NATIONAL ACADEMIES Sciences Engineering Medicine

Reflections on the 2009 Institute of Medicine Gestational Weight Gain Guidelines

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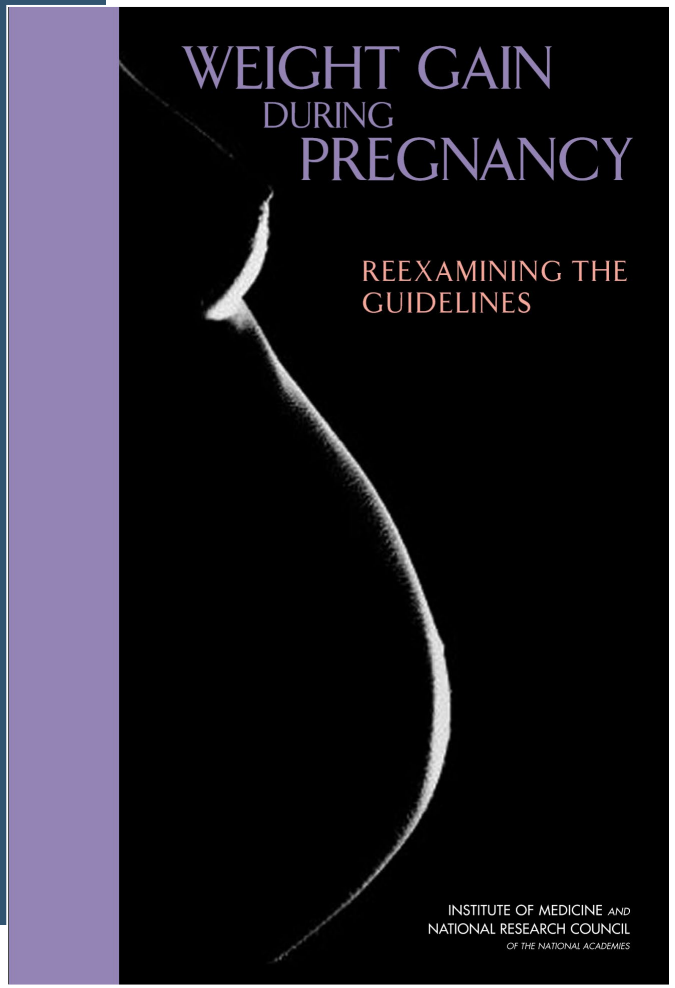
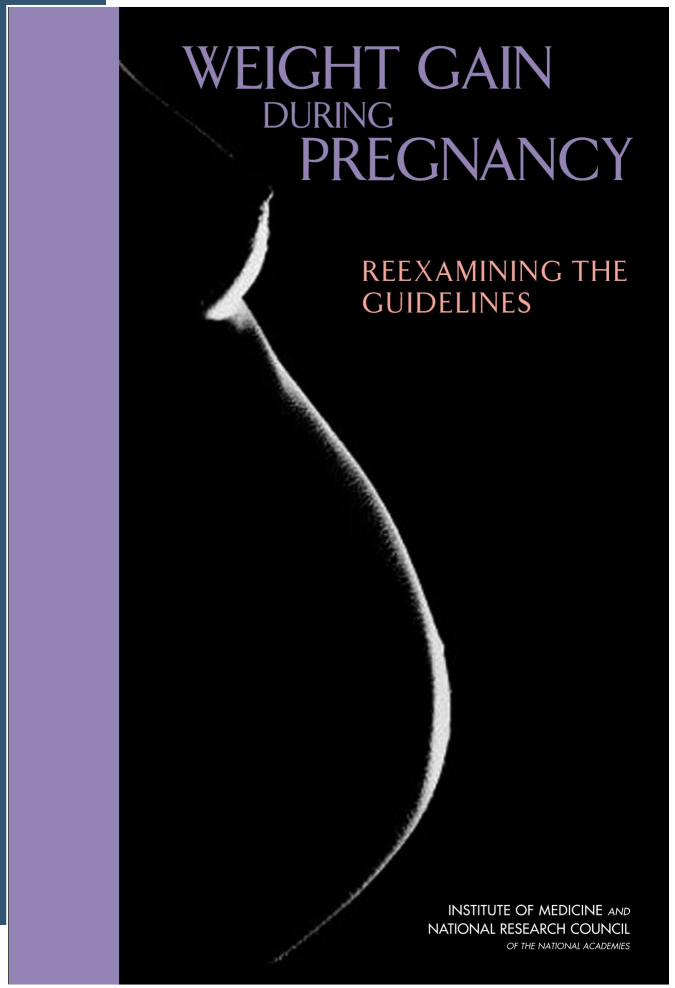


No disclosures.



