

2019 Syracuse  
Community  
Care Award  
Sponsored by  
United  
Healthcare



[sleepcenterofcny.com](http://sleepcenterofcny.com)

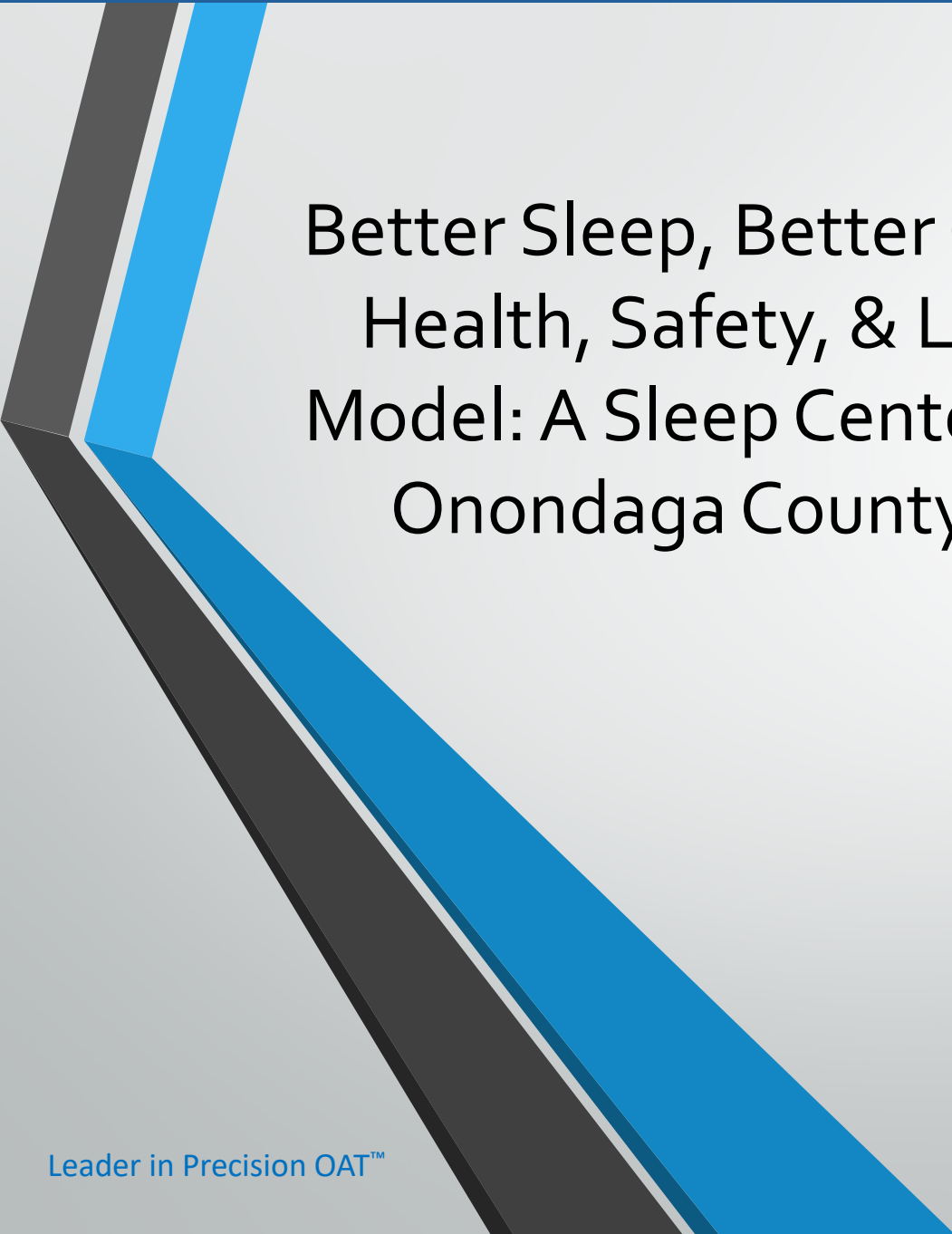
Sleep Center of NY

CEO and President: Edward T Sall MD DDS MBA

A partnership with:

