



Bariatric Surgery: Prevalence and Treatment

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Disclosures

- Gore: Honorarium



ASMBS

- **The largest national society for this specialty.**
- **Founded 1983**
- **Nearly 4,000 members** including general surgeons and integrated healthcare professionals practicing in the field of metabolic and bariatric surgery.



The **vision** of the Society is to improve public health and wellbeing by lessening the burden of the disease of metabolic dysfunction and obesity throughout the world.



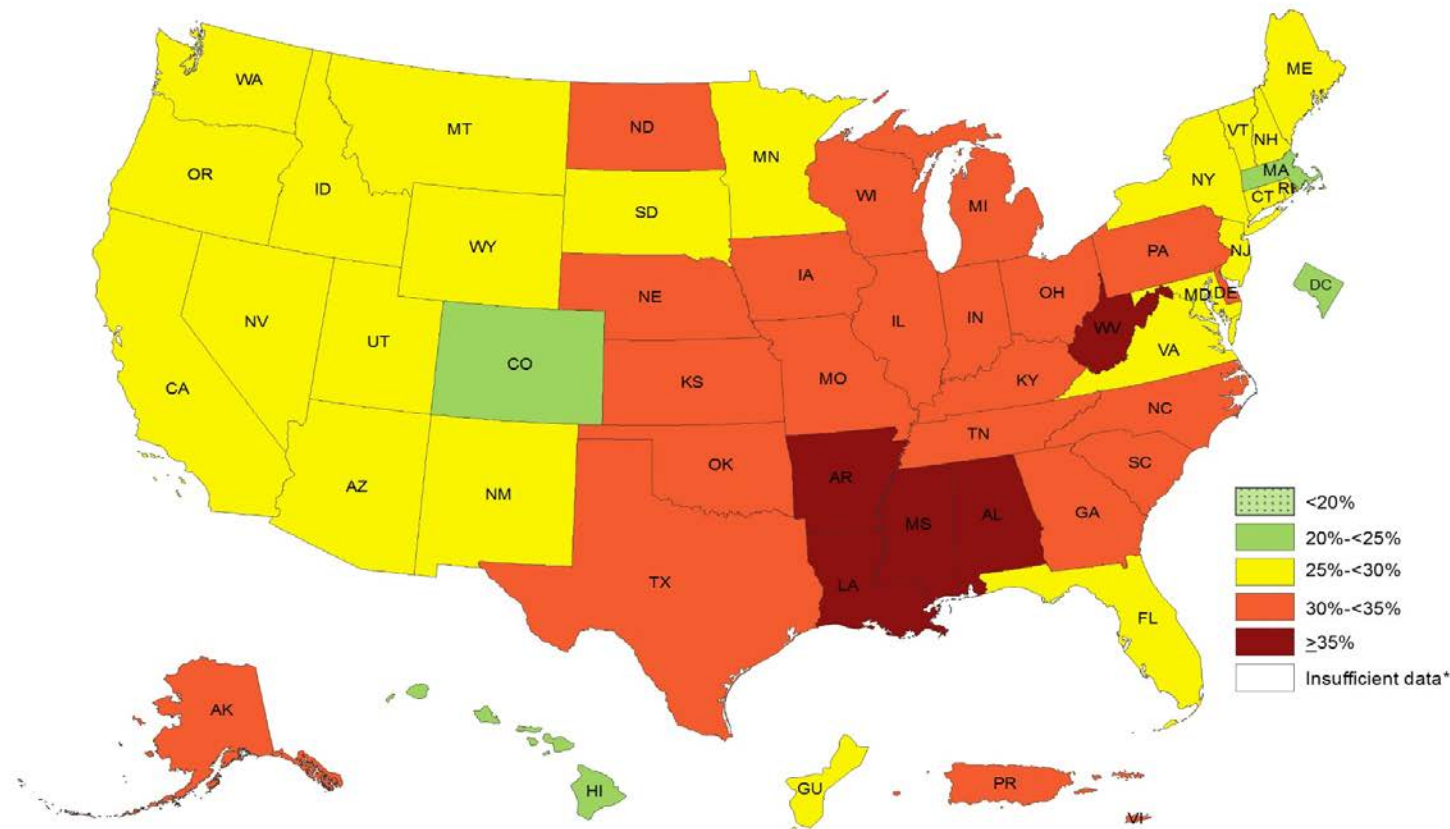


The purpose of the society is to advance the art and science of metabolic and bariatric surgery by **continually improving the quality and safety of care** and treatment of people with obesity and related disease.



Prevalence¹ of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2016

¹ Prevalence estimates reflect BRFSS methodological changes started in 2011. These estimates should not be compared to prevalence estimates before 2011.



