

Supplementary Appendix

This appendix has been provided by the authors to give readers additional information about their work.

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SUPPLEMENTARY APPENDIX: A protein-truncating HSD17B13 variant and protection from chronic liver disease

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Additional information on the DiscovEHR study is available at <http://www.discovehrshare.com>

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Supplementary Methods

Study Participants

Human genetics studies were conducted as part of the DiscovEHR collaboration of the Regeneron Genetics Center and the Geisinger Health System (GHS). The study was approved by the GHS Institutional Review Board. The two DiscovEHR study populations (discovery cohort and bariatric surgery cohort) originated from the first 50,726 consented participants ≥ 18 years of age from the MyCode® Community Health Initiative of GHS¹. The GHS discovery cohort consisted of 46,544 European individuals recruited from outpatient primary care and specialty clinics between 2007 and 2016, excluding all those recruited to the bariatric surgery cohort. The GHS bariatric surgery cohort consisted of 2,644 European individuals who had been referred for bariatric surgery.

Replication studies of associations with liver transaminases included 1,357 European individuals from the Dallas Heart Study and 8,526 European individuals from the Penn Medicine Biobank. The Dallas Heart Study is a probability-based population cohort study of Dallas County residents aged 30 to 65 years². The Penn Medicine Biobank includes participants recruited from the University of Pennsylvania Health System and consented for biospecimen storage, access to EHR data, and permission to recontact.

Replication studies of the associations with chronic liver disease included 517 individuals from the Dallas Liver Study (DLS) and 447 individuals from the Dallas Pediatric Liver Study (DPLS). The DLS is a biobank of patients with liver disease of non-viral etiology. Recruitment began in January 2015 and is ongoing. Participants were recruited from liver clinics at UT Southwestern and Parkland Health and Hospital System, Dallas. The biobank was approved by the UT Southwestern Institutional Review Board. Participants provided written informed consent. Participants completed a questionnaire on ethnic/racial background, medical history, lifestyle factors, and family history of liver disease and other diseases. Additional clinical information was extracted from medical records by a trained technician. We included all African American, European American, and Hispanic American patients with DNA available at the time of the present study (n=517) with controls from the Dallas Heart Study. The DPLS is a biobank of

Hispanic children recruited from pediatric liver clinics at UT Southwestern and Parkland Health and Hospital System, Dallas, and from an obesity clinic at Children’s Medical Center, Dallas. The biobank was approved by the UT Southwestern Institutional Review Board. The legal guardians of the participants provided written informed consent. Clinical information was extracted from medical records by a trained technician. As more than 95% of the patients were Hispanic Americans, we only included Hispanic American patients and controls in the present study (n=205 patients and 234 controls).

Clinical Measurements and Chronic Liver Disease Definitions in the Discovery Cohort

Clinical laboratory measurements for ALT and AST were extracted from EHRs of participants from the GHS discovery cohort and bariatric surgery cohort. Median ALT and AST values were calculated for all participants with two or more measurements, and were $\log_{10}$ -transformed to normalize the distribution prior to association analyses.

International Classification of Diseases, Ninth Revision (ICD-9) disease diagnosis codes were extracted from EHRs and collapsed into clinical disease categories for non-viral, nonalcoholic (ICD-9 571.40, 571.41, 571.49, 571.5, 571.8, 571.9) or alcoholic (ICD-9 571.0, 571.1, 571.2, 571.3) liver disease case definitions. Additional case definitions based on single diagnosis codes included: alcoholic cirrhosis (ICD-9 571.2), nonalcoholic cirrhosis (ICD-9 571.5), and HCC (ICD-9 155.0). For these case definitions, a common control group without liver disease (“no liver disease”) was defined as participants with no case criteria or single-encounter or problem-list diagnosis code indicating any type of liver disease.

Liver Histopathologic Phenotype Definitions in the Bariatric Surgery Cohort

The GHS bariatric surgery cohort consisted of 2,644 individuals of European descent. Wedge biopsies of the liver were obtained intraoperatively during bariatric surgery from 2,391 of these individuals. The biopsies were consistently obtained 10 cm to the left of falciform ligament prior to any liver retraction or surgery on the stomach. The biopsy was divided into sections, with the primary section delivered to the clinical pathologists for liver histology (fixed in 10% neutral buffered formalin and stained with hematoxylin and eosin for routine histology and Masson’s trichrome for assessment of fibrosis) and remaining sections stored within a research biobank

(frozen in RNAlater and/or liquid nitrogen). Liver histology was conducted by an experienced pathologist and subsequently re-reviewed by a second experienced pathologist using the NASH Clinical Research Network scoring system³ as follows: steatosis grade 0 (<5% parenchymal involvement), 1 (5 to <33 %), 2 (34 to <66 %), and 3 (>67 %); lobular inflammation grade 0 (no foci), grade 1 (mild, <2 foci per 200X field), grade 2 (moderate, 2-4 foci per 200X field), grade 3 (severe, >4 foci per 200X field); fibrosis Stage 0 (none), Stage 1 (perisinusoidal or periportal fibrosis), Stage 2 (perisinusoidal and periportal fibrosis), Stage 3 (bridging fibrosis), and Stage 4 (cirrhosis). These histologic diagnoses were used to defined the following phenotypes: 1) Normal: no evidence of steatosis, NASH, or fibrosis; 2) Simple steatosis: Steatosis (regardless of grade) with no evidence of NASH or fibrosis; 3) NASH: Any presence of lobular inflammation or hepatocyte ballooning (regardless of grade), or any presence of fibrosis (regardless of stage); 4) Fibrosis: Any presence of fibrosis (regardless of stage).

DNA Sample Preparation and Sequencing

In brief, exome capture was performed using NimbleGen probes according to the manufacturer's recommended protocol (Roche NimbleGen). The captured DNA was PCR amplified and quantified by qRT-PCR (Kapa Biosystems). The multiplexed samples were sequenced using 75 bp paired-end sequencing on an Illumina v4 HiSeq 2500 to a coverage depth sufficient to provide greater than 20x haploid read depth of over 85% of targeted bases in 96% of samples (approximately 80x mean haploid read depth of targeted bases). Raw sequence data from each Illumina HiSeq 2500 run were uploaded to the DNAnexus platform⁴ for sequence read alignment and variant identification. In brief, raw sequence data were converted from BCL files to sample-specific FASTQ-files, which were aligned to the human reference build GRCh37.p13 with BWA-mem⁵. Single nucleotide variants (SNV) and insertion/deletion (indel) sequence variants were identified using the Genome Analysis Toolkit⁶.

Exome-wide Association Analysis of Liver Enzymes

We tested 502,219 biallelic variants with missing data rate < 1%, Hardy-Weinberg equilibrium P-value > 1.0×10^{-6} , and minor allele frequency > 0.1% for association with transaminase levels. Log₁₀-transformed median ALT and AST were adjusted for age, age², sex, BMI, and the first four

principal components of ancestry. To account for relatedness among study participants, we also fit a genetic relatedness matrix as a random-effects covariate. Both principal components and the genetic relatedness matrix were constructed from 39,858 non-MHC markers in approximate linkage equilibrium and with minor allele frequency > 0.1%. We used linear mixed models as implemented in the GCTA package⁷ to test for association between trait residuals and single nucleotide variants. All P-values reported in the text correspond to the allelic model.

We attempted to replicate associations in the GHS discovery cohort in three separate European-ancestry cohorts: the GHS bariatric surgery cohort, the Dallas Heart Study, and the Penn Medicine Biobank (described above). ALT and AST measures from the GHS bariatric surgery cohort and from Penn Medicine Biobank were $\log_{10}$ -transformed and adjusted for age, age², sex, BMI, and the first four principal components of ancestry. Genetic relatedness matrices were included as random-effects covariates, and analysis was performed using linear mixed models in GCTA. In the Dallas Heart study, $\log_{10}$ -transformed ALT and AST measures were adjusted for age, age², sex, BMI, and the first ten principal components of ancestry, and analysis was performed using linear regression implemented in PLINK. Summary statistics for the three replication cohorts were meta-analyzed using METAL⁸ (replication meta-analysis). Summary statistics for the discovery cohort and the three replication cohorts were meta-analyzed similarly (joint meta-analysis).

Association Analysis with Chronic Liver Disease Phenotypes

We analyzed thirteen significant and replicated single nucleotide variants from the liver enzyme ExWAS for associations with chronic liver disease phenotypes defined from the GHS discovery cohort, as described above. We used a Bonferroni significance threshold of $P < 0.05/26$ ($P < 1.92 \times 10^{-3}$) to account for the thirteen variants and two broad chronic liver disease categories (alcoholic and nonalcoholic) tested. The *HSD17B13* rs72613567 variant was further tested for association with histopathologically defined liver phenotypes from the GHS bariatric surgery cohort, as described above. Odds ratios were estimated with the use of Firth's penalized likelihood method of logistic regression after adjustment for age, age², sex, BMI, and the first four principal components of ancestry. Genotypic odds ratios were estimated for *HSD17B13* rs72613567 using the same covariates.

Odds ratios for liver disease in the DLS were estimated by logistic regression, adjusted for age, age², sex, body mass index, and self-reported ethnicity. Participants from the Dallas Heart Study with available rs72613567 genotypes were used as normal controls (n=4,279). Odds ratios in the DPLS were estimated by logistic regression.

Analysis of Genetic Interaction between *PNPLA3* rs738409 (p.I148M) and *HSD17B13* rs72613567

To evaluate the combined effect of *PNPLA3* rs738409 and *HSD17B13* rs72613567 we conducted association analyses for quantitative (ALT and AST) and binary (nonalcoholic liver disease and alcoholic liver disease) traits using linear and logistic regression, respectively, modeling main effects for both genetic variants as well as an interaction term, assuming an additive genetic model. All models were adjusted for age, age², sex, BMI, and the first four principal components of ancestry. Statistical analyses were performed using the glm function in base R.

Phenome-Wide Association Study of *HSD17B13* rs72613567

We performed a phenome-wide study of associations of *HSD17B13* rs72613567 with 405 quantitative EHR-derived anthropometric, vital sign, laboratory, electrocardiographic, echocardiographic, and bone densitometry measurements, and also with 3,168 EHR-derived clinical diagnoses. Median laboratory values for individuals with serial outpatient measures were calculated following removal of likely spurious values that were > 3 standard deviations from the intra-individual median value; maximum and minimum values were also calculated. We then calculated trait residuals for all laboratory traits after adjustment for age, age², sex, and the first four principal components of ancestry, and applied appropriate transformations prior to association analysis. ICD-9 based diagnosis codes were collapsed to hierarchical clinical disease groups and corresponding controls using a modified version of the groupings proposed by Denny et al^{9,10}. ICD-9 based diagnoses required one or more of the following: a problem list entry of the diagnosis code or an encounter diagnosis code entered for two separate clinical encounters on separate calendar days.

Analyses of association with transformed quantitative clinical measurement residuals were performed using linear regression, and analyses of association with clinical diagnoses

were performed using logistic regression adjusted for age, age², sex, and the first four principal components. Alleles were coded using both additive (0 for reference allele homozygotes, 1 for heterozygotes, and 2 for alternative allele homozygotes) and recessive (0 for reference allele homozygotes and heterozygotes, 1 for alternative allele homozygotes) models.

Software

Genetic association analyses were performed using GCTA software, version 1.25.0⁷ and PLINK, version 1.9.0. Quantile-quantile and Manhattan plots were generated using R software, version 3.2.1 (R Project for Statistical Computing). Regional association plots were generated using LocusZoom¹¹.

RNA Sequencing Studies

RNA sequencing studies were performed in histologically normal liver samples from 22 T/T homozygous, 30 T/TA heterozygous, and 17 TA/TA homozygous carriers of the HSD17B13 rs72613567 splice variant. RNA quality and concentration was evaluated by running total RNA on an Agilent RNA Nano Bioanalyzer chip; all samples had an RNA integrity number (RIN) greater than 8. Polyadenylated RNA transcripts were isolated using two rounds of enrichment with oligo(dT)25 beads (Thermo Fisher Scientific). Samples were purified and concentrated with RNAClean XP beads (Beckman Coulter) and heat-fragmented to approximately 140 base pairs. First-strand synthesis was completed with SuperScript III reverse transcriptase (Thermo Fisher Scientific) using random hexamers; dTTP was replaced with dUTP during second-strand synthesis. Samples were processed according to our standard DNA library preparation method referenced above for exomes with the addition of a uracil DNA-glycosylase step to generate strand-specific sequencing libraries.

Identification and Validation of Novel *HSD17B13* Transcripts

Reads were mapped to the Human.B38 using ArrayStudio® software (OmicSoft®, Cary, NC) allowing two mismatches. Two approaches were employed to identify novel *HSD17B13* transcripts. Novel exon junctions were discovered based on Gencode v24 using ArrayStudio. *De novo* transcript assembly was run using Trinity (v2.2.0) in default setting. Custom gene models

were built to incorporate novel transcripts of *HSD17B13*, and transcript quantification was estimated by read alignment to the custom gene model. Protein sequence alignment of all identified HSD17B13 isoforms is shown in **Figure S8**. RT-PCR was performed on total RNA from human liver samples was performed using the SuperScript™ One-Step RT-PCR System with Platinum™ Taq DNA Polymerase (Thermofisher). Each 50 µL RT-PCR reaction contained 1X Reaction Mix, 500 nM each forward and reverse primers (PST516: ATGAACATCATCCTAGAAATCCTTC and PST517: ATCATGCATACATCTCTGGCTGGAG), 1 µL of RT/Platinum Taq, and 75 ng RNA. Cycling conditions were: one cycle of 45°C for 30 min; one cycle of 94°C for 2 min; 40 cycles of 94°C for 20 s, 53°C for 30 s, and 72°C for 90 s; one cycle of 72°C for 5 min; then a 10°C hold. Products were purified using the QIAquick PCR Purification Kit (Qiagen) and submitted for direct Sanger sequencing using the primer DE002 (ATCAGAACTTC AGGCCTTGG). To identify the B and C transcripts, the RT-PCR products were run out on a 2% agarose gel stained with SYBR GoldSYBR® Gold Nucleic Acid Gel Stain (Thermofisher), and bands of the expected molecular weight were excised and purified using the QIAquick Gel Extraction Kit (Qiagen), then subjected to cloning with the TOPO® TA Cloning Kit (Thermofisher). Sequencing of the TOPO clones was performed using M13F and M13R sequencing primers. Sequence analysis was performed using the Sequencher DNA analysis software (Gene Codes Corporation).

Full-length HSD17B13 transcripts were amplified directly from 50ng of total RNA with the SuperScript III One-step RT-PCR System with Platinum Taq High Fidelity (Thermo Fisher Scientific) using gene-specific primers in the first (GCAAAGCCATGAACATCATCC) and last exons (TCTTGATGTAGTGGGAGTCGGATT) to generate an amplicon of ~2.2 kb (maximum predicted size transcript). Amplicons were verified on an Agilent Bioanalyzer. PacBio-compatible barcoded adapters were ligated to the amplicons and cleaned with PacBio PB beads (Pacific Biosciences). Libraries were pooled in equal amounts and sequenced on one SMRT cell for 180 min on the PacBio RSII platform. The data was demultiplexed using PacBio software smrtanalysis v2.3 tool labelzmw and then analyzed with ConsensusTools AmpliconAnalysis. Resulting amplicons were compared to HSD17B13 RefSeq genes to determine isoform and genotype status.

Subcellular Localization of HSD17B13 Isoforms

HepG2 cells were cultured in Eagle's Minimum Essential Medium supplemented with 10% fetal bovine serum. *HSD17B13* transcripts A and D were sub-cloned into Myc-DDK backbone lentivirus constructs, and lentivirus were generated. HepG2 cells were infected with lentivirus carrying the *HSD17B13* transcripts. Stable cell lines expressing each *HSD17B13* transcript were selected with 1-3 mg/ml Geneticin G-418 sulfate in complete culture medium for two weeks. Following fixation, HSD17B13 isoforms were detected with mouse anti-Myc antibody. Lipid droplets were labeled with BODIPY FL dye (Sigma). Secondary antibodies for immunofluorescence were Alexa Fluor 488 donkey anti-rabbit IgG and Alexa Fluor 594 donkey anti-mouse IgG (Jackson ImmunoResearch).

