualitative research methods and instruments used in these studies are often less clearly reported. The studies by Batt-Rawden and Tellnes, Drummond, and Macdonald and colleagues are somewhat opaque in terms of reporting their methods and consequent resulting in modest quality assurance scores. Gleibs and colleagues along with Milligan and colleagues are well-reported pieces of qualitative research, the latter using a multiplicity of methods that provide valuable insights into the merits and motivations of participation in

social activities. Views on the possible future directions for research in this field will be offered later.

### **Methodological limitations in the studies**

The major limitation was the lack of literature on gendered interventions for older men among the abundant literature on older people and social activity. Studies of older people rarely focus exclusively on older men, who remain a relatively neglected group in terms of social scientific understanding of their social lives compared to older women. There is clearly a need for a greater focus on developing gendered interventions for older men and evaluation research to assess the strengths and weaknesses of such approaches. This would strengthen the evidence base and should contribute to improved policy and practice in the future.

The main weaknesses in these studies included small sample sizes and the lack of validated measures to assess the impact of interventions on older men's health and wellbeing over a period of time. Relatively small sample sizes are a feature of qualitative research, so it is to be expected given reports on qualitative studies form the vast majority of papers included in this review. Qualitative studies can offer high levels of internal validity and in-depth understandings of the perceptions and experiences of participants. However, whilst qualitative research designs have their strengths, especially around issues and topics where little is known, small sample size means that findings can be specific to the sites/participants investigated. This means that it is more difficult to provide definitive or generalisable results from the findings than it is from large-scale quantitative studies using validated measures.

As noted earlier, when assessing the strength of the evidence base, it is also important to recognise that it is unlikely that participants who voluntarily engaged in the social activities that formed the focus of research would hold negative views about the activities. Hence whilst the positive views from participants of activities and interventions are valid of themselves, they need to be treated with caution when interpreting the wider significance of these findings.

The clear reporting of research methods, the analysis of the data generated and the appropriateness of the approach provide an opportunity to judge the quality of the research. The quality assessment process in this review showed considerable variation between studies with relatively few high quality studies. With a larger set of studies it may have been useful to adopt a quality threshold, but given the dearth of literature this would have further limited the scope of the review. The lower quality studies provided some useful descriptive insights due to their different foci, along with supporting evidence that was in broad agreement with the better quality studies.

When larger samples were generated, for example studies in Australia involving Golding and colleagues that contained surveys of 187 and 219 participants supplemented by group interviews with more than 100 older men across multiple sites, there was a lack of validated measures in survey instruments and a lack of clarity in the papers on how the qualitative data was collected and analysed. While these studies are useful for comparing Men's Sheds with other forms of social activity in which older men participate, they are limited by their cross-sectional design. Furthermore, given the immense distances involved in researching across Australian states the method of recruitment is understandable but prone to sample

bias towards older men who were more likely to be literate and interested in the issues raised by the research. The method of using key informants to distribute a limited number of surveys to participants followed by group interviews with a convenience sample of older men is a limitation.

The views of older men who do not participate in social activities was also absent from this body of research although the challenges of ethically recruiting non-participating older men, especially in small communities, are considerable.

The lack of validated measures is also a shortcoming in this literature which relies largely on self-report from participants on their improved health and wellbeing. Only two studies, Pretty and colleagues along with Gleibs and colleagues, used validated measures to assess the impact of social activity on health and wellbeing and both studies acknowledge design limitations. Pretty and colleagues study, as with all other studies, included only those people who were already engaging with a purposeful social activity so did not capture data on inactive people who did not participate. Gleibs and colleagues study of the 'gentlemen's club' involved a small sample of 12 older men who were relatively homogenous in terms of cultural diversity. Although they used an appropriately tailored research tool, this was restricted so as not to over-burden elderly participants. Consequently, it did not directly measure changes in social support as a result of participating in a 'gentlemen's club', restricting them to only being able to make inferences on the causal sequence of relationships between variables that required further research. Despite these shortcomings, the claims that are made for the benefits of social activity for older people in residential care are plausible because they are made not on the basis of the data *per se*, but on the basis of hypotheses derived from the large body of research in the social identity tradition. This acknowledgement of research data limitations while making the case on the basis of a wider theoretically informed body of research is interesting and largely justified in the context of calls for further and more detailed work in this area.

A final limitation is the variety of theories and frameworks used in these studies, making comparison across studies, and the identification of possible causal pathways, difficult due to the complexity of social life and the range of possible confounding factors that need to be considered. There are multiple ways that gendered interventions for older men can usefully be studied and lessons to be learned from a variety of approaches and methods. Synthesising findings from such a diverse set of studies with a variety of conceptual and theoretical approaches, disciplinary boundaries, differing foci, range of methods, varying findings and conclusions is challenging. Hence the evidence base for this kind of social intervention is limited and is likely to remain so until more robust longitudinal studies are undertaken.

## **Cross Review Synthesis: Themes from Men's Sheds and other gendered interventions**

### ***Introduction***

This final section draws out a number of common descriptive themes from the Men's Sheds and other gendered interventions reviews to develop some analytical themes that seek to go beyond the findings of the primary studies. This involves translating concepts from the studies to generate novel understandings informed by a range of appropriate theories that can provide deeper insights from a systematic review (Thomas and Harden, 2008). The wider policy implications of these themes for the health and wellbeing of older men will also be considered. Finally, some comments on the future direction of further research in this area will be offered in the light of this work.

### **1. The links between social activity and health and wellbeing**

A common theme from both reviews is the link between participating in social activity and the positive impact on health and wellbeing. This thematic finding applies to both Men's Sheds and other gendered interventions. It supports activity theory, that health and wellbeing among older people is promoted by participation in social and leisure activities and role replacement during transitions in later life. These forms of intervention for older men can be viewed as a component element of healthy ageing through social activity and participation as envisaged by the World Health Organisation (World Health Organisation, 2000 & 2002) and so represent a potentially worthwhile use of resources as they can be relatively low cost and driven by voluntary efforts.

However, the problem of causality in activity theory – whether older people in good health are more likely to participate in social activities or if participation in social activities leads to better health - is not resolved by the studies in this review. Beyond older men's self-report, it is not possible to conclude with any certainty that social activity by older men in Sheds or other environments leads to a measurable improvement in health and wellbeing. These studies all lacked a control group of older men who did not participate in social interventions (Haynes et al, 2011) making it difficult to say with any degree of confidence that reported improvements in physical or mental health and social wellbeing were directly attributable to Men's Sheds or other forms of intervention. Nor do these reviews directly address the issue of causality in the links between social activity with health and wellbeing. These reviews demonstrate self-report evidence of improvements in health and wellbeing benefits for older men from studies of a range of complex social interventions but to date, the evidence base is limited.

### **2. The value of qualitative insights on social capital**

Although the evidence base for both reviews draws largely on qualitative and observational studies with no control groups, this does not mean that valuable insights are not present. There is a strong case for incorporating qualitative evidence into systematic reviews, particularly for psycho-social interventions aimed at improving the health and wellbeing of particular groups in the population, because it can illuminate why a policy intervention or managerial approach has variable effects and can suggest ways to address these issues (Mays et al, 2005: 8). As Dixon-Woods et al noted:

Qualitative research has an especially valuable role to play in answering questions that are not easily addressed exclusively by experimental

methods. There are indeed areas where qualitative research alone is sufficient, or the only possible or desirable means of approaching a research question.

(Dixon-Woods et al, 2001: 126)

The importance of social networks, friendships, trust and camaraderie between older men runs through nearly all of the studies included in the reviews and may be related to the concept of social capital (Putnam, 2000). The effective measurement of social capital itself has, of course, been the subject of significant debate. Nevertheless it is likely to involve both a quantitative dimension that accounts for the number and frequency of social contacts and a qualitative dimension that seeks to measure the intensity and meaning of relationships (Kim et al, 2006). Arguably, the findings of the studies reviewed in this report represent qualitative measures of bonding social capital, social links between similar groups of people, which are particularly valued by older men who are generally less likely to enjoy the benefits of an extended social circle compared to older women (Davidson et al, 2003; Fennell and Davidson, 2003; Cornwell, 2011). The benefits to health of bonding social capital are theoretically plausible, as are negative effects due to risky health behaviours being considered the norm, but like social activity theory there remain unsolved issues about causal links that require further research (Ferlander, 2007). In relation to interventions for older men, including and going beyond Men's Sheds, these reviews support the recently published narrative review on this topic by Wilson and Cordier which reported that the small scale studies of Sheds that have sought to uncover health and wellbeing benefits have reported "...promising, albeit limited, results..." but the range of variables "...has not yet been adequately conceptualised, measured, tested or understood (Wilson & Cordier, 2013: 10-11)." It is common for systematic reviews to call for more research on an issue of concern, and this is certainly the case in relation to interventions for older men, but we would suggest that any further research needs to be theoretically informed and of good quality in order to more clearly identify 'what works' for older men.

### **3. Older men and masculinity**

The health and social issues facing older men are at the core of all of these studies and it can be argued that an underlying theme concerns older men's need to re-create their sense of masculinity and identity post-retirement. Golding and colleagues eloquently express this underlying theme:

The research starts from the premise that men not in work can *pose problems for themselves, their families and their communities*, but that men in this situation are not necessarily *the problem*. The research design therefore has the potential to identify ways of breaking intergenerational cycles of unemployment for men through community involvement. One final but important anticipated outcome of the project is an identification of opportunities for marginalised men who are 'living on the edge' to develop positive masculinities and to enhance informal earning through mentoring with other men in community contexts. (Golding et al, 2009: 6)

The purposeful activities that older men voluntarily undertake in Men's Sheds, community gardens, fire and rescue services and a myriad of other ways can be viewed from one perspective, as older men seeking to redefine their social identity. In a variety of contexts, older men who are retired and no longer in paid employment are finding new ways to define

their masculinity, with their peers, through work that is voluntary. Arguably this is distinct from that 'voluntary work' that is often charitable and female dominated (Macdonald, 2001: 8-9). The older men in these studies, particularly in Men's Sheds, are engaged in work that is voluntary in the sense that they choose to participate in these activities, they often decide what to do and how to do it, the work they do is often socially useful and is largely beyond the control of the prevailing economic system. Older men are generally not compelled to go to a Men's Shed, a community garden or another place in order to sell their labour in return for wage income, but do so because they want to engage with other older men in work-like activity. This gives them a sense of identity, self-esteem and value that allows them to re-create their sense of masculinity in a male-friendly environment (Milligan et al, in press). However this is not the case for unemployed men in the Australian context who are required to undertake work-related activities (workfare) in order to receive cash benefits.

