

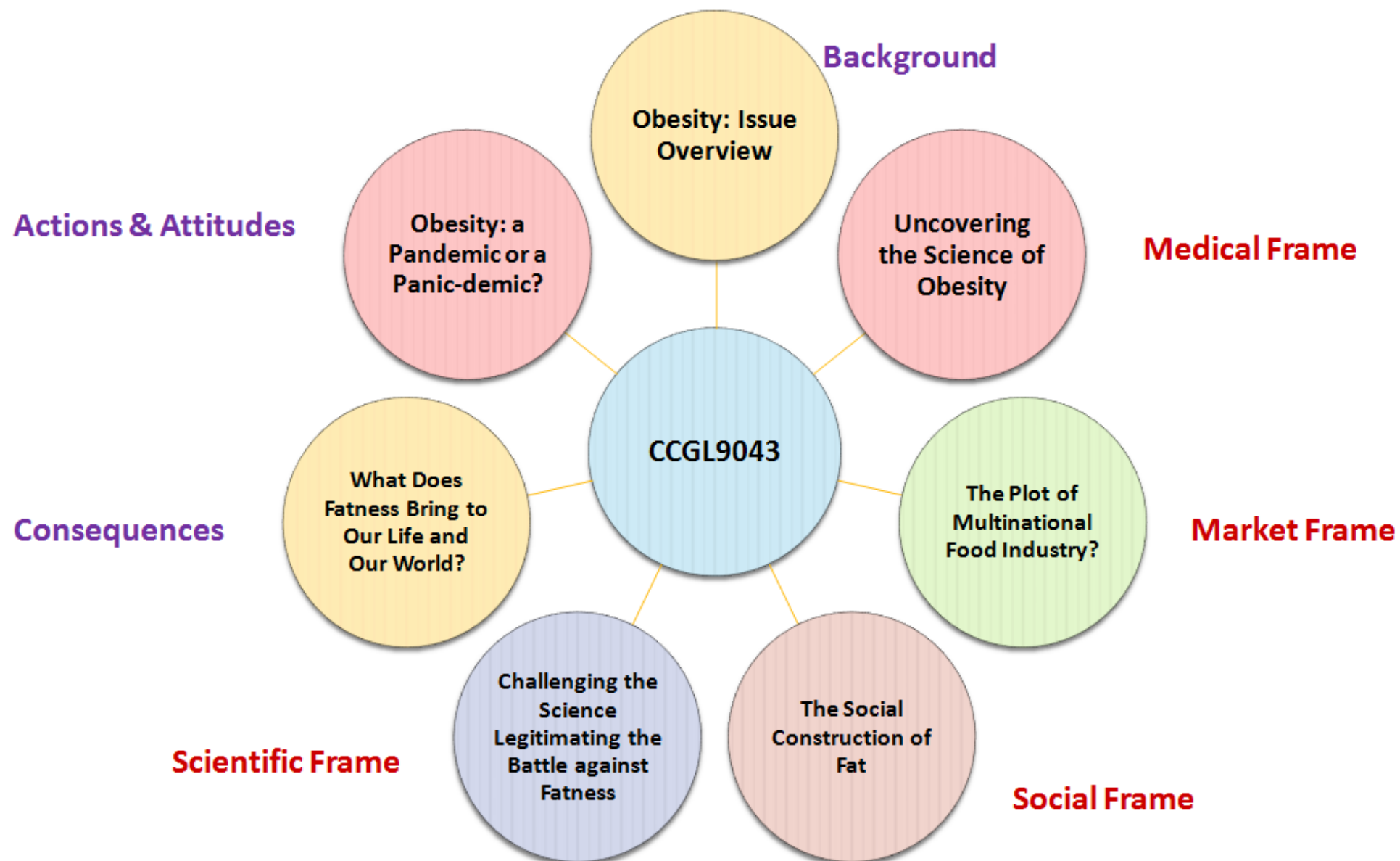
What Does Fatness Bring to Our Life and Our World?