Quantification of HSD17B13 Protein Expression in Human Liver Biopsy Tissue and Stable Cell Lines

Human liver and cell pellet samples were homogenized in ice-cold 1x RIPA lysis buffer (EMD Millipore) in the presence of protease and phosphatase inhibitor mixtures (Thermo-Fisher). Supernatant was collected and used for protein concentration using BCA protein assay (Thermo-Fisher). Human tissue and cell lysates were loaded and separated on SDS/PAGE gels (Bio-Rad) and transferred to PVDF membranes (Bio-Rad). The membranes were blocked for 1 h with 5% (wt/vol) milk in 1x TBS supplemented with 0.1% Tween20 (Bio-Rad). Membranes were incubated with antibody at 4 °C overnight against HSD17B13 (1:200, Thermo-Fisher) and B-Actin (1:500, Cell Signaling Technology). Bound antibody was detected using HRP-conjugated anti-rabbit antibody (1:10,000, Jackson ImmunoResearch) and enhanced using chemi-luminescence reagent (Thermo-Fisher). Band intensities were quantified using Image J software.

Real-Time Semi-Quantitative PCR

RNA was extracted from cell using TRIzol® (Invitrogen, Carlsbad, CA). First-strand cDNA was synthesized using Superscript III RT (Invitrogen) and utilized for Semi-Quantitative PCR based on intron-spanning primers. A QuantStudio 6 Flex Real-Time PCR System was used to measure the

expression level of transcripts. Primers of *HSD17B13* and *TBP* were ordered from IDT (Integrated DNA Technologies). Relative gene expression was analyzed with the $\Delta\Delta\text{Ct}$ method, providing a fold-change of expression normalized to the house-keeping gene TBP (ΔCt).

Lipid Droplet Isolation and Characterization by Western Blotting

Lipid droplets were prepared from HepG2 cells stably expressing HSD17B13 transcript A (IsoA) or transcript D (IsoD) as previously reported^{12,13}. In brief, HepG2 cells stably expressing HSD17B13 IsoA, IsoD, or the parental line were incubated overnight with 1 mM oleic acid. Following lipid loading, cells were scraped and resuspended in hypotonic lysis buffer (20 mM Tris, pH 7.5, 1 mM EDTA) supplemented with 1X HaltTM protease/phosphatase inhibitors (Thermo) and lysed by cavitation at 50 bar for 8 min. Lysates were spun at 1000g/4°C for 10 min, and the post-nuclear supernatant (PNS) was mixed with sucrose to a final volume of 2 mL and concentration of 20% in ultracentrifuge tubes. Then 1.5 mL of 5% sucrose and another 1.5 mL of hypotonic lysis buffer was layered on top of the lysate. Tubes were spun at 182,000g/4°C for 40 min, and the lipid droplet (LD) layers were transferred to new tubes. The remaining volume in the tube was aspirated, and the pelleted (total membrane, TM) was resuspended in 0.5 mL hypotonic lysis buffer. The PNS, LD, and TM fractions were mixed with 1x radioimmunoprecipitation (RIPA) buffer (EMD) + NuPAGETTM LDS Sample Buffer (Thermo) and β -mercaptoethanol and sonicated for 3 hrs at 37°C. The TM lysate was diluted 2.5-fold to normalize to the PNS. Lysates were run on 4-20% SDS-PAGE gels (Biorad), transferred using the Trans-Blot (Biorad) onto low fluorescence PVDF membranes, and blocked for 1 hr in Odyssey TBS Blocking Buffer. Membranes were incubated overnight with the following antibodies: α -HSD17B13 (Abgent, cat # AP5729a 1:500); LD marker: α -ADRP (Proteintech, 152-94-1-AP, 1:2500); LD marker: α -TIP47 (Proteintech, 10694 1:2000); lysosome marker: α -LAMP1 (Novus, NBP2-25183, 1:1000); cytosolic marker: α -GAPDH (Proteintech, 60004-1-Ig, 1:2000); endoplasmic reticulum marker: α -calreticulin (Abcam, ab92516, 1:1000); mitochondrial marker: α -COX IV (Abcam, ab33985, 1:500); cytoskeleton marker: α -actin (Sigma, A5441, 1:4000). The next day membranes were washed 4 times with Tris-buffered saline + 0.1% Tween, then incubated for 1 hr at room temperature with blocking buffer containing IRDye[®] α -rabbit

(800CW) and α -mouse (680RD) secondary antibodies (Li-Cor) at 1:5,000 and 1:10,000 dilutions, respectively. Gels were washed again with TBST and imaged using the Odyssey.

Quantification of Intracellular Triglyceride Content

The triglyceride (TG) content from the stable cells was determined using a TG quantification kit (Abcam). In the assay, TG are converted to free fatty acids and glycerol. The glycerol is then oxidized to generate a product which is quantified (spectrophotometry at $\lambda = 570$ nm).

Substrate Screening of Steroid and Bioactive Lipid Libraries Against Purified Recombinant HSD17B13

Reactions were performed in a final volume of 40 μ l of assay buffer (0.2 M Tris-HCl, pH 7.5) which contained 500 μ M NAD⁺, 5 μ M bioactive lipid or 50 μ M steroid (all in a final concentration of 5% DMSO), and 100 ng recombinant human HSD17B13. Reactions were incubated for 3 hr, at 23°C, after which an equal volume NADH-Glo Detection Reagent (Promega) was added. Following 1 hr incubation at 23°C the relative light units (RLUs) were measured on an Envision Plate Reader (Perkin Elmer). Raw RLU values were normalized as percent of control (50 μ M estradiol) following subtraction of negative control (5% DMSO) using the following formula: Percent of control (POC) = $100 \times (\text{Sample (RLU)} - \text{Negative CTRL}_{\text{average}}) / (\text{Positive CTRL}_{\text{average}} - \text{Negative CTRL}_{\text{average}})$.

***In vitro* and Cellular Characterization of HSD17B13 Enzymatic Activity**

Recombinant human HSD17B13 protein was purified from *E. coli* (Genscript) transformed with plasmid DNA harboring HSD17B13 transcript A or transcript D. The HSD17B13 variants contained a 10xHis tag at the C terminus and were purified from soluble fraction using a Ni²⁺ affinity purification. Enzymatic activity was determined through measurement of NADH production using the NAD(P)H-Glo Detection System (Promega). Reactions were performed for 3 hr at 25 °C in 0.2 M Tris-HCl, pH 7.5, 0.5mM NAD⁺, 75 μ M of substrate (Sigma) and 500 ng purified enzyme in a final volume of 100 μ L. After incubation, 20 μ L of the reaction was combined with 20 μ L luciferase reagent (Promega), incubated at room temperature for 1h and read on an Envision Plate Reader (Perkin Elmer).

HEK293 cells overexpressing HSD17B13 transcript A, transcript D or green fluorescent protein (GFP, control) were used to investigate the activity of HSD17B13 against estradiol in a cell-based assay. Estradiol (1 μ M) was fed to each cell type. After 48 hrs, the media was collected and the concentration of estradiol and its converted product estrone were identified and quantified by LC-MS.

Supplementary Tables**Table S1. Baseline Characteristics of Sequenced European-ancestry Individuals from the Discovery and Replication Cohorts.**

Characteristic	GHS Discovery Cohort (N = 46,544)	GHS Bariatric Surgery Cohort (N = 2,644)	Dallas Heart Study (N = 1,357)	Penn Medicine Biobank (N = 8,526)
Age (years) – median (IQR)	63 (50 - 74)	53 (44 - 61)	46 (38 - 54)	68 (60 - 76)
Female sex – number (%)	26,875 (58)	2,119 (80)	724 (53)	3,242 (38)
Body mass index – median (IQR)	30 (25 - 45)	47 (42 - 54)	28 (25 - 32)	30 (25 - 32)
Transaminase level (U/L) – median (IQR)				
Alanine aminotransferase (ALT)	22.0 (17.0 - 29.0)	23.0 (17.5 - 29.5)	20.0 (15.0 - 27.0)	22.0 (17.0 - 30.0)
Aspartate aminotransferase (AST)	23.0 (20.0 - 27.5)	23.0 (20.0 - 27.0)	21.0 (18.0 - 25.0)	24.0 (20.0 - 30.5)
Presence of liver disease – N (%)				
Alcoholic liver disease	197 (0.4)	7 (0.3)	-	-
Alcoholic cirrhosis	130 (0.3)	3 (0.1)	-	-
Nonalcoholic (non-viral) liver disease	1,938 (4.2)	1,543 (58.4)	-	-
Nonalcoholic cirrhosis	382 (0.8)	24 (0.9)	-	-
Hepatocellular carcinoma	76 (0.2)	1 (0.04)	-	-
No liver disease	30,628 (65.8)	1 (0.04)	-	-

Table S2. Single Nucleotide Variants Associated with Serum Transaminase Levels at $P < 1.0 \times 10^{-7}$ in the Discovery Cohort.

Trait	Chr	BP	Ref	Alt	rsID	Gene	Annotation	AA Substitution	Beta (SE)	P	AAF	N	Ref/Ref	Ref/Alt	Alt/Alt	Ref/Ref	Ref/Alt	Alt/Alt
ALT	1	220970028	A	G	rs2642438	MARC1	missense	p.Thr165Ala	0.008 (0.001)	4.67E-08	0.7067	40,834	3,515	17,262	20,637	23.88	24.52	24.92
	4	88231392	T	TA	rs72613567	HSD17B13	splice donor		-0.009 (0.001)	4.16E-12	0.2634	40,834	22,441	16,130	2,843	25.02	24.26	24.1
	8	144997604	C	T	rs371119003	PLEC	missense	p.Ala2302Thr	-0.160 (0.026)	1.30E-09	0.0005	40,833	41,373	40	0	24.67	18.1	NA
	8	145008502	G	A		PLEC	missense	p.Arg522Cys	-0.268 (0.032)	3.26E-17	0.0003	40,834	41,387	27	0	24.67	13.8	NA
	8	145692918	G	A	rs35968570	KIFC2	missense	p.Glu174Lys	-0.033 (0.005)	1.40E-11	0.0139	40,834	40,271	1,133	10	24.67	12.07	NA
	8	145730072	G	A	rs143408057	GPT	missense	p.Arg83His	-0.314 (0.036)	3.28E-18	0.0003	40,834	41,393	21	0	24.67	12.07	NA
	8	145730161	C	T	rs201815297	GPT	missense	p.Ala87Val	-0.224 (0.014)	6.28E-59	0.0018	40,834	41,270	144	0	24.7	14.68	NA
	8	145730221	G	A	rs112574791	GPT	missense	p.Arg107Lys	-0.033 (0.005)	4.25E-11	0.0136	40,834	40,293	1,111	10	24.71	23.09	18.35
	8	145731636	T	G	rs145155876	GPT	stop gained	p.Tyr326*	-0.235 (0.031)	1.76E-14	0.0004	40,814	41,364	30	0	24.67	14.07	NA
	8	145732114	G	C	rs141505249	GPT	missense	p.Glu430Gln	-0.224 (0.013)	8.84E-64	0.0019	40,795	41,223	150	2	24.7	14.48	13.75
	8	145732151	G	A	rs143462595	GPT	missense	p.Arg442His	-0.077 (0.013)	1.18E-09	0.0021	40,826	41,232	174	0	24.68	20.87	NA
	8	145732180	G	C	rs147998249	GPT	missense	p.Val452Leu	-0.225 (0.013)	8.19E-65	0.0019	40,833	41,254	159	0	24.7	14.74	NA
	8	145732305	G	GC		GPT	frameshift	p.Glu475fs	-0.271 (0.031)	1.00E-18	0.0004	40,834	41,385	29	0	24.67	14.24	NA
	8	145748532	A	G	rs567402720	LRRC24	missense	p.Leu290Ser	-0.185 (0.028)	3.42E-11	0.0004	40,813	41,358	35	0	24.67	17.71	NA
	9	117122202	C	T	rs3748177	AKNA	synonymous	p.Glu755Glu	-0.007 (0.001)	9.51E-09	0.5232	40,834	9,414	20,645	11,355	25.12	24.72	24.18
	9	117124731	G	A	rs3748176	AKNA	missense	p.Pro624Leu	-0.007 (0.001)	4.31E-09	0.5230	40,832	9,427	20,634	11,351	25.12	24.73	24.17
	10	101595996	T	A	rs17222723	ABCC2	missense	p.Val1188Glu	-0.015 (0.003)	2.97E-08	0.0608	40,834	36,543	4,704	167	24.77	23.97	22.12
	10	101606861	G	T	rs1137968	ABCC2	synonymous	p.Val1430Val	-0.015 (0.003)	2.71E-08	0.0608	40,834	36,543	4,704	167	24.77	23.97	22.04
	10	101610533	C	T	rs8187707	ABCC2	synonymous	p.His1496His	-0.015 (0.003)	2.77E-08	0.0608	40,834	36,542	4,706	166	24.77	23.97	22.03
	10	101611294	G	A	rs8187710	ABCC2	missense	p.Cys1515Tyr	-0.015 (0.003)	2.15E-08	0.0611	40,834	36,519	4,726	169	24.77	23.97	21.99
	10	101912064	T	C	rs2862954	ERLIN1	missense	p.Ile291Val	-0.012 (0.001)	2.43E-21	0.4755	40,834	11,318	20,819	9,277	25.32	24.71	23.77
	10	101977883	C	T	rs2230804	CHUK	missense	p.Val268Ile	-0.009 (0.001)	1.93E-13	0.5072	40,834	10,048	20,733	10,633	25.18	24.75	24.01
	10	113917085	T	A	rs2254537	GPAM	synonymous	p.Pro681Pro	-0.008 (0.001)	4.61E-10	0.7073	40,834	3,627	16,984	20,803	25	24.97	24.36
	10	113940329	T	C	rs2792751	GPAM	missense	p.Ile43Val	-0.008 (0.001)	2.54E-10	0.7097	40,832	3,567	16,910	20,935	25	24.98	24.35
	14	94844947	C	T	rs28929474	SERPINA1	missense	p.Glu366Lys	0.042 (0.005)	9.28E-21	0.0171	40,834	40,006	1,399	9	24.58	26.91	43.89
	19	19379549	C	T	rs58542926	TM6SF2	missense	p.Glu167Lys	0.014 (0.002)	4.76E-09	0.0759	40,833	35,388	5,780	245	24.52	25.46	26.84
	22	44324727	C	G	rs738409	PNPLA3	missense	p.Ile148Met	0.023 (0.002)	1.34E-50	0.2351	40,834	24,257	14,837	2,320	24.06	24.99	28.91
	22	44324730	C	T	rs738408	PNPLA3	synonymous	p.Pro149Pro	0.023 (0.002)	1.11E-50	0.2349	40,834	24,273	14,824	2,317	24.06	24.98	28.92
	22	44342116	A	G	rs2294918	PNPLA3	missense	p.Lys434Glu	0.007 (0.001)	8.26E-08	0.5986	40,832	6,691	19,833	14,888	24.15	24.47	25.15
	22	44368122	A	G	rs3761472	SAMM50	missense	p.Asp110Gly	0.019 (0.002)	8.85E-30	0.1682	40,833	28,626	11,618	1,169	24.23	25.36	28.45
	22	44395451	T	C	rs1007863	PARVB	missense	p.Trp37Arg	0.011 (0.001)	7.98E-16	0.3963	40,834	15,036	19,920	6,458	24.15	24.6	26.09
AST	4	88231392	T	TA	rs72613567	HSD17B13	splice donor		-0.005 (0.001)	6.24E-10	0.2638	40,193	22,068	15,870	2,815	24.47	24.1	23.96
	10	18242311	A	G	rs10764176	SLC39A12	missense	p.Ser366Gly	-0.006 (0.001)	1.09E-10	0.2881	40,193	20,645	16,738	3,370	24.47	24.15	23.85
	10	101157378	CGTT	C		GOT1	inframe indel	p.Asn389del	-0.221 (0.024)	1.96E-20	0.0002	40,193	40,733	20	0	24.29	14.7	NA
	10	101165533	G	C	rs374966349	GOT1	missense	p.Gln208Glu	0.271 (0.027)	2.43E-24	0.0002	40,193	40,736	17	0	24.28	44.5	NA
	10	101912064	T	C	rs2862954	ERLIN1	missense	p.Ile291Val	-0.005 (0.001)	4.82E-09	0.4754	40,193	11,138	20,486	9,129	24.59	24.26	23.99
	11	22271870	A	T	rs7481951	ANO5	missense	p.Leu322Phe	0.004 (0.001)	9.61E-08	0.5833	40,162	7,123	19,686	13,913	24.03	24.22	24.53
	14	94844947	C	T	rs28929474	SERPINA1	missense	p.Glu366Lys	0.027 (0.003)	2.44E-20	0.0172	40,193	39,361	1,384	8	24.24	25.76	34.5
	19	19379549	C	T	rs58542926	TM6SF2	missense	p.Glu167Lys	0.008 (0.002)	6.54E-08	0.0760	40,192	34,811	5,698	243	24.21	24.74	25.43
	22	44324727	C	G	rs738409	PNPLA3	missense	p.Ile148Met	0.014 (0.001)	8.31E-46	0.2343	40,193	23,889	14,622	2,242	23.96	24.48	26.62
	22	44324730	C	T	rs738408	PNPLA3	synonymous	p.Pro149Pro	0.014 (0.001)	8.93E-46	0.2341	40,193	23,905	14,609	2,239	23.96	24.47	26.63
	22	44368122	A	G	rs3761472	SAMM50	missense	p.Asp110Gly	0.011 (0.001)	1.22E-22	0.1680	40,192	28,170	11,450	1,132	24.07	24.64	26.24
	22	44395451	T	C	rs1007863	PARVB	missense	p.Trp37Arg	0.006 (0.001)	1.31E-13	0.3961	40,193	14,761	19,678	6,314	24.02	24.23	25.1

Gray shading indicates variants having exome-wide-significant associations with both ALT and AST.