Brown et al in a conference presentation (Brown et al, 2008), which did not meet the inclusion criteria for review, provided a theoretically informed analysis of Men's Sheds that has some resonance for other forms of gendered interventions. Using empirical data from 25 community sheds across Australia, and acknowledging the problems of researchers who bring frameworks to bear on data and evidence that are outside the life world of the participants in the study, they naturalistically interpreted the data and while being respectful of the participants they applied some analytical concepts from critical sociology. In doing so, they adopted a Marxist perspective on work as holding a central place in human society that could be a positive force. If work was undertaken as a free activity under the self-direction of the individual, had intrinsic meaning that contributed to the self-identity of the maker and the product of that labour was appropriated and owned by the maker/producer then the process would lead to the creation and re-creation of humanity. From their data on Men's Sheds they observed work-like activities in work-like spaces but unlike 'normal workplaces' there were three distinct differences. Firstly, there was a lack of compulsion at the Shed that meant that Sheddors could choose to work as much as they like and go home when they liked. Secondly, the men were co-participants who negotiated the collaborative running of the Shed. Finally, Sheddors liked to do authentic and socially useful projects such as community maintenance or making toys (Brown et al, 2008). As they noted:

...the work-like space of the shed offers an open-ended transitioning space that is physically like work and has the familiarity of work, where men work side by side, yet psychologically and socially the shed is very different to work. Sheddors don't experience the alienation that is argued to be a part of doing paid work. Sheddors seem to have control over their work. Sheddors hang onto the identities and personalities that men develop through their work, they build upon forms of masculine friendship and even intimacy through shared activity. (Brown et al, 2008: 5-6)

While acknowledging that they "...don't mean to put Sheddors on the frontline against capitalism... (ibid: 6)" they contend that many men, as do many women, go off to paid work and receive wages for their work. A male identity as a worker and provider for their family develops and presents a masculinity that is deeply embedded in social relations. Recognising the gendered contradictions and complexities of contemporary spaces, Brown and colleagues contend that:

...in some ways these sheds are sites of masculine hegemonic relations and practices and in other ways they represent a counter-hegemony. All that said, the men participating in the sheds are reporting increased happiness, satisfaction and social connection. We contend as we suspect Marx might, that sheds reproduce the social relations of work that are familiar and comfortable to men without the alienation and workplace injuries experienced through oppressive and unsafe workplaces. (Brown et al, 2008: 6-7)

This more conceptual analysis of the dual nature of Men’s Sheds – a place that looks like a modest capitalist enterprise where men perform hands-on work that defines their social role and sense of masculinity but is in fact a space where men re-create their social identity by performing work that is voluntary offers an interesting theoretical perspective although there was no direct data from participants that they viewed their experiences in these terms.

#### 4. Theoretical frameworks: WHO and HIMM

The studies included in the reviews used a range of theoretical frameworks in order to conceptualise their data. The World Health Organisation’s Determinants of Disadvantage (Golding et al, 2009 & 2009a) and Fields of Wellbeing (Ballinger et al, 2009) framework both provided useful conceptual approaches for analysis. Applying them to other studies within the review was a useful analytical approach in terms of identifying common findings and they could usefully act as a guide for further research in this area.

**Table 5: World Health Organisation frameworks**

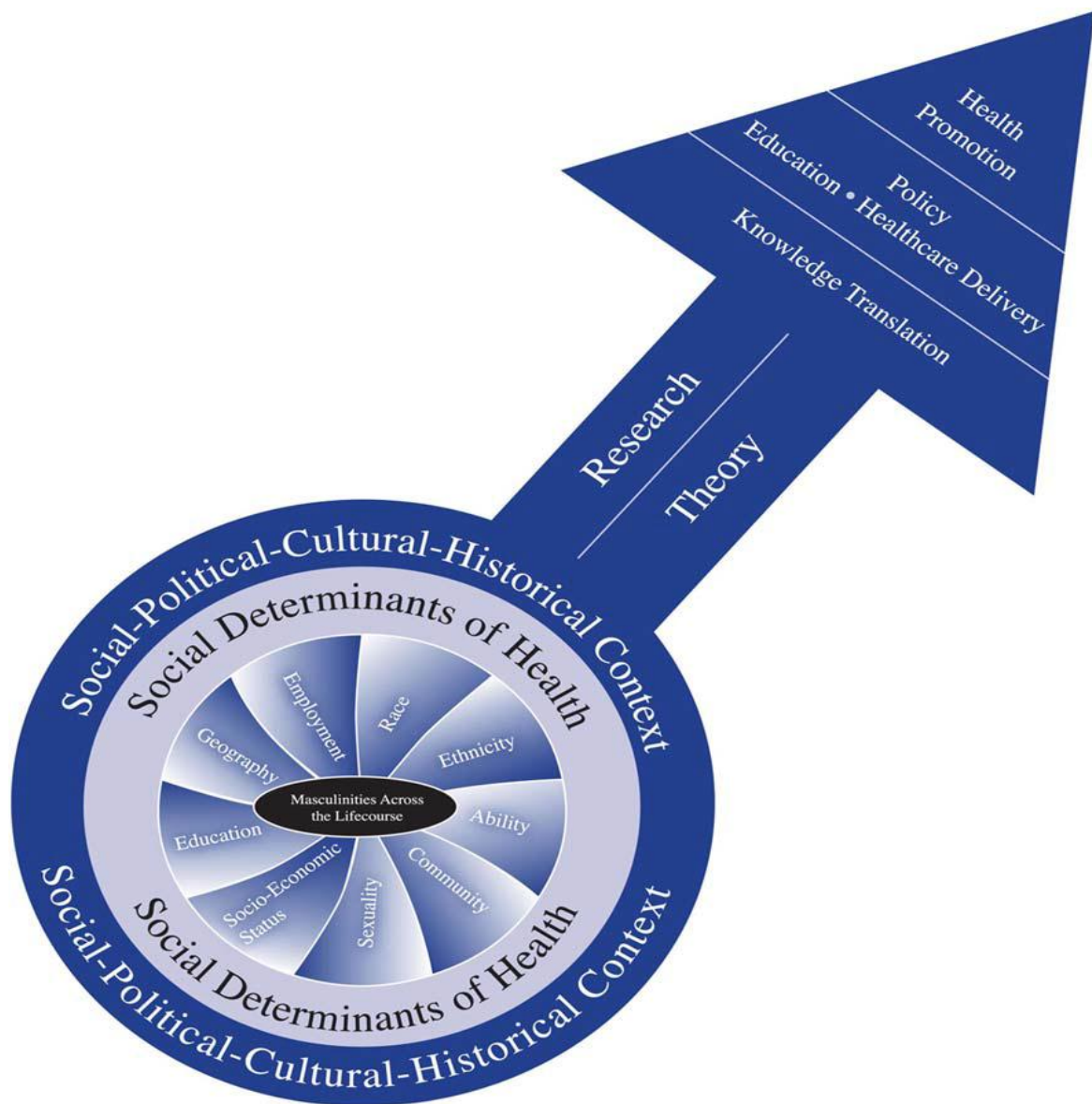
<b>Determinants of Disadvantage</b>	<b>Fields of Wellbeing</b>
<ul style="list-style-type: none"> <li>• Social exclusion</li> <li>• Unemployment</li> <li>• Difficult past lives</li> <li>• Stresses of ageing and changing</li> <li>• Substance abuse issues</li> <li>• Access to food and shelter</li> </ul>	<ul style="list-style-type: none"> <li>• Feeling vital, full of energy</li> <li>• Having good social relationships</li> <li>• Experiencing a sense of control over one’s life and one’s living conditions</li> <li>• Being able to do things one enjoys</li> <li>• Having a sense of purpose in life</li> <li>• Experiencing a connectedness to ‘community’</li> </ul>

A further theoretical framework that could usefully inform research in this area is the Health, Illness, Men and Masculinities (HIMM) model developed by Evans and colleagues. The social construction of masculinity depends on the specific culture, particular locale and prevailing historical circumstances with an ‘ideal’ form emerging based on a number of key characteristics such as assertiveness, physical dominance, emotional control and heterosexuality that underpin notions of the ‘male breadwinner’ who provides economic security for himself and his family. As not all men conform to this ideal form, there are multiple masculinities reflecting differences in age, ability, class, culture, ethnicity and sexuality that reflect the diversity of men (Evans et al, 2011).

The HIMM framework provides a model that includes the larger social context within which masculinities are defined and produced that can be included alongside other social determinants of population health such as education, socio-economic status and community. This awareness of masculinities could inform health promotion, health care delivery

initiatives aimed at men and also wider health policy so that inequalities between men and women are also addressed.

**Figure 2: Health, Illness, Men and Masculinities framework**



(From Evans et al, 2011: 11)

It is interesting to note that Men’s Sheds in Australia and the United Kingdom were identified by Evans and colleagues as interventions that showed promise having successfully attracted older men to workshop-type activities resulting in reports of a greater sense of belonging and friendship. They concluded that “...masculine ideals have informed both the design and delivery of men-centred interventions (Evans et al, 2011: 13).” This markedly contrasts with more typical male views on interventions for older people such as “I don’t need to go there, I’m not using a stick yet!” (73 year old participant, Davidson et al, 2003: 85) or “Bingo doesn’t grab me at all” (67 year old participant, Golding et al, 2009: 52). Interventions for older men



need to appeal to their interests and that involves working with conceptions of masculinity by providing physical activities that are appropriate for the abilities of older men.

