

Total Weight Gain and Pattern of Weight Gain in Pregnancy

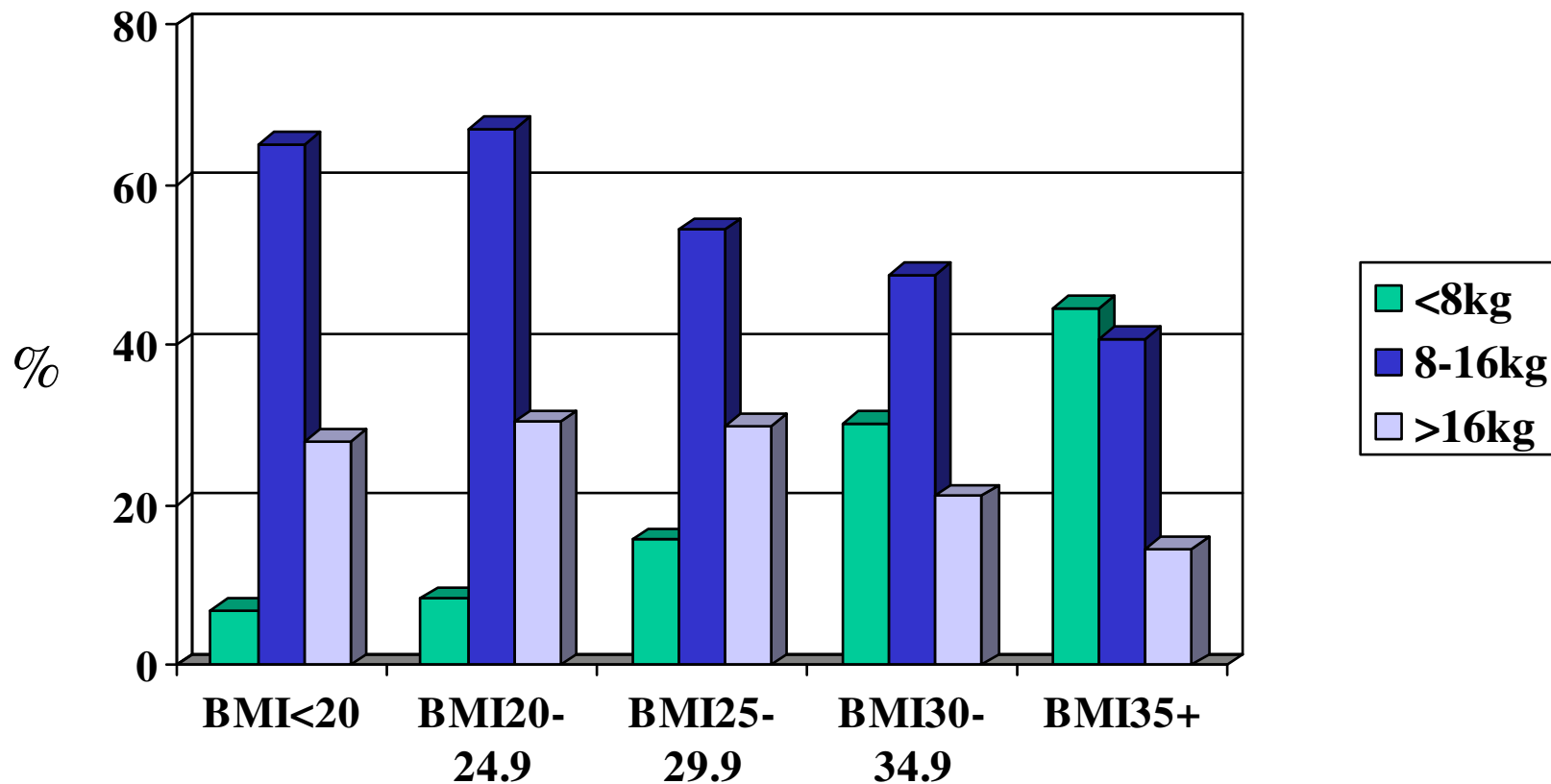
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Gestational weight gain in a Swedish population

BMI	Average weight gain (kg)
<20	13.5
20-24.9	13.8
25-29.9	13.2
30-34.9	11.1
35-39.9	9.3
>40	6.6

Pattern of weight gain in a Swedish population



Cedergren M. Effects of gestational weight gain and body mass index on obstetric outcome in Sweden. *Int J Gynaecol Obstet* 2006;93:269-74.

