REVIEW

Baby boomers, obesity, and social change

Jennifer Buckley*

Department of Geographical and Environmental Studies, Geographical Information Systems, University of Adelaide, Level 4, 230 North Terrace, Adelaide, SA 5000, Australia

Received 20 December 2007; received in revised form 25 March 2008; accepted 4 April 2008

Summary Baby boomers are currently in mid-life and over the next several decades they will swell the ranks of those aged 65 and over. Their entry into this age group will have a significant impact in a number of areas but particularly in relation to the type and extent of health services required. Obesity is a major health issue for this cohort as its members are significantly over-represented in both the overweight and obese categories compared to the rest of the population. In addition, they are significantly more likely to have multiple risk factors. This review considers how alterations to lifestyle, initiated by the rapid social changes of the last half century, might have contributed to obesity within this cohort. In providing this broad overview it focuses on how increased affluence and changes to everyday institutions have affected the cultures around food consumption. This includes a consideration of both the internal and external ways in which eating environments are now constructed. This review suggests that further research is needed to identify the factors which facilitate or constrain healthy ageing in the baby boom cohort. Research along these lines also needs to consider both macro- and micro-level changes to the social context within which these factors arise. This is essential as the high levels of obesity in this cohort may reflect both an individual and a structural lag in adapting lifestyles and policies to meet the needs of this very different social environment.

© 2008 Asian Oceanian Association for the Study of Obesity. Published by Elsevier Ltd. All rights reserved.

Contents

Introduction .................................................................................................. 74
The baby boom cohort ....................................................................................... 74
Social change—a key contextual factor for baby boomers ........................................... 76
Increased individualisation, globalisation, interconnectedness ......................... 76
Demise and/or transformation of traditional everyday institutions—shell institutions .... 77
Dissolution of boundaries around action ........................................................ 78

* Tel.: +61 434 150 916.
E-mail address: jennifer.buckley@adelaide.edu.au.

Introduction

The social changes of the last half century have had a profound impact on the patterns of everyday life and on the social context in which people live. Baby boomers have been at the leading edge of these changes and have frequently found themselves adapting their lifestyles as they endeavour to meet the needs of this quite different environment. That their solutions have not always been optimal is perhaps reflected in their levels of obesity and overweight which are higher than those of any other age group [1] and which put them at the forefront of what appears to be an obesity epidemic. Is there perhaps an association between the significant social changes that have occurred over the latter half of the 20th century and the simultaneous increase in weight gain at a population level? This paper considers this question and in doing this will first identify why it is important to understand the baby boomer cohort and then proceed to explore the relationship between social change, baby boomers, and obesity. This will include an examination of how changes to the social environment have altered both the context in which food consumption occurs and the way in which individuals interact with their world. Several theoretical perspectives underpin this enquiry specifically those developed by Giddens [2—4], Beck [5], Beck and Beck-Gernsheim [6], and Ofer [7].

The baby boom cohort

Dates commonly used to define the baby boom cohort include 1946—1961, 1961—1964 and 1946—1965. This paper, in line with the dates identified by the Australian Bureau of Statistics [8], defines baby boomers as those born between 1946 and 1965 which means that they are currently aged between 42 and 61. There are four key reasons for understanding and targeting the baby boomer cohort. The first, and perhaps the most obvious reason, is that its members are currently in mid-life, and reviewing and optimising health for this cohort will contribute to better individual outcomes in later life as well as better social outcomes overall. The second reason is that baby boomers will be ageing in a unique demographic context in which there has been a significant shift from a youth dominated age structure to one in which there are much higher percentages of people over 65. Population ageing raises a whole range of issues, both conceptual and practical, such as what does ageing and retirement mean in this new context and what effect will an ageing population have on economic growth and productivity. A third reason relates to the fact that the baby boom cohort is an example of 'disordered cohort flow', that is, it is such a large cohort that it tends to create wave effects or disturbances in other age groups and its presence can also result in a mismatch between services required and those provided, hence it is important to anticipate the effects it will have as it moves through the age structure [9]. Finally, baby boomers have grown up in a period of significant social change which means that their behaviour and the issues they face are likely to be different to that of previous generations. All of these factors will impact on the health and wellbeing of baby boomers as they enter later life.

