

Disclaimer

The following report(s) provides findings from an FDA-initiated query using its Mini-Sentinel pilot. While Mini-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 Mini-Sentinel, and seeking to better understand the capabilities of the Mini-Sentinel pilot.

Data obtained through Mini-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 the Mini-Sentinel pilot in the public domain as soon as possible. Any public health actions taken by FDA regarding products involved in Mini-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

<u>Request Description</u>	Mini-Sentinel's National Death Index (NDI) Workgroup requested execution of Modular Program #3 (MP3) to produce sample size estimates of antibiotic drug product use among members in the Mini-Sentinel Distributed Database (MSDD). The drug products of interest included amoxicillin, amoxicillin with clavulanate, azithromycin, cephalexin, ciprofloxacin, clarithromycin, clindamycin, erythromycin, gemifloxacin, levofloxacin, moxifloxacin, norfloxacin, ofloxacin, penicillin V, telithromycin, and trimethoprim and/or tulfamethoxazole. This involved two runs of MP3. No event was queried. The time window for the request was January 1, 2000 to March 31, 2013. The package was distributed to 18 Data Partners on February 26, 2014.
<u>Request ID</u>	to09y05_mpr_wp22_v01 (antibiotics). This is report 1 of 2. The second report displays results for anti-depressants.
<u>Glossary</u>	List of Terms found in this Report and their Definitions
<u>Table 1</u>	Table displaying the Number of New Users, New Episodes, Dispensings, Total Days Supplied, Amount Supplied, Years at Risk, Eligible Members, Member-Years, New Users per 1,000 Eligible Members, Days Supplied per User, Dispensings per User, and Days Supplied per Dispensing by Drug Product
<u>Table 2</u>	Table displaying the Number of New Users, New Episodes, Dispensings, Total Days Supplied, Amount Supplied, Years at Risk, Eligible Members, Member-Years, New Users per 1,000 Eligible Members, Days Supplied per User, Dispensings per User, and Days Supplied per Dispensing by Drug Product and Age Group
<u>Table 3</u>	Table displaying the Number of New Users, New Episodes, Dispensings, Total Days Supplied, Amount Supplied, Years at Risk, Eligible Members, Member-Years, New Users per 1,000 Eligible Members, Days Supplied per User, Dispensings per User, and Days Supplied per Dispensing by Drug Product and Sex
<u>Table 4</u>	Table displaying the Number of New Users, New Episodes, Dispensings, Total Days Supplied, Amount Supplied, Years at Risk, Eligible Members, Member-Years, New Users per 1,000 Eligible Members, Days Supplied per User, Dispensings per User, and Days Supplied per Dispensing by Drug Product and Year
<u>Appendix A</u>	List of Generic Names Included in this Request
<u>Appendix B</u>	Modular Program Specifications for Query ID to09y05_mpr_wp22_v01 - Antibiotic Use
Notes:	Please contact the Sentinel Operations Center (qf@sentrinelsystem.org) for questions and to provide comments/suggestions for future enhancements to this document.

Glossary of Terms in Modular Program 3*

Amount Supplied - number of units (pills, tablets, vials) dispensed. Net amount per NDC per dispensing. This is equivalent to the "RxAmt" value in the MSCDM.

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).

Cohort Definition (drug/exposure)- Indicates how the cohort will be defined: (1) 01: Cohort includes only the first valid incident treatment episode during the query period; (2) 02: Cohort includes all valid incident treatment episodes during the query period; (3) 03: Cohort includes all valid incident 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.

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 MP algorithm.

Exposure Extension Period - number of days post treatment period in which the outcomes/events are counted for a treatment episode.

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

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 365.23.

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

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

New Users - number of members with incident exposure during the query period. Member must have no evidence of exposure (s) of interest (defined by incidence criteria) in the prior washout period. A user may only be counted once in a query period.

Principal Diagnosis (PDX) - diagnosis or condition established to be chiefly responsible for admission of the patient to the hospital. YES will only consider diagnoses flagged as Principal

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

Treatment Episode Truncation Indicator - indicates whether observation of the incident query code during follow-up requires truncation of valid treatment episodes. A value of Y indicates that the treatment episodes should be truncated at the first occurrence of an incident query code. A value of N indicates that the treatment episodes should not be truncated at the occurrence of the incident query 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 365.23.

*all terms may not be used in this report

**incident treatment episodes must be incident to both the exposure and the event

Table 1: Summary of Incident Antibiotic Use in the Mini-Sentinel Distributed Database between January 1, 2000 and March 31, 2013, by Drug Product

	New Users	New Episodes	Dispensings	Days Supplied	Amount Supplied	Years at Risk	Eligible Members	Member-Years	New Users / 1K Eligible Members	Days Supplied/User	Dispensings / User	Days Supplied/Dispensing
Amoxicillin	18,338,488	18,338,488	18,980,734	183,089,030	1,221,752,381	506,184.1	92,603,358	190,732,486.7	198.03	9.98	1.04	9.65
Amoxicillin with Clavulanate	10,678,681	10,678,681	11,132,573	113,112,198	510,967,404	312,442.1	92,953,871	216,477,778.7	114.88	10.59	1.04	10.16
Azithromycin	19,228,088	19,228,088	19,845,811	99,587,063	175,097,503	276,789.1	92,614,586	198,384,415.1	207.61	5.18	1.03	5.02
Cephalexin	10,105,351	10,105,351	10,640,692	96,517,829	532,746,334	267,934.3	93,042,599	213,582,272.4	108.61	9.55	1.05	9.07
Ciprofloxacin	8,292,764	8,292,764	8,762,030	71,350,860	143,384,625	198,353.7	93,053,424	222,467,004.5	89.12	8.60	1.06	8.14
Clarithromycin	2,393,243	2,393,243	2,496,554	26,575,756	70,059,397	73,284.8	93,208,156	237,560,156.5	25.68	11.10	1.04	10.64
Clindamycin	3,589,635	3,589,635	3,860,212	32,528,004	180,217,220	90,690.0	93,181,539	234,791,439.1	38.52	9.06	1.08	8.43
Erythromycin	1,256,852	1,256,852	1,371,443	17,717,137	69,076,556	49,002.9	93,238,961	238,030,194.3	13.48	14.10	1.09	12.92
Gemifloxacin	53,382	53,382	55,178	307,916	304,785	853.7	93,263,931	243,533,331.0	0.57	5.77	1.03	5.58
Levofloxacin	4,477,070	4,477,070	4,752,885	41,010,588	44,357,343	113,813.1	93,134,264	233,607,140.3	48.07	9.16	1.06	8.63
Moxifloxacin	1,513,652	1,513,652	1,583,898	14,527,406	14,521,806	40,151.2	93,235,957	239,536,866.6	16.23	9.60	1.05	9.17
Norfloxacin	6,401	6,401	7,980	126,644	169,231	353.1	93,264,844	243,646,122.2	0.07	19.79	1.25	15.87
Ofloxacin	31,702	31,702	33,847	361,880	889,420	1,000.5	93,264,376	243,555,276.0	0.34	11.42	1.07	10.69
Penicillin V	4,164,370	4,164,370	4,359,031	37,882,722	180,721,037	105,215.9	93,176,667	230,758,374.0	44.69	9.10	1.05	8.69
Telithromycin	68,245	68,245	71,392	467,082	894,322	1,299.5	93,263,219	243,421,437.0	0.73	6.84	1.05	6.54
Trimethoprim and/or Sulfamethoxazole	7,990,750	7,990,750	8,688,865	94,446,302	338,205,303	261,969.2	93,028,720	221,375,997.8	85.90	11.82	1.09	10.87

Table 2: Summary of Incident Antibiotic Use in the Mini-Sentinel Distributed Database between January 1, 2000 and March 31, 2013, by Drug Product and Age Group