There needs to be the application of appropriate and explicit theoretical frameworks so that there is conceptual clarity within studies. This needs to contribute to the development and testing of hypotheses and theories that adequately explain the relationships between social activity and participation with health and wellbeing within complex interventions

## **5. Differences among older men and the limited scope for successful interventions**

A key finding in several studies (Milligan et al, 2004; Misan, 2008; Golding et al, 2009 & 2009a; Milligan et al, 2012) was that for some older people, interventions played a significant role in widening their social networks and contributing to social inclusion, but for others they were simply a pleasant 'added extra' or hobby. Like all other age groups, older men are a heterogeneous group so while Men's Sheds and other gendered interventions may play a vital and valued part in the lives of some older men, they will not suit all. So while Men's Sheds are a promising form of intervention to improve the health and wellbeing of older men, they will not be a panacea for all. Despite the significant uptake of Sheds in both Australia and Southern Ireland, Men's Sheds and other gendered interventions are likely to form only one aspect of the policy responses needed to ensure more older men enjoy healthy ageing by preventing social isolation. While prevention is "...never too early, never too late" (Le Grand et al, 2010) in the effort to increase healthy average life expectancy, as the Foresight taskforce on healthcare and the ageing population noted at the start of the millennium:

A person's health in old age is influenced, but not necessarily determined, by earlier life experiences. Illness and disability in older people correlate with socio-economic status as measured in mid-life or early retirement. Beneficial circumstances in later life augment earlier advantages, whereas adverse later circumstances worsen disadvantage. However, these trends can be modified. Among disadvantaged older people, especially the oldest age groups, health and social services can play an important role in improving quality of life and alleviating health inequalities.

(Foresight, Healthcare and ageing population panel joint taskforce on older people, 2000: 2)

It is also important not to lose sight of the fact that promoting healthy ageing for men needs to start much earlier in life and involve interventions that lead to changes in the risky lifestyle behaviours and the social roles associated often associated with hegemonic masculinity, such as physical dominance and emotional control.

The concept of the 'hardy man' (Evans et al, 2011) who has a personality style associated with a sense of control, commitment and ability to meet challenges over his life is also appealing. It may be, that Men's Sheds and other forms of gendered intervention for older men can be part of the process of creating more 'hardy men' who have the resilience to cope with lifecourse transitions - whether from paid work to retirement, from marriage to widowhood, ability to disability or even from the family home to alternative (often smaller) living arrangements, so enjoying positive ageing through their sixties, seventies and beyond in ever larger numbers.

### **Future directions**

There is clearly a need for further research on gendered interventions for older men, particularly on Men's Sheds which are growing in number and attracting relatively modest levels of public funding in Australia and through the voluntary sector in the United Kingdom and Southern Ireland. One of the key features of Men's Sheds is that they encourage "health by stealth" (Milligan et al, 2012: 22) with older men who are enticed and benefit from the opportunities on offer but who would not be attracted to an overt health intervention. However, if Men's Sheds and other forms of gendered intervention cannot clearly demonstrate that they have positive effects on older men's health and wellbeing then they are unlikely to secure long-term funding from public sector agencies, raising issues over their long-term viability. This conundrum puts the Men's Sheds movement at a crossroads (Wilson and Cordier, 2013: 11) and in need of a good quality research to provide evidence for potential funders and guidance for good practice.

This type of intervention also draws attention to the challenge of bringing together two separate but distinct bodies of theory – that of masculinity and social isolation – in a meaningful way. Whilst there is a significant body of work addressing each of these concepts in their own right, to date there is little (if any) research that has integrated both when designing and undertaking studies.

The existing evidence base consists largely of observational, qualitative studies with relatively small sample sizes that draw on subjective self-report accounts of health and wellbeing. These studies provide important insights into the experiences of older men and the role that gendered interventions might play in supporting their health and well-being in later life. This evidence-base, however, needs to be further developed to add greater conceptual clarity to the data captured in future studies. Such studies would benefit from adopting a 'before and after' longitudinal and comparative dimension so that effects over time can be assessed and be compared between different sites and types of intervention. Mixed methods studies that use validated survey tools to provide quantitative measurement of changes in health and wellbeing status supplemented by in-depth experiential qualitative data from participants are most likely to provide robust evidence. This type of study design will facilitate the development and refinement of theories, particularly incorporating notions of masculinity as a social determinant of health, which can help to provide explanations for effects albeit with the caveats of complex social interventions potentially affected by a range of confounding factors. Gendered interventions for older men, particularly Men's Sheds, are a much needed and promising avenue for further research to provide value for money, evidence based interventions in an ageing society.

## Appendix 1: Data extraction tool

	Reviewer:	Reviewer:
<b>Study author(s):</b>		
<b>Publication Date:</b>		
<b>Title:</b>		
<b>Type of study:</b> (Article, Report, Conference Paper etc)		
<b>Location and time of study:</b> (Place, Country, Year{s})		
<b>Type of study:</b> (Quantitative, Qualitative, Mixed Methods)		
<b>Study methodology:</b> <ul style="list-style-type: none"> <li>- Randomised Control Trial</li> <li>- Non-randomised control trial (i.e. prospective study with researcher allocation)</li> <li>- Before and after (one-group, non-comparative)</li> <li>- Observational study (reporting on receiving intervention)</li> <li>- Any other methodology (quasi-experiment etc)</li> </ul>		
<b>Intervention description:</b> <ul style="list-style-type: none"> <li>• Briefly describe the nature and aims of the intervention reported</li> </ul>		
<ul style="list-style-type: none"> <li>• How was the group set up? (How did it start? How were participants referred to the group etc)</li> </ul>		

<ul style="list-style-type: none"> <li>• How did it operate? (Daily, weekly, infrequent attendance, what participants did, how it was funded etc)</li> </ul>		
<p><b>Sample description:</b> Describe the study sample (demographic, socio-economic status, cultural/ethnic background etc and how they were recruited for the study)</p>		
<p><b>Did the sample contain men with a specific health condition?</b></p>		
<p><b>Study methods:</b></p> <ul style="list-style-type: none"> <li>• Interviews, focus groups, survey, observation etc</li> </ul>		
<ul style="list-style-type: none"> <li>• Main areas/issues covered by method used: (e.g. reasons for attending, perceived benefits etc)</li> </ul>		
<p><b>Results/Findings &amp; Measures:</b></p> <ul style="list-style-type: none"> <li>• Outline main results/findings (give brief details per sub-heading)</li> </ul>		
<ul style="list-style-type: none"> <li>• What health &amp; wellbeing results were reported?</li> </ul>		

<ul style="list-style-type: none"> <li>• What measures/tools were used to assess health and wellbeing? {Developed own? Used validated methods?}</li> </ul>		
<ul style="list-style-type: none"> <li>• Any issues of acceptability &amp; accessibility reported re-intvn?</li> </ul>		
<ul style="list-style-type: none"> <li>• Any evidence of effectiveness presented? {Self-report, form of objective measurement? Specific health conditions mentioned?}</li> </ul>		
<ul style="list-style-type: none"> <li>• Is there any data on the impact of the intervention on partners/caregivers? (Brief description or does not apply)</li> </ul>		
<p><b>Discussion/Conclusion/ Issues Raised:</b> (e.g Limitations reported by authors)</p>		
<p><b>Reviewer comments:</b> (Miscellaneous – anything not covered above)</p>		

## Appendix 2: Quality Assessment tool based on Hawker et al (2002)

**Good = 4; Fair = 3; Poor = 2; 1= Very poor**

Domain 1: Abstract and title: Did they provide a clear description of the study?

	Score	Reviewer	Reviewer
Structured abstract with full information and clear title	4		
Abstract with most of the information	3		
Inadequate abstract	2		
No abstract	1		

Domain 2: Introduction and aims: Was there a good background and clear statement of the aims of the research?

	Score	Reviewer	Reviewer
Full but concise background to discussion/study containing up-to-date literature review and highlighting gaps in knowledge Clear statement of aim AND objectives including research questions	4		
Some background and literature review Research questions outlined	3		
Some background but no aim/objectives/questions, OR Aims/objectives but inadequate background	2		
No mention of aims/objectives No background or literature review	1		

Domain 3: Method and data: Is the method appropriate and clearly explained?

	Score	Reviewer	Reviewer
Method is appropriate and described clearly (e.g., questionnaires included). Clear details of the data collection and recording	4		
Method appropriate, description could be better Data described	3		
Questionable whether method is appropriate Method described inadequately Little description of data	2		
No mention of method, AND/OR Method inappropriate, AND/OR No details of data	1		

Domain 4: Sampling: Was the sampling strategy appropriate to address the aims?

	Score	Reviewer	Reviewer
Details (age/gender/race/context) of who was studied and how they were recruited Why this group was targeted The sample size was justified for the study Response rates shown and explained	4		
Sample size justified Most information given, but some missing	3		
Sampling mentioned but few descriptive details	2		
No details of sample	1		

Domain 5: Data analysis: Was the description of the data analysis sufficiently rigorous?

	Score	Reviewer	Reviewer
Clear description of how analysis was done Qualitative studies: Description of how themes derived/respondent validation or triangulation Quantitative studies: Reasons for tests selected hypothesis driven/numbers add up/statistical significance discussed	4		
Descriptive discussion of analysis	3		
Minimal details about analysis	2		
No mention of issues	1		

Domain 6: Ethics and bias: Have ethical issues been addressed, and what has necessary ethical approval gained? Has the relationship between researchers and participants been adequately considered?

