



Welcome to the latest issue of the weekly Obesity Knowledge Update from Public Health England. This bulletin highlights new research relating to obesity and its determinants.

PHE is not responsible for the content of articles published by external organisations.

If you do not wish to receive further Obesity Knowledge Updates, please [click here to unsubscribe](#). You will continue to receive other Obesity Intelligence emails (notification of new resources etc.).

- [UK and Ireland - 3](#)
- [International – 41](#)
- [Systematic reviews - 19](#)

## UK and Ireland

["He's not fat, he just has asthma": A qualitative study exploring weight management in families living with pediatric asthma.](#) Clarke R, Heath G, Nagakumar P, Pattison H, Farrow C. *J Asthma*. 2021 Sep 1:1-12. doi: 10.1080/02770903.2021.1975739.

[Corporate political activity in the context of unhealthy food advertising restrictions across Transport for London: A qualitative case study.](#) Lauber K, Hunt D, Gilmore AB, Rutter H. *PLoS Med*. 2021 Sep 2;18(9):e1003695. doi: 10.1371/journal.pmed.1003695.

[Improving the school food environment for the prevention of childhood obesity: What works and what doesn't.](#) Pineda E, Bascunan J, Sassi F. *Obes Rev*. 2021 Feb;22(2):e13176. doi: 10.1111/obr.13176.

[\[back to top\]](#)

## International

[Associations of Skipping Breakfast, Lunch, and Dinner with Weight Gain and Overweight/Obesity in University Students: A Retrospective Cohort Study.](#) Yamamoto R, Tomi R, Shinzawa M, Yoshimura R, Ozaki S, Nakanishi K, Ide S, Nagatomo I, Nishida M, Yamauchi-Takahara K, Kudo T, Moriyama T. *Nutrients*. 2021 Jan 19;13(1):271. doi: 10.3390/nu13010271.

[Weight Stigma and Disease and Disability Concepts of Obesity: A Survey of the German Population.](#) Hilbert A, Zenger M, Luck-Sikorski C, Brähler E. *Obes Facts*. 2021 Aug 30:1-8. doi: 10.1159/000516494.

[E-&mHealth interventions targeting nutrition, physical activity, sedentary behavior, and/or obesity among children: A scoping review of systematic reviews and meta-analyses.](#) Kracht CL, Hutchesson M, Ahmed M, Müller AM, Ashton LM, Brown HM, DeSmet A, Maher CA, Mauch CE, Vandelanotte C, Yin Z, Whatnall M, Short CE, Staiano AE. *Obes Rev*. 2021 Sep 2:e13331. doi: 10.1111/obr.13331.

**Impact of a self-guided, eHealth program targeting weight loss and depression in men: A randomized trial.** Young MD, Drew RJ, Kay-Lambkin F, Collins CE, Callister R, Kelly BJ, Bialek C, Morgan PJ. *J Consult Clin Psychol.* 2021 Aug;89(8):682-694. doi: 10.1037/ccp0000671.

**Global prevalence of physical activity for children and adolescents; inconsistencies, research gaps, and recommendations: a narrative review.** Aubert S, Brazo-Sayavera J, González SA, Janssen I, Manyanga T, Oyeyemi AL, Picard P, Sherar LB, Turner E, Tremblay MS. *Int J Behav Nutr Phys Act.* 2021 Jun 29;18(1):81. doi: 10.1186/s12966-021-01155-2.

**Investigation of quality of life in obese adolescents: the effect of psychiatric symptoms of obese adolescent and/or mother on quality of life.** Işık Ü, Bağcı B, Kılıç F, Aktepe E, Pirgon MÖ. *J Pediatr Endocrinol Metab.* 2021 Sep 2. doi: 10.1515/jpem-2021-0435.

**Economic value of nonsurgical weight loss in adults with obesity.** Ding Y, Fan X, Blanchette CM, Smolarz BG, Weng W, Ramasamy A. *J Manag Care Spec Pharm.* 2021 Jan;27(1):37-50. doi: 10.18553/jmcp.2020.20036.

