



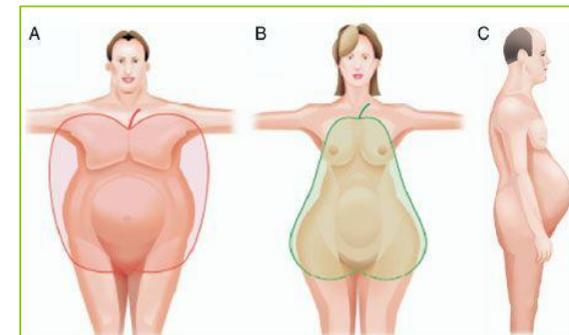
OBESITY IN PREGNANCY:
SHOULD WE TACKLE IT HEAD ON
OR
TURN A BLIND EYE?

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DEFINITION

- ⊙ Public health concern
- ⊙ Defined by Body Mass Index (BMI)
- ⊙ Other predictor factors (Waist Circumference, WC/ Hip ratio)
- ⊙ Central adiposity vs. fat below hips (body shapes)

BMI	Category
<18.5	Underweight
18.5-24.9	Normal
25.0-29.9	Overweight
30.0-34.9	Obese class I
35.0-39.9	Obese class II
≥40	Obese class III



CEMACH REPORTS

'Saving Mothers Lives' (2007)

Perinatal Mortality (2009)

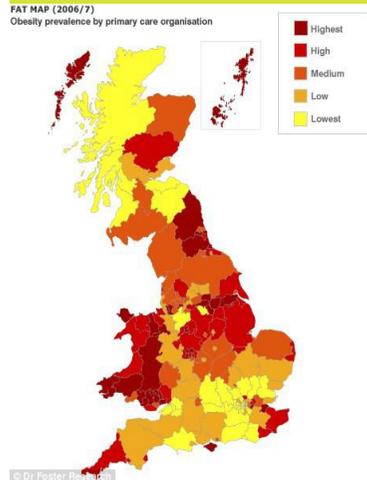
- ⊙ 35% of women who died in the 2000-2003 triennia were obese
- ⊙ 30% of the mothers, who had a stillbirth or a neonatal death were obese
- ⊙ 14 out of 31 women, who died of a thromboembolic event were found to have been obese.

Saving Mothers Lives (2007)

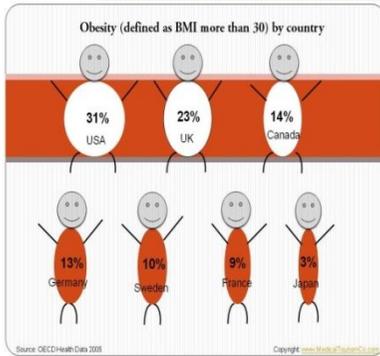
Perinatal Mortality (2009)