The demographic context in which baby boomers will age is significantly different from that in which their parents or grandparents aged. This is demonstrated by the graphs in Fig. 1 which reflect the development of population ageing across a 70-year period and which highlight the significant increase in the numbers of people over 65 with a corresponding decrease in those under 15. Of equal interest is the way in which baby boomers are expected to swell the 85 and over population from a projection of around 856,000 to about 1.6 million between 2031 and 2051 [10]. In addition, the sheer size of this cohort, while it effectively deferred the onset of population ageing, also means that its effects will be somewhat more pronounced [11].
an additional layer of complexity to the task of restructuring services and economies to adapt to the ageing of the population. It also highlights the need to anticipate the multiple impacts that will result from the transition of baby boomers into the 65+ age group while at the same time ensuring that there is an equitable distribution of resources among all age groups.

These changing demographics mean that baby boomers will have a lot more company as they age than previous generations and are likely to require a lot more services and facilities. However, given current population projections, this can be regarded as a sound investment as the development of social and physical infrastructure to meet the needs of ageing baby boomers will also have long-term value for subsequent generations.

One of the issues for any ageing population is the increase in health care costs and Australia is no exception. The Commonwealth Government currently spends around 4% of GDP on health and this is projected to double by 2041, when baby boomers will be in the 70+ age group [12]. Hence, from a perspective of both individual and social wellbeing, there needs to be a sense of urgency about facili-tating more positive health outcomes for both the baby boom cohort and its successors. However, to some extent this sense of urgency has been dampened by the gains made in life expectancy and improved health in the young old (aged 65—74). These gains, which have largely resulted from the improvements to living conditions, infection control and medical advances that have been part of the modernisation process of the 20th century [13,14] have, in the past, led to the assumption that future generations of older people will be healthier than previous generations [15,16]. However, the subsequent development of significant lifestyle changes occurring in the latter half of the 20th century may well erode many of the gains made to date and there are growing concerns that the trend to longer life expectancies may start to reverse [17] or, alternatively, be accompanied by more years of disability [18]. A key area of contention in this regard is the extent to which morbidity is being compressed [18] with the current evidence being somewhat ambivalent. Research from the Australian Institute of Health and Welfare (AIHW) has not found any consistent evidence of either the compression or expansion of morbidity though it notes that there may be some slight indication of expansion (in relative terms) in relation to less severe disability [19]. Although several longitudinal studies from Europe and the United States appear to indicate a reduction of around 2% in disability over the last few decades, this is more likely to be related to medical advances and improved person-environment fit than to the adoption of healthy lifestyles [20]. Hence, in the absence of lifestyle change, it is unlikely that morbidity will be compressed to any significant degree, particularly as the costs associated with medical and pharmaceutical interventions are likely to place increasing strain on the public health system under conditions of structural ageing [11]. Indeed, avoidance of chronic disabling conditions due to the adoption of healthy lifestyles will result in a reduction of health expenditure but the use of expensive medical technologies that allow chronic conditions to be managed so they are not disabling will increase health expenditure [11]. This implies a need to develop policies and interventions which encourage healthy lifestyles and discourage a reliance on advanced medical technologies to ameliorate potentially avoidable chronic and disabling conditions. In the absence of positive lifestyle changes it is likely that many of the health gains of the 20th century will remain stationary or in fact reverse, as Mor notes, ‘...unless the health habits of the baby boomers change dramatically, future researchers may be trying to explain the cohort effect that
found a short-lived reduction in the duration of age-related functional impairment [20] (p. 5309).