**Optimizing the Periconception Lifestyle of Women With Overweight Using a Blended Personalized Care Intervention Combining eHealth and Face-to-face Counseling (eFUSE): Protocol for a Randomized Controlled Trial.** van der Windt M, Schoenmakers S, Willemsen S, van Rossem L, Steegers-Theunissen R. *JMIR Res Protoc.* 2021 Sep 3;10(9):e28600. doi: 10.2196/28600.

**Impact of dietary and obesity genetic risk scores on weight gain.** Baratali L, Mean M, Marques-Vidal P. *Am J Clin Nutr.* 2021 Aug 2;114(2):741-751. doi: 10.1093/ajcn/nqab069.

**The impact of lifestyle counselling on weight management and quality of life among working-age females.** Virtanen J, Penttinen M, Kautiainen H, Korhonen P. *Scand J Prim Health Care.* 2021 Sep 3:1-7. doi: 10.1080/02813432.2021.1958510.

**Healthier together: a pilot study on the implementation of a novel family centered pediatric obesity prevention program.** Bach M, Sheno S, Winger K, Hendriksz T. *J Osteopath Med.* 2021 Mar 23;121(5):513-520. doi: 10.1515/jom-2020-0143.

**Evaluation of a Pilot Healthy Eating and Exercise Program for Young Adults with Autism Spectrum Disorder and Intellectual Disabilities.** Nabors L, Overstreet A, Carnahan C, Ayers K. *Adv Neurodev Disord.* 2021 Aug 25:1-18. doi: 10.1007/s41252-021-00214-w.

**The Effect of a Serious Health Game on Children's Eating Behavior: Cluster-Randomized Controlled Trial.** Folkvord F, Haga G, Theben A. *JMIR Serious Games.* 2021 Sep 2;9(3):e23050. doi: 10.2196/23050.

**The effects of obesity on the human body part III: Cardiovascular, digestive, excretory, endocrine, and reproductive.** Dupont G, Bordes SJ, Lachkar S, Wahl L, Iwanaga J, Loukas M, Tubbs RS. *Clin Anat.* 2021 Mar;34(2):307-311. doi: 10.1002/ca.23700.

**Obesity and food away from home: What drives the socioeconomic gradient in excess body weight?** Strupat C, Farfán G, Moritz L, Negre M, Vakis R. *Econ Hum Biol.* 2021 Jul 29;43:101048. doi: 10.1016/j.ehb.2021.101048.

**The effects of obesity on the human body part II: Nervous, respiratory, and lymphatic systems.** Dupont G, Bordes SJ, Lachkar S, Wahl L, Iwanaga J, Loukas M, Tubbs RS. *Clin Anat.* 2021 Mar;34(2):303-306. doi: 10.1002/ca.23695.

**Interplay between cognition and weight reduction in individuals following a Mediterranean Diet: Three-year follow-up of the PREDIMED-Plus trial.** Soldevila-Domenech N, Forcano L, VINTRÓ-ALCARAZ C, Cuenca-Royo A, Pintó X, Jiménez-Murcia S, García-Gavilán JF, Nishi SK, Babio N, Gomis-González M, Corella D, Sorlí JV, Fernandez-Carrión R, Martínez-González MÁ, Martí A, Salas-Salvadó J, Castañer O, Fernández-Aranda F, Torre R. *Clin Nutr.* 2021 Aug 5;40(9):5221-5237. doi: 10.1016/j.clnu.2021.07.020.