Onondaga County Sheriff's Department

OCSD : Chief Gene Conway



# Better Sleep, Better Community, Safer Syracuse: A Health, Safety, & Law Enforcement Performance Model: A Sleep Center of CNY partnership with the Onondaga County Sheriff's Department (OCSD)

Project Director: Edward T Sall MD DDS, MBA

VP of Business Development: Mr. Paul Nojaim

Digital Media & Advertising: Mr. David Steinberg

OCSD Partner: Mr. Gene Conway: OCSD Chief

# Overview

- Obstructive Sleep Apnea (OSA) is a chronic, sleep related breathing disorder associated with snoring, short-term performance impairment, long-term health consequences, and increased economic burden
- Studies report that law enforcement officers have 2-3X the incidence of Obstructive Sleep Apnea (OSA) compared to the general population
  - Police officers with OSA report higher rates of serious errors, absenteeism and health conditions
- American Academy of Sleep Medicine (AASM) guidelines establish that OSA can be diagnosed and treated in an effective, comfortable and cost effective fashion
  - Sleep Center of CNY has significant clinical experience treating OSA according to AASM guidelines
- Proposal: Sleep Center of CNY partners with the OCSD to run a feasibility study

# The Challenge



37% of police officers have Obstructive Sleep Apnea, "OSA"

Officers with OSA report:

- Higher rates of uncontrolled anger
- Increased absenteeism
- Serious administrative errors

Officers who have died in the line of duty:

- 30% were killed in motor vehicle accidents
- Journal of American Medical Association Study (N=4957)
- 26% of police officers reported falling asleep while driving at least 1 time per month
  - Officers: increased prevalence of reported physical and mental health conditions ( diabetes, depression, and cardiovascular disease )

# The Cause, What is OSA?

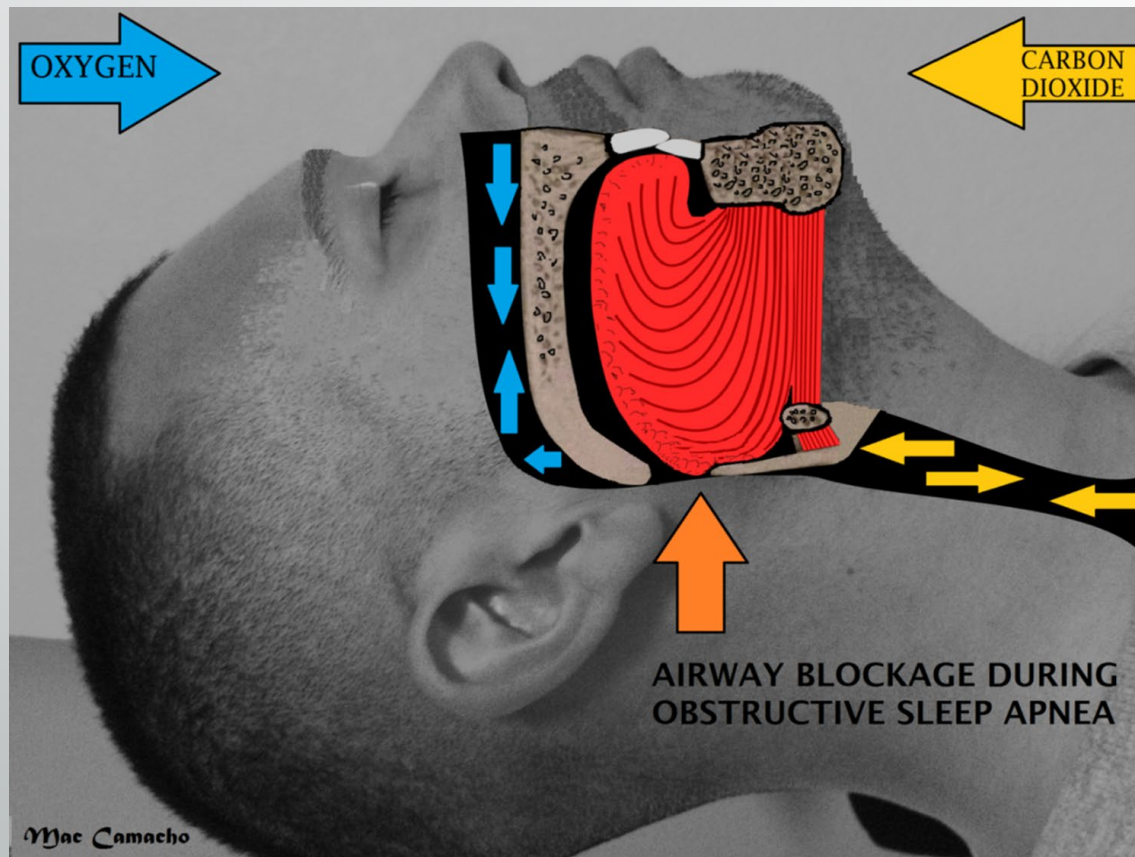
Patients with a certain anatomy, excess fat, and poor muscle tone are susceptible to OSA