Obesity is a worldwide epidemic and its prevention is recognised as a global public health priority [21]. It has been clearly established as a risk factor for a range of chronic diseases such as Type II diabetes, heart disease, osteoarthritis, breast cancer, respiratory disease, reproductive problems, and gallbladder disease [21]. Recent research\(^1\) notes that if current obesity trends continue there will be significant increases in chronic diseases such as diabetes, obstructive sleep apnoea, knee replacements and bariatric surgery [22]. There are also increasing concerns about the association between obesity and dementia through the risk obesity poses for insulin dysregulation [23]. Currently, dementia is predicted to increase from 0.96% (191,710) of the population in 2003 to a projected 2.8% (731,030) of the population in 2050 [24] but if obesity continues to rise across the population these figures may be much greater than anticipated [25]. Current data [27], drawn from a sample of 1200 baby boomers from the North West Adelaide Health Study (NWAHS) [26], shows that baby boomers are significantly over-represented in both the overweight (42%) and obese (33%) categories compared to the rest of the population (35% overweight and 28% obese) [27]. In addition, they are significantly more likely to have multiple risk factors than other age groups [27]. It is important not to dismiss this as simply an age effect, particularly in the light of other research which shows that previous generations at similar ages had much lower rates of obesity [28,29] and reported higher self-rated health [30]. The reasons for the high rates of obesity and risk factors in the baby boomer cohort are complex and further investigation is needed to identify the respective roles of cohort, age, and period effects. Research on this cohort would contribute to improved health outcomes for its members, would help to reduce the health expenditure associated with structural ageing and would provide valuable insights into how social change might have contributed to the ongoing increase in obesity prevalence across the population. Obesity and related risk factors, such as low levels of physical activity, are often lifestyle related and their impact can be substantially reversed through lifestyle changes [31]. Hence, there is an imperative to seek a reversal of these trends in order to reduce current disease and to stave off further morbidity in the future.

Social change—a key contextual factor for baby boomers

The entry of the baby boomer cohort into later life will have a significant impact on a range of services, particularly those related to health, hence it is essential that policy makers understand the needs of this large cohort. What are the things which constrain or facilitate their ability to age well? How different are baby boomers to previous cohorts and how diverse are they as a group? Diversity is a key factor and is likely to be considerable given the extended time period used to define this cohort. There are, for instance, significant differences between the first (1946—1955) and second (1956—1965) waves of baby boomers due to their exposure to different social and economic influences as they entered adulthood [32]. Equally, there will be variations between sub-groups within each of these waves due to differences in demographic and socio-economic characteristics. In addition, heterogeneity increases with age [41] and hence it is important that policy development and health interventions take these differences into account.

One of the key factors which differentiates baby boomers from other cohorts is their status as a transitional generation—they are the cohort that has straddled two worlds, the world of early modernity that belonged to their parents which symbolised routine, predictability and security [3], and the world of late modernity which came into being as they grew into adults and which is characterised by risk, flexibility, change, uncertainty and affluence [3,5,7]. One question that needs to be explored is the extent to which the changes of late modernity affect the way baby boomers perceive their world and also how these changes might affect their behaviour and, particularly for the purposes of this review, how these changes might contribute to obesity. The term ‘late modernity’ generally refers to the mid-20th century onwards and is distinguished from early modernity by a number of characteristics each of which will be briefly addressed in subsequent paragraphs [4].

Increased individualisation, globalisation, interconnectedness

Increased individualisation is a hallmark of late modernity [3,4] and one of its consequences is that life paths are much less standardised and more volatile than previously. This, together with the interconnectedness that comes with globalisation, means that there are often multiple factors that

\(^1\) See Adams et al. this issue.
impact on the outcomes of an individual's choice. One example at the macro-level is the recent crisis in home mortgages where the impact of borrowing practices in the United States filtered through at a global level [33]. However, the complexity of decision-making has also increased at the micro-level. Traditionally, households were dominated by the biography of the male breadwinner but the social and economic changes of the last 50 years, particularly the shifts in gender roles, have resulted in an increasing need to consider the biographies of other household members [5]. For instance, most families now depend on two incomes [7] and growing numbers of women have professional careers that they take seriously [5]. This adds complexity to decision-making with regard to lifestyle choices such as purchasing a house or relocating for work. Complexity has also increased at the psychological level because of the subtle shifts in human relations that have resulted from changes to the roles of women [4]. The combined impact of these macro- and micro-level changes means that it becomes more difficult for the individual to imagine and plan for the future. At the same time, governments, in many developed nations, are reducing their role and there is a massive shift of risk and responsibility to individuals, for example in the areas of health care, retirement provision, job security and finance [34—37].

