LEEDS BECKETT UNIVERSITY
OBESITY INSTITUTE

Inequalities in health

Louisa Ells
Professor of Obesity & Co-Director of the Obesity Institute, Leeds Beckett University

Improving the lives of people living with obesity

Introducing the Obesity Institute

- https://www.leedsbeckett.ac.uk/research/obesity-institute/

- https://youtu.be/kXMu0VWuvTs

What are health inequalities?

"Health inequalities are avoidable, unfair and systematic differences in health between different groups of people".

Health inequalities involve differences in:

- health status, for example, life expectancy and quality of life
- access to care
- quality and experience of care, for example levels of patient satisfaction or experience of stigmatisation
- behavioural risks to health, for example poor diet
- wider determinants of health, for example employment & education

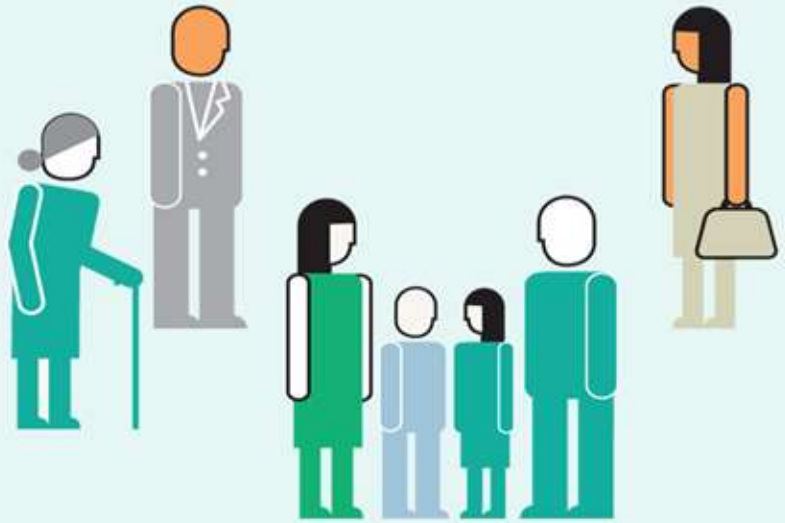
All of which occur in people living with obesity…

LEEDS BECKETT UNIVERSITY

Source: https://www.kingsfund.org.uk/publications/what-are-health-inequalities

Obesity does not affect all groups equally

Obesity is more common among:



