# Morbidity and Mortality

JESSICA STRAUSS

RUTGERS SCHOOL OF NURSING

# Morbidity

- Cardiovascular
- Endocrine
- Cancers
- Respiratory
- Gastrointestinal and hepatic
- Dermatologic
- Neurologic and Mental Health

# Cardiovascular

- An independent risk factor for developing cardiovascular disease.
- Increased risk for developing heart failure: increases 5% for men and 7% for women for every one increment of BMI.
- Increased risk for dyslipidemia, hypertension, and atherosclerosis.
- Associated with hormonal imbalances leading to sodium retention, vasoconstriction, and hyperinsulinemia.

# Endocrine

- Women with BMI of 30 are at 28 times greater risk for developing DM2 and women with BMI of 35 are at a 93 times greater risk for developing DM2.
- Men with obesity have a 37 times greater lifetime risk for developing DM2 and men with severe obesity have a 50 times greater  lifetime risk for developing DM2.
- Associated with higher risk for all complications associated with DM2 such as CAD, MI, HF, CVA, CKD, diabetic retinopathy, lower extremity ulcers, and gangrene.

# Cancers

Linked to many different types of cancers such as:

- Meningioma
- Multiple myeloma
- Adenocarcinoma of the esophagus
- Thyroid
- Gallbladder
- Stomach
- Liver
- Pancreas
- Kidney
- Ovaries, uterus, breast (postmenopausal)
- Colon and rectal

# Cancers

Associated with an increased risk of cancer-related death.

In a prospective cohort study of more than 900,000 adults in the U.S., death rates from all cancers combined were 52% higher in men with obesity and 62% higher in women with obesity.

# Respiratory

Primary risk factor for obstructive sleep apnea (OSA).

Obesity-type asthma: with reduced lung volumes, reduced eosinophilic inflammation, and a difference in response to traditional asthma treatments.

# Gastrointestinal and Hepatic

- Association between obesity and development of nonalcoholic fatty liver disease (NAFLD) – individuals who have obesity are 3.5 times more likely to develop NAFLD.
- Associated with a 3-fold increase in the development of cholelithiasis.
- Causal relationship between obesity and symptomatic gallstones.
- Associated with an increased risk in developing acute pancreatitis and mortality from acute pancreatitis.

# Dermatologic

Associated with skin disorders and complications such as acanthosis nigricans, plantar hyperkeratosis, skin tags, acrochordons, keratosis pilaris, striae distensae, psoriasis, and atopic dermatitis.

Associated with wound complications such as pressure ulcers, venous ulcers, and impaired wound healing.

Increased risk of developing skin infections such as candidiasis, candida folliculitis, furunculosis, cellulitis, necrotizing fasciitis, and gas gangrene.

# Neurologic and Mental Health

- Associated with an increased risk of mental health disorder diagnoses, such as major depression, bipolar disorder, and panic disorder.
- Reciprocal relationship between obesity and depression.
- Associated with an increased risk for development of Alzheimer's disease and dementia.
- 70% of adults with ADHD also have obesity.
- Associated with mild cognitive impairment in both men and women.

# Mortality

Increased risk of all-cause mortality and is associated with a shorter life expectancy for both men and women.

Approximately 4 million or 7.2% of deaths (globally) were contributed to obesity.

Obesity contributed to 120 million or 4.9% of disability-adjusted life years (DALYs) amongst adults globally.