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ADDRESSING THE BURDEN OF OBESITY AMONG DISADVANTAGED FAMILIES

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Background
Health, social and economic advantage are intrinsically linked. Disadvantaged groups in the community, such as those without employment, suitable housing, or a stable income are more likely to suffer from physical and psychological illness (Lantz et al., 1998; Poulton et al., 2002). Similarly, poor physical or mental health can adversely impact on social and economic resources (Bartley et al., 1996). The presence of both socioeconomic disadvantage and chronic illness represents a considerable and often crippling burden for individuals and families to manage (Goldbeck et al., 2006).

Life course perspectives of wellbeing, which assert that circumstances in childhood have an enduring impact on wellbeing throughout life, are well supported empirically (Kauhanen et al., 2006; Poulton et al., 2002). This highlights the importance of early intervention efforts to mitigate any adverse effects of illness or social disadvantage. A number of recent studies have demonstrated positive effects of early intervention approaches that incorporate a home visiting service for families (Kendrick et al., 2000; Melhuish et al., 2008; Olds et al., 2004). For example, research in the US investigating the efficacy of a nurse home visiting service for primarily disadvantaged mothers found that the service reduced the time women were dependent on welfare or food stamps and improved the intellectual functioning and behaviour of their children (Olds et al., 2004).

Early interventions targeting parents within the home environment have been recommended as a strategy to mitigate the burden of obesity on children and young people (Ming Wen et al., 2007). In Australia, almost two thirds of adults and one quarter of children are currently overweight or obese, a figure that is higher among some disadvantaged groups (SPANS 2004; Wake et al., 2007; Thorburn et al., 2005). Reviews of peer reviewed research in developed countries indicate that obesity is socio-economically patterned (Ball & Crawford, 2006). Persons from low socio-economic backgrounds are less
likely to participate in organised sport and leisure time physical activity, are less likely to consume a diet consistent with dietary recommendations, and are more likely to be obese than those from higher socio-economic backgrounds (Ball & Crawford, 2006). While children born into lower socioeconomic families may be at greater risk of obesity and its associated co-morbidities, obesity has also been found to be causally related to poorer socioeconomic outcomes (Reilly et al., 2003; Deitz, 1998) and described as a substantial socioeconomic handicap for women in particular (Dietz, 1998).

Given the health and socio-economic impacts of obesity, obesity prevention initiatives should be of interest to human service organisations interested in promoting the wellbeing of families. In this paper we briefly review these impacts with a specific focus on children and explore the role human service organisations, particularly those with direct, in-home contact with families, could play in efforts to support families to be physically active, to eat healthily and reduce the risk of excessive weight gain.

The impact of obesity on health and wellbeing

Physical health

The physical health effects of obesity are both chronic and acute. On the basis of existing trends in child obesity prevalence, the life expectancy of children today will fall by approximately two years by the time they reach twenty (Holman et al., 2008). Obesity contributes to a reduction in life expectancy through increasing the risk of a variety of chronic illnesses (Deitz, 1998; Reilly et al., 2003). Obese children are more likely to develop type 2 diabetes, previously considered a disease primarily of adulthood, and its associated complications (Lobstein et al., 2004). The prevalence of physiological risk factors for cardiovascular disease is also elevated among the obese. For example, a recent survey of Australian school children in NSW found that approximately one quarter of obese adolescents had elevated blood pressure compared with less than 10 per cent of their healthy weight peers (SPANS 2004). Of particular concern is a clustering of risk factors (i.e. hyperinsulinemia, obesity, hypertension, hyperlipidemia) known as the metabolic syndrome which substantially increases the risk of an adverse cardiovascular event. The metabolic syndrome has been found to be present in up to 50 per cent of severely obese adolescents compared to less than one per cent of adolescents in the community (Cooke et al., 2003; Weiss et al., 2004).

Obese persons may experience a number of other more immediate physical impediments. Overweight children have been found to have four times the risk of asthma compared to a healthy weight child (Lobstein et al., 2004). Abnormal sleeping patterns are common in overweight and obese children. Serious sleep disturbances such as sleep apnea can adversely impact on the ability of obese children to concentrate (Lobstein et al., 2004; Deitz, 1998). Growth and development are also affected. For boys, obesity can delay maturation, while for girls it can result in earlier maturation and menstrual problems (Lobstein et al., 2004; Dunger et al., 2005). Furthermore, mobility problems experienced by obese children, such as joint pains, impede children’s participation in physical activity, further hampering healthy lifestyle behaviours (Deitz, 1998; Reilly et al., 2003; Warschburger, 2005).