People from more deprived areas

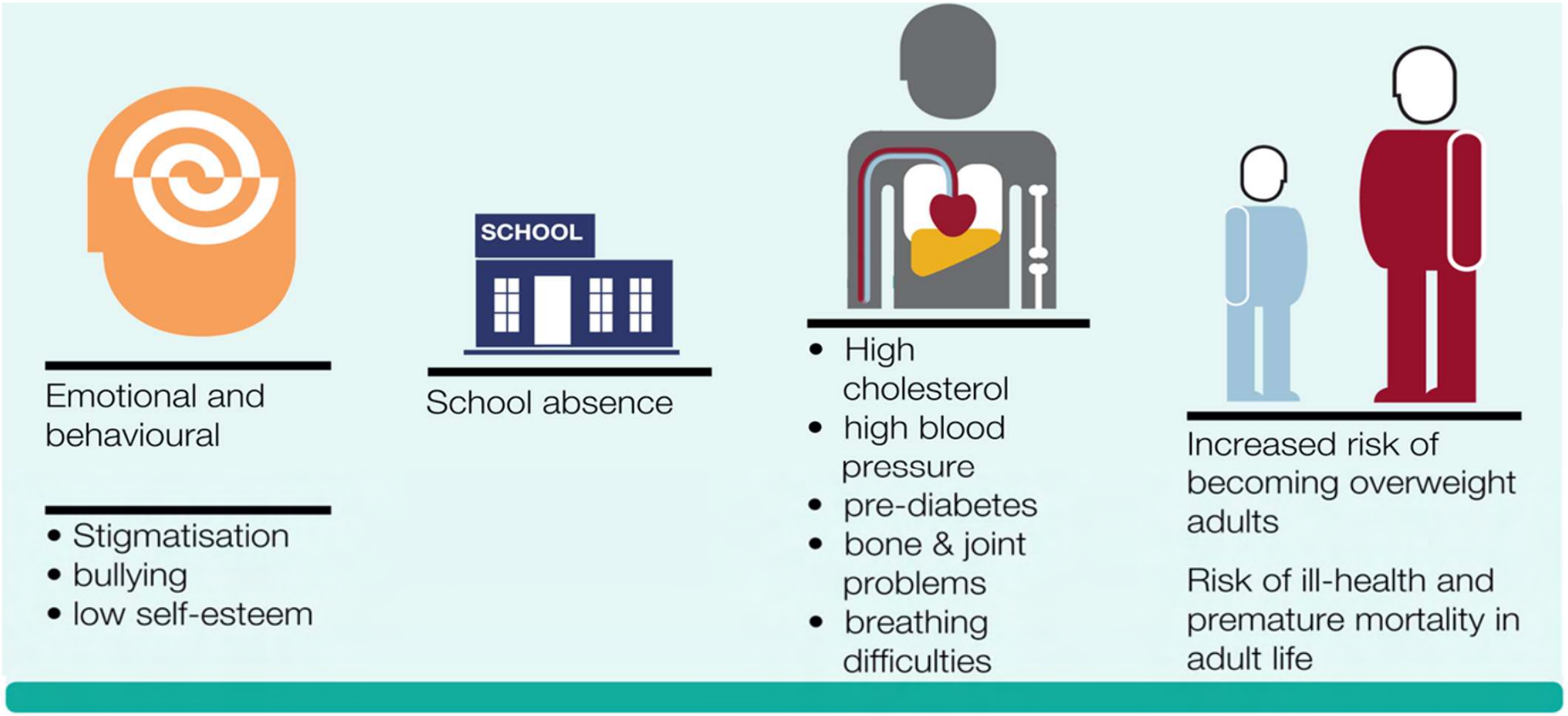
Older age groups

Some black and minority ethnic groups

People with disabilities

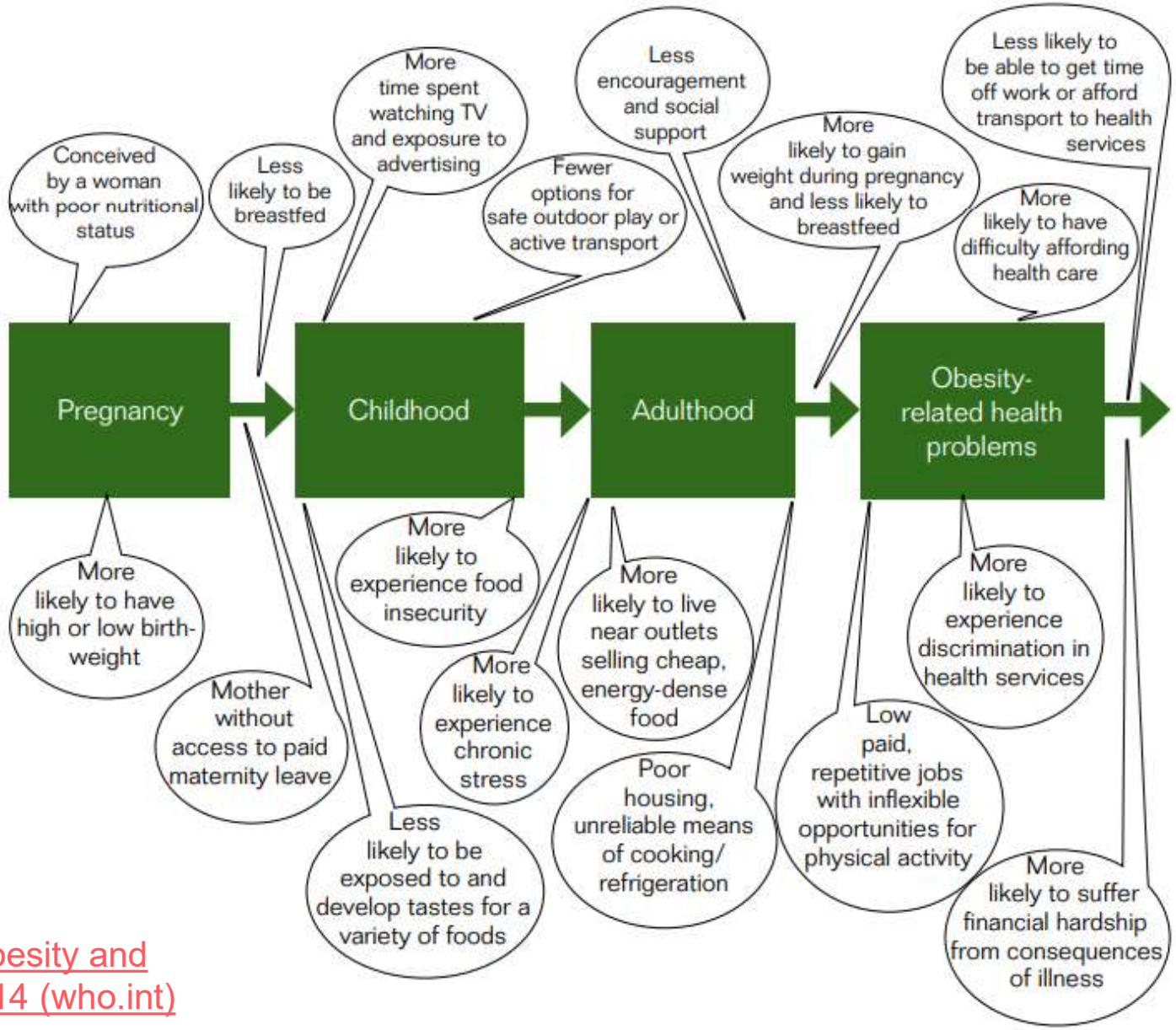
Inequalities and adult obesity

Inequalities and childhood obesity



LEEDS BECKETT UNIVERSITY

How inequalities compound over the life course:



LEEDS BECKETT UNIVERSITY

Source: WHO (2014) Obesity and inequities: obesity-090514 (who.int)


COVID-19 has
widened
inequalities further!

Obesity Inequalities in Europe:

- Significant socioeconomic, gender and ethnic inequities in obesity exist.
- Socioeconomic inequities are widening and the gradient is becoming steeper.

And if obesity prevalence data are only available as population averages, this may conceal increasing levels in disadvantaged groups – therefore, data should be analysed by social group.

- Women and children in low socioeconomic groups are most vulnerable, and inequities in obesity are passed on from generation to generation.

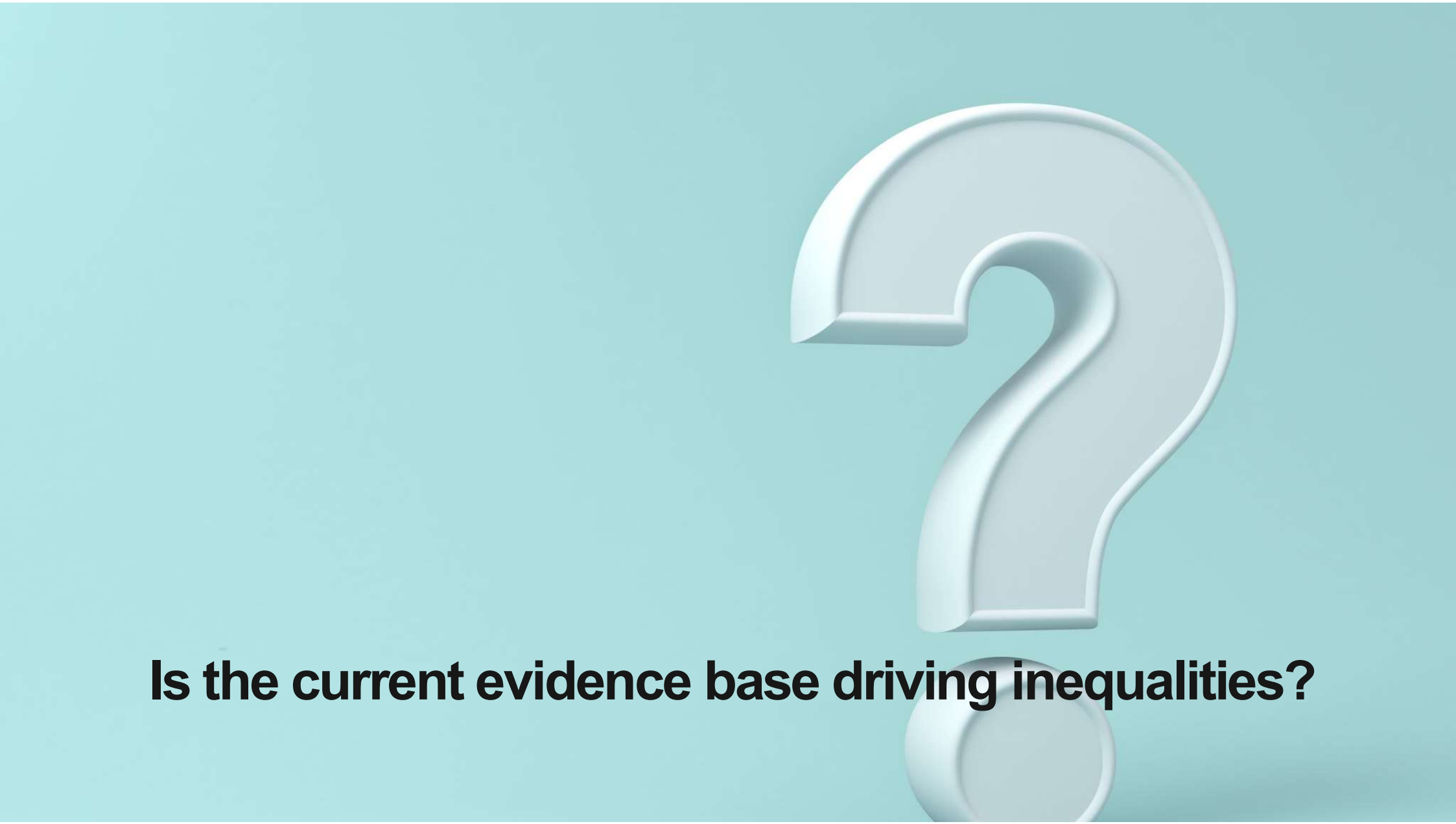
Therefore pre-pregnancy, pregnancy, infancy and early childhood are critical periods for interventions to reduce obesity inequities.

- Physical activity is important for weight management and overall health, so appropriate policies and interventions should be tailored to different needs and abilities in a range of settings.
- Obesity costs national economies billions of Euros per year, including lost productivity and sick days

Thus, strategies to address obesity across the social gradient are required – but especially in low socioeconomic groups.

LEEDS BECKETT UNIVERSITY

WHO (2014) Obesity and inequities: obesity-090514 (who.int)


Is the current evidence base driving inequalities?

Does weight management research for adults with severe obesity represent them?

- This systematic review set out to determine the extent to which current evidence from long-term RCTs of weight management is generalisable and applicable to underserved adult groups with obesity (BMI ≥35).
- Of the 131 included trials ONLY:
  - 6.1% reported adapting recruitment to appeal to underserved groups.
  - 10.0% reported culturally adapting their trial materials.
  - 6.1% gave any justification for their exclusion criteria.
  - Over half excluded participation for age or mental health reasons.
  - 58% of the trials reported participants' race or ethnicity, and one-fifth reported socioeconomic status.
  - Where outcomes were reported for underserved groups, the most common analysis was by sex (47.3%), followed by race or ethnicity (16.8%), with only 3.1% of trials reported outcomes according to socioeconomic status.

