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User Guide for the 2023 MBSAQIP Long-Term Follow-up (LTFU) Participant Use Data File (PUF)

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1.   Introduction

The Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP®) is pleased to introduce the Long-Term Follow-up (LTFU) Participant Use Data File (PUF). Releases that fall under this category include 6-month LTFU PUF and the 1-year LTFU PUF. Entries from this round of LTFU PUFs correspond with cases from the 30-day PUF with operation dates between January 1, 2023, and December 31, 2023. Due to the time needed to collect this data, the 6-month and 1-year LTFU PUFs will be released one year and two years respectively after the release of the relevant 30-day PUF.   LTFU entries for cases included in the 30-day PUF dated 31-273 days after the primary operation date fall under the MBSAQIP definition of 6-month follow-up and are eligible for inclusion in the 6-month LTFU PUF. LTFU records dated 274-547 days after the primary operation date are eligible for inclusion in the 1-year PUF. The 1-year LTFU PUF for 2023 cases is scheduled to be delivered in 2026. Entries in the LTFU PUFs can be linked to cases from the corresponding 30-day PUF using the variable CASEID.

Like the 30-day PUF, the LTFU PUFs are Health Insurance Portability and Accountability Act (HIPAA)-compliant data files. They contain patient-level data and do not identify hospitals, healthcare providers, or patients. The intended purpose of these files is to provide researchers at participating centers with a data resource they can use to investigate and advance the quality of care delivered to the metabolic and bariatric surgical patient through the analysis of cases captured by MBSAQIP. LTFU PUFs are provided at no additional cost to employees (surgeons, researchers, bariatric program staff, etc.) of MBSAQIP participant centers. With the LTFU PUF, MBSAQIP hopes to provide a resource that expands the scope of important clinical questions that researchers in the metabolic and bariatric surgery field are looking to answer. It is part of the mission of the MBSAQIP to make these data available to participants to improve the power and reliability of clinical research and further propel innovation in the field of metabolic and bariatric surgery.

This guide is designed to accompany the LTFU Participant Use Data Files available for download via the MBSAQIP website (https://www.facs.org/quality-programs/accreditation-and-verification/metabolic-and-bariatric-surgery-accreditation-and-quality-improvement-program/participant-use-data-file-puf/). The sections contained herein will provide the user with information on how to request LTFU PUFs, contents of the data files, data collection background, data limitations, and answers to frequently asked questions. **Please refer to the corresponding 30-day PUF User Guide for additional information and details.**

All historical user guides for other PUFs remain available at the MBSAQIP website (https://www.facs.org/quality-programs/accreditation-and-verification/metabolic-and-bariatric-surgery-accreditation-and-quality-improvement-program/participant-use-data-file-puf/).

2. Data Request Process

An individual who has an official role at an actively enrolled MBSAQIP center and wants to obtain a copy of the LTFU PUF can do so by visiting https://www.facs.org/quality-programs/accreditation-and-verification/metabolic-and-bariatric-surgery-accreditation-and-quality-improvement-program/participant-use-data-file-puf/ and following the steps listed below:

1. Once on the MBSAQIP PUF main page, there will be a brief introduction and explanation of the PUF. Scrolling down will take the requestor to the Data Use Agreement. This is a three-page document that implements the data protections of the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and the MBSAQIP Participation Agreement. Delivery of the PUF is contingent on agreement to the terms and conditions specified 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.
2. 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."
3. After the request is received, MBSAQIP will reach out to the chosen center for internal verification and approval. Internal approval is at the discretion of the issuing center.
4. 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 30 days.
5. **The LTFU PUF files will be bundled with the related 30-day PUF files**. 6-month LTFU PUF files released one year after the relevant 30-day PUF files and the 1-Year LTFU PUF files will be added to the same location 2 years after the 30-day PUF.
6. The files will be available in three different formats (TXT, 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.