Mental health

Even before school age, children can establish negative beliefs about their overweight peers. In one study, preschool
aged children thought that overweight children would have fewer friends (Kraig et al., 2001). For overweight children, such beliefs can limit their ability to form meaningful peer relationships. The impact of obesity is particularly apparent when children reach school and increases in severity with age (Reilly et al., 2003). The odds of obese school age girls being teased is six times that of a healthy weight girl, while boys are almost ten times more likely to be teased (Neumark-Sztainer et al., 2002). It is perhaps not surprising then that research has found that obese children have more negative physical self perceptions (Braet et al., 1997); have lower self esteem (Pierce et al., 1997), miss more days while in school (Schwimmer et al., 2003) and achieve poorer academic performance than their non-obese peers (Taras et al., 2005).

Obese children and adolescents are also more likely to have more serious mental health problems. The risk of eating disorders (Burrows et al., 2002), suicidal thoughts and suicide attempts (Whetstone et al., 2007) are more prevalent among obese children. The greatest psychological effects appear to be among treatment seeking adolescents who are severely obese, who have substantially higher rates of psychiatric mood, anxiety and eating disorders compared with population controls (Britz et al., 2000). Assessments of health related quality of life among severely obese adolescents seeking treatment has also been found to be similar to children diagnosed with cancer (Schwimmer et al., 2003).

Social wellbeing
Discrimination and stigmatisation of people who are overweight and obese has been documented in the health, employment, and education sectors. These sectors are key to wellbeing and social integration of disadvantaged families. A review on the issue by Puhl and colleagues (Puhl et al., 2001) suggests that health professionals such as physicians, nurses and nutritionists hold negative attitudes toward patients who are obese, including a belief that such patients are lazy, dishonest, hostile, unhygienic and lack self control. Such discrimination may potentially impact on quality of care and discourage obese persons from attending health services for treatment.

The prospects of employment appear lower for obese persons. Research suggests that obese people earn less than those of healthy weight and that negative attitudes of obese people by employers reduce the likelihood that obese job candidates will be employed, or receive a promotion once in employment (Puhl et al., 2001). Employees also report a preference for working with and being managed by healthy weight as opposed to overweight staff. Discrimination in the workforce may be particularly damaging for women. A large cohort study in the US found that women who were obese as adolescents not only earned less money, were less educated and less likely to get married, but were more likely to experience poverty compared with women who were not obese as adolescents (Gortmaker et al., 1993).

Sadly, children are not immune from discrimination. A survey of teachers of adolescent students found that almost half believed that obese persons are undesirable marriage partners and 28 per cent thought that becoming obese was among the worst things that could happen to a person (Neumark-Sztainer et al., 1999). Fifteen to 20 per cent of school staff also thought obese children were usually untidy, more emotional, and should not expect to lead normal
lives. Obese adolescents who apply to attend college may be less likely to be accepted for enrolment into their chosen course (Puhl et al., 2001). However in this instance, it appears that this may be due to prejudice of parents. After controlling for sociodemographic variables such as parental income and education, parents of overweight children were less likely to provide financial support for further education to their child as parents of healthy weight children (Puhl et al., 2001).

**Supporting parents to prevent unhealthy weight gain: A role for human service organisation staff**

Engaging parents and modifying the home environment to be more supportive of child obesity prevention are key to efforts to prevent the adverse health effects of obesity on children (Lindsay et al., 2006). Parents, and home and family environments, are among the strongest influences on children’s diet, physical activity and weight status (Golan et al., 2004; Campbell KJ et al., 2006; Lindsay et al., 2006). Despite their influence, a number of factors limit the capacity of parents to create home environments that are supportive of child obesity prevention (Ward-Begnoche et al., 2006). Research suggests that factors may include a lack of knowledge or skill (Blanchette et al., 2005), the cost of healthy foods (Omar et al., 2001) or organised sports (Humbert et al., 2006), and the perishability, accessibility and preparation requirements of fresh foods (Omar et al., 2001; Hesketh et al., 2005). These impediments are likely to be particularly prevalent for parents of disadvantaged children who have limited financial resources and may be experiencing considerable life stress. Furthermore, research suggests that when parents do take steps to encourage their children to eat healthily, they often employ inappropriate strategies such as pressuring children to eat or using food as rewards (Cullen et al., 2000) which may hinder the development of healthy behaviours.