LEEDS BECKETT UNIVERSITY

Source: Robinson et al (2021)
https://bmjopen.bmj.com/content/12/5/e054459.long

Inequalities in the uptake of, adherence to, and effectiveness of behavioural weight management interventions in adults

- The authors conducted a systematic review, to examine how different aspects of inequality impact uptake, adherence, and effectiveness in trials of behavioural weight management interventions.
- 91 weight loss and 12 weight maintenance trials was assessed for uptake, intervention adherence, attrition, and weight change by PROGRESS-Plus criteria (place of residence, race/ethnicity, occupation, gender, religion, education, socioeconomic status, social capital, plus other discriminating factors).
- **ONLY 56 of the 103 trials considered inequalities** in relation to at least one of: trial uptake (n = 15), intervention adherence (n = 15), trial attrition (n = 32), or weight outcome (n = 34).
- Most trials found no inequalities gradient. If a gradient was observed for trial uptake, intervention adherence, and trial attrition, those considered “more advantaged” did best.

LEEDS BECKETT UNIVERSITY

Source:
Birch (2022) https://doi.org/10.1111/obr.13438

Interventions for treating children and adolescents with overweight and obesity: an overview of Cochrane reviews

- Six reviews provided evidence on the effectiveness of behaviour changing interventions conducted in children <6 years (7 trials), 6–11 years (70 trials), adolescents 12–17 years (44 trials) and interventions that target only parents of children aged 5–11 years (20 trials); in addition to interventions examining surgery (1 trial) and drugs (21 trials).
- Of the 163 included studies
  - 56% did not report on ethnicity.
  - 64% did not report on socio-economic status (and those that did used a variety of measurement tools).
  - Participant satisfaction was only reported in 14% of studies.
  - the vast majority of studies were undertaken in the USA (45%) or Europe (27%), with only 10% conducted in upper-middle-income countries.

LEEDS BECKETT UNIVERSITY

Source: Ells (2018):
Interventions for treating children and adolescents with overweight and obesity: an overview of Cochrane reviews | International Journal of Obesity (nature.com)

Outstanding research questions related to inequality:

- What weight management interventions are most effective in low and middle-income countries?
- What weight management interventions are most effective for children with disabilities, complex health needs or very severe forms of obesity?
- What weight management interventions are most effective in specific ethnic, religious and culturally diverse groups?
- What are the key family characteristics/environments that promote success?
- What is the optimal role of parents within different age groups?
- What behaviour change strategies are most useful, to whom and why?
- What maintenance programmes are required to help improve the sustainability of positive weight management improvements, across different population groups?
- What are the impacts of emerging new technologies such as e-health in children?
- How clinically effective is restrictive or mal-absorptive bariatric surgery in treating obesity in adolescents from different backgrounds?

LEEDS BECKETT UNIVERSITY

Source: Ells (2018):
Interventions for treating children and adolescents with overweight and obesity: an overview of Cochrane reviews | International Journal of Obesity (nature.com)

Social disparities in obesity treatment for children age 3–10 years: A systematic review

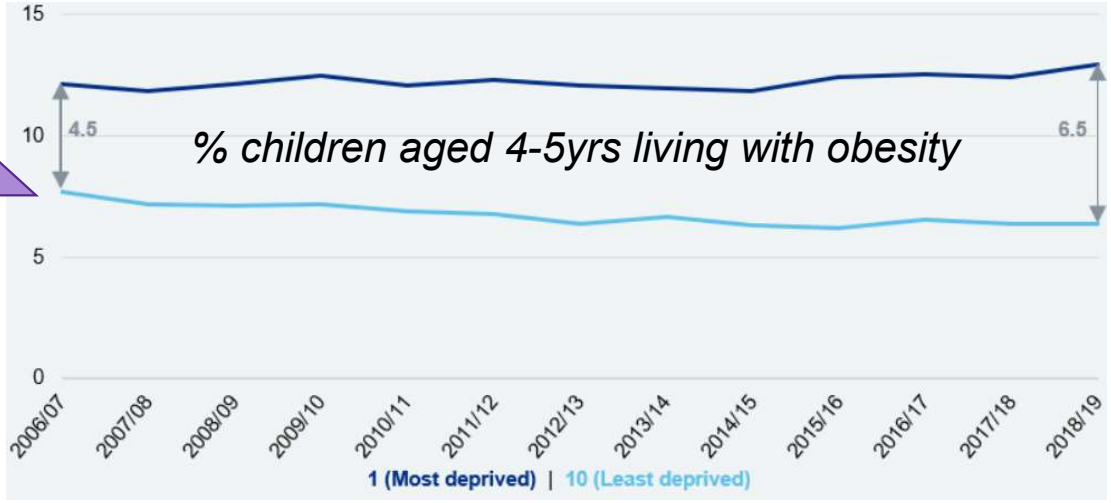
- Only 5 out of 81 primary studies directly addressed differential effectiveness of treatment in relation to social disparities, with inconsistent conclusions.
- Interventions need to be culturally and socially sensitive, avoid stigma, encourage motivation, recognize barriers and reinforce opportunities, and be achievable within the family's time and financial resources.
- Providing treatments that are attractive, that encourage, support and facilitate repeat attendance, that motivate sustained change, and are achievable within the family's resources, requires a degree of understanding of the children being treated and their families.
- However, it appears from this review that this understanding is rarely attempted, considered or applied.

LEEDS BECKETT UNIVERSITY

Source: Social disparities in obesity treatment for children age 3–10 years: A systematic review - Lobstein - 2021 - Obesity Reviews - Wiley Online Library

If obesity is most prevalent in socially disadvantaged groups, yet interventions are most effective in advantaged groups – obesity inequalities are only going to continue widen – as seen in the English National Child Measurement Programme

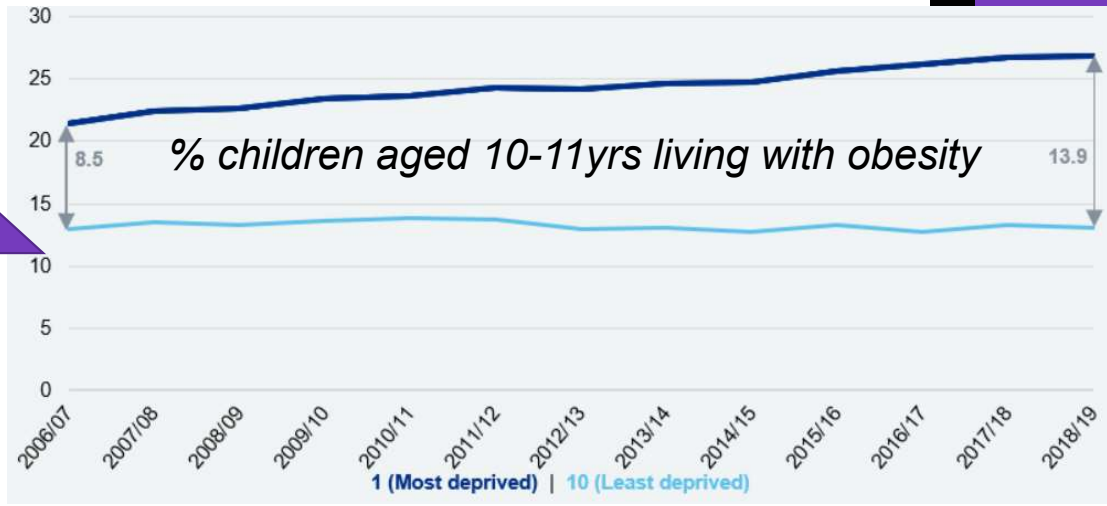
2.1% increase between most and least deprived



Children from the most deprived families and from certain ethnic groups are also more likely to gain or maintain an unhealthy excess weight during primary school!

