Submission from: Weight Management Services, The Children's Hospital at Westmead, Sydney

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Submission prepared on behalf of CHW Weight Management Services by:

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Specific issue being addressed:

Provision of effective treatment services for overweight and obese children and adolescents

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Executive summary

Overweight and obesity in children and adolescents is very common – 1:4 Australian children and young people are affected. It is even more common among children attending general practice or hospital outpatient clinics for whatever reason.

Overweight and obese children and adolescents are at risk of a range of health problems and have an increased risk of premature death in adulthood. There are both immediate complications and long term consequences of child and adolescent obesity. Prevention alone is not enough for those who are already overweight or obese – such children and adolescents need to be treated.

Despite the high prevalence of overweight or obesity, and the potential seriousness of the problem, children are rarely managed for their weight problems when they attend general practice or hospitals.

There are many barriers to management of paediatric obesity in general practice settings. There are also very few tertiary level paediatric weight management services in Australia (indeed, none in any of the territories or three of the states).

There are no well-established models of care for adult weight management, let alone for paediatric weight management. One proposed model of care, adapted from the Kaiser Permanente and UK NHS Chronic Disease Care Pyramid of Care, recognises the need for a tiered approach to service delivery depending upon severity of the problem. A major challenge with this, or any, model of care is that primary, secondary and tertiary level care services are extremely limited, both nationally and within each of the states and territories, and health professional training opportunities are scarce.

Recommendations:

Health professional training

1. Development, evaluation and implementation of health professional training in the initial assessment and management of child and adolescent obesity. This should be aimed at all relevant paediatric clinicians eg nursing staff, dietitians, clinical psychologists, physiotherapists, exercise scientists and doctors (GPs, junior medical staff, paediatricians).
2. Development of dedicated training posts so that nurses, allied health professionals and doctors can be given specialist training in paediatric obesity.

A coordinated model of care of treatment for paediatric obesity

3. Development of a coordinated model of care for paediatric overweight and obesity across each state and territory.
4. Implementation, with evaluation, of existing community-based group weight management programs for children or adolescents, with the aim of providing high quality services to the majority of affected children and adolescents.
5. Development of tertiary care multi-disciplinary paediatric weight management services in each state and territory.

Background

The increasing prevalence of child and adolescent overweight and obesity in Australia highlights the importance of a whole-of-society approach to prevention of the problem. In addition, because of the large number of affected people, provision of affordable and effective treatment services is also required. **This submission focuses upon the issue of treatment services for children and adolescents affected by overweight and obesity.**

Overweight and obesity in children and adolescents is very common, especially in health care settings

- Overweight and obesity are increasingly prevalent in children and adolescents. In the 2004 NSW Schools Physical Activity and Nutrition Survey (1), one in four school children in NSW was found to be overweight or obese, making this one of the most common chronic health conditions in this age group.
- A very recent Australia-wide study on over 42,000 GP encounters in children aged 2 – 17 years between 2002 and 2006 found that an overall 30% of these children were overweight or obese (18.3% overweight and 11.4% obese) (2).
- In 2001, at The Children's Hospital at Westmead in Sydney, statistics on children aged more than 2 years indicated that 18% of inpatients and 22% of outpatients were overweight, with an additional 4% of inpatients and 10% of outpatients being obese (3).
- Two additional Sydney-based studies have shown that children with either acquired brain injuries or developmental disabilities are more likely to be overweight and obese than the general population of children (4, 5). This poses increased challenges for them and their families as they learn to live with their disabilities.
- Information on severe obesity in children is very limited. A recent study conducted in Melbourne showed that 4% of all children attending general practice, for whatever reason, were severely obese (a level of obesity usually requiring specialist or tertiary level care) (6).
- Given the current trends in obesity prevalence, we can only expect more children and adolescents to present to clinical services in the future. It is an existing health problem that we need to deal with for the reasons highlighted below.

Child and adolescent obesity is associated with a range of health problems

- Overweight and obese children and adolescents are at risk of a range of health problems and have an increased risk of premature death in adulthood. There are both immediate complications and long term consequences of child and adolescent obesity.
- Psychosocial problems are common in overweight and obese children; however, orthopaedic and gastrointestinal problems, obstructive sleep apnoea, metabolic abnormalities (pre-diabetes etc) and cardiovascular risk factors also complicate obesity in this age group.
- The prevalence of abnormal physical findings and biomarkers is high in overweight and obese children. Approximately one in three overweight or obese 15 year old boys have raised blood pressure, while 70% of obese 15 year old boys and 30% of overweight boys have high insulin levels, and 40% of obese boys and 20% of overweight boys have raised liver enzymes. The prevalence of abnormal

biomarkers in obese girls is less than for boys, although higher than for healthy weight peers (1).