Under these circumstances the base of the tongue falls back and either partially or completely obstructs the airway

With reduced or stopped airflow, oxygen saturation is reduced in the body, the brain gets the signal that this is bad and “wakes up”

With OSA two main things happen

- 1) You are awakened through out the night and have disrupted sleep, leading to sleepiness lack of focus, and poor recovery at night
- 1) Your body is deprived of oxygen leading to stress on the heart and longer term medical problems, like diabetes

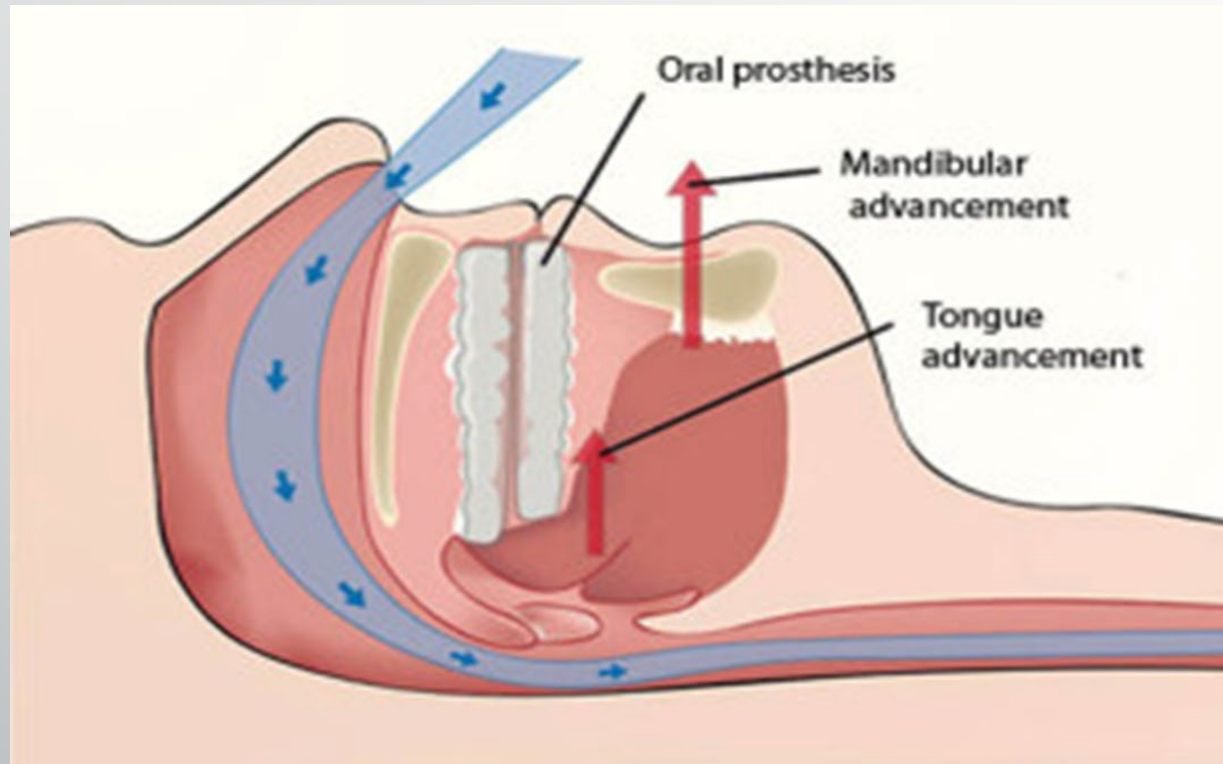




# The Consequences

- OSA affects both short term and long term quality of life
  - On a daily basis poor sleep does not allow the body to recover from the days activities
    - Dreaming and “data processing” is reduced affecting cognitive function
    - Improper sleep structure does not allow muscles to recover from fatigue
  - On a long term basis poor sleep leads to excessive stress on the body
    - Morning heart attacks are a typical result of OSA (Supreme Court Judge Scalia)
    - Improper sleep does not allow the brain to recover which is associated with Alzhiemer’s
    - Poor oxygenation can lead to comorbidities such as diabetes, stroke, and cancer
- OSA leads to higher healthcare costs
  - Patients with untreated OSA die 5-10 years sooner that those with treatment
  - Patients with untreated OSA have more related diseases (Hypertension, diabetes, stroke, etc) that dramatically increase costs to the medical system and our own community!

# The solution



Oral appliance therapy acts to manage the tongue blocking the airway by pulling the lower jaw forward

This is a simple and comfortable solution that more than 85% of OSA sufferers can tolerate for the rest of their lives

This is a cost effective and accepted solution compared to the more commonly prescribed treatment using CPAP (US Army initiative)





# The Expertise

- Over 4,000 patients with OSA have been treated by the Sleep Center of CNY
- Dr Edward Sall is Board-Certified in ENT and Sleep Medicine, as well as a dentist. He has extensive clinical experience in treating OSA with Oral Appliance Therapy, as well as CPAP (Efficacy vs Effectiveness)