CCGL9043 Obesity: Beyond a Health Issue

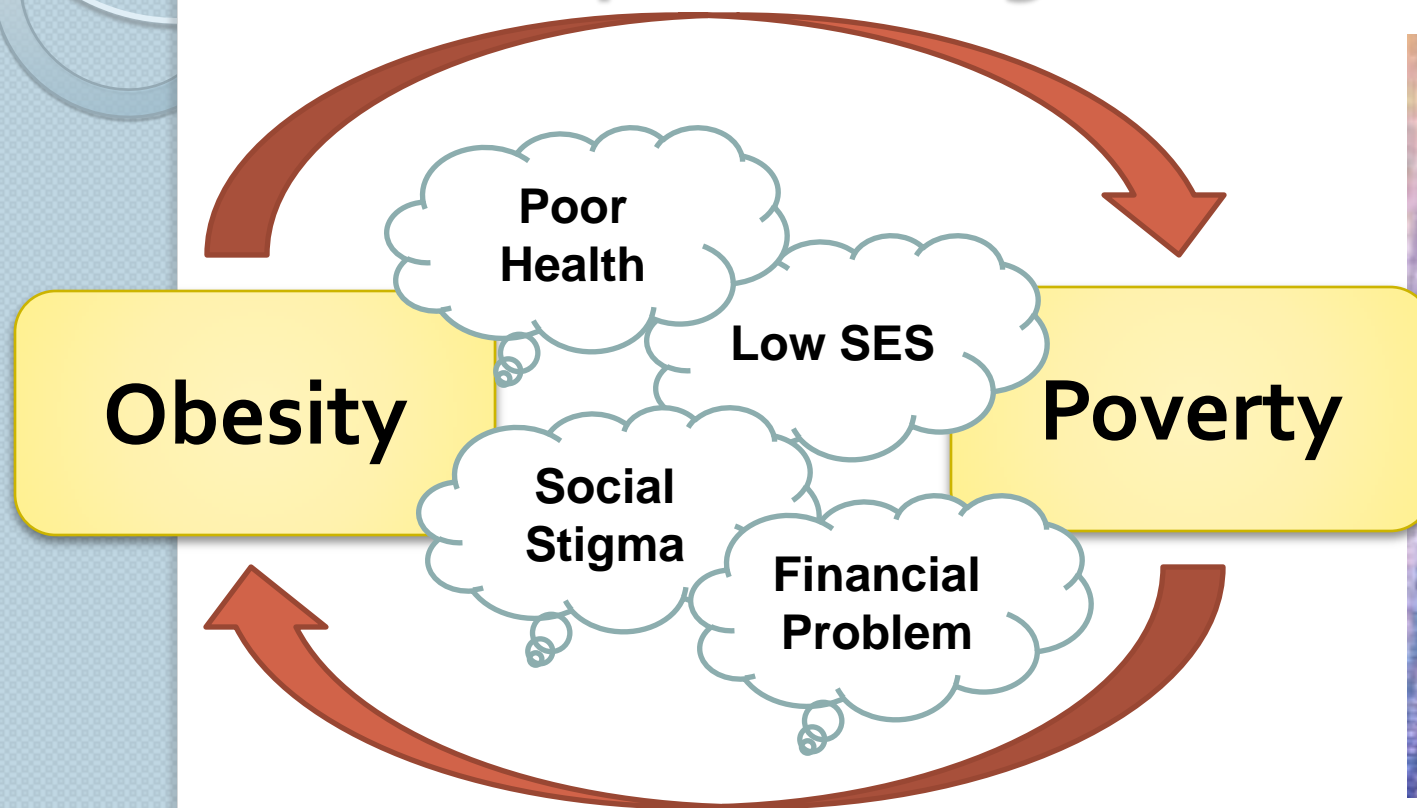
Lecture 9



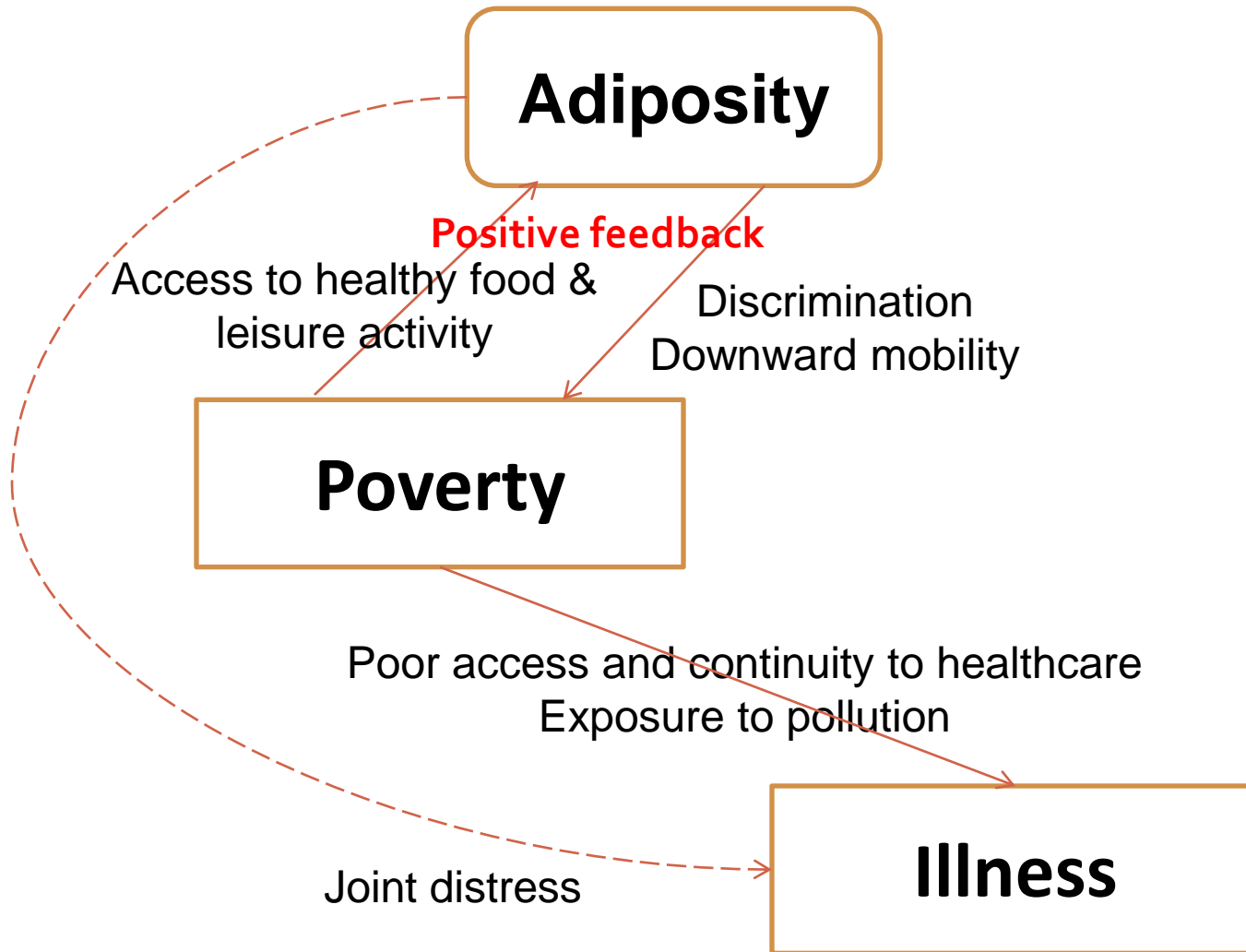
Course Outline



Poverty is fattening vs. Fatness is impoverishing



SES is **inversely related** to adiposity in developed nations.



Hypothetical model for the relationship between SES, adiposity, and adverse health outcomes

Adiposity

Social Stigma

Positive feedback

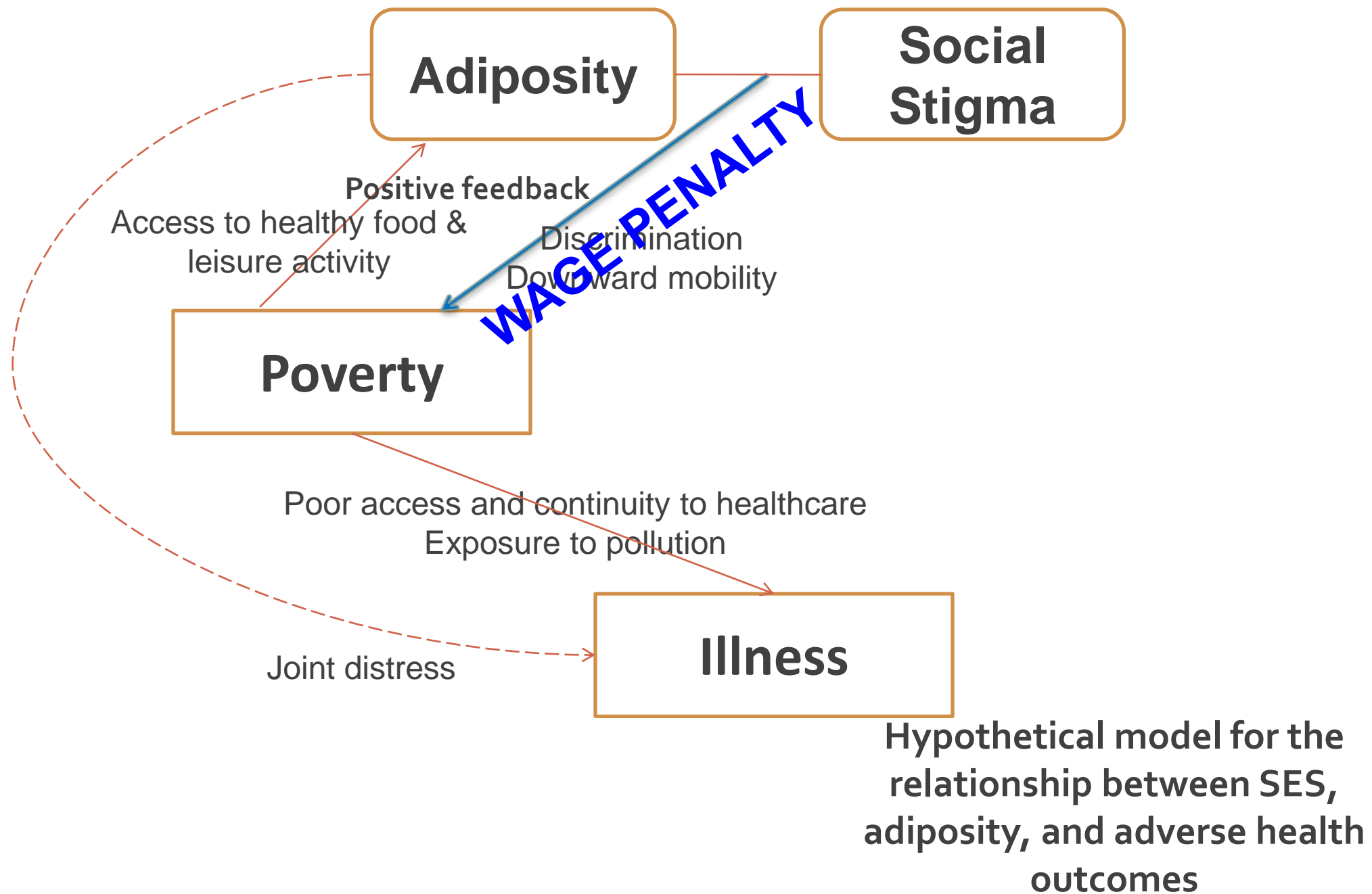
Stigma is a **socially constructed** phenomenon that shifts and changes over time.

Stigma is **the product of others' reactions** to a person who is a member of a low-status or rejected group rather than anything essential to that person.¹

Illness

Joint distress

Hypothetical model for the relationship between SES, adiposity, and adverse health outcomes



Occupational Choice & Wages

2.5 times more likely to report long-term unemployment²

Higher rates of poverty²

Largely excluded from high-paying managerial/professional and technical occupations¹

Earned 11.2% less than the non-obese³

Work mostly in relatively low-paying occupations¹



Can an employer assume that a thinner employee will have better performance and be more productive?

1. Pagan JA, Davila A. 1997. Obesity, occupational attainment, and earnings. *Soc. Sci. Q.* 78(3):756-70
2. Sarlio-Lahteenkorva S, Lahelma E. 1999. The association of body mass index with social and economic disadvantage in women and men. *Int. J. Epidemiol.* 28(3):445-49
3. Cawley, J. 2004. The impact of obesity on wages. *Journal of Human Resources*, 39(2), 451-474.