	Score	Reviewer	Reviewer
Ethics: Where necessary issues of confidentiality, sensitivity, and consent were addressed Bias: Researcher was reflexive and/or aware of own bias	4		
Lip service was paid to above (i.e., these issues were acknowledged)	3		
Brief mention of issues	2		
No mention of issues	1		

Domain 7: Results: Is there a clear statement of the findings?

	Score	Reviewer	Reviewer
Findings explicit, easy to understand, and in logical progression Tables, if present, are explained in text Results relate directly to aims Sufficient data are presented to support findings	4		
Findings mentioned but more explanation could be given Data presented relate directly to results	3		
Findings presented haphazardly, not explained, and do not progress logically from results.	2		
Findings not mentioned or do not relate to aims.	1		

Domain 8: Transferability or generalisability: Are the findings of this study transferable (generalisable) to a wider population?

	Score	Reviewer	Reviewer
Context and setting of the study is described sufficiently to allow comparison with other contexts and settings, plus high score in Question 4 (sampling)	4		
Some context and setting described, but more needed to replicate or compare the study with others, PLUS fair score or higher in Question 4	3		
Minimal description of context/setting	2		
No description of context/setting	1		

Domain 9: Implications and usefulness: How important are these findings to policy and practice?

	Score	Reviewer	Reviewer
Contributes something new and/or different in terms of understanding/insight or perspective Suggests ideas for further research Suggests implications for policy and/or practice	4		
Two of the above (state what is missing in comments)	3		
Only one of the above	2		
None of the above	1		

### Appendix 3: Men's Sheds Summary Table

Author & Study	Location	Study design	Sample	Intervention description
Ballinger, M.L., Talbot, L.A. & Verrinder, G.K. 2009 More than a place to do woodwork: a case study of a community-based men's shed	Small (population ~ 6,000 in 2006) rural town in Victoria (Australia)	To explore men's experiences of participating in a Men's Shed program and how these experiences may impact on their health and wellbeing.	Observational case study of one shed conducted between 2002 and 2009	Men's Sheds with eight men participating in research, mostly older (over 59 years of age), ex-tradesmen, lived alone, retired and on pensions or benefits
Cass, Y., Fildes, D., & Marshall. C 2008 Three in one – Mature men's project evaluation results	Wollongong, New South Wales (Australia) 2005-2007	Not specifically stated, but clearly a project/ programme evaluation	Mixed methods (participatory action research, questionnaire and interviews) observational study of one shed Prospective study capturing pre, mid and post intervention longitudinal data through semi-structured interviews with participants and next of kin and journals completed by Shed facilitators.	Men's Sheds with nine men participating in research, average age 54 years from ethnic minority groups, predominantly the Portuguese community All of the men experienced health conditions and social issues, took medication and consulted a doctor or specialist on a regular basis
Golding, B., Harvey, J., Foley, A., Brown, M., & Darken, S. 2006 Survey of men's sheds participants in Victoria	Victoria, Australia November 2005	To conduct (the first) comprehensive survey of participants in men's sheds in Victoria, Australia.	Quantitative survey of active men's sheds	Ten surveys were sent to 27 active Victorian men's sheds. 154 surveys were returned from 22 sheds. 39% of participants attended a shed managed by an education-type organisation and the other 61% of participants were located in health-type organisations. 42% of participants attended metropolitan sheds, 58% attended non-metropolitan sheds. 52% of shed coordinators or managers were female, 48% were male.



<b>Author &amp; Study</b>	<b>Location</b>	<b>Study design</b>	<b>Sample</b>	<b>Intervention description</b>
Golding, B., Brown, M., & Foley, A. 2007 Old dogs, new shed tricks: An exploration of innovative workshop-based learning practice in Australia	24 sites across five Australian states in 2006	To illustrate some theoretical and practical implications and benefits of reciprocal workshop-based mentoring relationships involving men of different ages	Mixed methods (on-site interviews and survey)	Survey (211 respondents) and interviews from a sample of 24 of the approximately 125 men's sheds in five Australian states Sub-sample of sheds centred on young people, war veterans and men in aged residential care and providing a social and therapeutic function
Golding B., Brown, M., Foley, A., Harvey, J. & Gleeson, L. 2007 Men's sheds in Australia: Learning through community contexts	24 sites across five states in Australia in 2006	To investigate the learning styles employed in men's sheds, as well as the motivations and experiences of the mainly older men who frequent them.	Mixed methods (survey and group interviews) study	National survey of Men in Sheds in Australia based on an intentional sample with half of the sites located in South Australia and Victoria, and group interviews of key informants at each site. Participants were recruited via sheds - 5-20 questionnaires distributed per shed, with 211 respondents (70% response rate)
Golding, B., & Foley, A. 2008 'How men are worked with': Gender roles in men's informal learning	24 sites across five states in Australia in 2006	To explore the gendered roles associated with men's informal learning, in particular the role of women as coordinators and participants in community organisations where men comprise the significant majority of participants	Mixed methods (on-site interviews and survey) focusing on interview data to identify the status of women engaged in men's sheds.	Interviews were conducted with participants and people in positions of responsibility in the sheds, including responsible managers, coordinators and mentors (some were women) as 'practitioners'. Gender-related survey data collected from male participants was also used.

<b>Author &amp; Study</b>	<b>Location</b>	<b>Study design</b>	<b>Sample</b>	<b>Intervention description</b>
Graves, K. 2001 Shedding the light on men in sheds	Bendigo, Victoria, Australia in 2002.	To determine 'the magic of the Shed' - why men go to the shed, barriers to attendance, what happens at the shed and the benefits for the participants	Mixed methods evaluation of an early shed using focus groups, questionnaires and the PRECEDE framework (or predisposing, reinforcing and enabling causes in educational diagnosis and evaluation) to assess health education needs in a community setting.	Two participant groups: 1) six focus group participants, ages 48, 53, 57, 59, 64, 70. All were married, three separated, and all were parents 2) questionnaire participants – 61 posted, 32 returned with an age range 47-84 years. 23 were married, six were single, seven separated or divorced and one was widowed
Healthbox CIC. 2012 Men in sheds programme: Health evaluation	Cheshire, UK in 2012 Four sheds established by Age UK – Crew, Chester, Hartford and Ellesmere Port	To evaluate four men's sheds established by Age UK	Observational (evaluation) study consisting of surveys (RAND health questionnaire, questionnaire on use of health services and some qualitative responses from these surveys)	45 men participated (Crew 13; Chester 12; 10 each from Hartford and Ellesmere Port)

<b>Author &amp; Study</b>	<b>Location</b>	<b>Study design</b>	<b>Sample</b>	<b>Intervention description</b>
Milligan, C., Payne, S., Bingley, A., & Cockshott, Z. 2012 Evaluation of the men in sheds pilot programme	England, UK in 2011-2012 Three men's sheds established by Age UK – one urban ethnic (Greenwich) , one urban White (Nottingham) and one White rural (South Lakes)	To assess the effectiveness of the Age UK 'Men in Sheds' pilot programme in engaging isolated and lonely older men on low incomes and enhancing their quality of life and wellbeing	Mixed methods retrospective evaluation with participant observation via three site visits, focus groups and face to face interviews with 60 participants ranging in age from 49 to 87 years. Greenwich Shed has c.25% minority ethnic members. Nottingham had more men in early 60s while South Lakes had higher number of members in late 70s and early 80s with highest level of need for support. Both of these Sheds were largely white British. Employment history was largely manual skilled workers.	Men's Sheds providing range of woodwork based activities lead by paid co-ordinator to range of participants
Misan, G. 2008 Men's sheds – a strategy to improve men's health	Men's sheds in Victoria, South Australia and New South Wales Australia (not dated)	To better understand the phenomenon of men's sheds and their influence on the social and other determinants of the health of men, including that of Indigenous men, and to assess whether men's sheds offer an opportunity for delivery of targeted health promotion programs for older men	Literature review with qualitative (focus groups and semi-structured interviews)	Specific details of individual sheds, and/or participants are not included, although eight detailed case studies involving approximately 65 focus group participants and two (non-comparative) key informant interviews are provided in the appendix.

<b>Author &amp; Study</b>	<b>Location</b>	<b>Study design</b>	<b>Sample</b>	<b>Intervention description</b>
Ormsby, J., Stanley, M., & Jaworski, K. 2010 Older men's participation in community based men's sheds programmes	Adelaide Australia in 2007	To explore Australian older men's perceptions on participating in community-based sheds	Qualitative observational study of two sheds	Five participants ranging from 67-92 years, four married with some care needs from their wife, mixture of occupations but all but one retired for at least 15 years
Reynolds, K. 2011 Older male adults' involvement in men's sheds	Winnipeg, Canada in 2010.	To develop a theoretical model of the processes of involvement of older male adults in Men's Sheds in Manitoba Canada	Mixed methods qualitative research (interviews, field notes, quantitative questionnaire) in two sheds	12 older men participated in the study