What prompted the reexamination of the guidelines in 2009?

Increases in rates and severity of obesity.

Changing demographics of the general US pregnant population.

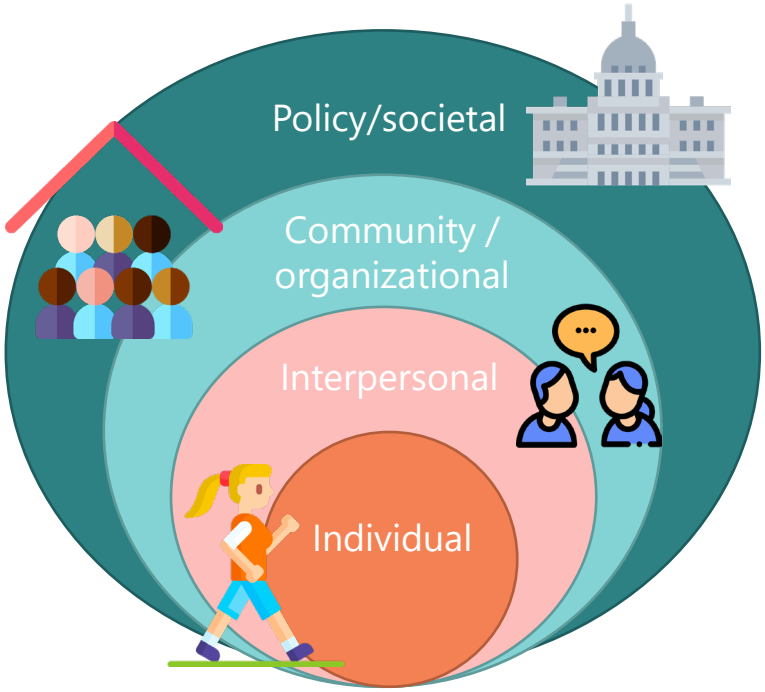
Increases in chronic health problems before conception.

Excessive pregnancy weight gain was common in all BMI groups.

Recognition of the impact of excessive pregnancy weight gain.

What findings were most influential in developing the 2009 guidelines?

Maternal weight is affected by different levels and types of influence.



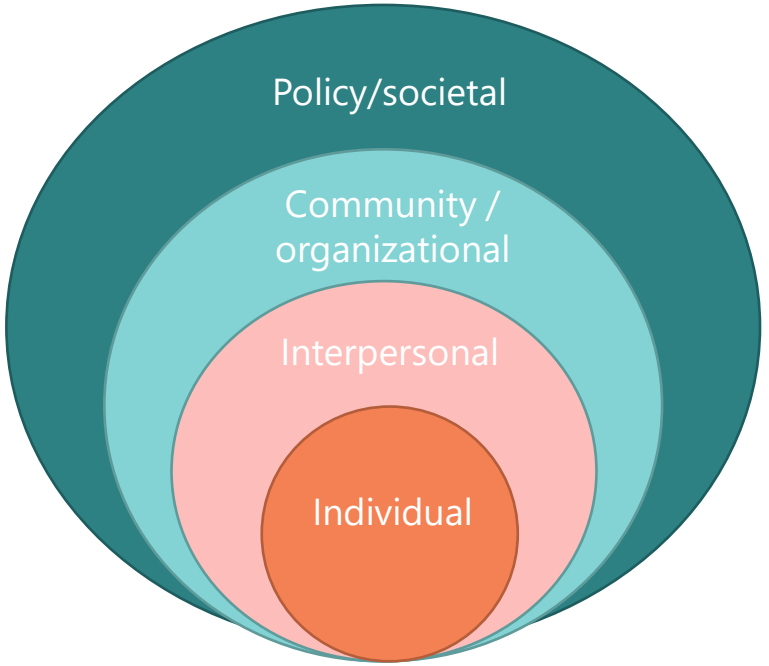
Weight intervention programs to must target all levels.

What findings were most influential in developing the 2009 guidelines?

Prepregnancy BMI is more strongly related to adverse outcomes than pregnancy weight gain.