Changes in the weight status of children between the first and final years of primary school (publishing.service.gov.uk)

5.4% increase between most and least deprived



LEEDS BECKETT UNIVERSITY

Source: Deprivation - NHS Digital

Barriers and facilitators to supporting families with children most at risk of developing excess weight - a rapid review

- Searched for European evidence within families: from certain (high risk) ethnic groups, with low socioeconomic status, or intellectual and/or physical disabilities
- The review found that insight into how and why families with the highest risk of developing excess weight, engage [or do not engage] with weight management services remains limited.
- **Weight management programmes, including assessment tools and health promotion materials, should be co-developed with children and their families to ensure they are designed appropriately and tailored.**

LEEDS BECKETT UNIVERSITY

Source: Supporting families with children most at risk of developing excess weight (publishing.service.gov.uk)

Considerations for improving weight management services for underserved high risk families:

- support families on a low income to make healthier food and activity choices, with consideration given to the cost of healthier food, activity and any child care and transport costs associated with programme attendance
- enhance communication through the use of translators, and good visual resources to reduce reliance on literacy
- culturally adapt programme content and delivery, ensuring cultural awareness amongst staff, and provision of non-stigmatising support
- include researcher/programme staff from target communities
- address wider environmental contributors to weight gain such as neighbourhood safety and fast food availability
- ensure relevant services are joined up to provide continuity of care
- socio-economically matched peer support programmes may be useful to explore for adolescents

LEEDS BECKETT UNIVERSITY

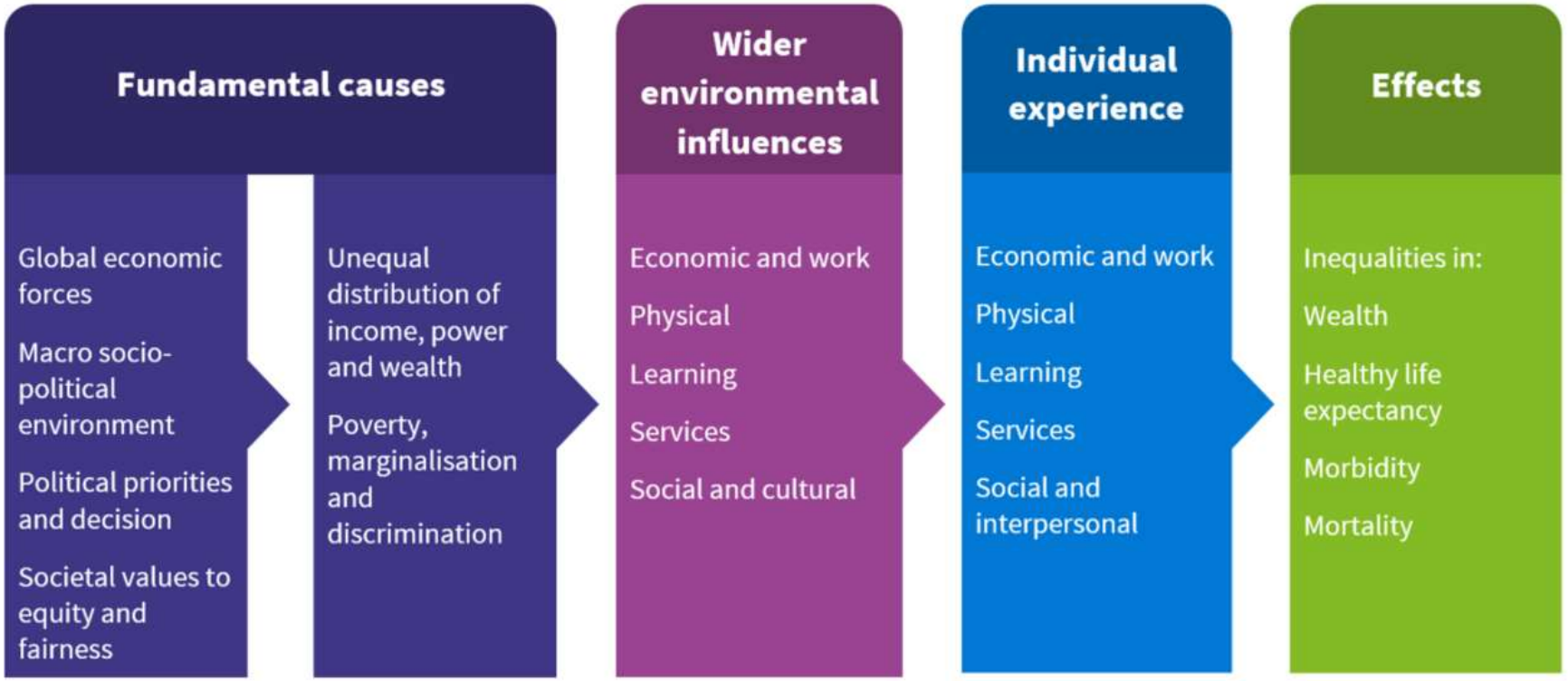
Supporting families with children most at risk of developing excess weight (publishing.service.gov.uk)

What does the evidence presented tell us…

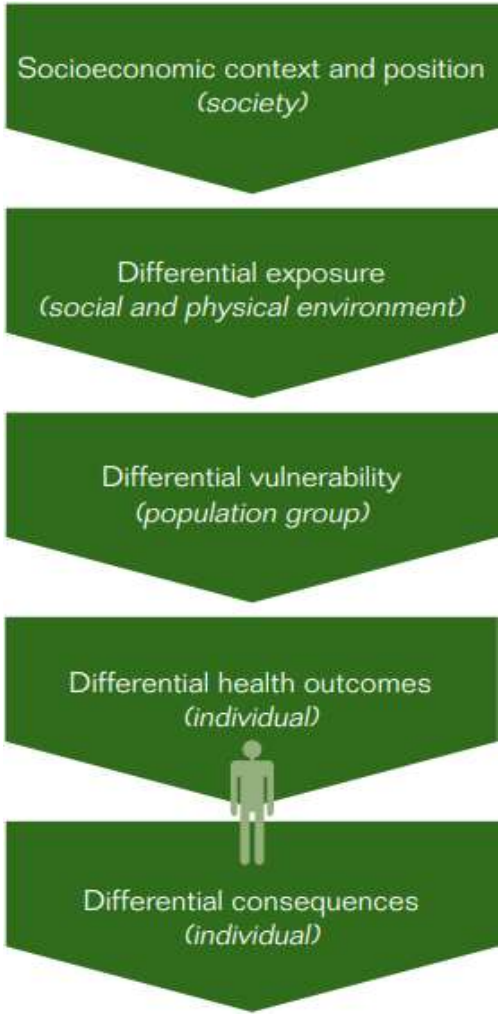
- There are few obesity interventions that have been evaluated for their effectiveness in disadvantaged and least heard groups.
- People who are likely to be subject to inequalities, tend not to participate in studies, and if they do, they are likely to drop out early.
- Interventions need to take greater account of ethnic and social diversity
- We can not assume that what works on the population average will work for everyone – we need to investigate the effect of interventions on different groups to ensure inequalities are addressed and not widened.

