

# Morbidity Mortality and Outcomes after Reoperative Bariatric Surgery in the USA

# Disclosures

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- ▶ Member of Executive Council American Society for Metabolic and Bariatric Surgery (mild)
- ▶ American Society for Metabolic and Bariatric Surgery

## Disclosures:

- ▶ Ethicon - Educational Grant – Major
- ▶ Medtronic – Educational Grant – Major
- ▶ Apollo Endosurgery – Educational Grant – Major
- ▶ W.L. Gore -Educational Grant – Major
- ▶ Olympus – Educational Grant – Major
- ▶ NovoNordisk – Educational Grant – Major
- ▶ Bariatric Advantage - Meeting Sponsorships – Major
- ▶ KVK Tech – Meeting Sponsorships – Major
- ▶ Karl Storz – Meeting Sponsorships – Minor
- ▶ USGI – Meeting Sponsorships – Minor
- ▶ ConMed – Meeting Sponsorships – Minor
- ▶ Mederi – Meeting Sponsorships – Minor

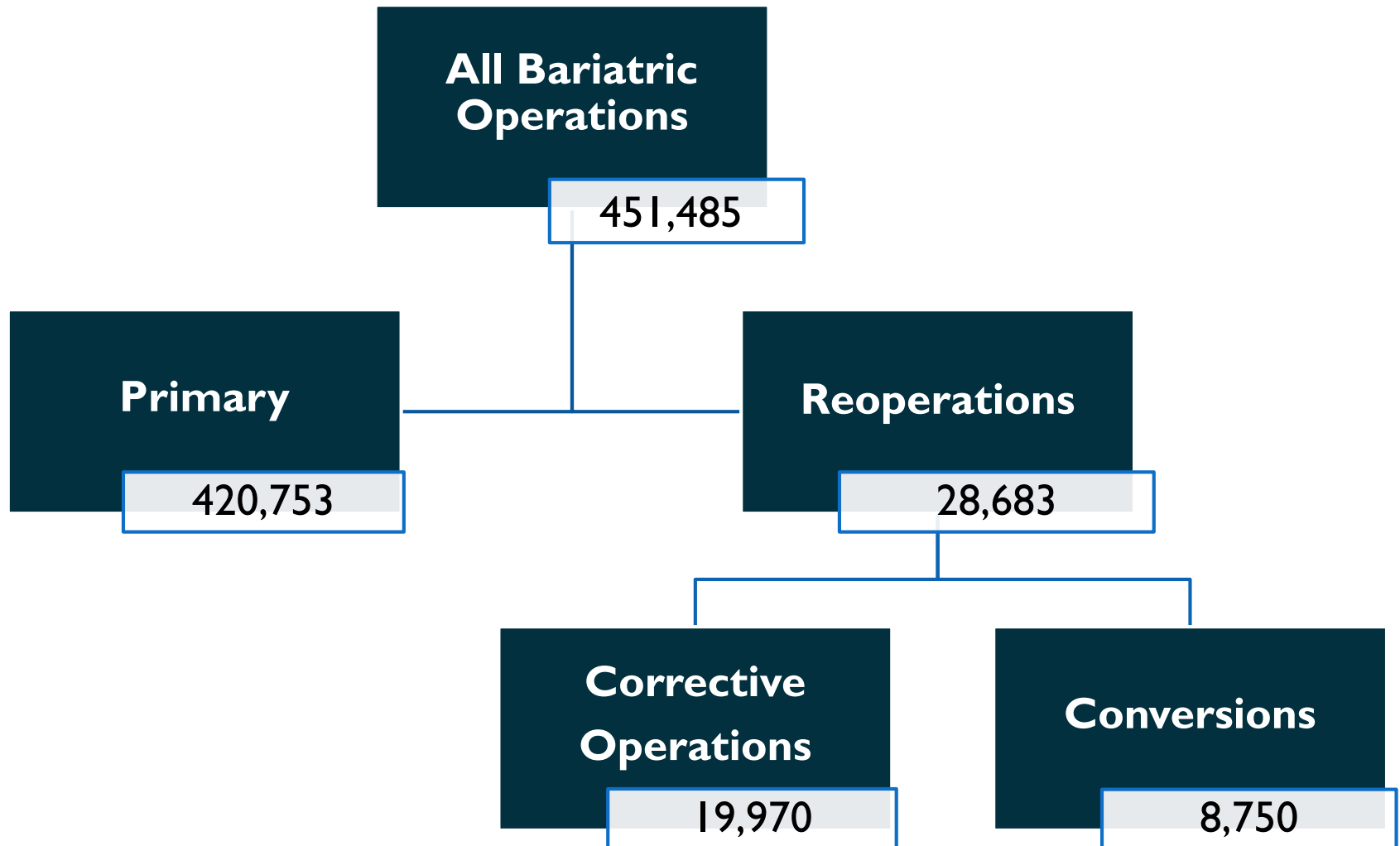
# Background

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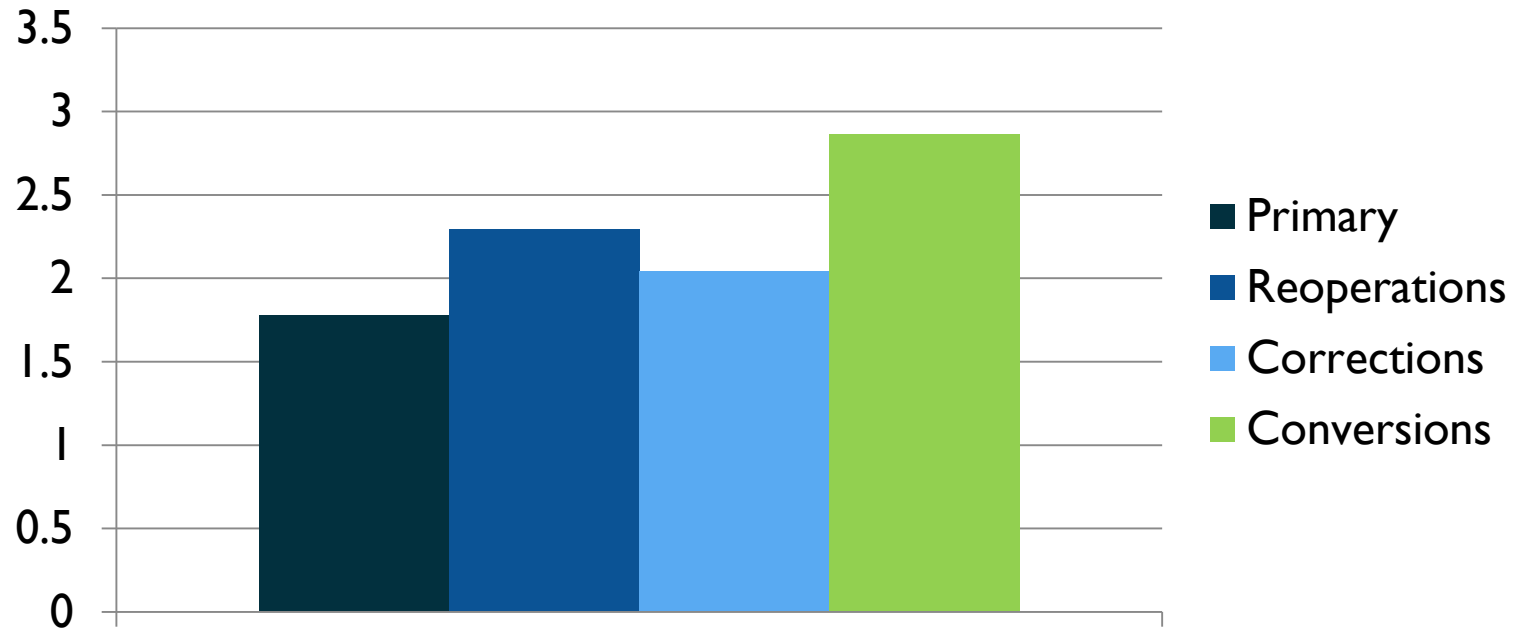
- ▶ Outcomes of re-operative bariatric were studied by a task force of the American Society for Metabolic and Bariatric Surgery (ASMBS)
- ▶ Reoperations were divided into
  - ▶ *Corrective*, (index and reoperation listed by same name)
  - ▶ *Conversion*, (index and reoperation listed by different names)
    - ▶ Example: Band was converted to RYGB