- In the 2001 Children's Hospital at Westmead audit of inpatients, overweight and obese status was associated with a longer length of hospital stay and an increased cost of admission, whatever the primary reason for hospitalisation (3, 7).
- The range of health problems associated with obesity highlight the need for effective treatment – not just of the weight problem, but also of the obesity-associated complications.
- Several studies now show that, if left untreated, the natural history of child and adolescent obesity is to worsen with time. Hence the importance of effective treatment services.

Children are rarely managed for their weight problems in clinical settings

- Despite the high prevalence of overweight and obesity among children attending GP or paediatric hospitals, few such children are presenting for management of this issue.
- In the 2002-2006 Australia wide survey of over 42,000 children aged 2-17 years attending general practice, only 0.5% of children were managed for overweight or obesity, even though 30% overall were affected (2).
- The level of provision of community, specialist allied health and group weight management services for children is not well understood, but is thought to be low.
- A recently completed audit of tertiary paediatric health care institutions within Australia has shown that only three states have specific tertiary level services for obese paediatric patients, with an average waiting time of 5 months for an appointment (8). There is substantial unmet demand in every state and territory for tertiary level obesity services.
- In the 2001 audit at The Children's Hospital at Westmead, none of the overweight or obese inpatients was offered care was specifically managed for this problem during their hospital stay (3, 7).

There are many barriers to management of paediatric obesity in general practice settings

A study conducted by the NSW Centre for Overweight and Obesity found that:

- GPs are keenly aware that childhood overweight and obesity is a problem in the community and has potentially serious medical consequences.
- Barriers to the measurement of height and weight (and hence to identifying obesity) included:
  - a perceived lack of parental concern
  - parent and child sensitivity to the issue (9)
- GPs wanted clear pathways for referrals to dietitians and physical activity providers, with simple systems for people to be reimbursed for weight management referrals. They would also like to see their role supported through community education campaigns (9).

There is a need for a coordinated model of care for management of overweight and obesity in children and adolescents

- There are no well-established models of care for adult weight management, let alone for paediatric weight management. One potential model of care is shown in Figure 1. This is adapted from the Kaiser Permanente and UK NHS Chronic

Disease Care "Pyramid of Care" and recognises the need for a tiered approach to service delivery depending upon severity of the problem. While the vast majority of affected people will require self-care or family-based care, supported by primary care and community base care providers, those who are more severely affected will require specialist care, sometimes by multidisciplinary care teams in tertiary care facilities.

- A major challenge with this, or any, model of care is that primary, secondary and tertiary level care services are extremely limited, both nationally and within each of the states and territories (8).
- Initial results from two community-based group programs, both developed in Australia and initially funded by the National Health & Medical Research Council, show promising results in terms of treating mild to moderate levels of obesity in primary school aged children. The PEACH (Parenting Eating and Activity for Child Health) Program and the HIKCUPS (Hunter Illawarra Kids Challenge Using Parent Support) Program both lead to relative weight loss at least 12 months from baseline (10, 11).
- There have been fewer studies looking at treatment of adolescent obesity. A pilot study of the Loozit Program, an Australian program aimed at treatment of overweight or obese adolescents in a community-based group setting, has shown improvements in waist circumference and metabolic complications at 5 months from baseline (12).
- Thus, there are existing efficient and well-evaluated community-based programs for the treatment of moderate levels of obesity in children and adolescents.