Fighting back on inequalities

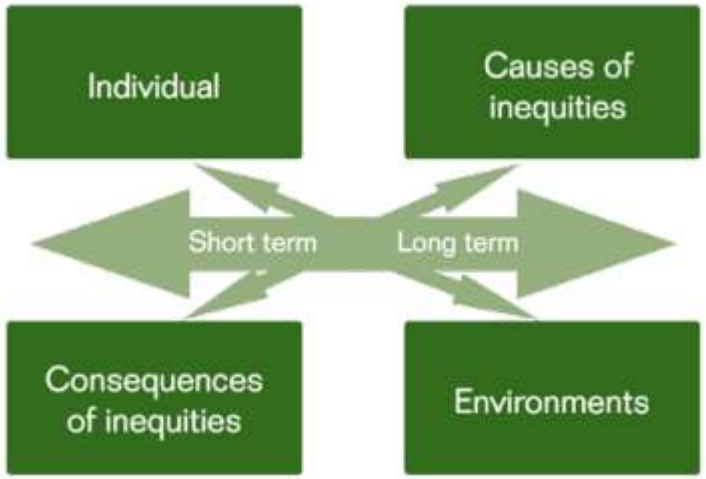
Inequalities explained by theory of causation



Source: https://learning.publichealthscotland.scot/

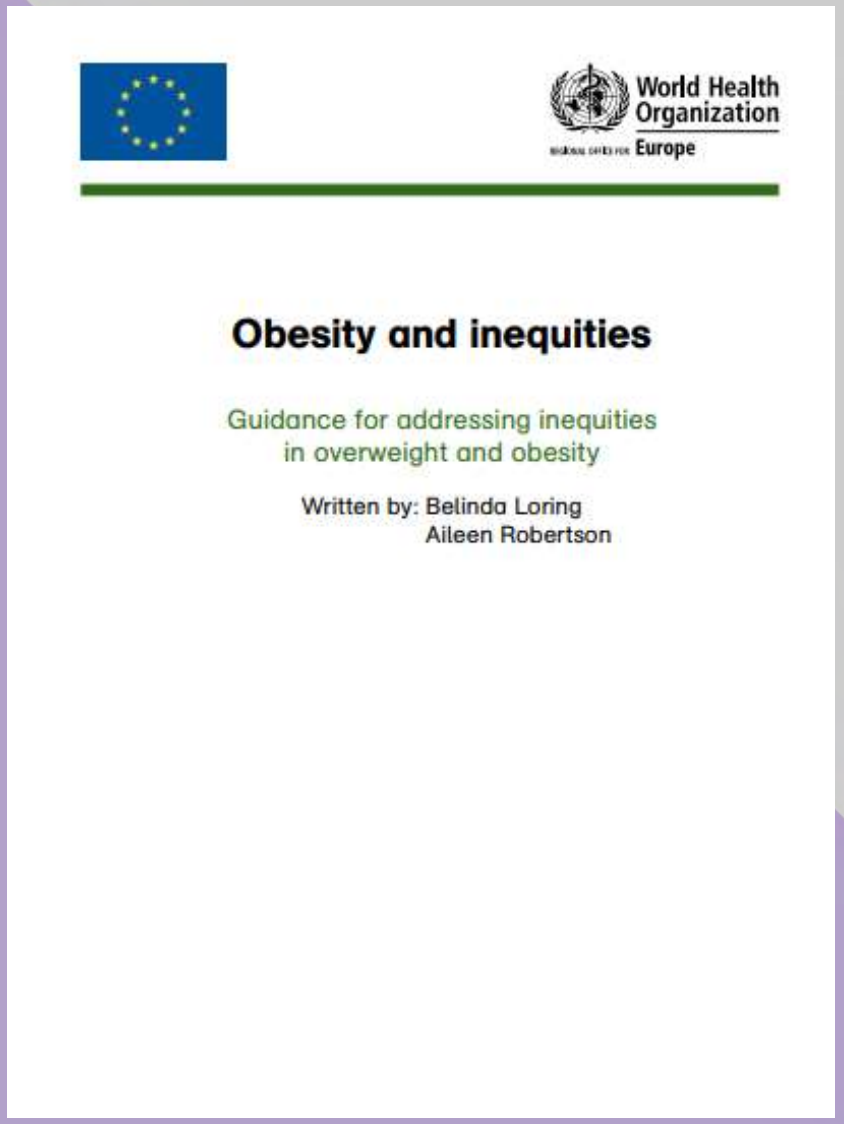


Inequalities can arise at different levels and therefore require a range of approaches to address them



Source: WHO (2014) Obesity and inequities: obesity-090514 (who.int)

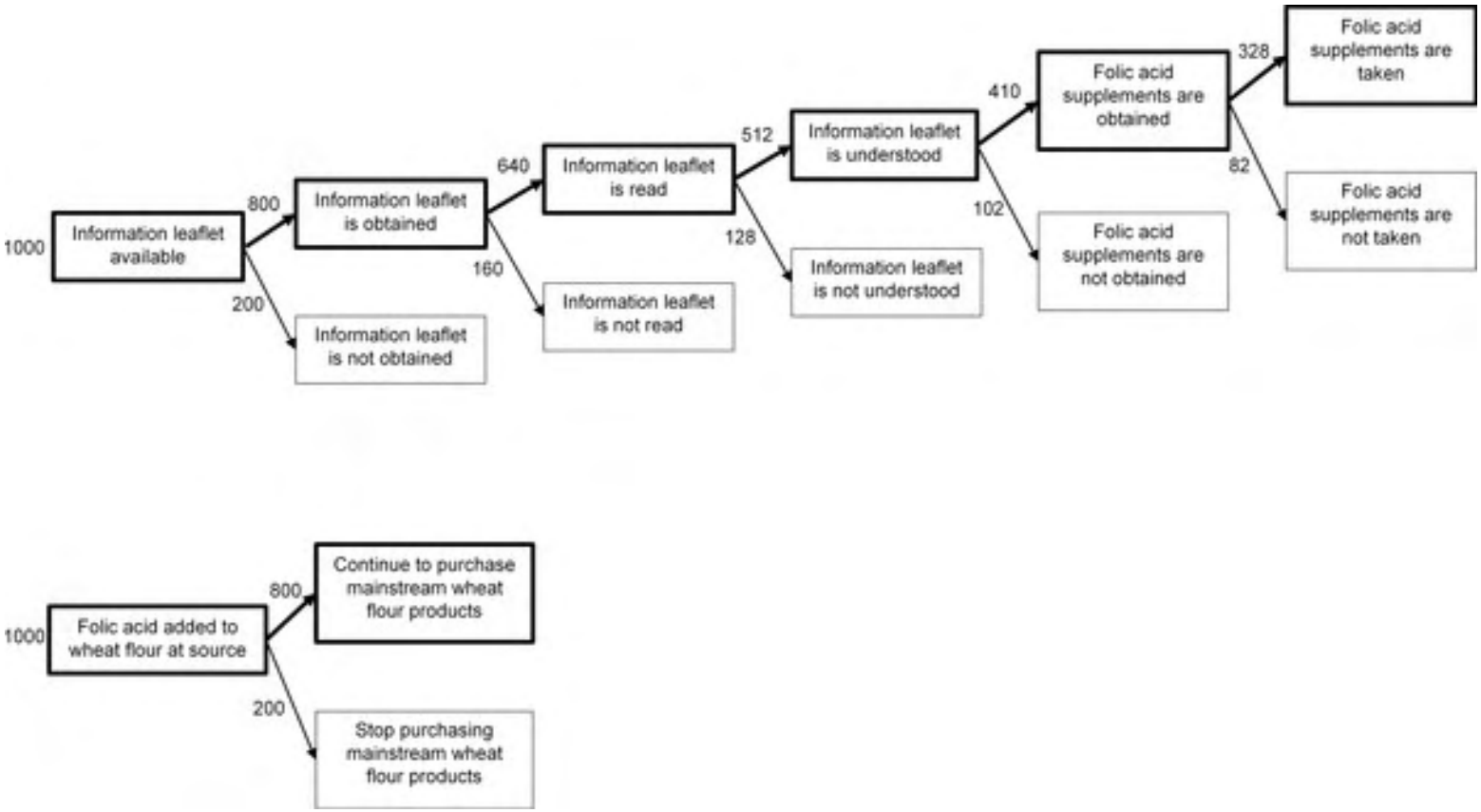
LEEDS BECKETT UNIVERSITY



Key policy recommendations

- **Prioritise affordability, accessibility, availability and practicalities** relating to healthy food (rather than knowledge).
- **Universal policies to improve eating habits**, and **modifying environments** to encourage physical activity are important, but the more deprived groups may require extra measures to benefit from these policies.
- **Tax foods** high in fat, sugar and salt and **removing tax** on vegetables and fruit.
- Develop and assess the **cost of a national healthy food basket** to help decide the minimum wage and social benefit levels.
- **Increase social protection and income support**, to cover the cost of buying a healthy food basket;
- **Restrict marketing of unhealthy food** high in fat, sugar and salt and sugary beverages to children.
- **Improve the composition of processed foods** (e.g. reducing fat, sugar and salt content)
- **Interventions during pregnancy and early childhood** should be prioritised.
- **Interventions to address obesity at a population level** are more likely to be effective than interventions at an individual level, especially for groups of low socioeconomic status.