# Volume Distribution of Primary and Reoperative Bariatric Operations

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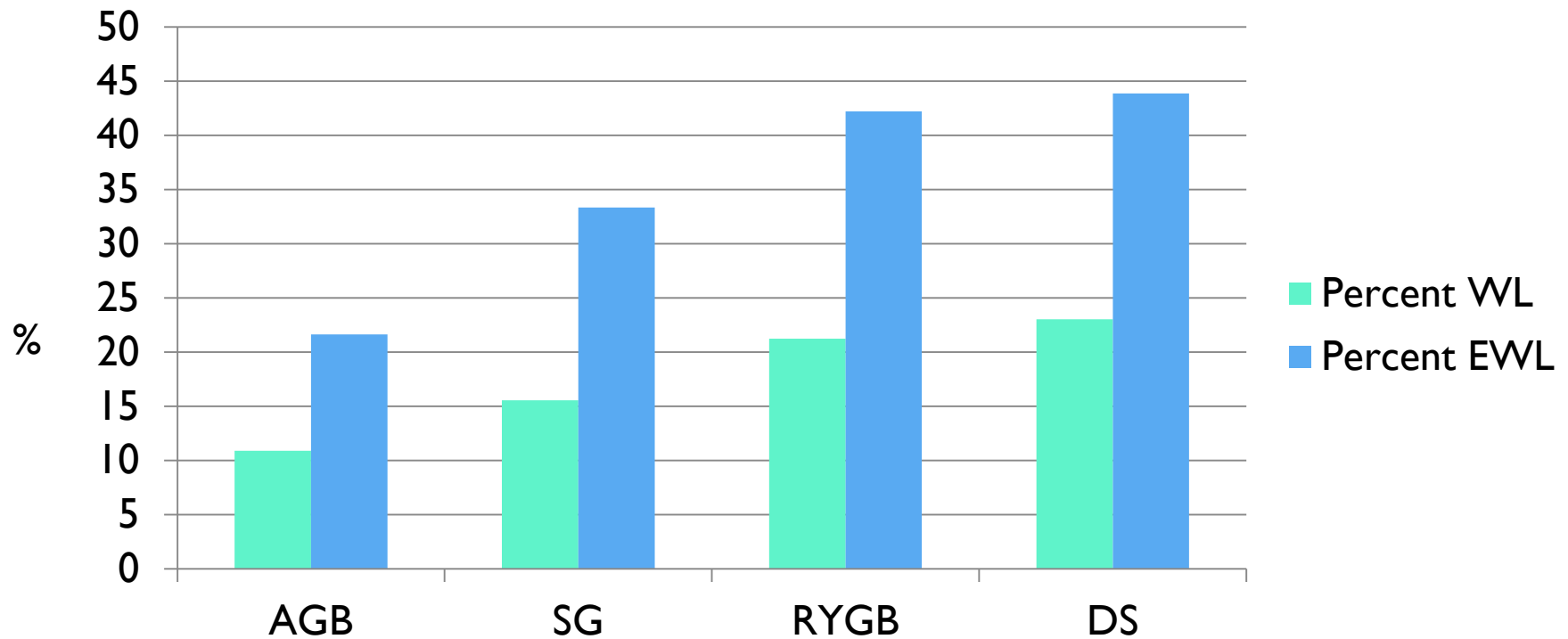


# Length of Stay (days)



LOS	Primary Operation	Re-operations	Corrective	Conversions
mean (SD)	1.78435 (4.94)	2.29 (5.95)	2.04 (6.44)	2.86 (4.58)
median (IQR)	2 (1 - 2)	1 (0 - 3)	1 (0 - 2)	2 (1 - 3)