### Appendix 3: Men's Sheds (continued)

Author and Study	Intervention description	Main findings
<p>Ballinger, M.L., Talbot, L.A. &amp; Verrinder, G.K. 2009</p> <p>More than a place to do woodwork: a case study of a community-based men's shed</p>	<p>Shed provides woodwork and other practical activities to foster a sense of:</p> <ol style="list-style-type: none"> <li>1) belonging</li> <li>2) connectedness</li> <li>3) feeling valued, and</li> <li>4) address the 'shedlessness' experienced by men who, due to changed living arrangements, no longer have access to a private domestic shed</li> </ol>	<p>The men reported:</p> <ol style="list-style-type: none"> <li>1) sense of purpose: felt useful by helping others, sense of worth, not recipients of a service or program</li> <li>2) place to go and do things: keeping occupied as part of healthy ageing strategy</li> <li>3) accomplishment and pride: sense of belonging to Shed</li> <li>4) social contact: camaraderie of the Shed</li> <li>5) life changing impact on men's health - aided recovery from depression, alcohol use</li> </ol> <p>The authors related these findings to the World Health Organisation (WHO) 'Fields of Wellbeing' model</p>
<p>Cass, Y., Fildes, D., &amp; Marshall. C 2008</p> <p>Three in one – Mature men's project evaluation results</p>	<p>Shed was set up to meet needs of older men who were unemployed or retired, by developing practical skills through group work that:</p> <ol style="list-style-type: none"> <li>1) connected the men with community projects</li> <li>2) built participants capacity to sustain activities beyond the life of the project</li> </ol>	<p>The participants:</p> <ol style="list-style-type: none"> <li>1) enjoyed being part of group</li> <li>2) learned new skills</li> <li>3) developed friendships</li> <li>4) were supported by their families</li> </ol> <p>The next of kin noted:</p> <ol style="list-style-type: none"> <li>1) a sense of purpose for their partner</li> <li>2) modest improvements in their partner's health and wellbeing</li> </ol> <p>In addition, the facilitators recorded that:</p> <ol style="list-style-type: none"> <li>1) some men experienced transport difficulties</li> <li>2) men preferred to do practical activities than talk</li> <li>3) friendships emerged gradually</li> <li>4) it took time for men to take the initiative (be co-participants)</li> </ol> <p>Self-reported improvements in health status and increased community participation and capacity via eight domain measures (skills, self-direction, group cohesion, community connectedness, links, leadership, organisation, problem solving). Improvements in these social determinants of health were positively linked to men's health.</p>

Author and Study	Intervention description	Main findings
<p>Golding, B., Harvey, J., Foley, A., Brown, M., &amp; Darken, S. 2006 Survey of men's sheds participants in Victoria</p>	<p>Surveys investigated the participant's:</p> <ol style="list-style-type: none"> <li>1) demographic profile</li> <li>2) frequency of attendance - 3)</li> <li>length of participation –</li> <li>4) reasons for attendance</li> <li>5) experiences as a consequence of participation</li> </ol>	<p>61% of men used the shed 'weekly', 29% used it 'a few times a week', 3% 'used it daily', 6% used it fortnightly or less frequently the average length of participation is 2.3 years (a range from zero to 14 years). Older men (aged over 65 years) attend for social reasons. Men who live with a wife or partner are more likely to have a leadership role, be older, retired, former qualified tradesmen and have access to their own tools. Men who are referred to the shed through a health or welfare agency attend regularly, but less frequently than other men, and need support to improve their health, work status and relationships The majority of men attending sheds have experienced significant losses and crises within the past five years.</p>
<p>Golding, B. Brown, M., &amp; Foley, A. 2007 Old dogs, new shed tricks: An exploration of innovative workshop-based learning practice in Australia</p>	<p>Survey and interviews investigated:</p> <ol style="list-style-type: none"> <li>1) Sheds involving young people: four sheds in rural western Australia and Victoria, and peri-urban Hobart and Adelaide that actively engage young secondary school age men and women. In each case the shed was set up and funded independently, with a small core of older experienced tradesmen who work with and mentor young people</li> <li>2) Sheds with war veterans: four sheds (two in South Australia and two in Western Australia) specifically targeted war veterans and were organised primarily through the Returned Servicemen's League (RSL) or Vietnam Veterans organizations. Sheds focused on re-socialisation into the community, often through subsidised meals. One shed provided activity and rehabilitation for people with brain injuries, and another shed catered for men with post-traumatic stress disorder (PTSD)</li> <li>3) Sheds for men in residential care: Some sheds are located within aged care settings and provide modified workshop-based activities for groups of male residents. Others have programs specifically adapted for older men with dementia, a disability and also acquired brain injury.</li> </ol>	<p>Results from the survey:</p> <ol style="list-style-type: none"> <li>1) for mentors – opportunity to informally socialise with other people, and pass on their insights, knowledge and skills</li> <li>2) for the disengaged young people, war veterans and men in residential care - hands-on, shed-based experiences with older men are regarded as positive, therapeutic, educative and transformative</li> </ol>

Author and Study	Intervention description	Main findings
<p>Golding B., Brown, M., Foley, A., Harvey, J. &amp; Gleeson, L. 2007 Men's sheds in Australia: Learning through community contexts</p>	<p>Surveys investigated the participant's:</p> <ol style="list-style-type: none"> <li>1) demographic profile</li> <li>2) frequency of attendance - 3)</li> <li>length of participation –</li> <li>4) reasons for attendance</li> <li>5) experiences as a consequence of participation</li> </ol> <p>The most important finding is that men's sheds as a cultural brand is very important to their success.</p>	<p>Profile of sheds:</p> <ol style="list-style-type: none"> <li>1) attendance - ranged from one day per week in the more rural areas to up to four days a week in more urban or suburban areas</li> <li>2) funding - varied with 50% 'mainly funded', 33% 'unfunded' and 20% 'partly funded'. 38% paid to attend a shed</li> </ol> <p>Profile of men:</p> <ol style="list-style-type: none"> <li>1) age - 47% were 65 or over, 89% were 45 or over</li> <li>2) employment status - 73% were 'retired'</li> <li>3) marital status - 63% lived with wife or partner</li> <li>4) education - generally low level of education from school</li> <li>5) social and health status - most had experienced transition to retirement (55%) or life shock (major health crisis (45%), new impairment or disability (30%), couldn't find paid work (27%), significant loss in my life (25%), separation from partner (19%)</li> </ol> <p>Feedback from survey:</p> <ol style="list-style-type: none"> <li>1) diversity in shed provision - planned or spontaneous, paid or volunteer coordinator, attitudes to women participating in sheds</li> <li>2) perceptions of the shed – overwhelmingly (&gt;90%) positive about lack of compulsion to attend, opportunities for socialising, strong sense of belonging, health &amp; wellbeing</li> <li>3) outcomes from the shed – strong agreement (&gt;90%) about improved self-image, belonging, contribution to community, enjoyment; access to health information (79%) and feeling happier at home (77%)</li> <li>4) role of women in sheds: 21% of sheds had female coordinator but opinion split on women's role. About a third of responses indicated that women were 'not welcome' 'as visitors' or 'as participants'</li> <li>5) Role of shed coordinator – for 99.5% respondents the role was highly important, and in most sheds, coordinators were viewed as co-participants (80%)</li> <li>6) role of education - most men wanted to learn &amp; share skills 'by doing' (94%) &amp; in a group of men (86%)</li> </ol>

Author and Study	Intervention description	Main findings
<p>Golding, B., &amp; Foley, A. 2008            'How men are worked with': Gender roles in men's informal learning</p>	<p>Survey and interviews investigated:            1) Women as equal participants in the shed - very small proportion of women (in around 1/3<sup>rd</sup> of the sheds)            2) Women as practitioners - typically heavily involved in sheds through their professional roles in health, learning, wellbeing and aged care</p>	<p>Feedback from surveys and interviews:            Some women are fully accepted as shed coordinators, especially for project management, procurement funding, record keeping and community liaison roles. However some male participants, particularly older men held residual sexist gender stereotypical views about the role of women.</p>
<p>Golding, B., Foley, A., Brown, M. &amp; Harvey, J. 2009            Senior men's learning and wellbeing through community participation in Australia</p>	<p>Survey and group interviews investigated a diverse range of community organisations: 1) adult and community education            2) sporting            3) religious, indigenous and cultural            4) voluntary fire and emergency services            5) age-related and disability            6) men's special interest groups (including men's sheds) to explore and compare older men's (over 50 years of age) attitudes towards and experiences of learning in non-formal settings; and the links between learning, participation and health and wellbeing</p>	<p>Specific findings related to men's special interest groups (including sheds) :            1) most likely to get access to health information as result of co-participating            2) small group interaction allows older men to perform tasks, and through the products they make, to interact with and benefit the wider community as well as themselves</p>
<p>Golding, B., Brown, M., Foley, A., &amp; Harvey, J. 2009            Men's learning and wellbeing through community organizations in Western Australia</p>	<p>Survey and focus group interviews investigated a diverse range of community organisations: 1) adult and community education            2) sporting            3) religious            4) indigenous and cultural            5) voluntary fire and emergency services            6) age-related and disability            7) men's special interest groups to explore and compare older men's (over 50 years of age) attitudes towards and experiences of learning in non-formal settings; and the links between learning, participation and health and wellbeing.            Focus groups consisted of four participants.</p>	<p>Specific findings related to men's special interest groups (including sheds) :            1) provide men with opportunities and incentives to remain fit and healthy enough to actively participate at any age            2) reconnect with past lives and hands-on or communities of practice with other men            3) combat the likelihood, for some older men of depression associated with withdrawal from family, and community and coping with changed abilities with age</p>



<b>Author and Study</b>	<b>Intervention description</b>	<b>Main findings</b>
<p>Graves, K. 2001 Shedding the light on men in sheds</p>	<p>Two phase project: Phase one - 1) to provide a shared shed space where men can work together and on their own as occurs in the workplace 2) to provide a safe physical and emotional environment that offered opportunities for creativity, productivity and learning with other men 3) to facilitate co-participation Phase two - 1) to develop a model of best practice for the delivery of health promotion to older men 2) to support the re-socialisation of men from the workforce to retirement 3) to evaluate the effectiveness of the model and promote engagement and implementation in other rural and regional areas of Victoria. 4) to explore self-sustainability models based on the men's shed pilot Other activities included: 1) Chat-n-Chew forum to explore health issues that the men identified as relevant and immediate 2) writing group 3) exposition</p>	<p>Feedback from men: 1) benefits - meeting new people, developing confidence, having a place for blokes to go, share knowledge and learn new things. The shed provides a sense of purpose, belonging and productivity, and a place to find out about services. 2) barriers to attendance - illness, other commitments, not knowing people, personality clashes and transport problems. 3) reasons for attending - to 'do something' (decrease social isolation) and to provide a sense of purpose and feeling of productivity, and obtain information and support from the project worker. 4) suggestions for improvement - closer monitoring of machinery to ensure optimal operation and use of appropriate materials; extend offerings to other activities such as metal work and computer training; increase number of sessions, and expand sheds to other locations.</p>
<p>Healthbox CIC. 2012 Men in sheds programme: Health evaluation</p>	<p>RAND questionnaire covers self-perceived health across number of domains (physical health, emotional wellbeing, social functioning &amp; quality of life). Lottery health outcomes survey covered experience of informal health sessions and discussions Further survey covered visits to doctor, hospital admissions and medication use</p>	<p>Feedback from the RAND questionnaire: 1) composite score ranging from 0-100 (0 = not healthy at all to 100 = excellent health) - Chester 67, Hartford 74, Ellesmere Port 77 and Crewe 81 2) Generally positive physical and emotional health, stress handling, enjoyment and quality of life. Feedback from health services: 1) negative -increased use of National Health Service (NHS) related to enhanced health awareness and age of men 2) positive - emotional enhancement (enjoyment and wellbeing), camaraderie and friendliness of sheds encourages participation, outlet from stressful or lonely life, improved attitudes at home, a learning experience (informal health discussions and questionnaires)</p>