Demise and/or transformation of traditional everyday institutions—shell institutions

Intertwined with the process of individualisation is the demise and/or transformation of traditional everyday institutions such as the church, marriage, family, and work [2]. The underlying source, or, perhaps, pre-condition for their transformation can be traced to the epistemological basis of modernity itself [3]. An important aim of the Enlightenment project was to free humanity from ignorance and superstition and to provide tools with which it could develop and control its own evolutionary framework [3]. Knowledge, based on reason and the scientific method, became the new authority or criteria against which the value of human activity was judged [3]. Religious belief and custom persisted but its centrality as an organising framework had been significantly weakened. The erosion of religion as the absolute authority and the weakening of the institutions it fostered has been a key factor in the social changes of the latter half of the 20th century. It has enabled the old order, in which family origins, class, and gender were key determinants of an individual's life path, to be exchanged for a more open system in which individual pathways are characterised by greater choice and autonomy [5,2]. However, it has also opened the way to greater instability because the very basis of the rational scientific method means that all is open to question, nothing is certain and things can only be valid "in principle" [3]. Hence human knowledge in itself is inherently unstable and subject to change. A correlate of the instability of knowledge is that there is also no absolute authority by which social practices can be justified because all practices become open to scrutiny as new knowledge or information comes to light [3]. This practice of reflexivity, in which knowledge is used to revise and inform social practices, is a hallmark of modernity and has played a key part in activating the instability now inherent in everyday institutions. This effect is magnified because the same process of reflexivity is equally applicable to technological interventions. As modernity gained momentum, scientific and technical knowledge increased exponentially. The technological dynamism that results from the reflexive use of this knowledge accelerates the rate and scope of change producing disjunctions in the interface between the public and private sphere or what Riley et al might call structural and individual lag [38]. The reflexive monitoring which occurs in response to such lags is, consciously or not, aimed at resolving asynchronies and leads to transformations in everyday institutions.

While institutions such as marriage, the family, and work still exist they have become what Giddens refers to as 'shell institutions', that is, they retain the same form...but their basic character has changed [2] (p. 58). This is evident from a review of transformations to the institution of marriage. Central to marriage was the concept of 'commitment' embodied in the traditional phrases of the marriage ceremony 'for better or worse' and 'til death us do part'. Adherence to this commitment was based on patriarchal Christian values expressed through traditional gender roles of the male as the authority figure, provider and protector and the female as nurturer. Not only was separation and divorce stigmatized [2] because it challenged traditional values but, for women, who rarely had a means of self-support, it was highly impractical. The increased financial independence of women, sourced through both welfare support and growing employment opportunities, together with the erosion of traditional values consequent on increased social reflexivity, created an environment in which marriage, while still retaining its traditional form, could take on new meanings. This growing individualisation of marriage, and
the personalisation of meaning within marriage, is reflected in the contemporary preference for civil over religious celebrants [39]. The introduction of the pill, ‘no fault’ divorce legislation and women’s increased access to the labour market through legislative reform and better education, have all contributed to an increase in equality between the sexes within marriage and also made other forms of relationship possible, hence, marriage, while still the norm, is increasingly one choice among several including cohabitation, homosexual and lesbian relationships, living alone, and ‘living apart together’ commonly referred to as LATS [40]. These changes are the result of a complex mixture of structural and individual change both of which have their source in the intellectual transformations initiated by the Enlightenment.

Dissolution of boundaries around action

The growing individualisation and transformation of everyday institutions characterises a world in which the boundaries for action are far less defined. This is because the social mores and religious values that once provided an established framework against which individual decisions were weighed and referenced have lost their authoritative status [3]. This means that individuals must, to a significant extent, create their own framework for action by choosing which mores, values and customs they will adhere to [2,5]. At first glance, these social changes may appear to delineate a new world of freedom in which individuals need not follow hide-bound traditions and can freely choose their own destiny. However, a closer examination reveals that choice is never free but is always characterised by constraints and facilitators which differ for each individual according to their own psychological make-up, the resources they have access to, and the social position they occupy [41]. All those who live under conditions of late modernity must grapple with personal responsibility for the choices they make in a way that was previously unknown and they must do it without reference to an ultimate authority [2]. In pre-modernity, the limits of personal responsibility were defined with reference to the context of Divine Law and established customs, in early modernity the limits were defined with reference to human law and, increasingly, institutions such as the welfare state and still, in many instances, to traditional practices. In late modernity the limits of personal responsibility are increasingly defined with reference to the individual and their access to and use of available resources. The absence of an ultimate authority against which to reference decision-making contributes to increased anxiety and chronic stress [2].

