electronic and paper-based diaries at two different time-points.

**Results:** Baseline BMI of participants (mean ± standard deviation (SD)) was 30.4 ± 2.9 kg/m$^2$, body weight was 87.6 ± 13.4 kg, and age was 42.3 ± 7.7 years. Fifty four percent ($n$ = 41) of the cohort were female. Bland Altman plots for total energy, and percentage of total energy intake from fat, carbohydrate, and protein, indicated that the two methods of dietary data collection were in agreement. Participants rated the electronic food diary as easier to use and more fun than the traditional paper-based estimated food diary.

**Conclusion:** These results show that the Boden Food Plate would be as valid and reliable as current data collection methods and is therefore a practical, and easier, means of collecting data on dietary energy and macronutrient for future studies.

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**91**

## Invited talk: Managing children and adolescents affected by overweight and obesity: Implications for health systems

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While there has been a recent plateauing in the prevalence of obesity in Australian children — although not adolescents — the prevalence of severe or morbid obesity in this age group continues to increase, as does that of central adiposity. Children and adolescents affected by overweight and especially obesity also present more frequently to primary, secondary and tertiary care services than would be expected from the background prevalence of the problem, although they are only infrequently treated for it. At the same time, most paediatric health professionals feel ill-equipped to manage patients affected by obesity; existing clinical services in Australia and New Zealand are sparse, poorly coordinated and at times inequitable; and there remains significant institutional, health professional and community stigma towards affected individuals.

The chronic disease care pyramid provides a model for delivering services to people with obesity. This is based upon a tiered level of service delivery relating to severity of disease, at primary, secondary and tertiary level. Thus, although most people affected by the problem of obesity can be managed via self-care or family-based care, with support from primary care or community-based health-service professionals, treatment by multidisciplinary care teams and possibly tertiary care clinics is needed for those who are more severely affected. Access to bariatric surgery should also be available at the tertiary care level. Individual clinicians and health service providers/funders should be aware of the presence of other services within their geographical region, and the capacity of these services to take referrals or to co-manage patients. These services could include group programs, individual consultations with allied health professionals or nurses, or specialised tertiary services.

There is a need for development and evaluation of cost-effective healthcare pathways that fit in with existing paediatric clinical services and which have broad reach, especially to more socially disadvantaged people. Further, significant investment in ongoing health care professional training is required at undergraduate and postgraduate level at different levels of intensity.

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**92**

## Invited talk: Key learnings from the PEACH program in Queensland

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PEACH$^{TM}$ (Parenting, Eating and Activity for Child Health) is a healthy lifestyle community program targeting Queensland families with overweight primary school children. PEACH$^{TM}$ aims to assist parents to build knowledge, skills and confidence around health eating and physical activity. The program implements an evidenced-based intervention consistent with clinical practice guidelines.

Methods were designed with the RE-AIM (Reach, Effectiveness, Adoption, Implementation, and Maintenance) framework in mind and the following data are collected:

**Reach:** Family demographics

**Effectiveness:** Changes in parental knowledge, skills and confidence; child anthropometry, diet and

activity behaviours; attendance rates and satisfaction with program resources

**Adoption:** Facilitator demographics and services involved

**Implementation:** No. facilitators delivering groups; Adherence to program protocol

**Maintenance:** Workforce capacity change; funding committed; long -term family impact

**Preliminary results:** 104 groups across 47 sites including rural and remote areas. Mean (±SD) age of enrolees was 9 (±1.8) years, 45% were male and 78% were obese. Single-parent households comprised 21% of cohort. Number of children meeting fruit and veg guidelines increased (fruit; 49 to 61%, NS; veg; 3 to 9%, p

PEACH™ is successful for those families who engage. Recruitment and retention are issues that need to be addressed. Clarity is needed regarding service delivery and funding responsibilities of various parts of the health system before services to families can be universally offered.

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**93**

## Invited talk: Key lessons from the Go4Fun program in NSW

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The prevalence of overweight and obesity in children has been relatively stable in NSW since 2007, with a current prevalence of 22.0% in 5—16 year old children. However, the prevalence remains high and is a cause for concern.

Clinical services have limited capacity to provide treatment and may not be accessible by many families with children above a healthy weight.

This presentation describes outcomes and key learnings of the Go4Fun program, a free weight management program for children aged 7—13 years and their families, delivered at scale across NSW since 2011. Go4Fun is delivered once per week, over 10 weeks and has demonstrated effectiveness from a recent pragmatic cluster randomised controlled trial.

To date, over 7300 families have participated. Child health outcomes are measured pre and post, and the program is routinely monitored by indicators of social disadvantage. Families from rural or regional communities comprise 28% of participants and 9% of participating families identify as being Aboriginal or Torres Strait Islander. In addition, 24% of families are sole parent and 53% of mothers are health care card holders.

On average, children achieve clinically and statistically significant changes in health outcomes. BMI decreases by 0.5 $kg/m^2$, recovery heart rate by 4.9 beats/min, physical activity increases by 3.7 h/week and time spent in sedentary activities decreases 3.2 h/week. Self-esteem and intake of fruit and vegetables improve significantly, while intake of sugar sweetened beverages decreases significantly. All changes are statistically significant ($p < 0.0001$). BMI z-scores remained statistically lower ($p < 0.01$) at six-month follow up.

Go4Fun offers an effective scalable community based solution to the treatment of overweight and obesity in children, particularly for families living at social disadvantage.

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**94**

## Invited talk: What are the implementation barriers and enablers for childhood obesity management services?

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The rising prevalence of overweight and obesity among Australian children, and associated health risks and economic burden to the health care system, continues to raise concerns. While the urgent need for coherent and comprehensive strategies for effective prevention is acknowledged globally, the implementation of appropriate management approaches at scale is lacking for children already above a healthy weight.

This research investigated factors affecting the implementation of two evidence-based weight management programs, Go4Fun (NSW) and PEACH (QLD), targeting families of primary aged children