Abbreviations: AAF, alternate allele frequency; Alt, alternate allele; ALT, alanine aminotransferase; AST, aspartate aminotransferase; Ref, reference allele; SE, standard error;

Table S3. Replication and Joint Meta-Analysis of 35 Exome-Wide Significant Single Nucleotide Variants from the Discovery Cohort in Three Separate European-Ancestry Cohorts.

Trait	Chr	BP	Ref	Alt	RSID	Gene	Annotation	AA Substitution	GHS Discovery Cohort			Replication Cohorts												Replication Meta-analysis* (N=3)		Joint Meta-analysis** (N=4)	
									GHS Bariatric Surgery Cohort			Dallas Heart Study				Penn Medicine Biobank				Beta (SE)		P replication		Beta (SE)		P joint	
									Beta (SE)	P discovery	N	Beta (SE)	P	N	Beta (SE)	P	N	Beta (SE)	P	N	Beta (SE)	P replication	Beta (SE)	P joint			
ALT	1	220970028	A	G	rs2642438	MARCI	missense	p.Thr165Ala	0.008 (0.001)	4.67E-08	40834	0.005 (0.005)	3.10E-01	2475	0.009 (0.008)	2.58E-01	1356	0.006 (0.004)	1.81E-01	6158	0.006 (0.003)	4.77E-02	0.007 (0.001)	6.91E-09			
	4	88231392	T	TA	rs72613567	HSD17B13	splice donor		-0.009 (0.001)	4.16E-12	40834	-0.010 (0.005)	5.57E-02	2475	-0.014 (0.008)	9.68E-02	1356	-0.012 (0.004)	4.85E-03	6158	-0.012 (0.003)	1.67E-04	-0.010 (0.001)	3.85E-15			
	8	144997604	C	T	rs371119003	PLEC	missense	p.Ala2302Thr	-0.160 (0.026)	1.30E-09	40833	-0.492 (0.165)	2.84E-03	2475	NA (NA)	NA	NA	-0.054 (0.071)	4.46E-01	6158	-0.124 (0.066)	5.92E-02	-0.155 (0.024)	2.41E-10			
	8	145008502	G	A		PLEC	missense	p.Arg522Cys	-0.268 (0.032)	3.26E-17	40834	-0.161 (0.165)	3.29E-01	2475	NA (NA)	NA	NA	-0.259 (0.143)	6.90E-02	6158	-0.259 (0.143)	6.90E-02	-0.264 (0.03)	4.65E-18			
	8	145692918	G	A	rs35968570	KIFC2	missense	p.Glu174Lys	-0.033 (0.005)	1.40E-11	40834	-0.009 (0.02)	6.48E-01	2475	0.027 (0.035)	4.48E-01	1355	-0.051 (0.019)	7.52E-03	6158	-0.024 (0.013)	6.89E-02	-0.032 (0.005)	3.36E-12			
	8	145730072	G	A	rs143408057	GPT	missense	p.Arg83His	-0.314 (0.036)	3.28E-18	40834	-0.189 (0.165)	2.50E-01	2475	NA (NA)	NA	NA	-0.305 (0.101)	2.54E-03	6158	-0.305 (0.101)	2.54E-03	-0.308 (0.033)	2.21E-20			
	8	145730161	C	T	rs201815297	GPT	missense	p.Ala87Val	-0.224 (0.014)	6.28E-59	40834	-0.341 (0.074)	3.64E-06	2475	NA (NA)	NA	NA	-0.144 (0.054)	7.67E-03	6158	-0.213 (0.044)	1.01E-06	-0.223 (0.013)	4.00E-64			
	8	145730221	G	A	rs112574791	GPT	missense	p.Arg107Lys	-0.033 (0.005)	4.25E-11	40834	-0.009 (0.02)	6.45E-01	2475	0.024 (0.035)	5.01E-01	1356	-0.059 (0.018)	1.13E-03	6158	-0.029 (0.013)	2.09E-02	-0.032 (0.005)	2.89E-12			
	8	145731636	T	G	rs145155876	GPT	stop gained	p.Tyr326*	-0.235 (0.031)	1.76E-14	40814	-0.314 (0.165)	5.71E-02	2475	-0.334 (0.137)	1.49E-02	1355	-0.151 (0.143)	2.90E-01	6157	-0.264 (0.085)	1.84E-03	-0.238 (0.029)	1.35E-16			
	8	145732114	G	C	rs141505249	GPT	missense	p.Glu430Gln	-0.224 (0.013)	8.84E-64	40795	-0.273 (0.048)	9.83E-09	2474	-0.244 (0.073)	8.91E-04	1356	-0.188 (0.041)	5.52E-06	6157	-0.227 (0.029)	2.39E-15	-0.224 (0.012)	1.94E-77			
	8	145732151	G	A	rs143462595	GPT	missense	p.Arg442His	-0.077 (0.013)	1.18E-09	40826	-0.115 (0.058)	4.82E-02	2475	-0.092 (0.097)	3.43E-01	1355	-0.042 (0.043)	3.36E-01	6157	-0.070 (0.033)	3.12E-02	-0.076 (0.012)	1.12E-10			
	8	145732180	G	C	rs14798249	GPT	missense	p.Val452Leu	-0.225 (0.013)	8.19E-65	40833	-0.273 (0.050)	4.26E-08	2475	-0.198 (0.068)	3.90E-03	1356	-0.188 (0.041)	5.52E-06	6158	-0.218 (0.029)	3.94E-14	-0.224 (0.012)	2.92E-77			
	8	145732305	G	GC		GPT	frameshift	p.Glu475fs	-0.271 (0.031)	1.00E-18	40834	-0.161 (0.165)	3.29E-01	2475	NA (NA)	NA	NA	-0.506 (0.202)	1.22E-02	NA	-0.506 (0.202)	1.22E-02	-0.272 (0.030)	6.42E-20			
	8	145748532	A	G	rs567402720	LRRIC24	missense	p.Leu290Ser	-0.185 (0.028)	3.42E-11	40813	-0.161 (0.165)	3.29E-01	2475	NA (NA)	NA	NA	-0.303 (0.143)	3.37E-02	NA	-0.303 (0.143)	3.37E-02	-0.189 (0.027)	2.99E-12			
	9	117122202	C	T	rs3748177	AKNA	synonymous	p.Glu755Glu	-0.007 (0.001)	9.51E-09	40834	-0.004 (0.005)	4.09E-01	2475	0.003 (0.008)	6.46E-01	1356	-0.007 (0.004)	6.38E-02	6158	-0.005 (0.003)	9.79E-02	-0.007 (0.001)	3.57E-09			
	9	117124731	G	A	rs3748176	AKNA	missense	p.Pro624Leu	-0.007 (0.001)	4.31E-09	40832	-0.004 (0.005)	3.90E-01	2475	0.002 (0.008)	7.69E-01	1355	-0.007 (0.004)	5.29E-02	6158	-0.005 (0.003)	7.27E-02	-0.007 (0.001)	1.19E-09			
	10	101595996	T	A	rs17222723	ABCC2	missense	p.Val1188Glu	-0.015 (0.003)	2.97E-08	40834	-0.002 (0.010)	8.01E-01	2475	-0.003 (0.017)	8.37E-01	1356	-0.015 (0.007)	4.49E-02	6158	-0.01 (0.006)	8.55E-02	-0.014 (0.002)	9.49E-09			
	10	101606861	G	T	rs1137968	ABCC2	synonymous	p.Val1430Val	-0.015 (0.003)	2.71E-08	40834	-0.003 (0.010)	7.74E-01	2475	-0.005 (0.017)	7.49E-01	1356	-0.014 (0.007)	4.86E-02	6158	-0.01 (0.006)	7.96E-02	-0.014 (0.002)	8.03E-09			
	10	101610533	C	T	rs8187707	ABCC2	synonymous	p.His1496His	-0.015 (0.003)	2.77E-08	40834	-0.003 (0.010)	7.93E-01	2475	-0.005 (0.017)	7.49E-01	1356	-0.014 (0.007)	5.02E-02	6158	-0.01 (0.006)	8.38E-02	-0.014 (0.002)	8.70E-09			
	10	101611294	G	A	rs8187710	ABCC2	missense	p.Cys1515Tyr	-0.015 (0.003)	2.15E-08	40834	-0.001 (0.010)	9.11E-01	2475	-0.008 (0.016)	6.41E-01	1356	-0.013 (0.007)	7.46E-02	6158	-0.009 (0.006)	1.19E-01	-0.014 (0.002)	1.07E-08			
	10	101912064	T	C	rs2862954	ERLIN1	missense	p.Ile291Val	-0.012 (0.001)	2.43E-21	40834	-0.01 (0.005)	2.91E-02	2475	-0.006 (0.007)	4.02E-01	1356	-0.009 (0.004)	2.06E-02	6158	-0.009 (0.003)	1.14E-03	-0.011 (0.001)	1.76E-23			
	10	101977883	C	T	rs2230804	CHUK	missense	p.Val268Ile	-0.009 (0.001)	1.93E-13	40834	-0.006 (0.005)	2.05E-01	2475	-0.001 (0.007)	9.07E-01	1356	-0.011 (0.004)	5.26E-03	6158	-0.008 (0.003)	5.11E-03	-0.009 (0.001)	4.17E-15			
	10	113917085	T	A	rs2254537	GPAM	synonymous	p.Pro681Pro	-0.008 (0.001)	4.61E-10	40834	-0.003 (0.005)	5.80E-01	2475	-0.014 (0.008)	8.25E-02	1356	-0.007 (0.004)	7.45E-02	6158	-0.007 (0.003)	2.44E-02	-0.008 (0.001)	3.82E-11			
	10	113940329	T	C	rs2792751	GPAM	missense	p.Ile43Val	-0.008 (0.001)	2.54E-10	40832	-0.003 (0.005)	5.61E-01	2475	-0.014 (0.008)	9.08E-02	1356	-0.008 (0.004)	6.34E-02	6158	-0.007 (0.003)	2.13E-02	-0.008 (0.001)	1.85E-11			
	14	94844947	C	T	rs28929474	SERPINA1	missense	p.Glu366Lys	0.042 (0.005)	9.28E-21	40834	0.035 (0.020)	7.97E-02	2475	0.044 (0.032)	1.63E-01	1356	0.056 (0.013)	1.38E-05	6158	0.049 (0.010)	1.51E-06	0.044 (0.004)	9.55E-26			
	19	19379549	C	T	rs58542926	TM6SF2	missense	p.Glu167Lys	0.014 (0.002)	4.76E-09	40833	0.040 (0.010)	2.40E-05	2475	0.025 (0.014)	7.24E-02	1356	0.013 (0.008)	1.07E-01	6158	0.024 (0.006)	1.58E-05	0.016 (0.002)	1.35E-12			
	22	44324727	C	G	rs738409	PNPLA3	missense	p.Ile148Met	0.023 (0.002)	1.34E-50	40834	0.019 (0.006)	5.54E-04	2475	0.005 (0.009)	5.75E-01	1356	0.018 (0.005)	5.51E-05	6158	0.017 (0.003)	2.60E-07	0.022 (0.001)	7.75E-56			
	22	44324730	C	T	rs738408	PNPLA3	synonymous	p.Pro149Pro	0.023 (0.002)	1.11E-50	40834	0.019 (0.006)	5.51E-04	2475	0.005 (0.009)	5.75E-01	1356	0.018 (0.005)	5.78E-05	6158	0.017 (0.003)	2.71E-07	0.022 (0.001)	6.77E-56			
	22	44342116	A	G	rs2294918	PNPLA3	missense	p.Lys434Glu	0.007 (0.001)	8.26E-08	40832	0.001 (0.005)	7.77E-01	2475	0.004 (0.008)	6.26E-01	1356	0.005 (0.004)	2.00E-01	6158	0.004 (0.003)	2.03E-01	0.006 (0.001)	6.49E-08			
	22	44368122	A	G	rs3761472	SAMM50	missense	p.Asp110Gly	0.019 (0.002)	8.85E-30	40833	0.009 (0.006)	1.66E-01	2475	-0.002 (0.01)	8.80E-01	1356	0.021 (0.005)	5.29E-05	6158	0.014 (0.004)	2.57E-04	0.018 (0.002)	2.36E-32			
	22	44395451	T	C	rs1007863	PARVB	missense	p.Trp37Arg	0.011 (0.001)	7.98E-16	40834	0.003 (0.005)	5.22E-01	2475	0.007 (0.008)	3.31E-01	1356	0.008 (0.004)	3.82E-02	6158	0.006 (0.003)	2.63E-02	0.01 (0.001)	1.83E-16			
AST	4	88231392	T	TA	rs72613567	HSD17B13	splice donor		-0.005 (0.001)	6.24E-10	40193	-0.010 (0.003)	3.12E-03	2469	-0.012 (0.006)	5.87E-02	1356	-0.006 (0.004)	1.02E-01	6166	-0.009 (0.002)	1.69E-04	-0.006 (0.001)	1.13E-12			
	10	18242311	A	G	rs10764176	SLC39A12	missense	p.Ser36Gly	-0.006 (0.001)	1.09E-10	40193	-0.010 (0.003)	2.91E-03	2469	-0.003 (0.006)	6.25E-01	1356	-0.010 (0.004)	6.75E-03	6166	-0.009 (0.002)	8.86E-05	-0.006 (0.001)	9.66E-14			
	10	101157378	CGTT	C		GOT1	inframe indel	p.Asn389del	-0.221 (0.024)	1.96E-20	40193	-0.205 (0.062)	8.57E-04	2469	NA (NA)	NA	NA	-0.244 (0.089)	5.90E-03	6165	-0.205 (0.062)	8.57E-04	-0.220 (0.022)	1.66E-24			
	10	101165533	G	C	rs374966349	GOT1	missense	p.Gln208Glu	0.271 (0.027)	2.43E-24	40193	NA (NA)	NA	2469	NA (NA)	NA	NA	0.339 (0.079)	1.85E-05	6166	0.339 (0.079)	1.85E-05	0.271 (0.027)	2.43E-24			
	10	101912064	T	C	rs2862954	ERLIN1	missense	p.Ile291Val	-0.005 (0.001)	4.82E-09	40193	-0.004 (0.003)	1.54E-01	2469	-0.007 (0.006)	2.18E-01	1356	-0.003 (0.003)	3.13E-01	6166	-0.004 (0.002)	3.92E-02	-0.005 (0.001)	5.52E-10			
	11	22271870	A	T	rs7481951	ANOS	missense	p.Leu322Phe	0.004 (0.001)	9.61E-08	40162	-0.001 (0.003)	7.85E-01	2466	0.006 (0.006)	2.80E-01	1356	-0.003 (0.003)	3.54E-01	6165	-0.001 (0.002)	7.03E-01	0.004 (0.001)	1.48E-06			
	14	94844947	C	T	rs28929474	SERPINA1	missense	p.Glu366Lys	0.027 (0.003)	2.44E-20	40193	0.023 (0.013)	7.79E-02	2469	0.046 (0.024)	6.09E-02	1356	0.052 (0.011)	4.75E-06	6166	0.040 (0.008)	6.56E-07	0.029 (0.003)	2.78E-25			
	19	19379549	C	T	rs58542926	TM6SF2	missense	p.Glu167Lys	0.008 (0.002)	6.54E-08	40192	0.023 (0.006)	1.99E-04	2469	0.010 (0.011)	3.42E-01	1356	0.004 (0.007)	5.94E-01	6166	0.014 (0.004)	1.20E-03	0.009 (0.002)	5.92E-10			
	22	44324727	C	G	rs738409	PNPLA3	missense	p.Ile148Met	0.014 (0.001)	8.31E-46	40193	0.014 (0.004)	1.27.														