Knowledge and information—democratisation/instability

Increased access to formal education and the Internet has resulted in a democratisation of knowledge and information. This too contributes to the ‘personal responsibility paradigm’ in which the onus is increasingly on the individual to keep themselves informed so they can make appropriate choices. However, there is a flaw in this paradigm in that expert knowledge is often fragmentary, inconsistent and contested. For instance, whenever someone decides what to eat, what to have for breakfast, whether to drink decaffeinated or ordinary coffee, that person takes a decision in the context of conflicting and changeable scientific and technological information [2] (p. 31). This can lead to a sense of disempowerment in relation to decision-making and a growing scepticism about the validity of the knowledge and information on offer, including that which is scientifically based. A classic example is one email correspondent’s response to an e-news article linking obesity to dementia: ‘what a lot of worry-warts we have access to, producing all this ‘scientific’ misinformation, doom and gloom. Is there anything that hasn’t been bad for you 1 week, then God’s gift the next?’ [42].

Massive increases in affluence and living standards

Finally, there have been massive increases in affluence and living standards and while this has obviously brought many social ‘goods’ it may also mean that the easy access to new and inexpensive self-rewards has made it difficult for people to develop prudential strategies, such as the ability to delay gratification [7].

Social change and obesity

This section looks at how social change might be linked to rising obesity. In doing this it highlights the way in which social change at the macro-level influences the daily lives and social practices of individuals. It focuses on three areas of social change that are linked to rising obesity including changes in lifestyle patterns, increased affluence, and psychological factors.
Changes in lifestyle patterns

Individualisation and the transformation of traditional institutions, has had far reaching consequences for the way in which everyday life is conducted. Predictable daily routines have been replaced with a more flexible orientation that has significantly altered the way in which food is consumed. Dual breadwinner households and the multiple out of school activities of children have contributed to the loss of routine while cars, mobile phones, and flexible working hours have made changes to plans possible and easy. These changes are encapsulated in the loss of the 1950s family meal system [7] which is used here to refer not only to the food itself but also to the culture around food consumption. It was characterised by a fairly unadventurous main meal of meat, starch and vegetables which was eaten together, eaten at home, and at eaten at regular times. In addition, there was little, if any, snacking. This has largely been replaced with flexible eating patterns, solo eating, eating in front of the TV, restaurant eating, irregular eating and snacking [7].

In addition to the loss of predictable daily routines there have also been significant changes to the way in which physical activity is incorporated into our lives. These changes are clearly linked to modernising processes such as increased urbanisation (particularly where this is characterised by a low density car based culture as in the United States and Australia); the shift from manual to administrative and service occupations; and the production of devices designed to reduce energy expenditure such as elevators, washing machines, and remote controls [43,44].

Increased affluence

One of the impacts of affluence is that people are less likely to develop what can be called 'prudent strategies'—these strategies are essentially concerned with safeguarding the future and include things like savings habits and developing or maintaining a healthy lifestyle. Offer proposes that when "...rewards arrive faster than the disciplines of prudence can form, then self-control will decline with affluence: the affluent (with everyone else) will become less prudent. Self-control strategies and commitment devices take time and effort to devise and to learn. Under the impact of affluence they become obsolete" [7] (p. 144).

Rises in affluence have also been accompanied by massive increases in food variety and food availability [7,45]. Small family run grocery stores with limited items have been largely replaced by massive supermarkets with more than 25,000 items [7]. Changes of a similar scale have occurred in relation to the number of restaurants, the variety of cuisine, length of shopping hours, the percentage of food purchases characterised as 'snacks', the growth of fast food restaurants and so on [7], all of which provides an endless array of food to choose from and countless opportunities to eat.

These macro-level changes have fostered an environment in which people eat more, while at the same time, the health and appearance norms for body weight have declined. This has led to a large gap between aspiration and actuality [7] and, for some, has made the desire to lose weight a constant background against which eating takes place. It is possible that these macro-level changes and the individual’s desire to conform to reduced body weight norms, have both contributed to an increase in what can be called ‘restrained’ or disturbed eating patterns at a population level [45,7]. Restrained eating describes the practice of restricting caloric intake in order to prevent weight gain or achieve weight loss [46,47] and is characterised by a concern with body weight, frequent dieting alternating with over-eating, the abandonment of restraint once a diet is broken, the use of food as an emotional tranquiliser, increased susceptibility to eating more when in company; and the re-starting of eating despite satiation [7].

