1. Introduction

The Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP®) is pleased to introduce the inaugural 2015 Participant Use Data File (PUF) – pant Use

within the Data Use Agreement. The Data Use Agreement can be read from this page or the three-page document can be downloaded. The requestor is then required to type in their first and last name and click on “Request Data File.” By clicking on “Request Data File” the requestor agrees to the terms and conditions of the Data Use Agreement.

4. Requestors will then be required to complete a brief online form to provide ACS with basic information about themselves, including the participating center in which they are currently employed and in what capacity, as well as how the requestor plans to utilize the PUF data. Once all of the required fields are completed, the requestor clicks “Submit.”
5. Upon approval an email will be sent to the requestor containing a username and password along with the URL to download the data. The web link will be active from the time of the email for 10 full days (240 hours).
6. The file will be available in three different formats (Text, SPSS, SAS) and depending on the user’s internet connection speed should take between 5 and 30 minutes to download.
7. The requestor may be contacted to confirm receipt of the data file and allow for feedback on the delivery mechanism, data points contained, and data file format.

3. File Description

The PUF consists of five distinct datasets which are referred to as main, reoperation, readmission, intervention, and BMI, respectively. Each dataset is available in one of three different formats - Text, SAS, and SPSS. The main dataset is a flat file 0 Tc e of three islfeen5976. is y0499 T

is: “What is the 30-day related reoperation rate for all cases included in the main dataset?” To answer this question, the researcher could use the variable REOP_RELATED_BAR in the reoperation dataset to identify and create a flat file of cases where at least one 30-day reoperation was recorded as most likely related to the index procedure. This flat file would then be merged (using the unique key matching variable CASEID) with the main dataset to construct a variable, say RELATED_REOP30, taking values of either “Yes” or “No” to indicate whether at least one related 30-day reoperation occurred for each case in the main dataset. The 30-day related reoperation rate for all metabolic and bariatric surgical procedures could then be estimated by calculating the proportion of cases in the main dataset where RELATED_REOP30 = “Yes.”

Using the CASEID variable, other readmission, reoperation, intervention, or BMI-specific variables, or combinations thereof, can be merged to the main PUF dataset. A variable-by-variable description for each dataset is provided in the PUF User Guide Table in Section 9 of this document. A brief description of each dataset follows:

Dataset	File Types Available	Uncompressed File Size	Description
MBSAQIP_PUF_Main	SAS, SPSS, TXT	SAS: 219 MB SPSS: 245 MB TXT: 94 MB	Contains 154 HIPAA compliant variables on 168,093 cases submitted from 742 centers in 2015. Each row represents one case and there is exactly one row per case.
MBSAQIP_PUF_Read	SAS, SPSS, TXT	SAS: 1.5 MB SPSS: 1.08 MB TXT: 640 KB	Contains 9 HIPAA compliant variables on 8,726 readmissions. Each row represents a 30-day readmission associated with some case from the Main file. Multiple rows per case are possible in this file.
MBSAQIP_PUF_Reop	SAS, SPSS, TXT	SAS: 896 KB SPSS: 650 KB TXT: 341 KB	Contains 15 HIPAA compliant variables on 3,510 reoperations. Each row represents a 30-day reoperation associated with some case from the Main file. Multiple rows per case are possible in this file.
MBSAQIP_PUF_Intv	SAS, SPSS, TXT	SAS: 1.18 MB SPSS: 599 MB TXT: 362 KB	Contains 9 HIPAA compliant variables on 3,855 interventions. Each row represents a 30-day intervention associated with some case from the Main file. Multiple rows per case are possible in this file.
MBSAQIP_PUF_BMI	SAS, SPSS, TXT	SAS: 20 MB SPSS: 21.2 MB TXT: 10.6 MB	Contains 13 HIPAA compliant variables on 186,734 BMI measurements. Each row represents a BMI measurement from the with so(case f)-1(cas)4(e from)6(the Main fil)6(e)-1(.)5( )]TJ

4. Data Collection Background and Data Quality

MBSAQIP collects data on over 200 variables including preoperative risk factors, intraoperative variables, and 30-day postoperative mortality and morbidity outcomes for patients undergoing metabolic and bariatric surgical procedures in both the inpatient and outpatient setting.

Required data elements are entered via a web-based data collection tool. Por

5. Participation and Case Exclusion Criteria

Centers participating in the MBSAQIP do so by collecting data on the metabolic and bariatric surgical procedures at their center.