	New Users	New Episodes	Dispensings	Days Supplied	Amount Supplied	Years at Risk	Eligible Members	Member-Years	New Users / 1K Eligible Members	Days Supplied/User	Dispensings / User	Days Supplied/Dispensing
Amoxicillin												
00 to 17 Years	6,975,654	6,975,654	7,168,433	76,417,032	874,958,314	210,509.9	22,597,206	37,065,787.4	308.70	10.95	1.03	10.66
18 to 40 Years	4,793,273	4,793,273	4,935,455	46,172,648	154,953,897	127,563.4	35,967,166	61,109,748.2	133.27	9.63	1.03	9.36
41 to 64 Years	5,130,106	5,130,106	5,357,372	47,704,552	151,491,338	132,459.0	32,033,513	70,985,303.5	160.15	9.30	1.04	8.90
65 to 79 Years	1,138,180	1,138,180	1,200,098	10,168,284	31,923,919	28,332.6	6,858,445	16,337,117.3	165.95	8.93	1.05	8.47
80+ Years	301,275	301,275	319,376	2,626,514	8,424,913	7,319.2	2,029,521	5,234,530.2	148.45	8.72	1.06	8.22
Amoxicillin with Clavulanate												
00 to 17 Years	3,346,582	3,346,582	3,487,045	37,449,499	339,575,359	103,335.9	22,826,965	47,729,977.5	146.61	11.19	1.04	10.74
18 to 40 Years	2,986,845	2,986,845	3,068,772	30,288,585	70,447,171	83,501.3	36,484,703	66,737,724.9	81.87	10.14	1.03	9.87
41 to 64 Years	3,459,250	3,459,250	3,627,351	36,228,189	79,918,731	100,221.4	32,351,225	77,625,049.0	106.93	10.47	1.05	9.99
65 to 79 Years	690,787	690,787	738,565	7,201,610	16,198,335	19,984.0	7,059,437	18,435,074.4	97.85	10.43	1.07	9.75
80+ Years	195,217	195,217	210,840	1,944,315	4,827,808	5,399.5	2,127,854	5,949,952.9	91.74	9.96	1.08	9.22
Azithromycin												
00 to 17 Years	4,733,463	4,733,463	4,853,820	25,006,775	83,816,491	69,213.6	22,766,378	45,834,615.6	207.91	5.28	1.03	5.15
18 to 40 Years	6,005,354	6,005,354	6,155,177	29,797,520	37,005,378	82,632.0	36,034,352	60,786,220.0	166.66	4.96	1.02	4.84
41 to 64 Years	6,667,405	6,667,405	6,927,152	35,026,643	42,332,139	97,687.8	31,905,154	70,085,545.9	208.98	5.25	1.04	5.06
65 to 79 Years	1,422,585	1,422,585	1,490,995	7,633,871	9,290,693	21,333.9	6,867,784	16,431,225.9	207.14	5.37	1.05	5.12
80+ Years	399,281	399,281	418,667	2,122,254	2,652,802	5,921.9	2,037,639	5,246,807.7	195.95	5.32	1.05	5.07
Cephalexin												
00 to 17 Years	2,195,564	2,195,564	2,272,975	23,975,825	278,849,204	66,166.6	22,897,723	50,699,835.1	95.89	10.92	1.04	10.55
18 to 40 Years	2,927,483	2,927,483	3,042,487	26,551,586	94,966,234	73,562.0	36,443,741	65,572,721.1	80.33	9.07	1.04	8.73
41 to 64 Years	3,571,785	3,571,785	3,791,094	32,528,202	112,800,953	90,591.3	32,311,491	75,406,530.6	110.54	9.11	1.06	8.58
65 to 79 Years	1,025,353	1,025,353	1,110,217	9,690,908	33,297,635	27,070.2	6,940,457	16,825,342.0	147.74	9.45	1.08	8.73
80+ Years	385,166	385,166	423,919	3,771,308	12,832,308	10,544.1	2,026,754	5,077,843.7	190.04	9.79	1.10	8.90
Ciprofloxacin												
00 to 17 Years	172,977	172,977	181,003	1,503,633	4,254,448	4,148.2	22,942,088	56,468,974.1	7.54	8.69	1.05	8.31
18 to 40 Years	2,596,919	2,596,919	2,688,576	20,475,607	41,369,444	56,664.0	36,840,881	68,082,292.6	70.49	7.88	1.04	7.62
41 to 64 Years	3,815,486	3,815,486	4,055,273	34,205,224	67,956,329	95,196.8	32,376,789	76,415,686.9	117.85	8.96	1.06	8.43
65 to 79 Years	1,254,168	1,254,168	1,349,144	11,298,126	22,174,179	31,544.9	6,931,846	16,524,954.8	180.93	9.01	1.08	8.37
80+ Years	453,214	453,214	488,034	3,868,270	7,630,225	10,799.9	2,008,483	4,975,096.2	225.65	8.54	1.08	7.93
Clarithromycin												
00 to 17 Years	335,012	335,012	350,708	3,899,160	22,796,757	10,746.1	22,938,954	55,869,820.5	14.60	11.64	1.05	11.12
18 to 40 Years	763,055	763,055	783,587	8,082,268	17,084,245	22,247.2	36,927,876	71,793,934.6	20.66	10.59	1.03	10.31
41 to 64 Years	1,056,036	1,056,036	1,106,520	11,749,886	24,200,667	32,433.9	32,681,637	83,692,960.0	32.31	11.13	1.05	10.62

Table 2: Summary of Incident Antibiotic Use in the Mini-Sentinel Distributed Database between January 1, 2000 and March 31, 2013, by Drug Product and Age Group

	New Users	New Episodes	Days Dispensing	Days Supplied	Amount Supplied	Years at Risk	Eligible Members	Member-Years	New Users / 1K Eligible Members	Days Supplied / User	Dispensings / User	Days Supplied / Dispensing
65 to 79 Years	197,545	197,545	210,958	2,348,307	4,893,569	6,487.2	7,209,794	19,819,987.5	27.40	11.89	1.07	11.13
80+ Years	41,595	41,595	44,781	496,135	1,084,160	1,370.4	2,184,840	6,383,453.9	19.04	11.93	1.08	11.08
Clindamycin												
00 to 17 Years	450,999	450,999	477,637	4,514,146	58,006,751	12,414.1	22,937,552	55,795,506.8	19.66	10.01	1.06	9.45
18 to 40 Years	1,128,595	1,128,595	1,194,167	10,045,524	45,047,057	27,936.8	36,869,805	71,014,459.4	30.61	8.90	1.06	8.41
41 to 64 Years	1,544,922	1,544,922	1,679,974	13,868,440	59,586,825	38,851.4	32,649,371	82,523,085.6	47.32	8.98	1.09	8.26
65 to 79 Years	360,617	360,617	394,684	3,198,197	13,547,659	8,966.0	7,161,121	19,297,024.7	50.36	8.87	1.09	8.10
80+ Years	104,502	104,502	113,750	901,697	4,028,927	2,521.8	2,156,878	6,161,362.6	48.45	8.63	1.09	7.93
Erythromycin												
00 to 17 Years	232,994	232,994	270,252	4,802,292	26,704,876	13,297.6	22,941,085	55,842,859.0	10.16	20.61	1.16	17.77
18 to 40 Years	430,782	430,782	465,336	6,164,264	19,114,051	17,022.3	36,922,267	71,774,538.4	11.67	14.31	1.08	13.25
41 to 64 Years	450,187	450,187	481,249	5,203,533	17,970,107	14,395.5	32,715,672	84,278,819.5	13.76	11.56	1.07	10.81
65 to 79 Years	113,866	113,866	122,537	1,230,316	4,106,938	3,409.6	7,211,983	19,786,691.3	15.79	10.80	1.08	10.04
80+ Years	29,023	29,023	32,069	316,732	1,180,585	878.0	2,180,190	6,347,286.0	13.31	10.91	1.10	9.88
Gemifloxacin												
00 to 17 Years	313	313	323	1,895	1,859	5.3	22,947,417	56,710,710.1	0.01	6.05	1.03	5.87
18 to 40 Years	16,457	16,457	16,846	93,341	92,289	258.1	37,036,552	73,466,223.7	0.44	5.67	1.02	5.54
41 to 64 Years	31,328	31,328	32,464	181,766	180,119	503.9	32,820,039	86,427,562.5	0.95	5.80	1.04	5.60
65 to 79 Years	4,504	4,504	4,735	26,432	26,132	73.9	7,272,265	20,398,070.6	0.62	5.87	1.05	5.58
80+ Years	780	780	810	4,482	4,386	12.4	2,207,198	6,530,764.1	0.35	5.75	1.04	5.53
Levofloxacin												
00 to 17 Years	44,103	44,103	46,598	438,502	835,395	1,213.2	22,945,702	56,654,146.1	1.92	9.94	1.06	9.41
18 to 40 Years	1,167,691	1,167,691	1,215,642	10,609,961	11,227,763	29,331.2	36,959,845	71,221,991.8	31.59	9.09	1.04	8.73
41 to 64 Years	2,293,380	2,293,380	2,444,275	21,520,003	22,452,119	59,765.2	32,570,243	81,151,465.1	70.41	9.38	1.07	8.80
65 to 79 Years	693,464	693,464	745,287	6,128,195	6,430,825	17,057.3	7,109,948	18,736,344.2	97.53	8.84	1.07	8.22
80+ Years	278,432	278,432	301,083	2,313,927	3,411,241	6,446.2	2,122,533	5,843,193.1	131.18	8.31	1.08	7.69
Moxifloxacin												
00 to 17 Years	12,285	12,285	12,872	126,154	127,867	348.7	22,947,028	56,693,650.7	0.54	10.27	1.05	9.80
18 to 40 Years	378,179	378,179	389,601	3,638,112	3,636,580	10,028.2	37,016,132	72,660,402.9	10.22	9.62	1.03	9.34
41 to 64 Years	788,349	788,349	827,993	7,720,576	7,725,048	21,353.0	32,734,561	84,318,985.0	24.08	9.79	1.05	9.32
65 to 79 Years	235,496	235,496	248,458	2,182,231	2,175,530	6,040.0	7,204,021	19,659,965.7	32.69	9.27	1.06	8.78
80+ Years	99,343	99,343	104,974	860,333	856,780	2,381.2	2,168,748	6,203,862.3	45.81	8.66	1.06	8.20
Norfloxacin												
00 to 17 Years	69	69	73	780	1,686	2.2	22,947,423	56,711,072.6	0.00	11.30	1.06	10.68