***Sample size <50 or the relative standard error (dividing the standard error by the prevalence) $\geq 30\%$.**



Prevalence¹ of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2016

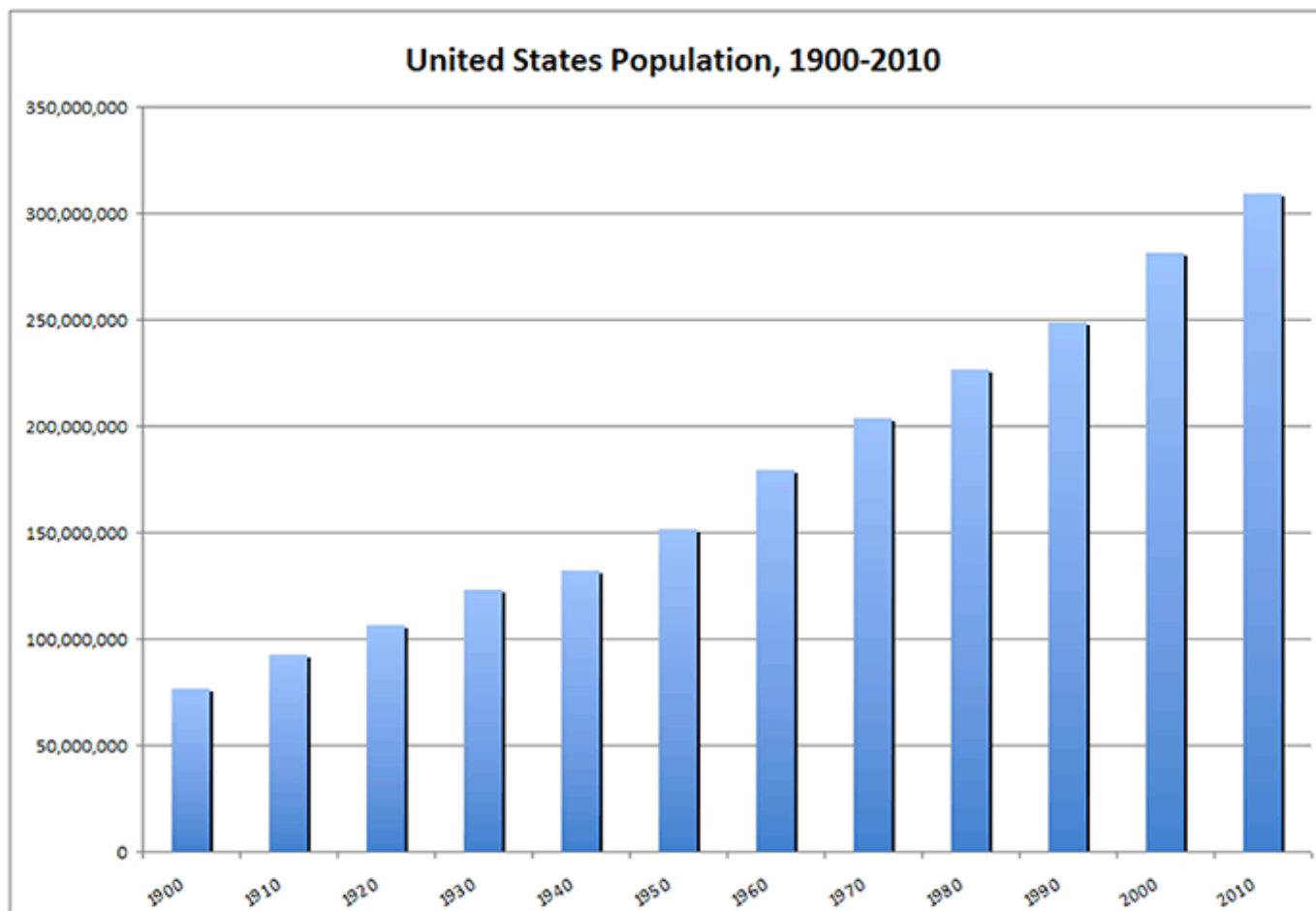
Summary

- ❑ No state had a prevalence of obesity less than 20%.
- ❑ 3 states and the District of Columbia had a prevalence of obesity between 20% and <25%.
- ❑ 22 states and Guam had a prevalence of obesity between 25% and <30%.
- ❑ 20 states, Puerto Rico, and Virgin Islands had a prevalence of obesity between 30% and <35%.
- ❑ 5 states (Alabama, Arkansas, Louisiana, Mississippi, and West Virginia) had a prevalence of obesity of 35% or greater.

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<http://www.cdc.gov/obesity/data/prevalence-maps.html>





US Population Clock

- The United States population on September 5th, 2018 was: **328,515,980**
- Severe obesity rate in US = 6%
- Calculated number of severely obese people in US = **19,710,958**
- Obesity rate in US = 36%
- Calculated number of obese people in US = **118,265,752**