Effects of gestational weight gain and BMI on obstetric outcome

- A prospective population-based cohort study of 245,526 singleton term pregnancies
- Women were grouped in five categories of BMI and in three gestational weight gain categories; low (<8kg) average (8-16kg) and high (>16kg)

Effects of gestational weight gain and BMI on obstetric outcome

Obese women with low gestational weight gain had a decreased risk for: OR (95%CI)

- Preeclampsia 0.52 (0.42-0.62)
- Cesarean section 0.81 (0.73-0.90)
- Instrumental delivery 0.75 (0.63-0.88)
- LGA births 0.66 (0.59-0.75)

Optimal gestational weight gain for BMI categories

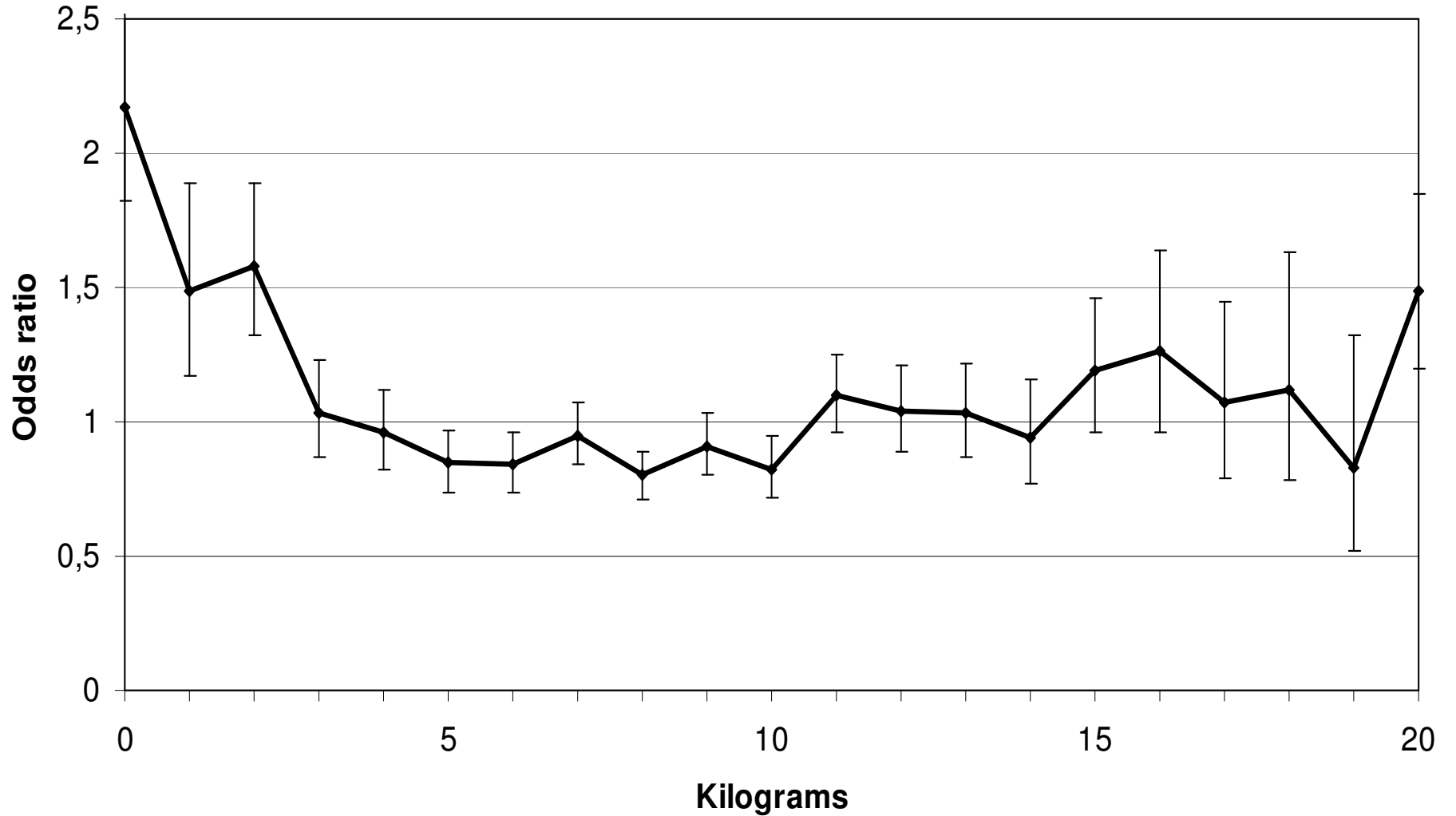
- The study population consisted of 298,648 singleton pregnancies delivered 1994-2004.
- The number of individuals in each weight gain class was compared to the number of individuals in all other weight gain classes in the same BMI group concerning adverse maternal and fetal outcome.