<b>Author and Study</b>	<b>Intervention description</b>	<b>Main findings</b>
<p>Milligan, C., Payne, S., Bingley, A., &amp; Cockshott, Z. 2012 Evaluation of the men in sheds pilot programme</p>	<p>The three pilot sheds were designed around workshop activity to enable older men to:</p> <ol style="list-style-type: none"> <li>1) engage in productive activity</li> <li>2) retain existing skills</li> <li>3) learn new skills in a communal setting.</li> </ol>	<p>Feedback from site visits, interviews and focus groups indicates that men's sheds:</p> <ol style="list-style-type: none"> <li>1) offer an environment which can make the discussion of health and emotional issues more comfortable for older men</li> <li>2) provide a pleasant and desirable hobby or activity, or support for older men at risk of social isolation or emotional breakdown</li> <li>3) enable a sense of value and achievement through social interaction and meaningful activity</li> <li>4) contribute to improvements in health awareness and mental well-being through both informal peer interaction and more formal health based promotion</li> </ol> <p>In addition,</p> <ol style="list-style-type: none"> <li>5) the coordinator was identified as a vital factor in the success of all three sheds but with differing levels of input</li> <li>6) long term funding sustainability is an ongoing issue</li> </ol>

<b>Author and Study</b>	<b>Intervention description</b>	<b>Main findings</b>
<p>Misan, G. 2008 Men's sheds – a strategy to improve men's health</p>	<p>Sheds were chosen partly as a convenience sample and because of their idiosyncrasies: for example, because the shed predated the men's shed phenomenon or it was established only recently; the shed was built from new materials or was established in a disused building; the shed was small (a double garage) or very large; the shed was mainly for older men or for men with mental health problems and unemployed men; the shed organised by a health or charitable organisation or it was independent and self-sufficient; the shed was based on a not-for-profit model or as a profit making enterprise; the shed was part of a bigger support network or stand-alone</p>	<p>For participants (interviewees and focus groups), sheds:</p> <ol style="list-style-type: none"> <li>1) provided mateship and a sense of belonging through positive and therapeutic informal activities and experiences with other men</li> <li>2) enabled positive health, happiness and well-being outcomes as well as for their partners, families and communities</li> <li>3) decreased social isolation, creating friendship, and enhancing self-esteem. Men come to sheds for comradeship, for socialisation, to learn new things, to regain a sense of purpose in life, and to be able to contribute to their community</li> <li>4) Indigenous men gained a comfortable and culturally safe male space to re-establish connection with Aboriginal tradition and culture, improve socialisation, encourage learning of new skills, reconnection with old ones and restore self-esteem and respect</li> </ol> <p>Success factors for sheds included:</p> <ol style="list-style-type: none"> <li>1) ensuring local support</li> <li>2) learning from others, including affiliation with a men's shed support organisation from the outset</li> <li>3) multiple partners and supporters</li> <li>4) a suitable location</li> <li>5) secure funding</li> <li>6) a skilled manager and management group</li> <li>7) a good business plan together with a sound marketing, recruitment, and communication strategy</li> <li>8) a wide range of activities</li> <li>9) extended opening hours</li> <li>10) links with a larger organisation, including a health service that can provide support for health programs</li> </ol>

<b>Author and Study</b>	<b>Intervention description</b>	<b>Main findings</b>
Ormsby, J., Stanley, M., & Jaworski, K. 2010 Older men's participation in community based men's sheds programmes	One shed was purpose built whilst the other made use of a church hall Both offered woodwork based activities and were operated for two days a week by local government organisation with paid co-ordinator	For men, sheds facilitated: 1) company of fellas: social dimension more important after initial attraction of activities 2) social interaction conversation "everybody'd got a story to tell" 3) men could still make a useful contribution "still got some kick" 4) passing on experiences: sharing and learning new skills 5) "get on your goat": some organisational restrictions irritated the men 6) men were co-participants who took decisions on activities "nobody's boss"
Reynolds, K. 2011 Older male adults' involvement in men's sheds	Shed activities included gardening, renovation projects, model airplane building, carving, woodworking, cooking, game playing, walking, and coffee and conversation.	Three stage process: 1) preceding characteristics and experiences leading to involvement - individual characteristics, loneliness and social isolation, and social influence (Individual characteristics included the need to stay occupied; the desire to obtain feelings of mastery; values of social connection and knowledge exchange; and pro-social attitudes emphasizing the importance of contributing to the well-being of friends, family, and the community) 2) current involvement – depended on program aspects; length of involvement; and the capacity and progression of involvement. 3) continued involvement was due to program structure; opportunities for role coherence or role renewal; program investment; and opportunities to build larger social networks and closer bonds with other men. Overall, sheds have made a profound impact on members. They promote healthy living by increasing opportunities for successful aging through social engagement and the alleviation of loneliness and social isolation

### Appendix 3: Men's Sheds (continued)

Author and Study	Strengths noted by reviewer	Limitations noted by reviewer	QA score
<p>Ballinger, M.L., Talbot, L.A. &amp; Verrinder, G.K. 2009 More than a place to do woodwork: a case study of a community-based men's shed</p>	<p>Focus group questions provided in appendix adds to credibility and potential for replication and/or comparison</p>	<p>Convenience sample of unstated representativeness, especially considering the selection criteria aimed to obtain maximum variation in age, length of time at Shed and attendance The authors claim that the shed is 'typical' of most Australian men's sheds, but do not raise issues of relationship to urban sheds, ethnicity and mixed ability/background groups, thus limiting utility, generalisability and transferability</p>	<p><b>25/36</b></p>
<p>Cass, Y., Fildes, D., &amp; Marshall. C 2008 Three in one – Mature men's project evaluation results</p>	<p>Thorough description of evaluation 'tools' and methodology</p>	<p>Convenience sample (nine men) in a single site, but commendable focus on men from minority and ethnic backgrounds. Poor overall reporting of data collection limits credibility and transferability to other sites, contexts and ethnic groups.</p>	<p><b>27/36</b></p>
<p>Golding, B., Harvey, J., Foley, A., Brown, M., &amp; Darken, S. 2006 Survey of men's sheds participants in Victoria</p>	<p>First attempt to capture a broad demographic profile of men attending a Men's Shed in Australia, with quantitative and some qualitative data</p>	<p>The following limitation was identified by the authors: "Though the survey response is very high and the survey is inclusive of most active men's sheds in Victoria, the total number of respondents remains relatively small, impacting on accuracy and confidence levels when data is broken into several categories. By virtue of its deliberate focus on the needs of men, the survey did not include women participants, a relatively small number of whom are active members of some men's and particularly 'community' sheds." (p. 4-5) In addition, there are no details about selection /stratification of specific sheds in sample, and although there are 26 variables to analyse, power calculations/confidence levels are not noted.</p>	<p><b>29/36</b></p>

Author and Study	Strengths noted by reviewer	Limitations noted by reviewer	QA score
<p>Golding, B. Brown, M., &amp; Foley, A. 2007 Old dogs, new shed tricks: An exploration of innovative workshop-based learning practice in Australia</p>	<p>Provides qualitative insights into how the Shed model can accommodate special groups with varying needs</p>	<p>Sub-samples from large Golding, Brown, Foley, Harvey, and Gleeson (2007) survey. Much of the introduction and background relates to older participants, but a primary focus is the utility of the men's shed model for young people (male and female) and war veterans, rather than the majority respondents who are aged over 65 years. Despite the emphasis on the direct effects of sheds to health and wellbeing for ex-military and aged care recipients, no objective health measures are used</p>	<p><b>18/36</b></p>
<p>Golding B., Brown, M., Foley, A., Harvey, J. &amp; Gleeson, L. 2007 Men's sheds in Australia: Learning through community contexts</p>	<p>First comprehensive investigation of Men's Sheds in Australia, with a specific focus on men's learning and adult education</p>	<p>Shed selection was based on convenience (not randomisation) and skewed towards the 'early adopter' states and locations closer to cities for ease of researcher access. Respondent selection was possibly biased by key informants choosing survey participants</p>	<p><b>32/36</b></p>
<p>Golding, B., &amp; Foley, A. 2008 'How men are worked with': Gender roles in men's informal learning</p>	<p>Provides qualitative insights into women's roles in men's organisations and helps identify what it is about the way some women participate in Men's Sheds that is effective and ineffective for the older male participants</p>	<p>As the research question is potentially sensitive and controversial, the study does not provide adequate details about: 1) theoretical base Some background but not fully contextualised – effort to ground in (limited) theory are not well related to research question 2) ethical precautions 3) findings Results are presented haphazardly, inadequately explained and do not progress logically from the findings.</p>	<p><b>13/36</b></p>