Effect of Treatment on Obesity



Lifestyle Intervention = 3%

Medications = 1%

Surgery = 1%

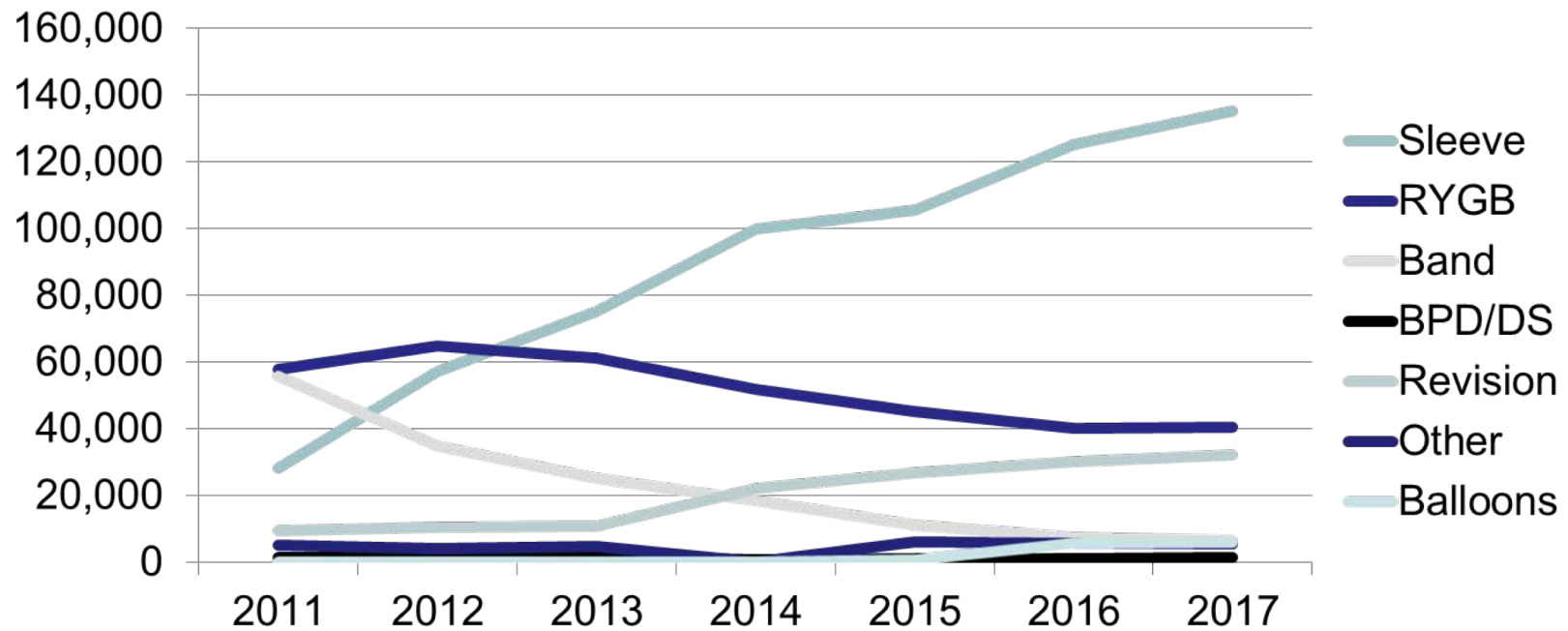
Unmet = 95%

Current volume of cases

	2011	2012	2013	2014	2015	2016	2017
Total	158,000	173,000	179,000	193,000	196,000	216,000	228,000
Sleeve	17.80%	33.00%	42.10%	51.70%	53.61%	58.11%	59.39%
RYGB	36.70%	37.50%	34.20%	26.80%	23.02%	18.69%	17.80%
Band	35.40%	20.20%	14.00%	9.50%	5.68%	3.39%	2.77%
BPD-DS	0.90%	1.00%	1.00%	0.40%	0.60%	0.57%	0.70%
Revision	6.00%	6.00%	6.00%	11.50%	13.55%	13.95%	14.14%
Other	3.20%	2.30%	2.70%	0.10%	3.19%	2.63%	2.46%
Balloons	—	—	—	—	0.36%	2.66%	2.75%

<https://asmbs.org/resources/estimate-of-bariatric-surgery-numbers>

Metabolic and Bariatric Surgery Procedure Trends: 2011 - 2017



Metabolic and Bariatric Surgery Procedure Trends: 2011 - 2017

	Sleeve	RYGB	Band	BPD/DS	Revision	Other	Balloons	Total
% change 2017 from 2016	8.05%	0.64%	-13.57%	28.48%	7.18%	-1.04%	9.33%	5.72%
% change 2017 from 2015	28.41%	-10.39%	-43.45%	35.03%	20.94%	-10.62%	797.14%	15.92%
% change 2017 from 2011	381%	-30.03%	-88.70%	11.67%	240.06%	10.88%		44.31%

Economic and Legislative Impact by States: There are 2 Americas

Obesity rank	State	Econ Rank	ACA EHB	Surgery Rank
1	WV	49	Yes	25
2	MS	48	No	45
3	AL	38	No	22
4	AR	40	No	35
5	LA	44	No	36
46	UT	2	No	12
47	CA	4	Yes	30
48	HI	23	Yes	41
49	MA	9	Yes	5
50	CO	1	Yes	24

- Top and Bottom 5 ranking states
- States highest in obesity prevalence have low economic ranking and low penetrance and 4 of the 5 states did not have BS as EHB.
- The opposite is true for lowest obesity ranking states.

