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The following report(s) provides findings from an FDA-initiated query using Sentinel. While Sentinel queries may be undertaken to assess potential medical product safety risks, they may also be initiated for various other reasons. Some examples include determining a rate or count of an identified health outcome of interest, examining medical product use, exploring the feasibility of future, more detailed analyses within Sentinel, and seeking to better understand Sentinel capabilities.

Data obtained through Sentinel are intended to complement other types of evidence such as preclinical studies, clinical trials, postmarket studies, and adverse event reports, all of which are used by FDA to inform regulatory decisions regarding medical product safety. The information contained in this report is provided as part of FDA's commitment to place knowledge acquired from Sentinel in the public domain as soon as possible. Any public health actions taken by FDA regarding products involved in Sentinel queries will continue to be communicated through existing channels.

FDA wants to emphasize that the fact that FDA has initiated a query involving a medical product and is reporting findings related to that query does not mean that FDA is suggesting health care practitioners should change their prescribing practices for the medical product or that patients taking the medical product should stop using it. Patients who have questions about the use of an identified medical product should contact their health care practitioners.

The following report contains a description of the request, request specifications, and results from the modular program run(s).

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## Overview for Request cdrh\_mpl1r\_wp004

**Request ID:** cdrh\_mpl1r\_wp004

**Request Description:** The request investigated the prevalence of hysteroscopic sterilization and laparoscopic tubal ligation procedures in the Sentinel Distributed Database (SDD).

**Sentinel Modular Program Tool Used:** Cohort Identification and Descriptive Analysis tool (CIDA), version 5.2.1

**Data Source:** Data from January 1, 2012 to October 31, 2017 from 17 Data Partners contributing to the SDD were included in this request. Please see Appendix A for a list of dates of available data for each Data Partner. The request was distributed to Data Partners on April 17, 2018.

**Study Design:** This request was designed to identify the prevalence of hysteroscopic sterilization and laparoscopic tubal ligation procedures that occurred in any care setting. The number of qualifying patients with the hysteroscopic sterilization and laparoscopic tubal ligation were calculated overall, then stratified by age group, year, age group and year, month-year, and age group and month-year. Procedures were defined using International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Edition (CPT-4) codes. Please see Appendix B for specific codes used in this request.

**Cohort Eligibility Criteria:** Those included within respective cohorts were required to have at least medical coverage on the day of procedure. Females in the following age groups were included in the cohort: 21-30, 31-40, and 41-50 years. All qualifying prevalent procedures were included.

**Please refer to Appendix C for specifications used in this request.**

**Limitations:** Algorithms to define events and characteristics are imperfect and may be misclassified. Therefore, data should be interpreted with this limitation in mind.

**Notes:** Please contact the Sentinel Operations Center Query Fulfillment Team ([qf@sentinelssystem.org](mailto:qf@sentinelssystem.org)) for questions and to provide comments/suggestions for future enhancements to this document.

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**Glossary of Terms for Analyses Using  
Cohort Identification and Descriptive Analysis (CIDA) Tool\***

**Amount Supplied** - number of units (pills, tablets, vials) dispensed. Net amount per National Drug Code (NDC) per dispensing.

**Blackout Period** - number of days at the beginning of a treatment episode that events are to be ignored. If an event occurs during the blackout period, the episode is excluded.

**Care Setting** - type of medical encounter or facility where the exposure, event, or condition code was recorded. Possible care settings include: Inpatient Hospital Stay (IP), Non-Acute Institutional Stay (IS), Emergency Department (ED), Ambulatory Visit (AV), and Other Ambulatory Visit (OA). For laboratory results, possible care settings include: Emergency Department (E), Home (H), Inpatient (I), Outpatient (O), or Unknown or Missing (U). The Care Setting, along with the Principal Diagnosis Indicator (PDX), forms the Care Setting/PDX parameter.

**Ambulatory Visit (AV)** - includes visits at outpatient clinics, same-day surgeries, urgent care visits, and other same-day ambulatory hospital encounters, but excludes emergency department encounters.

**Emergency Department (ED)** - includes ED encounters that become inpatient stays (in which case inpatient stays would be a separate encounter). Excludes urgent care visits.

**Inpatient Hospital Stay (IP)** - includes all inpatient stays, same-day hospital discharges, hospital transfers, and acute hospital care where the discharge is after the admission date.

**Non-Acute Institutional Stay (IS)** - includes hospice, skilled nursing facility (SNF), rehab center, nursing home, residential, overnight non-hospital dialysis and other non-hospital stays.