**Regional and sociodemographic differences in average BMI among US children in the ECHO program.** Bekelman TA, Dabelea D, Ganiban JM, Law A, McGovern Reilly A, Althoff KN, Mueller N, Camargo CA Jr, Duarte CS, Dunlop AL, Elliott AJ, Ferrara A, Gold DR, Hertz-Picciotto I, Hartert T, Hipwell AE, Huddleston K, Johnson CC, Karagas MR, Karr CJ, Hershey GKK, Leve L, Mahabir S, McEvoy CT, Neiderhiser J, Oken E, Rundle A, Sathyanarayana S, Turley C, Tylavsky FA, Watson SE, Wright R, Zhang M, Zoratti E; Program collaborators for Environmental influences on Child Health Outcomes (ECHO). *Obesity (Silver Spring).* 2021 Aug 31. doi: 10.1002/oby.23235.

**Dietary Energy Density is Associated with Body Mass Index and Fat Mass in Early Adulthood.** Correa-Rodríguez M, González-Jiménez E, Fernández-Aparicio Á, Luis Gómez-Urquiza J, Schmidt-RioValle J, Rueda-Medina B. *Clin Nurs Res.* 2021 Jun;30(5):591-598. doi: 10.1177/1054773819883192.

**Group cognitive remediation therapy prior to behavioral weight loss treatment for adults with severe obesity: A randomized clinical trial (CRT study).** Hilbert A, Neuhaus P, Köhler N, Petroff D, Hay P, Hübner C. *J Consult Clin Psychol.* 2021 Aug;89(8):695-706. doi: 10.1037/ccp0000668.

**Associations of Weight Loss with Obesity-Related Comorbidities in a Large Integrated Health System.** Mariam A, Miller-Atkins G, Pantalone KM, Iyer N, Misra-Hebert AD, Milinovich A, Bauman J, Mocarski M, Ramasamy A, Smolarz BG, Hobbs TM, Zimmerman RS, Burguera B, Kattan MW, Rotroff DM. *Diabetes Obes Metab.* 2021 Sep 2. doi: 10.1111/dom.14538.

**The effect of a physical activity consultation in the management of adolescent excess weight: Results from a non-randomized controlled trial.** Videira-Silva A, Hetherington-Rauth M, Sardinha LB, Fonseca H. *Clin Obes.* 2021 Aug 31:e12484. doi: 10.1111/cob.12484.

**Influence of the San Francisco, CA, Sugar-Sweetened Beverage Health Warning on Consumer Reactions: Implications for Equity from a Randomized Experiment.** Grummon AH, Reimold AE, Hall MG. *J Acad Nutr Diet.* 2021 Aug 27:S2212-2672(21)01034-0. doi: 10.1016/j.jand.2021.07.008.

**US national trends in bariatric surgery: A decade of study.** Alalwan AA, Friedman J, Park H, Segal R, Brumback BA, Hartzema AG. *Surgery.* 2021 Jul;170(1):13-17. doi: 10.1016/j.surg.2021.02.002.

**Novel behavioral interventions to improve long-term weight loss: A randomized trial of acceptance and commitment therapy or self-regulation for weight loss maintenance.** Lillis J, Dunsiger S, Thomas JG, Ross KM, Wing RR. *J Behav Med.* 2021 Aug;44(4):527-540. doi: 10.1007/s10865-021-00215-z.

**A Quality Improvement Initiative Addressing Provider Prescription of Weight Management Follow-up in Primary Care.** Kharofa RY, Siegel RM, Morehous JF. *Pediatr Qual Saf.* 2021 Aug 26;6(5):e454. doi: 10.1097/pq9.0000000000000454.

**Prevalence of overweight and obesity from 5 to 19 years of age in Gothenburg, Sweden.** Bygdell M, Céline J, Lilja L, Martikainen J, Simonson L, Sjögren L, Ohlsson C, Kindblom JM. *Acta Paediatr.* 2021 Aug 31. doi: 10.1111/apa.16089.

Differential associations of the built environment on weight gain by sex and race/ethnicity but not age. Buszkiewicz JH, Bobb JF, Kapos F, Hurvitz PM, Arterburn D, Moudon AV, Cook A, Mooney SJ, Cruz M, Gupta S, Lozano P, Rosenberg DE, Theis MK, Anau J, Drewnowski A. *Int J Obes (Lond)*. 2021 Aug 27. doi: 10.1038/s41366-021-00937-9.