2017 Numbers by State

Ranked by Volume

State	Total Sites	Total Cases	LSG	LRYG B	Revision/Conversion	Band Removal	BPDD LAGB	S	Balloon	ORYGB	Other
Total	0	0	0	0	0	0	0	0	0	0	0
TX	83	20139	12755	2412	2958	1032	96	320	243	12	311
NY	69	19628	11831	3925	2283	898	232	66	71	9	313
CA	68	17193	9413	4026	1879	783	46	235	66	75	670
FL	48	10077	6141	1748	1100	578	68	110	110	27	195
NJ	28	9769	7397	343	1134	720	64	44	2	2	63
PA	41	9748	5685	2458	1009	294	15	115	8	6	158
OH	29	7356	3861	2258	721	219	20	0	138	15	124
MI	31	6964	5050	835	641	223	12	34	45	10	114
NC	23	6512	3113	1635	674	304	6	24	19	0	737
MA	31	6268	4061	1172	651	293	15	6	26	0	44
IL	29	5176	2648	1065	638	327	232	30	58	3	175
TN	17	4474	2383	1338	324	194	13	1	71	1	149
MO	16	4436	2340	993	603	229	34	28	90	16	103
GA	21	4349	2700	818	401	115	160	41	50	9	55
VA	21	4326	2069	1347	517	225	7	40	46	29	46
MD	14	4122	2800	715	412	144	7	0	0	11	33
WA	13	3887	1885	1100	478	267	8	47	47	4	51
AZ	16	3757	2130	657	532	319	30	8	13	2	66
AL	10	3617	2798	380	271	101	4	0	17	0	46
KY	12	3493	2089	291	342	239	460	0	34	2	36
CT	14	2935	1874	378	361	279	6	0	7	0	30
IN	14	2875	1172	1014	327	106	141	19	11	12	73
CO	13	2725	1417	755	287	151	6	21	21	1	66

2017 Numbers by State

Ranked by Volume Part 2

State	Total Sites	Total Cases	LRYG		Revision/Conversion	Band Removal	BPDD			ORYGB	Other
			LSG	B			LAGB	S	Balloon		
MN	19	2519	1139	675	347	96	2	23	66	4	167
SC	10	2499	1192	837	205	85	16	16	73	1	74
KS	8	2376	1302	545	310	182	1	11	7	1	17
OK	5	2271	1543	439	152	64	29	9	9	0	26
IA	9	2044	1553	276	121	57	0	0	3	1	33
AR	6	1954	509	936	102	70	35	130	94	3	75
NV	5	1783	1481	28	148	118	6	0	0	0	2
OR	10	1667	937	421	177	74	0	0	11	18	29
MS	10	1527	1242	65	102	30	0	0	0	0	88
UT	6	1453	560	348	112	26	1	139	0	0	267
WV	4	1438	893	86	165	84	76	0	28	0	106
DE	5	1306	796	225	157	57	8	10	0	2	51
WI	13	1255	617	411	110	30	7	0	29	0	51
ME	5	857	492	246	46	43	4	0	0	13	13
NM	4	853	636	133	53	20	0	3	0	0	8
RI	3	789	427	247	94	14	0	0	0	0	7
DC	5	751	518	85	92	10	2	0	0	33	11
ID	2	743	512	119	56	34	0	0	5	1	16
NH	5	721	332	300	63	23	0	0	0	0	3
NE	4	683	375	158	77	16	2	4	6	2	43
ND	4	567	161	273	94	31	0	0	5	0	3
HI	5	456	134	271	26	12	0	1	0	0	12
SD	2	448	162	179	47	46	2	0	6	0	6
PR	1	272	0	0	0	0	0	0	0	0	272
MT	2	194	67	83	18	7	0	0	0	12	7
VT	1	147	124	2	14	7	0	0	0	0	0
WY	1	140	75	45	14	6	0	0	0	0	0
AK	0	0	0	0	0	0	0	0	0	0	0

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Top Ten States 2017

<u>State</u>	<u>Total Sites</u>	<u>Total Cases</u>
TX	83	20139
NY	69	19628
CA	68	17193
FL	48	10077
NJ	28	9769
PA	41	9748
OH	29	7356
MI	31	6964
NC	23	6512
MA	31	6268

Future Volume of Bariatric Surgery

- Additional 6-8% per year
- Still only 1-2% of eligible patients
- Continued growth in Sleeve Gastrectomy cases
- Continued improvement in quality outcomes
- Continued growth in endoscopic modalities
- Continued growth in revision cases
- Continued shift to ambulatory cases
- Potential fragmentation of care of bariatric patients



Review of MBSAQIP Current State & Associated Milestones

MBSAQIP Journey - 2012



April 2012

The Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program is born on April 1st Happy Birthday, MBSAQIP!