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3. File Description

An LTFU PUF release consists of six distinct datasets capturing: comorbidities, labs, reoperations, readmissions, interventions, and mortalities. Each dataset is available in one of three different formats - TXT, SAS, and SPSS. The comorbidities, labs, readmissions, reoperations, and interventions datasets are long files, with the potential for multiple entries from these datasets to be linked to a single case in the corresponding 30-day main PUF. All 6 files have entries restricted to the relevant MBSAQIP defined follow-up time frame (6-month or 1-Year) from the linked case in the 30-day main PUF. Accordingly, all postoperative events or outcomes (e.g., death, reoperation, readmission, intervention, BMI, etc.) occur in the same post-operation timeframe.

Investigators interested in longitudinal assessments will need to manipulate the long datasets and merge them with the 30-day PUF in a manner which is appropriate to the specified research question. With the CASEID variable, other readmission, reoperation, or intervention-specific variables, or combinations thereof, can be merged with the main 30-day PUF dataset. A variable-by-variable description for each dataset is provided in the LTFU PUF User Guide Tables in Section 9 of this document. A brief description of each dataset is on the following page:

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6-Month LTFU PUF Datasets (<mark>Current Release</mark>)

Dataset	File Types Available	Uncompressed File Size	Description
PUF_Comorb_6M	SAS, SPSS, TXT	SAS: 543 MB SPSS: 650 MB TXT: 138 MB	Contains 11 HIPAA compliant variables on 197169 eligible LTFU entries. Each row represents an LTFU entry that occurred within 31-273 days after a case from the 30-day PUF. Multiple rows per case are possible in this file.
PUF_Labs_6M	SAS, SPSS, TXT	SAS: 543 MB SPSS: 650 MB TXT: 138 MB	Contains 10 HIPAA compliant variables on 80963 eligible LTFU entries. Each row represents an LTFU entry that occurred within 31-273 days after a case from the 30-day PUF. Multiple rows per case are possible in this file.
PUF_Read_6M	SAS, SPSS, TXT	SAS: 1.5 MB SPSS: 1.5 MB TXT: 399 KB	Contains 6 HIPAA compliant variables on 2635 readmissions. Each row represents a readmission that occurred within 31-273 days after a case from the 30-day PUF. Multiple rows per case are possible in this file.
PUF_Reop_6M	SAS, SPSS, TXT	SAS: 1.2 MB SPSS: 1.2 MB TXT: 326 KB	Contains 13 HIPAA compliant variables on 1394 reoperations. Each row represents a reoperation that occurred within 31-273 days after a case from the 30-day PUF. Multiple rows per case are possible in this file.
PUF_Intv_6M	SAS, SPSS, TXT	SAS: 768 KB SPSS: 704 KB TXT: 193 KB	Contains 9 HIPAA compliant variables on 6391interventions. Each row represents an intervention that occurred within 31-273 days after a case from the 30-day PUF. Multiple rows per case are possible in this file.
PUF_Mort_6M	SAS, SPSS, TXT	SAS: 768 KB SPSS: 704 KB TXT: 193 KB	Contains 2 HIPAA compliant variables on 217 mortalities. Each row represents a mortality that occurred within 31-273 days after a case from the 30-day PUF. A case in the 30-day PUF can only link to one entry in this file.

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1-Year LTFU PUF Datasets (Scheduled release date: October 2026)