Child-Centred Health Dialogue for primary prevention of obesity in Child Health Services - a feasibility study. Derwig M, Tiberg I, Björk J, Hallström I. *Scand J Public Health*. 2021 Jun;49(4):384-392. doi: 10.1177/1403494819891025.

Diet quality of Norwegian children at 3 and 7 years: changes, predictors and longitudinal association with weight. Sørensen LMN, Aamodt G, Brantsæter AL, Meltzer HM, Papadopoulou E. *Int J Obes (Lond)*. 2021 Aug 30. doi: 10.1038/s41366-021-00951-x.

Consumption of ultra-processed foods associated with weight gain and obesity in adults: A multi-national cohort study. Cordova R, Kliemann N, Huybrechts I, Rauber F, Vamos EP, Levy RB, Wagner KH, Viallon V, Casagrande C, Nicolas G, Dahm CC, Zhang J, Halkjær J, Tjønneland A, Boutron-Ruault MC, Mancini FR, Laouali N, Katzke V, Srouf B, Jannasch F, Schulze MB, Masala G, Grioni S, Panico S, van der Schouw YT, Derksen JWG, Rylander C, Skeie G, Jakszyn P, Rodriguez-Barranco M, Huerta JM, Barricarte A, Brunkwall L, Ramne S, Bodén S, Perez-Cornago A, Heath AK, Vineis P, Weiderpass E, Monteiro CA, Gunter MJ, Millett C, Freisling H. *Clin Nutr*. 2021 Aug 21;40(9):5079-5088. doi: 10.1016/j.clnu.2021.08.009.

Dietetic management of obesity and severe obesity in children and adolescents: A scoping review of guidelines. Alman KL, Lister NB, Garnett SP, Gow ML, Aldwell K, Jebeile H. *Obes Rev*. 2021 Jan;22(1):e13132. doi: 10.1111/obr.13132.

Measuring the impact of calorie labeling: The mechanisms behind changes in obesity. Aranda R, Darden M, Rose D. *Health Econ*. 2021 Aug 28. doi: 10.1002/hec.4415.

The Families and Schools for Health Project: A Longitudinal Cluster Randomized Controlled Trial Targeting Children with Overweight and Obesity. Topham GL, Washburn IJ, Hubbs-Tait L, Kennedy TS, Rutledge JM, Page MC, Swindle T, Shriver LH, Harrist AW. *Int J Environ Res Public Health*. 2021 Aug 19;18(16):8744. doi: 10.3390/ijerph18168744.

Does Self-Perception Equal the Truth When Judging Own Body Weight and Height? Haakstad LAH, Stensrud T, Gjestvang C. *Int J Environ Res Public Health*. 2021 Aug 11;18(16):8502. doi: 10.3390/ijerph18168502.

Effects of Three Different Family-Based Interventions in Overweight and Obese Children: The "4 Your Family" Randomized Controlled Trial. Varagiannis P, Magriplis E, Risvas G, Vamvouka K, Nisianaki A, Papageorgiou A, Pervanidou P, Chrousos GP, Zampelas A. *Nutrients*. 2021 Jan 24;13(2):341. doi: 10.3390/nu13020341.

Efficacy of a Multi-Component m-Health Diet, Physical Activity, and Sleep Intervention on Dietary Intake in Adults with Overweight and Obesity: A Randomised Controlled Trial. Fenton S, Burrows TL, Collins CE, Rayward AT, Murawski B, Duncan MJ. *Nutrients*. 2021 Jul 19;13(7):2468. doi: 10.3390/nu13072468.

How to promote healthy eating in preschool children: Evidence from an associative conditioning procedure with non-food stimuli. Halbeisen G, Walther E. *Appetite*. 2021 Nov 1;166:105472. doi: 10.1016/j.appet.2021.105472.