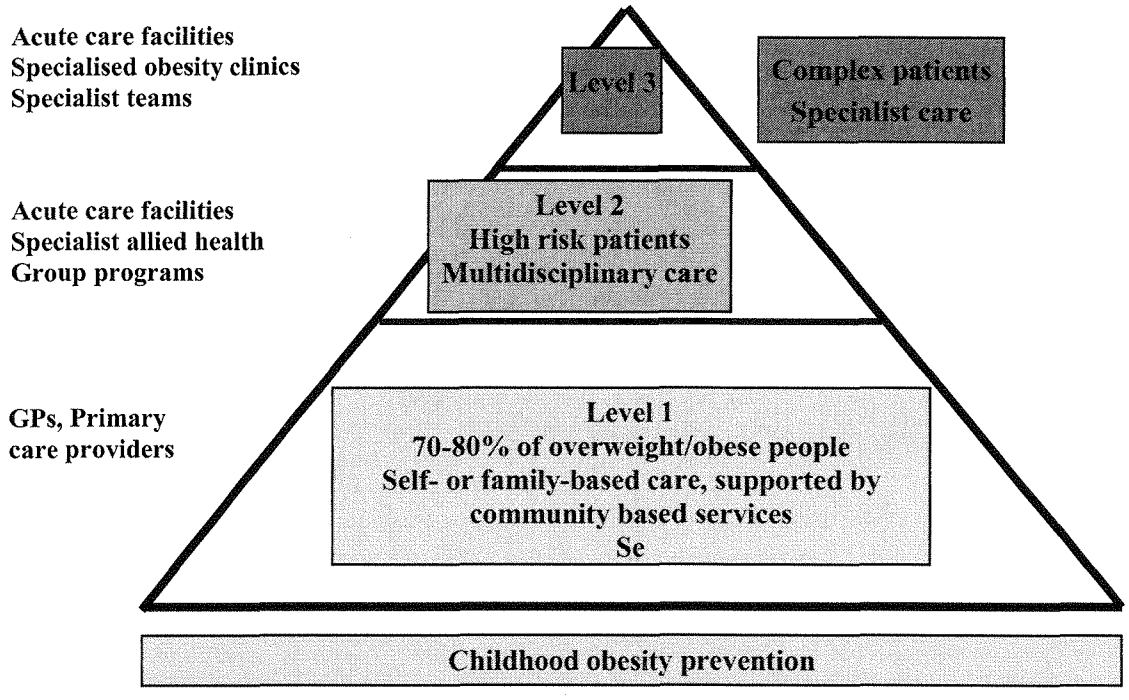

Figure 1: Chronic Disease Care model for paediatric overweight and obesity (adapted from the NHS and Kaiser-Permanente Chronic Disease Management Pyramid of Care)

There are few clinical training opportunities for health professionals in weight management medicine

- There are urgent clinical training needs for child health professional staff in paediatric obesity assessment or management at all levels of service delivery.
- For example, the only post in Australia where paediatricians in training (Registrars) can be trained in paediatric weight management is at The Children's Hospital at Westmead (shared Adolescent Medicine /Weight Management 6-month training post).
- Likewise, to our knowledge there are very few, if any, paediatric weight management training positions for nurses, many allied health professionals (eg clinical psychologists, physiotherapists, exercise scientists and even dietitians) or GPs.

Recommendations

Health professional training

1. Development, evaluation and implementation of health professional training in the initial assessment and management of child and adolescent obesity. This should be aimed at all relevant paediatric clinicians eg nursing staff, dietitians, clinical psychologists, physiotherapists, exercise scientists and doctors (GPs, junior medical staff, paediatricians).
   Comment: This should be across each state and territory and could be linked to existing undergraduate and postgraduate health professional training programs. Specific training programs for obesity recognition, assessment and management need to be developed and evaluated. Health professionals need to know how to treat this serious and common health problem.

2. Development of dedicated training posts so that nurses, allied health professionals and doctors can be given specialist training in paediatric obesity.
   Comment: The workforce also requires training of specialist clinicians who are skilled in multi-disciplinary team management of children and adolescents with moderate to severe obesity and its complications.

A coordinated model of care of treatment for paediatric obesity

3. Development of a coordinated model of care for paediatric overweight and obesity across each state and territory.
   Comment: This will require provision, and linking, of services at primary care, secondary care and tertiary care level. The diabetes prevention programs which are currently being evaluated in several states may provide useful lessons in service delivery. Recognition of the need for a whole-of-family approach and the need to be developmentally sensitive in service provision (eg adolescents are treated differently from young children) will be important elements of the clinical services. Linkage of paediatric services with adult services would be an additional way of ensuring a whole-of-family approach, and allowing effective transition between paediatric and adult services for adolescents.

4. Implementation, with evaluation, of existing community-based group weight management programs for children or adolescents, with the aim of providing high quality services to the majority of affected children and adolescents.

Comment: There is a need for accessible and effective programs to support families and young people in the self-care of obesity. Two such community-based group programs for children (PEACH and HIKCUPS), and at least one for adolescents (eg the Loozit program), all developed in Australia for Australian conditions, and of relatively low resource intensity, should be rolled out more widely.

5. Development of tertiary care multi-disciplinary paediatric weight management services in each state and territory.
   Comment: There are few existing tertiary level paediatric weight management services in Australia, with none in three states or any territory. High quality tertiary level services should be available for specialist management of children and adolescents with severe obesity and obesity-associated complications. Such centres would also provide specialist health professional training and research in paediatric obesity.

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