Dataset	File Types Available	Uncompressed File Size	Description
PUF_Comorb_1Y	SAS, SPSS, TXT	SAS: -- MB SPSS: -- MB TXT: -- MB	Contains 11 HIPAA compliant variables on -- eligible LTFU entries. Each row represents an LTFU entry that occurred within 274-547 days after a case from the 30-day PUF. Multiple rows per case are possible in this file.
PUF_Labs_1Y	SAS, SPSS, TXT	SAS: -- MB SPSS: -- MB TXT: --MB	Contains 10 HIPAA compliant variables on -- eligible LTFU entries. Each row represents an LTFU entry that occurred within 274-547 days after a case from the 30-day PUF. Multiple rows per case are possible in this file
PUF_Read_1Y	SAS, SPSS, TXT	SAS: -- MB SPSS: -- MB TXT: -- KB	Contains 6 HIPAA compliant variables on -- readmissions. Each row represents a readmission that occurred within 274-547 days after a case from the 30-day PUF. Multiple rows per case are possible in this file.
PUF_Reop_1Y	SAS, SPSS, TXT	SAS: -- MB SPSS: -- MB TXT: -- KB	Contains 13 HIPAA compliant variables on -- reoperations. Each row represents a reoperation that occurred within 274-547 days after a case from the 30-day PUF. Multiple rows per case are possible in this file.
PUF_Intv_1Y	SAS, SPSS, TXT	SAS: -- KB SPSS: -- KB TXT: -- KB	Contains 9 HIPAA compliant variables on -- interventions. Each row represents an intervention that occurred within 274-547 days after a case from the 30-day PUF. Multiple rows per case are possible in this file.
PUF_Mort_1Y	SAS, SPSS, TXT	SAS: -- KB SPSS: -- KB TXT: -- KB	Contains 2 HIPAA compliant variables on -- mortalities. Each row represents a mortality that occurred within 274-547 days after a case from the 30-day PUF. A case in the 30-day PUF can only link to one entry in this file.

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4.   Participation and Case Exclusion Criteria

Case Collection Process
For more information the case collection process, case exclusion criteria and hospital exclusion criteria for cases in in the 30-day PUF which link to entries in the LTFU PUF see section 5 of the corresponding 30-day PUF User Guide (https://www.facs.org/quality-programs/accreditation-and-verification/metabolic-and-bariatric-surgery-accreditation-and-quality-improvement-program/participant-use-data-file-puf/)

Case Exclusion Criteria
The following exclusion criteria are applied for the LTFU PUFs. For further details on the current inclusion/exclusion criteria, or what met the qualification for LTFU entries please contact the MBSAQIP Clinical Support Team at clinicalsupport@mbsaqip.org.

- Entries that do <u>not</u> link back to a CASEID found in the corresponding 30-day PUF.
- Entries which did <u>not</u> meet the 6-month LTFU PUF inclusion criteria:
    - LTFU entries outside of the MBSAQIP defined 6-month LTFU timeframe (31-273 days post-op of a case included in the 30-day PUF)
- Entries which would <u>not</u> meet the 1-year LTFU PUF inclusion criteria:
    - LTFU entries outside of the MBSAQIP defined 1-year LTFU timeframe (274-547 days post-op of a case included in the 30-day PUF)

5.   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:

- Due to the nature, difficulty, and costs associated with collecting LTFU data, attrition is common and variables in the LTFU PUF have a higher degree of missingness than the equivalent variables in the 30-day PUF.
- In order to comply with HIPAA requirements, all absolute dates have been removed. All date variables have been recoded as days from operation date for the linked case in the 30-day PUF being the reference point.
- The data are submitted from hospitals that are participating in the MBSAQIP and do not represent a statistically valid nationally representative sample. The representativeness of the sample of LTFU entries is further compromised by differential rates of follow-up between centers.
- The PUF includes international sites so the data would not strictly represent the situation in U.S. hospitals.

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- Many patients do not receive all possible laboratory tests, so some of these variables have a high percentage of missing values. This high percentage of missing data can make it problematic to use these variables in traditional logistic regression models as well as in many other types of analysis.

This list may not include all data limitations and additional limitations may apply in future versions of the data.

6.   Contact Information

All questions about the User Guide or PUF, as well as comments and suggestions for improvements are welcome and may be directed to Brian Matel, Statistical Report Manager, at bmatel@facs.org.

7.   Frequently Asked Questions

To access the frequently asked questions guide for all PUF files, see section 8 of the corresponding 30-day PUF User Guide (https://www.facs.org/quality-programs/accreditation-and-verification/metabolic-and-bariatric-surgery-accreditation-and-quality-improvement-program/participant-use-data-file-puf/)

8.   LTFU PUF User Guide Tables

The LTFU PUF User Guide Tables provide a variable-by-variable description for each of the datasets available in the LTFU PUF (both 6-month and 1-year).

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. Investigators receiving the LTFU PUF will have the opportunity to download the PUF Variables and Definitions Manual corresponding to the specific PUF year.