# Wt. loss after Conversion at 1 yr. by operation



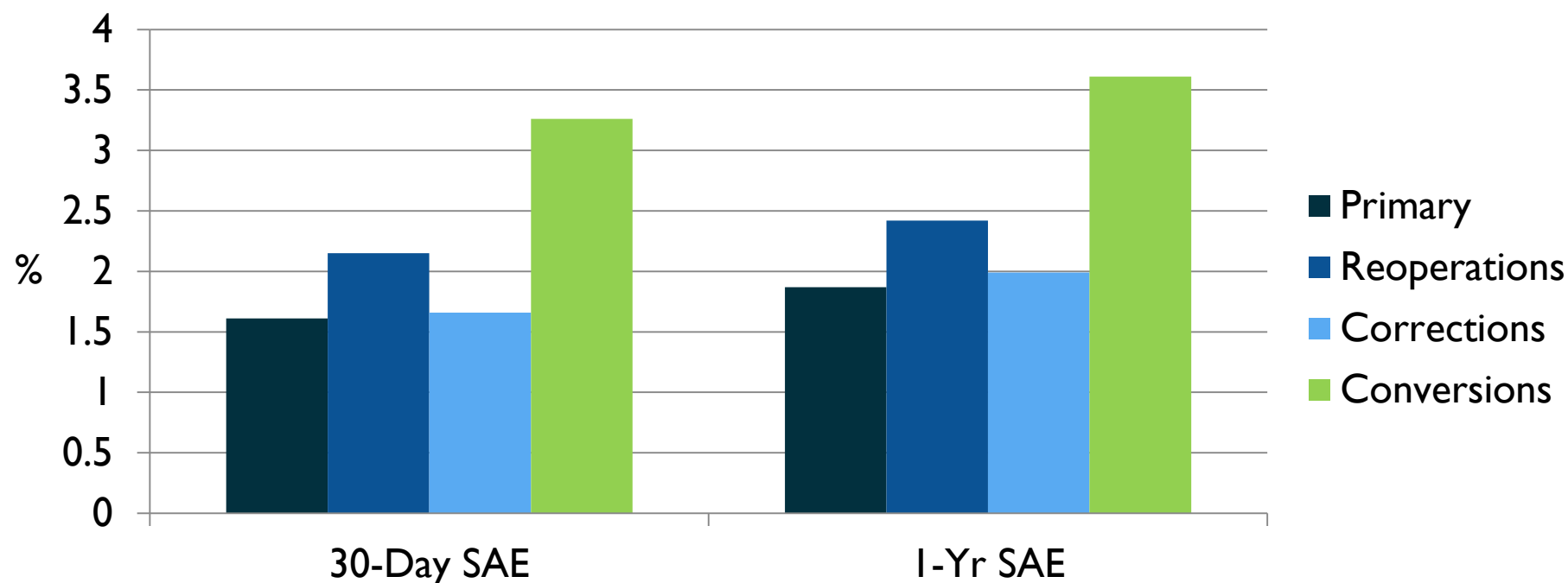
	Percent WL	Percent EWL
AGB	10.88	21.62
SG	15.54	33.33
RYGB	21.23	42.21
DS	23.02	43.86

# Comorbid Conditions

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% decline from baseline	Primary Operation (n=260802)	Re-operations (n=16010)	Conversions (n=4974)	Corrective (11046)
Hypertension	53.25%	49.59%	50.34%	49.25%
Diabetes	82.97%	72.25%	71.43%	72.58%
Sleep Apnea	66.63%	60.92%	59.34%	61.65%
GERD	74.40%	64.72%	62.35%	65.92%
Lipids	69.77%	62.21%	62.93%	62.29%

