major priority. However, the evidence base for interventions in this age group is more limited than for other parts of the life-course, and there are specific challenges in undertaking research with, and delivering interventions to, adolescents. Further, despite its simplistic appeal, merely delivering interventions designed originally for younger children or for adults is likely to be a failure.

Physiological maturation from early-/mid-puberty to post-puberty makes interpretation of changes in anthropometry, body composition and hormonal (insulin, reproductive hormones) levels difficult. The increased nutrient requirements of adolescence (e.g. iron, calcium, zinc) must also be factored into any dietary prescriptions/recommendations for caloric restriction.

The major psychological and social changes in this age group mean that recruitment and engagement of young people and their families (where appropriate) in intervention programs is difficult. The rapidly changing nature of e-communication and social media use, and the pervasive presence of innovative forms of marketing at this life-stage, also poses implications for intervention delivery to an audience used to sophisticated communication strategies. The increased mobility of older adolescents especially may also mean they have difficulty accessing and using intervention programs.

A further consideration is the importance of designing and delivering interventions in adolescents that promote healthy eating and activity behaviours and promote positive body image, taking into account the ubiquitous background exposure to negative messages about body image.

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Poster Abstracts

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Whole of Systems Trial Of Prevention Strategies for childhood obesity: WHO STOPS childhood obesity

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Background: Permanent reductions in childhood obesity are possible if the complex and dynamic causes of obesity are taken into account. The impact of previous interventions would be sustained by increased community ownership (community-built interventions); support from existing community funds (avoiding the state and federal feast/famine of prevention funding); and, building on existing community assets (systems and networks). This research works with partners to test new ways to embed best practice for obesity prevention in existing community systems (e.g. health, workplaces, local council, schools) to ensure the most efficient and effective implementation and sustainability.

Objective: This paper introduces the WHOSTOPS Childhood Obesity initiative, an NHMRC Partnership Project Grant. The goals of this grant are to; (1)

strengthen community action for childhood obesity prevention; and, (2) measure the impacts of increased action on risk factors for childhood obesity. This application builds on a 13-year partnership within the study region that has delivered several successful and world leading childhood obesity prevention interventions.

Methods: WHOSTOPS is a stepped wedge cluster randomised trial in ten communities in the Great South Coast Region of Victoria. Five communities will be randomised into the study in year one and all communities will be included in year 3. A parallel group of 13 additional communities from other regions of Victoria with no intervention will provide an external control and will help assess the potential diffusion of the intervention between regions within this trial.

Conclusion: We will assess whether the adoption of systems change interventions is scalable and rapidly increases community capacity to apply best evidence across community systems. The primary outcome of childhood obesity prevalence will be collected by the community-led monitoring system already established. In 2015, baseline data were collected from >2500 children (90% participation rate (PR)).

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Body Mass Index — measured adiposity and population attributability of associated factors in Cameroon: A population-based study in sub-Saharan Africa

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Introduction: Obesity is currently a global health challenge driven by a mix of behavioural, environmental and genetic factors. Recent population-based estimates are needed to guide successful prevention and control efforts in African countries. We investigated the prevalence and population attributable fractions of overweight and obesity in Buea, the Southwest region of Cameroon.

Methods: This was a community-based cross-sectional study involving randomly selected adults. Body mass index (BMI) was categorized according to the WHO classification. Multivariable logistic regressions were used to investigate independent factors associated with obesity. Their population attributable fractions were similarly estimated.

Results: Of the 1,139 participants, prevalence of overweight and obesity were; 34.8 (32.0—37.6) and 10.1 (8.3—11.9) percent respectively. The mean BMI was $25.3 \pm 4.3\,kg/m^2$ and women were heavier (25.8 vs. $24.4\,kg/m^2$; $p < 0.0001$). Factors associated with obesity were; female gender [odd ratio 3.26 (95%CI: 1.91—5.59)], older age [3.14 (1.86—5.28)], marriage [2.12 (1.56—3.61)] and family history of cardiovascular disease [1.61 (1.04—2.48)]. At the population level; older age, marriage, low level of education, high monthly income and physical inactivity accounted respectively for 11.9%, 21.8%, 11.6%, 6.4% and 8.7% of overweight and obesity among the women, while older age and marriage explained 9.2% and 28.3% respectively, of overweight and obesity in men.

Conclusion: The prevalence of overweight and obesity is high among semi-urban Cameroonians. Community-based interventions to control these would need to take into account gender specificities and socio-economic status.

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The 20Lighter Experience: A review of the first two phases of an intense weight reduction program in the United States

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Background: Recent animal studies report significant and wide ranging benefits of fasting and calorie reduction. As a result, there is heightened interest in the feasibility and effects of a Very Low Calorie Diet (VLCD) in humans. Here we present data collected over the past 18 months from the US-based 20Lighter Program (T20LP), a 3-phase (9wk) intensive weight reduction program. This abstract