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The LTFU PUF User Guide Tables also contain 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 within an individual cell from the "Search Term in Variables and Definitions" column in the PUF User Guide Table and paste it into a search field (you can create a search field by simultaneously hitting Ctrl and F on your keyboard) in the *PUF Variables and Definitions Manual*. Once the text is copied into the search field and enter is hit, you will see the variable definition and other information pertinent to that particular variable. Appropriate definitions are provided in the "Search Term in Variables and Definitions" column for those variables that are constructed specifically for the PUF and do not exist in Chapter 4 of the MBSAQIP Operations Manual.

The *PUF Variables and Definitions Manual* will be made available to you for download with the rest of your requested PUF files. Data Use Agreements apply to the use and distribution of the *PUF Variables and Definitions Manual*, as well as all PUF datasets.

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6-Month Comorbidities

Position #	Variable Name	Data Type	Variable Label	Search Term 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	WGT_6M	Num	Weight	Variable Name: Weight (LTFU)		
3	WGT_UNIT_6M	Char	Weight Unit		kg; lbs	
4	BMI_6M	Num	BMI			
5	DT_DOC_6M	Num	Days to FU Documented from Operation Date			Values restricted between 31 and 273.
6	DIABETES_6M	Char	Diabetes Mellitus	Variable Name: Diabetes Mellitus (LTFU)	Yes, insulin Yes, non-insulin No	
7	GERD_6M	Char	GERD	Variable Name: GERD (LTFU)	Yes; No	
8	HYPERLIPIDEMIA_6M	Char	Hyperlipidemia	Variable Name: Hyperlipidemia (LTFU)	Yes; No	
9	HYPERTENSION_6M	Char	Hypertension	Variable Name: Hypertension (LTFU)	Yes; No	
10	HTN_MEDS_PRES_6M	Char	Number of Anti-Hypertensive Medications	Variable Name: Number of Anti-Hypertensive Medications	0 1 2 3 or more	
11	SLEEP_APNEA_6M	Char	Sleep Apnea	Variable Name: Sleep Apnea (LTFU)	Yes; No	

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6-Month Labs

Position #	Variable Name	Data Type	Variable Label	Search Term 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	EXAM_PERFORMED_PERSON_6M	Char	Assessment Performed by a Metabolic or Bariatric Specialist	Variable Name: Assessment Performed by a Metabolic or Bariatric Specialist	Yes; No	
3	ALBUMIN_6M	Num	Albumin Lab Value (g/dL)	Variable Name: Follow-up Lab Value		
4	DT_ALBUMIN_6M	Num	Days from Operation to Albumin Follow-up Lab			Values restricted between 31 and 273.
5	HCT_6M	Num	Hematocrit Lab Value (%)	Variable Name: Follow-up Lab Value		
6	DT_HCT_6M	Num	Days from Operation to Hematocrit Follow-up Lab			Values restricted between 31 and 273.
7	HEMO_6M	Num	Hemoglobin Lab Value (%)	Variable Name: Follow-up Lab Value		
8	DT_HEMO_6M	Num	Days from Operation to Hemoglobin Follow-up Lab			Values restricted between 31 and 273.
9	HGT_6M	Num	Height	Variable Name: Height		
10	HGT_UNIT_6M	Char	Height Unit		in; cm	