Identifying behavioral types of dietary lapse from a mobile weight loss program: Preliminary investigation from a secondary data analysis. Goldstein SP, Thomas JG, Brick LA, Zhang F, Forman EM. *Appetite*. 2021 Nov 1;166:105440. doi: 10.1016/j.appet.2021.105440.

[\[back to top\]](#)

## ***International: Research related to COVID-19***

**COVID-19 pandemic and stay-at-home mandates promote weight gain in US adults.** Seal A, Schaffner A, Phelan S, Brunner-Gaydos H, Tseng M, Keadle S, Alber J, Kiteck I, Hagobian T. *Obesity* (Silver Spring). 2021 Aug 31. doi: 10.1002/oby.23293.

**A National Study of Nutrition and Nutritional Status of the Adult Polish Population in the Years 2017-2020 before and during the COVID-19 Pandemic-Design and Methods.** Traczyk I, Raciborski F, Kucharska A, Sińska BI, Milewska M, Samoliński B, Szostak-Węgierek D. *Nutrients*. 2021 Jul 27;13(8):2568. doi: 10.3390/nu13082568.

[\[back to top\]](#)

## **Systematic reviews**

**The association between obesity and chronic pain among community-dwelling older adults: a systematic review and meta-analysis.** Qian M, Shi Y, Yu M. *Geriatr Nurs*. 2021 Jan-Feb;42(1):8-15. doi: 10.1016/j.gerinurse.2020.10.017.

**Association between Breakfast Skipping and Body Weight-A Systematic Review and Meta-Analysis of Observational Longitudinal Studies.** Wicherski J, Schlesinger S, Fischer F. *Nutrients*. 2021 Jan 19;13(1):272. doi: 10.3390/nu13010272.

**Facilitators and barriers of children's participation in nutrition, physical activity, and obesity interventions: A systematic review.** Clayton P, Connelly J, Ellington M, Rojas V, Lorenzo Y, Trak-Fellermeier MA, Palacios C. *Obes Rev*. 2021 Sep 1:e13335. doi: 10.1111/obr.13335.

**Probiotics have minimal effects on appetite-related hormones in overweight or obese individuals: A systematic review of randomized controlled trials.** Cabral LQT, Ximenez JA, Moreno KGT, Fernandes R. *Clin Nutr*. 2021 Apr;40(4):1776-1787. doi: 10.1016/j.clnu.2020.10.028.

**Association between characteristics of behavioural weight loss programmes and weight change after programme end: systematic review and meta-analysis.** Hartmann-Boyce J, Theodoulou A, Oke JL, Butler AR, Scarborough P, Bastounis A, Dunnigan A, Byadya R, Hobbs FDR, Sniehotta FF, Jebb SA, Aveyard P. *BMJ*. 2021 Aug 17;374:n1840. doi: 10.1136/bmj.n1840.

**Mobile apps for weight management in children and adolescents; An updated systematic review.** Langarizadeh M, Sadeghi M, As'habi A, Rahmati P, Sheikhtaheri A. *Patient Educ Couns*. 2021 Sep;104(9):2181-2188. doi: 10.1016/j.pec.2021.01.035.

**Weight Loss Interventions for Hispanic Women in the United States: A Systematic Review.** Morrill KE, Lopez-Pentecost M, Molina L, Pfander JL, Hingle MD, Klimentidis YC, Thomson CA, Garcia DO. *J Environ Public Health*. 2021 Aug 19;2021:8714873. doi: 10.1155/2021/8714873.

**Use and Effectiveness of Social-Media-Delivered Weight Loss Interventions among Teenagers and Young Adults: A Systematic Review.** Lozano-Chacon B, Suarez-Lledo V, Alvarez-Galvez J. *Int J Environ Res Public Health*. 2021 Aug 11;18(16):8493. doi: 10.3390/ijerph18168493.

