

## OBESITY MANAGEMENT IN PRIMARY CARE CERTIFICATE PROGRAM:

A Practice Management & Leadership Training Program for PAs and NPs



### Module 1: *Obesity is a Complex Disease: Scope and Pathophysiology* Clinical Webinar Key Pearls

- An increasing number of states have >35% of people living with obesity.
- The impact of preobesity (overweight) and obesity on health includes metabolic, mechanical, malignant, and psychological effects.
- There are over 100 genes are known to play a role in obesity and preobesity (overweight).
- Adipose tissue is metabolically active.
- Adipose tissue is chatty – meaning it is using hormones to talk.
- The hypothalamus centrally regulates weight by using hormones to communicate with organs, such as the small intestine, adipose tissue, stomach, and large intestine.
- Insulin is a promoter of adipose storage.
- Ectopic fat can deposit in the pancreas, muscle, liver, heart, and kidneys.
  - New disease: obesity-related glomerulopathy (ORG) where ectopic fat deposits and accumulates in the kidney creating hyperfiltration. This accumulation of ectopic fat leads to exhaustion of the podocytes, proteinuria, glomerulosclerosis, and interstitial fibrosis.
- There are hormonal signals that affect the brain that are hedonic and increase eating without an actual increase in hunger.
- Satisfaction signaling includes executive functioning with craving based on the reward system through dopamine.
- Adequate sleep is very important to controlling obesity and obesity risks related to keeping cortisol decreased.
- Weight regain is an adaptation response to reduction in excess weight. The body wants to keep the abnormal adipose tissue and hormones that regulate weight go into overdrive – ghrelin increases, leptin resistance increases, and metabolic rate decreases, all driving regain.