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	New Users	New Episodes	Days Dispensed	Amount Supplied	Years at Risk	Eligible Members	Member-Years	New Users / 1K Eligible Members	Days Supplied / User	Dispensings / User	Days Supplied / Dispensing	
18 to 40 Years	1,709	1,709	1,820	17,636	29,484	48.8	37,037,264	73,495,784.0	0.05	10.32	1.06	9.69
41 to 64 Years	3,078	3,078	4,162	76,393	96,782	213.6	32,823,242	86,499,087.1	0.09	24.82	1.35	18.35
65 to 79 Years	1,086	1,086	1,378	24,414	31,132	67.8	7,273,755	20,408,317.1	0.15	22.48	1.27	17.72
80+ Years	459	459	547	7,421	10,147	20.7	2,207,402	6,531,861.4	0.21	16.17	1.19	13.57
Ofloxacin												
00 to 17 Years	1,104	1,104	1,145	11,342	22,596	31.2	22,947,391	56,709,681.6	0.05	10.27	1.04	9.91
18 to 40 Years	17,947	17,947	18,724	186,616	520,043	514.4	37,035,966	73,443,616.3	0.48	10.40	1.04	9.97
41 to 64 Years	10,083	10,083	11,133	130,116	291,926	360.9	32,820,816	86,466,221.3	0.31	12.90	1.10	11.69
65 to 79 Years	1,926	1,926	2,153	27,762	44,464	77.2	7,273,337	20,404,629.8	0.26	14.41	1.12	12.89
80+ Years	642	642	692	6,044	10,391	16.8	2,207,285	6,531,127.1	0.29	9.41	1.08	8.73
Penicillin V												
00 to 17 Years	811,245	811,245	837,887	8,306,721	71,879,078	22,907.6	22,931,277	54,501,474.0	35.38	10.24	1.03	9.91
18 to 40 Years	1,613,654	1,613,654	1,671,645	14,121,276	51,789,881	39,143.1	36,683,378	68,822,472.3	43.99	8.75	1.04	8.45
41 to 64 Years	1,427,487	1,427,487	1,514,939	12,696,011	46,697,569	35,452.1	32,574,808	81,755,245.0	43.82	8.89	1.06	8.38
65 to 79 Years	254,251	254,251	272,745	2,255,383	8,435,139	6,309.7	7,162,521	19,413,444.4	35.50	8.87	1.07	8.27
80+ Years	57,733	57,733	61,815	503,331	1,919,370	1,403.4	2,168,394	6,265,738.3	26.62	8.72	1.07	8.14
Telithromycin												
00 to 17 Years	3,196	3,196	3,308	21,573	40,631	59.8	22,947,285	56,703,933.7	0.14	6.75	1.04	6.52
18 to 40 Years	26,772	26,772	27,664	178,329	342,823	493.8	37,033,558	73,405,723.0	0.72	6.66	1.03	6.45
41 to 64 Years	32,386	32,386	34,181	228,574	437,570	637.9	32,816,611	86,381,705.9	0.99	7.06	1.06	6.69
65 to 79 Years	5,014	5,014	5,311	32,920	62,750	92.2	7,272,284	20,399,001.8	0.69	6.57	1.06	6.20
80+ Years	877	877	928	5,686	10,547	15.8	2,207,219	6,531,072.5	0.40	6.48	1.06	6.13
Trimethoprim and/or Sulfamethoxazole												
00 to 17 Years	1,589,195	1,589,195	1,733,383	21,204,402	191,728,251	58,820.1	22,893,032	52,714,089.6	69.42	13.34	1.09	12.23
18 to 40 Years	2,514,432	2,514,432	2,668,370	26,229,287	55,049,361	72,666.2	36,608,729	67,173,115.9	68.68	10.43	1.06	9.83
41 to 64 Years	2,792,504	2,792,504	3,061,595	33,093,994	64,329,032	91,824.5	32,402,184	78,190,458.7	86.18	11.85	1.10	10.81
65 to 79 Years	798,205	798,205	890,916	10,214,164	19,234,457	28,368.8	7,033,283	17,801,263.5	113.49	12.80	1.12	11.46
80+ Years	296,414	296,414	334,601	3,704,455	7,864,202	10,289.6	2,074,612	5,497,070.1	142.88	12.50	1.13	11.07

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	New Users	New Episodes	Dispensings	Days Supplied	Amount Supplied	Years at Risk	Eligible Members	Member-Years	New Users / 1K Eligible Members	Days Supplied/ User	Dispensings / User	Days Supplied/ Dispensing
Female	29,976	29,976	31,037	174,513	172,245	483.6	47,462,526	125,942,628.6	0.63	5.82	1.04	5.62
Male	23,405	23,405	24,140	133,396	132,533	370.0	45,780,605	117,548,656.3	0.51	5.70	1.03	5.53
Unknown	1	1	1	7	7	0.0	20,800	42,046.2	0.05	7.00	1.00	7.00
Levofloxacin												
Female	2,621,723	2,621,723	2,763,810	23,243,844	25,595,591	64,461.7	47,384,296	120,029,838.2	55.33	8.87	1.05	8.41
Male	1,855,072	1,855,072	1,988,780	17,764,002	18,758,946	49,343.8	45,729,180	113,535,998.1	40.57	9.58	1.07	8.93
Unknown	275	275	295	2,742	2,807	7.6	20,788	41,304.0	13.23	9.97	1.07	9.29
Moxifloxacin												
Female	888,878	888,878	927,841	8,469,486	8,468,557	23,402.5	47,446,081	123,547,706.6	18.73	9.53	1.04	9.13
Male	624,374	624,374	655,632	6,053,788	6,049,125	16,737.2	45,769,078	115,948,418.9	13.64	9.70	1.05	9.23
Unknown	400	400	425	4,132	4,124	11.4	20,798	40,741.1	19.23	10.33	1.06	9.72
Norfloxacin												
Female	4,406	4,406	5,213	72,156	100,610	201.0	47,463,013	126,004,024.4	0.09	16.38	1.18	13.84
Male	1,993	1,993	2,765	54,474	68,599	152.1	45,781,030	117,600,054.4	0.04	27.33	1.39	19.70
Unknown	2	2	2	14	21	0.0	20,801	42,043.4	0.10	7.00	1.00	7.00
Oflloxacin												
Female	19,317	19,317	20,256	205,770	557,686	567.3	47,462,747	125,948,435.0	0.41	10.65	1.05	10.16
Male	12,380	12,380	13,586	156,074	331,672	433.1	45,780,828	117,564,821.7	0.27	12.61	1.10	11.49
Unknown	5	5	5	36	62	0.1	20,801	42,019.4	0.24	7.20	1.00	7.20
Penicillin V												
Female	2,297,877	2,297,877	2,401,867	20,962,776	96,981,056	58,208.3	47,415,383	118,773,437.0	48.46	9.12	1.05	8.73
Male	1,865,587	1,865,587	1,956,212	16,912,176	83,708,359	46,986.0	45,740,494	111,945,441.3	40.79	9.07	1.05	8.65
Unknown	906	906	952	7,770	31,623	21.6	20,790	39,495.7	43.58	8.58	1.05	8.16
Telithromycin												
Female	46,671	46,671	48,834	318,195	608,716	885.7	47,462,012	125,848,208.6	0.98	6.82	1.05	6.52
Male	21,559	21,559	22,542	148,788	285,398	413.5	45,780,406	117,531,239.7	0.47	6.90	1.05	6.60
Unknown	15	15	16	99	208	0.3	20,801	41,988.7	0.72	6.60	1.07	6.19
Trimethoprim and/or Sulfamethoxazole												
Female	5,255,715	5,255,715	5,604,185	54,379,568	201,211,758	150,662.3	47,312,519	110,871,777.6	111.09	10.35	1.07	9.70
Male	2,734,031	2,734,031	3,083,612	40,056,035	136,963,166	111,277.3	45,695,415	110,464,831.6	59.83	14.65	1.13	12.99
Unknown	1,004	1,004	1,068	10,699	30,378	29.6	20,786	39,388.6	48.30	10.66	1.06	10.02