Interventions:

- ✓ Before pregnancy
- ✓ In between pregnancies



What findings were most influential in developing the 2009 guidelines?

Many health outcomes are related to pregnancy weight gain.

Strong evidence:

Infant:
- SGA birth
- LGA birth
- Preterm birth
- Child obesity

Maternal:
- Cesarean delivery
- Postpartum weight retention

More evidence needed:

Infant:
- Stillbirth
- Infant death
- Longer-term health

Maternal:
- Gestational diabetes
- Preeclampsia
- Breastfeeding
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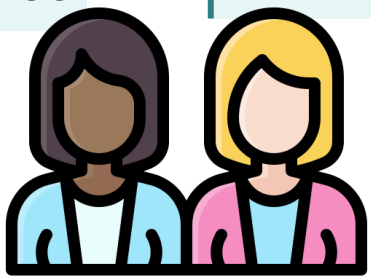

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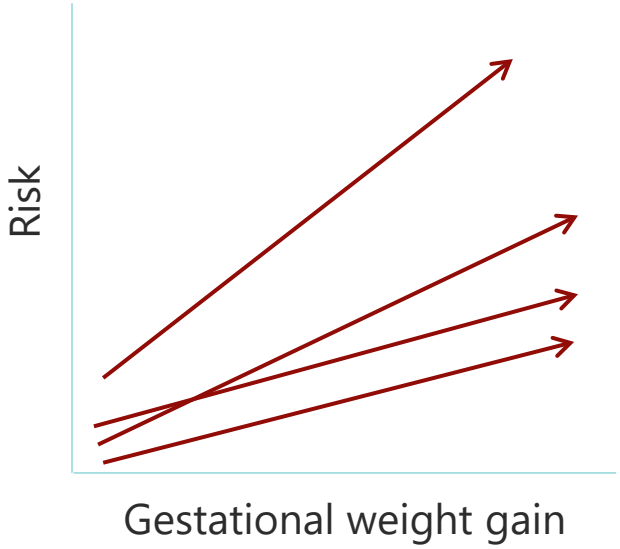

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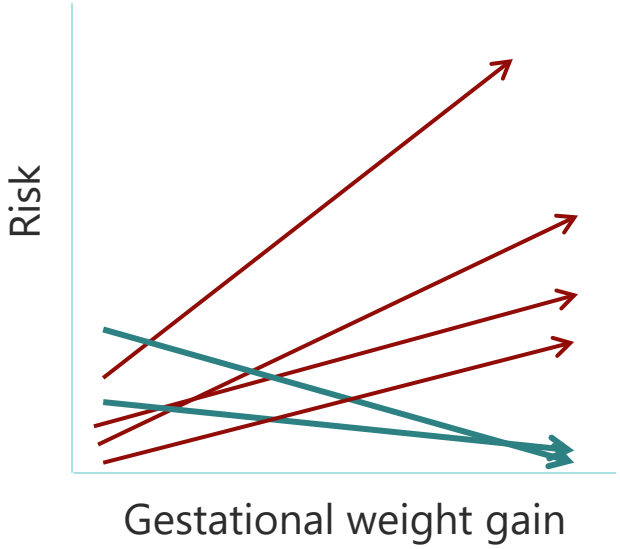

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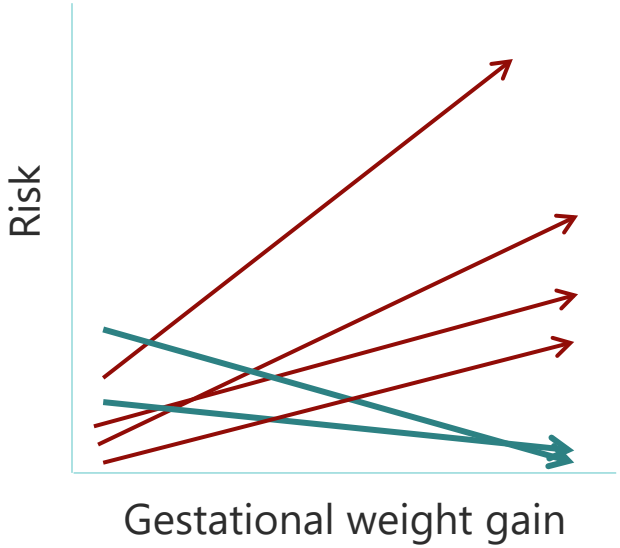