August 2012

All centers transition to MBSAQIP Data Registry

Fall 2012

Development of Standards begins

March 2012

Memorandum of Understanding between ACS and ASMBS to unify bariatric surgery accreditation programs



June 2012

Announced at ASMBS annual meeting as part of MBSAQIP



December 2012

Initiated First Public Comment Review of MBSAQIP Standards (1100 responses!)



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MBSAQIP Journey 2013

January 2013

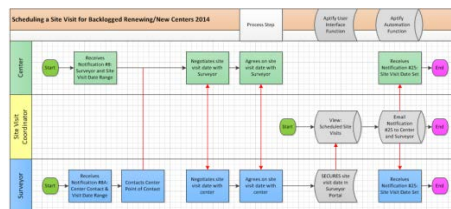
Work begins on Application Portal (Development on Surveyor/Reviewer Portals begin)

Spring-Summer 2013

Re-Write of Standards begins

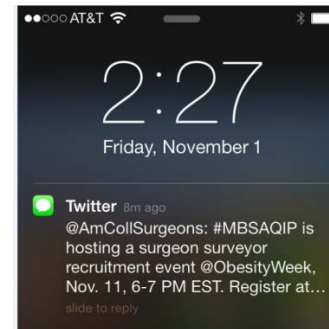
April 2013

Development of MBSAQIP application, site visit, and reviewer process maps and workflows commence in conjunction with AVPI meetings



August 2013

Completed Second
Public Comment Review
of MBSAQIP Standards
(1200 responses!)



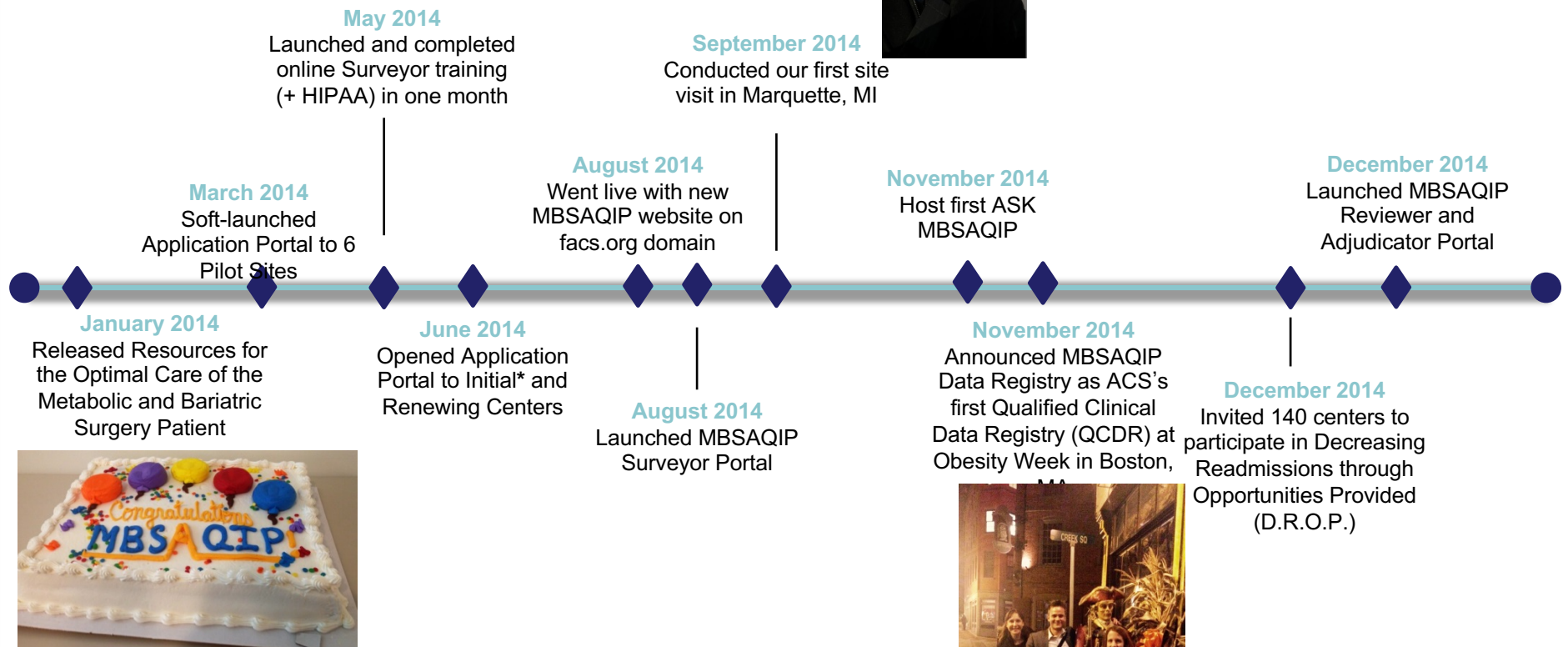
November 2013

Designated November
as MBSAQIP Surveyor
Recruitment (86
recruited, on-boarded 67)



100 years

MBSAQIP Journey 2014



***171 NEW centers have applied to participate in MBSAQIP since June, 2014**



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MBSAQIP Journey 2015

February 2015

February 27th

Dr. Max Hammer
completes our 100TH
SITE VISIT at Integris
Baptist Medical Center in
Oklahoma City, OK

June 2015

June 26th

First in-person course for
MBSCRs at Obesity
Weekend

September 2015

1st Anniversary of
MBSAQIP Site Visits
**335 site visits
conducted in first year**



January 2015

January 21st

St. Joseph's in Syracuse,
NY becomes the first
MBSAQIP center to
receive an official final
report & accreditation
under the new program.



