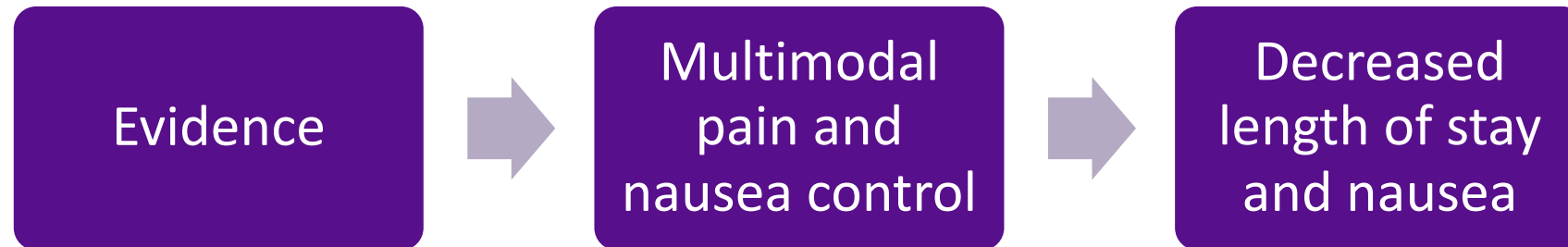# Disclosure

Jeffrey Silverstein, MD.

I do not have any relevant financial relationship(s) with any commercial interest that pertains to the content of my presentation.

Enhanced Recovery After Surgery Protocols (ERAS)

Evidence → Multimodal pain and nausea control → Decreased length of stay and nausea

THE OPIOID EPIDEMIC BY THE NUMBERS

70,630 people died from drug overdose in 2019[2]

10.1 million people misused prescription opioids in the past year[1]

1.6 million people had an opioid use disorder in the past year[1]

2 million people used methamphetamine in the past year[1]

745,000 people used heroin in the past year[1]

50,000 people used heroin for the first time[1]

1.6 million people misused prescription pain relievers for the first time[1]

14,480 deaths attributed to overdosing on heroin (in 12-month period ending June 2020)[3]

48,006 deaths attributed to overdosing on synthetic opioids other than methadone (in 12-month period ending June 2020)[3]

Over **28%** of all opioid overdose deaths involve a **prescription opioid.**

www.cdc.gov

AFS AMERICAN FOREGUT SOCIETY

NYU Langone Health

Bariatric Surgery Targeting Opioid Prescriptions (BSTOP)

- The initiative: reduce opioid prescriptions
  - Pre-operative education
  - Multimodal pain control during all phases of care
    - Regional analgesia
    - Minimize opioid use
  - Data collection phase follow by implementation phase
    - We implemented BSTOP immediately

Our Protocol Highlights

- Pre-operative
  - Patient education
  - Pain and nausea control
- Intra-operative:
  - No induction opiates!
  - Avoid gases
  - Intra-operative TAP Block
- Post-operative
  - Breakthrough opiates by provider only

Methods

- Retrospective review of prospectively maintained-database
- Sleeve gastrectomy and Roux-en-Y gastric bypass patients
  - **12-month period for each group**
    - Pre-intervention 8/2018 – 7/2019
    - Post-intervention 8/2019 – 10/2020*
- Outcomes: Length of stay and Discharge opioid prescriptions
  - Additional: readmission and complication rate

- Statistical analysis: Poisson regression, SAS 9.4

Results: Demographics

	Pre Intervention (N=360)	Post Intervention (N=297)	Overall (N=657)	P-value[1]
Demographics				
Age (Years)	44.0 (35.0 - 54.0)	47.0 (36.0 - 56.0)	45.0 (36.0 - 54.0)	0.128
BMI (kg/m2	45.7 (41.8 - 51.3)	44.7 (40.8 - 51.4)	45.4 (41.3 - 51.3)	0.281
Female gender	275 (76.4%)	235 (79.1%)	510 (77.6%)	0.403
Race				0.562
Caucasian	208(57.9%)	178(59.9%)	368(58.8%)	
African American	99(27.6%)	73(24.6%)	172(26.2%)	
Hispanic	47(13.1%)	38(12.8%)	85(13.0%)	
Other	5(1.4%)	8(2.7%)	13(2.0%)	
Hypertension	186 (51.7%)	142 (47.8%)	328 (49.9%)	0.326
Diabetes	97 (26.9%)	91 (30.6%)	188 (28.6%)	0.297
OSA	216 (60.0%)	176 (59.3%)	392 (59.7%)	0.847
GERD	256 (71.1%)	191 (64.3%)	447 (68.0%)	0.063
OA	111 (30.8%)	85 (28.6%)	196 (29.8%)	0.537

	Pre Intervention (N=360)	Post Intervention (N=297)	Overall (N=657)	P-value
Post-op ED visit	12 (3.3%)	12 (4.0%)	24 (3.7%)	0.631
Reoperation	9 (2.5%)	8 (2.7%)	17 (2.6%)	0.876
Bariatric Revision	78 (21.7%)	65 (21.9%)	143 (21.8%)	0.961

