

The full obesity System Map showing all 108 indicators

- Accessibility to opportunities for physical exercise** Physical activity environment Physical accessibility (distance, safety) of opportunities for physical exercise
- Acculturation** Social psychology Degree to which a (dominant) culture is assimilated
- Alcohol consumption** Food consumption —
- Ambient temperature** Physical activity environment average environmental temperature indoors
- Appropriateness of embryonic & fetal growth** Physiology Degree to which the physiological environment for the embryo provides optimal nutrient and physical environment for growth
- Appropriateness of child growth** Physiology Degree to which speed of growth and physiological status of the child are in balance with each other and thus to prevent early onset of adipose tissue formation
- Appropriateness of maternal body composition** Physiology Degree to which the maternal body has the optimal physiological condition at conception, pregnancy and birth
- Appropriateness of nutrient partitioning** Physiology Degree to which the body is able to maintain the appropriate balance between fat, protein and carbohydrate metabolism and storage
- Availability of passive entertainment options** Social psychology Availability of recreational options that involve only limited physical exercise (tv, computer games)
- Children's control of diet** Social psychology Degree to which children exert influence on dietary choices in a family
- Conceptualisation of obesity as a disease** Social psychology Degree to which people consider obesity to be a abnormal deviation from the healthy norm
- Conscious control of accumulation** Engine Level at which cognitive/reflexive processes exert influence on energy intake and expenditure
- Convenience of food offerings** Food consumption The degree to which food offerings cater to the desire for convenience
- Cost of ingredients** Food production Cost of ingredients used in processed foodstuffs
- Cost of physical exercise** Physical activity environment Financial cost of physical recreation
- Degree of innate activity in childhood** Individual physical activity Degree to which physical activity is part of typical childhood behaviour
- Degree of optimal GI signalling** Physiology Degree of intestinal signals resulting from digestion and absorption of food that help to control the intake of type and amount of foods.
- Degree of physical education** Individual physical activity Degree to which people have learned to use their body (for labour, leisure and transport)
- Degree of primary appetite control by brain** Physiology Degree to which the brain automatically (non-consciously) responds to signals of the digestive system to control type and amount of food intake
- Demand for convenience** Food consumption Consumer demand for convenient (time/effort saving) food offerings
- Demand for health** Food production —
- Demand for indulgence/compensation** Individual psychology Strength of demand for psychological release after stress or effort
- Desire to differentiate food offerings** Food production Industry-internal drive to distinguish themselves from competition
- Desire to maximise volume** Food production Industry-internal drive to maximise volumes sold on the market

Desire to minimise cost Food production Industry-internal drive to minimise the cost of production

Desire to resolve tension Individual psychology Desire to resolve psychological conflict between what people desire and what they need to stay healthy

De-skilling Food consumption The degree to which individuals are not able anymore to engage independently in routine tasks for daily living (such as cooking)

Dominance of motorised transport Physical activity environment Degree to which motorised transport dominates other ways of transport

Dominance of sedentary employment Physical activity environment Degree to which average citizens influence one another's choices

Education Social psychology —

Effort to acquire energy Engine Effort people spend to acquire bodily energy via food intake

Effort to increase efficiency of consumption Food production By consumers

Effort to increase efficiency of production Food production Effort by economic actors (industry)

Energy-density of food offerings Food consumption Number of calories per unit food weight

Exposure to food advertising Social psychology —

Extent of digestion and absorption Physiology Degree of optimal energy and nutrient absorption by the human body

Female employment Food production —

F2F social interaction Individual psychology Intensity of face-to-face interaction between individuals

Fibre content of Food & Drink Food consumption —

Food abundance Food consumption The aggregate amount of food (volume) that is at any moment in time available in UK society

Food exposure Food consumption The number of food cues individuals are confronted with on a daily basis

Food literacy Individual psychology Degree to which people are able to assess nutritional quality and provenance

Food variety Food consumption The number of different food products (natural and processed) available at any moment in time

Force of dietary habits Food consumption The degree to which behavioural patterns related to food intake are dictated by routine and habit

Functional fitness Individual physical activity Level of physical fitness to perform daily tasks

Genetic and/or epigenetic predisposition to obesity Physiology Degree to which a person is predisposed by his genetic make-up to develop obesity; degree of indirect inheritance that contributes to obesity susceptibility

Importance of ideal body-size image Social psychology Degree to which there is a dominant image of an ideal body size in a society

Importance of physical need Engine Degree to which physical need for energy triggers energy spending and acquiring behaviour