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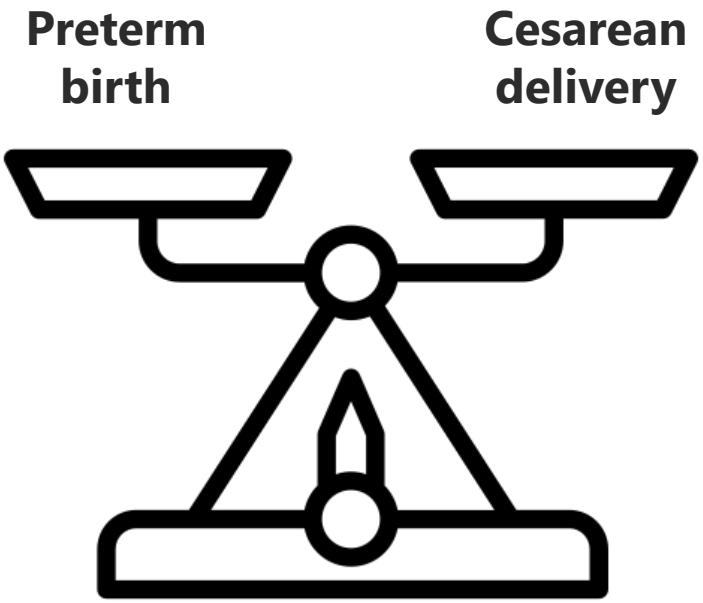
Some health outcomes are more serious than others.



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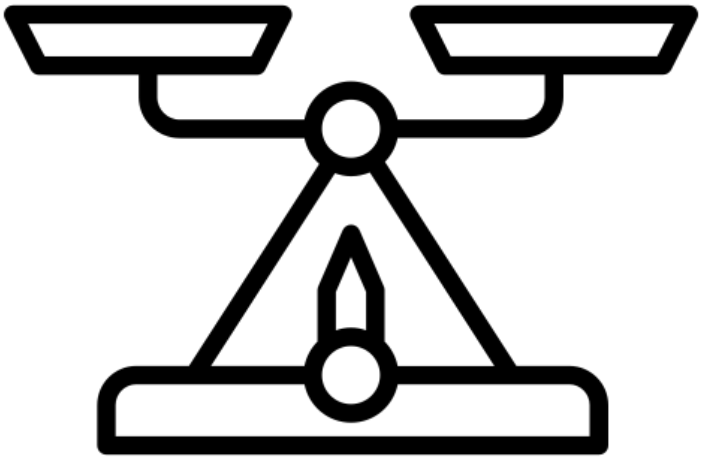