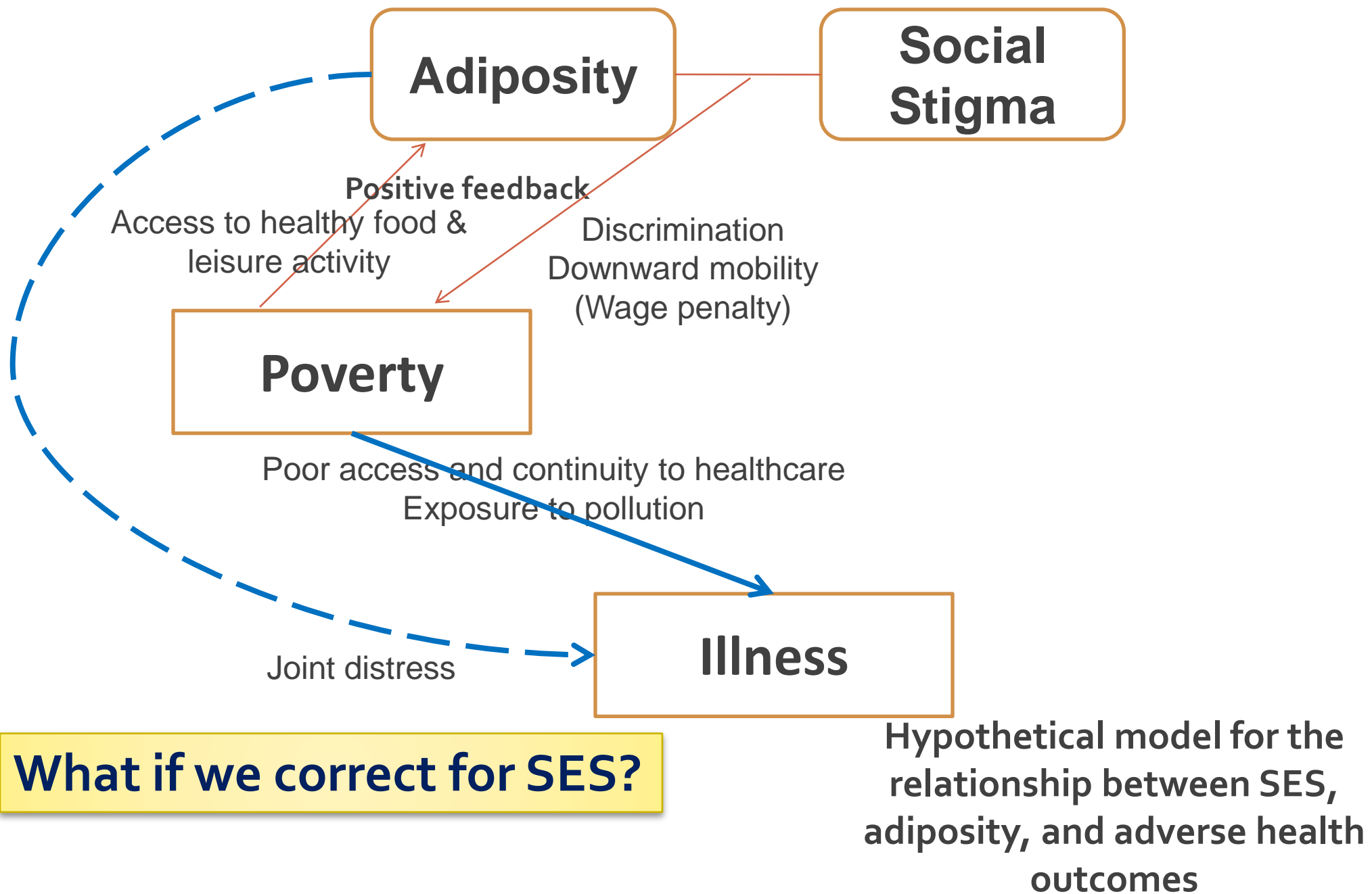
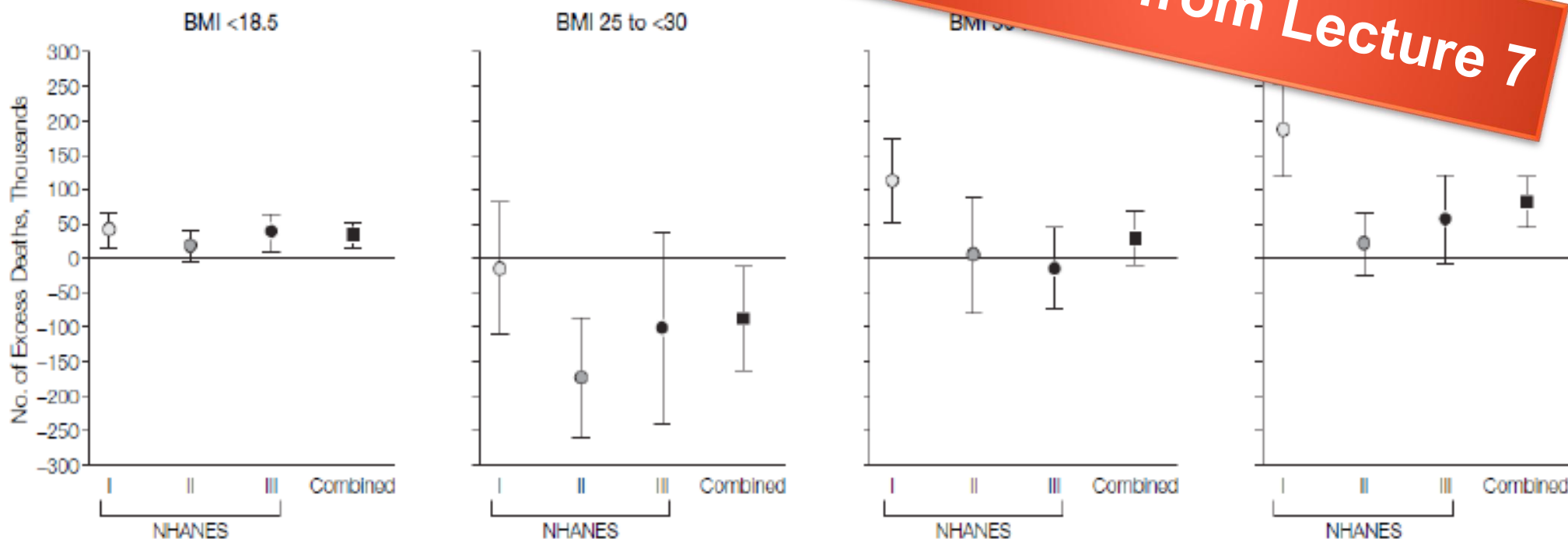


Figure 2. Estimated Numbers of Excess Deaths in 2000 in the United States Shown by Survey and BMI Category

Extracted from Lecture 7



BMI indicates body mass index (measured as weight in kilograms divided by the square of height in meters). All estimates are based on the covariate distribution from NHANES 1999-2002, the number of deaths in 2000 from US vital statistics data, and the relative risks estimated from National Health and Nutrition Examination Surveys (NHANES) I, NHANES II, NHANES III, or the combined NHANES I, II, and III data set. Error bars indicate 95% confidence intervals.

There were excess deaths in the underweight (BMI < 18.5) as well as the Grade 2 (BMI > 35) groups.

Social Discrimination

Extracted from Lecture 8

- In the U.S. obese people are far more likely to be **poor** and members of **ethnic minority groups** than thin people.¹
- Epidemiological studies that both attempt to measure the effects of **weight** on health and control for **SES** are rare.²



1. Mokdad, A.H., Ford, E.S., Bowman, B.A., Dietz, W.H., Vinicor, F., Bales, V.S. and Marks, J.S. (2003) Prevalence of Obesity, Diabetes, and Obesity-Related Health Risk Factors, *JAMA* 289 (1): 76-79.
2. Campos, P., Saguy, A., Ernsberger, P., Oliver, E. and Gaesser, G. (2006) The Epidemiology of Overweight and Obesity: Public Health Crisis or Moral Panic?, *International Journal of Epidemiology* 35: 55-60.

Study population	Relative hazard of adiposity	Likely prevalence of weight loss practices and stigma	Reference
Young nurses	Exceptionally high	Very high	(Manson et al., 1995)
Holders of individual life insurance policies	Very high	Very high	(Lew et al., 1979)
Harvard alumni	Very high	High	(Lee et al., 1993)
Health professionals	High	Very high	(Baik et al., 2000)
Residents of affluent Boston suburb (Framingham, Mass.)	High	High	(Garrison et al., 1983)
Neighbors and relatives of American Cancer Society volunteers	High	High	(Lew & Garfinkel, 1979)
Residents of Finland	Moderate	Moderate	(Rissanen et al., 1989; Rissanen et al., 1991)
White women in Charleston, S.C.	Moderate	Moderate	(Stevens et al., 1992)
Black women in Charleston, S.C.	None	Low	(Stevens et al., 1992)
Civil servants of rural eastern Finland	None (Women) Low (Men)	Low	(Tuomilehto et al., 1987)
British civil servants	U-shaped	Low	(Jarrett et al., 1982)
German construction workers	Inverse	Low	(Brenner et al., 1997)
Dutch civil servants	None (Women) Low (Men)	Low	(Schuit et al., 1993)
Paris civil servants	Inverse	Low	(Filipovsky et al., 1993)
Black Kaiser Permanente subscribers	None (Women) U-shaped* (Men)	Low	(Wienpahl et al., 1990)
Residents of villages in rural Italy	None	Very low	(Anon., 1982)

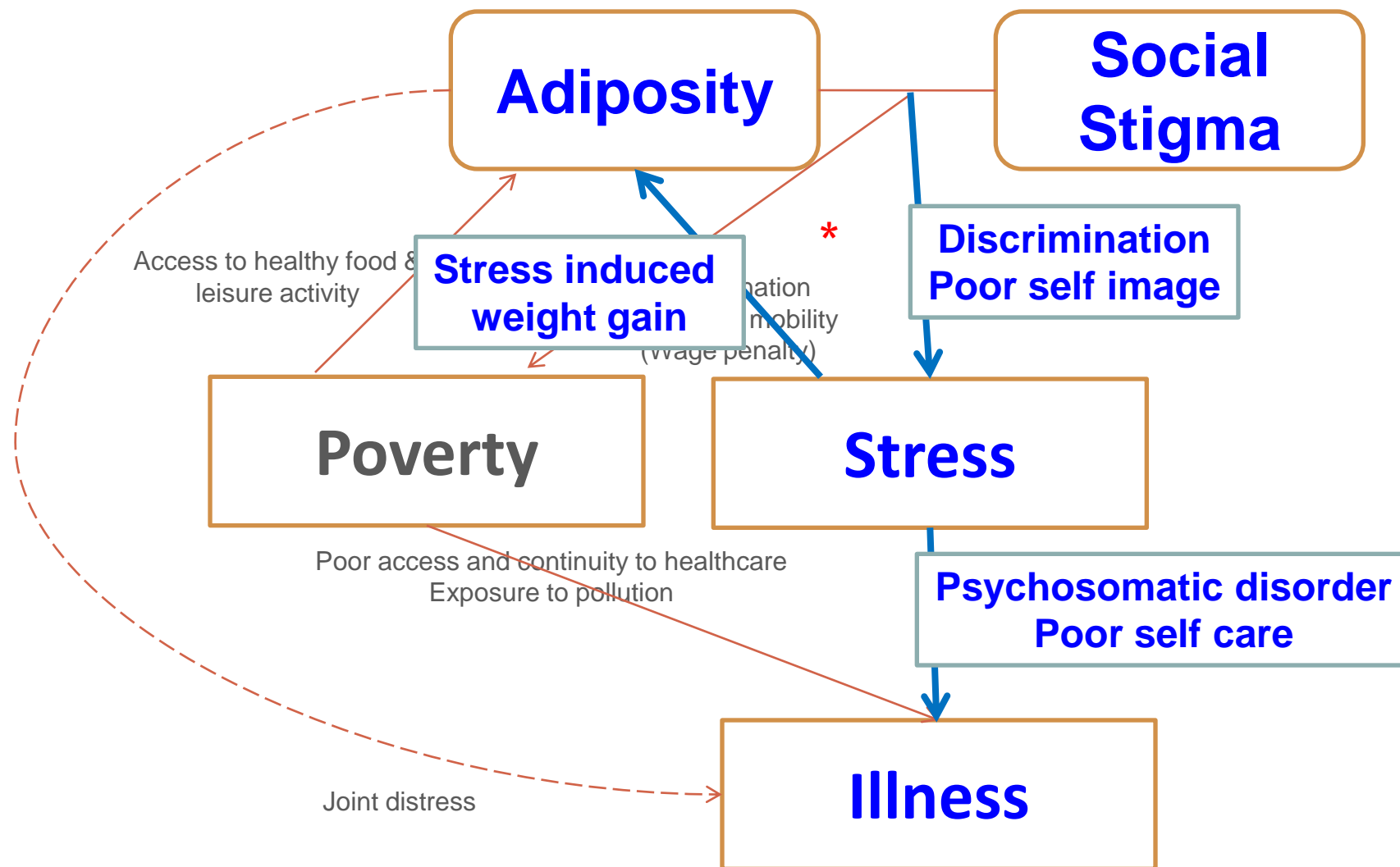
Population characteristics & outcome of epidemiological studies of fatness & total mortality