Case Collection Process

All metabolic and bariatric surgical procedures and interventions, including those performed by non-metabolic and bariatric surgery credentialed general surgeons or other physician practitioners (i.e. gastroenterologists), must be entered into the MBSAQIP Data Registry. Documentation of each hospitalization and surgical procedure is required to obtain valid outcomes data. Data collection is ultimately the responsibility of the Metabolic and Bariatric Surgery (MBS) Director working collaboratively with the Metabolic and Bariatric Surgical Clinical Reviewers (MBSCR), the physician offices, and institutional departments to ensure accurate short and long-term results. Data is collected at 30 days, six months, one year, and annually thereafter.

Case Exclusion Criteria

The following exclusion criteria were applied to cases collected in 2015. For the current inclusion/exclusion criteria please contact the MBSAQIP Clinical Support Team at clinicalsupport@mbsaqip.org.

Procedures which would not meet metabolic or bariatric inclusion criteria:

- Cancer cases: Any patient who is admitted to the hospital and has an included procedure to address cancer.
- Trauma cases: Any patient who is admitted to the hospital and has an included procedure to address a traumatic injury.
- Patient is under 10 years of age.
- Multiple MBSAQIP assessed cases within 30 days: Any patient who had an MBSAQIP assessed procedure entered within the previous 30 days at the center, the additional metabolic or bariatric procedure performed within 30 days is only entered as a reoperation or intervention. Only one MBSAQIP procedure can be entered into the data registry per patient, per 30 days, for a center.

Hospital Exclusion Criteria

In addition to the case inclusion/exclusion criteria, center inclusion/exclusion criteria are also imposed. To maintain the highest level of data quality, only cases that are eligible for the MBSAQIP Semiannual Report (SAR) are included in the PUF. These cases go through an additional level of scrutiny as they are passed from data collection to statistical analysis. A center's cases are not SAR-eligible and therefore may be excluded from the PUF if the center meets any of the following criteria:

- 30-day follow-up rate is under 80% for the SAR timeframe
- Data Integrity Audit disagreement rate is over 5%
- The MBSCR(s) at the center does not successfully complete the annual MBSCR Certification Exam
- The center is found not to be in compliance with MBSAQIP Standard 6, "Data Collection"

6. Data Limitations

While every effort has been made to make the PUF as complete as possible, the data do have certain limitations. Some of these limitations have been deliberately introduced to safeguard the privacy of patients (such as removal of absolute dates). The following items represent the most salient limitations of the data:

- While the sex and race distributions are reasonably representative of the national surgery patient population, only patients over the age of 10 are available for assessment, so the age distribution is somewhat truncated. Patients over the age of 80 also have their ages de-identified in the PUF (age is set to missing with an indicator variable included to identify patients over the age of 80).
- In order to comply with HIPAA requirements, all absolute dates have been removed. The most critical of these is the date of surgery, which has been reduced to year of surgery only. Some dates (hospital entry, dates of laboratory tests, and so on) have been recoded into durations (e.g., Date of Admission and Date of Discharge are recoded into Days to Discharge from Hospital Admit).
- In order to comply with the Participation Agreement (PA) that is agreed to between the ACS and participating centers, facility identifiers as well as geographic information regarding the case have been removed. The PA stipulates that the ACS does not identify participating centers. Facility identificars,,Iet oug1(sdvan0 Tds)-2(23 cm)9A.23 e of 80).

Q: **Approximately 1% of records in the main dataset are missing a pre-op BMI measurement. Why is that?**

A: Records will have a missing pre-op BMI measurement (either closest to surgery or highest recorded within one year prior to the surgery) if the pre-op BMI was unknown or the calculated pre-op BMI was less than 15 or greater than 150.

Q: **Some of the duration variables (e.g., Days from Operation Date to Readmission, Days from Operation Date to Reoperation, etc.) have unknown durations. Why is that?**

A: Records will have unknown durations for duration variables if an unknown or invalid date was entered which inhibited the calculation of duration. The duration (i.e., number

9. PUF User Guide Table

The PUF User Guide Table provides a variable-by-variable description for each of the five datasets available in the PUF. This table contains a column titled “Page Number in Variables and Definitions.” To provide investigators with ready access to complete and authoritative variable definitions, the “Page Number in Variables and Definitions” column contains the page number that will locate the complete definition in the *MBSAQIP PUF Variables and Definitions Manual*.

The *MBSAQIP PUF Variables and Definitions Manual* is derived directly from Chapter 4 of the MBSAQIP Operations Manual - the authoritative variable definition reference manual used by the Metabolic and Bariatric Surgical Clinical Reviewers (MBSCRs). Please be aware that these definitions are year specific, though dramatic changes are rare. Investigators receiving the PUF will have the opportunity to download the PUF Variables and Definitions Manual corresponding to the specific PUF year.