Fig 1. Illustration of the intervention pathway in low- (top) and high-agency (bottom) population interventions.



Adams J, Mytton O, White M, Monsivais P (2016) Why Are Some Population Interventions for Diet and Obesity More Equitable and Effective Than Others? The Role of Individual Agency. PLOS Medicine 13(4): e1001990. https://doi.org/10.1371/journal.pmed.1001990
https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001990

Addressing differential access to health care:

- offering comprehensive health and social support through primary care, maternal and child health services, and social services, addressing service users' perceptions and needs;
- involving marginalized and low socioeconomic groups in the design, delivery and evaluation of services to ensure success.

Addressing the gender gap in physical activity:

- improving physical activity participation of girls at school;
- improving the physical and cultural safety of spaces for physical activity;
- working with disadvantaged girls and women to remove barriers to their physical activity.

Providing a balanced portfolio of action to provide a mix of long- and short-term impacts, addressing the root social causes and consequences of inequities and acting at both individual and environmental level.

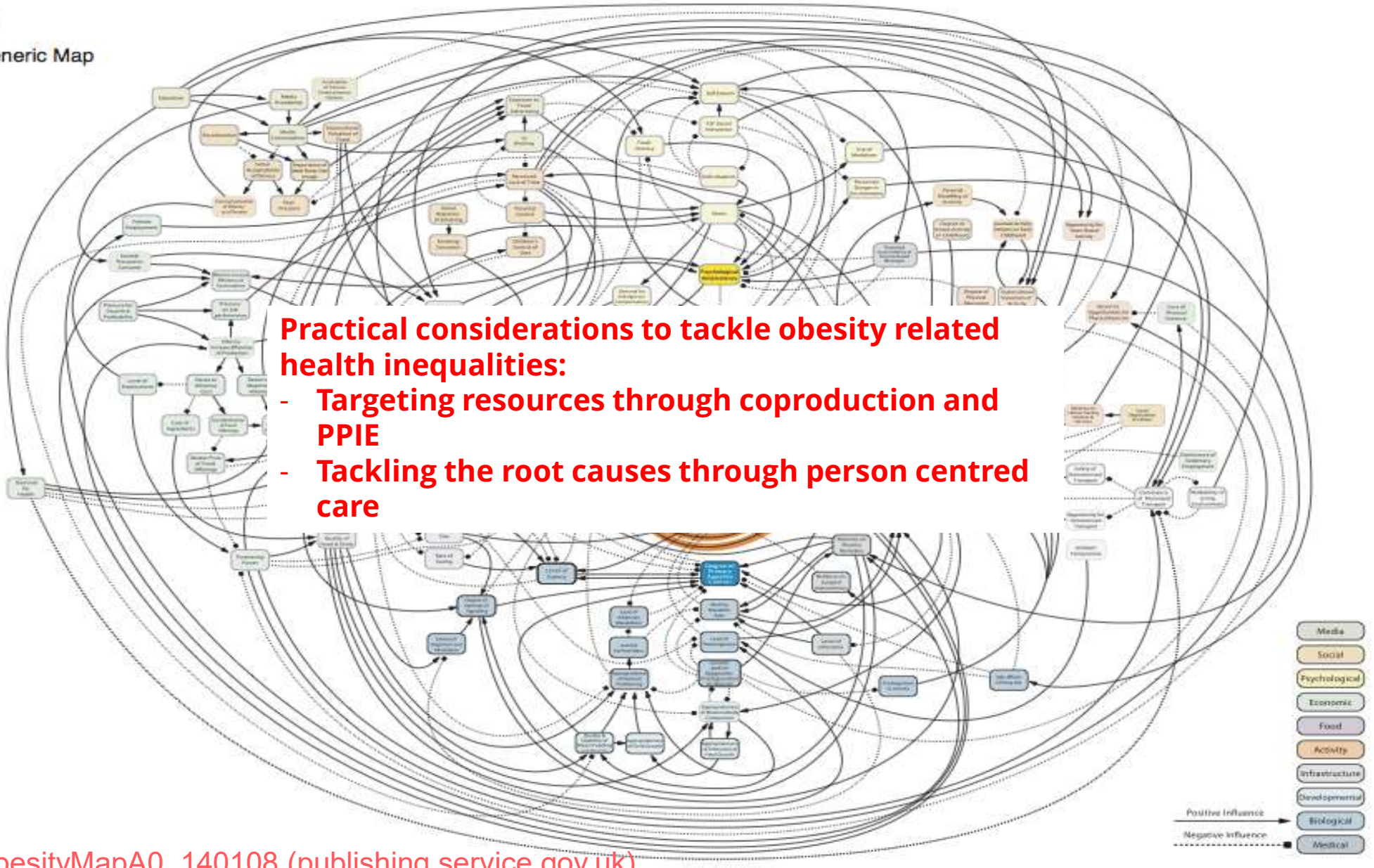
Source: WHO (2014) Obesity and inequities: obesity-090514 (who.int)

No single intervention will reduce health inequalities. A combination of actions, including tackling the root causes, targeting resources where they are most needed and making improvements to our living environments and communities will all help.

Public Health Scotland

Map 0

Full Generic Map



Practical considerations to tackle obesity related health inequalities:

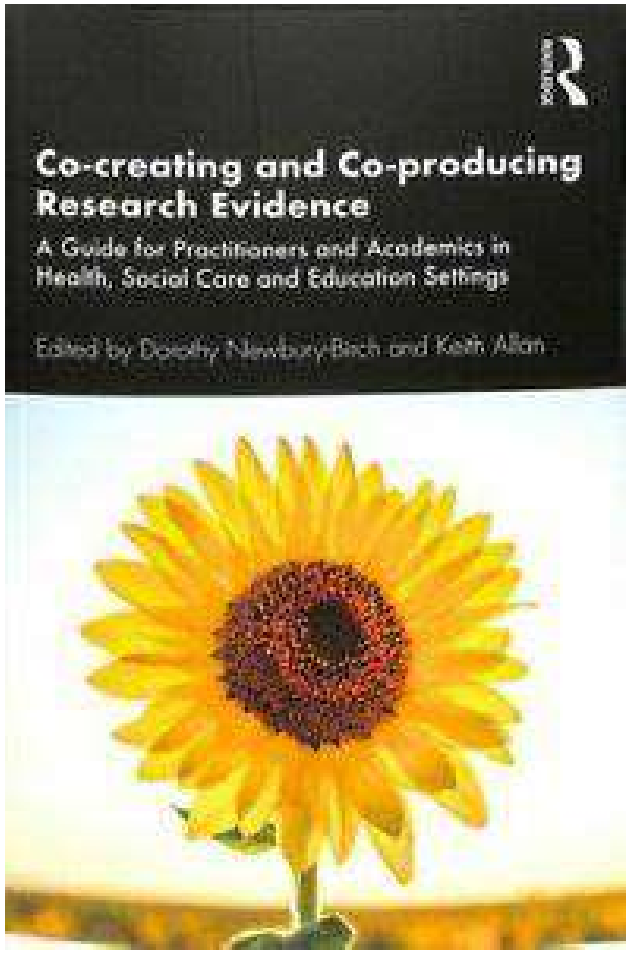
- **Targeting resources through coproduction and PPIE**
- **Tackling the root causes through person centred care**

00-ObesityMapA0_140108 (publishing.service.gov.uk)

Tackling inequalities: the importance of coproduction and the voice of lived experience

What is co-production?