Providing in home support for parents, particularly for disadvantaged families, may be an effective strategy to overcome these barriers and to assist families to create a home and family environment more supportive of healthy weight for all family members. For a number of reasons, human service organisations are well placed to provide this in-home support. Firstly, they support a large number of families each year, often for prolonged periods. Secondly, they often provide a home visiting service, providing the opportunity for staff to identify aspects of the families’ lifestyle that may impact on unhealthy weight gain, and provide appropriate assistance to families to promote healthy behaviours. Thirdly, family services have a primary prevention focus on issues adversely impacting on the wellbeing of families, and we would argue that child obesity is one. Perhaps most importantly, unlike other services, Human service organisations understand the difficulties experienced by disadvantaged families, may be perceived as less threatening than other government services, and are experienced in supporting and building the skills, knowledge and capacity of families to address issues affecting their lives.

Despite this opportunity, anecdotally, staff of family service organisations do not appear to regularly provide healthy eating and physical activity lifestyle support to families. This may be because complex and acute needs of families overwhelm healthy lifestyle priorities, or because of the limited resources available to services. Evidence from the Special Supplementation Program for Women Infants and Children (WIC)
in the US suggests that staff may feel uncomfortable, lack practice and confidence in addressing overweight among families, and cite a need for further training and resources (Serrano et al., 2006) to address issues of overweight among children and families. Nonetheless, with the development of appropriately tailored resources and training opportunities, community services staff have the capacity to overcome such barriers, and provide obesity prevention support to families (Johnson et al., 2006). As such, and based on behaviours known to contribute to the risk of childhood obesity, we suggest that staff of human service organisations support families in the following ways:

1. **Encourage families to consume fruits and vegetables and discourage the consumption of energy rich foods like takeaway:** Dietary recommendations for children and adults can be found in the Australian Guide to Healthy Eating (http://www.health.gov.au/internet/main/publishing.nsf/Content/health-pubhlth-strateg-food-guide-index.htm). Service staff can support families by helping parents to identify and select healthy, inexpensive foods during grocery shopping such as frozen vegetables (which will not perish) (eg mixed vegetables), and demonstrate how such foods can be prepared (eg microwave rather than boiled to preserve nutrients) and presented in a way which may be appealing for children as part of meals and snacks (eg using vegetables to make smiley faces on mashed potato).

2. **Encourage families to choose milk and water over sweetened drinks such as soft drink or cordial:** As with healthy foods, having water visible and accessible to children (such as by storing jugs of cool water in the fridge and including water on the table during meal times), and encouraging parents not to purchase sweetened drinks may increase the non-sweetened drink consumption of families and save money. Supporting parents to offer water as the first drink (beyond breast or formula milk) is also important.

3. **Encourage families to spend less time in front of the TV, computer or playing electronic games and spend more time being physically active:** School aged children should spend at least 60 minutes in physical activity which makes them huff and puff each day and spend no more than two hours per day watching TV, using the computer or playing electronic games for recreational (non educational) purposes. Family service staff should encourage families to turn the television off during meal time, to get outside and be active and encourage children to engage in inexpensive play activities such as skipping, hopscotch or Frisbee. Participating in such activities during home visits helps model appropriate activities and may help the relationships between staff/volunteers and families. Australian physical activity recommendations for children and young people are available from the Department of Health and Ageing (http://www.health.gov.au/internet/main/publishing.nsf/Content/health-pubhlth-strateg-active-recommend.htm).

Clearly, support needs to be provided in a way that is non-judgmental, that places a positive emphasis on healthy lifestyle changes to improve family wellbeing, and that demonstrates the range of other potential benefits in terms of cost saving, family functioning or social integration.
Advice and support should focus on developing healthy habits that will assist families to halt the progression of excess weight gain and should be delivered at appropriate times when it is likely to be well received by parents and families.

Conclusion
Overweight and obesity can have substantial adverse impacts on the wellbeing of children and families and can contribute to vicious circles of disempowerment and disadvantage. Both in our experience in working with human services and in our review of the literature, it is apparent that the burden of obesity is disproportionately borne by families who have the fewest resources available to mitigate its effects.

Human service staff are in a unique position to make an important contribution to efforts to improve the physical and mental health and, potentially, the social integration of disadvantaged families through providing encouragement and support for families to eat more healthily and be more physically active. To achieve this, human service organisations are urged to consider healthy lifestyle support, such as physical activity and good nutrition, as an organisational priority. This would be demonstrated through implementation of a formal organisational policy, supporting their staff by providing professional development opportunities and training around healthy eating and physical activity, and ensuring that their staff have sufficient resources to assist families, including appropriate educational information and up to date referral options. It is recognised that such initiatives may present considerable challenges for the human service sector and will not be without resource costs.
References