The PUF User Guide Table also contains a column titled “Search Term in Variables and Definitions.” As an alternative to searching for variable definitions by page number in the *PUF Variables and Definitions Manual*, users can copy the entire text

Main

Position #	Variable Name	Data Type	Variable Label	Search Term in Variables and Defintions	Page Number in Variables and Defintions	Variable Options	Comments
1	CASEID	Num	Case Identification Number	Each case or record in the database has a unique CaseID number.			
2	SEX	Char	Sex	Variable Name: Gender	2	Male; Female	
3	AGE	Num	Age	Patient's age at time of initial bariatric or metabolic surgery, calculated from Date of Birth and Operation date			Values capped between 10 and 80
4	ageGT80	Char	Age Greater Than 80 Years	Indicator for patients with recorded age greater than 80		Yes; No	
						White Black or African American American Indian or Alaska Native Native Hawaiian or Other Pacific Islander Asian Unknown	
6							
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Position #	Variable Name	Data Type	Variable Label

Position #	Variable Name	Data Type	Variable Label	Search Term in Variables and Defintions	Page Number in Variables and Defintions	Variable Options	Comments
131	INTV30	Char	At least one intervention within 30 days of op	Variable Name: Did the Patient have an Intervention within the 30 day Postoperative Period?	119	Yes; No	
132	ANTICOAGULATION_INITIATED_BAR	Char	Anticoagulation initiated or presumed/confirmed vein thrombosis/PE	Variable Name: Was Anticoagulation Initiated for Presumed/Confirmed Venous Thrombosis/PE Postoperatively	131	Yes; No	
133	INCISIONAL_HERNIA_NOTED_BAR	Char	Incisional Hernia Noted on Exam	Variable Name: Was an Incisional Hernia Noted on Exam Postoperatively	132	Yes; No	
134	DRAIN_PRESENT_30DAY_BAR	Char	Operative drain still present at 30 days	Variable Name: Was an Operative Drain Still Present at 30 days Postoperative	133	Yes; No	
135	DTPOSTOPSUPERFICIALINCISIONALSSI	Num	Days from operation date to first recorded date of Superficial Incisional SSI	Days to first recorded Superficial Incisional SSI occurrence from initial bariatric surgery operation date			Values capped between 0 and 30. If POSTOPSUPERFICIALINCISIONALSSI = 0 then this variable will be missing
136	DTPOSTOPDEEPINCISIONALSSI	Num	Days from operation date to first recorded date of Deep Incisional SSI	Days to first recorded Deep Incisional SSI occurrence from initial bariatric surgery operation date			Values capped between 0 and 30. If POSTOPDEEPINCISIONALSSI = 0 then this variable will be missing
137	DTPOSTOPORGANSPACESSI	Num	Days from operation date to first recorded date of Organ/Space SSI	Days to first recorded Organ/Space SSI occurrence from initial bariatric surgery operation date			Values capped between 0 and 30. If POSTOPORGANSPACESSI = 0 then this variable will be missing
138	DTPOSTOPVENTILATOR	Num	Days from operation date to first recorded date of Ventilator > 48 Hours	Days to first recorded Ventilator > 48 Hours occurrence from initial bariatric surgery operation date			Values capped between 0 and 30. If DTPOSTOPVENTILATOR = 0 then this variable will be missing
139	DTPOSTOPPNEUMONIA	Num	Days from operation date to first recorded date of Pneumonia	Days to first recorded Pneumonia occurrence from initial bariatric surgery operation date			Values capped between 0 and 30. If POSTOPPNEUMONIA = 0 then this variable will be missing
140	DTPOSTOPSEPSIS	Num	Days from operation date to first recorded date of Sepsis	Days to first recorded Sepsis occurrence from initial bariatric surgery operation date			Values capped between 0 and 30. If POSTOPSEPSIS = 0 then this variable will be missing
141	DTPOSTOPSEPTICSHOCK	Num	Days from operation date to first recorded date of Septic Shock	Days to first recorded Septic Shock occurrence from initial bariatric surgery operation date			Values capped between 0 and 30. If POSTOPSEPTICSHOCK = 0 then this variable will be missing
142	DTPOSTOPUTI	Num	Days from operation date to first recorded date of Urinary Tract Infection	Days to first recorded Urinary Tract Infection occurrence from initial bariatric surgery operation date			Values capped between 0 and 30. If POSTOPUTI = 0 then this variable will be missing
143	DTWOUNDDISRUPTION	Num	Days from operation date to Wound Disruption	Days to Wound Disruption occurrence from initial bariatric surgery operation date			Values capped between 0 and 30. If WOUNDDISRUPTION = "No" then this variable will be missing
144	DTUNPLINTUBATION	Num	Days from operation date to Unplanned Intubation	Days to Unplanned Intubation occurrence from initial bariatric surgery operation date			Values capped between 0 and 30. If UNPLINTUBATION = "No" then this variable will be missing
145	DTPULMONARYEMBOLSM	Num	Days from operation date to Pulmonary Embolism	Days to Pulmonary Embolism occurrence from initial bariatric surgery operation date			Values capped between 0 and 30. If PULMONARYEMBOLSM = "No" then this variable will be missing
146	DTPROGRSRENALINSUF	Num	Days from operation date to Progressive				