- ‘Sharing information and decision making between service users and providers, which when effectively applied can improve services and enable service users to be become more effective agents of change’
- Increasingly being used to bring together academics, policy makers, practitioners and service users to provide high quality research that has a real and tangible public benefit.
- Therefore good Public and Patient Involvement and Engagement (PPIE) is key!



*McGeechan GJ, **Ells LJ,** Giles EL (2019) CHAPTER 2: CO-PRODUCTION: THE ACADEMIC PERSPECTIVE In Newbury-Birch D, Allan K (Eds). Co-creating and Co-producing Research Evidence: A Guide for Practitioners and Academics in Health, Social Care and Education Settings. Routledge*

LEEDS BECKETT UNIVERSITY

Who has undertaken public or patient involvement?

What is Patient and Public Involvement & Engagement?

- It is part of the co-design process where members of the public or patients are actively involved in research.
- These activities recognise that people with lived-experiences contribute additional expertise: providing invaluable, novel insights.

PPIE is research being carried out '**with**' or '**by**' members of the public rather than **'to',** or **'about'** them.

It's about:

- Creating a truly person-centred approach

- Putting people at the heart of what we do

- Co-developing, delivering and evaluating services and research the people that most need them!

LEEDS BECKETT UNIVERSITY

What does involving service users bring?

A new and different perspective

Improves the quality of your service or research

Makes the research or service more relevant to the service user

PPIE essentials:

- Taking time to build a good mutually respectful relationship
- Ensuring appropriate funding is available to pay people for their time (and promptly)
- Good open communication (no hierarchy)
- Training for researchers and PPIE members
- Evaluation: celebrate what worked well and learn from what didn't
- PPI involvement in EVERY stage of the research…

Always consider reach, cultural awareness, stigma & weight bias

- Reach out to communities, rather than rely on them coming to you. Think about community hubs, religious institutes, and work alongside community champions or leaders, or recruit staff from your target communities.
- Don't rely on good literacy, use innovative communication and engagement – what works for your target population – what communications mechanisms are used within the community.
- Always use non-stigmatising person first language i.e. people living with obesity rather than obese people.

People-First Language - Obesity Action Coalition

- Unfortunately, weight stigma exists in healthcare and research settings.
- Negative attitudes about individuals with excess weight have been reported by physicians, nurses, dietitians, psychologists and medical students.
- Research shows that even healthcare professionals who specialize in the treatment of obesity hold negative attitudes.

Understanding Obesity Stigma Brochure - Obesity Action Coalition

LEEDS BECKETT UNIVERSITY

- Think about your own and your team's weight bias which can be explicit or implicit

Test your implicit weight bias

Test your implicit bias by taking the weight implicit bias test:

cut & paste the following link into your URL,
https://implicit.harvard.edu/implicit/takeatest.html

Then click: **I wish to proceed**

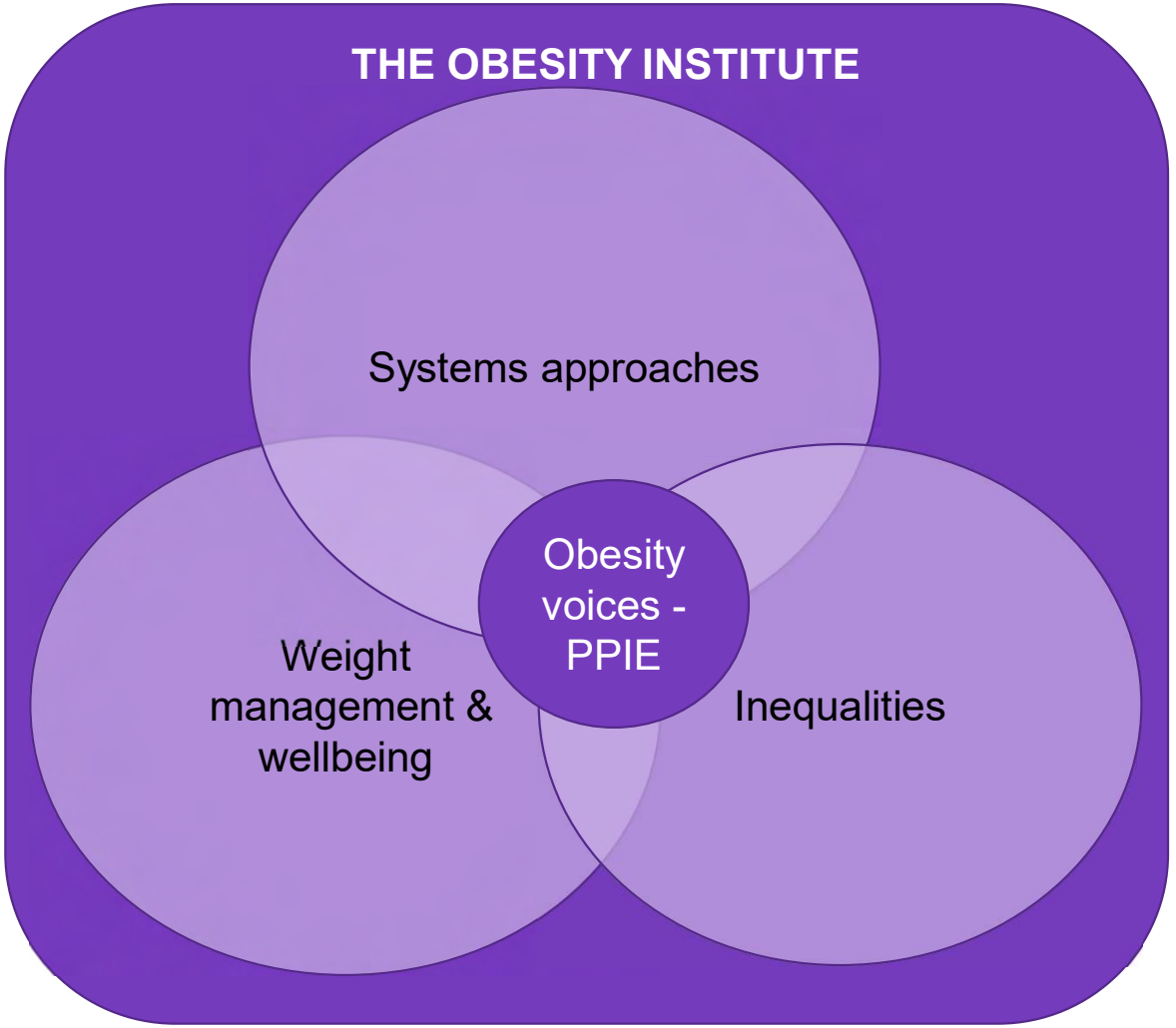
Then select the **weight IAT**

LEEDS BECKETT UNIVERSITY

Voices of lived experience are powerful

https://youtu.be/l7gl_50hUgQ

The voice of lived experience is at the heart of everything we do…



Improving the lives of people living with, or at risk of obesity.

Lived experiences of inequalities…

Emotional and disordered eating affects me but there is no support…

The needs of LGBTQ+ populations are not heard!

We need more joined up care for people living with obesity and complex needs…

Tailored support and communication is needed for people living with obesity and neurodiversity…

Work with community champions to deliver weight management support within diverse ethnic communities…

Weight stigma and bias deters patients from health care engagement – ask permission to discuss weight!