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Amoxicillin												
2000	442,379	442,379	461,656	5,112,774	32,648,742	14,139.9	7,117,019	3,089,919.5	62.16	11.56	1.04	11.07
2001	793,257	793,257	825,372	9,440,345	58,485,612	26,072.1	7,369,928	5,768,102.1	107.63	11.90	1.04	11.44
2002	596,244	596,244	619,662	7,180,577	43,266,495	19,819.1	6,842,362	5,383,090.6	87.14	12.04	1.04	11.59
2003	515,378	515,378	534,278	6,170,492	37,538,001	17,026.1	6,367,580	5,008,365.1	80.94	11.97	1.04	11.55
2004	438,478	438,478	453,756	4,532,080	40,468,584	12,517.7	6,600,189	4,969,802.4	66.43	10.34	1.03	9.99
2005	495,834	495,834	512,416	5,110,520	35,405,350	14,111.2	6,638,397	5,104,515.0	74.69	10.31	1.03	9.97
2006	992,173	992,173	1,028,687	10,224,749	71,160,978	28,267.0	17,195,384	9,435,848.7	57.70	10.31	1.04	9.94
2007	1,392,211	1,392,211	1,443,158	13,991,372	94,439,953	38,695.0	20,334,547	13,704,405.8	68.47	10.05	1.04	9.69
2008	2,260,286	2,260,286	2,340,835	21,609,232	143,660,735	59,800.8	40,502,701	23,590,445.7	55.81	9.56	1.04	9.23
2009	2,964,597	2,964,597	3,065,046	28,402,494	195,408,362	78,551.8	41,072,931	30,049,433.0	72.18	9.58	1.03	9.27
2010	2,493,103	2,493,103	2,578,034	23,948,272	160,201,598	66,227.4	37,738,706	27,690,496.2	66.06	9.61	1.03	9.29
2011	2,340,329	2,340,329	2,418,052	22,491,917	148,277,471	62,182.3	35,664,206	26,338,491.3	65.62	9.61	1.03	9.30
2012	2,053,903	2,053,903	2,123,343	19,591,782	125,861,298	54,182.3	33,972,528	24,948,306.1	60.46	9.54	1.03	9.23
2013	560,316	560,316	576,439	5,282,424	34,929,201	14,591.1	24,394,415	5,651,265.3	22.97	9.43	1.03	9.16
Amoxicillin with Clavulanate												
2000	153,898	153,898	164,790	1,826,695	8,347,883	5,068.2	7,232,349	3,283,803.5	21.28	11.87	1.07	11.08
2001	304,719	304,719	324,270	3,662,793	16,429,630	10,148.6	7,686,994	6,358,144.1	39.64	12.02	1.06	11.30
2002	260,013	260,013	275,944	3,115,664	13,989,788	8,622.2	7,568,116	6,244,237.4	34.36	11.98	1.06	11.29
2003	234,204	234,204	247,698	2,785,994	13,148,873	7,704.0	7,327,295	6,044,389.1	31.96	11.90	1.06	11.25
2004	203,465	203,465	214,962	2,232,477	17,827,986	6,177.5	7,726,475	6,128,529.1	26.33	10.97	1.06	10.39
2005	230,730	230,730	243,623	2,511,256	12,473,852	6,947.3	7,880,498	6,393,237.1	29.28	10.88	1.06	10.31
2006	493,850	493,850	519,149	5,605,105	27,188,757	15,491.7	18,693,676	11,002,815.9	26.42	11.35	1.05	10.80
2007	775,926	775,926	812,004	8,524,997	39,928,675	23,551.9	22,151,941	15,658,698.2	35.03	10.99	1.05	10.50
2008	1,354,395	1,354,395	1,411,031	14,090,627	63,345,463	38,932.2	42,786,015	26,065,595.3	31.66	10.40	1.04	9.99
2009	1,844,337	1,844,337	1,916,464	19,074,379	87,154,631	52,673.5	43,832,005	33,121,877.9	42.08	10.34	1.04	9.95
2010	1,593,231	1,593,231	1,654,833	16,501,257	72,441,941	45,555.3	41,037,034	31,103,430.1	38.82	10.36	1.04	9.97
2011	1,470,986	1,470,986	1,526,627	15,219,902	64,992,626	42,014.9	39,238,038	30,000,868.7	37.49	10.35	1.04	9.97
2012	1,353,940	1,353,940	1,403,560	13,884,519	57,611,379	38,316.4	37,732,574	28,608,532.6	35.88	10.25	1.04	9.89
2013	404,987	404,987	417,618	4,076,533	16,085,921	11,238.4	27,672,729	6,463,619.8	14.63	10.07	1.03	9.76
Azithromycin												
2000	108,636	108,636	112,687	598,811	1,080,236	1,670.9	7,257,521	3,323,164.8	14.97	5.51	1.04	5.31
2001	275,369	275,369	284,548	1,480,279	2,792,004	4,125.5	7,739,646	6,436,673.4	35.58	5.38	1.03	5.20

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2002	286,032	286,032	294,551	1,503,102	2,935,714	4,183.0	7,648,318	6,307,445.5	37.40	5.26	1.03	5.10
2003	297,759	297,759	306,382	1,551,707	3,097,776	4,314.7	7,373,783	6,063,300.2	40.38	5.21	1.03	5.06
2004	237,767	237,767	245,467	1,238,950	2,656,499	3,448.3	7,714,789	6,121,327.3	30.82	5.21	1.03	5.05
2005	344,613	344,613	354,048	1,751,455	3,599,311	4,865.0	7,845,552	6,301,043.0	43.92	5.08	1.03	4.95
2006	923,863	923,863	955,448	4,968,982	9,058,921	13,817.7	18,506,713	10,701,609.3	49.92	5.38	1.03	5.20
2007	1,474,902	1,474,902	1,525,752	7,807,089	13,541,642	21,701.2	21,558,522	14,826,167.7	68.41	5.29	1.03	5.12
2008	2,733,125	2,733,125	2,818,900	14,062,932	23,943,084	39,113.7	41,560,777	24,367,505.6	65.76	5.15	1.03	4.99
2009	3,713,290	3,713,290	3,824,217	19,109,717	33,525,754	53,093.3	41,663,386	30,290,910.6	89.13	5.15	1.03	5.00
2010	2,954,546	2,954,546	3,050,356	15,224,531	26,505,107	42,312.2	37,783,652	27,587,612.2	78.20	5.15	1.03	4.99
2011	2,762,636	2,762,636	2,855,865	14,270,844	24,869,426	39,661.0	35,507,634	26,032,913.9	77.80	5.17	1.03	5.00
2012	2,425,799	2,425,799	2,506,809	12,515,260	21,721,138	34,766.1	33,670,790	24,534,979.1	72.04	5.16	1.03	4.99
2013	689,751	689,751	710,781	3,503,404	5,770,891	9,716.6	23,813,761	5,489,762.2	28.96	5.08	1.03	4.93
Cephalexin												
2000	252,467	252,467	269,837	2,706,301	13,855,366	7,529.8	7,206,286	3,218,689.1	35.03	10.72	1.07	10.03
2001	450,287	450,287	479,120	4,845,096	24,916,209	13,462.3	7,588,303	6,201,490.3	59.34	10.76	1.06	10.11
2002	398,036	398,036	422,548	4,288,540	22,363,234	11,904.0	7,343,061	5,969,839.0	54.21	10.77	1.06	10.15
2003	358,184	358,184	378,829	3,847,438	20,725,964	10,673.5	6,992,954	5,674,272.5	51.22	10.74	1.06	10.16
2004	333,571	333,571	352,112	3,235,416	22,315,392	8,981.9	7,304,178	5,675,525.8	45.67	9.70	1.06	9.19
2005	342,413	342,413	360,615	3,283,932	19,937,424	9,112.1	7,371,715	5,872,102.7	46.45	9.59	1.05	9.11
2006	565,614	565,614	596,902	5,583,949	31,621,803	15,492.5	18,162,909	10,469,417.4	31.14	9.87	1.06	9.35
2007	781,920	781,920	824,156	7,559,510	42,673,448	20,982.6	21,596,188	15,160,521.0	36.21	9.67	1.05	9.17
2008	1,208,816	1,208,816	1,273,053	11,180,022	60,230,355	31,059.6	42,325,170	25,682,785.1	28.56	9.25	1.05	8.78
2009	1,467,988	1,467,988	1,543,387	13,553,837	74,090,604	37,640.8	43,496,810	32,998,387.5	33.75	9.23	1.05	8.78
2010	1,326,220	1,326,220	1,392,388	12,257,516	67,977,563	34,020.4	40,972,114	31,167,017.6	32.37	9.24	1.05	8.80
2011	1,245,350	1,245,350	1,306,300	11,521,267	64,214,444	31,963.6	39,301,665	30,169,690.7	31.69	9.25	1.05	8.82
2012	1,135,047	1,135,047	1,190,894	10,491,682	56,530,951	29,111.2	37,859,746	28,808,372.6	29.98	9.24	1.05	8.81
2013	239,438	239,438	250,551	2,163,323	11,293,576	5,999.8	27,806,536	6,514,161.2	8.61	9.04	1.05	8.63
Ciprofloxacin												
2000	82,029	82,029	89,195	789,180	1,514,637	2,202.5	7,257,735	3,328,927.4	11.30	9.62	1.09	8.85
2001	188,614	188,614	203,253	1,784,052	3,420,422	4,972.5	7,766,392	6,511,121.5	24.29	9.46	1.08	8.78
2002	199,457	199,457	213,476	1,830,428	3,532,641	5,099.0	7,749,191	6,449,526.6	25.74	9.18	1.07	8.57
2003	188,436	188,436	200,491	1,670,345	3,263,114	4,645.6	7,540,162	6,261,152.8	24.99	8.86	1.06	8.33
2004	180,861	180,861	192,909	1,608,450	4,541,748	4,462.5	7,966,288	6,356,183.9	22.70	8.89	1.07	8.34