Table S4. Association of Thirteen Exome-Wide Significant and Replicated Single Nucleotide Variants with Liver Disease Phenotypes in the Discovery Cohort.

CHR:BP:Ref:Alt	Gene	rsID	Alcoholic liver disease		Alcoholic cirrhosis		Nonalcoholic liver disease		Nonalcoholic cirrhosis		Hepatocellular carcinoma	
			OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P
4:88231392:T:TA	<i>HSD17B13</i>	rs72613567	0.62 (0.48-0.81)	1.82E-04	0.56 (0.41-0.78)	3.35E-04	0.84 (0.78-0.91)	1.31E-05	0.74 (0.62-0.88)	4.48E-04	0.67 (0.45-1.00)	4.66E-02
8:145730161:C:T	<i>GPT</i>	rs201815297	3.83 (1.05-13.94)	8.88E-02	6.33 (1.71-23.43)	2.88E-02	0.23 (0.04-1.14)	1.86E-02	1.25 (0.24-6.38)	7.98E-01	3.66 (0.70-19.01)	2.01E-01
8:145732114:G:C	<i>GPT</i>	rs141505249	0.77 (0.06-10.73)	8.43E-01	1.13 (0.08-15.39)	9.30E-01	1.02 (0.49-2.11)	9.70E-01	0.36 (0.02-5.37)	3.82E-01	1.84 (0.15-23.25)	6.88E-01
8:145732180:G:C	<i>GPT</i>	rs147998249	0.73 (0.05-11.76)	8.17E-01	1.07 (0.07-17.16)	9.60E-01	1.03 (0.49-2.17)	9.30E-01	0.34 (0.02-5.59)	3.67E-01	1.74 (0.11-27.05)	7.21E-01
10:18242311:A:G	<i>SLC39A12</i>	rs10764176	0.85 (0.68-1.07)	1.64E-01	0.92 (0.70-1.22)	5.80E-01	0.92 (0.86 (0.99)	3.43E-02	1.03 (0.88-1.21)	7.15E-01	1.29 (0.93-1.79)	1.37E-01
10:101157378:CGTT:C	<i>GOT1</i>		4.60 (0.25-86.41)	3.93E-01	7.11 (0.38-133.19)	3.00E-01	2.37 (0.61-9.27)	2.50E-01	8.27 (1.44-47.49)	5.92E-02	9.81 (0.52-183.54)	2.43E-01
10:101165533:G:C	<i>GOT1</i>	rs374966349	2.20 (0.13-37.68)	6.24E-01	3.47 (0.20 - 59.04)	4.70E-01	1.63 (0.53-4.96)	4.20E-01	1.17 (0.07-20.09)	9.13E-01	5.37 (0.32-91.12)	3.55E-01
10:101912064:T:C	<i>ERLIN1</i>	rs2862954	0.92 (0.75-1.12)	4.05E-01	1.05 (0.82-1.34)	7.13E-01	0.98 (0.91-1.04)	4.61E-01	1.13 (0.98-1.31)	9.90E-02	0.94 (0.69-1.28)	6.94E-01
14:94844947:C:T	<i>SERPINA1</i>	rs28929474	2.49 (1.49-4.17)	2.30E-03	3.35 (1.93-5.83)	3.01E-04	1.50 (1.21-1.87)	5.29E-04	2.99 (2.11-4.24)	9.08E-08	1.86 (0.74-4.67)	2.40E-01
19:19379549:C:T	<i>TM6SF2</i>	rs58542926	1.47 (1.06-2.04)	2.76E-02	1.35 (0.89-2.04)	1.80E-01	1.36 (1.21-1.52)	2.42E-07	1.64 (1.31-2.05)	6.04E-05	1.93 (1.22-3.04)	1.08E-02
22:44324727:C:G	<i>PNPLA3</i>	rs738409	1.76 (1.43-2.18)	4.98E-07	2.07 (1.60-2.67)	1.08E-07	1.65 (1.54-1.78)	1.31E-41	2.05 (1.76-2.38)	1.70E-19	2.20 (1.60-3.02)	5.59E-06
22:44324730:C:T	<i>PNPLA3</i>	rs738408	1.77 (1.43-2.18)	4.70E-07	2.07 (1.61-2.67)	1.03E-07	1.65 (1.54-1.78)	1.42E-41	2.05 (1.77-2.38)	1.45E-19	2.20 (1.60-3.03)	5.41E-06
22:44368122:A:G	<i>SAMM50</i>	rs3761472	1.90 (1.52-2.38)	1.36E-07	2.28 (1.75-2.98)	1.83E-08	1.52 (1.41-1.65)	7.33E-24	1.86 (1.58-2.19)	1.81E-12	1.66 (1.16-2.39)	1.05E-02

Gray shading indicates P-values meeting the Bonferroni significance threshold of $P < 1.92 \times 10^{-3}$

Table S5. Baseline Characteristics of Genotyped Multi-Ethnic Cases and Controls from the Dallas Liver and Pediatric Liver Studies.

Characteristic	Dallas Liver Study Cases (N = 517)	Dallas Liver Study Controls (N = 4,279)	Dallas Pediatric Liver Study Cases (N = 205)	Dallas Pediatric Liver Study Controls (N = 234)
Age (years) – median (IQR)	55 (48 - 60)	44 (36 - 53)	12 (10 - 15)	12 (11 - 14)
Female sex – number (%)	277 (54)	2,494 (58)	63 (31)	118 (50)
Body mass index – median (IQR)	30 (27 - 35)	30 (26 - 35)	30 (27 - 34)	31 (28 - 35)
Self-reported ethnicity				
African American	33 (6)	2,291 (54)	-	-
European American	158 (31)	1,266 (30)	-	-
Hispanic American	326 (63)	722 (17)	205 (100)	234 (100)
Presence of liver disease – N (%)				
Alcoholic liver disease	223 (43)	-	-	-
Alcoholic cirrhosis	215 (42)	-	-	-
Nonalcoholic (non-viral) liver disease	212 (20)	-	-	-
Nonalcoholic cirrhosis	100 (19)	-	-	-
Hepatocellular carcinoma	44 (9)	-	-	-
No liver disease	-	4,279 (100)	-	234 (100)

Table S6. Analysis of Genetic Interaction between *PNPLA3* rs738409 (p.I148M) and *HSD17B13* rs72613567

Phenotype/Subset	N		HSD17B13 rs72613567 : PNPLA3 rs738409		HSD17B13 rs72613567			PNPLA3 rs738409		
			[Interaction effect]		[Main effect]			[Main effect]		
log ₁₀ (ALT)										
Subset	N		Effect (95% CI)	P	AAF	Effect (95% CI)	P	AAF	Effect (95% CI)	P
All	43,309		-0.007 (-0.011,-0.002)	1.80E-03	26.36%	-0.006 (-0.009,-0.003)	1.88E-04	23.54%	0.026 (0.022,0.029)	1.97E-50
Obese	23,051		-0.01 (-0.015,-0.004)	1.01E-03	26.48%	-0.009 (-0.013,-0.005)	6.53E-05	23.57%	0.037 (0.032,0.042)	3.13E-55
Non-obese	20,258		-0.004 (-0.01,0.002)	1.49E-01	26.22%	-0.002 (-0.007,0.002)	3.53E-01	23.51%	0.013 (0.008,0.018)	1.56E-07
log ₁₀ (AST)										
Subset	N		Effect (95% CI)	P	AAF	Effect (95% CI)	P	AAF	Effect (95% CI)	P
All	42,662		-0.004 (-0.007,-0.001)	4.53E-03	26.40%	-0.004 (-0.006,-0.002)	4.78E-04	23.47%	0.016 (0.014,0.018)	9.69E-46
Obese	22,719		-0.006 (-0.01,-0.003)	1.04E-03	26.51%	-0.006 (-0.009,-0.003)	1.42E-04	23.53%	0.023 (0.02,0.027)	7.65E-49
Non-obese	19,943		-0.001 (-0.005,0.003)	4.97E-01	26.26%	-0.001 (-0.004,0.002)	3.42E-01	23.41%	0.008 (0.005,0.011)	1.56E-06
Nonalcoholic liver disease										
Subset	N Controls	N Cases	OR (95% CI)	P	AAF	OR (95% CI)	P	AAF	OR (95% CI)	P
All	29,928	1,857	0.919 (0.812,1.039)	1.78E-01	26.43%	0.88 (0.787,0.983)	2.40E-02	23.51%	1.764 (1.606,1.938)	1.76E-32
Obese	14,243	1,445	0.906 (0.786,1.044)	1.74E-01	26.36%	0.894 (0.788,1.012)	7.81E-02	23.65%	1.714 (1.537,1.91)	2.06E-22
Non-obese	15,685	412	0.964 (0.75,1.235)	7.71E-01	26.50%	0.845 (0.662,1.069)	1.67E-01	23.38%	1.887 (1.566,2.269)	1.96E-11
Alcoholic liver disease										
Subset	N Controls	N Cases	OR (95% CI)	P	AAF	OR (95% CI)	P	AAF	OR (95% CI)	P
All	29,928	190	1.112 (0.749,1.637)	5.94E-01	26.57%	0.578 (0.391,0.834)	4.56E-03	22.99%	1.689 (1.298,2.185)	7.80E-05
Obese	14,243	97	1.295 (0.741,2.224)	3.56E-01	26.59%	0.501 (0.283,0.839)	1.22E-02	22.83%	1.533 (1.052,2.201)	2.30E-02
Non-obese	15,685	93	0.956 (0.544,1.65)	8.72E-01	26.55%	0.666 (0.382,1.105)	1.33E-01	23.13%	1.853 (1.275,2.664)	1.00E-03

Table S7. Phenome-Wide Study of Associations of HSD17B13 rs72613567:TA with Quantitative Clinical Measurements

Phenotype	Effect	SE	P	AAF	N			
					Total	T/T	T/TA	TA/TA
Alanine Aminotransferase median:Adjusted(Residual Log)	-0.009	0.001	1.74E-12	0.264	44038	23868	17115	3055
Aspartate Aminotransferase median:Adjusted(Residual Log)	-0.006	0.001	2.75E-11	0.264	43370	23493	16851	3026
Alanine Aminotransferase max:Adjusted(Residual Log)	-0.013	0.002	1.39E-09	0.264	43905	23797	17065	3043
Aspartate Aminotransferase max:Adjusted(Residual Log)	-0.010	0.002	8.73E-09	0.264	42733	23145	16609	2979
Platelets median:Adjusted(Residual Log)	0.004	0.001	1.44E-08	0.264	46182	25020	17944	3218
Alanine Aminotransferase min:Adjusted(Residual Log)	-0.008	0.002	2.47E-07	0.264	44029	23864	17111	3054
Platelets min:Adjusted(Residual)	1.919	0.443	1.47E-05	0.264	46181	25020	17943	3218
Platelets max:Adjusted(Residual Log)	0.004	0.001	3.03E-05	0.264	46165	25014	17936	3215
Aspartate Aminotransferase min:Adjusted(Residual Log)	-0.004	0.001	5.00E-05	0.264	43327	23471	16831	3025
Total Bilirubin max:Adjusted(Residual Log)	-0.005	0.002	1.34E-03	0.264	42538	23072	16512	2954
White Blood Cell Count median:Adjusted(Residual Log)	0.003	0.001	1.38E-03	0.264	46346	25122	18001	3223
White Blood Cell Count min:Adjusted(Residual)	0.043	0.014	2.24E-03	0.264	46308	25100	17986	3222
Absolute Neutrophils median:Adjusted(Residual Log)	0.003	0.001	3.57E-03	0.264	40229	21816	15612	2801
Left Ventricular Mass :Adjusted(Residual Log)	-0.005	0.002	6.52E-03	0.267	12471	6691	4900	880
Triglyceride max:Adjusted(Residual BMI Log)	0.005	0.002	8.88E-03	0.263	37587	20405	14586	2596
Mean Platelet Volume max:Adjusted(Residual Log)	-0.001	0.000	9.33E-03	0.264	46348	25110	18009	3229
Albumin max:Adjusted(Residual)	-0.006	0.002	9.95E-03	0.264	43054	23351	16715	2988
Gamma Glutamyl Transferase median:Adjusted(Residual Log)	-0.028	0.011	1.03E-02	0.251	3425	1943	1247	235
Triglyceride median:Adjusted(Residual BMI Log Rx Corrected)	0.004	0.002	1.04E-02	0.263	37613	20423	14594	2596
Iron max:Adjusted(Residual Log)	-0.005	0.002	1.61E-02	0.261	18030	9857	6938	1235
Iron median:Adjusted(Residual Log)	-0.005	0.002	1.61E-02	0.261	18031	9857	6939	1235
Gamma Glutamyl Transferase max:Adjusted(Residual Log)	-0.028	0.012	1.96E-02	0.251	3425	1943	1247	235
Absolute Monocytes min:Adjusted(Residual)	0.004	0.002	2.02E-02	0.264	40083	21719	15576	2788
Iron min:Adjusted(Residual Log)	-0.007	0.003	2.09E-02	0.261	18031	9857	6939	1235
Hemoglobin max:Adjusted(Residual)	-0.019	0.008	2.23E-02	0.264	46430	25161	18034	3235
Absolute Monocytes median:Adjusted(Residual Log)	0.002	0.001	2.33E-02	0.264	40092	21722	15580	2790
Mean Platelet Volume median:Adjusted(Residual)	-0.019	0.008	2.39E-02	0.264	46356	25113	18014	3229
Gamma Glutamyl Transferase min:Adjusted(Residual Log)	-0.024	0.011	2.57E-02	0.251	3425	1943	1247	235
Cubed End Systolic Volume :Adjusted(Residual Log)	-0.010	0.005	2.61E-02	0.267	11710	6278	4601	831
Mean Corpuscular Hemoglobin Concentration median:Adjusted(Residual)	-0.012	0.006	2.62E-02	0.264	46227	25060	17953	3214
gM min:Adjusted(Residual Log)	-0.024	0.011	2.64E-02	0.263	2726	1491	1038	197
Mean Platelet Volume min:Adjusted(Residual)	-0.022	0.010	2.74E-02	0.264	46356	25113	18014	3229
Prothrombin Time max:Adjusted(Residual)	-0.027	0.012	2.75E-02	0.263	15899	8640	6168	1091
International Normalized Ratio of Prothrombin Time min:Adjusted(Residual)	-0.002	0.001	2.90E-02	0.263	23320	12677	9012	1631
Post-Bronchodilator % of Predicted Forced Expiratory Volume in 1 second :Adjusted(Residual)	0.827	0.380	2.96E-02	0.269	6579	3550	2512	517
Intraventricular Septal End Diastole normalized to Body Surface Area :Adjusted(Residual)	-0.004	0.002	3.03E-02	0.268	11844	6347	4656	841
gM median:Adjusted(Residual Log)	-0.021	0.010	3.61E-02	0.263	2726	1491	1038	197
Triglyceride min:Adjusted(Residual BMI Log)	0.003	0.002	3.62E-02	0.263	37612	20423	14593	2596
Anion Gap max:Adjusted(Residual)	-0.042	0.021	4.19E-02	0.264	45440	24640	17627	3173
% Neutrophils median:Adjusted(Residual)	0.130	0.065	4.50E-02	0.264	40570	22009	15741	2820
Red Blood Cell Count max:Adjusted(Residual)	-0.006	0.003	4.63E-02	0.264	46287	25079	17980	3228
Post-Bronchodilator % of Predicted Forced Vital Capacity :Adjusted(Residual)	0.621	0.314	4.82E-02	0.269	6579	3550	2512	517
Prothrombin Time min:Adjusted(Residual)	-0.020	0.010	5.17E-02	0.264	23084	12529	8937	1618
Intraventricular Septal End Diastole :Adjusted(Residual)	-0.006	0.003	5.98E-02	0.267	12871	6900	5062	909
Total Bilirubin median:Adjusted(Residual Log)	-0.002	0.001	5.99E-02	0.264	42810	23215	16623	2972
Absolute Neutrophils min:Adjusted(Residual)	0.023	0.012	6.17E-02	0.263	40088	21751	15554	2783
Z Score forBMD Hip from most recent DEXA:Adjusted(Residual):Subset(Males)	-0.079	0.042	6.30E-02	0.285	469	236	199	34
Total Vitamin D and Metabolites median:Adjusted(Residual Log)	-0.003	0.002	6.91E-02	0.265	22872	12340	8938	1594
Post-Bronchodilator Forced Expiratory Volume in 1 second :Adjusted(Residual)	0.020	0.011	6.91E-02	0.269	6580	3551	2512	517
Intraventricular Septal End Diastole normalized to Height :Adjusted(Residual)	0.000	0.000	6.98E-02	0.267	12869	6898	5062	909
Absolute Neutrophils max:Adjusted(Residual Log)	0.003	0.002	7.04E-02	0.264	40215	21810	15605	2800
Seruloplasmin max:Adjusted(Residual)	-0.516	0.286	7.11E-02	0.241	1370	796	487	87
Arterial Blood Oxygen min:Adjusted(Residual)	-1.004	0.559	7.23E-02	0.266	2304	1254	875	175
Cubed Ejection Fraction :Adjusted(Residual Squared)	49.030	27.965	7.96E-02	0.267	11690	6268	4593	829
Zinc max:Adjusted(Residual)	0.665	0.379	7.96E-02	0.265	2959	1614	1119	226
Absolute Eosinophils min:Adjusted(Residual Log)	0.005	0.003	8.00E-02	0.264	35514	19235	13836	2443
Absolute Myelocytes median:Adjusted(Residual Log)	0.021	0.012	8.29E-02	0.263	1835	990	725	120
Post-Bronchodilator Forced Vital Capacity :Adjusted(Residual)	0.020	0.012	8.76E-02	0.269	6580	3551	2512	517
Hematocrit max:Adjusted(Residual)	-0.040	0.023	8.78E-02	0.264	46381	25132	18018	3231
Free Testosterone median:Adjusted(Residual Log):Subset(Females)	0.026	0.016	8.98E-02	0.267	1200	642	476	82
QRS complex duration ECG:Adjusted(Residual Log)	-0.001	0.001	9.16E-02	0.264	34789	18866	13493	2430
Mean Corpuscular Hemoglobin Concentration max:Adjusted(Residual)	-0.011	0.006	9.34E-02	0.264	46213	25054	17946	3213