Psychological factors

Offer [7] points to a circular loop in which the macro-environment encourages increased food intake which results in population level weight gains which in turn increases the motivation to reduce intake and results in large sections of the population adopting restrained eating behaviours. However, despite the wide-scale adoption of restrained eating patterns obesity continues to rise. In fact, the very characteristics of restrained eating suggest an ongoing struggle for self-control in the face of abundance. While there is disagreement about whether restrained eating contributes to long-term weight gain or whether it is in fact a workable strategy for weight control [46] this review is more concerned with the factors that affect its success. Offer [7] suggests that the disinhibiting effect of stress forms the link between the micro-motives of individuals and macro-behavioural patterns (p. 151). The boundaries around eating that were intrinsic to the 1950s food culture provided automatic restraints to eating which are absent in contemporary food cultures. Restrained eating patterns are an attempt to impose personal boundaries on food consumption.
that are not provided by the macro-environment. However, the imposed equilibrium is delicate and can be easily disrupted in the presence of external stress which is seen as the key trigger for overeating in restrained eaters. The most common stressors include appetising food, eating in company, and negative feelings—for example, distress is thought to be one of the most reliable triggers of a binge [48,7].

The need for comfort is a known trigger for overeating but is probably thought of primarily in terms of personal distress. However, if looked at in the context of social change it has an added dimension. The concept of frozen autonomy, coined by Giddens [2] in his work on late modernity, refers to the downside of having an abundance of choice but no secure and authoritative reference framework to guide the choices that are made. Giddens suggests that frozen autonomy comes into play when choice, which should be driven by autonomy, is subverted by anxiety with the result being an increase in addictive behaviour [2] (p. 47). The constant repetition of an act, whether this be in relation to eating, alcohol consumption, smoking, or work, creates a sense of structure, predictability and safety and delays the need to make autonomous decisions, the results of which may be perceived as unpredictable and hence potentially hazardous.

Hugh MacKay, in Generations, notes that baby boomers are the first generation to attribute stress as a debilitating consequence of everyday life [49] (p. 65). That baby boomers do suffer high levels of stress is borne out by the data in which 18.1% of baby boomers report a mental illness [27]. This data also supports an association between obesity and mental illness in both baby boomer men and women with the association being much stronger for men. Of the chronic diseases examined in the North West Adelaide Health Study, mental illness at 18.1% is considerably more prevalent than higher profile diseases such as diabetes and heart disease which stand at around 5% and high blood pressure at around 10% [27]. The extent to which mental illness contributes to chronic disease, and its association with obesity, a key factor in chronic disease, is surely worth further exploration, especially given the fact that they have both proliferated within the context of late modernity.

### Box 1: Future directions for research

1. How have the changes of late modernity affected the lifestyle and health outcomes of baby boomers?
2. What are the current food consumption and physical activity patterns of baby boomers?
3. What are the factors that facilitate or constrain the capacity of baby boomers to adopt healthy behaviours under conditions of late modernity?
4. What sources of information do baby boomers currently use in the health decision-making process?

### Conclusion

Baby boomers will be entering later life in a medical context characterised by sophisticated health technologies which may extend life but may not necessarily add to quality of life. In addition, they will be entering later life in a context of demographic ageing in which a greater proportion of the population will be over 65. Hence, their capacity to age well will have an impact not only on their individual wellbeing but also on the health system as a whole, both in its ability to provide adequate services and the quality of the services provided. Although research findings linking healthy lifestyles with health in later life [50,31] have been picked up and actively disseminated by public health agencies there are still high percentages of baby boomers with multiple risk factors. This suggests that members of this cohort may find it hard to adopt the healthy behaviours which are promoted. In order to foster individual wellbeing, and a sustainable and effective health system, it is important to identify the factors which either facilitate or constrain the ability of baby boomers to adopt a healthy lifestyle. This review suggests that research which aims to identify these factors needs to consider the effects of social change at both the macro- and micro-level in order to account for the possibility that the high levels of obesity in this cohort reflect both an individual and a structural lag in adapting lifestyles and policies to meet the needs of this very different social environment. Some key questions that need to be answered in promoting the health of baby boomers and which will determine future directions are identified in Box 1.

### Conflict of interest

None.
References