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2005	212,179	212,179	224,937	1,802,085	3,550,049	5,003.6	8,117,688	6,619,135.9	26.14	8.49	1.06	8.01
2006	421,240	421,240	448,175	3,755,541	7,443,978	10,438.9	18,934,238	11,246,477.5	22.25	8.92	1.06	8.38
2007	628,628	628,628	668,454	5,557,619	11,061,350	15,457.9	22,413,588	15,997,124.2	28.05	8.84	1.06	8.31
2008	1,108,452	1,108,452	1,171,441	9,494,675	18,920,274	26,409.0	43,210,646	26,536,896.1	25.65	8.57	1.06	8.11
2009	1,367,706	1,367,706	1,442,056	11,683,777	23,439,745	32,483.4	44,394,817	33,854,622.8	30.81	8.54	1.05	8.10
2010	1,257,774	1,257,774	1,324,889	10,688,843	21,331,699	29,709.0	41,872,716	32,022,312.8	30.04	8.50	1.05	8.07
2011	1,167,355	1,167,355	1,227,959	9,886,154	19,755,655	27,473.0	40,194,043	31,013,707.2	29.04	8.47	1.05	8.05
2012	1,058,730	1,058,730	1,112,646	8,895,676	17,793,567	24,711.8	38,736,885	29,613,552.6	27.33	8.40	1.05	8.00
2013	231,303	231,303	242,149	1,904,035	3,815,744	5,284.7	28,390,888	6,656,263.2	8.15	8.23	1.05	7.86
Clarithromycin												
2000	25,099	25,099	26,708	285,414	849,598	789.6	7,273,187	3,362,789.2	3.45	11.37	1.06	10.69
2001	58,822	58,822	62,286	664,982	2,008,322	1,837.9	7,825,759	6,623,613.4	7.52	11.30	1.06	10.68
2002	60,295	60,295	63,188	663,284	2,012,365	1,830.3	7,920,944	6,673,654.2	7.61	11.00	1.05	10.50
2003	62,030	62,030	64,896	686,219	2,105,451	1,893.3	7,819,545	6,581,916.9	7.93	11.06	1.05	10.57
2004	45,359	45,359	47,314	506,596	2,302,821	1,397.2	8,335,215	6,758,144.7	5.44	11.17	1.04	10.71
2005	48,076	48,076	50,542	545,161	1,667,350	1,502.7	8,574,301	7,116,478.6	5.61	11.34	1.05	10.79
2006	130,855	130,855	137,492	1,515,689	4,002,272	4,181.8	19,500,925	11,880,794.2	6.71	11.58	1.05	11.02
2007	207,691	207,691	217,897	2,360,089	5,994,611	6,511.9	23,234,412	16,886,928.5	8.94	11.36	1.05	10.83
2008	335,514	335,514	350,204	3,643,714	9,218,235	10,052.8	44,360,954	27,913,638.8	7.56	10.86	1.04	10.40
2009	446,587	446,587	464,662	4,843,201	12,489,783	13,356.0	46,032,781	35,772,763.2	9.70	10.84	1.04	10.42
2010	363,831	363,831	378,415	4,017,677	10,093,306	11,076.6	44,021,735	34,368,640.0	8.26	11.04	1.04	10.62
2011	296,555	296,555	308,338	3,314,129	8,449,641	9,132.3	42,741,667	33,719,138.3	6.94	11.18	1.04	10.75
2012	241,039	241,039	251,029	2,763,670	6,989,650	7,614.6	41,600,717	32,545,863.3	5.79	11.47	1.04	11.01
2013	71,490	71,490	73,583	765,931	1,875,993	2,107.6	31,193,327	7,355,793.0	2.29	10.71	1.03	10.41
Clindamycin												
2000	32,697	32,697	35,706	320,824	1,791,182	896.0	7,270,880	3,356,034.9	4.50	9.81	1.09	8.99
2001	66,329	66,329	72,246	656,314	3,677,011	1,830.8	7,817,430	6,614,456.1	8.48	9.89	1.09	9.08
2002	68,160	68,160	73,995	670,186	3,852,762	1,868.3	7,906,410	6,656,768.4	8.62	9.83	1.09	9.06
2003	72,343	72,343	78,139	709,745	4,425,698	1,975.7	7,799,242	6,557,442.7	9.28	9.81	1.08	9.08
2004	78,269	78,269	84,449	759,989	6,786,267	2,112.8	8,306,522	6,717,923.0	9.42	9.71	1.08	9.00
2005	95,527	95,527	102,742	906,281	5,852,321	2,519.9	8,516,307	7,040,407.5	11.22	9.49	1.08	8.82
2006	177,062	177,062	190,968	1,668,983	9,579,679	4,650.1	19,383,627	11,748,084.0	9.13	9.43	1.08	8.74
2007	256,677	256,677	276,977	2,358,175	13,101,741	6,577.6	23,076,008	16,731,631.7	11.12	9.19	1.08	8.51

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2008	451,515	451,515	486,741	4,008,546	21,512,700	11,193.0	44,157,360	27,689,618.6	10.23	8.88	1.08	8.24
2009	588,207	588,207	632,546	5,216,504	27,753,131	14,560.3	45,750,304	35,456,193.7	12.86	8.87	1.08	8.25
2010	548,032	548,032	589,032	4,909,409	26,167,168	13,691.1	43,651,120	33,955,162.0	12.55	8.96	1.07	8.33
2011	534,343	534,343	572,915	4,792,704	25,996,878	13,356.1	42,252,106	33,187,553.4	12.65	8.97	1.07	8.37
2012	509,422	509,422	545,151	4,573,609	24,800,521	12,738.0	40,973,738	31,878,340.8	12.43	8.98	1.07	8.39
2013	111,052	111,052	118,605	976,735	4,920,158	2,720.4	30,576,978	7,201,822.4	3.63	8.80	1.07	8.24
Erythromycin												
2000	116,561	116,561	123,452	1,450,089	5,887,620	4,000.6	7,248,442	3,305,422.9	16.08	12.44	1.06	11.75
2001	183,029	183,029	193,241	2,327,711	9,123,192	6,417.6	7,731,124	6,459,985.3	23.67	12.72	1.06	12.05
2002	127,221	127,221	135,084	1,679,860	6,437,811	4,630.7	7,721,479	6,447,380.4	16.48	13.20	1.06	12.44
2003	94,974	94,974	101,353	1,320,676	5,145,258	3,641.1	7,579,290	6,338,516.2	12.53	13.91	1.07	13.03
2004	69,283	69,283	74,577	983,911	6,555,136	2,709.5	8,085,000	6,511,832.2	8.57	14.20	1.08	13.19
2005	67,783	67,783	73,134	932,970	3,813,752	2,557.9	8,321,469	6,872,452.2	8.15	13.76	1.08	12.76
2006	72,258	72,258	79,515	1,093,182	4,174,169	3,013.6	19,257,566	11,669,316.4	3.75	15.13	1.10	13.75
2007	79,015	79,015	87,561	1,170,731	4,546,018	3,239.4	23,064,542	16,785,027.0	3.43	14.82	1.11	13.37
2008	103,756	103,756	115,933	1,504,725	5,440,516	4,167.8	44,317,276	27,973,547.9	2.34	14.50	1.12	12.98
2009	109,947	109,947	123,349	1,614,998	5,490,494	4,492.1	46,158,633	36,039,631.1	2.38	14.69	1.12	13.09
2010	88,558	88,558	99,906	1,351,363	4,699,798	3,763.1	44,360,419	34,797,032.9	2.00	15.26	1.13	13.53
2011	75,526	75,526	85,833	1,180,539	4,026,917	3,288.0	43,196,327	34,243,173.4	1.75	15.63	1.14	13.75
2012	57,171	57,171	65,469	938,927	3,180,056	2,616.4	42,109,425	33,091,346.6	1.36	16.42	1.15	14.34
2013	11,770	11,770	13,036	167,455	555,819	465.3	31,740,601	7,495,529.8	0.37	14.23	1.11	12.85
Gemifloxacin												
2000	0	0	0	0	0	0.0	7,278,111	3,374,478.6	0.00	---	---	---
2001	0	0	0	0	0	0.0	7,850,755	6,677,703.2	0.00	---	---	---
2002	0	0	0	0	0	0.0	7,997,059	6,773,247.6	0.00	---	---	---
2003	0	0	0	0	0	0.0	7,941,850	6,723,049.5	0.00	---	---	---
2004	194	194	208	1,343	1,341	3.8	8,502,987	6,933,791.5	0.02	6.92	1.07	6.46
2005	2,206	2,206	2,344	15,080	15,046	41.8	8,766,011	7,313,354.8	0.25	6.84	1.06	6.43
2006	3,929	3,929	4,092	24,748	24,841	68.7	19,698,175	12,105,693.7	0.20	6.30	1.04	6.05
2007	6,870	6,870	7,086	40,336	40,012	111.6	23,529,322	17,245,349.2	0.29	5.87	1.03	5.69
2008	14,540	14,540	14,904	78,358	77,440	217.2	44,813,910	28,469,998.0	0.32	5.39	1.03	5.26
2009	9,239	9,239	9,500	51,431	50,772	142.4	46,685,337	36,567,534.3	0.20	5.57	1.03	5.41
2010	6,305	6,305	6,488	36,448	35,896	100.9	44,915,045	35,342,660.7	0.14	5.78	1.03	5.62