**Fruit and vegetable intake is inversely associated with perceived stress across the adult lifespan.** Radavelli-Bagatini S, Blekkenhorst LC, Sim M, Prince RL, Bondonno NP, Bondonno CP, Woodman R, Anokye R, Dimmock J, Jackson B, Costello L, Devine A, Stanley MJ, Dickson JM, Magliano DJ, Shaw JE, Daly RM, Hodgson JM, Lewis JR. *Clin Nutr*. 2021 May;40(5):2860-2867. doi: 10.1016/j.clnu.2021.03.043.



**Unpalatable food for thought: Let marketing research guide effective public obesity interventions.** Holden SS, Zlatevska N, Parkinson J, Cadario R, Dubelaar C, Lei J, Moore E, Sayarh N, Van Kerckhove A, Werle C. *Obes Rev.* 2021 Feb;22(2):e13141. doi: 10.1111/obr.13141.

**Differential exposure to, and potential impact of, unhealthy advertising to children by socio-economic and ethnic groups: A systematic review of the evidence.** Backholer K, Gupta A, Zorbas C, Bennett R, Huse O, Chung A, Isaacs A, Golds G, Kelly B, Peeters A. *Obes Rev.* 2021 Mar;22(3):e13144. doi: 10.1111/obr.13144.

**What is the impact of food reformulation on individuals' behaviour, nutrient intakes and health status? A systematic review of empirical evidence.** Gressier M, Swinburn B, Frost G, Segal AB, Sassi F. *Obes Rev.* 2021 Feb;22(2):e13139. doi: 10.1111/obr.13139.

**Effectiveness of lifestyle interventions in preventing harmful weight gain among adolescents: A systematic review of systematic reviews.** Hayba N, Rissel C, Allman Farinelli M. *Obes Rev.* 2021 Feb;22(2):e13109. doi: 10.1111/obr.13109.

**Comparative effectiveness of school-based interventions targeting physical activity, physical fitness or sedentary behaviour on obesity prevention in 6- to 12-year-old children: A systematic review and meta-analysis.** Podnar H, Jurić P, Karuc J, Saez M, Barceló MA, Radman I, Starc G, Jurak G, Đurić S, Potočnik ŽL, Sorić M. *Obes Rev.* 2021 Feb;22(2):e13160. doi: 10.1111/obr.13160.

**Predictors of successful weight loss outcomes amongst individuals with obesity undergoing lifestyle interventions: A systematic review.** Chopra S, Malhotra A, Ranjan P, Vikram NK, Sarkar S, Siddhu A, Kumari A, Kalojiya GS, Kumar A. *Obes Rev.* 2021 Mar;22(3):e13148. doi: 10.1111/obr.13148.

**Interventions using behavioural insights to influence children's diet-related outcomes: A systematic review.** Chambers T, Segal A, Sassi F. *Obes Rev.* 2021 Feb;22(2):e13152. doi: 10.1111/obr.13152.

**The effect of diet, exercise, and lifestyle intervention on childhood obesity: A network meta-analysis.** Bae JH, Lee H. *Clin Nutr.* 2021 May;40(5):3062-3072. doi: 10.1016/j.clnu.2020.11.006.

**What exercise prescription is optimal to improve body composition and cardiorespiratory fitness in adults living with obesity? A network meta-analysis.** O'Donoghue G, Blake C, Cunningham C, Lennon O, Perrotta C. *Obes Rev.* 2021 Feb;22(2):e13137. doi: 10.1111/obr.13137.

[\[back to top\]](#)

### ***Systematic reviews: Research related to COVID-19***

**Effects of COVID-19 lockdown on eating disorders and obesity: A systematic review and meta-analysis.** Sideli L, Lo Coco G, Bonfanti RC, Borsarini B, Fortunato L, Sechi C, Micali N. *Eur Eat Disord Rev.* 2021 Aug 30. doi: 10.1002/erv.2861.

[\[back to top\]](#)