Obesity Statistics

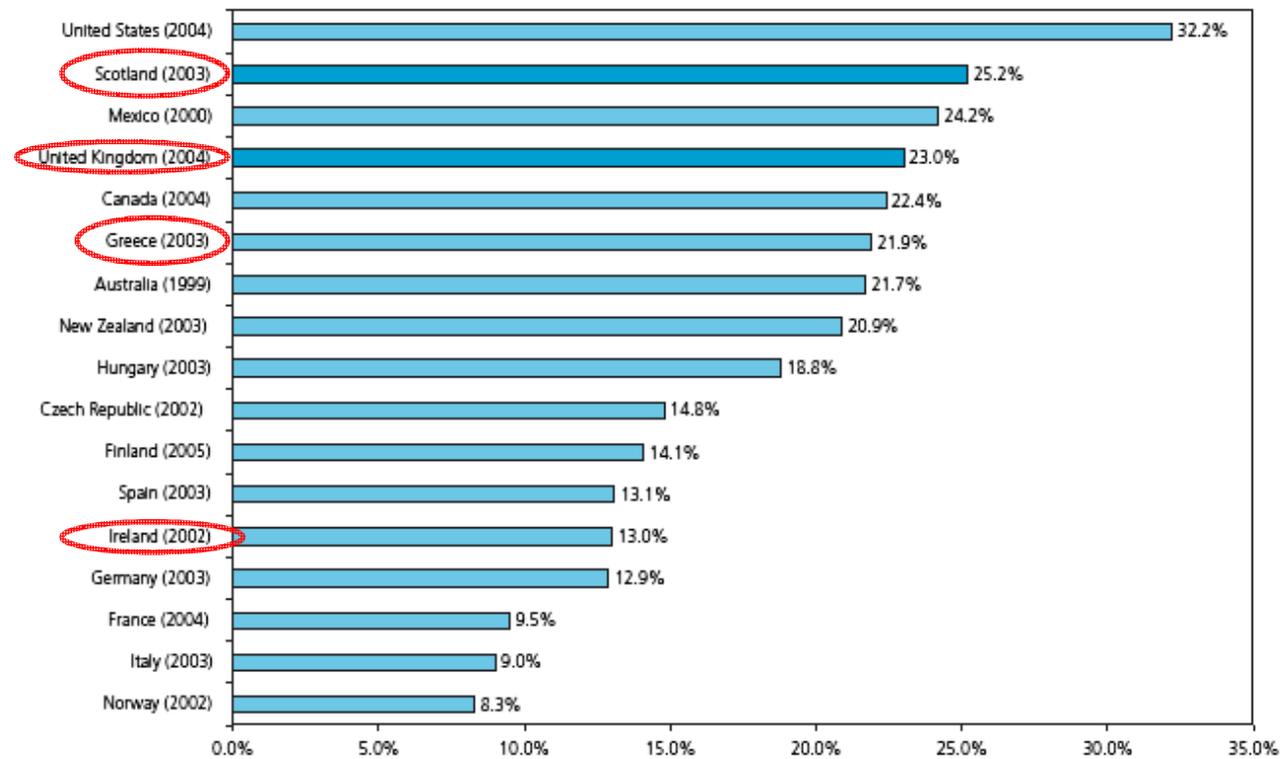
Obesity Maps



- ⊙ In 1980, 8 % of women in the UK were classified as obese
- ⊙ 15% (1993) → 24% (DOH, 2006)
- ⊙ 1st trimester maternal obesity 7.5% ↑ 15.6% in 619 323 maternities from 1989 to 2007 (Heslehurst et al, 2010)
- ⊙ Women were more likely than men to be morbidly obese (3 % vs. 1 %) (OPAD, 2008)
- ⊙ Estimated direct costs for treating obesity (2002): £45.8 and £49.0 million
- ⊙ Estimated costs for treating the consequences of obesity (2002): £945 million and £1,075 million (OPAD, 2008)
- ⊙ 66% of Americans are classified as overweight or obese (Flegal et al, 2005)

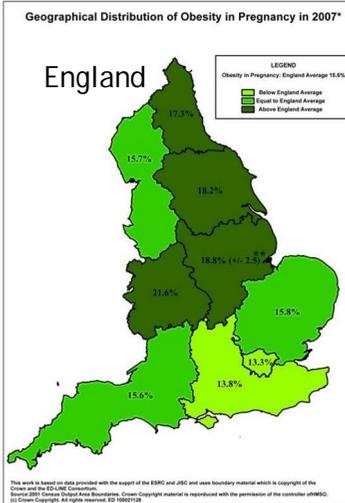
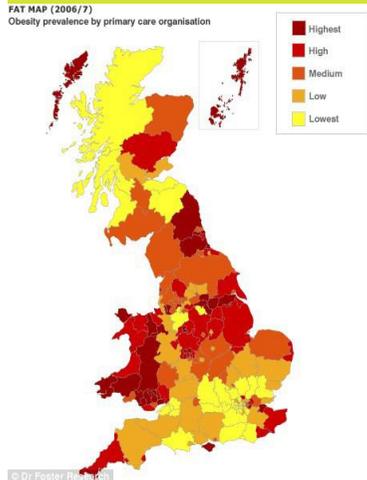


INTERNATIONAL PREVALENCE



Obesity Statistics

Obesity Maps



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- ◎ Estimated direct costs for treating obesity (2002): £45.8 and £49.0 million
- ◎ Estimated costs for treating the consequences of obesity (2002): £945 million and £1,075 million (OPAD, 2008)
- ◎ 66% of Americans are classified as overweight or obese (Flegal et al, 2005)
- ◎ By 2015, ≈ 2.3bn adults to be overweight and > 700m to be obese (WHO, 2006)