Author and Study	Strengths noted by reviewer	Limitations noted by reviewer	QA score
<p>Golding, B., Foley, A., Brown, M. &amp; Harvey, J. 2009 Senior men's learning and wellbeing through community participation in Australia</p>	<p>Mixed methods study incorporating a quantitative survey and qualitative interviews</p>	<p>Men's sheds were a minor sub-sample of other gendered interventions Only two sheds were clearly identified as men's sheds and a third was classified as a community workshed.</p>	<p><b>32/36</b></p>
<p>Golding, B., Brown, M., Foley, A., &amp; Harvey, J. 2009 Men's learning and wellbeing through community organizations in Western Australia</p>	<p>Mixed methods study incorporating a quantitative survey and qualitative interviews.</p>	<p>Men's sheds were a minor sub-sample of other gendered interventions – the only shed included in the study was grouped with a Masonic Lodge with concomitant difficulty in differentiating intervention specific findings</p>	<p><b>32/36</b></p>
<p>Graves, K. 2001 Shedding the light on men in sheds</p>	<p>Possibly the first evaluation of a Men's Shed and as such, tried to establish a baseline of organisational success factors.</p>		<p><b>23/36</b></p>
<p>Healthbox CIC. 2012 Men in sheds programme: Health evaluation</p>		<p>Most limitations centre around: 1) self-report and related issues such as not controlling for memory loss, and poorly delimited perceptions of health 2) composite use of the RAND scores and access to health care to make spurious claims (although raw data was available if requested) 3) inadequate or missing information about background, research questions and aims, participant profiles, data analysis and limited interpretation of findings</p>	<p><b>13/36</b></p>

<b>Author and Study</b>	<b>Strengths noted by reviewer</b>	<b>Limitations noted by reviewer</b>	<b>QA score</b>
Milligan, C., Payne, S., Bingley, A., & Cockshott, Z. 2012 Evaluation of the men in sheds pilot programme	Very rigorous evaluation utilising mixed methods	Limitations noted by authors (outside their control) primarily relate to data collection and the retrospective nature of the evaluation	<b>34/36</b>
Misan, G. 2008 Men's sheds – a strategy to improve men's health	Very rigorous evaluation utilising mixed methods, with case studies provided in appendices	Extensive and detailed (generalized) review with explanatory rationale for sample and case study/exemplar selection, but no information about t how the synthesis and analysis were conducted	<b>32/36</b>
Ormsby, J., Stanley, M., & Jaworski, K. 2010 Older men's participation in community based men's sheds programmes	Offers insightful suggestions for further research	Restricted sample size and setting with poor generalizability acknowledged but no discussion of implications of self-report in health	<b>22/36</b>
Reynolds, K. 2011 Older male adults' involvement in men's sheds	Rigorous methodology with interview protocols provided in appendices		<b>34/36</b>



## Appendix 4: Other gendered interventions

Author & Study	Location	Study design	Sample	Intervention description
K. Batt-Rawden and G. Tellnes, "Nature–culture–health activities as a method of rehabilitation: an evaluation of participants' health, quality of life and function." International Journal of Rehabilitation Research, 2005	Rehabilitation centre near Oslo, Norway	Qualitative observational study using semi-structured interviews lasting approximately an hour exploring social characteristics, frequency & duration of attendance at group, life experiences & subjective views on quality of life. Developed with research participants to give insights into meanings	Convenience sample of 46 people (30 men) aged 40-79 years of whom 82% reported common mental disorders or muscular-skeletal limitations	Range of health promoting group activities (hiking, gardening, physical activities along with more sedentary art and crafts) lead by professionals in rehabilitation centre
J.N Murray Drummond, "Retired Men, Retired Bodies" International Journal of Men's Health, 2003	Not reported	Qualitative observational study using focus group interview of approximately 2½ hours. Explored views on health, ageing & masculinity with interpretive phenomenological approach for inductive analysis	Convenience sample of 6 men aged 58-85 years who formed distinct part of walking group	Walking group that met three times per week at shopping mall co-ordinated by trained fitness leader
I. Gleibs et al, "No country for old men? The role of a 'Gentlemen's Club' in promoting social engagement & psychological well-being in residential care" Aging and Mental Health, 2011	Six residential care homes across Cornwall, UK	Mixed methods before and after study with data captured at weeks 4 and 12. Composite questionnaire measuring social identity, cognitive ability and wellbeing administered by researcher over 45-60 minute period for statistical analysis	Convenience sample of 12 older men aged 70-90 years who chose to participate in 'Gentlemen's Club' intervention	'Gentlemen's Club' in residential care homes lead by staff member providing choice of fortnightly activity such as trip out or film etc
I. Gleibs et al, "We get to decide": The role of collective engagement in counteracting feelings of confinement and lack of autonomy in residential care." Forthcoming	Six residential care homes across Cornwall, UK	Qualitative observational study using short semi-structured interviews of approximately 20-40 minutes duration. Explored older men's views on life in residential care & 'Club' intervention 2-4 months after it had stopped with thematic analysis for findings	Purposefully selected sample of 5 older men aged 70-90 years who had participated in 'Gentlemen's Club' intervention in six residential care homes in Cornwall	'Gentlemen's Club' in residential care homes lead by staff member providing fortnightly activity such as trip out or film etc

<b>Author &amp; Study</b>	<b>Location</b>	<b>Study design</b>	<b>Sample</b>	<b>Intervention description</b>
Golding et al, "Senior men's learning and wellbeing through community participation in Australia" Report to the National Seniors Productive Ageing Centre, 2009	48 community organisations in six sites across three Australian sites (SA, NSW, Tasmania)	Mixed methods observational study with survey distributed to participants via key contact at host organisation. Followed by group interviews with focus on links between participation and learning with health and wellbeing	Survey of 219 older men who attended range of community organisations. Followed by group interviews with total of c.150 older men who regularly attended these organisations	Variety of community organisations directly comparable with Men's Sheds including adult and community education, sporting, religious, indigenous and cultural, fire and emergency services, aged-related and disability
Golding et al, "Men's learning and wellbeing through community organisations in Western Australia" Report to the Western Australia Department of Education & Training, 2009	34 community organisations in six sites of varying size and remoteness across Western Australia	Mixed methods observational study with survey distributed to participants via key contact at host organisation. Followed by group interviews with focus on links between participation and learning with health and wellbeing	Survey of 187 older men who attended range of community organisations. Followed by group interviews with over 100 older men who regularly attended these organisations	Variety of community organisations directly comparable with Men's Sheds including adult and community education, sporting, religious, indigenous and cultural, fire and emergency services, aged-related and disability
Hayes et al, "Adult learning through fire and emergency service organisations in small and remote Australian towns" National Centre for Vocational Education Research, 2004	Four sites in five Australian states (NSW, WA, SA, Tasmania, Victoria)	Mixed methods observational study with survey distributed by key contact at host organisation. Followed by group interviews with focus on learning and voluntary participation	Survey of 339 people (85% male, majority are over 50 years of age) followed by 72 group interviews with approximately 230 people	Volunteers regularly taking part in local emergency response units and training activities; often older men with relatively limited level of education form core of such units

<b>Author &amp; Study</b>	<b>Location</b>	<b>Study design</b>	<b>Sample</b>	<b>Intervention description</b>
Keller et al, "Men Can Cook!" Journal of Nutrition for the Elderly, 2004	Evergreen Seniors Centre in Ontario, Canada	Mixed methods study with questionnaire at start & end of evaluation year covering demographics & cooking/diet. 10 thematically analysed semi-structured interviews lasting 30-60 minutes exploring prior cooking experience, strengths & weakness of the intervention. Dietician also kept journal	Convenience sample of 19 older, retired men. All aged over 65 years, 60% aged 75-85 years.	Monthly cooking club (8 per year) for older men lead by qualified dietician in Seniors Centre in Ontario, Canada. Evaluation covered a 1 year period in ongoing programme
J. MacDonald et al, "Keeping the balance: Older men and healthy ageing. A framework for discussion." Report for the New South Wales Committee on Ageing, 2001	Parramatta, New South Wales, Australia	Qualitative observational study of older men attending Old Men: New Ideas using interviews and focus groups to explore various dimensions of health and wellbeing. These included work & retirement, volunteering, health & social services, male culture, relationships & social networks	Convenience sample of older men of unreported size from seminar in Parramatta	Old Men: New Ideas (OM:NI) aims to enhance the health and wellbeing of older men through community based groups that typically meet on a fortnightly basis for a variety of purposeful, social activities

<b>Author &amp; Study</b>	<b>Location</b>	<b>Study design</b>	<b>Sample</b>	<b>Intervention description</b>
C. Milligan et al, "Cultivating Health: therapeutic landscapes in northern England" Social Science and Medicine, 2004	Carlisle, United Kingdom	Qualitative study using focus group and interviews with participants at start of project and after 9 months. Supplemented with weekly diaries from participants & gardener along with regular observational data from project researcher. Analysed using grounded theory approach	Convenience sample of 19 older people, 13 men aged 65-79 years	Allotment gardening for older people with no costs and support from trained gardener in deprived area of Carlisle over a year long period to improve health and wellbeing
J. Pretty et al, Green exercise in the UK countryside: Effects on health and psychological well-being, and implications for policy and planning" Journal of Environmental Planning and Management 2007	10 sites across England, Scotland, Wales and Northern Ireland	Quantitative study using composite questionnaire with validated measures for physical and mental health, fitness and lifestyle administered immediately before and after participation in activities	Convenience sample of 263 people (144 men) engaged in variety of physical activities with potential participants excluded if they were referred for the activity due to a health condition	Green exercise including walking, woodland conservation and cycling) across UK