HSD17B13 and liver disease

Total wall thickness (LVPW + IVS):Adjusted(Residual)	-0.009	0.006	9.40E-02	0.267	12815	6868	5043	904
Seruloplasmin median:Adjusted(Residual)	-0.471	0.282	9.43E-02	0.242	1374	798	488	88
Albumin median:Adjusted(Residual)	-0.003	0.002	9.64E-02	0.263	43111	23382	16741	2988
gM max:Adjusted(Residual Log)	-0.016	0.010	1.00E-01	0.263	2720	1487	1036	197
Left ventricular mass (LVM):Adjusted(Residual)	-1.370	0.841	1.03E-01	0.267	12767	6841	5023	903
Free Testosterone median:Adjusted(Residual Log):Subset(Males)	0.027	0.017	1.04E-01	0.262	2411	1291	976	144
Left ventricular mass (LVM) normalized:Adjusted(Residual)	0.000	0.000	1.05E-01	0.267	12762	6841	5018	903
Prolactin min:Adjusted(Residual Log)	0.009	0.006	1.11E-01	0.267	4171	2227	1660	284
Pre-Bronchodilator % of Predicted Forced Vital Capacity :Adjusted(Residual)	0.411	0.260	1.14E-01	0.267	10985	5938	4221	826
T Score forBMD Hip from most recent DEXA:Adjusted(Residual):Subset(Males)	-0.088	0.056	1.18E-01	0.285	599	304	248	47
LDL max:Adjusted(Residual BMI Log)	0.001	0.001	1.19E-01	0.263	37633	20431	14604	2598
T Score forBMD Spine from most recent DEXA:Adjusted(Residual):Subset(Males)	-0.150	0.096	1.21E-01	0.277	488	249	208	31
Mean Corpuscular Hemoglobin Concentration min:Adjusted(Residual)	-0.014	0.009	1.21E-01	0.264	46117	25002	17909	3206
LDL by Friedewald Equation median:Adjusted(Residual BMI Rx Corrected)	-0.464	0.300	1.22E-01	0.263	37253	20210	14478	2565
Ejection Fraction from most recent echocardiography estimated by Teicholtz formula:Adjusted(Residual)	0.247	0.159	1.22E-01	0.263	23590	12799	9152	1639
C-Peptide max:Adjusted(Residual Log)	-0.025	0.016	1.22E-01	0.274	936	488	383	65
T Score forBMD Spine from most recent DEXA:Adjusted(Residual):Subset(Males)	-0.131	0.085	1.24E-01	0.279	600	309	247	44
Activated Partial Thromboplastin Time median:Adjusted(Residual)	-0.080	0.052	1.27E-01	0.264	17207	9331	6682	1194
Free Testosterone max:Adjusted(Residual Log):Subset(Females)	0.025	0.016	1.28E-01	0.267	1200	642	476	82
Cortisol min:Adjusted(Residual Log)	0.016	0.011	1.33E-01	0.255	2535	1417	945	173
White Blood Cell Count max:Adjusted(Residual)	0.044	0.029	1.34E-01	0.263	44501	24150	17255	3096
C-Peptide median:Adjusted(Residual Log)	-0.024	0.016	1.37E-01	0.273	940	491	384	65
Fibrinogen median:Adjusted(Residual)	10.130	6.820	1.38E-01	0.248	958	540	361	57
Folate median:Adjusted(Residual)	0.088	0.060	1.40E-01	0.266	8083	4363	3141	579
Fibrinogen max:Adjusted(Residual)	10.500	7.141	1.42E-01	0.248	956	539	360	57
Pre-Bronchodilator % of Predicted Forced Expiratory Volume in 1 second :Adjusted(Residual)	0.459	0.313	1.42E-01	0.267	10988	5941	4221	826
Cubed End Diastolic Volume :Adjusted(Residual Log)	-0.004	0.003	1.45E-01	0.267	12836	6880	5056	900
Left Ventricular Posterior Wall End Diastole normalized to Body Surface Area :Adjusted(Residual)	-0.002	0.002	1.47E-01	0.267	11842	6346	4658	838
gG max:Adjusted(Residual Log)	-0.006	0.004	1.48E-01	0.264	3153	1715	1209	229
T Value forBMD Hip from most recent DEXA:Adjusted(Residual):Subset(Males)	-0.011	0.007	1.48E-01	0.286	593	301	245	47
Average Intraocular Pressure value of left and right Intraocular Pressure value :Adjusted(Residual Log)	0.003	0.002	1.48E-01	0.262	8119	4404	3176	539
Free Testosterone min:Adjusted(Residual Log):Subset(Males)	0.026	0.018	1.48E-01	0.262	2411	1291	976	144
Arterial Blood HCO3 median:Adjusted(Residual)	-0.114	0.079	1.48E-01	0.259	2898	1598	1099	201
Left Ventricular Internal Diameter End Diastole :Adjusted(Residual)	-0.014	0.010	1.50E-01	0.267	12921	6926	5087	908
Arterial Blood HCO3 max:Adjusted(Residual)	-0.131	0.091	1.51E-01	0.260	2980	1642	1129	209
Absolute Myelocytes max:Adjusted(Residual Log)	0.024	0.017	1.51E-01	0.262	1827	987	721	119
Lactate Dehydrogenase median:Adjusted(Residual Log)	-0.002	0.002	1.54E-01	0.262	7938	4298	3127	513
Absolute Monocytes max:Adjusted(Residual Log)	0.002	0.001	1.60E-01	0.264	40023	21690	15548	2785
C-Peptide min:Adjusted(Residual Log)	-0.022	0.016	1.61E-01	0.267	643	341	261	41
Ejection Fraction from most recent echocardiography estimated by Cubed formula:Adjusted(Residual)	0.220	0.157	1.61E-01	0.264	23572	12787	9146	1639
Fibrinogen min:Adjusted(Residual)	9.846	7.049	1.63E-01	0.248	958	540	361	57
International Normalized Ratio of Prothrombin Time max:Adjusted(Residual)	-0.002	0.001	1.63E-01	0.262	15570	8462	6055	1053
LDL min:Adjusted(Residual BMI Log)	0.001	0.001	1.63E-01	0.263	37598	20414	14587	2597
Pre-Bronchodilator Forced Vital Capacity :Adjusted(Residual)	0.013	0.010	1.69E-01	0.267	10987	5940	4221	826
International Normalized Ratio of Prothrombin Time median:Adjusted(Residual)	-0.002	0.001	1.70E-01	0.262	16957	9218	6589	1150
Left Ventricular Internal Diameter End Diastole normalized to Height :Adjusted(Residual)	0.000	0.000	1.71E-01	0.267	12918	6923	5087	908
Total Vitamin D and Metabolites min:Adjusted(Residual Log)	-0.003	0.002	1.74E-01	0.265	22872	12340	8938	1594
Arterial Blood pH max:Adjusted(Residual)	-0.002	0.001	1.76E-01	0.262	3146	1723	1195	228
PR interval ECG:Adjusted(Residual)	-0.255	0.189	1.77E-01	0.264	34469	18690	13379	2400
Tricuspid maximum lifetime Pressure Gradient from outpatient echocardiography:Adjusted(Residual Log)	-0.004	0.003	1.80E-01	0.267	7917	4230	3139	548
Pre-Bronchodilator Forced Expiratory Volume in 1 second :Adjusted(Residual)	0.012	0.009	1.82E-01	0.267	10990	5943	4221	826
Seruloplasmin min:Adjusted(Residual)	-0.379	0.284	1.83E-01	0.242	1374	798	488	88
High-Sensitivity C Reactive Protein median:Adjusted(Residual Log)	0.018	0.014	1.89E-01	0.269	3900	2092	1521	287
Parathyroid Hormone max:Adjusted(Residual Log)	-0.005	0.004	1.96E-01	0.263	12114	6571	4707	836
Maximum Intraocular Pressure value of left and right Intraocular Pressure value :Adjusted(Residual Log)	0.003	0.002	1.97E-01	0.262	8119	4404	3176	539
Average RR interval ECG:Adjusted(Residual)	-1.250	0.968	1.97E-01	0.264	34700	18817	13458	2425
Calcium median:Adjusted(Residual)	0.003	0.002	2.02E-01	0.264	46321	25106	17986	3229
Mean Corpuscular Hemoglobin min:Adjusted(Residual)	-0.021	0.017	2.09E-01	0.264	45748	24796	17764	3188
Lactate Dehydrogenase min:Adjusted(Residual Log)	-0.002	0.002	2.10E-01	0.262	7932	4295	3124	513
Total Protein max:Adjusted(Residual)	-0.005	0.004	2.10E-01	0.264	42626	23118	16545	2963
Left Ventricular Rate ECG:Adjusted(Residual)	0.115	0.092	2.12E-01	0.264	34972	18962	13568	2442
% Reticulocytes median:Adjusted(Residual Log)	-0.007	0.006	2.15E-01	0.263	3009	1633	1168	208
Predicted Forced Expiratory Volume in 1 second to Forced Vital Capacity Ratio :Adjusted(Residual)	-0.019	0.015	2.20E-01	0.267	10990	5943	4221	826
Activated Partial Thromboplastin Time min:Adjusted(Residual)	-0.056	0.047	2.26E-01	0.264	17105	9274	6642	1189
Free Testosterone min:Adjusted(Residual Log):Subset(Females)	0.020	0.016	2.28E-01	0.267	1200	642	476	82
Prothrombin Time median:Adjusted(Residual)	-0.015	0.012	2.28E-01	0.264	17547	9511	6822	1214
% Neutrophils max:Adjusted(Residual)	0.107	0.089	2.32E-01	0.264	40570	22009	15741	2820
Calcidiol max:Adjusted(Residual)	0.341	0.287	2.36E-01	0.260	5833	3225	2181	427
Creatine Kinase min:Adjusted(Residual Log)	-0.004	0.004	2.43E-01	0.262	14789	8067	5708	1014