**Other Ambulatory Visit (OA)** - includes other non overnight AV encounters such as hospice visits, home health visits, skilled nursing facility visits, other non-hospital visits, as well as telemedicine, telephone and email consultations.

**Cohort Definition (drug/exposure)** - indicates how the cohort will be defined: 01: Cohort includes only the first valid treatment episode during the query period; 02: Cohort includes all valid treatment episodes during the query period; 03: Cohort includes all valid treatment episodes during the query period until an event occurs.

**Days Supplied** - number of days supplied for all dispensings in qualifying treatment episodes.

**Eligible Members** - number of members eligible for an incident treatment episode (defined by the drug/exposure and event washout periods) with drug and medical coverage during the query period.

**Enrollment Gap** - number of days allowed between two consecutive enrollment periods without breaking a "continuously enrolled" sequence.

**Episodes** - treatment episodes; length of episode is determined by days supplied in one dispensing or consecutive dispensings bridged by the episode gap.

**Episode Gap** - number of days allowed between two (or more) consecutive exposures (dispensings/procedures) to be considered the same treatment episode.

**Event Deduplication** - specifies how events are counted by the Modular Program (MP) algorithm: 0: Counts all occurrences of a health outcome of interest (HOI) during an exposure episode; 1: de-duplicates occurrences of the same HOI code and code type on the same day; 2: de-duplicates occurrences of the same HOI group on the same day (e.g., de-duplicates at the group level).

**Exposure Episode Length** - number of days after exposure initiation that is considered "exposed time."

**Exposure Extension Period** - number of days post treatment period in which the outcomes/events are counted for a treatment episode. Extensions are added after any episode gaps have been bridged.

**Lookback Period** - number of days wherein a member is required to have evidence of pre-existing condition (diagnosis/procedure/drug dispensing).

**Maximum Episode Duration** - truncates exposure episodes after a requester-specified number of exposed days. Applied after any gaps are bridged and extension days added to the length of the exposure episode.

**Member-Years** - sum of all days of enrollment with medical and drug coverage in the query period preceded by an exposure washout period all divided by 365.25.

**Minimum Days Supplied** - specifies a minimum number of days in length of the days supplied for the episode to be considered.

**Minimum Episode Duration** - specifies a minimum number of days in length of the episode for it to be considered. Applied after any gaps are bridged and extension days added to the length of the exposure episode.

**Monitoring Period** - used to define time periods of interest for both sequential analysis and simple cohort characterization requests.

**Principal Diagnosis (PDX)** - diagnosis or condition established to be chiefly responsible for admission of the patient to the hospital. 'P' = principal diagnosis, 'S' = secondary diagnosis, 'X' = unspecified diagnosis, '.' = blank. Along with the Care Setting values, forms the Caresetting/PDX parameter.

**Query Period** - period in which the modular program looks for exposures and outcomes of interest.

**Treatment Episode Truncation Indicator** - indicates whether the exposure episode will be truncated at the occurrence of a requester-specified code.

**Washout Period (drug/exposure)** - number of days a user is required to have no evidence of prior exposure (drug dispensing/procedure) and continuous drug and medical coverage prior to an incident treatment episode.

**Washout Period (event/outcome)** - number of days a user is required to have no evidence of a prior event (procedure/diagnosis) and continuous drug and medical coverage prior to an incident treatment episode.

**Years at Risk** - number of days supplied plus any episode gaps and exposure extension periods all divided by 365.25.

\*not all terms may be used in this report

**Table 1. Summary of Prevalent Hysteroscopic Sterilization and Laparoscopic Tubal Ligation Procedures from the Sentinel Distributed Database, between January 1, 2012 and October 31, 2017, Overall**

<b>Procedure</b>	<b>Members with Procedure</b>	<b>Eligible Members<sup>1</sup></b>	<b>Members with Procedure per 10,000 Eligible Members</b>	<b>Prevalent Procedures<sup>2</sup></b>	<b>Prevalent Procedure Codes<sup>2</sup></b>
Hysteroscopic Sterilization	70,146	42,910,235	16.35	73,256	82,263
Laparoscopic Tubal Ligation	357,758	42,910,235	83.37	377,828	548,310

<sup>1</sup>Eligible members and member-years are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period.

<sup>2</sup>The difference between procedures and procedure codes is for same-exposure codes appearing on the same day, or consecutive days. For example, if a member receives two codes for hysteroscopic sterilization on the same day, they will have one procedure and two procedure codes.