Retrospective analysis of 57000 maternities (2003-2009)

No	BMI (kg/m ²)	%
28,302	≤ 25	49.8
15,521	25.1-30	27.6
5,948	30.1-35.0	16.9
2,076	35.1-40.0	3.7
943	>40.1	1.8
57,000		BMI≥30 - 22.4%

Balani J et al (2010)

RISKS OF OBESITY



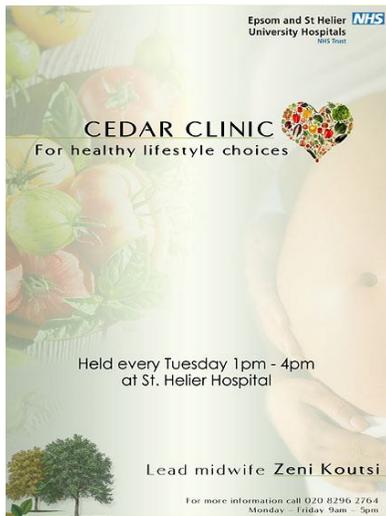
Maternal

- Increased risk of miscarriage
- Gestational Diabetes
- Hypertension
- VTE
- Increase in interventions in labour (instrumental deliveries and LSCS)
- Perineal Trauma
- Increased rate of wound infections
- Anaesthetic risks

Fetal

- ❖ Macrosomia or IUGR
- ❖ Higher risk for congenital anomalies
- ❖ Malpresentations
- ❖ Shoulder dystocia
- ❖ Increased NICU admissions
- ❖ Increased risk for miscarriages or stillbirth
- ❖ Subsequent child obesity





CEDAR CLINIC

- ⊙ Weekly clinic
- ⊙ Run by a multidisciplinary team
- ⊙ BMI ≥ 35 (or ≥ 32 if S.Asian or weight >100 kgs @ booking)
- ⊙ Referrals done by the booking midwives or GP
- ⊙ Written information for healthy lifestyle (leaflets)
- ⊙ Discussion of implications of BMI and optimal weight gain
- ⊙ In Body analysis and advice
- ⊙ Research



Parameter	Value	Unit	Reference Range
Weight	75.0	kg	50.0 - 100.0
Height	175.0	cm	150.0 - 200.0
BMI	24.5	kg/m ²	18.5 - 24.9
Body Fat %	15.0	%	10.0 - 15.0
Visceral Fat	1	Level	1 - 5
Lean Body Mass	63.8	kg	50.0 - 70.0
Basal Metabolic Rate	1750	kcal/day	1500 - 2000
Resting Energy Expenditure	1750	kcal/day	1500 - 2000
Total Energy Expenditure	2500	kcal/day	2000 - 3000
Protein	100	g	50 - 150
Carbohydrate	200	g	100 - 300
Lipids	100	g	50 - 150
Water	45	liters	35 - 55

Its a matter of health, not aesthetics

CHALLENGES

- ① Prevalence/ Increase
- ① Other socially or medical complex issues
- ① Client resistance
- ① Time restrictions/ funding
- ① Coordination between sites
- ① Continuous overflow with new evidence/ guidelines

It is everybody's business!



- ⊙ Personal Reflection: is obesity really a problem?
- ⊙ Can you talk openly about being overweight?
- ⊙ What terminology/ words do you use?
- ⊙ Is the BMI enough?
- ⊙ What is the optimal weight gain? Can obese pregnant women loose weight?
- ⊙ Do you have clear local guidelines, practices, training?
- ⊙ What kind of support systems/ counselling/ dietician support do you have?
- ⊙ Do you have the recourses or funding (equipment, staff etc)?
- ⊙ How about the GPs role (pre and post conception)?
- ⊙ What about the criteria re homebirth/ Birth Centre use?
- ⊙ Midwifery vs. Shared vs. Consultant care? How should we promote normality in overweight pts?
- ⊙ Is there a need for specialist clinics?
- ⊙ Is there a need for specialist midwives?
- ⊙ Intervention vs. healthy lifestyle training vs. both?
- ⊙ What about women with gastric surgeries?
- ⊙ Breastfeeding vs. bottle feeding?...

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