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6-Month Reoperation

Position #	Variable Name	Data Type	Variable Label	Search Term 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	REOP_CENTER_6M	Char	Reoperation Performed at Reporting Site	Variable Name: Performed at Your Site	Yes; No	
3	REOP_WEIGHTLOSS_MNFUT_6M	Char	Reoperation To Maintain or for Future Weight Loss	Variable Name: To Maintain or for Future Weight Loss	Yes; No	
4	REOP_EMERGENCY_6M	Char	Reoperation Emergency Case	Variable Name: Emergency Case (Reoperation form)	Yes; No	
5	REOP_STAPLING_PROC_6M	Char	Reoperation Stapler Used/Anastomosis Completed	Variable Name: Stapler Used or Anastomosis Completed (Reoperation form)	Yes; No	
6	REOP_SURGICAL_APPROACH_6M	Char	Reoperation Final Procedural Approach	Variable Name: Final Surgical Approach (Reoperation form)	Endoscopic / Laparoscopic / Open	
7	REOP_ROBOTICASST_6M	Char	Reoperation Robotic Assist	Variable Name: Final Surgical Approach (Reoperation form)	Yes; No	
8	REOP_DIAGNOSIS_6M	Char	Reoperation Postprocedural Diagnosis	Variable Name: Postprocedural Diagnosis (Reoperation form)	See Options list on page 143 in Variables MBSAQIP PUF Definitions	
9	REOP_TYPE_6M	Char	Reoperation Type	Variable Name: Reoperation Type	See Table on page129 in MBSAQIP PUF Definitions	
10	REOP_CPT_6M	Char	Reoperation CPT Code	Variable Name: Reoperation Type	CPT® code.	
11	REOP_PREV_PROC_6M	Char	Reoperation Previous Metabolic or Bariatric Procedure	Variable Name: Conversions - Previous Metabolic and Bariatric Procedure (Reoperation form)	See Options list on page 130 in Variables MBSAQIP PUF Definitions	
12	REOP_CURR_PROC_6M	Char	Reoperation Current Procedure	Variable Name: Conversions - Current Procedure (Reoperation form)	See Options list on page 131 in Variables MBSAQIP PUF Definitions	
13	DTREOP_6M	Num	Days to Reoperation	Days from initial bariatric or metabolic surgery procedure to reoperation		Values restricted between 31 and 273.

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6-Month Readmission

Position #	Variable Name	Data Type	Variable Label	Search Term 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	READ_HOSPITAL_6M	Char	Readmission Occurred at Reporting Center	Variable Name: Readmission	Yes; No	
3	READ_DIAGNOSIS_6M	Char	Readmission Discharge Diagnosis	Variable Name: Readmission	See Options list on page 143 in Variables MBSAQIP PUF Definitions	
4	DTREAD_6M	Num	Days from Operation date to Readmission			Values restricted between 31 and 273.
5	DTREAD_DISCH_6M	Num	Days from Original Discharge to Readmission			Values restricted between 31 and 273.
6	DTDISDT_READ_6M	Num	Days from Readmission to Readmission Discharge			

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6-Month Intervention

Position #	Variable Name	Data Type	Variable Label	Search Term 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	INTV_CENTER_6M	Char	Intervention Performed at Reporting Site	Variable Name: Performed at Your Site	Yes; No	
3	INTV_WEIGHTLOSS_MNFUT_6M	Char	Intervention To Maintain or for Future Weight Loss	Variable Name: To Maintain or for Future Weight Loss	Yes; No	
4	INTV_EMERGENCY_BAR_6M	Char	Intervention Emergency Case	Variable Name: Emergency Case (Intervention form)	Yes; No	
5	INTV_ANESTYPE_6M	Char	Intervention Intragastric Balloon Anesthesia Type	Variable Name: Intragastric Balloon Anesthesia Type (Intervention form)	General; Local; Monitored anesthesia care/IV sedation; None; Other	If INTV_TYPE not = 'Intragastric balloon adjustment', 'Intragastric balloon placement', or 'Intragastric balloon removal', then this variable will be missing.
6	INTV_IGBALLOON_TYPE_6M	Char	Intervention Intragastric Balloon Type	Variable Name: Intragastric Balloon Type (Intervention form)	Absorbable; Adjustable; Air-filled; Fluid-filled	If INTV_TYPE not = 'Intragastric balloon adjustment', 'Intragastric balloon placement', or 'Intragastric balloon removal', then this variable will be missing.
7	INTV_TYPE_6M	Char	Intervention Type	Variable Name: Intervention Type	See Options list on page 139 in Variables MBSAQIP PUF Definitions	
8	INTV_DIAGNOSIS_6M	Char	Intervention Postprocedural Diagnosis	Variable Name: Postprocedural Diagnosis (Intervention form)	See Options list on page 143 in Variables MBSAQIP PUF Definitions	
10	DTINTV_6M	Num	Days from Operation date to Intervention			Values restricted between 31 and 273.