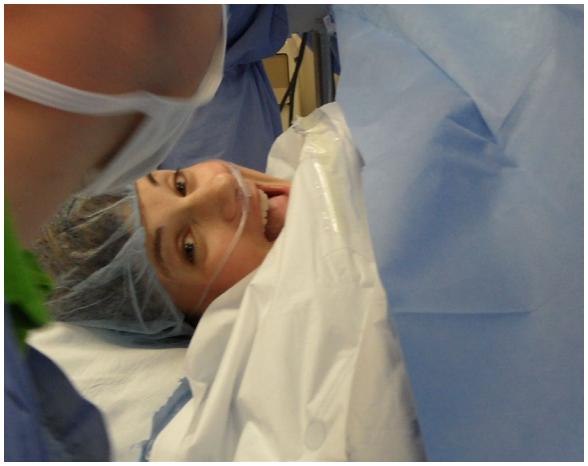

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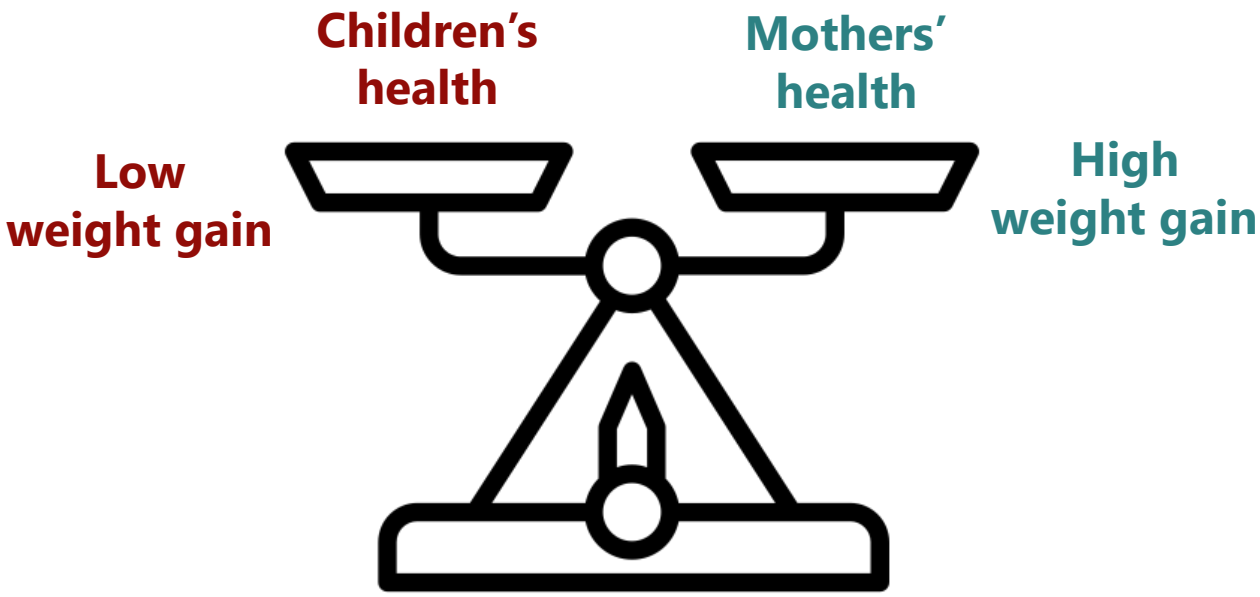
Guidelines must reconcile these trade-offs.



What information was needed, but was not available?

Inadequate data to stratify guidelines by obesity class.

Increase in prevalence of severe obesity

Modifying effect of BMI

Safety of low weight gain or weight loss

Too few weight gain intervention trials.

How much can we modify weight gain? Are associations causal?

What information was needed, but was not available?

Data on important outcomes were unavailable.

Preeclampsia
Gestational diabetes → *High weight gain*
Maternal health

Long-term health → *Obesity*
Cardiometabolic disease

Rare but serious outcomes → *Fetal & infant death*
Maternal mortality & severe morbidity

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> Quantitative data to allow a systematic balancing of risks of low and high weight gain for mothers and children.

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Utility values for all health outcomes.

Precise risk estimates for competing outcomes across the weight gain continuum.

Quantitative methods to weight outcomes when recommendations have opposing effects.