**Table 2. Summary of Prevalent Hysteroscopic Sterilization and Laparoscopic Tubal Ligation Procedures from the Sentinel Distributed Database, between January 1, 2012 and October 31, 2017, by Age Group**

	Members with Procedure	Eligible Members <sup>1</sup>	Members with Procedure per 10,000 Eligible Members	Prevalent Procedures <sup>2</sup>	Prevalent Procedure Codes <sup>2</sup>
<b>Hysteroscopic Sterilization</b>					
21-30 years	12,698	17,555,964	7.23	13,264	14,994
31-40 years	39,514	15,571,434	25.38	41,172	46,225
41-50 years	17,999	15,825,453	11.37	18,820	21,044
<b>Laparoscopic Tubal Ligation</b>					
21-30 years	102,273	17,555,964	58.26	108,788	161,001
31-40 years	211,349	15,571,434	135.73	222,091	325,916
41-50 years	44,244	15,825,453	27.96	46,949	61,393

<sup>1</sup>Eligible members and member-years are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period.

<sup>2</sup>The difference between procedures and procedure codes is for same-exposure codes appearing on the same day, or consecutive days. For example, if a member receives two codes for hysteroscopic sterilization on the same day, they will have one procedure and two procedure codes.

**Table 3. Summary of Prevalent Hysteroscopic Sterilization and Laparoscopic Tubal Ligation Procedures from the Sentinel Distributed Database, between January 1, 2012 and October 31, 2017, by Year**

	Members with Procedure	Eligible Members <sup>1</sup>	Members with Procedure per 10,000 Eligible Members	Prevalent Procedures <sup>2</sup>	Prevalent Procedure Codes <sup>2</sup>
<b>Hysteroscopic Sterilization</b>					
2012	20,184	20,117,020	10.03	21,017	23,143
2013	19,754	20,232,967	9.76	20,561	22,923
2014	14,074	20,772,970	6.78	14,579	16,494
2015	10,054	20,825,248	4.83	10,446	12,038
2016	5,039	19,802,699	2.54	5,221	6,041
2017	1,403	16,718,253	0.84	1,432	1,624
<b>Laparoscopic Tubal Ligation</b>					
2012	71,610	20,117,020	35.60	75,692	115,542
2013	73,800	20,232,967	36.48	77,845	118,257
2014	70,188	20,772,970	33.79	74,289	112,243
2015	65,746	20,825,248	31.57	69,530	101,959
2016	56,893	19,802,699	28.73	59,794	75,719
2017	20,176	16,718,253	12.07	20,678	24,590

<sup>1</sup>Eligible members and member-years are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period.

<sup>2</sup>The difference between procedures and procedure codes is for same-exposure codes appearing on the same day, or consecutive days. For example, if a member receives two codes for hysteroscopic sterilization on the same day, they will have one procedure and two procedure codes.



**Table 4. Summary of Prevalent Hysteroscopic Sterilization and Laparoscopic Tubal Ligation Procedures from the Sentinel Distributed Database, between January 1, 2012 and October 31, 2017, by Age Group and Year**

	Members with Procedure	Eligible Members <sup>1</sup>	Members with Procedure per 10,000 Eligible Members	Prevalent Procedures <sup>2</sup>	Prevalent Procedure Codes <sup>2</sup>
<b>Hysteroscopic Sterilization</b>					
<b>Age Group: 21-30 years</b>					
2012	3,400	6,785,158	5.01	3,541	3,903
2013	3,584	6,952,488	5.15	3,738	4,198
2014	2,628	7,240,775	3.63	2,727	3,093
2015	1,867	7,336,018	2.54	1,940	2,247
2016	1,036	7,241,349	1.43	1,070	1,267
2017	244	5,770,229	0.42	248	286
<b>Age Group: 31-40 years</b>					
2012	11,266	6,719,855	16.77	11,685	12,881
2013	11,095	6,742,576	16.46	11,543	12,842
2014	7,945	6,945,454	11.44	8,221	9,293
2015	5,792	7,051,483	8.21	6,013	6,939
2016	2,789	6,809,148	4.10	2,884	3,335
2017	811	5,684,997	1.43	826	935
<b>Age Group: 41-50 years</b>					
2012	5,529	7,690,972	7.19	5,791	6,359
2013	5,085	7,585,690	6.70	5,280	5,883
2014	3,504	7,620,162	4.60	3,631	4,108
2015	2,402	7,492,086	3.21	2,493	2,852
2016	1,216	6,749,557	1.80	1,267	1,439
2017	348	5,696,731	0.61	358	403