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6-Month Mortality

Position #	Variable Name	Data Type	Variable Label	Search Term 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	DTDEATH_OP_6M	Num	Days to death from operation date	Days to death from initial bariatric surgery operation date		Values restricted between 31 and 273.

Section 8: LTFU PUF User Guide Tables

1-Year Comorbidities

Position #	Variable Name	Data Type	Variable Label	Search Term 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	WGT_1Y	Num	Weight	Variable Name: Weight (LTFU)		
3	WGT_UNIT_1Y	Char	Weight Unit		kg; lbs	
4	BMI_1Y	Num	BMI			
5	DT_DOC_1Y	Num	Days to FU Documented from Operation Date			Values restricted between 274-547.
6	DIABETES_1Y	Char	Diabetes Mellitus	Variable Name: Diabetes Mellitus (LTFU)	Yes, insulin Yes, non-insulin No	
7	GERD_1Y	Char	GERD	Variable Name: GERD (LTFU)	Yes; No	
8	HYPERLIPIDEMIA_1Y	Char	Hyperlipidemia	Variable Name: Hyperlipidemia (LTFU)	Yes; No	
9	HYPERTENSION_1Y	Char	Hypertension	Variable Name: Hypertension (LTFU)	Yes; No	
10	HTN_MEDS_PRES_1Y	Char	Number of Anti-Hypertensive Medications	Variable Name: Number of Anti-Hypertensive Medications	0 1 2 3 or more	
11	SLEEP_APNEA_1Y	Char	Sleep Apnea	Variable Name: Sleep Apnea (LTFU)	Yes; No	

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1-Year Labs

Position #	Variable Name	Data Type	Variable Label	Search Term 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	EXAM_PERFORMED_PERSON_1Y	Char	Assessment Performed by a Metabolic or Bariatric Specialist	Variable Name: Assessment Performed by a Metabolic or Bariatric Specialist	Yes; No	
3	ALBUMIN_1Y	Num	Albumin Lab Value (g/dL)	Variable Name: Follow-up Lab Value Information		
4	DT_ALBUMIN_1Y	Num	Days from Operation to Albumin Follow-up Lab			Values restricted between 274-547.
5	HCT_1Y	Num	Hematocrit Lab Value (%)	Variable Name: Follow-up Lab Value Information		
6	DT_HCT_1Y	Num	Days from Operation to Hematocrit Follow-up Lab			Values restricted between 274-547.
7	HEMO_1Y	Num	Hemoglobin Lab Value (%)	Variable Name: Follow-up Lab Value Information		
8	DT_HEMO_1Y	Num	Days from Operation to Hemoglobin Follow-up Lab			Values restricted between 274-547.
9	HGT_1Y	Num	Height	Variable Name: Height		
10	HGT_UNIT_1Y	Char	Height Unit		in; cm	