Study population	Relative hazard of adiposity	Likely prevalence of weight loss practices and stigma	Reference
Young nurses	Exceptionally high	Very high	(Manson et al., 1995)
Holders of individual life insurance policies	Very high	Very high	(Lew et al., 1979)
Harvard alumni	Very high	High	(Lee et al., 1993)
Health professionals	High	Very high	(Baik et al., 2000)
Residents of affluent communities (Framingham)			(Lew et al., 1983)
Neighbors and relatives of obese individuals in the Society for the Study of Obesity			(Kelley et al., 1979)
Residents of Finland	Moderate	Moderate	(Rissanen et al., 1989; Rissanen et al., 1991)
White women in Charleston, S.C.	Moderate	Moderate	(Stevens et al., 1992)
Black women in Charleston, S.C.	None	Low	(Stevens et al., 1992)
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Dutch civil servants	None (Women) Low (Men)	Low	(Schuit et al., 1993)
Paris civil servants	Inverse	Low	(Filipovsky et al., 1993)

Populations showing no risk of high BW tend to be of low SES and belong to cultures that do not value thinness as strongly as affluent Americans.

The stigma, discrimination, and stress faced by obese persons of high SES in Western cultures may be a major contributor to their excess of cardiovascular mortality.

Population characteristics & outcome of epidemiological studies of fatness & total mortality

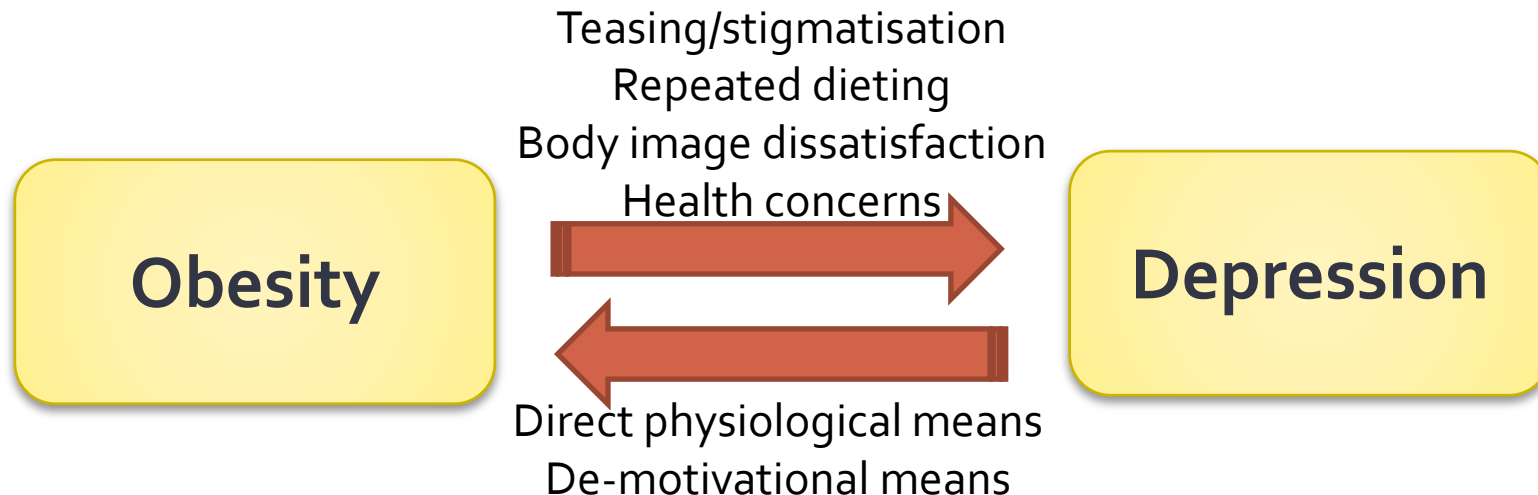


*Positive feedback system

Hypothetical model for the relationship between SES, adiposity, and adverse health outcomes

Depression & Obesity

- Inconsistent findings on whether depression is a significant risk factor for weight gain or not.
- Depression is a stronger risk factor for obesity in **females** compared with males (Kornstein, 2008).



Kornstein, S.G. (2008). Gender differences in depression. Medscape Today. Retrieved May 16, 2008, from http://www.medscape.com/viewarticle/527494_527493.

Markowitz, S., Friedman, M. A., & Arent, S. M. (2008). Understanding the relation between obesity and depression: causal mechanisms and implications for treatment. *Clinical Psychology: Science and Practice*, 15(1), 1-20.

Associations between psychological stress, eating, physical activity, sedentary behaviours and body weight among women: a longitudinal study

Jennifer Mouchacca, Gavin R Abbott and Kylie Ball*

Abstract

Background: There is an increased risk of obesity amongst socioeconomically disadvantaged populations and emerging evidence suggests that psychological stress may be a key factor in this relationship. This paper reports the results of cross-sectional and longitudinal analyses of relationships between perceived stress, weight and weight-related behaviours in a cohort of socioeconomically disadvantaged women.

Methods: This study used baseline and follow-up self-report survey data from the Resilience for Eating and Activity Despite Inequality study, comprising a cohort of 1382 women aged 18 to 46 years from 80 of the most socioeconomically disadvantaged neighbourhoods in Victoria, Australia. Women reported their height (baseline only), weight, sociodemographic characteristics, perceived stress, leisure-time physical activity, sedentary and dietary behaviours at baseline and three-year follow-up. Linear and multinomial logistic regression were used to examine cross-sectional and longitudinal associations between stress (predictor) and weight, and weight-related behaviours.

Results: Higher perceived stress in women was associated with a higher BMI, and to increased odds of being obese in cross-sectional and longitudinal analyses. Cross-sectional and longitudinal associations were found between stress and both less leisure-time physical activity, and more frequent fast food consumption. Longitudinal associations were also found between stress and increased television viewing time.

Conclusion: The present study contributes to the literature related to the effects of stress on weight and weight-related behaviours. The findings suggest that higher stress levels could contribute to obesity risk in women. Further research is needed to fully understand the mechanisms underlying these associations. However, interventions that incorporate stress management techniques might help to prevent rising obesity rates among socioeconomically disadvantaged women.

Keywords: Psychological stress, Eating, Physical activity, Sedentary behaviours, Body weight, Regression analyses

Obesity & Marriage

Increased obesity rates among women will **reduce fertility rates** biologically¹ and by **low marriageability**².