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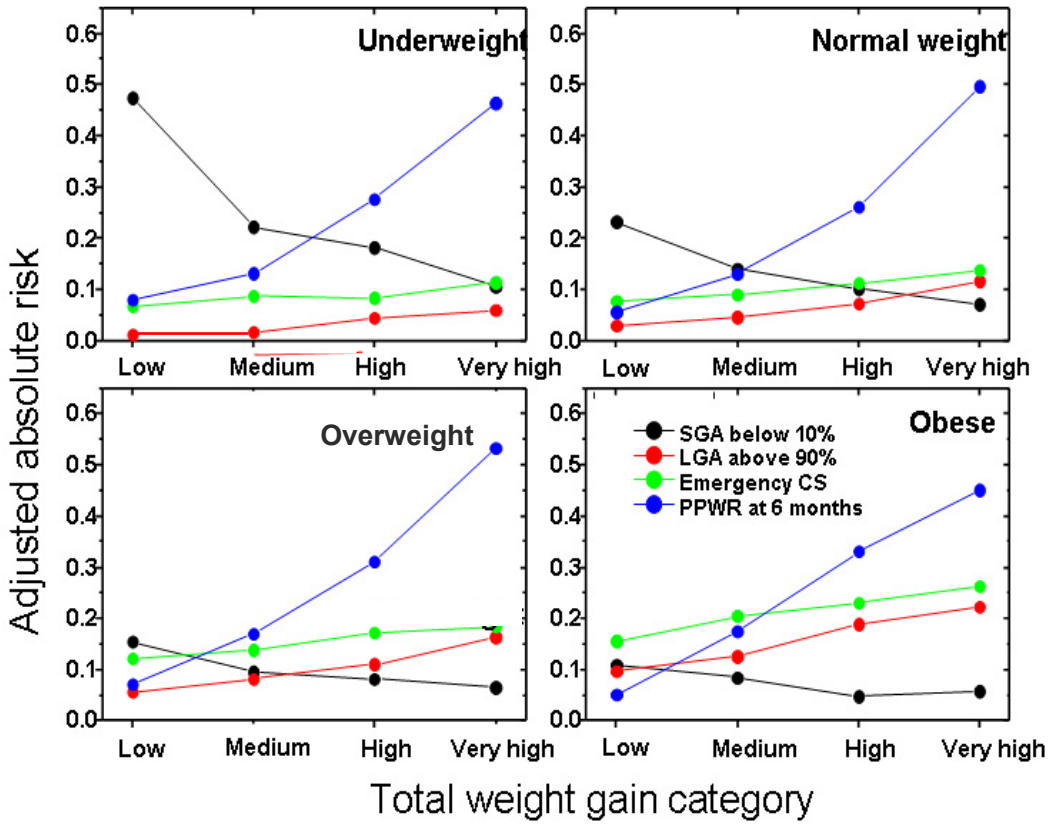
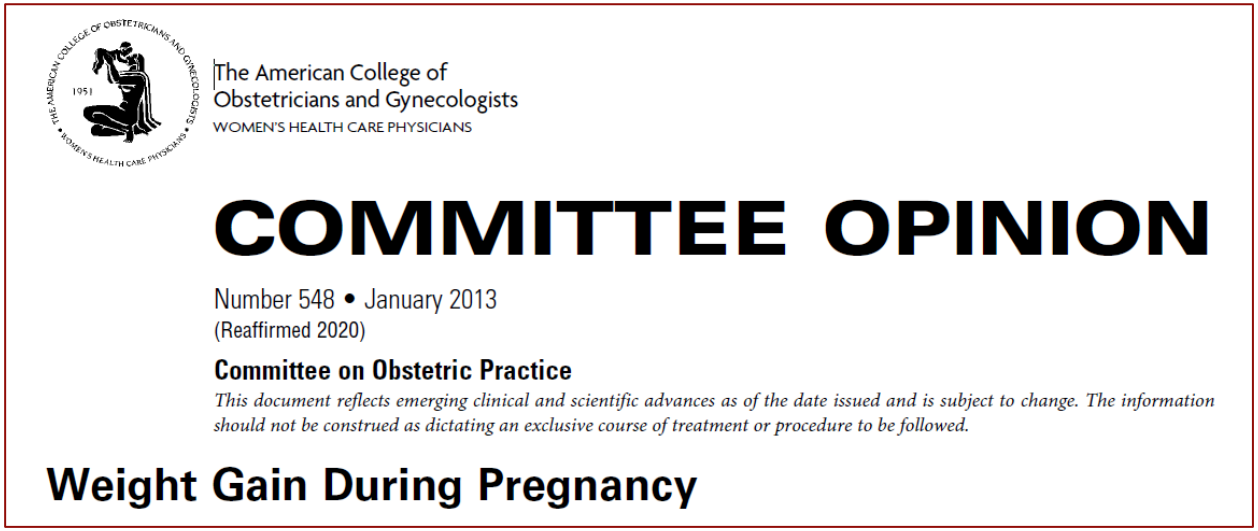
> Quantitative data to allow a systematic balancing of risks of low and high weight gain for mothers and children.

Guidelines were based on **clinical judgment** and **qualitative assessments** of data like these



What did the guidelines accomplish?

Adoption by the American College of Obstetricians and Gynecologists and international organizations



The American College of Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

COMMITTEE OPINION

Number 548 • January 2013
(Reaffirmed 2020)