“Avoidable “ adverse maternal and fetal outcome

- Preeclampsia, eclampsia
- Postpartum hemorrhage (>1000 ml)
- Venous complications; deep-vein thrombosis, cerebrovenous sinus thrombosis, obstetric embolism
- Shoulder dystocia
- Complications of anesthesia
- Stillbirth after 28 weeks gestation
- Apgar Score < 7 at 5 min
- Intracranial laceration and hemorrhage, birth injuries to central nervous system, scalp, skeleton and peripheral nervous system
- Respiratory disorders
- Bacterial sepsis
- Hemorrhagic disorders
- Convulsions, other disturbances of cerebral status, feeding problems, disorders of muscle tone
- Perinatal death

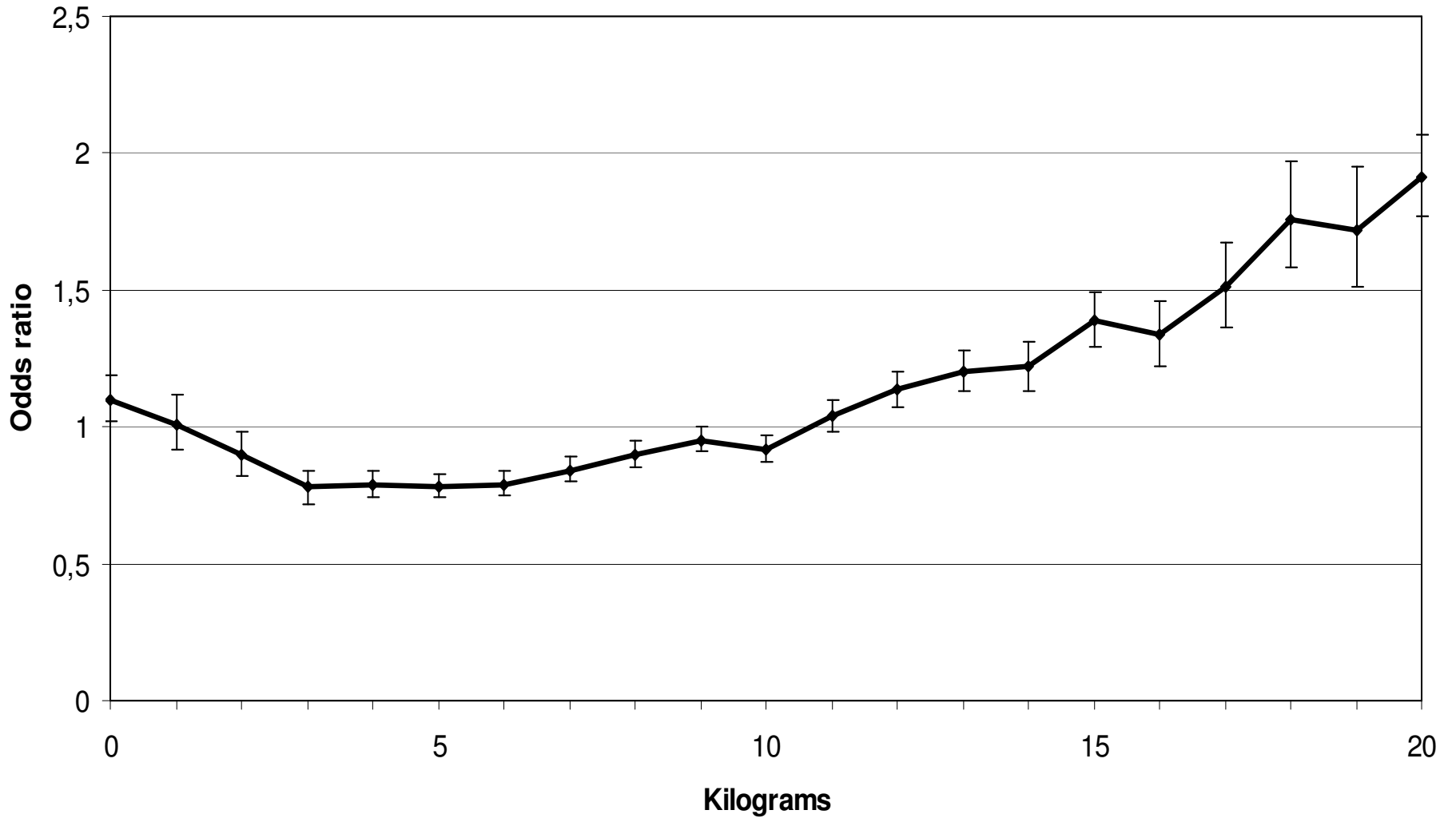
SGA and LGA

BMI less than 20



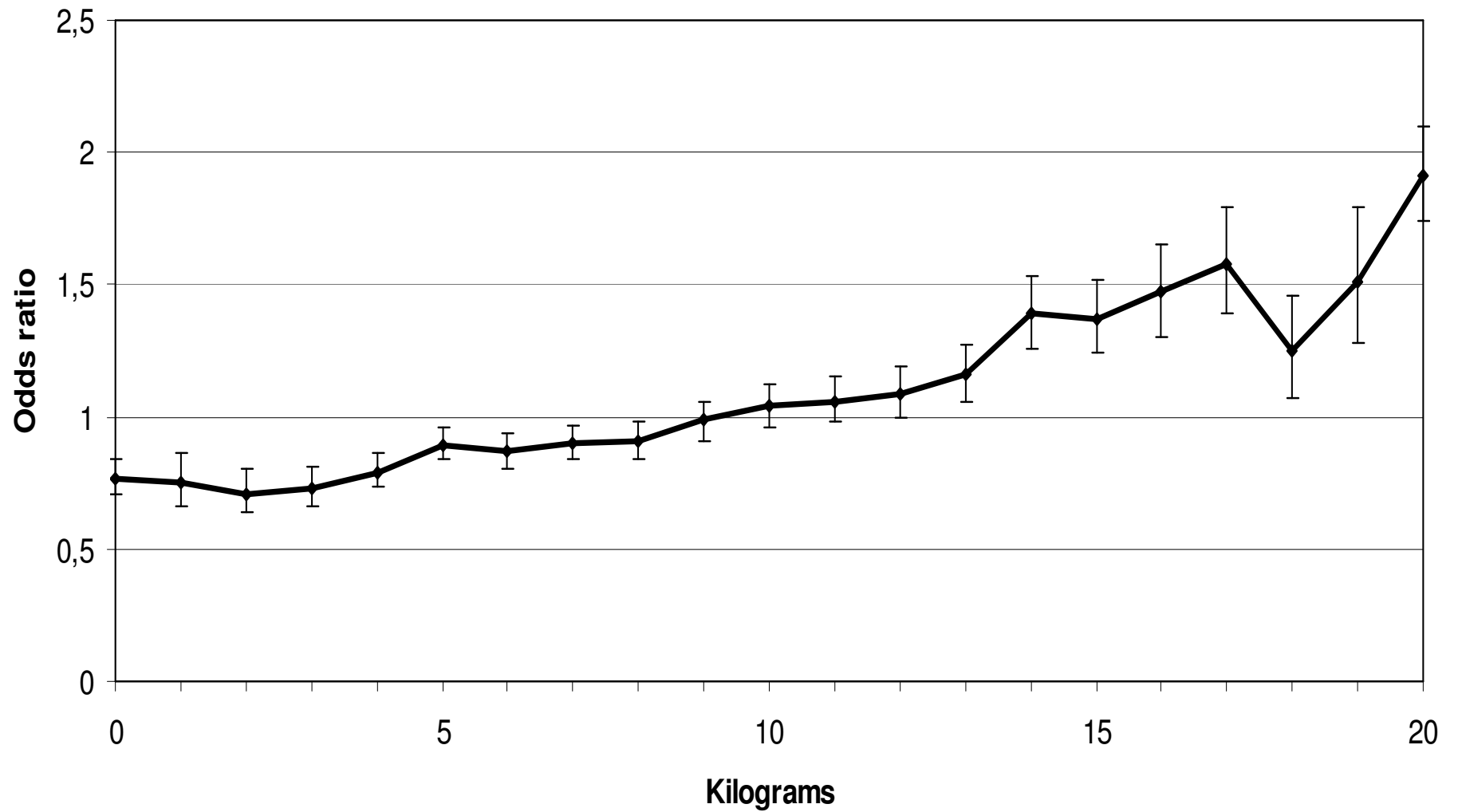
Cedergren M. Optimal gestational weight gain for Body Mass Index categories. Obstet Gynecol 2007;110:759-64.