November 2015

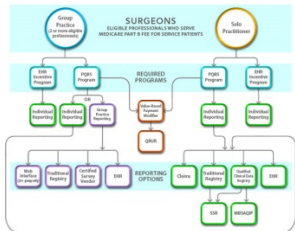
First Obesity Week
Course where accredited
centers were featured
and presented on how
they meet MBSAQIP
Standards.



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MBSAQIP Journey 2016



Jan 2016

MBSAQIP continues designation as a QCDR for participation in PQRS

Feb/Mar 2016

Publishing Version 2 of MBSAQIP Standards

Jun/Jul 2016

New standards take effect – stay tuned for surveyor training on new standards

Summer 2016

Wrap up DROP Project and publish results



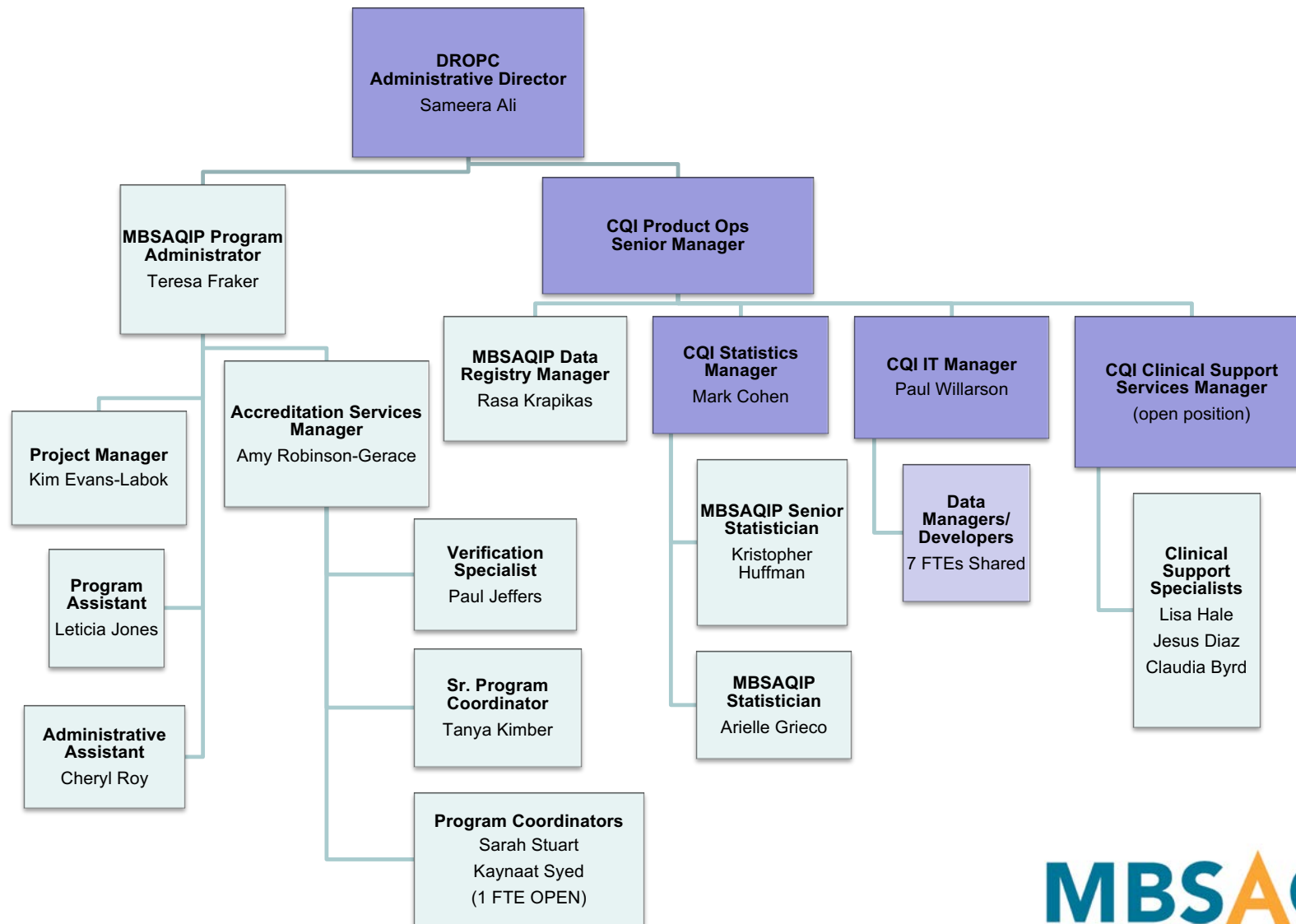
Fall 2016

MBSAQIP launches 2nd National Collaborative project – ENERGY



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MBSAQIP Staff Structure



MBSAQIP®

METABOLIC AND BARIATRIC SURGERY
ACCREDITATION AND QUALITY IMPROVEMENT PROGRAM

MBSAQIP Surgeon Committee Structure

ACS Committee on Metabolic & Bariatric Surgery (CMBS)