#### Appendix 4: Gendered interventions for older men (continued)

Author & Study	Main findings	Strengths identified by reviewer	Limitations identified by reviewer	QA
K. Batt-Rawden and G. Tellnes, "Nature–culture–health activities as a method of rehabilitation: an evaluation of participants' health, quality of life and function." 2005	Two-thirds self-reported improved health & Quality of Life due to social network through building confidence and resilience; Differential impact of intervention across sample between those who knew how to live good life (25%); people worn down by life and lacking coping strategies (45%); people leading complex lives at risk of social isolation who reaped huge benefits (30%) Social wellbeing: vital importance to have somebody to talk to and become a trustworthy listener for others	Provides some useful insights into rehabilitation centre using salutogenic approach Distinguishes between impact on different groups of people	Observational data only so don't know about changes over time No comparison group to assess interventions against Sample bias/observer effect re-giving positive views on centre Limited sample size & brief reporting of methods	24
J.N Murray Drummond, "Retired Men, Retired Bodies" 2003	Importance of functional masculine body that is not yet broken down; Failing body - loss of strength signifying fading masculinity; Physical activity of walking group associated with health, competitive masculinity with friendship and camaraderie	Theoretically informed discussion of older men and masculinity Phenomenology gives depth to study	Poorly reported observational data from a small sample of older men No comparison group to assess intervention against	19
I. Gleibs et al, "No country for old men? The role of a 'Gentlemen's Club' in promoting social engagement & psychological well-being in residential care" 2011	Validated tools to measure Personal and Social Identity, Cognitive Ability and Wellbeing found reduced anxiety and depression with improved life satisfaction. However, there though no change in the level of cognition as a result of participation; Particularly beneficial for older men in residential care due to sense of social support and belonging that it produced	Data gathered at two points to assess changes in status Validated tools to measure changes Theoretically informed with claims not made on data per se but on theory they support	Small sample size with very limited diversity among participants No comparison group to assess intervention against Short time frame for duration of intervention	29

<b>Author &amp; Study</b>	<b>Main findings</b>	<b>Strengths identified by reviewer</b>	<b>Limitations identified by reviewer</b>	<b>QA</b>
I. Gleibs et al, "We get to decide": The role of collective engagement in counteracting feelings of confinement and lack of autonomy in residential care." Forthcoming	Older men found moving to residential care was a major transition and felt physically and psychologically 'stuck'; Gentlemen's Club provided an antidote via sense of control over choice of activity and camaraderie; Intervention had stopped due to lack of funding and was greatly missed by older residents	Provides further qualitative insights from original research Provides further support for claims made in earlier paper re-control and choice	Small sample size with very limited diversity among participants No comparison group to assess intervention against Short time frame for duration of intervention	27
Golding et al, "Senior men's learning and wellbeing through community participation in Australia" Report to the National Seniors Productive Ageing Centre, 2009	Survey found highly positive views on social activity but less so for impact on health and wellbeing; 20% of sample had experience of depression although vast majority self-reported improvements in health and wellbeing; Benefits due to sense of control and choice of activity; greater sense of purpose; particularly enjoy appropriate hands-on physical activity; camaraderie through shared activity; socially useful activity; learning and sharing skills and experience; re-creation of masculinity; Encourages productive ageing through variety of activities	Mixed methods study with survey of 219 & interviews with 150 older men Provides data on multiple activities & sites catering for needs of older men Diversity of sites & activities allows similarities & differences to emerge	Observational data with no comparison group Insufficient sample size to provide comprehensive picture of learning and wellbeing of older men Potential bias from opportunistically generated interview sample	32
Golding et al, "Men's learning and wellbeing through community organisations in Western Australia" Report to the Western Australia Department of Education & Training, 2009	Survey found highly positive views on social activity but less so for impact on health and wellbeing; 25% felt loss from retirement, 20% had major health or family crisis. Self-reported improvements to health and wellbeing due to sense of control and choice of activity; greater sense of purpose; particularly enjoy appropriate hands-on physical activity; camaraderie through shared activity; socially useful activity; learning and sharing skills and experience; re-creation of masculinity	Mixed methods study with survey of 187 & interviews with 100+ older men Provides data on multiple activities & sites catering for needs of older men Diversity allows similarities & differences to emerge	Observational data with no comparison group Insufficient sample size to provide comprehensive picture of learning and wellbeing of older men Potential bias from opportunistically generated interview sample	32

<b>Author &amp; Study</b>	<b>Main findings</b>	<b>Strengths identified by reviewer</b>	<b>Limitations identified by reviewer</b>	<b>QA</b>
Hayes et al, "Adult learning through fire and emergency service organisations in small and remote Australian towns" National Centre for Vocational Education Research, 2004	Socially valuable volunteer work that contributes to development of high level of bonding social capital between predominantly male participants; Older men expressed strong preference for hands-on learning and feared more formal learning and training methods may reduce volunteer participation	Mixed methods study with survey of 339 & interviews with 230 older men Links learning with health & wellbeing	Observational data with no comparison group Insufficient sample size to provide comprehensive picture of learning and wellbeing of older men	24
Keller et al, "Men Can Cook!" Journal of Nutrition for the Elderly, 2004	Enhanced cooking skills with healthier eating; Camaraderie and stronger social networks via working in small groups; Key role played by dietician as expert facilitator with men as co-participants exercising choice; Achieved behaviour change, particularly benefited single men	Longitudinal mixed methods study with data gathered at several points Provides insights into older men & motivations for participation	Qualitative data suggested healthy diet changes but no objective measures First data collection not at start of project	25
J. MacDonald et al, "Keeping the balance: Older men and healthy ageing. A framework for discussion." 2001	Healthy Environments: importance of supporting and supportive social environment, difficulties of transition from paid work with loss of male identity and limited opportunities for volunteering. Supportive environment: health and social services are feminised world, particularly residential care, very critical of 'male culture' (masculinity & behaviours). Relationships: vital to give and receive social support, OMNI highly valued as male-friendly and female-free. Health and wellbeing: matter of 'keeping the balance' with holistic conception based on physical, mental and spiritual health	Very wide ranging exploration of older men's views on life, health & wellbeing Provides useful insights on areas & issues that are not covered in other included studies	Observational data with no comparison group Poorly reported methods and sample description Limited description of types of activities undertaken at OM:NI	18

<b>Author &amp; Study</b>	<b>Main findings</b>	<b>Strengths identified by reviewer</b>	<b>Limitations identified by reviewer</b>	<b>QA</b>
C. Milligan et al, "Cultivating Health: therapeutic landscapes in northern England" 2004	Pleasant landscape beneficial to healthy ageing compared to fear of crime in urban area; Self-reported health and social benefits through learned and sharing skills, camaraderie, satisfaction with hands-on work and increased sense of purpose; Differential impact with 'nice hobby' for some but much more important part of social world for others	Multiple qualitative methods give rich account of replicable intervention Strong on policy needs & implications re-healthy ageing	Small sample size due to scale of project along with recruitment and attrition problems due to poor health No comparison group to assess impact of intervention	31
J. Pretty et al, "Green exercise in the UK countryside: Effects on health and psychological well-being, and implications for policy" 2007	Statistically significant improvements in mental health and self-esteem; Profile of Moods State (POMS) improved with less anger-hostility, depression-dejection, tension-anxiety; Enhancement did not vary by type of activity or age and had greater effects for women and those with low self-esteem score but all groups benefited from participation	Validated tools measuring mental health status Strong on policy needs & implications re-social physical activity	Sample of people who were already active so no data on the more typical habitually inactive Short time frame for measuring effects of green exercise	34



## **Appendix 5: Website searches**

<http://apo.org.au/health/ageing>

<http://apo.org.au/health/health-policy>

<http://cotansw.com.au/>

<http://gerontology.org.nz/>

<http://mankindproject.org/>

<http://menssheds.org.nz/>

<http://menssheds.org.uk/>

<http://social.un.org/index/Publications.aspx>

<http://www.aarp.org/>

<http://www.ageaction.ie/>

<http://www.ageconcern.org.nz/>

<http://www.ageingwellnetwork.com/>

<http://www.ageuk.org.uk/>

<http://www.aifs.gov.au/institute/info/bib/aged.html>

<http://www.alzheimers.org.nz/>

<http://www.alzheimers.org.uk/>

<http://www.apa.org/pi/aging/index.aspx>

<http://www.aro.gov.au/>

<http://www.asaging.org/>

<http://www.beyondblue.org.au/index.aspx>

<http://www.britishgerontology.org/>

<http://www.carp.ca/>

<http://www.dhhs.tas.gov.au/>

<http://www.dohc.ie/>

<http://www.emhf.org/>

<http://www.fade.nhs.uk/>

<http://www.fightdementia.org.au/default.aspx>

<http://www.greenexercise.org/index.html>

<http://www.hc-sc.gc.ca/index-eng.php>

<http://www.health.gov.au/internet/main/publishing.nsf/Content/Home>

<http://www.health.gov.on.ca/en/>

<http://www.health.nsw.gov.au/Pages/default.aspx>

<http://www.health.qld.gov.au/>

<http://www.health.vic.gov.au/>

<http://www.health.vic.gov.au/hacc/index.htm>

<http://www.health.wa.gov.au/home/>

<http://www.hhs.gov/>

<http://www.issr.uq.edu.au/>

<http://www.joannabriggs.edu.au/>

<http://www.life.org.au/>

[http://www.manchester.gov.uk/info/500099/valuing\\_older\\_people](http://www.manchester.gov.uk/info/500099/valuing_older_people)

<http://www.menshealthforum.org.uk/>

<http://www.menshealthresearch.ubc.ca/>

<http://www.mensheds.org.au/>

<http://www.menssheds.ie/>

<http://www.niace.org.uk/>

<http://www.omni.org.au/>

<http://www.opengrey.eu/>

<http://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/home>

<http://www.scie.org.uk/>

<http://www.seniorsinfo.ca/en/welcome>

<http://www.sphsu.mrc.ac.uk/research-programmes/gh/>

<http://www.theshedonline.org.au/>

<http://www.tyze.com/tyze-networks/>

[http://www.uws.edu.au/mhirc/mens\\_health\\_information\\_and\\_resource\\_centre](http://www.uws.edu.au/mhirc/mens_health_information_and_resource_centre)

<http://www.who.int/ageing/en/>

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