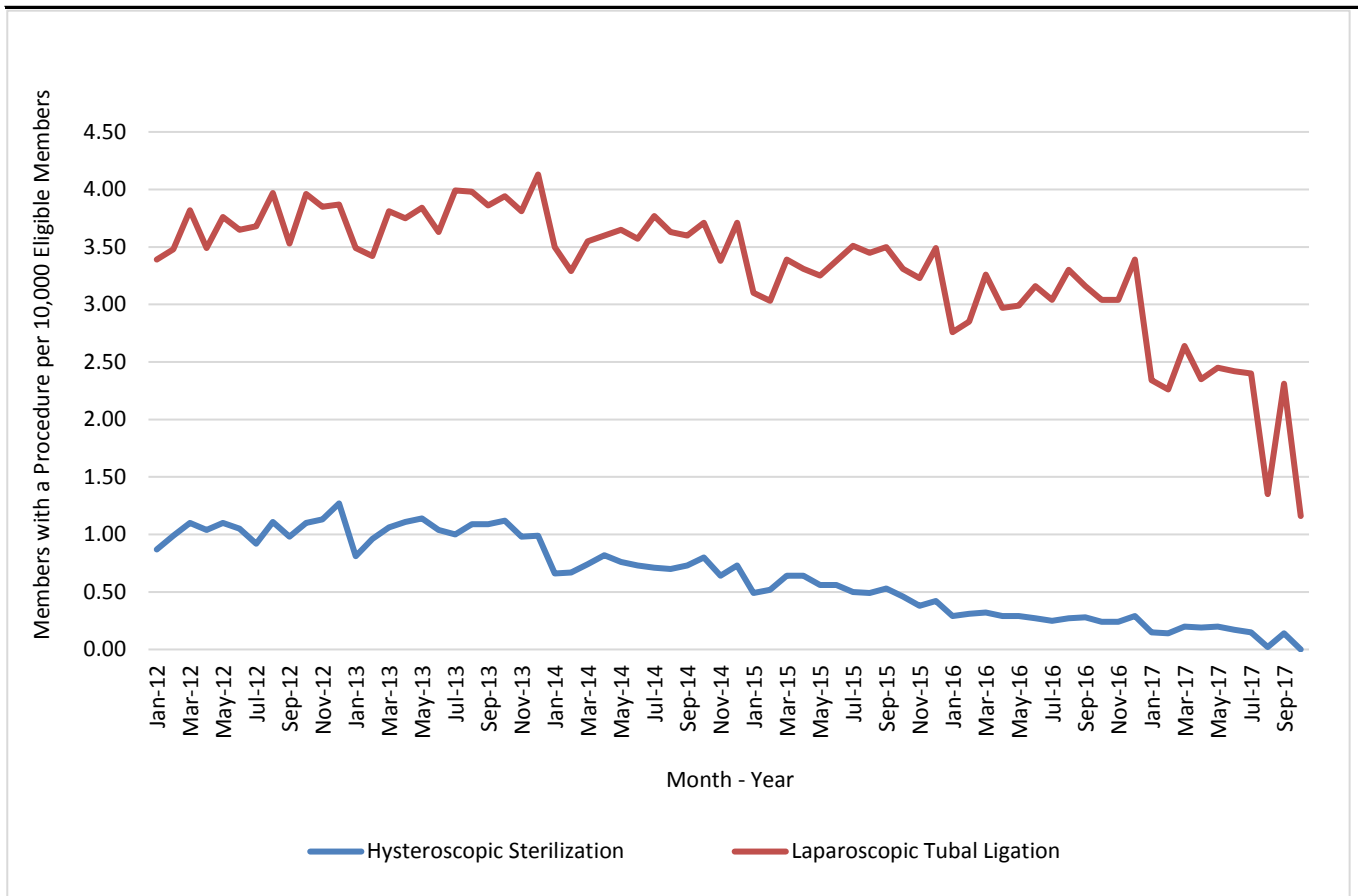
**Table 4. Summary of Prevalent Hysteroscopic Sterilization and Laparoscopic Tubal Ligation Procedures from the Sentinel Distributed Database, between January 1, 2012 and October 31, 2017, by Age Group and Year**