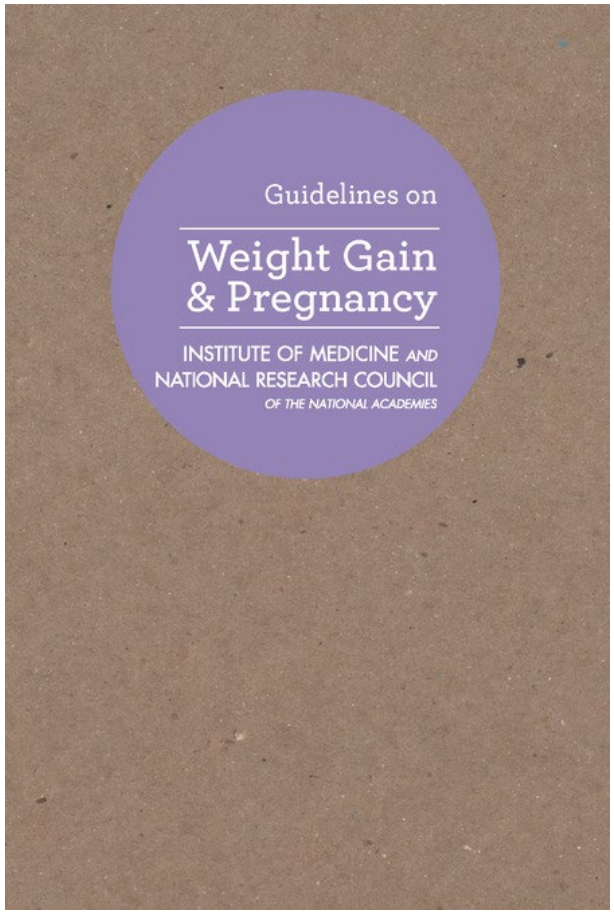
Committee on Obstetric Practice

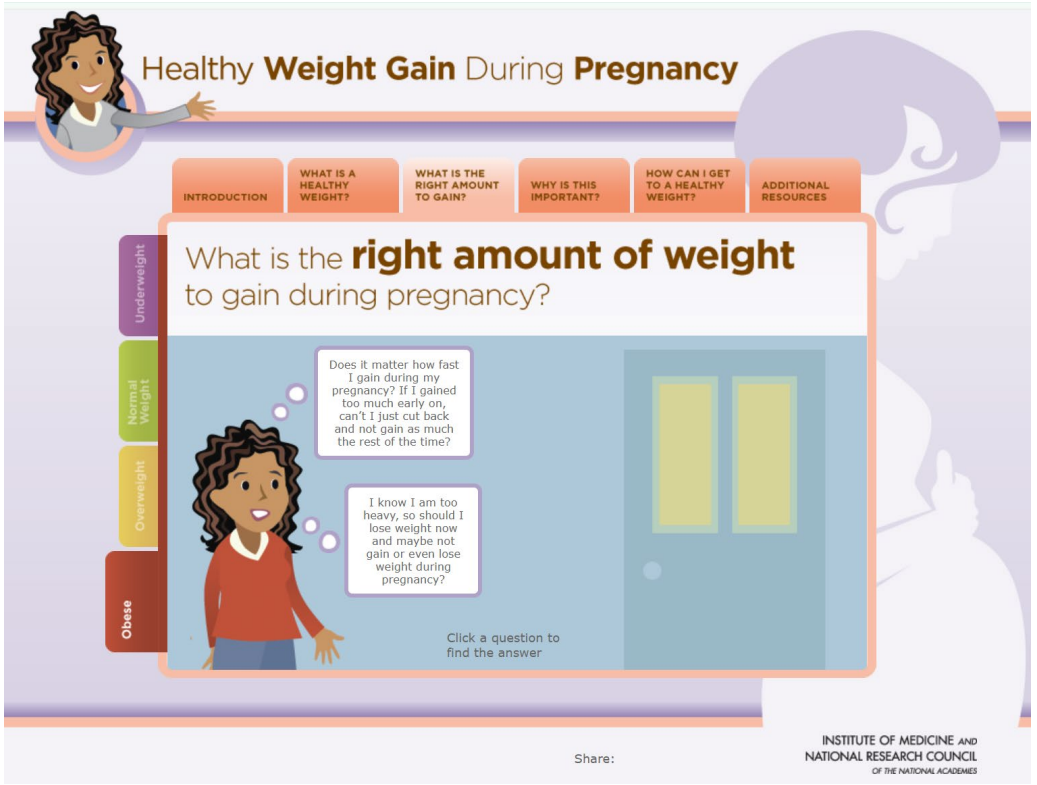
This document reflects emerging clinical and scientific advances as of the date issued and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed.

Weight Gain During Pregnancy

What did the guidelines accomplish?

Dissemination materials for care providers.





https://webassets.nationalacademies.org/whattogain/

What did the guidelines accomplish?

Revision of birth certificate in 2003 allowed BMI and weight gain monitoring and surveillance.

- ✓ By 2016, all 50 states
- ✓ CDC databases such as PRAMS

Integration of BMI and weight gain into electronic health records.

- ✓ Prompt data collection
- ✓ Automated to calculate BMI, recommended weight gain, suggestions for weight gain counseling.

What did the guidelines accomplish?

Research explosion!