Results: Length of Stay

- Reduced by 1 day
- No change in readmission or complication rate

Outcomes	Pre Intervention	Post Intervention	P-value
Length of Stay, median (IQR)	2.0 (1.0 - 2.0)	1.0 (1.0 - 2.0)	<0.001
Readmission	16 (4.4%)	16 (5.4%)	0.577
Complication	15 (4.2%)	19 (6.4%)	0.199

LOS Continued

Factors	IRR(95% Confidence Interval)	P-value
Group (Post Intervention vs. Pre Intervention)	0.74(0.65-0.85)	<0.001
Age	1.01(1.0-1.02)	0.145
BMI	0.99(0.98-1.01)	0.255
Sex (Female vs. Male)	1.11(0.96-1.29)	0.169
Race (White vs. other)	0.90(0.76-1.05)	0.191
HTN	0.96(0.81-1.14)	0.682
DM	1.22(1.05-1.42)	0.018
OSA	0.97(0.83-1.15)	0.745
GERD	1.07(0.97-1.18)	0.19
OA	1.14(0.95-1.36)	0.194

Results: Discharge Opioid Prescriptions
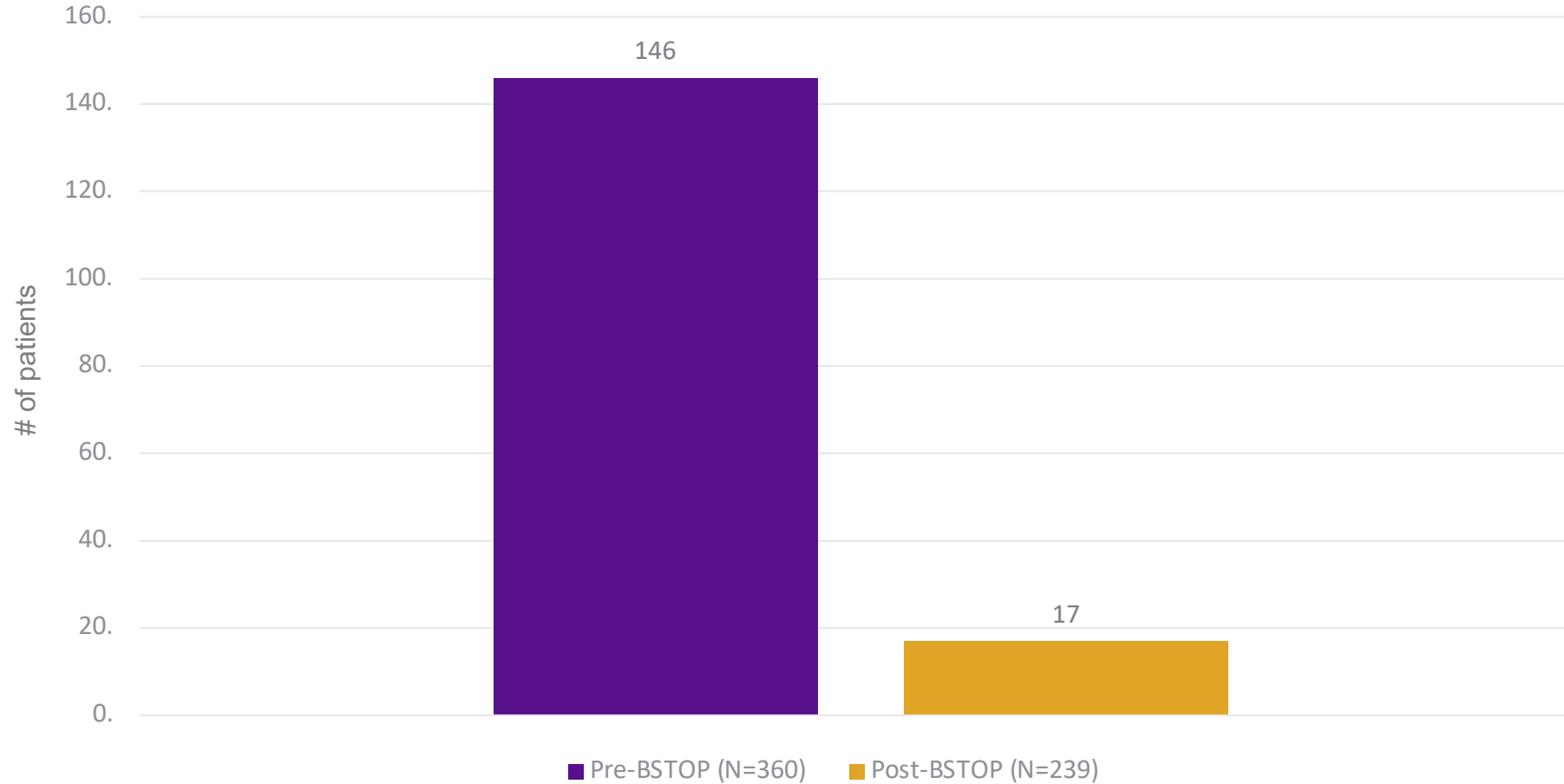
Discussion

- Great improvement in discharge opioid prescriptions

  - Continued patient education and protocol optimization to further decrease opioid use

- Collection and interpretation of immediate post-operative opioid use

- Long term opioid use data

Conclusion

- ERAS and BSTOP protocols reduced length stay and opioid use without increasing complications or readmissions.

- Impact on other foregut surgery procedures should be evaluated.

THANK YOU