	Members with Procedure	Eligible Members <sup>1</sup>	Members with Procedure per 10,000 Eligible Members	Prevalent Procedures <sup>2</sup>	Prevalent Procedure Codes <sup>2</sup>
<b>Laparoscopic Tubal Ligation</b>					
<b>Age Group: 21-30 years</b>					
2012	20,453.00	6,785,158.00	30.14	21,808.00	34,276.00
2013	21,148.00	6,952,488.00	30.42	22,481.00	34,992.00
2014	20,297.00	7,240,775.00	28.03	21,639.00	33,557.00
2015	19,203.00	7,336,018.00	26.18	20,438.00	30,492.00
2016	16,204.00	7,241,349.00	22.38	17,085.00	21,373.00
2017	5,182.00	5,770,229.00	8.98	5,337.00	6,311.00
<b>Age Group: 31-40 years</b>					
2012	41,427.00	6,719,855.00	61.65	43,514.00	67,248.00
2013	43,061.00	6,742,576.00	63.86	45,173.00	69,538.00
2014	41,469.00	6,945,454.00	59.71	43,710.00	66,865.00
2015	38,879.00	7,051,483.00	55.14	40,957.00	60,769.00
2016	34,210.00	6,809,148.00	50.24	35,837.00	46,092.00
2017	12,626.00	5,684,997.00	22.21	12,900.00	15,404.00
<b>Age Group: 41-50 years</b>					
2012	9,741.00	7,690,972.00	12.67	10,370.00	14,018.00
2013	9,596.00	7,585,690.00	12.65	10,191.00	13,727.00
2014	8,429.00	7,620,162.00	11.06	8,940.00	11,821.00
2015	7,673.00	7,492,086.00	10.24	8,135.00	10,698.00
2016	6,484.00	6,749,557.00	9.61	6,872.00	8,254.00
2017	2,369.00	5,696,731.00	4.16	2,441.00	2,875.00

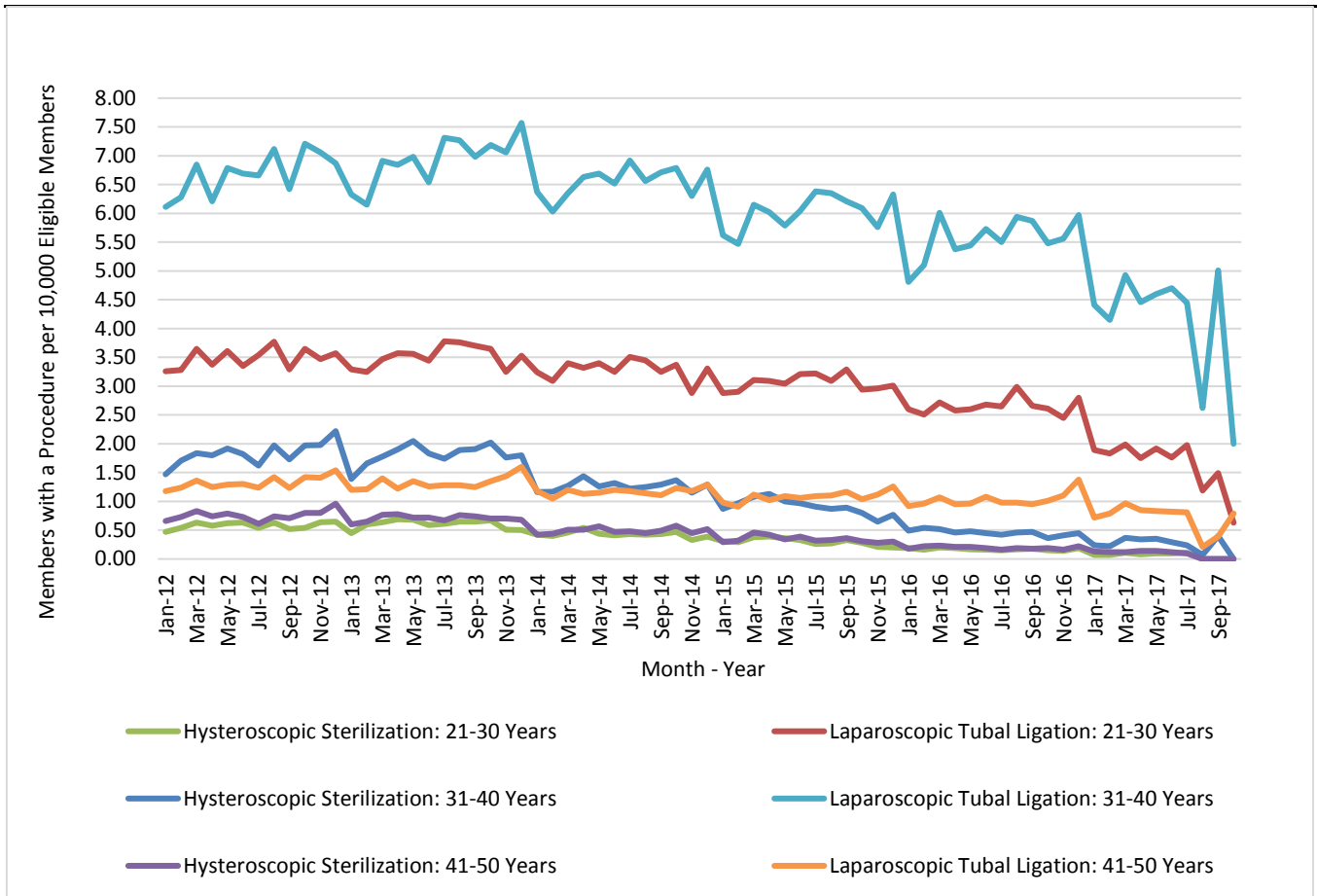
<sup>1</sup>Eligible members and member-years are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period.