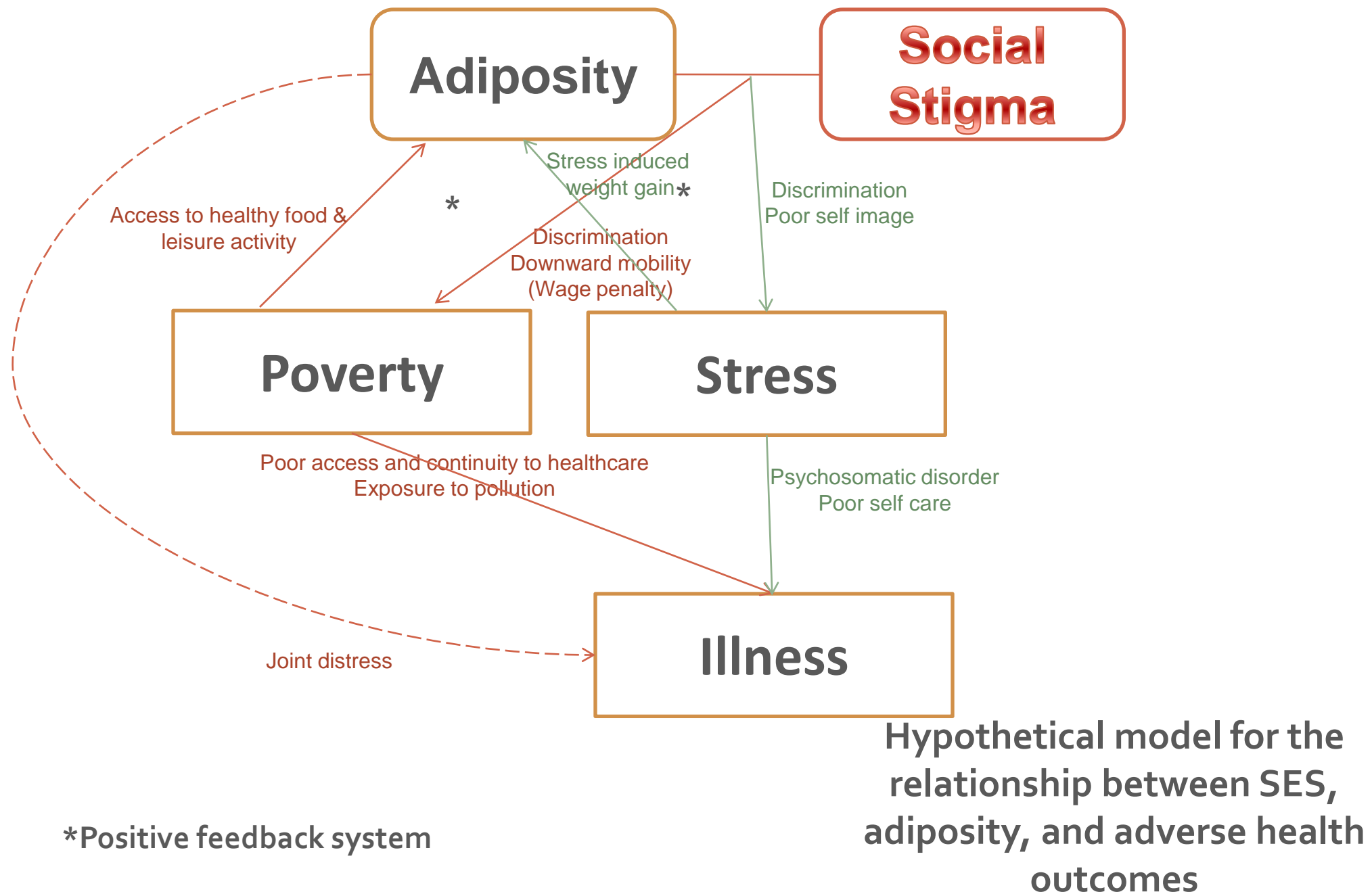
Obesity



Marriage

In the US, getting married adds **3.1 kg BW** across the **1st decade** after marriage, and a **further 0.25 kg per decade** of marriage subsequently³.

1. Mitchell M, Armstrong DT, Robker RL, Norman RJ. Adi-pokines: implications for female fertility and obesity. *Reproduction* 2005; 130: 583–597.
2. Harper B. Beauty, stature and the labour market: a British cohort study. *Oxford Bull Econ Stat* 2000; 62: 771–800.34.
3. Sobal J, Rauschenback B, Frongillo EA. Marital status changes and body weight changes: a US longitudinal analysis. *SocSci Med* 2003; 56: 1543–1555

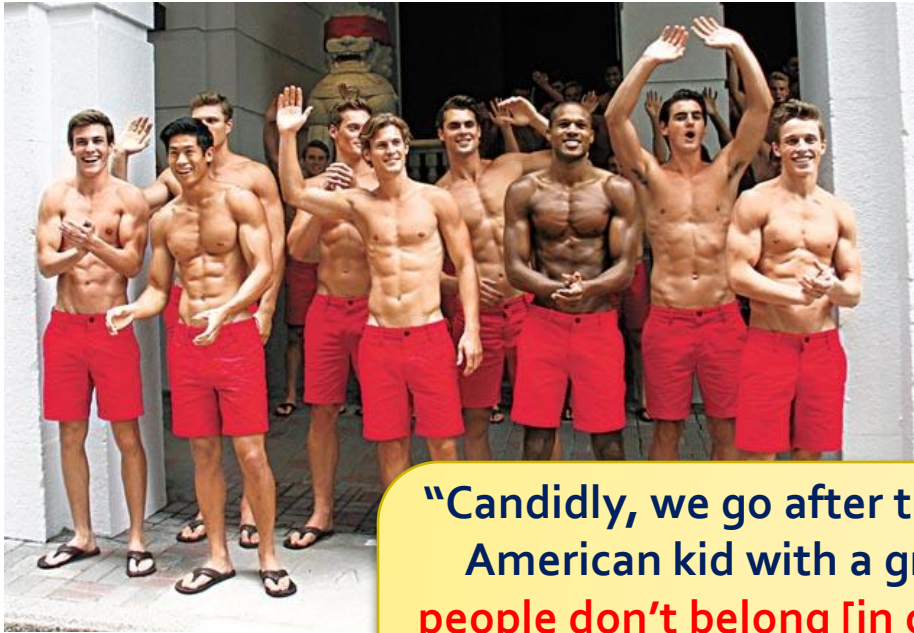


Wann, M. (2009). *The fat studies reader*. E. D. Rothblum, & S. Solovay (Eds.). New York University Press.



SOCIAL STIGMA & OTHER RELATED ISSUES

Abercrombie & Fitch Refuses To Make Clothes For Large Women



"Candidly, we go after the cool kids. We go after the attractive all-American kid with a great attitude and a lot of friends. **A lot of people don't belong [in our clothes], and they can't belong.** Are we exclusionary? Absolutely. Those companies that are in trouble are trying to target everybody: young, old, fat, skinny... You don't alienate anybody, but you don't excite anybody, either." ¹

Abercrombie & Fitch CEO Explains Why He Dislikes Fat Girls (00:00-1:52)

<https://www.youtube.com/watch?v=pCv-bwCqgXE>

1. <http://www.salon.com/2006/01/24/JEFFRIES/>
2. <http://www.deseretnews.com/article/865580494/Abercrombie--Fitch-CEO-posts-statement-on-Facebook-stores-accused-of-being-unfriendly-to-disabled.html?pg=all>

Abercrombie & Fitch Sells Anti-Bullying Ts, Still Has Controversial 'Look Policy'

The clothing retailer is trading 'So I Make You Look Fat' T-shirts for ones with empowering messages, but will customers buy the switch?



Abercrombie & Fitch Anti-Bullying Campaign Is Absurd (00:00-1:38; 2:02-3:27)

<https://www.youtube.com/watch?v=SSp7qUQ1X4>

"We've listened to the conversations and hear the message and as a company look forward to increasing our commitment to anti-bullying efforts. We are fully committed to fostering a culture of diversity and inclusion..."

Abercrombie & Fitch CEO, Mike Jeffries



Mike Jeffries

Abercrombie & Fitch is not the only brand that hates fat people

CEO Mike Jeffries only wants 'thin and beautiful' people wearing his A&F clothes. Sadly, he is just one of many fat-shaming bigots lording over the fashion industry today.



Karl Lagerfeld

"It's absurd! **No one wants to see curvy women.** You've got fat mothers with their bags full of chips, sitting in front of the television saying thin models are ugly. Fashion is about dreams and illusions. **No one wants to see round women.**"

"Americans are **too fat.** And in London they are starting to **get fat too.** So I have to say that if we have to talk about race system and nationalism, I find it refreshing that everyone Chinese is slim."

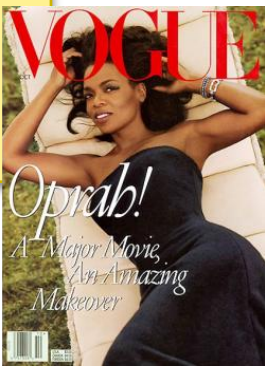


Tom Ford



Anna Wintour

"I suggested that she...**lose a bit of weight...**I said simply that [she] might be more comfortable. She was a trooper! She totally welcomed the idea and she went on a very stringent diet and it was **one of our most successful covers ever.**"



Everything plus size



Car makers must prepare for the obesity epidemic

Ford's "futurologist" says vehicles need to adapt to cope with the ever-expanding human body

203 0 49 252 Email



NZ police get bigger handcuffs for larger offenders



By News from Elsewhere...
...as found by BBC Monitoring

15 March 2016

Share



Fat Troops Are Forcing The Military To Totally Redesign Its Combat Gear

Allison Churchill
Sep. 25, 2012, 12:56 PM 4,159 7

The Natick Soldier Research, Develop-

ment and Engineering Center, in Natick, Mass., revealed today they're in the middle of analyzing data from surveys that measured American troops for uniform size.

The reason? A shortage of large-sized chemical-biological protective suits at the beginning of the war in Iraq for the Army, and large-sized body armor for the Marines. Ill-fitting protective gear can be a difference of life or death, so the Army did a study in 2007 to find the problem.



Ken Sears via U.S. Army



Caskets for Obese Booming

<https://www.youtube.com/watch?v=EQwAJbZQnFc>

<http://www.telegraph.co.uk/finance/newsbysector/transport/11368845/Car-makers-must-prepare-for-the-obesity-epidemic.html>
<http://www.bbc.com/news/blogs-news-from-elsewhere-35811093>
<http://www.businessinsider.com/fat-troops-are-forcing-the-military-to-totally-redesign-combat-gear-2012-9>

**Everything plus size:
How about flight seats?**



Whose concerns are they?

"We just want to get a **fair share** of what we've paid for the flight."

Worried that there was **no data** proving that "seats and seat belts are **safe enough**" for larger passengers.

"We don't want to take anyone else's **space** and don't believe anyone should have to be **uncomfortable**, but at 17" to 20", airline seats are very small."

"Our ongoing goal is to operate a **low-fare, low cost airline**, and the costs of reconfiguring our fleet would be staggering and would ultimately reflect in the form of **higher fares for our customers**"

"The energy absorption that is built into the aircraft seat is likely to be overwhelmed and the occupants will **not be protected optimally**."

"Do you intend to also make using the **restrooms** more comfortable for large passengers?"



How Fat is Too Fat to Fly?

Statistical Average?

Cultural Ideal?

What is a
"Normal
Body"?



Airline Fees: Weigh More, Pay More?

<https://www.youtube.com/watch?v=4iMvmh3huXI>

The determining question revolves around the **maximum number of bodies** that can be placed into an airplane to **maximize airline profit**.