LEEDS BECKETT UNIVERSITY

LEEDS BECKETT UNIVERSITY

Tackling inequalities: addressing the root causes through person-centred care

https://obesitycanada.ca/5as-adult/

Key Principles

Obesity is a Chronic Condition

- Obesity is a chronic and often progressive condition not unlike diabetes or hypertension.
- Successful obesity management requires realistic and sustainable treatment strategies.
- Short-term "quick-fix" solutions focusing on maximizing weight loss are generally unsustainable and therefore associated with high rates of weight regain.

Key Principles

Obesity Management is About Improving Health and Well-being, and not Simply Reducing Numbers on the Scale

- The success of obesity management should be measured in improvements in health and well-being rather than in the amount of weight lost.
- For many patients, even modest reductions in body weight can lead to significant improvements in health and well-being.

Key Principles

Early Intervention Means Addressing Root Causes and Removing Roadblocks

- Successful obesity management requires identifying and addressing both the 'root causes' of weight gain as well as the barriers to weight management.
- Weight gain may result from a reduction in metabolic rate, overeating, or reduced physical activity secondary to biological, psychological or socioeconomic factors.
- Many of these factors also pose significant barriers to weight management.

Key Principles

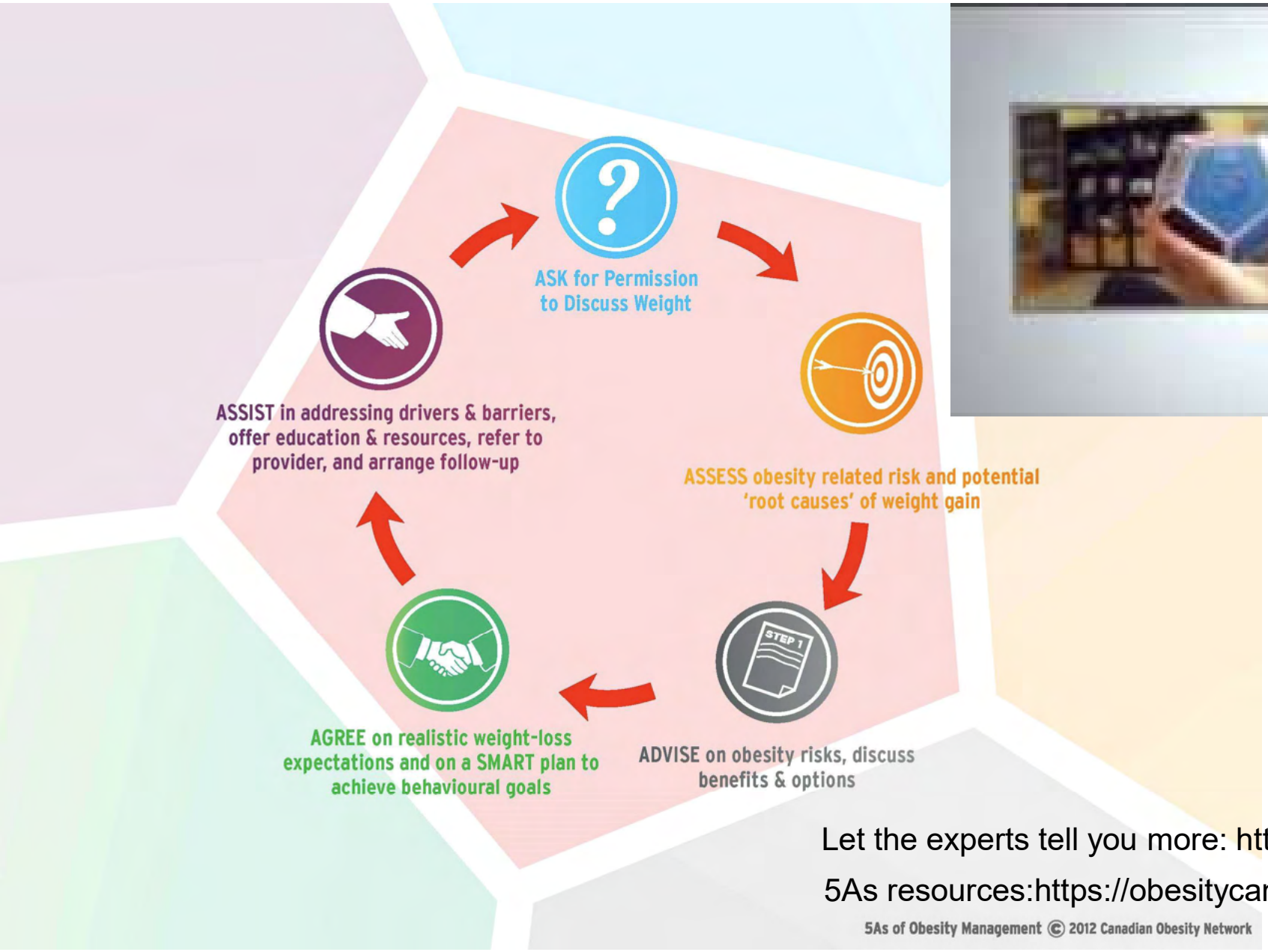
Success is different for every individual

- Patients vary considerably in their readiness and capacity for weight management.
- 'Success' can be defined as better quality-of-life, greater self-esteem, higher energy levels, improved overall health, prevention of further weight gain, modest (5%) weight loss, or maintenance of the patient's 'best' weight.

Key Principles

A patient's 'Best' weight may never be an 'ideal' weight

- An 'ideal' weight or BMI is not a realistic goal for many patients with obesity, and setting unachievable targets simply sets up patients for failure.
- Instead, help patients set weight targets based on the 'best' weight they can sustain while still enjoying their life and reaping the benefits of improved health.



Let the experts tell you more: https://youtu.be/CDjnYTOkjaY

5As resources:https://obesitycanada.ca/resources/5as/

LEEDS BECKETT UNIVERSITY

Thank you

ANY QUESTIONS?

@ObesityInst

Email: L.Ells@leedsbeckett.ac.uk

Improving the lives of people living with obesity

For discussion

Louisa Ells and Janas Harrington

Are you on track?
WHO Obesity & Inequities adapted checklist:

1. Have you identified which groups experience most harm (health and/or social) from obesity, and are they clearly prioritized in your strategies and plans?
2. Do you routinely assess the equity impact of obesity policies before, during and after they are implemented?
3. Do you undertake PPIE and coproduction with your least heard high risk communities, and use this to tailor your weight management policies and interventions to meet their needs?
4. Do you have robust policies in place to achieve the WHO specific goals?
    - To increase the price of sugar-sweetened beverages and foods high in fat, sugar and salt. •
    - To ban marketing of sugar-sweetened beverages and foods high in fat, sugar and salt to children.
    - To provide free or heavily subsidized preschool and school fruit and vegetable schemes, meals and/or healthy snacks.
    - To provide workplace interventions to support healthy weight

5. Do you have effective policies in place to address the root social determinants of inequities in obesity? Such as:

- social protection, especially for families with children and the unemployed;
- high-quality early childhood education and parenting support;
- active labour force programmes for people seeking employment, including skills development;
- policies to reduce social exclusion;
- policies to reduce household overcrowding and improve meal planning skills;
- the improvement of psychosocial working conditions for low-income workers.

6. Do you evaluate the impact of all obesity prevention and treatment interventions on different social groups?
7. Have you set targets for reducing obesity levels in different social groups?
8. Is there clear accountability and leadership for reducing inequities in obesity levels?

How do we develop and implement strategies that address health inequalities across the lifespan?

- *What is needed (at national and European level) to overcoming the challenges of developing and implementing strategies?*
- *How and what can we learn from each other? How can **scientific evidence** and **good practices** from other countries inform policy development and implementation?*
- *What practical tools (e.g. technical guidance) would support policy development and implementation?*