Chair: John Morton, MD, FACS

Standards & Verification Subcommittee

Co-chair: David Provost, MD, FACS

Co-chair: Wayne English, MD, FACS

Data & Quality Subcommittee

Co-chair: Stacy Brethauer, MD, FACS

Co-chair: Anthony Petrick, MD, FACS



METABOLIC AND BARIATRIC SURGERY
ACCREDITATION AND QUALITY IMPROVEMENT PROGRAM

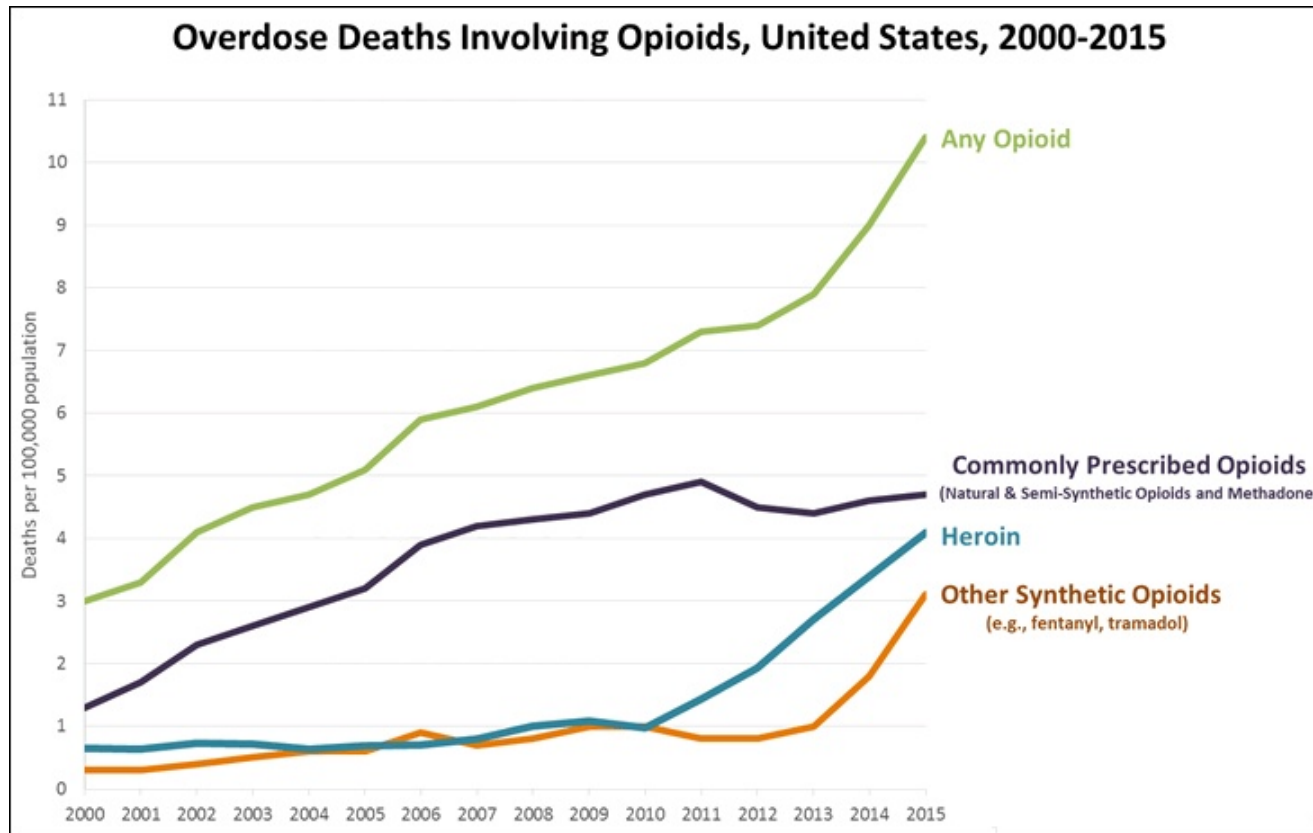
CURRENT ENROLLMENT

- There **828** participating MBSAQIP centers, of which **751** are fully accredited and 47 are initial applicants
- The remaining 30 are Data Collection Centers that include international centers or other domestic centers that participate in the MBSAQIP Data Registry, but have not been verified against MBSAQIP Standards for Accreditation.
- From October 2014 through April 2017, 796 site visits have been completed under the MBSAQIP standards.
- In 2016, the program performed 291 site visits with 67 surgeon surveyors.



