Transcript for Prominence Weight Bias and Stigma – Unit 1: Obesity is a chronic disease

Slide 1:

Welcome to OSE4ALL Obesity Stigma Education for all Healthcare Professionals. This educational resource supports the destigmatisation of obesity among healthcare professionals.

I'm Dr. Fiona Curran from University College Dublin.

This resource is developed for PROMINENCE by UCD Members of the OSE4ALL partnership.

Slide 2:

This resource includes 4 distinct units:

Unit one provides evidence underpinning obesity as a chronic disease.

Unit 2 helps us recognise how weight stigma and bias appear in practice.

Unit 3 focuses on communication with compassion, and

Unit 4 provides tools to enhance care. On completion, you'll have knowledge and tools to support more equitable, evidence-based care for people living with obesity.

I encourage you to engage openly and reflectively.

Slide 3:

UNIT 1 - 1.1 Obesity is a chronic disease

Unit 1 sets the scene. Obesity is now recognised globally as a **chronic, relapsing disease**. Understanding it this way helps us move from blame to better care.

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1.2 Learning outcomes

By the end **of this unit,** you should be able to **define obesity**, **recognise the biological systems that regulate body weight**, and **understand why obesity is so difficult to manage**. You'll also explore

how **social and environmental influences** shape obesity and why obesity is not simply a matter of choice.

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1.3 What is obesity?

So, let's begin. What is obesity?

Obesity has been recognised as a disease by the World Health Organization since 1948, originally defined by a high BMI. Over time, our understanding has evolved, we now know obesity is an **abnormal or excessive accumulation of fat** that can **impair health**.
It's also recognised as a **chronic, relapsing, and progressive disease**, much like diabetes or hypertension.
The rate of obesity has **doubled over the past 30 years**, affecting adults and children, a trend that highlights the need for early, sustained intervention.

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1.4 Why is obesity a chronic disease?

Obesity is considered a chronic disease because it's **driven by many interconnected factors**, not just individual choices. **Genetics** play a major role, but don't act alone. **Physiology, behaviour, environment, culture, economics, and policy** all contribute. It's important to recognise that **many causes of obesity lie beyond individual control**. This broader understanding helps shift the focus from blame to **supportive, systemic solutions** that address the biological and social drivers of obesity. So, let's look at these contributing factors more closely.

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1.5 The role of genetics in obesity

Genetics play a major role in determining a person's risk of developing obesity. Research from the 1990s showed that up to **70% of obesity risk is inherited**. The more risk genes a person carries, the **greater their likelihood and severity** of obesity.

Large genome-wide **association** studies (GWAS) consistently find that obesity-associated genetic variants are highly enriched in brain tissues.

This supports the idea that inherited differences in **obesity risk** are largely mediated through how the brain regulates appetite, satiety, energy balance, and response to weight loss.

In other words, the brain is excellent at recognising weight loss and fighting against it with increased appetite and energy conservation.

An important theory is that each person has a different '**set point**' - a level of body fat at which the brain naturally slows or resists further weight loss. This helps explain why some individuals are **more vulnerable to obesity** than others, even in similar environments.

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1.6 Weight loss triggers complex physiological defenses:

Our bodies are **biologically programmed to defend body weight**. That's why losing weight is hard — and maintaining that loss is even harder. Research shows that around **95% of people regain weight** over time, regardless of the method used to lose it. When someone loses weight, the body interprets it as a threat to survival and activates physiological **defense mechanisms** to restore fat stores.

First, there are **hormonal changes** — **leptin levels fall**, leading to stronger hunger signals, and **ghrelin increases**, driving appetite. Then, **metabolic changes** occur: the **resting metabolic rate drops**, so the body burns fewer calories, and **activity thermogenesis** decreases — meaning you use less energy for the same physical effort. Finally, there's often a **shift in food preferences** toward **high-calorie, energy-dense foods**. Together, these adaptations make maintaining weight loss extremely challenging, even with consistent effort.

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1.7 Behavioural control in obesity

Behaviours around food and activity are **deeply regulated by biology**, via hormones, brain pathways, and signals between the gut and the brain. Obesity changes how these systems function. It increases hunger, alters food preferences, and slows metabolism to conserve energy, all of which make weight management incredibly difficult.

So while healthy habits like diet, physical activity, and sleep are vital for everyone, we must recognise that **obesity is primarily driven by**

physiological regulation. Not willpower. Obesity drives behaviour. This understanding helps guide more effective, compassionate treatment.

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1.8 Environmental, sociocultural, and policy factors in obesity

Obesity rates have risen sharply because our bodies are designed for a world that no longer exists. Our biology evolved to survive food scarcity - but now we live in an environment where **high-calorie foods are abundant** and **physical activity is minimal**.

For people who are genetically vulnerable, this modern environment makes weight gain almost inevitable.

Social and cultural factors - like income, education, and food traditions - further influence how people eat and move. At the same time, **policies and marketing practices** often favour unhealthy options and limit access to effective care. To truly address obesity, **health systems and policies must evolve** to support prevention, treatment, and long-term management.

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1.9 Obesity is a chronic, complex disease relevant to physiotherapy practice

Recognising the biological, behavioural, and environmental drivers of obesity and its chronic relapsing nature allows physiotherapists to deliver personalised and contextualised care, that aims to enhance health while recognising the limitations of physical activity on sustainable weight loss.

This understanding helps physiotherapists realistically interpret engagement and response to interventions, avoid weight-centred assumptions about effort or motivation, and informs key physiotherapy roles across the lifespan, including prevention and management of obesity-related complications, patient education, and appropriate signposting to multidisciplinary, evidence-based supports.

Slide 12:

1.10 Summary and takeaway message

So, when we look at everything together - the biology, the behaviour, and the environment - it’s clear that obesity isn’t just about personal choice. It’s a **chronic, complex disease** influenced by many interacting factors.

Ultimately, understanding obesity as a chronic disease and treating it with the same respect and care as any other long-term condition - we can move toward more effective, equitable, and compassionate care for everyone living with it.

One key factor in moving toward equitable care is recognising weight bias and its impact. This will be the focus of unit 2.

UNIT 1 Resources

- **Obesity Disease definitions** [1-3] [4] [5] [6, 7]
- **Obesity Prevalence Ireland / Global** [8] [9] [10, 11]
- **Obesity Guidelines** [12, 13] [14] [15]
- **Obesity Position Statements** [16-19]
- **Obesity Models of Care** [12] [20]
- **Obesity Genetics** [21] [22] [23] [24].
- **Obesity Behavioural control / set point / physiological response to weight loss** [25, 26]
- **Obesity Determinants; Environmental, sociocultural, policy** [27, 28]
- EASO Image Bank https://easo.org/media-portal/obesity-image-bank/ Educational links

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