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Absolute Lymphocytes median:Adjusted(Residual Log)	0.001	0.001	2.43E-01	0.264	40155	21767	15591	2797
Left Ventricular Internal Diameter End Diastole normalized to Body Surface Area :Adjusted(Residual)	-0.006	0.005	2.45E-01	0.268	11893	6372	4679	842
Calcium min:Adjusted(Residual)	0.004	0.004	2.46E-01	0.264	45998	24925	17863	3210
Value forBMD Hip from most recent DEXA:Adjusted(Residual)	-0.003	0.003	2.49E-01	0.261	5217	2865	1977	375
Progesterone max:Adjusted(Residual Log):Subset(Females)	-0.039	0.034	2.49E-01	0.258	1060	575	424	61
Erythrocyte Sedimentation Rate min:Adjusted(Residual Log)	-0.005	0.004	2.59E-01	0.265	22843	12350	8898	1595
Folate max:Adjusted(Residual)	0.074	0.066	2.63E-01	0.265	6618	3584	2564	470
Total Carbon Dioxide min:Adjusted(Residual)	0.023	0.021	2.71E-01	0.264	46125	25018	17893	3214
Hemoglobin median:Adjusted(Residual)	-0.009	0.009	2.72E-01	0.264	46441	25167	18038	3236
% Reticulocytes max:Adjusted(Residual Log)	-0.007	0.007	2.72E-01	0.263	3006	1632	1166	208
Chloride max:Adjusted(Residual)	-0.022	0.021	2.76E-01	0.264	46350	25146	17979	3225
Absolute Reticulocytes median:Adjusted(Residual Log)	-0.006	0.006	2.81E-01	0.263	3000	1630	1162	208
Glucose median:Adjusted(Residual BMI Log):Subset(No Related Dx)	0.000	0.000	2.85E-01	0.263	23134	12546	8997	1591
Calcidiol median:Adjusted(Residual)	0.245	0.230	2.86E-01	0.260	5861	3241	2188	432
Value forBMD Spine from most recent DEXA:Adjusted(Residual):Subset(Males)	-0.010	0.009	2.91E-01	0.278	598	309	245	44
Left Ventricular Posterior Wall End Diastole normalized to Height :Adjusted(Residual)	0.000	0.000	2.97E-01	0.267	12859	6890	5064	905
Chloride median:Adjusted(Residual)	-0.015	0.015	2.98E-01	0.264	46409	25181	17996	3232
Gamma 4 min:Adjusted(Residual)	0.003	0.003	3.01E-01	0.261	16705	9124	6448	1133
Creatine Kinase MB Isoenzyme max:Adjusted(Residual Log)	-0.010	0.010	3.07E-01	0.259	6592	3620	2524	448
Homocysteine min:Adjusted(Residual Log)	0.005	0.004	3.09E-01	0.249	2582	1483	914	185
Left Atrial dimension :Adjusted(Residual)	-0.010	0.010	3.09E-01	0.267	11765	6322	4612	831
Free T3 min:Adjusted(Residual)	0.010	0.010	3.09E-01	0.265	8212	4420	3238	554
% Eosinophils max:Adjusted(Residual Log)	-0.002	0.002	3.13E-01	0.264	40098	21726	15583	2789
High-Sensitivity C Reactive Protein min:Adjusted(Residual Log)	0.014	0.014	3.13E-01	0.269	3899	2091	1521	287
Left Intraocular Pressure value :Adjusted(Residual Log)	0.003	0.003	3.16E-01	0.261	8022	4355	3143	524
Gamma Score forBMD Spine from most recent DEXA:Adjusted(Residual):Subset(Females)	0.035	0.036	3.23E-01	0.257	4596	2555	1720	321
Left Ventricular Posterior Wall End Diastole :Adjusted(Residual)	-0.003	0.003	3.28E-01	0.267	12858	6889	5064	905
Folate min:Adjusted(Residual)	0.061	0.062	3.28E-01	0.265	8608	4658	3337	613
Prolactin max:Adjusted(Residual Log)	-0.007	0.007	3.29E-01	0.267	4159	2223	1651	285
Arterial Blood Oxygen max:Adjusted(Residual)	-0.523	0.536	3.30E-01	0.270	1688	907	651	130
Absolute Myelocytes min:Adjusted(Residual Log)	0.013	0.013	3.31E-01	0.264	1820	979	722	119
Parathyroid Hormone median:Adjusted(Residual Log)	-0.003	0.003	3.36E-01	0.263	12139	6581	4719	839
Total Iron Binding Capacity median:Adjusted(Residual)	-0.651	0.678	3.37E-01	0.262	16491	8999	6340	1152
Creatine Kinase max:Adjusted(Residual Log)	-0.005	0.005	3.40E-01	0.262	14695	8012	5674	1009
Creatine Kinase median:Adjusted(Residual Log)	-0.003	0.004	3.41E-01	0.262	14789	8067	5708	1014
% Eosinophils median:Adjusted(Residual Log)	-0.002	0.002	3.41E-01	0.264	40107	21731	15586	2790
Brain Natriuretic Peptide max:Adjusted(Residual Log)	-0.015	0.016	3.41E-01	0.264	3693	2004	1430	259
Vitamin B12 median:Adjusted(Residual Log)	0.002	0.002	3.44E-01	0.265	17069	9229	6632	1208
Vitamin B12 min:Adjusted(Residual Log)	0.002	0.003	3.44E-01	0.265	17103	9246	6645	1212
Value forBMD Spine from most recent DEXA:Adjusted(Residual):Subset(Females)	0.004	0.004	3.49E-01	0.257	4595	2552	1721	322
Follicle Stimulating Hormone min:Adjusted(Residual Log):Subset(Males)	-0.022	0.024	3.54E-01	0.261	664	359	263	42
Cortisol median:Adjusted(Residual Log)	0.007	0.008	3.56E-01	0.254	2570	1440	955	175
Follicle Stimulating Hormone median:Adjusted(Residual Log):Subset(Females)	0.008	0.009	3.58E-01	0.260	5477	3016	2075	386
QT interval ECG:Adjusted(Residual)	-0.251	0.274	3.60E-01	0.264	34920	18929	13557	2434
Ferritin min:Adjusted(Residual Log)	0.006	0.007	3.64E-01	0.263	16854	9174	6489	1191
Phosphate max:Adjusted(Residual Log)	-0.001	0.001	3.64E-01	0.265	13191	7107	5170	914
Calcidiol min:Adjusted(Residual)	0.215	0.238	3.65E-01	0.260	5851	3236	2184	431
Left Cup Disc Ratio from most recent funduscopy:Adjusted(Residual Log)	0.003	0.004	3.67E-01	0.263	9258	5036	3572	650
Red Blood Cell Count median:Adjusted(Residual)	-0.003	0.003	3.67E-01	0.264	46313	25093	17989	3231
gG min:Adjusted(Residual)	-7.979	8.853	3.68E-01	0.265	3154	1713	1212	229
Mitral Valve E Point :Adjusted(Residual Log)	-0.002	0.002	3.68E-01	0.268	12609	6735	4985	889
Absolute Reticulocytes max:Adjusted(Residual Log)	-0.005	0.006	3.71E-01	0.263	3000	1630	1162	208
Gamma Axis ECG:Adjusted(Residual)	0.256	0.287	3.73E-01	0.264	34591	18742	13432	2417
Progesterone median:Adjusted(Residual Log):Subset(Females)	-0.028	0.032	3.76E-01	0.258	1060	575	424	61
% Neutrophils min:Adjusted(Residual)	0.074	0.083	3.76E-01	0.264	40313	21875	15631	2807
Ferritin max:Adjusted(Residual Log)	0.005	0.006	3.78E-01	0.263	16854	9174	6489	1191
Creatinine max:Adjusted(Residual Log)	-0.001	0.001	3.82E-01	0.264	45697	24792	17715	3190
Alkaline Phosphatase median:Adjusted(Residual Log)	0.001	0.001	3.84E-01	0.263	42962	23327	16656	2979
Thyroid Stimulating Hormone max:Adjusted(Residual Log)	-0.002	0.003	3.88E-01	0.265	40200	21737	15652	2811
Mean Corpuscular Hemoglobin max:Adjusted(Residual)	-0.011	0.013	3.88E-01	0.264	45972	24903	17857	3212
LDL median:Adjusted(Residual BMI Log Rx Corrected)	0.001	0.001	3.92E-01	0.263	37634	20432	14604	2598
Maximum Cup Disc Ratio:Adjusted(Residual Log)	0.003	0.004	3.94E-01	0.262	9599	5235	3692	672
Homocysteine median:Adjusted(Residual Log)	0.004	0.004	3.95E-01	0.249	2582	1483	914	185
Brain Natriuretic Peptide median:Adjusted(Residual Log)	-0.013	0.015	3.97E-01	0.264	3693	2004	1430	259
Follicle Stimulating Hormone max:Adjusted(Residual Log):Subset(Males)	-0.018	0.021	4.00E-01	0.261	667	361	264	42
Hemoglobin A1C median:Adjusted(Residual BMI):Subset(Related Dx)	-0.011	0.014	4.16E-01	0.262	13919	7579	5387	953
Activated Partial Thromboplastin Time max:Adjusted(Residual Log)	-0.001	0.001	4.21E-01	0.264	15609	8436	6100	1073
Total Iron Binding Capacity max:Adjusted(Residual)	-0.614	0.763	4.21E-01	0.262	16480	8992	6337	1151
Absolute Eosinophils median:Adjusted(Residual Log)	0.002	0.002	4.24E-01	0.264	39617	21473	15390	2754

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Follicle Stimulating Hormone max:Adjusted(Residual Log):Subset(Females)	0.007	0.009	4.27E-01	0.260	5477	3016	2075	386
Glucose min:Adjusted(Residual BMI Log):Subset(No Related Dx)	0.000	0.000	4.32E-01	0.263	23103	12527	8986	1590
Total Protein median:Adjusted(Residual)	-0.002	0.003	4.33E-01	0.264	42715	23161	16586	2968
Mitral Valve A Point :Adjusted(Residual)	-0.260	0.334	4.36E-01	0.270	11613	6165	4614	834
Predicted Forced Vital Capacity :Adjusted(Residual)	0.002	0.003	4.38E-01	0.267	10990	5942	4222	826
Ferritin median:Adjusted(Residual Log)	0.004	0.006	4.39E-01	0.263	16854	9174	6489	1191
Absolute Basophils median:Adjusted(Residual Log)	-0.001	0.002	4.43E-01	0.263	38777	21057	15031	2689
Sodium min:Adjusted(Residual)	0.018	0.023	4.49E-01	0.264	45893	24890	17806	3197
Total Vitamin D and Metabolites max:Adjusted(Residual)	-0.105	0.138	4.49E-01	0.265	22797	12297	8909	1591
Mean Corpuscular Volume max:Adjusted(Residual)	-0.027	0.036	4.55E-01	0.264	46065	24956	17898	3211
C Reactive Protein median:Adjusted(Residual Log)	0.008	0.010	4.59E-01	0.271	6731	3588	2632	511
gE median:Adjusted(Residual Log)	-0.021	0.028	4.61E-01	0.260	1445	790	560	95
Arterial Blood Oxygen median:Adjusted(Residual)	-0.394	0.534	4.61E-01	0.271	1853	996	710	147
Mean Corpuscular Hemoglobin median:Adjusted(Residual)	-0.008	0.012	4.62E-01	0.264	46101	24978	17908	3215
Creatine Kinase MB Isoenzyme min:Adjusted(Residual Log)	0.005	0.006	4.63E-01	0.259	6676	3669	2557	450
Magnesium min:Adjusted(Residual)	0.004	0.006	4.63E-01	0.263	7566	4091	2963	512
Arterial Blood HCO3 min:Adjusted(Residual)	-0.078	0.107	4.64E-01	0.260	2994	1649	1135	210
Alkaline Phosphatase min:Adjusted(Residual)	0.104	0.142	4.66E-01	0.263	42847	23259	16614	2974
Calcium max:Adjusted(Residual)	0.002	0.003	4.66E-01	0.264	46188	25026	17941	3221
Aortic Root Diameter End Diastole :Adjusted(Residual)	0.004	0.005	4.67E-01	0.267	12766	6840	5035	891
Average Cup Disc Ratio:Adjusted(Residual Log)	0.003	0.003	4.67E-01	0.262	9599	5235	3692	672
Magnesium median:Adjusted(Residual)	0.003	0.005	4.67E-01	0.263	7570	4094	2964	512
Diastolic Blood Pressure max:Adjusted(Residual)	0.052	0.072	4.68E-01	0.264	48921	26499	19006	3416
gG median:Adjusted(Residual Log)	-0.003	0.004	4.70E-01	0.265	3172	1722	1220	230
Glucose max:Adjusted(Residual BMI Log):Subset(No Related Dx)	0.000	0.001	4.71E-01	0.263	23147	12552	9003	1592
Luteinizing Hormone min:Adjusted(Residual Log):Subset(Females)	-0.009	0.013	4.72E-01	0.267	3170	1711	1225	234
Urea min:Adjusted(Residual)	0.019	0.026	4.75E-01	0.264	46120	25017	17887	3216
D-Dimer max:Adjusted(Residual Log)	-0.008	0.011	4.76E-01	0.264	2856	1556	1093	207
D3 min:Adjusted(Residual)	-0.831	1.166	4.76E-01	0.257	1872	1020	740	112
Systolic Blood Pressure min:Adjusted(Residual)	-0.053	0.076	4.83E-01	0.264	48912	26485	19010	3417
Absolute Reticulocytes min:Adjusted(Residual Log)	-0.004	0.006	4.88E-01	0.263	2980	1619	1155	206
Gamma4 median:Adjusted(Residual Log)	0.001	0.001	4.88E-01	0.261	16713	9130	6450	1133
Estradiol median:Adjusted(Residual Log):Subset(Females)	0.014	0.020	4.89E-01	0.250	1336	748	507	81
Total Bilirubin min:Adjusted(Residual Log)	-0.001	0.002	4.90E-01	0.264	42789	23204	16615	2970
Post-Bronchodilator Forced Expiratory Volume in 1 second to Forced Vital Capacity Ratio:Adjusted(Residual)	0.149	0.216	4.91E-01	0.269	6561	3541	2505	515
Total Cholesterol min:Adjusted(Residual BMI)	0.188	0.273	4.91E-01	0.263	37521	20359	14564	2598
Aldosterone median:Adjusted(Residual Log)	0.020	0.029	4.94E-01	0.251	980	539	390	51
Total Cholesterol max:Adjusted(Residual BMI)	0.257	0.378	4.96E-01	0.263	37425	20302	14529	2594
Zinc median:Adjusted(Residual)	0.213	0.314	4.98E-01	0.265	3202	1750	1208	244
Follicle Stimulating Hormone median:Adjusted(Residual Log):Subset(Males)	-0.014	0.021	5.06E-01	0.261	667	361	264	42
Follicle Stimulating Hormone median:Adjusted(Residual Log)	0.005	0.008	5.10E-01	0.260	6144	3377	2339	428
Total Iron Binding Capacity min:Adjusted(Residual)	-0.489	0.745	5.12E-01	0.262	16491	8999	6340	1152
Parathyroid Hormone min:Adjusted(Residual Log)	-0.002	0.003	5.15E-01	0.263	12130	6579	4712	839
3MI min:Adjusted(Residual Log)	0.000	0.001	5.16E-01	0.264	48879	26473	18994	3412
gE min:Adjusted(Residual Log)	-0.018	0.028	5.17E-01	0.260	1445	790	560	95
Aldosterone max:Adjusted(Residual Log)	0.019	0.030	5.19E-01	0.251	980	539	390	51
Immunoglobulin A min:Adjusted(Residual Log)	-0.004	0.006	5.25E-01	0.260	4975	2713	1941	321
Prostate Specific Antigen min:Adjusted(Residual Log):Subset(Males)	0.005	0.007	5.35E-01	0.262	13449	7321	5219	909
Homocysteine max:Adjusted(Residual Log)	0.003	0.005	5.35E-01	0.249	2582	1483	914	185
Right Intraocular Pressure value :Adjusted(Residual Log)	0.002	0.003	5.40E-01	0.260	8020	4375	3125	520
C Reactive Protein min:Adjusted(Residual Log)	0.006	0.010	5.41E-01	0.271	6728	3586	2631	511
Diastolic Blood Pressure median:Adjusted(Residual Rx Corrected)	0.036	0.060	5.45E-01	0.264	48022	26026	18651	3345
% Reticulocytes min:Adjusted(Residual Log)	-0.004	0.006	5.48E-01	0.263	3005	1631	1167	207
Alpha 1 Antitrypsin median:Adjusted(Residual)	-0.712	1.188	5.49E-01	0.237	1360	801	474	85
% Eosinophils min:Adjusted(Residual)	-0.006	0.011	5.54E-01	0.264	40028	21683	15561	2784
High-Sensitivity C Reactive Protein max:Adjusted(Residual Log)	0.009	0.015	5.57E-01	0.269	3900	2092	1521	287
% Lymphocytes min:Adjusted(Residual)	-0.043	0.075	5.65E-01	0.264	40426	21931	15682	2813
Total Cholesterol median:Adjusted(Residual BMI Rx Corrected)	0.186	0.324	5.67E-01	0.263	37521	20359	14564	2598
Gamma4 max:Adjusted(Residual)	0.191	0.334	5.67E-01	0.257	1922	1056	746	120
Anion Gap median:Adjusted(Residual)	0.007	0.012	5.68E-01	0.264	45488	24659	17656	3173
Follicle Stimulating Hormone max:Adjusted(Residual Log)	0.005	0.009	5.72E-01	0.260	6144	3377	2339	428
Sodium median:Adjusted(Residual)	-0.007	0.012	5.74E-01	0.264	46221	25072	17930	3219
Glucose Mean Value estimated from Hemoglobin A1C median:Adjusted(Residual Log)	-0.001	0.001	5.76E-01	0.265	22830	12357	8855	1618
Post-Bronchodilator % of Predicted Forced Expiratory Volume in 1 second to Forced Vital Capacity Ratio:Adjusted(Residual)	0.155	0.280	5.80E-01	0.270	6537	3527	2495	515
3MI max:Adjusted(Residual Log)	0.000	0.001	5.83E-01	0.264	48879	26472	18995	3412
Absolute Eosinophils max:Adjusted(Residual Log)	0.001	0.002	5.85E-01	0.264	39602	21468	15382	2752
Arterial Blood pH median:Adjusted(Residual)	-0.001	0.001	5.88E-01	0.262	3147	1724	1195	228
Arterial Blood CO2 min:Adjusted(Residual)	-0.103	0.191	5.91E-01	0.262	3127	1715	1185	227
Brain Natriuretic Peptide min:Adjusted(Residual Log)	-0.008	0.015	5.92E-01	0.264	3693	2004	1430	259