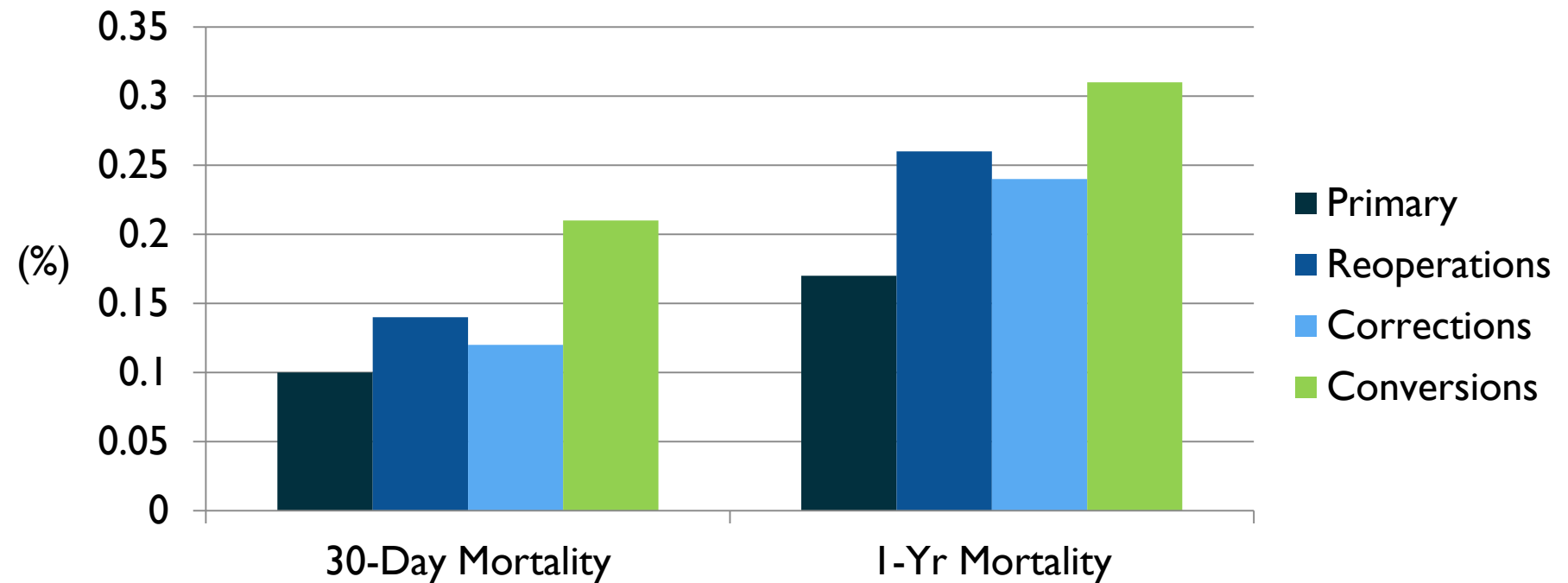
# Severe Adverse Events



	Primary	Re-operations	Corrections	Conversions
Severe Adverse Events at 30 days	6774 (1.61%)	617 (2.15%)	332 (1.66%)	285 (3.26%)
Severe Adverse Events at 1 year	7872 (1.87%)	695 (2.42%)	379 (1.9%)	316 (3.61%)



# Mortality Rates



	Primary	Re-operations	Corrections	Conversions
Death at 30 days	408 (0.1%)	41 (0.14%)	23 (0.12%)	18 (0.21%)
Death at 1 year	704 (0.17%)	74 (0.26%)	47 (0.24%)	27 (0.31%)

# Summary

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- ▶ 6.3% of operations in the database were reoperations
  - ▶ 30% of these were conversion operations
- ▶ The reoperative group was
  - ▶ mean length of stay was 2.3 days
  - ▶ severe adverse events at 30 days were 1.86% and at 1 year 2.42%
  - ▶ percent excess weight loss at 1-year (36%)
  - ▶ 30-day mortality rate (0.14%)
  - ▶ 1-year mortality rate (0.26%)
  - ▶ Many comorbidities resolved after reoperations .

# Conclusions

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- ▶ Most bariatric surgery patients do not need reoperations. Among those who do, the complication rate is low, acceptable and with satisfactory outcomes.