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2011	7,360	7,360	7,628	43,282	42,788	119.9	43,760,401	34,791,373.2	0.17	5.88	1.04	5.67
2012	2,220	2,220	2,379	13,834	13,633	38.7	42,669,510	33,616,841.8	0.05	6.23	1.07	5.82
2013	519	519	549	3,056	3,016	8.6	32,157,800	7,598,254.9	0.02	5.89	1.06	5.57
Levofloxacin												
2000	31,336	31,336	34,470	317,254	315,653	886.7	7,273,000	3,362,106.4	4.31	10.12	1.10	9.20
2001	85,372	85,372	92,593	852,152	848,997	2,375.4	7,819,309	6,610,060.5	10.92	9.98	1.08	9.20
2002	79,994	79,994	86,535	773,162	773,925	2,154.6	7,895,033	6,640,967.7	10.13	9.67	1.08	8.93
2003	75,066	75,066	80,869	724,216	775,772	2,018.8	7,784,678	6,548,420.9	9.64	9.65	1.08	8.96
2004	83,002	83,002	89,955	823,823	1,889,208	2,297.9	8,296,575	6,711,133.3	10.00	9.93	1.08	9.16
2005	82,755	82,755	89,829	759,935	1,776,914	2,118.3	8,510,919	7,044,053.0	9.72	9.18	1.09	8.46
2006	221,875	221,875	238,742	2,256,091	2,302,848	6,267.3	19,451,031	11,816,704.5	11.41	10.17	1.08	9.45
2007	376,469	376,469	403,388	3,603,199	3,683,336	10,009.3	23,092,449	16,718,568.6	16.30	9.57	1.07	8.93
2008	730,004	730,004	774,113	6,482,935	6,645,942	18,009.1	44,073,920	27,487,407.5	16.56	8.88	1.06	8.37
2009	826,803	826,803	872,097	7,350,328	7,594,221	20,381.5	45,507,566	35,111,444.3	18.17	8.89	1.05	8.43
2010	584,596	584,596	616,170	5,227,476	5,431,847	14,484.3	43,334,033	33,650,890.5	13.49	8.94	1.05	8.48
2011	495,889	495,889	524,508	4,516,572	4,716,140	12,517.6	42,031,525	33,015,454.3	11.80	9.11	1.06	8.61
2012	611,339	611,339	647,488	5,607,150	5,830,327	15,543.2	40,872,003	31,751,388.8	14.96	9.17	1.06	8.66
2013	192,570	192,570	202,128	1,716,295	1,772,212	4,749.2	30,358,410	7,138,539.9	6.34	8.91	1.05	8.49
Moxifloxacin												
2000	1,655	1,655	1,778	15,748	15,822	43.8	7,278,021	3,374,126.6	0.23	9.52	1.07	8.86
2001	12,033	12,033	12,672	109,647	109,440	304.6	7,848,939	6,671,059.4	1.53	9.11	1.05	8.65
2002	33,589	33,589	35,575	331,167	328,709	918.8	7,983,417	6,746,790.5	4.21	9.86	1.06	9.31
2003	51,458	51,458	54,481	515,429	511,845	1,426.9	7,898,689	6,659,332.4	6.51	10.02	1.06	9.46
2004	36,771	36,771	39,163	377,554	383,486	1,045.0	8,417,229	6,838,047.5	4.37	10.27	1.07	9.64
2005	55,938	55,938	59,237	555,355	555,752	1,536.7	8,658,445	7,191,534.5	6.46	9.93	1.06	9.38
2006	102,895	102,895	108,314	1,051,133	1,050,190	2,907.2	19,568,122	11,947,326.1	5.26	10.22	1.05	9.70
2007	164,883	164,883	172,921	1,635,856	1,634,743	4,523.1	23,318,945	16,984,071.2	7.07	9.92	1.05	9.46
2008	265,203	265,203	276,828	2,510,305	2,507,417	6,939.2	44,477,298	28,037,421.5	5.96	9.47	1.04	9.07
2009	299,509	299,509	311,410	2,809,515	2,807,255	7,759.3	46,194,264	35,982,129.7	6.48	9.38	1.04	9.02
2010	217,025	217,025	226,541	2,052,440	2,051,536	5,670.1	44,275,443	34,658,403.3	4.90	9.46	1.04	9.06
2011	172,033	172,033	179,345	1,612,634	1,612,416	4,451.5	43,057,824	34,065,959.6	4.00	9.37	1.04	8.99
2012	81,504	81,504	85,548	774,817	775,286	2,139.6	41,951,350	32,929,493.6	1.94	9.51	1.05	9.06
2013	19,156	19,156	20,085	175,806	177,909	485.3	31,560,987	7,451,170.7	0.61	9.18	1.05	8.75