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Sodium max:Adjusted(Residual)	-0.009	0.018	5.93E-01	0.264	46188	25051	17921	3216
Glucose Mean Value estimated from Hemoglobin A1C max:Adjusted(Residual Log)	-0.001	0.001	5.95E-01	0.265	22830	12357	8855	1618
Prolactin median:Adjusted(Residual Log)	0.003	0.006	5.96E-01	0.267	4186	2237	1664	285
Alum forBMD Hip from most recent DEXA:Adjusted(Residual):Subset(Females)	-0.002	0.003	6.01E-01	0.258	4623	2564	1731	328
Hemoglobin min:Adjusted(Residual)	-0.008	0.015	6.07E-01	0.264	46441	25167	18038	3236
Anion Gap min:Adjusted(Residual)	0.008	0.017	6.18E-01	0.264	45166	24496	17523	3147
Arterial Blood CO2 median:Adjusted(Residual)	-0.083	0.168	6.20E-01	0.262	3127	1715	1185	227
Insulin median:Adjusted(Residual BMI Log):Subset(No Related Dx)	-0.004	0.008	6.20E-01	0.268	2569	1377	1005	187
Hematocrit median:Adjusted(Residual)	-0.011	0.023	6.24E-01	0.264	46397	25143	18023	3231
P Axis ECG:Adjusted(Residual)	0.162	0.331	6.24E-01	0.264	34852	18900	13519	2433
Absolute Lymphocytes max:Adjusted(Residual)	0.003	0.006	6.25E-01	0.264	39727	21555	15400	2772
Creatinine median:Adjusted(Residual)	-0.001	0.001	6.30E-01	0.264	45692	24794	17703	3195
Free T3 max:Adjusted(Residual Log)	-0.001	0.002	6.34E-01	0.265	7937	4264	3135	538
Seum Lipase median:Adjusted(Residual Log)	0.002	0.003	6.37E-01	0.262	10411	5664	4033	714
Potassium max:Adjusted(Residual)	0.002	0.003	6.40E-01	0.264	46181	25049	17916	3216
Follicle Stimulating Hormone min:Adjusted(Residual Log)	-0.004	0.009	6.46E-01	0.260	6144	3377	2339	428
Red Cell Distribution Width max:Adjusted(Residual Log)	0.000	0.000	6.48E-01	0.264	45286	24552	17574	3160
Aortic maximum lifetime Pressure Gradient from outpatient echocardiography:Adjusted(Residual Log)	-0.002	0.004	6.52E-01	0.268	12869	6885	5073	911
LDL by Friedewald Equation min:Adjusted(Residual BMI)	-0.105	0.235	6.57E-01	0.263	37281	20228	14486	2567
Alpha 1 Antitrypsin min:Adjusted(Residual)	-0.529	1.201	6.60E-01	0.237	1360	801	474	85
Phosphate median:Adjusted(Residual Log)	0.000	0.001	6.64E-01	0.265	13277	7149	5208	920
Urea median:Adjusted(Residual Log)	0.000	0.001	6.69E-01	0.264	46490	25212	18036	3242
Absolute Lymphocytes min:Adjusted(Residual)	0.002	0.005	6.70E-01	0.264	40143	21763	15583	2797
Hemoglobin A1C max:Adjusted(Residual BMI):Subset(Related Dx)	-0.012	0.030	6.80E-01	0.262	13914	7579	5382	953
Thyroid Stimulating Hormone median:Adjusted(Residual Log)	-0.001	0.002	6.84E-01	0.265	40760	22046	15865	2849
T Score forBMD Hip from most recent DEXA:Adjusted(Residual)	-0.011	0.026	6.86E-01	0.261	5243	2879	1989	375
LDL by Direct Assay median:Adjusted(Residual BMI Log Rx Corrected)	-0.001	0.003	6.91E-01	0.260	5275	2876	2051	348
Lactate Dehydrogenase max:Adjusted(Residual Log)	-0.001	0.002	6.95E-01	0.261	7864	4262	3093	509
% Lymphocytes median:Adjusted(Residual)	-0.022	0.057	6.96E-01	0.264	40426	21931	15682	2813
Estimated Glomerular Filtration Rate Calculated by CKD-EPI median:Adjusted(Residual)	0.042	0.110	7.00E-01	0.264	46371	25155	17979	3237
Hemoglobin A1C min:Adjusted(Residual BMI):Subset(Related Dx)	0.004	0.011	7.02E-01	0.262	13857	7551	5355	951
Red Cell Distribution Width median:Adjusted(Residual Log)	0.000	0.000	7.06E-01	0.264	46053	24952	17891	3210
Relative wall thickness (IVSd / LVPWd) / LVIDd:Adjusted(Residual)	-0.001	0.002	7.07E-01	0.267	12772	6845	5027	900
T Score forBMD Spine from most recent DEXA:Adjusted(Residual):Subset(Females)	0.017	0.046	7.08E-01	0.262	3603	1984	1351	268
Hematocrit min:Adjusted(Residual)	-0.016	0.042	7.08E-01	0.264	46397	25143	18023	3231
Free Testosterone max:Adjusted(Residual Log):Subset(Males)	0.007	0.018	7.11E-01	0.262	2409	1291	974	144
Alpha 1 Antitrypsin max:Adjusted(Residual)	-0.446	1.208	7.12E-01	0.237	1361	801	475	85
Potassium min:Adjusted(Residual)	0.001	0.003	7.13E-01	0.263	46381	25171	17979	3231
P Axis ECG:Adjusted(Residual)	0.069	0.188	7.14E-01	0.263	34311	18622	13297	2392
Urate min:Adjusted(Residual Log)	-0.001	0.002	7.20E-01	0.261	11617	6321	4535	761
Mitral Valve E/A ratio :Adjusted(Residual Log)	0.001	0.002	7.24E-01	0.271	11505	6101	4576	828
T Score forBMD Hip from most recent DEXA:Adjusted(Residual):Subset(Females)	0.011	0.032	7.32E-01	0.263	3606	1977	1360	269
Total Cholesterol to HDL Ratio max:Adjusted(Residual Log)	0.000	0.001	7.36E-01	0.263	38137	20699	14790	2648
Erythrocyte Sedimentation Rate median:Adjusted(Residual Log)	-0.001	0.004	7.38E-01	0.265	22944	12404	8935	1605
Total Carbon Dioxide max:Adjusted(Residual)	0.007	0.020	7.41E-01	0.264	46126	25011	17899	3216
Right Cup Disc Ratio from most recent fundoscopy:Adjusted(Residual Log)	0.001	0.004	7.42E-01	0.263	9200	5015	3534	651
Progesterone min:Adjusted(Residual Log):Subset(Females)	-0.011	0.033	7.47E-01	0.258	1060	575	424	61
Amylase max:Adjusted(Residual Log)	0.001	0.003	7.50E-01	0.263	8988	4880	3484	624
Estradiol min:Adjusted(Residual Log):Subset(Males)	0.001	0.004	7.51E-01	0.282	117	59	50	8
Seum Lipase min:Adjusted(Residual Log)	0.001	0.003	7.55E-01	0.262	10409	5663	4032	714
LDL by Direct Assay max:Adjusted(Residual BMI Log)	-0.001	0.003	7.55E-01	0.260	5275	2876	2051	348
Diastolic Blood Pressure min:Adjusted(Residual)	0.017	0.054	7.56E-01	0.264	48625	26340	18892	3393
Glucose Mean Value estimated from Hemoglobin A1C min:Adjusted(Residual)	0.071	0.231	7.59E-01	0.264	22532	12214	8717	1601
Zinc min:Adjusted(Residual)	0.108	0.353	7.59E-01	0.265	3339	1828	1254	257
Aldosterone min:Adjusted(Residual Log)	0.009	0.029	7.60E-01	0.251	980	539	390	51
Mean Corpuscular Volume min:Adjusted(Residual)	-0.012	0.040	7.63E-01	0.264	45974	24922	17848	3204
Corrected QT interval ECG:Adjusted(Residual)	-0.073	0.249	7.69E-01	0.264	34881	18918	13531	2432
Immunoglobulin A max:Adjusted(Residual Log)	0.002	0.005	7.72E-01	0.259	4996	2727	1949	320
LDL by Friedewald Equation max:Adjusted(Residual BMI)	-0.091	0.319	7.76E-01	0.263	37253	20214	14472	2567
Alkaline Phosphatase max:Adjusted(Residual Log)	0.000	0.001	7.80E-01	0.263	42704	23183	16563	2958
CA median:Adjusted(Residual)	0.090	0.328	7.84E-01	0.257	1922	1056	746	120
D-Dimer median:Adjusted(Residual Log)	-0.003	0.010	7.85E-01	0.264	2856	1556	1093	207
Free T3 median:Adjusted(Residual)	0.002	0.009	7.85E-01	0.265	8212	4420	3238	554
Alpha Fetoprotein max:Adjusted(Residual Log)	0.004	0.017	7.85E-01	0.228	1212	723	425	64
Cholecalciferol min:Adjusted(Residual Log)	-0.002	0.006	7.86E-01	0.260	6028	3339	2247	442
Estradiol max:Adjusted(Residual Log):Subset(Females)	0.007	0.027	7.92E-01	0.250	1336	748	507	81
Aortic Valve Area :Adjusted(Residual)	0.003	0.011	7.92E-01	0.269	11221	5982	4441	798
Arterial Blood pH min:Adjusted(Residual)	0.000	0.002	8.03E-01	0.263	3119	1706	1187	226
Chloride min:Adjusted(Residual)	0.007	0.027	8.03E-01	0.264	45928	24924	17799	3205

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Estriadiol min:Adjusted(Residual Log):Subset(Females)	0.005	0.019	8.04E-01	0.250	1297	725	495	77
3MI median:Adjusted(Residual Log)	0.000	0.001	8.05E-01	0.264	47893	25928	18634	3331
Total Carbon Dioxide median:Adjusted(Residual)	0.003	0.013	8.07E-01	0.264	46178	25044	17915	3219
Prostate Specific Antigen max:Adjusted(Residual Log):Subset(Males)	0.001	0.006	8.10E-01	0.262	13466	7330	5229	907
gE max:Adjusted(Residual Log)	-0.007	0.030	8.11E-01	0.258	1478	810	573	95
Erythrocyte Sedimentation Rate max:Adjusted(Residual Log)	0.001	0.004	8.12E-01	0.265	22943	12404	8934	1605
Albumin min:Adjusted(Residual Squared)	-0.006	0.026	8.18E-01	0.263	43111	23382	16741	2988
Z Score forBMD Spine from most recent DEXA:Adjusted(Residual)	-0.010	0.043	8.24E-01	0.264	4092	2234	1559	299
Cholecalciferol max:Adjusted(Residual Log)	0.001	0.004	8.25E-01	0.260	6028	3339	2247	442
Potassium median:Adjusted(Residual)	0.000	0.002	8.29E-01	0.264	46480	25219	18023	3238
Total Protein min:Adjusted(Residual)	0.001	0.004	8.30E-01	0.264	42606	23095	16547	2964
T Score forBMD Hip from most recent DEXA:Adjusted(Residual):Subset(Females)	0.006	0.028	8.32E-01	0.258	4644	2575	1741	328
Alpha Fetoprotein min:Adjusted(Residual Log)	0.003	0.014	8.33E-01	0.228	1253	746	442	65
Creatinine min:Adjusted(Residual)	0.000	0.001	8.33E-01	0.264	46249	25093	17929	3227
Value forBMD Spine from most recent DEXA:Adjusted(Residual)	0.001	0.004	8.35E-01	0.260	5193	2861	1966	366
Vitamin B12 max:Adjusted(Residual Log)	0.001	0.003	8.36E-01	0.265	16324	8816	6351	1157
Estriadiol max:Adjusted(Residual Log):Subset(Males)	0.001	0.004	8.39E-01	0.282	117	59	50	8
C3 median:Adjusted(Residual)	-0.215	1.072	8.41E-01	0.257	1872	1020	740	112
Follicle Stimulating Hormone min:Adjusted(Residual Log):Subset(Females)	-0.002	0.010	8.43E-01	0.260	5477	3016	2075	386
C Reactive Protein max:Adjusted(Residual Log)	-0.002	0.012	8.46E-01	0.271	6731	3588	2632	511
Total Cholesterol to HDL Ratio min:Adjusted(Residual Log)	0.000	0.001	8.50E-01	0.263	38153	20706	14797	2650
Z Score forBMD Hip from most recent DEXA:Adjusted(Residual)	-0.006	0.030	8.50E-01	0.266	4075	2213	1559	303
Magnesium max:Adjusted(Residual)	0.001	0.005	8.59E-01	0.263	7552	4086	2957	509
Pre-Bronchodilator % of Predicted Forced Expiratory Volume in 1 second to Forced Vital Capacity Ratio:Adjusted(Residual)	0.039	0.220	8.60E-01	0.267	10926	5906	4199	821
Phosphate min:Adjusted(Residual)	0.002	0.009	8.62E-01	0.265	13277	7149	5208	920
Cholecalciferol median:Adjusted(Residual Log)	0.001	0.005	8.65E-01	0.260	6028	3339	2247	442
Luteinizing Hormone median:Adjusted(Residual Log):Subset(Females)	-0.002	0.011	8.65E-01	0.267	3170	1711	1225	234
Amylase min:Adjusted(Residual Log)	-0.001	0.003	8.69E-01	0.264	9064	4919	3510	635
% Monocytes median:Adjusted(Residual)	-0.002	0.015	8.69E-01	0.264	40618	22026	15760	2832
Left Ventricular Outflow Maximum Velocity :Adjusted(Residual)	0.047	0.291	8.72E-01	0.268	12763	6820	5051	892
Urate max:Adjusted(Residual Log)	0.000	0.002	8.75E-01	0.261	11627	6329	4536	762
Predicted Forced Expiratory Volume in 1 second :Adjusted(Residual)	0.000	0.003	8.78E-01	0.267	10990	5942	4222	826
Systolic Blood Pressure median:Adjusted(Residual Rx Corrected)	0.014	0.094	8.79E-01	0.264	48093	26046	18700	3347
Immunoglobulin A median:Adjusted(Residual Log)	0.001	0.006	8.80E-01	0.259	5001	2728	1952	321
Estriadiol median:Adjusted(Residual Log):Subset(Males)	0.001	0.004	8.81E-01	0.282	117	59	50	8
Red Cell Distribution Width min:Adjusted(Residual Log)	0.000	0.000	8.86E-01	0.264	46031	24937	17885	3209
Systolic Blood Pressure max:Adjusted(Residual)	0.020	0.142	8.91E-01	0.264	48945	26509	19020	3416
Jeum Lipase max:Adjusted(Residual Log)	0.001	0.004	8.94E-01	0.262	10257	5576	3983	698
Insulin max:Adjusted(Residual BMI Log):Subset(No Related Dx)	-0.001	0.008	9.03E-01	0.268	2569	1377	1005	187
Red Blood Cell Count min:Adjusted(Residual)	-0.001	0.005	9.04E-01	0.264	46313	25093	17989	3231
Total Cholesterol to HDL Ratio median:Adjusted(Residual Log)	0.000	0.001	9.10E-01	0.263	38159	20710	14799	2650
C3 max:Adjusted(Residual)	0.118	1.065	9.12E-01	0.257	1863	1016	736	111
T Score forBMD Spine from most recent DEXA:Adjusted(Residual)	0.004	0.034	9.12E-01	0.260	5196	2864	1967	365
D-Dimer min:Adjusted(Residual Log)	-0.001	0.010	9.13E-01	0.264	2856	1556	1093	207
Amylase median:Adjusted(Residual Log)	0.000	0.003	9.14E-01	0.264	9065	4920	3510	635
T4 max:Adjusted(Residual Log)	0.000	0.001	9.19E-01	0.261	16530	9028	6379	1123
Prostate Specific Antigen median:Adjusted(Residual Log):Subset(Males)	0.001	0.005	9.21E-01	0.262	13489	7342	5238	909
Cortisol max:Adjusted(Residual Log)	-0.001	0.008	9.23E-01	0.254	2570	1440	955	175
Body surface area calculation at time of echocardiography:Adjusted(Residual)	0.000	0.003	9.25E-01	0.268	12963	6940	5106	917
% Lymphocytes max:Adjusted(Residual)	-0.007	0.074	9.29E-01	0.263	40243	21839	15600	2804
Pre-Bronchodilator Forced Expiratory Volume in 1 second to Forced Vital Capacity Ratio:Adjusted(Residual)	0.015	0.168	9.31E-01	0.267	10940	5913	4206	821
Urea max:Adjusted(Residual Log)	0.000	0.001	9.34E-01	0.264	46474	25205	18028	3241
Alpha Fetoprotein median:Adjusted(Residual Log)	-0.001	0.014	9.40E-01	0.228	1253	746	442	65
Absolute Basophils min:Adjusted(Residual Log)	0.000	0.003	9.42E-01	0.263	26933	14661	10403	1869
Cubed Stroke Volume :Adjusted(Residual)	0.030	0.489	9.51E-01	0.267	11670	6256	4588	826
Luteinizing Hormone max:Adjusted(Residual Log):Subset(Females)	0.001	0.011	9.56E-01	0.267	3170	1711	1225	234
Thyroid Stimulating Hormone min:Adjusted(Residual Log)	0.000	0.003	9.59E-01	0.265	38400	20744	14953	2703
Urate median:Adjusted(Residual Log)	0.000	0.002	9.62E-01	0.261	11628	6329	4537	762
% Monocytes min:Adjusted(Residual)	0.001	0.020	9.62E-01	0.264	40665	22050	15781	2834
LDL by Direct Assay min:Adjusted(Residual BMI Log)	0.000	0.004	9.63E-01	0.260	5265	2872	2045	348
Absolute Basophils max:Adjusted(Residual Log)	0.000	0.002	9.68E-01	0.263	38764	21052	15024	2688
Arterial Blood CO2 max:Adjusted(Residual)	-0.008	0.205	9.69E-01	0.263	3089	1688	1175	226
Mean Corpuscular Volume median:Adjusted(Residual)	0.001	0.030	9.76E-01	0.264	46193	25032	17943	3218
% Monocytes max:Adjusted(Residual Log)	0.000	0.001	9.86E-01	0.264	40649	22038	15777	2834
T4 min:Adjusted(Residual)	-0.003	0.340	9.92E-01	0.256	1913	1051	743	119
Insulin min:Adjusted(Residual BMI Log):Subset(No Related Dx)	0.000	0.009	9.98E-01	0.268	2567	1376	1004	187
Creatine Kinase MB Isoenzyme median:Adjusted(Residual Log)	0.000	0.007	9.99E-01	0.259	6680	3671	2559	450

Gray shading indicates P-values meeting the Bonferroni significance threshold of $P < 1.23E-04$.