Airplane and Fat Bodies

- “If passengers have supersized themselves and are encroaching on the space of others, **fairness** says you should be paying for the space”
- Many of the published responses to fat flyers seem to have less to do with space than with **stigma**.

“Can you imagine a business traveler moaning, ‘Toddler flesh spilled into my seat?’”²



Questions for Thought

- Why wouldn't it be fair for everyone to **share the cost** of adding some larger seats for larger flyers?
- Would it be different if obesity is defined as a **disability**?
- What if the context is expanded to other means of **public transportation**, cinemas or even classrooms?



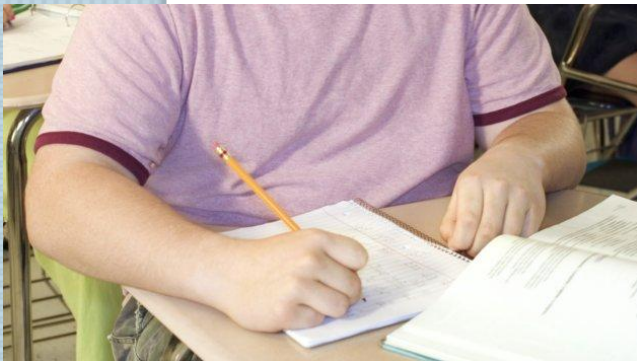
The Hidden Curriculum in Classrooms



What is the hidden message in each of these classroom settings?

The Hidden Curriculum in Classrooms

- The classroom desks and seats are part of the “**disciplinary practices**” that reproduce bodies tailored to the academy’s understanding of how a student should look, think, and act.



- **Homogenous thinness** is rewarded with comfort and various other privileges.
- Fat bodies are punished with **physical discomfort** and **social shame**.

Obese children outgrowing kids' clothing and furniture

By Madison Park, CNN

🕒 Updated 1230 GMT (2030 HKT) February 15, 2012

*"I was so large, I **couldn't fit in** there. Every other student could. I couldn't get my legs to fit underneath the desk or my stomach to fit between the chair without getting the desk stuck with me."*

*"It was really **embarrassing**. When class is over, everyone gets up, I would take a few minutes extra, tactfully maneuvering out without **looking like a fool**."*

How to strike a balance between fighting childhood obesity in schools and accommodating children with different body shapes and sizes?



As children become obese, they're outgrowing school furniture, clothing and growth charts.

Fat Youth as Common Bullying Targets

“Somehow I have managed to make it through high school, but it was a **tough battle** laced with thoughts of suicide and depression. . . I am not completely through my journey. **I still have issues**, depression, and no self-esteem. I still get teased.”

Social physique
anxiety

Teasing

General
anxiety

Preference for
solitary activities

Loneliness

Depression

Less enjoyment
of social activities



Weight Bias at Home and School
<https://www.youtube.com/watch?v=BxzejNEoRT8>

Causes of weight-based bullying

Bullying does not occur in isolation.
Societal acceptance of oppression on the basis of weight remains strong.

Bullies: Perceive weight as controllable; View negative treatment as deserved

Victim: Poor self-concept because of their appearance



Bystanders: Play a central role in supporting bullying and promoting a culture of aggression; also play an essential role in intervening to stop bullying"

Positive comments in adulthood **did not ameliorate** the adverse impact of critical weight bias.

As long as weight-based oppression remains acceptable, and acceptable body sizes remain narrowly defined, those youth who do not fit the norms will continue to be unfairly and repeatedly targeted.

Female Athlete Being Fat-shamed



Leisel Jones, Australian former competition swimmer and Olympic gold medalist
Weight = 68 kg, Height = 1.77 m, BMI = 21.7

Rude Australian Paper Fat-Shames Olympic Swimmer, Leisel Jones

4 years ago by Deborah Dunham | 0 Comments | Share a Tip



Even female Olympic athletes can get away from body-snarking, fat-shaming jerks. The not-so-fine folks at the *Herald Sun* in Melbourne have suggested that four-time Olympic swimmer **Leisel Jones** (who is from their own country, no less) is fat and not fit enough to swim in the London Games. It's a double standard once again because, we don't see them making any snide remarks about the guys and their bodies.

The article featured a photo of Jones with a caption that read: "The Olympic veteran's figure is in stark contrast to that of 2008." The editors went on to include a poll asking readers if they felt she was fit enough to compete in this summer's Games.

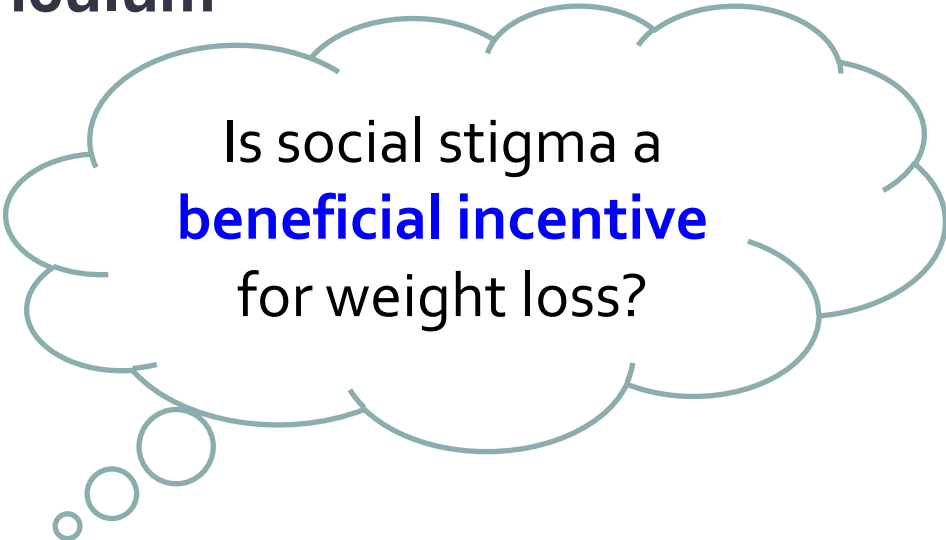
But their clever fat-shaming plan backfired and resulted in a lot of angry backlash.

SOCIAL STIGMA & OTHER RELATED ISSUES

The Fashion Industry

Everything Plus
Size: Flight Seats

The Hidden Curriculum



Is social stigma a
beneficial incentive
for weight loss?

Perceived Weight Discrimination and Changes in Weight, Waist Circumference, and Weight Status

Sarah E. Jackson, Rebecca J. Beeken and Jane Wardle

Objective: To examine associations between perceived weight discrimination and changes in weight, waist circumference, and weight status.

Methods: Data were from 2944 men and women aged ≥ 50 years participating in the English Longitudinal Study of Ageing. Experiences of weight discrimination were reported in 2010-2011 and weight and waist circumference were objectively measured in 2008-2009 and 2012-2013. ANCOVAs were used to test associations between perceived weight discrimination and changes in weight and waist circumference. Logistic regression was used to test associations with changes in weight status. All analyses adjusted for baseline BMI, age, sex, and wealth.

Results: Perceived weight discrimination was associated with relative increases in weight (+1.66 kg, $P < 0.001$) and waist circumference (+1.12 cm, $P = 0.046$). There was also a significant association with odds of becoming obese over the follow-up period (OR = 6.67, 95% CI 1.85-24.04) but odds of remaining obese did not differ according to experiences of weight discrimination (OR = 1.09, 95% CI 0.46-2.59).

Conclusions: Our results indicate that rather than encouraging people to lose weight, weight discrimination promotes weight gain and the onset of obesity. Implementing effective interventions to combat weight stigma and discrimination at the population level could reduce the burden of obesity.