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Norfloxacin												
2000	367	367	410	4,762	7,306	13.2	7,277,988	3,374,255.6	0.05	12.98	1.12	11.61
2001	465	465	521	5,778	9,395	16.0	7,850,370	6,677,127.0	0.06	12.43	1.12	11.09
2002	331	331	356	3,739	6,163	10.3	7,996,324	6,772,418.2	0.04	11.30	1.08	10.50
2003	187	187	217	3,631	4,577	10.0	7,940,935	6,722,135.8	0.02	19.42	1.16	16.73
2004	127	127	151	2,002	2,652	5.6	8,502,024	6,932,869.2	0.01	15.76	1.19	13.26
2005	121	121	136	1,598	2,536	4.4	8,765,268	7,313,933.5	0.01	13.21	1.12	11.75
2006	449	449	586	8,669	11,450	24.3	19,699,186	12,107,724.3	0.02	19.31	1.31	14.79
2007	712	712	838	12,247	15,793	34.0	23,534,142	17,252,064.7	0.03	17.20	1.18	14.61
2008	954	954	1,190	17,357	22,814	48.4	44,823,760	28,484,572.0	0.02	18.19	1.25	14.59
2009	841	841	1,054	16,819	22,071	47.1	46,703,860	36,589,642.0	0.02	20.00	1.25	15.96
2010	608	608	823	17,143	21,583	47.8	44,935,843	35,363,921.9	0.01	28.20	1.35	20.83
2011	583	583	817	15,380	20,060	43.1	43,781,790	34,814,601.3	0.01	26.38	1.40	18.82
2012	549	549	743	15,020	19,509	42.0	42,692,032	33,638,063.2	0.01	27.36	1.35	20.22
2013	107	107	138	2,499	3,322	6.9	32,176,312	7,602,793.6	0.00	23.36	1.29	18.11
Ofloxacin												
2000	1,952	1,952	2,124	20,957	39,936	58.2	7,277,674	3,373,386.5	0.27	10.74	1.09	9.87
2001	3,345	3,345	3,546	36,383	72,390	100.5	7,848,845	6,674,304.3	0.43	10.88	1.06	10.26
2002	2,516	2,516	2,637	27,149	53,973	75.0	7,992,429	6,767,739.3	0.31	10.79	1.05	10.30
2003	1,907	1,907	2,034	21,239	43,064	58.6	7,935,621	6,716,543.0	0.24	11.14	1.07	10.44
2004	1,433	1,433	1,519	16,350	245,297	45.0	8,495,786	6,926,632.1	0.17	11.41	1.06	10.76
2005	1,379	1,379	1,550	16,050	31,660	44.5	8,758,585	7,307,388.0	0.16	11.64	1.12	10.35
2006	2,567	2,567	2,731	28,777	56,365	79.5	19,692,765	12,101,188.8	0.13	11.21	1.06	10.54
2007	2,912	2,912	3,112	33,122	64,046	91.5	23,526,600	17,244,350.1	0.12	11.37	1.07	10.64
2008	3,525	3,525	3,713	38,120	73,397	105.3	44,815,158	28,475,905.8	0.08	10.81	1.05	10.27
2009	3,667	3,667	3,904	42,708	78,090	118.2	46,694,367	36,580,038.8	0.08	11.65	1.06	10.94
2010	2,897	2,897	3,105	34,108	58,125	94.5	44,925,407	35,353,568.4	0.06	11.77	1.07	10.98
2011	2,078	2,078	2,234	26,563	43,864	73.4	43,771,098	34,804,370.5	0.05	12.78	1.08	11.89
2012	1,267	1,267	1,363	17,481	24,537	48.4	42,681,701	33,628,536.0	0.03	13.80	1.08	12.83
2013	257	257	275	2,873	4,678	8.0	32,170,315	7,601,324.4	0.01	11.18	1.07	10.45
Penicillin V												
2000	110,117	110,117	116,076	1,080,190	5,410,894	3,004.1	7,254,275	3,311,147.6	15.18	9.81	1.05	9.31
2001	221,400	221,400	232,521	2,198,916	10,804,760	6,106.3	7,738,876	6,459,972.1	28.61	9.93	1.05	9.46

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2002	197,552	197,552	207,879	1,999,046	9,694,022	5,547.7	7,694,639	6,394,545.8	25.67	10.12	1.05	9.62
2003	177,661	177,661	186,190	1,787,888	8,837,982	4,959.5	7,494,584	6,222,292.6	23.71	10.06	1.05	9.60
2004	152,555	152,555	159,395	1,439,538	8,562,323	3,992.7	7,936,274	6,341,335.9	19.22	9.44	1.04	9.03
2005	161,320	161,320	168,283	1,491,223	7,656,777	4,134.7	8,115,512	6,641,060.7	19.88	9.24	1.04	8.86
2006	246,802	246,802	258,348	2,296,235	11,429,034	6,375.4	18,970,888	11,335,759.6	13.01	9.30	1.05	8.89
2007	322,717	322,717	338,751	2,934,228	14,313,760	8,156.4	22,643,274	16,300,158.1	14.25	9.09	1.05	8.66
2008	481,564	481,564	504,527	4,169,323	19,603,489	11,599.2	43,711,562	27,264,494.3	11.02	8.66	1.05	8.26
2009	580,238	580,238	607,624	5,034,377	23,629,535	13,996.0	45,323,013	35,065,645.9	12.80	8.68	1.05	8.29
2010	520,958	520,958	543,752	4,528,059	21,404,259	12,576.6	43,273,947	33,622,624.3	12.04	8.69	1.04	8.33
2011	480,639	480,639	500,890	4,198,607	19,520,471	11,654.8	41,928,464	32,909,776.1	11.46	8.74	1.04	8.38
2012	407,601	407,601	424,329	3,534,365	16,205,159	9,807.7	40,713,705	31,705,815.0	10.01	8.67	1.04	8.33
2013	103,246	103,246	110,466	1,190,727	3,648,573	3,304.7	30,498,159	7,183,746.0	3.39	11.53	1.07	10.78
Telithromycin												
2000	0	0	0	0	0	0.0	7,278,111	3,374,478.6	0.00	---	---	---
2001	0	0	0	0	0	0.0	7,850,755	6,677,703.2	0.00	---	---	---
2002	0	0	0	0	0	0.0	7,997,059	6,773,247.6	0.00	---	---	---
2003	0	0	0	0	0	0.0	7,941,850	6,723,049.5	0.00	---	---	---
2004	12,234	12,234	12,842	78,531	146,734	219.8	8,502,724	6,931,655.4	1.44	6.42	1.05	6.12
2005	23,906	23,906	24,791	146,786	281,732	408.2	8,753,917	7,289,671.2	2.73	6.14	1.04	5.92
2006	24,437	24,437	25,250	160,126	307,601	443.4	19,674,115	12,072,902.3	1.24	6.55	1.03	6.34
2007	6,210	6,210	6,469	45,275	88,880	125.4	23,495,005	17,211,786.7	0.26	7.29	1.04	7.00
2008	667	667	782	9,724	18,380	27.2	44,785,909	28,450,995.6	0.01	14.58	1.17	12.43
2009	316	316	437	7,772	14,402	21.8	46,671,800	36,562,012.8	0.01	24.59	1.38	17.78
2010	209	209	325	7,498	14,507	21.4	44,908,807	35,340,275.4	0.00	35.88	1.56	23.07
2011	146	146	263	6,018	11,628	17.2	43,757,390	34,793,141.2	0.00	41.22	1.80	22.88
2012	105	105	203	4,941	9,640	14.0	42,670,766	33,619,517.9	0.00	47.06	1.93	24.34
2013	15	15	30	411	818	1.2	32,168,831	7,600,999.5	0.00	27.40	2.00	13.70
Trimethoprim and/or Sulfamethoxazole												
2000	201,491	201,491	214,595	2,356,523	8,065,829	6,521.9	7,211,717	3,245,312.0	27.94	11.70	1.07	10.98
2001	335,349	335,349	356,831	3,994,441	13,886,992	11,049.2	7,637,290	6,294,881.7	43.91	11.91	1.06	11.19
2002	251,580	251,580	269,340	3,037,838	10,147,936	8,403.1	7,499,015	6,180,742.1	33.55	12.08	1.07	11.28
2003	209,918	209,918	226,981	2,607,722	8,806,047	7,212.5	7,269,554	5,998,267.2	28.88	12.42	1.08	11.49
2004	192,891	192,891	209,891	2,301,232	9,946,901	6,375.1	7,695,976	6,100,339.6	25.06	11.93	1.09	10.96

Table 4: Summary of Incident Antibiotic Use in the Mini-Sentinel Distributed Database between January 1, 2000 and March 31, 2013, by Drug Product and Year

	New Users	New Episodes	Dispensings	Days Supplied	Amount Supplied	Years at Risk	Eligible Members	Member-Years	New Users / 1K Eligible Members	Days Supplied/User	Dispensings / User	Days Supplied/Dispensing
2005	220,341	220,341	237,475	2,515,364	9,538,888	6,963.2	7,856,088	6,375,681.4	28.05	11.42	1.08	10.59
2006	368,151	368,151	404,124	4,731,568	17,257,909	13,112.3	18,694,868	11,050,207.3	19.69	12.85	1.10	11.71
2007	537,493	537,493	589,894	6,707,420	24,736,538	18,603.5	22,246,291	15,882,439.6	24.16	12.48	1.10	11.37
2008	980,775	980,775	1,074,675	11,780,133	42,653,098	32,708.0	43,106,177	26,530,885.4	22.75	12.01	1.10	10.96
2009	1,256,213	1,256,213	1,370,032	14,824,267	53,712,943	41,150.3	44,381,557	33,918,942.0	28.30	11.80	1.09	10.82
2010	1,145,853	1,145,853	1,249,435	13,444,013	48,512,935	37,316.7	41,924,054	32,128,139.7	27.33	11.73	1.09	10.76
2011	1,079,472	1,079,472	1,175,439	12,540,209	44,421,399	34,796.9	40,291,024	31,165,697.6	26.79	11.62	1.09	10.67
2012	997,610	997,610	1,081,660	11,319,199	38,976,984	31,417.0	38,859,360	29,768,369.8	25.67	11.35	1.08	10.46
2013	213,613	213,613	228,493	2,286,373	7,540,903	6,339.6	28,708,610	6,736,092.4	7.44	10.70	1.07	10.01