Individualism Individual psychology Weakness of social fabric

Learned activity patterns in early childhood Individual physical activity Degree of activity experienced by the foetus, newborn and child in early life through parental physical activity

Level of adipocyte metabolism Physiology Degree to which fat is rapidly absorbed and stored in adipose tissue (fat storage cells)

Level of available energy Engine Level of energy available to an individual

Level of domestic activity Individual physical activity Level of physical activity exhibited in the domestic arena

Level of employment Food production —

Level of fat-free mass Physiology Relative level of fat-free tissue (muscle) in comparison to fat tissue (adipose tissue)

Level of female employment Food production —

Level of infections Physiology Degree of general occurrence of all type of diseases in society

Level of occupational activity Individual physical activity Level of physical activity associated to professional duties

Level of recreational activity Individual physical activity Degree to which people engage in physical activity for recreation

Level of satiety Physiology Degree to which food digestion and absorption in the gut reduces the need for food intake

Level of thermogenesis Physiology Degree of energy needed to maintain body temperature

Level of transport activity Individual physical activity Level of physical activity associated to transport

Market price of food offerings Food production —

Media availability Social psychology Availability of media across formats

Media consumption Social psychology Degree to which people make use of the media offerings

Non-volitional activity (NEAT) Individual physical activity extent to which people engage in non-volitional activity (twitching etc)

Nutritional quality of Food & Drink Food consumption —

Opportunity for team-based activity Physical activity environment —

Opportunity for unmotorised transport Physical activity environment Availability of facilities/infrastructure for unmotorised transport

Palatability of food offerings Food consumption —

Parental control Social psychology Level of control exerted by parents on children's choices

Parental modelling of activity Individual physical activity Degree to which parents act as a role model in physical activity related behavioural patterns

Peer pressure Social psychology Degree to which average citizens influence one another's choices

Perceived danger in environment Physical activity environment —

Perceived inconsistency of science-based messages Individual psychology Degree to which there is incompatibility between scientific assessments on food related issues which (are perceived) to be similar

Perceived lack of time Social psychology By all citizens, particularly those engaged in economic activity

Physical activity Individual physical activity Level of physical activity people engage in

Portion size Food consumption —

Predisposition to activity Physiology —

Pressure for growth and profitability Food production Degree to which economic actors are led in their decisions by financial measures of performance

Pressure on job performance Food production Pressure on employees, as generic production factors in an industrial economy

Pressure to cater for acquired taste Food production Industry-internal pressure to calibrate food offerings to what consumers are used to/like

Pressure to improve access to food offerings Food production Industry-internal drive to bring food offerings as closely as possible to consumers

Psychological ambivalence Individual psychology Degree to which people experience a psychological conflict between what people desire (e.g. fatty, sweet foods) and the need to stay healthy

Purchasing power Food production —

Quality & Quantity of breast feeding Physiology —
Rate of eating Food consumption Time-span devoted to consuming a meal
Reliance of labour-saving devices Physical activity environment Reliance on labour-saving devices for daily chores
Reliance on pharma remedies Physiology —
Reliance on surgical interventions Physiology Reliance on pharma & surgical remedies to deal with effects of obesity
Resting metabolic rate Physiology Degree of energy utilised by the metabolism in a resting state (no physical nor intestinal activity)
Safety of unmotorised transport Physical activity environment Level of risk for harm by engaging in non-motorised transport
Self esteem Individual psychology Sense of purpose and self-confidence of individuals
Side-effects of drug use Physiology —
Smoking cessation Social psychology Number of people quitting smoking
Social acceptability of fatness Social psychology —
Social depreciation of labour Physical activity environment Degree to which manual labour is negatively valued in a given socio-cultural group
Social rejection of smoking Social psychology —
Societal pressure to consume Food production Endemic pressure (via a variety of channels and actors) to consume
Sociocultural valuation of food Social psychology Degree to which food is positively valued within a given socio-cultural group
Sociocultural valuation of physical activity Physical activity environment Degree to which physical activity is positively valued in a given socio-cultural group
Standardisation of food offerings Food production Degree to which processed foodstuffs are based on similar production processes, ingredients and market positioning
Strength of lock-in to accumulate energy Engine Degree to which behavioural patterns to spend and acquire energy are psychologically, biologically, institutionally locked in
Stress Individual psychology Perceived level of stress by individuals
Tendency to graze Food consumption Tendency to eat outside fixed meal times
Tendency to preserve energy Engine Tendency of people to reduce expenditure of bodily energy
TV watching Social psychology Time spent watching tv
Use of medicines Individual psychology —
Walkability of living environment Physical activity environment —