- Sleep Center of CNY uses modern diagnostic and therapeutic technologies that enable patients to be effectively treated with more comfort and less hassle
  - Sleep Center of CNY uses a telemedicine centric approach to diagnosing, treating and tracking the success of OSA patients, which is ideal for the challenges of shift schedules
  - Though experienced in a range of OSA therapies, Sleep Center of CNY uses a precision, intraoral, medical device that is effective, comfortable and easy to use (currently used by the US Army)

# The Study

- Goals:
  - Create a safer workplace and community with higher performing officers
  - Increase department and community awareness of OSA
  - Demonstrate officer and financial benefits to the city of Syracuse
- Process:
  - Implement a screening program of a controlled group of officers
  - Diagnose and treat those officers that have OSA
  - Work with the Chief of police on metrics important to the police department and the officer to determine the success of the program
  - Report back to the committee on the initial findings
  - Pending outcomes propose a path towards implementing a broader treatment program

# Needs to execute the study

- A small population of officers willing to participate
- Support from the Chief of police and supervisors
- Volunteers (10) to help with screening and treatment
- Internet access for those officers electing to utilize the Telemedicine platform
- Timing
  - Typical treatment is resolved in 6-8 weeks (Industry standard is 6-8 months with high rate of failure)
  - For a group of 20-30 officers, considering schedules, initial outcomes would be expected and ready to be reported on in 3-4 months.

# Conclusions:

- Law enforcement officers have 2-3X the incidence of sleep disorders compared to the general population
- Numerous studies have associated OSA with excessive daytime sleepiness, lower quality of life, reduced cognitive performance, increased motor vehicle and workplace accident risk, hypertension, CV disease and type 2 Diabetes
- Police officers with OSA report “uncontrolled anger towards suspects and serious administrative errors”
- Sleep Center of CNY partners with the OCSD to provide a digital, economic, and efficient solution to a critical problem affecting the health of the officers and the entire Syracuse community