Section 8: LTFU PUF User Guide Tables

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1-Year Reoperation

Position #	Variable Name	Data Type	Variable Label	Search Term 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	REOP_CENTER_1Y	Char	Reoperation Performed at Reporting Site	Variable Name: Performed at Your Site	Yes; No	
3	REOP_WEIGHTLOSS_MNFUT_1Y	Char	Reoperation To Maintain or for Future Weight Loss	Variable Name: To Maintain or for Future Weight Loss	Yes; No	
4	REOP_EMERGENCY_1Y	Char	Reoperation Emergency Case	Variable Name: Emergency Case (Reoperation form)	Yes; No	
5	REOP_STAPLING_PROC_1Y	Char	Reoperation Stapler Used/Anastomosis Completed	Variable Name: Stapler Used or Anastomosis Completed (Reoperation form)	Yes; No	
6	REOP_SURGICAL_APPROACH_1Y	Char	Reoperation Final Procedural Approach	Variable Name: Final Surgical Approach (Reoperation form)	Endoscopic / Laparoscopic / Open	
7	REOP_ROBOTICASST_1Y	Char	Reoperation Robotic Assist	Variable Name: Final Surgical Approach (Reoperation form)	Yes; No	
8	REOP_DIAGNOSIS_1Y	Char	Reoperation Postprocedural Diagnosis	Variable Name: Postprocedural Diagnosis (Reoperation form)	See Options list on page 143 in Variables MBSAQIP PUF Definitions	
9	REOP_TYPE_1Y	Char	Reoperation Type	Variable Name: Reoperation Type	See Table on page 129 in MBSAQIP PUF Definitions	
10	REOP_CPT_1Y	Char	Reoperation CPT Code	Variable Name: Reoperation Type	CPT® code.	
11	REOP_PREV_PROC_1Y	Char	Reoperation Previous Metabolic or Bariatric Procedure	Variable Name: Conversions - Previous Metabolic and Bariatric Procedure (Reoperation form)	See Options list on page 130 in Variables MBSAQIP PUF Definitions	
12	REOP_CURR_PROC_1Y	Char	Reoperation Current Procedure	Variable Name: Conversions - Current Procedure (Reoperation form)	See Options list on page 131 in Variables MBSAQIP PUF Definitions	
13	DTREOP_1Y	Num	Days to Reoperation	Days from initial bariatric or metabolic surgery procedure to reoperation		Values restricted between 274-547.

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1-Year Readmission

Position #	Variable Name	Data Type	Variable Label	Search Term 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	READ_HOSPITAL_1Y	Char	Readmission Occurred at Reporting Center	Variable Name: Readmission	Yes; No	
3	READ_DIAGNOSIS_1Y	Char	Readmission Discharge Diagnosis	Variable Name: Readmission	See Options list on page 143 in Variables MBSAQIP PUF Definitions	
4	DTREAD_1Y	Num	Days from Operation date to Readmission			Values restricted between 274-547.
5	DTREAD_DISCH_1Y	Num	Days from Original Discharge to Readmission			Values restricted between 274-547.
6	DTDISDT_READ_1Y	Num	Days from Readmission to Readmission Discharge			

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1-Year Intervention

Position #	Variable Name	Data Type	Variable Label	Search Term 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	INTV_CENTER_1Y	Char	Intervention Performed at Reporting Site	Variable Name: Performed at Your Site	Yes; No	
3	INTV_WEIGHTLOSS_MNFUT_1Y	Char	Intervention To Maintain or for Future Weight Loss	Variable Name: To Maintain or for Future Weight Loss	Yes; No	
4	INTV_EMERGENCY_BAR_1Y	Char	Intervention Emergency Case	Variable Name: Emergency Case (Intervention form)	Yes; No	
5	INTV_ANESTYPE_1Y	Char	Intervention Intragastric Balloon Anesthesia Type	Variable Name: Intragastric Balloon Anesthesia Type (Intervention form)	General; Local; Monitored anesthesia care/IV sedation; None; Other	If INTV_TYPE not = 'Intragastric balloon adjustment', 'Intragastric balloon placement', or 'Intragastric balloon removal', then this variable will be missing.
6	INTV_IGBALLOON_TYPE_1Y	Char	Intervention Intragastric Balloon Type	Variable Name: Intragastric Balloon Type (Intervention form)	Absorbable; Adjustable; Air-filled; Fluid-filled	If INTV_TYPE not = 'Intragastric balloon adjustment', 'Intragastric balloon placement', or 'Intragastric balloon removal', then this variable will be missing.
7	INTV_TYPE_1Y	Char	Intervention Type	Variable Name: Intervention Type	See Options list on page 139 in Variables MBSAQIP PUF Definitions	
8	INTV_DIAGNOSIS_1Y	Char	Intervention Postprocedural Diagnosis	Variable Name: Postprocedural Diagnosis (Intervention form)	See Options list on page 143 in Variables MBSAQIP PUF Definitions	
10	DTINTV_1Y	Num	Days from Operation date to Intervention			Values restricted between 274-547.

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1-Year Mortality

Position #	Variable Name	Data Type	Variable Label	Search Term 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	DTDEATH_OP_1Y	Num	Days to death from operation date	Days to death from initial bariatric surgery operation date		Values restricted between 274-547.

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