Obesity (2014) **00**, 00-00. doi:10.1002/oby.20891

'Fat Shaming' Linked to Weight Gain, Not Weight Loss

By TRACI PEDERSEN *Associate News Editor*

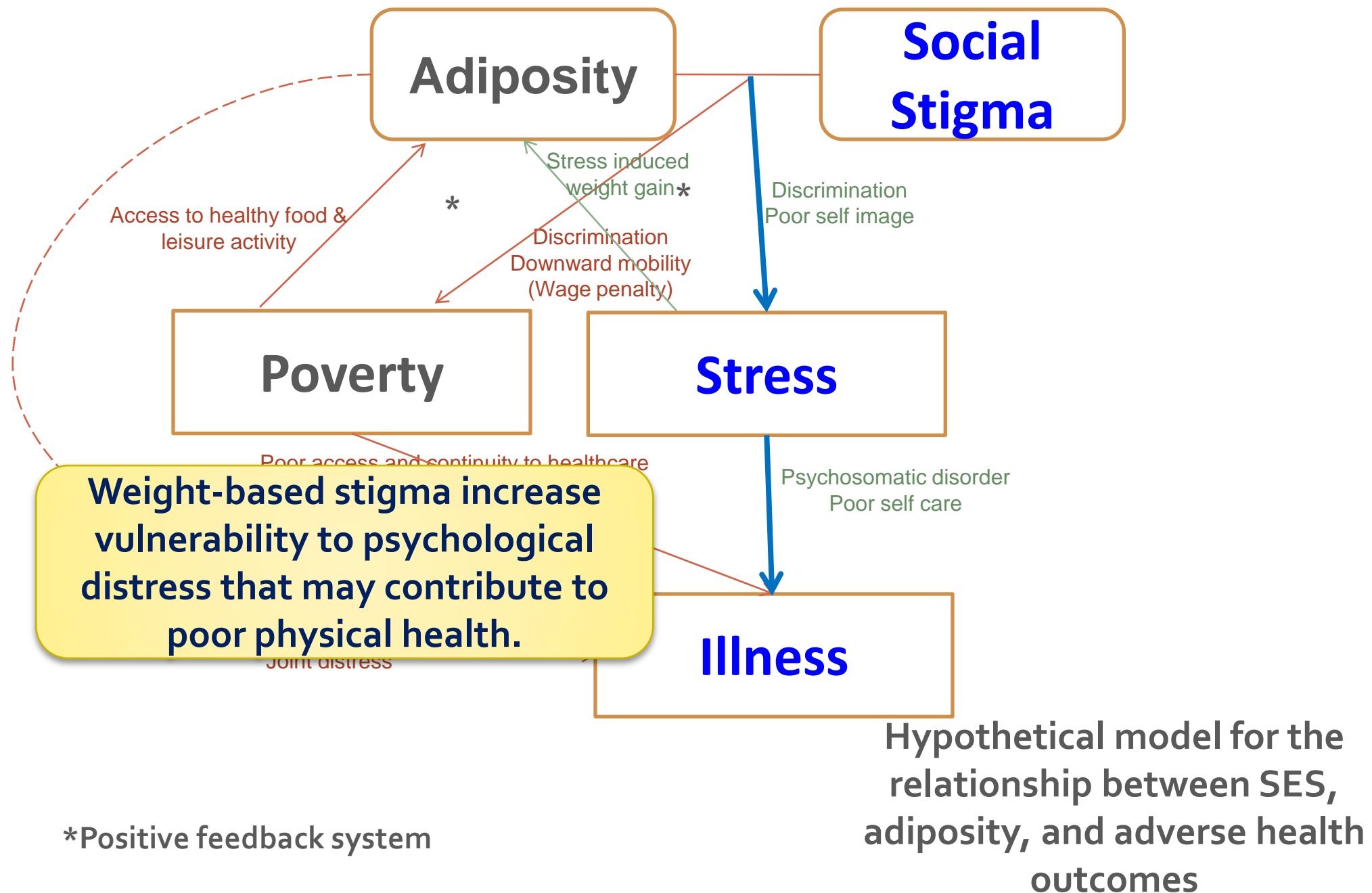
Reviewed by John M. Grohol, Psy.D. on September 14, 2014

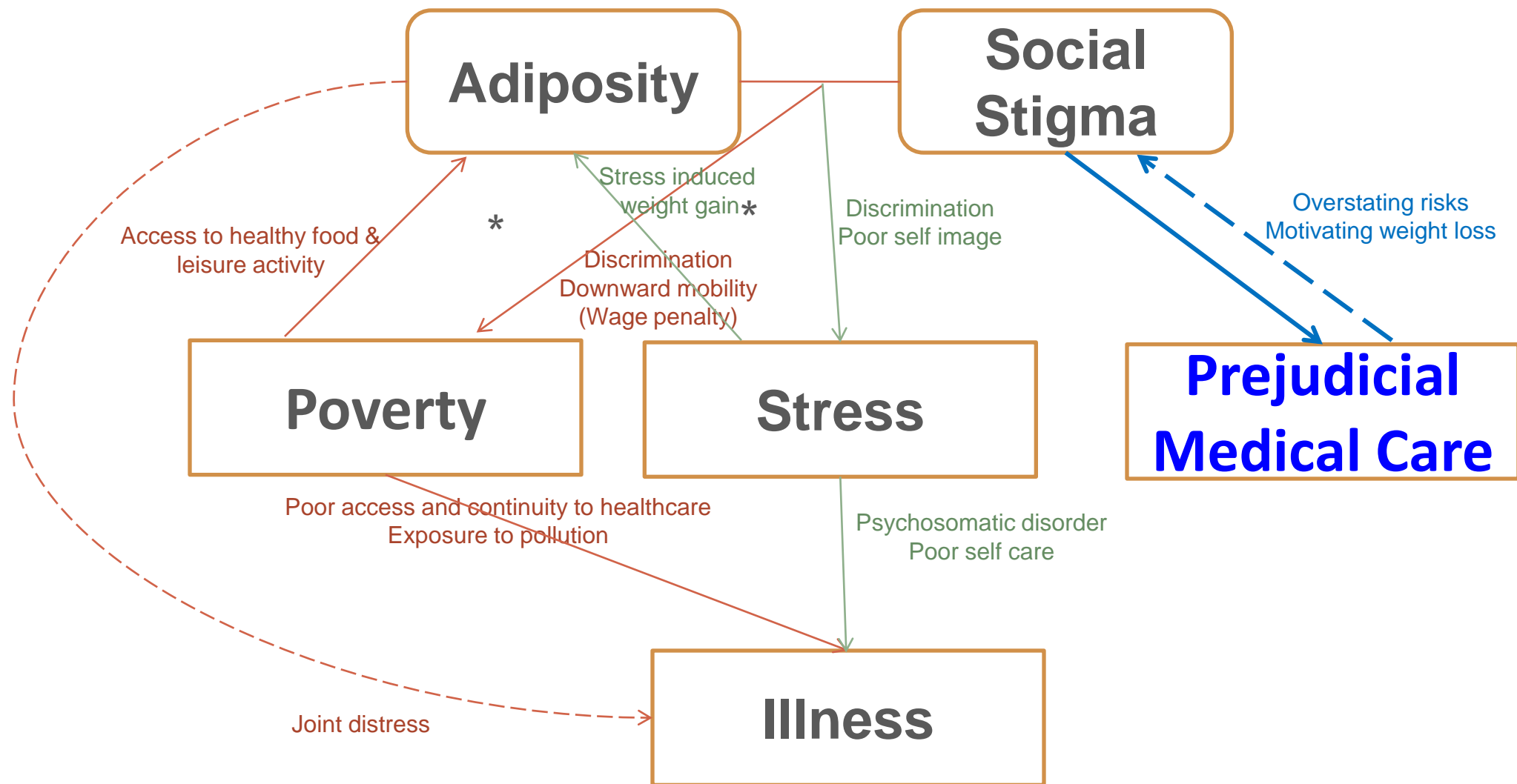
"Fat shaming" does not encourage weight loss in overweight adults; in fact, those who experience this type of discrimination tend to gain more weight, according to new research by University College London (UCL).

In a four-year study of 2,944 UK adults, those who experienced weight discrimination gained over two pounds whereas those who did not lost a pound and a half.



"Previous studies have found that people who experience discrimination report **comfort eating**. **Stress responses** to discrimination can **increase appetite**, particularly for unhealthy, energy-dense food. Weight discrimination has also been shown to make people feel **less confident** about taking part in **physical activity**, so they tend to avoid it."





*Positive feedback system

Hypothetical model for the relationship between SES, adiposity, and adverse health outcomes

Weight Bias

Extracted from Lecture 8

- Weight bias was identified **in virtually all health professionals** including those who specialize in obesity treatment .¹
- Evidence of a strong anti-fat bias was found for **both fitness professionals and regular exercisers**.²



1. Schwartz, M. B., Chambliss, H. O. N., Brownell, K. D., Blair, S. N., & Billington, C. (2003). Weight bias in health care. *Obesity research*, 11(9), 1033-1039.
2. Robertson, N., & Vohora, R. (2008). Fitness vs. fatness: Implicit bias towards obesity among fitness professionals. *Sport and Exercise*, 9(4), 547-557.

TED

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Peter Attia:

Is the obesity crisis hiding a bigger problem?

TEDMED 2013 · 15:58 · Filmed Apr 2013
Subtitles available in 31 languages

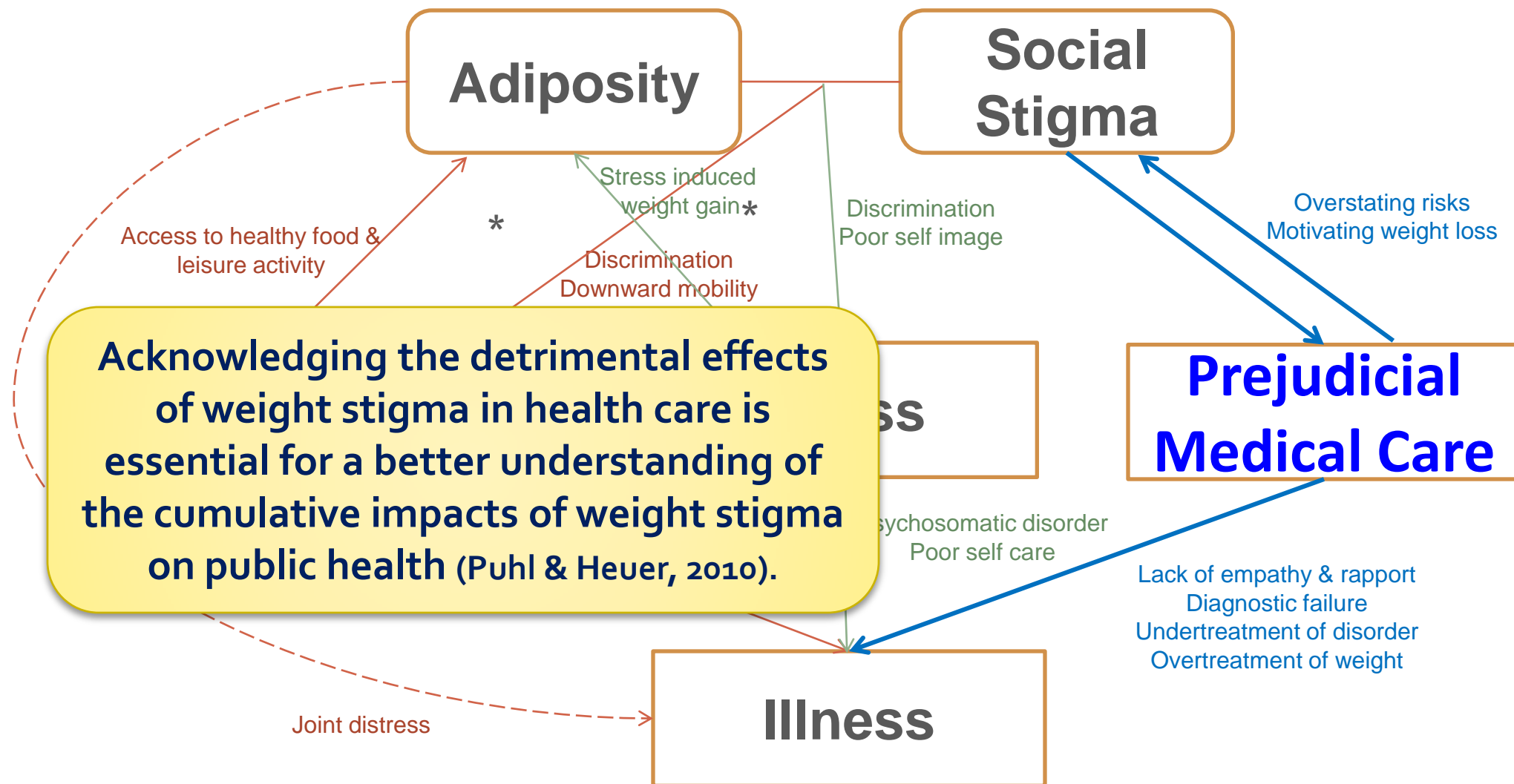
[View interactive transcript](#)