<sup>2</sup>The difference between procedures and procedure codes is for same-exposure codes appearing on the same day, or consecutive days. For example, if a member receives two codes for hysteroscopic sterilization on the same day, they will have one procedure and two procedure codes.

**Figure 1. Prevalence of Hysteroscopic Sterilization and Laparoscopic Tubal Ligation per 10,000 Eligible Members Between January 1, 2012 and October 31, 2017**



**Figure 2. Prevalence of Hysteroscopic Sterilization and Laparoscopic Tubal Ligation per 10,000 Eligible Members Between January 1, 2012 and October 31, 2017, by Age Group**



**Appendix A. Dates of Available Data for Each Data Partner (DP) as of Request Distribution Date (April 17, 2018)**

DP ID	DP Start Date	DP End Date
DP01	01/01/2008	06/30/2017
DP02	01/01/2012	06/30/2016
DP03	01/01/2006	07/31/2017
DP04	01/01/2000	06/30/2017
DP05	01/01/2000	01/31/2017
DP06	01/01/2000	03/31/2015
DP07	01/01/2000	03/31/2016
DP08	01/01/2007	07/31/2017
DP09	01/01/2000	07/31/2017
DP10	01/01/2000	07/31/2017
DP11	01/01/2005	06/30/2017
DP12	01/01/2000	07/31/2017
DP13	01/01/2000	08/31/2017
DP14	01/01/2004	10/31/2017
DP15	01/01/2008	03/31/2017
DP16	01/01/2000	12/31/2016
DP17	01/01/2010	12/31/2015

<sup>1</sup>Start Date and End Date are first calculated by individual table (enrollment, dispensing, etc). End Date is defined as the greatest year-month with a record count that is within 80% of the previous year-month. After Start Date and End Dates are calculated by individual tables, the overall DP End Date is the minimum of all the table End Dates.

**Appendix B. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes Used as Exclusion Criteria in Defining First Qualifying Hysteroscopic Sterilization or Laparoscopic Tubal Ligation**