Appendix A: List of Generic Names Included in this Request

Generic Name	Brand Name
AZITHROMYCIN	ZITHROMAX
AZITHROMYCIN	ZITHROMAX TRI-PAK
AZITHROMYCIN	ZMAX PEDIATRIC
AZITHROMYCIN	ZMAX
AZITHROMYCIN	AZITHROMYCIN
AMOXICILLIN	TRIMOX
AMOXICILLIN	TRIMOX 125
AMOXICILLIN	TRIMOX 250
AMOXICILLIN	AMOXIL
AMOXICILLIN	AMOXICILLIN
AMOXICILLIN	MOXATAG
AMOXICILLIN	WYMOX
AMOXICILLIN	AMOXIL
AMOXICILLIN	TRIMOX
AMOXICILLIN	DISPERMOX
AMOXICILLIN/POTASSIUM CLAV	AUGMENTIN
AMOXICILLIN/POTASSIUM CLAV	AUGMENTIN ES-600
AMOXICILLIN/POTASSIUM CLAV	AUGMENTIN XR
AMOXICILLIN/POTASSIUM CLAV	AMOX TR-POTASSIUM CLAVULANATE
AMOXICILLIN/POTASSIUM CLAV	AMOXICILLIN-CLAVULANATE ER
CIPROFLOXACIN	CIPRO
CIPROFLOXACIN	CIPROFLOXACIN HCL
CIPROFLOXACIN HCL	CIPRO
CIPROFLOXACIN HCL	CIPROFLOXACIN HCL
CIPROFLOXACIN HCL	PROQUIN XR
CIPROFLOXACIN/CIPROFLOXA HCL	CIPRO XR
CIPROFLOXACIN/CIPROFLOXA HCL	CIPROFLOXACIN ER
LEVOFLOXACIN	LEVAQUIN
LEVOFLOXACIN	LEVOFLOXACIN
GEMIFLOXACIN MESYLATE	FACTIVE
MOXIFLOXACIN HCL	AVELOX ABC PACK
MOXIFLOXACIN HCL	AVELOX
NORFLOXACIN	NOROXIN
OFLOXACIN	FLOXIN
OFLOXACIN	OFLOXACIN
CLINDAMYCIN HCL	CLEOCIN HCL
CLINDAMYCIN HCL	CLINDAMYCIN HCL
CLINDAMYCIN PALMITATE HCL	CLEOCIN PALMITATE
CLINDAMYCIN PALMITATE HCL	CLINDAMYCIN PALMITATE HCL
CLINDAMYCIN PALMITATE HCL	CLINDAMYCIN PEDIATRIC
CEPHALEXIN	CEPHALEXIN
CEPHALEXIN	KEFLEX
CEPHALEXIN	ED A-CEPH
CEPHALEXIN	PANIXINE
CEPHALEXIN HCL	KEFTAB
CEPHALEXIN HCL	KEFTAB K-PAK
PENICILLIN V POTASSIUM	VEETIDS 250
PENICILLIN V POTASSIUM	VEETIDS 500
PENICILLIN V POTASSIUM	VEETIDS 125
PENICILLIN V POTASSIUM	BEEPEN VK
PENICILLIN V POTASSIUM	BEEPEN-VK
PENICILLIN V POTASSIUM	PENICILLIN V POTASSIUM
PENICILLIN V POTASSIUM	PEN-VEE K
ERYTHROMYCIN BASE	E-MYCIN
ERYTHROMYCIN BASE	PCE
ERYTHROMYCIN BASE	ERYTHROMYCIN
ERYTHROMYCIN BASE	ERY-TAB
ERYTHROMYCIN BASE	ERYTHROMYCIN BASE
ERYTHROMYCIN BASE	ERYC
ERYTHROMYCIN ESTOLATE	ERYTHROMYCIN ESTOLATE
ERYTHROMYCIN ETHYLSUCCINATE	ERYTHROMYCIN ETHYLSUCCINATE
ERYTHROMYCIN ETHYLSUCCINATE	ERYPED 200
ERYTHROMYCIN ETHYLSUCCINATE	ERYPED 400
ERYTHROMYCIN ETHYLSUCCINATE	ERYPED
ERYTHROMYCIN ETHYLSUCCINATE	E.E.S. 200
ERYTHROMYCIN ETHYLSUCCINATE	E.E.S. 400
ERYTHROMYCIN ETHYLSUCCINATE	E.E.S.
ERYTHROMYCIN STEARATE	ERYTHROCIN STEARATE
ERYTHROMYCIN STEARATE	ERYTHROMYCIN STEARATE
ERYTHROMYCIN STEARATE	ERYTHROCOT
ERYTHROMYCIN STEARATE	MY-E FILM
SULFAMETHOXAZOLE	GANTANOL
SULFAMETHOXAZOLE/TRIMETHOPRIM	BACTRIM
SULFAMETHOXAZOLE/TRIMETHOPRIM	BACTRIM DS
SULFAMETHOXAZOLE/TRIMETHOPRIM	SULFAMETHOXAZOLE-TRIMETHOPRIM
SULFAMETHOXAZOLE/TRIMETHOPRIM	SULFAMETHOXAZOLE/TRIMETHOPRIM
SULFAMETHOXAZOLE/TRIMETHOPRIM	SEPTRA
SULFAMETHOXAZOLE/TRIMETHOPRIM	SULFATRIM
SULFAMETHOXAZOLE/TRIMETHOPRIM	BETHAPRIM
SULFAMETHOXAZOLE/TRIMETHOPRIM	SULFATRIM S/S
SULFAMETHOXAZOLE/TRIMETHOPRIM	SULTREX
SULFAMETHOXAZOLE/TRIMETHOPRIM	SEPTRA DS
TRIMETHOPRIM	TRIMPEX

TRIMETHOPRIM	TRIMETHOPRIM
TRIMETHOPRIM	PROLOPRIM
TRIMETHOPRIM	PRIMSOL
CLARITHROMYCIN	CLARITHROMYCIN
CLARITHROMYCIN	BIAXIN
CLARITHROMYCIN	BIAXIN XL
CLARITHROMYCIN	CLARITHROMYCIN ER
TELITHROMYCIN	KETEK
TELITHROMYCIN	KETEK PAK

Appendix B: Modular Program Specifications for Query ID to09y05_mpr_wp22_v01 - Antibiotic Use

Modular Program #3 was used to investigate the use of several antibiotics among individuals in the Mini-Sentinel Distributed Database. No event was queried. In total, 16 different scenarios were examined in this request with differing drugs of interest. See below for a description of each of these scenarios.

	Query Period	January 1, 2000 - March 31, 2013							
	Coverage Requirement	Drug and Medical							
	Enrollment Requirement	183 days							
	Age Stratifications	0-17, 18-40, 41-64, 65-79, 80+ years							
	Enrollment Gap	45 Days							
Scenario	Incident exposure	Incident w/ respect to:	Drug/Exposure				Event/Outcome		
			Minimum Days Supplied	Minimum Episode Duration	Washout (days)	Cohort Definition		Episode Gap	Exposure Extension Period
1	Azithromycin	Azithromycin	0	0	183	01 (Sing)	10	0	None
2	Amoxicillin	Amoxicillin	0	0	183	01 (Sing)	10	0	None
3	Amoxicillin with Clavulanate	Amoxicillin with Clavulanate	0	0	183	01 (Sing)	10	0	None
4	Ciprofloxacin	Ciprofloxacin	0	0	183	01 (Sing)	10	0	None
5	Levofloxacin	Levofloxacin	0	0	183	01 (Sing)	10	0	None
6	Clindamycin	Clindamycin	0	0	183	01 (Sing)	10	0	None
7	Cephalexin	Cephalexin	0	0	183	01 (Sing)	10	0	None
8	Penicillin V	Penicillin V	0	0	183	01 (Sing)	10	0	None
9	Gemifloxacin	Gemifloxacin	0	0	183	01 (Sing)	10	0	None
10	Moxifloxacin	Moxifloxacin	0	0	183	01 (Sing)	10	0	None
11	Norfloxacin	Norfloxacin	0	0	183	01 (Sing)	10	0	None
12	Erythromycin	Erythromycin	0	0	183	01 (Sing)	10	0	None
13	Trimethoprim and/or Sulfamethoxazole	Trimethoprim and Sulfamethoxazole	0	0	183	01 (Sing)	10	0	None
14	Clarithromycin	Clarithromycin	0	0	183	01 (Sing)	10	0	None
15	Telithromycin	Telithromycin	0	0	183	01 (Sing)	10	0	None
16	Oflloxacin	Oflloxacin	0	0	183	01 (Sing)	10	0	None

Healthcare Common Procedure Coding System (HCPCS) codes checked against "Optum 2012 HCPCS Level II Data File" provided by OptumInsight

Common Procedural Terminology, Fourth Edition (CPT-4) codes checked against "Optum 2012 Current Procedure Codes & Relative Values Data File" provided by OptumInsight