Values capped between 0 and 30. If

be missing

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Position #	Variable Name	Data Type	Variable Label	Search Term in Variables and Definitons	Page Number in Variables and Definitions	Variable Options	Comments
1	CASEID	Num	Case Identification Number	Each case or record in the database has a unique CaseID number.			
					118	Medical record Patient/Family Report Other	
3	REOP_RELATED_BAR	Char	Reoperation related to metabolic/bariatric procedure	Variable Name: Was this Reoperation likely related to a Metabolic or Bariatric procedure?	105	Yes; No	
4	REOP_SUSPECTED_REASON_BAR	Char	Most likely reason for reoperation	Variable Name: Most Likely Reason for Reoperation	115	See "Most Likely Reason for Reoperation Guidance Table" on page 115 in Variables and Defintions	
5	REOP_CODE_BAR	Char	Reoperation Type	Variable Name: Reoperation Type	112	See "Reoperation Guidance Table" on page 112 in in Variables and Defintions	
6	REOP_CPT_BAR	Char	Reoperation CPT	Variable Name: CPT code for Reoperation	114		
7	REOP_UNPLANNED	Char	Unplanned reoperation	Variable Name: Was this reoperation unplanned at the time of the principal procedure?	103	Yes; No	
8	REOP_CENTER	Char	Reoperation performed at reporting center	Variable Name: Was this reoperation performed at your hospital?	104	Yes; No	
9	REOP_EMERGENCY	Char	Emergency Reoperation	Variable Name: Reoperation Emergency Case	106	Yes; No	
10	REOP_STAPLING_PROC	Char	Reoperation Stapling Procedure	Variable Name: Was this Reoperation a Stapling Procedure?	107	Yes; No	
11	REOP_REVCONV_PROC	Char	Reoperation Revision/Conversion	Variable Name: Was this Reoperation a Revision/Conversion?	108	Yes; No	
12	REOP_MINILOOP						

Position #	Variable Name	Data Type	Variable Label	Search Term in Variables and Defintions	Page Number in Variables and Defintions	Variable Options	Comments

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1	CASEID	Num	Case Identification Number	Each case or record in the database has a unique CaseID number.			
					127	Medical Record Patient/Family Report Other	
3	INTV_RELATED_BAR	Char	Intervention related to metabolic/bariatric procedure	Variable Name: Was the Intervention likely related to a Metabolic or Bariatric procedure?	121	Yes; No	
4	INTV_REASON_BAR	Char	Most Likely Reason for Intervention	Variable Name: Most Likely Reason for Intervention	124	See "Most Likely Reason for Intervention Guidance Table" on page 124 in Variables and Defintions	
5	INTV_CODE_BAR	Char	Intervention Type	Variable Name: Intervention Type	123	See "Intervention Guidance Table" on page 123 in in Variables and Defintions	
6	INTV_UNPLANNED_BAR	Char	Unplanned Intervention	Variable Name: Was this intervention unplanned at the time of the principal procedure?	120	Yes; No	
7	INTV_EMERGENCY_BAR	Char	Emergency Intervention	Variable Name: Intervention Emergency Case	122	Yes; No	
8	INTV_THER_BAR	Char	Intervention Therapeutic Endoscopy	Therapeutic Endoscopy	123	See "Therapeutic Endoscopy" in the "Intervention Guidance Table" on page 123 in Variables and Defintions	If INTV_CODE_BAR does not equal "Therapeutic Endoscopy" then this variable will be missing
9	DTINTV	Num	Days from Operation date to Intervention	Days from the initial metabolic and bariatric surgical operation to the intervention procedure			Values capped between 0 and 30

Position #	Variable Name	Data Type	Variable Label	Search Term in Variables and Definitons	Page Number in Variables and Definitions	Variable Options	Comments
1	CASEID	Num	Case Identification Number	Each case or record in the database has a unique CaseID number.			
2	HGT	Num	Height	Variable Name: Preoperative Height	13		Same variable found in the main dataset
3	HGTUNIT	Char	Height Unit	Height Measurement Units	13	in, cm	Same variable found in the main dataset
4	WGT_CLOSEST