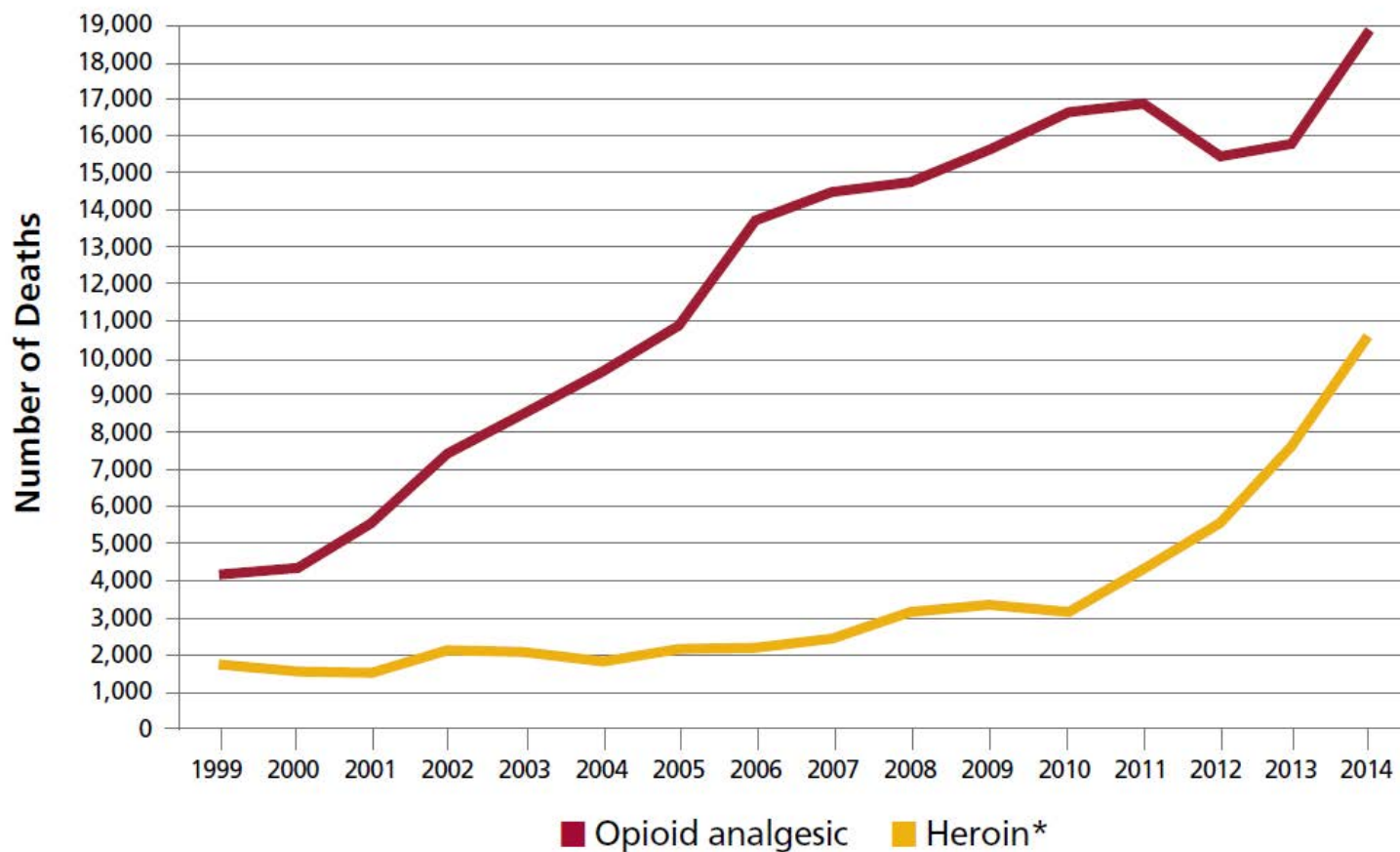
METABOLIC AND BARIATRIC SURGERY
ACCREDITATION AND QUALITY IMPROVEMENT PROGRAM

Opioid “Epidemic”



Center for Disease Control and Prevention, March 2017

U.S. Deaths from Opioids & Heroin: 1999-2014



*Heroin includes opium.

1999-2013 Statistics: CDC/NCHS NVSS Multiple Cause of Death Files.

2014 Statistics: American Society of Addiction Medicine (ASAM). Opioid Addiction: 2016 Facts & Figures.

THE GOALS OF ENHANCED RECOVERY PATHWAY

Evidence-based multidisciplinary care pathway aimed at:

- Reducing complications and LOS
- Reducing variability
- Reducing cost
- Improving quality of care
- Decrease opioid exposure and use
- Increasing value

Summary

- Bariatric surgery volume will increase by 6-8% annual basis
- Neediest states will continue to have least penetration
- Economy, politics and raised awareness will play larger roles.
- Safety and quality outcomes will be valuable assets
- Accreditation is the jewel in our crown.
- Expecting an expansion of indications for metabolic surgery
- Emerging technology will play larger role (market)
- Focus on LTFU, VTE minimization and Opioid use limitation