BMI 20-24.9



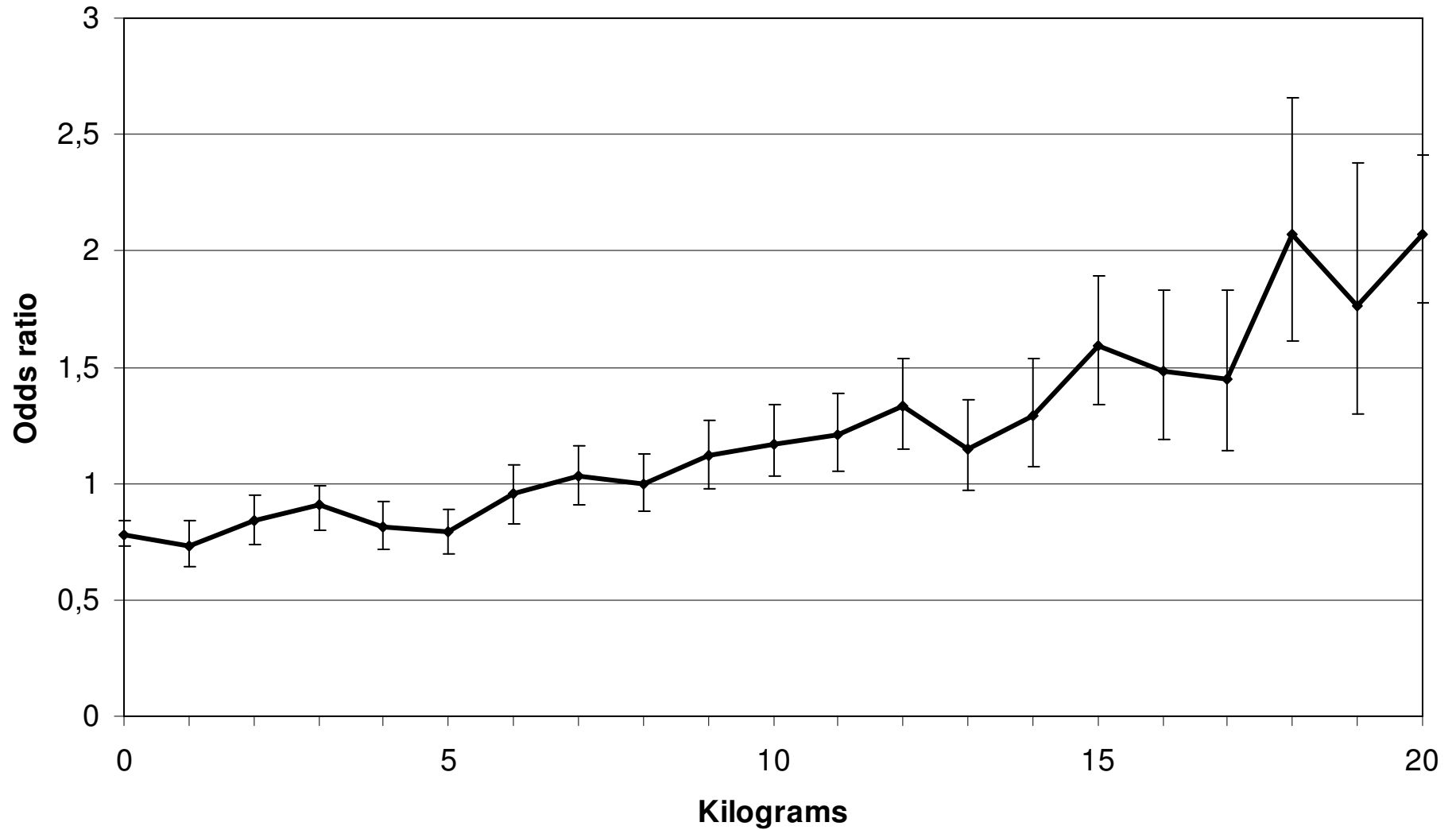
Cedergren M. Optimal gestational weight gain for Body Mass Index categories. Obstet Gynecol 2007;110:759-64.

BMI 25-29.9



Cedergren M. Optimal gestational weight gain for Body Mass Index categories. *Obstet Gynecol* 2007;110:759-64.

BMI greater than 30



Cedergren M. Optimal gestational weight gain for Body Mass Index categories. *Obstet Gynecol* 2007;110:759-64.