Code	Description	Code Type
<b>Hysteroscopic Sterilization</b>		
58565	Hysteroscopy, surgical; with bilateral fallopian tube cannulation to induce occlusion by placement of permanent implants	CPT-4
A4264	Permanent implantable contraceptive intratubal occlusion device(s) and delivery system	HCPCS
<b>Laparoscopic Tubal Ligation</b>		
58670	Laparoscopy, surgical; with fulguration of oviducts (with or without transection)	CPT-4
58671	Laparoscopy, surgical; with occlusion of oviducts by device (eg, band, clip, or Falope ring)	CPT-4
58600	Ligation or transection of fallopian tube(s), abdominal or vaginal approach, unilateral or bilateral	CPT-4
58605	Ligation or transection of fallopian tube(s), abdominal or vaginal approach, postpartum, unilateral or bilateral, during same hospitalization (separate procedure)	CPT-4
58611	Ligation or transection of fallopian tube(s) when done at the time of cesarean delivery or intra-abdominal surgery (not a separate procedure) (List separately in addition to code for primary procedure)	CPT-4
58615	Occlusion of fallopian tube(s) by device (eg, band, clip, Falope ring) vaginal or suprapubic approach	CPT-4
66.2	Bilateral endoscopic destruction or occlusion of fallopian tubes	ICD-9-CM
66.21	Bilateral endoscopic ligation and crushing of fallopian tubes	ICD-9-CM
66.22	Bilateral endoscopic ligation and division of fallopian tubes	ICD-9-CM
66.29	Other bilateral endoscopic destruction or occlusion of fallopian tubes	ICD-9-CM
66.3	Other bilateral destruction or occlusion of fallopian tubes	ICD-9-CM
66.39	Other bilateral destruction or occlusion of fallopian tubes	ICD-9-CM
66.32	Other bilateral ligation and division of fallopian tubes	ICD-9-CM
66.31	Other bilateral ligation and crushing of fallopian tubes	ICD-9-CM
66.92	Unilateral destruction or occlusion of fallopian tube	ICD-9-CM
0U550ZZ	Destruction of Right Fallopian Tube, Open Approach	ICD-10-PCS
0U553ZZ	Destruction of Right Fallopian Tube, Percutaneous Approach	ICD-10-PCS
0U554ZZ	Destruction of Right Fallopian Tube, Percutaneous Endoscopic Approach	ICD-10-PCS
0U557ZZ	Destruction of Right Fallopian Tube, Via Natural or Artificial Opening	ICD-10-PCS
0U558ZZ	Destruction of Right Fallopian Tube, Via Natural or Artificial Opening Endoscopic	ICD-10-PCS
0U560ZZ	Destruction of Left Fallopian Tube, Open Approach	ICD-10-PCS
0U563ZZ	Destruction of Left Fallopian Tube, Percutaneous Approach	ICD-10-PCS
0U564ZZ	Destruction of Left Fallopian Tube, Percutaneous Endoscopic Approach	ICD-10-PCS
0U567ZZ	Destruction of Left Fallopian Tube, Via Natural or Artificial Opening	ICD-10-PCS
0U568ZZ	Destruction of Left Fallopian Tube, Via Natural or Artificial Opening Endoscopic	ICD-10-PCS
0U570ZZ	Destruction of Bilateral Fallopian Tubes, Open Approach	ICD-10-PCS
0U573ZZ	Destruction of Bilateral Fallopian Tubes, Percutaneous Approach	ICD-10-PCS
0U574ZZ	Destruction of Bilateral Fallopian Tubes, Percutaneous Endoscopic Approach	ICD-10-PCS
0U577ZZ	Destruction of Bilateral Fallopian Tubes, Via Natural or Artificial Opening	ICD-10-PCS
0U578ZZ	Destruction of Bilateral Fallopian Tubes, Via Natural or Artificial Opening Endoscopic	ICD-10-PCS
0UL50CZ	Occlusion of Right Fallopian Tube with Extraluminal Device, Open Approach	ICD-10-PCS
0UL50DZ	Occlusion of Right Fallopian Tube with Intraluminal Device, Open Approach	ICD-10-PCS
0UL50ZZ	Occlusion of Right Fallopian Tube, Open Approach	ICD-10-PCS



**Appendix B. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes Used as Exclusion Criteria in Defining First Qualifying Hysteroscopic Sterilization or Laparoscopic Tubal Ligation**

