perceptions, approach and challenges faced by midwives, obstetricians and general practitioners who provide antenatal care to women who are overweight and obese during pregnancy with the view to informing the development of an antenatal lifestyle intervention.

Methods Semi-structured interviews were conducted with a purposive sample of health care professionals (HCPs) from Cork University Maternity Hospital (CUMH) (n=10) and with a sample of General Practitioners (GPs) working in primary care in the region (n=7). Data was collected until data saturation occurred. Interviews were digitally recorded and transcribed into NVivo V.10 software. Thematic analysis is ongoing.

Results Preliminary results identified 'knowledge of weight management' and 'antenatal services' as key issues. A lack of knowledge was evident involving risks, complications and initiating a conversation around overweight and obesity in pregnancy. Variation exists around what is considered appropriate weight gain and whether HCPs were following any particular guidelines. HCPs expressed concern about the dramatic increase in the number of pregnant women who are overweight and obese and how weight perception has changed in society. Large 'caseloads' meant that lifestyle factors were not routinely discussed with the women and furthermore, a lack of communication is very evident between HCPs in the hospital and GPs in terms of the services provided.

Conclusion HCPs expressed challenges when communicating with their patients about weight management in pregnancy. By ensuring midwives and other HCPs have the knowledge, skills and opportunity to discuss weight and lifestyle factors with pregnant women, the women, in turn, may be more motivated to maintain healthy behaviour's during pregnancy.

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SOCIO-ECONOMIC VARIATION IN CHILD BMI TRAJECTORY FROM INFANCY TO ADOLESCENCE IN THREE CONTEMPORARY EUROPEAN CHILD COHORTS

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Background Rates of overweight and obesity have been shown to vary across socio-economic groups (SEG) from at least the age of three years but little is known about whether SEG differentials vary after adipose rebound and into adolescence and whether these trajectories differ by national context. This study examines socio-economic differentials in children's body mass trajectories in infancy and extending across childhood into early adolescence in three contemporary child cohort studies.

Methods Data on body mass index (BMI) measured on at least three occasions between birth and adolescence was obtained from four prospective cohort studies – Generation 21 (G21–Portugal), Growing Up in Ireland (GUI–Ireland) (infant and child cohorts), and the Millennium Cohort Study (MCS–UK) – involving a total sample of 44 136 children. SEG differentials in children's BMI trajectories was modelled by maternal educational level (primary, secondary, tertiary) using hierarchical models with fixed and random components for each cohort study.

Results Child BMI growth trajectory was greater for children of lower educated mothers but only from three years of age. In G21, the educational differential emerged by 4 years of age and increased from 0.25_{boys} [CI₉₅=0.14, 0.38] and 0.44_{girls} [CI₉₅=0.30, 0.58] to 0.45_{boys} [CI₉₅=0.25, 0.64] and 0.70_{girls} [CI₉₅=0.48, 0.92] by 7 years of age. In GUI, the mean difference in BMI between polarised educational groups increased from 0.21_{boys} [CI₉₅=0.08, 0.35] and 0.35_{girls} at 3 years of age [CI₉₅=0.21, 0.49] to 0.92_{boys} [CI₉₅=0.63, 1.21] and 1.40_{girls} [CI₉₅=1.09, 1.71] by 13 years of age. In MCS, the educational differential was first observed at 5 years of age and increased from 0.14_{boys} [CI₉₅=0.06, 0.23] and 0.19_{girls} [CI₉₅=0.10, 0.28] to 0.66_{boys} [CI₉₅=0.49, 0.83] and 0.61_{girls} [CI₉₅=0.42, 0.79] by 11 years of age.

Conclusion Socio-economic factors are strongly implicated in the aetiology of childhood obesity. This study shows that the socio-economic differentials emerge in early childhood and widen over time providing important policy evidence about the timing of potential policy interventions designed to eliminate the adverse life course health effects associated with early emerging adiposity.

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MECHANISMS OF ACTION IN GROUP-BASED INTERVENTIONS (MAGI) STUDY: A FRAMEWORK OF CHANGE PROCESSES IN GROUP-BASED HEALTH INTERVENTIONS

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Background Groups are often used to promote personal and health-related psychological and behavioural change. Although there is considerable literature on group dynamics and intra- and inter-personal change processes in groups, this knowledge is dispersed across different disciplines and rarely used in the design, delivery and evaluation of group-based health interventions. The aim of the Mechanisms of Action in Group-based Interventions (MAGI) study was to identify and enhance understanding of change processes in group-based health interventions by (1) developing a conceptual framework of change processes in groups, (2) identifying examples of these processes and practical strategies for facilitating them, and (3) exploring potential relationships between group processes and intervention engagement and outcomes in three group-based weight loss interventions.

Methods Qualitative methods were used to develop the conceptual framework and identify examples of change processes and practical strategies. This involved (1) reviewing literature on theories of group dynamics and change in groups, qualitative studies, taxonomies of behaviour change techniques, and assessment tools to measure group processes; (2) reviewing and coding content of intervention manuals and 38 transcripts of group session recordings from three studies of group-based weight loss interventions; and (3) consultations with researchers, practitioners, facilitators and participants involved with group-based interventions. Further 24 transcripts of group sessions from one of the weight loss studies were coded using the framework and analysed to explore associations with intervention engagement and outcomes.