Stigma: A Threat to Quality Health Care

- Negative stereotypes and attitudes toward obese patients by a range of **health care providers and fitness professionals**.^{1,2}
- Providers spend **less time in appointments** and **provide less health education** with obese patients compared with thinner patients.^{3,4}
- For women at the highest levels of obesity, 68% reported that they **delayed seeking health care** because of their weight, and 83% reported that their **weight was a barrier** to getting appropriate health care.⁵

1. Puhl R, Brownell KD. Bias, discrimination, and obesity. *Obes Res.* 2001;9(12):788–805.
2. Puhl RM, Heuer CA. Weight bias: a review and update. *Obesity (Silver Spring).* 2009;17(5):941–964.
3. Hebl MR, Xu J. Weighing the care: physicians' reactions to the size of a patient. *Int J Obes Relat Metab Disord.* 2001;25(8):1246–1252.
4. Bertakis KD, Azari R. The impact of obesity on primary care visits. *Obes Res.* 2005;13(9):1615–1622.
5. Amy NK, Aalborg A, Lyons P, Keranen L. Barriers to routine gynecological cancer screening for White and African-American obese women. *Int J Obes (Lond).* 2006; 30(1):147–155.

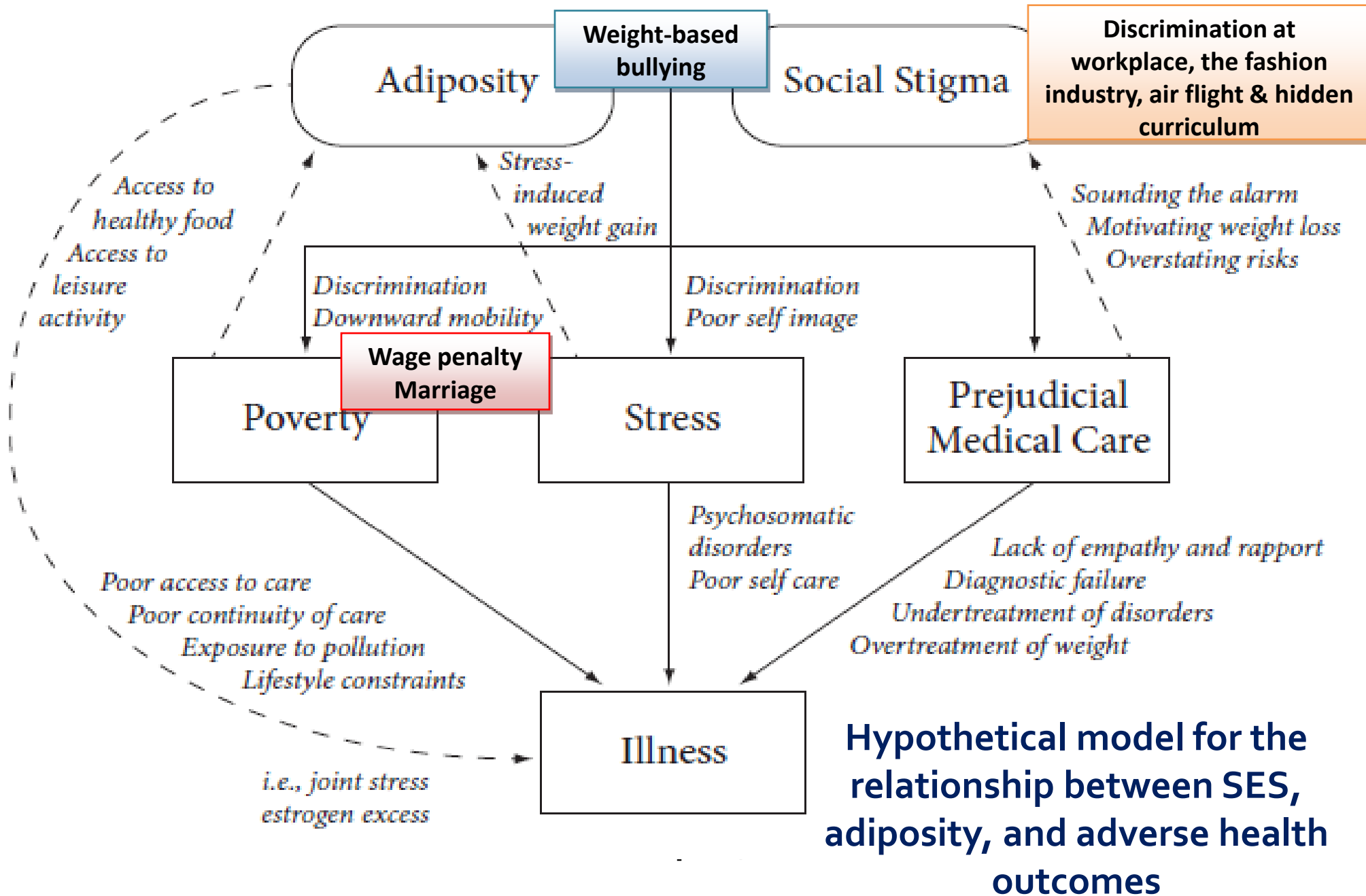


*Positive feedback system

Hypothetical model for the relationship between SES, adiposity, and adverse health outcomes

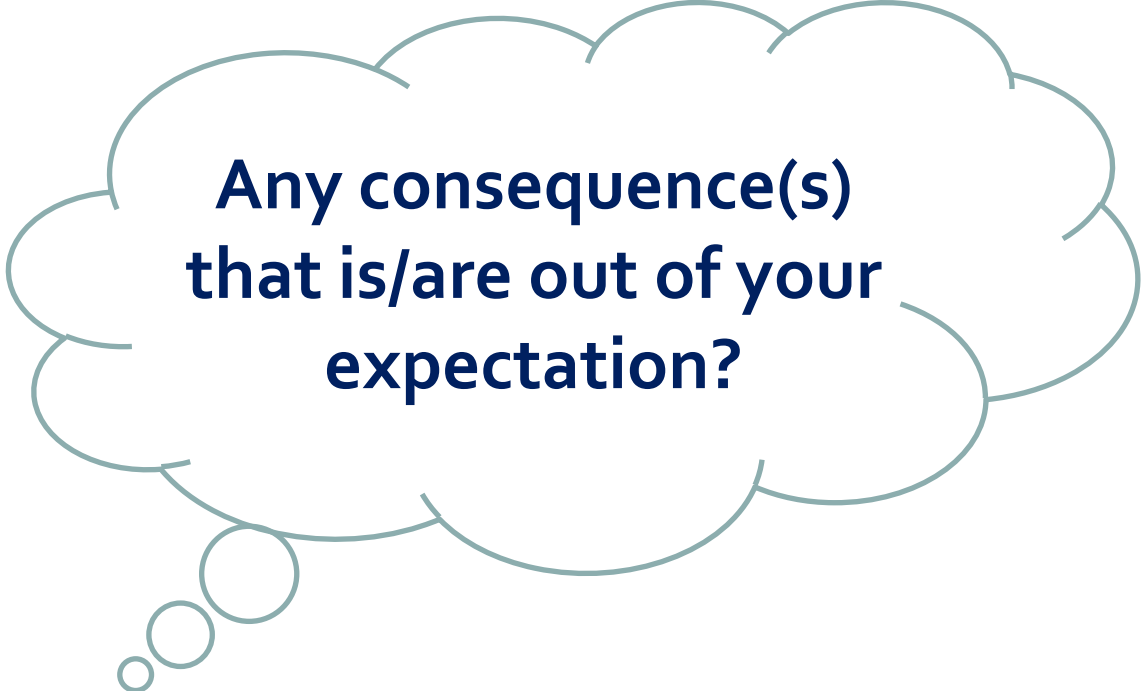
Wann, M. (2009). *The fat studies reader*. E. D. Rothblum, & S. Solovay (Eds.). New York University Press.

Puhl, R. M., & Heuer, C. A. (2010). Obesity stigma: important considerations for public health. *health*, 24, 252.



Concluding Remarks

To effectively address the obesity epidemic and improve public health, it is essential to **challenge common societal assumptions** that perpetuate weight stigma.



Any consequence(s)
that is/are out of your
expectation?