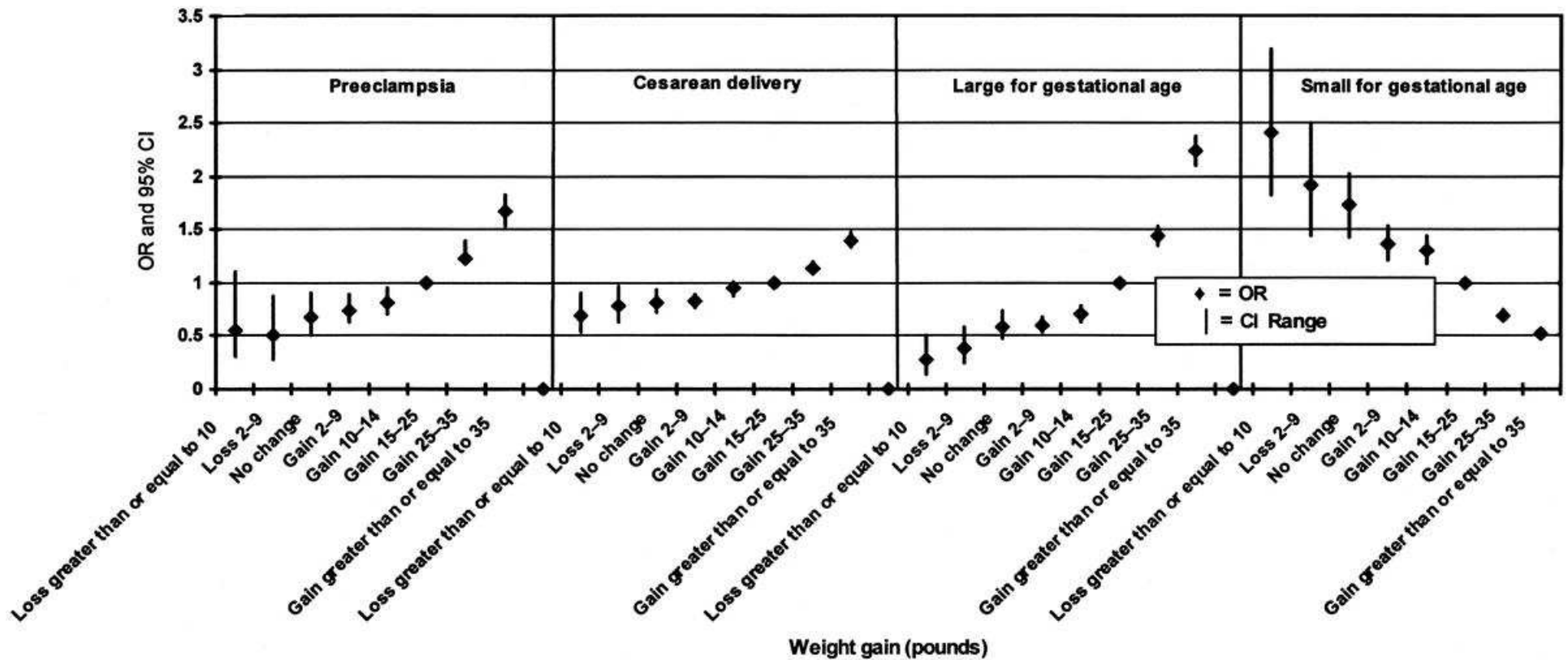
Weight recommendations, IOM

BMI	(kg)	(kg) Cedergren
<20	12.5-18.0	<i>4-10</i>
20-24.9	11.5-16.0	<i>2-10</i>
25-29.9	7.0-11.15	<i><9</i>
≥30	6.8 minimum	<i><6</i>

Gestational weight gain and pregnancy outcome in obese women – how much is enough?

- 120,251 pregnant, **obese** women delivering full-term, liveborn, singleton infants
- The 15–25 lb weight gain category was chosen as the referent group.

Odds ratios and 95% CI of pregnancy outcomes for class I obese women



Kiel et al. Gestational weight gain and pregnancy outcome in obese women - how much is enough? *Obstet Gynecol* 2007;110:752-8.

Gestational weight gain and Pregnancy Outcome in Obese Women – How Much Is Enough?

Conclusion:

- SGA risk for class II and III obese women gaining less than 6,8 kg (15 lb) is minimal

Class I *10–25 lb*

Class II *0–9 lb*

Class III *weigh loss of 0–9 lb*

Weight gain restriction for obese pregnant women: a case-control intervention study

- A prospective intervention study including 155 index women and 193 controls.
- Intervention programme with weekly motivational talks and aqua aerobic classes
- Outcome: weight gain, obstetric outcome

Weight gain restriction for obese pregnant women: a case-control intervention study

- The index group had a significantly lower gestational weight gain
- The percentage of women in the index group gaining less than 7 kg was greater
- No differences regarding mode of delivery, birth weight and gestational age