<b>Code</b>	<b>Description</b>	<b>Code Type</b>
0UL53CZ	Occlusion of Right Fallopian Tube with Extraluminal Device, Percutaneous Approach	ICD-10-PCS
0UL53DZ	Occlusion of Right Fallopian Tube with Intraluminal Device, Percutaneous Approach	ICD-10-PCS
0UL53ZZ	Occlusion of Right Fallopian Tube, Percutaneous Approach	ICD-10-PCS
0UL54CZ	Occlusion of Right Fallopian Tube with Extraluminal Device, Percutaneous Endoscopic Approach	ICD-10-PCS
0UL54DZ	Occlusion of Right Fallopian Tube with Intraluminal Device, Percutaneous Endoscopic Approach	ICD-10-PCS
0UL54ZZ	Occlusion of Right Fallopian Tube, Percutaneous Endoscopic Approach	ICD-10-PCS
0UL57DZ	Occlusion of Right Fallopian Tube with Intraluminal Device, Via Natural or Artificial Opening	ICD-10-PCS
0UL57ZZ	Occlusion of Right Fallopian Tube, Via Natural or Artificial Opening	ICD-10-PCS
0UL58DZ	Occlusion of Right Fallopian Tube with Intraluminal Device, Via Natural or Artificial Opening Endoscopic	ICD-10-PCS
0UL58ZZ	Occlusion of Right Fallopian Tube, Via Natural or Artificial Opening Endoscopic	ICD-10-PCS
0UL60CZ	Occlusion of Left Fallopian Tube with Extraluminal Device, Open Approach	ICD-10-PCS
0UL60DZ	Occlusion of Left Fallopian Tube with Intraluminal Device, Open Approach	ICD-10-PCS
0UL60ZZ	Occlusion of Left Fallopian Tube, Open Approach	ICD-10-PCS
0UL63CZ	Occlusion of Left Fallopian Tube with Extraluminal Device, Percutaneous Approach	ICD-10-PCS
0UL63DZ	Occlusion of Left Fallopian Tube with Intraluminal Device, Percutaneous Approach	ICD-10-PCS
0UL63ZZ	Occlusion of Left Fallopian Tube, Percutaneous Approach	ICD-10-PCS
0UL64CZ	Occlusion of Left Fallopian Tube with Extraluminal Device, Percutaneous Endoscopic Approach	ICD-10-PCS
0UL64DZ	Occlusion of Left Fallopian Tube with Intraluminal Device, Percutaneous Endoscopic Approach	ICD-10-PCS
0UL64ZZ	Occlusion of Left Fallopian Tube, Percutaneous Endoscopic Approach	ICD-10-PCS
0UL67DZ	Occlusion of Left Fallopian Tube with Intraluminal Device, Via Natural or Artificial Opening	ICD-10-PCS
0UL67ZZ	Occlusion of Left Fallopian Tube, Via Natural or Artificial Opening	ICD-10-PCS
0UL68DZ	Occlusion of Left Fallopian Tube with Intraluminal Device, Via Natural or Artificial Opening Endoscopic	ICD-10-PCS
0UL68ZZ	Occlusion of Left Fallopian Tube, Via Natural or Artificial Opening Endoscopic	ICD-10-PCS
0UL70CZ	Occlusion of Bilateral Fallopian Tubes with Extraluminal Device, Open Approach	ICD-10-PCS
0UL70DZ	Occlusion of Bilateral Fallopian Tubes with Intraluminal Device, Open Approach	ICD-10-PCS
0UL70ZZ	Occlusion of Bilateral Fallopian Tubes, Open Approach	ICD-10-PCS
0UL73CZ	Occlusion of Bilateral Fallopian Tubes with Extraluminal Device, Percutaneous Approach	ICD-10-PCS
0UL73DZ	Occlusion of Bilateral Fallopian Tubes with Intraluminal Device, Percutaneous Approach	ICD-10-PCS
0UL73ZZ	Occlusion of Bilateral Fallopian Tubes, Percutaneous Approach	ICD-10-PCS
0UL74CZ	Occlusion of Bilateral Fallopian Tubes with Extraluminal Device, Percutaneous Endoscopic Approach	ICD-10-PCS
0UL74DZ	Occlusion of Bilateral Fallopian Tubes with Intraluminal Device, Percutaneous Endoscopic Approach	ICD-10-PCS
0UL74ZZ	Occlusion of Bilateral Fallopian Tubes, Percutaneous Endoscopic Approach	ICD-10-PCS
0UL77DZ	Occlusion of Bilateral Fallopian Tubes with Intraluminal Device, Via Natural or Artificial Opening	ICD-10-PCS
0UL77ZZ	Occlusion of Bilateral Fallopian Tubes, Via Natural or Artificial Opening	ICD-10-PCS



**Appendix B. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) Procedure Codes Used as Exclusion Criteria in Defining First Qualifying Hysteroscopic Sterilization or Laparoscopic Tubal Ligation**

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<b>Code</b>	<b>Description</b>	<b>Code Type</b>
0UL78DZ	Occlusion of Bilateral Fallopian Tubes with Intraluminal Device, Via Natural or Artificial Opening Endoscopic	ICD-10-PCS
0UL78ZZ	Occlusion of Bilateral Fallopian Tubes, Via Natural or Artificial Opening Endoscopic	ICD-10-PCS



**Appendix C. Specifications for Parameters in this Request**

This request utilized the Cohort Identification and Descriptive Analysis (CIDA) tool, version 5.2.1, to assess and compare the prevalence of hysteroscopic sterilization procedures with the prevalence of laparoscopic tubal ligation procedures.

**Query Period:** January 1, 2012 to October 31, 2017  
**Coverage Requirement:** At least Medical  
**Enrollment Requirement:** 0 days  
**Enrollment Gap:** 45 days  
**Sex:** Female  
**Age Groups:** 21-30, 31-40, 41-50 years

Event				
Scenario	Event	Care Setting	Washout (Days)	Cohort Definition
1	Hysteroscopic Sterilization	Any	0	All valid prevalent exposures
2	Laparoscopic Tubal Ligation	Any	0	All valid prevalent exposures

*Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) codes are provided by Optum360.*