Abbreviations: AAF, alternate allele frequency; SE, standard error.

Table S8. Phenome-Wide Study of Associations of HSD17B13 rs72613567:TA with Clinical Diagnoses

Phenotype	OR [95% CI]	P	AAF	N Cases				N Controls			
				Total	T/T	T/TA	TA/TA	Total	T/T	T/TA	TA/TA
Chronic liver disease and cirrhosis	0.88 [0.84-0.93]	9.14E-06	0.263	4031	2331	1449	251	35701	19238	13984	2479
Non-specific abnormal results of function study of liver	0.87 [0.82-0.93]	4.94E-05	0.263	2901	1698	1019	184	23353	12524	9221	1608
Cirrhosis of liver without mention of alcohol	0.78 [0.68-0.88]	1.33E-04	0.265	686	416	239	31	36425	19621	14260	2544
Alcoholic cirrhosis of liver	0.61 [0.47-0.79]	1.76E-04	0.265	198	131	62	5	36490	19651	14287	2552
Other abnormal blood chemistry	0.92 [0.88-0.96]	2.98E-04	0.262	7771	4380	2896	495	20562	11047	8090	1425
Esophageal varices without mention of bleeding	0.66 [0.53-0.83]	3.35E-04	0.265	246	160	77	9	38480	20804	14942	2734
Malignant neoplasm of kidney and other and unspecified urinary organs	0.74 [0.63-0.88]	3.42E-04	0.264	452	284	145	23	45874	24796	17888	3190
Cervical spondylosis without myelopathy	1.15 [1.06-1.24]	4.51E-04	0.266	1666	857	651	158	33442	18088	13010	2344
Non-specific elevation of levels of transaminase or lactic acid dehydrogenase [LDH]	0.81 [0.72-0.92]	6.36E-04	0.265	813	484	287	42	23637	12670	9336	1631
Other chronic nonalcoholic liver disease	0.91 [0.85-0.96]	9.53E-04	0.264	3337	1906	1218	213	35854	19310	14052	2492
Shoulder and upper arm injury	0.51 [0.34-0.76]	1.10E-03	0.264	90	65	22	3	46878	25358	18227	3293
Hemorrhage of rectum and anus	0.89 [0.82-0.96]	1.50E-03	0.265	2004	1141	749	114	31721	17115	12333	2273
Postmenopausal atrophic vaginitis:Subset(Females)	0.89 [0.82-0.96]	2.26E-03	0.264	2116	1225	752	139	15060	8075	5927	1058
Periarterial neuritis or radiculitis NOS	1.14 [1.05-1.24]	2.32E-03	0.266	1390	703	569	118	33578	18162	13062	2354
Portal hypertension	0.72 [0.58-0.89]	2.46E-03	0.265	257	163	82	12	36477	19644	14282	2551
Malignant neoplasm of kidney	0.77 [0.65-0.91]	2.52E-03	0.264	409	252	136	21	45878	24796	17891	3191
Chromosomal anomalies	1.8 [1.23-2.63]	2.56E-03	0.264	56	20	28	8	43421	23524	16862	3035
Fracture of one or more phalanges of hand	0.76 [0.63-0.91]	2.72E-03	0.265	342	210	117	15	46382	25061	18070	3251
Non-specific findings on examination of blood	0.95 [0.91-0.98]	2.82E-03	0.262	15640	8637	5986	1017	18656	10004	7347	1305
Closed Fracture Of One Or More Phalanges Of Hand	0.74 [0.61-0.9]	2.99E-03	0.265	306	190	102	14	46428	25087	18087	3254
Cellulitis and abscess of unspecified sites	1.11 [1.04-1.19]	3.25E-03	0.264	2138	1101	862	175	38769	21026	15088	2655
Absence of menstruation:Subset(Females)	0.89 [0.82-0.96]	3.36E-03	0.265	2451	1377	918	156	14837	7964	5829	1044
Antepartum hemorrhage abruptio placentae and placenta previa:Subset(Females)	0.74 [0.6-0.91]	3.70E-03	0.264	285	174	100	11	25399	13781	9811	1807
Varicose veins of other sites	0.79 [0.67-0.93]	3.89E-03	0.265	428	260	146	22	38315	20723	14872	2720
Other Malignant Lymphomas	1.25 [1.07-1.46]	4.41E-03	0.264	384	180	171	33	48060	26064	18641	3355
Family history of other condition	0.72 [0.57-0.91]	5.15E-03	0.263	227	137	86	4	29674	16102	11492	2080
Unspecified Disorder Of Eye And Adnexa	1.23 [1.06-1.43]	5.36E-03	0.264	428	211	172	45	29305	15914	11343	2048
Liver abscess and sequelae of chronic liver disease	0.79 [0.67-0.93]	5.78E-03	0.265	407	246	141	20	36444	19632	14265	2547
Hypertension complicating pregnancy childbirth and the puerperium:Subset(Females)	0.8 [0.69-0.94]	6.25E-03	0.264	479	281	176	22	25319	13729	9788	1802
Thrombocytopenia	0.88 [0.8-0.96]	6.55E-03	0.265	1238	710	457	71	35812	19292	13975	2545
Peri-anal Warts	1.1 [1.03-1.18]	8.04E-03	0.265	2110	1089	851	170	41070	22251	15981	2838
Other specified disorders of liver	0.83 [0.73-0.95]	8.10E-03	0.265	605	365	201	39	36120	19448	14143	2529
Diffuse cystic mastopathy:Subset(Females)	1.13 [1.03-1.24]	9.01E-03	0.264	1173	602	470	101	23573	12853	9068	1652
Chalasia and cardiospasm	0.46 [0.26-0.83]	1.03E-02	0.264	46	35	9	2	39393	21333	15320	2740
Candidiasis of mouth	1.13 [1.03-1.23]	1.06E-02	0.265	1181	590	500	91	38195	20678	14847	2670
Fall On Stairs Or Steps	0.76 [0.61-0.94]	1.14E-02	0.264	249	157	78	14	45488	24650	17667	3171
Other Diseases Of Trachea And Bronchus	0.85 [0.74-0.96]	1.16E-02	0.264	655	385	235	35	42859	23177	16697	2985
Unspecified internal derangement of knee	0.87 [0.78-0.97]	1.22E-02	0.263	878	517	307	54	29105	15753	11339	2013
Acute posthemorrhagic anemia	0.91 [0.85-0.98]	1.25E-02	0.266	2138	1201	806	131	34358	18485	13418	2455
Other known or suspected fetal and placental problems affecting management of mother:Subset(Females)	0.86 [0.76-0.97]	1.30E-02	0.264	845	472	335	38	25861	14037	9978	1846
Contact with or exposure to tuberculosis	0.56 [0.35-0.89]	1.31E-02	0.263	66	46	18	2	33808	18338	13129	2341
Hepatitis	0.81 [0.69-0.96]	1.35E-02	0.265	418	250	146	22	36359	19576	14239	2544
Other diseases due to viruses and chlamydiae	1.09 [1.02-1.16]	1.38E-02	0.264	2281	1181	921	179	40874	22149	15901	2824
Purpura and other hemorrhagic conditions	0.91 [0.84-0.98]	1.39E-02	0.265	1744	983	658	103	35499	19119	13854	2526
Other diseases of spinal cord	1.22 [1.04-1.43]	1.40E-02	0.263	366	181	148	37	43565	23675	16865	3025
Abnormality of organs and soft tissues of pelvis:Subset(Females)	0.86 [0.76-0.97]	1.40E-02	0.264	818	467	307	44	25875	14042	9978	1855
Issue of repeat prescriptions	0.83 [0.72-0.96]	1.41E-02	0.264	503	299	176	28	36186	19578	14073	2535
Personal History Of Malignant Neoplasm Of Urinary Organs	0.8 [0.67-0.96]	1.47E-02	0.263	357	210	132	15	29650	16087	11493	2070
Other and unspecified coagulation defects	0.84 [0.74-0.97]	1.57E-02	0.266	575	341	198	36	35894	19336	14002	2556
Sialoadenitis	0.81 [0.68-0.96]	1.61E-02	0.265	369	217	138	14	42023	22722	16331	2970
Other myelopathy	1.29 [1.05-1.58]	1.66E-02	0.263	211	101	87	23	43693	23745	16919	3029
Internal derangement of knee	0.9 [0.83-0.98]	1.71E-02	0.263	1559	900	559	100	28693	15537	11171	1985
Pterygium	0.64 [0.44-0.92]	1.71E-02	0.263	94	61	31	2	29864	16237	11548	2079
Other And Unspecified Disorders Of Bone And Cartilage	1.1 [1.02-1.19]	1.76E-02	0.264	1705	893	673	139	38164	20693	14838	2633
Sprains and strains of wrist and hand	1.2 [1.03-1.41]	1.82E-02	0.264	391	193	161	37	41655	22591	16192	2872
Cyphoscoliosis And Scoliosis	1.15 [1.02-1.3]	1.89E-02	0.264	695	346	292	57	39291	21275	15297	2719
Postpartum care and examination	0.87 [0.78-0.98]	1.99E-02	0.263	1359	761	532	66	41742	22610	16234	2898
Mononeuritis of lower limb	1.31 [1.04-1.64]	2.02E-02	0.264	175	81	77	17	38336	20781	14913	2642
Other malignant neoplasms of lymphoid and histiocytic tissue	1.19 [1.03-1.39]	2.02E-02	0.264	421	204	183	34	48041	26052	18636	3353
Acquired deformity of nose	0.75 [0.59-0.96]	2.08E-02	0.264	194	120	66	8	39565	21420	15409	2736
Congenital anomalies of eye	0.77 [0.62-0.96]	2.09E-02	0.264	230	145	70	15	43108	23342	16751	3015

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Other postablative hypothyroidism	0.81 [0.67-0.97]	2.17E-02	0.265	340	208	112	20	42590	23010	16597	2983
Benign neoplasm of lip oral cavity and pharynx	1.32 [1.04-1.67]	2.18E-02	0.265	160	72	73	15	40073	21703	15554	2816
Chronic migraine without aura	0.81 [0.67-0.97]	2.19E-02	0.263	331	195	123	13	40076	21769	15523	2784
Death Inj Caused By Animal	0.79 [0.65-0.97]	2.29E-02	0.264	286	173	99	14	47287	25576	18422	3289
Malignant neoplasm of uterus	1.34 [1.04-1.73]	2.29E-02	0.263	136	64	56	16	26022	14148	10052	1822
Previous Cesarean Section Complicating Pregnancy	0.85 [0.75-0.98]	2.29E-02	0.264	647	363	255	29	25990	14101	10027	1862
Chronic lymphocytic thyroiditis	0.85 [0.74-0.98]	2.35E-02	0.265	547	322	196	29	42560	22989	16590	2981
Pure hyperglyceridemia	1.09 [1.01-1.17]	2.39E-02	0.263	1910	989	779	142	28902	15772	11123	2007
Mononeuritis of lower limb and unspecified site	1.09 [1.01-1.17]	2.41E-02	0.264	1897	981	773	143	37268	20190	14513	2565
Postinflammatory pulmonary fibrosis	1.19 [1.02-1.38]	2.53E-02	0.265	426	213	171	42	43516	23534	16957	3025
Intrinsic Asthma	0.76 [0.6-0.97]	2.69E-02	0.264	200	123	68	9	41392	22417	16082	2893
Ballor And Flushing	1.22 [1.02-1.46]	2.70E-02	0.260	303	147	131	25	10105	5551	3877	677
Open wound of buttock	0.48 [0.25-0.92]	2.70E-02	0.264	37	28	7	2	46567	25212	18112	3243
Psoriasis and similar disorders	1.09 [1.01-1.18]	2.79E-02	0.265	1679	865	683	131	39497	21345	15390	2762
Other	1.6 [1.05-2.43]	2.80E-02	0.264	48	20	21	7	45990	24895	17912	3183
Sleep Disturbances	1.05 [1.01-1.1]	2.81E-02	0.265	11561	6191	4525	845	9404	5143	3626	635
Disorders of the pituitary gland and its hypothalamic control	0.86 [0.76-0.98]	2.82E-02	0.266	620	351	243	26	37349	20131	14568	2650
Wrist Sprain	1.23 [1.02-1.47]	2.87E-02	0.264	274	135	111	28	41856	22693	16274	2889
Acute upper respiratory infections of multiple or unspecified sites	0.96 [0.92-1]	2.89E-02	0.264	8420	4630	3236	554	30956	16683	12088	2185
Acute upper respiratory infections of unspecified site	0.96 [0.92-1]	2.89E-02	0.264	8408	4624	3231	553	30971	16693	12093	2185
Convulsions	1.1 [1.01-1.19]	2.97E-02	0.262	1675	869	676	130	10067	5532	3861	674
Disorders involving the immune mechanism	1.19 [1.02-1.4]	3.05E-02	0.263	362	180	149	33	29126	15872	11221	2033
Esophageal Varices In Diseases Classified Elsewhere	0.69 [0.49-0.97]	3.08E-02	0.265	105	70	28	7	38513	20819	14959	2735
Malignant neoplasm of tongue	1.87 [1.06-3.29]	3.10E-02	0.264	25	10	10	5	48850	26448	18990	3412
Supervision of high-risk pregnancy with other poor reproductive history:Subset(Females)	0.85 [0.74-0.99]	3.17E-02	0.263	662	365	275	22	22196	12055	8578	1563
Unspecified disorder of eyelid	1.36 [1.03-1.82]	3.31E-02	0.263	107	54	36	17	29794	16203	11513	2078
Emphysematous bleb	0.48 [0.25-0.95]	3.39E-02	0.264	34	25	8	1	41427	22439	16091	2897
Fracture Of Shaft Or Unspecified Part Of Femur	1.24 [1.02-1.51]	3.48E-02	0.264	231	114	92	25	45969	24884	17902	3183
Fracture Of Unspecified Part Of Radius With Ulna	0.79 [0.64-0.98]	3.51E-02	0.265	238	141	88	9	46624	25196	18168	3260
Ganglion And Cyst Of Synovium	1.11 [1.01-1.23]	3.56E-02	0.266	970	496	393	81	29129	15706	11388	2035
Alcoholic fatty liver	0.6 [0.37-0.97]	3.64E-02	0.266	56	39	14	3	36491	19649	14289	2553
Retinal Defects Without Detachment	0.77 [0.6-0.99]	3.77E-02	0.263	182	114	58	10	29830	16228	11522	2080
Cerebral cysts	0.67 [0.45-0.98]	3.83E-02	0.263	84	53	30	1	40056	21755	15519	2782
Attention or concentration deficit;Cognitive communication deficit;Visuospatial deficit;Psychomotor deficit;Frontal lobe and executive function deficit;Other signs and symptoms involving cognition	1.32 [1.01-1.72]	3.92E-02	0.264	127	54	64	9	45924	24908	17821	3195
Cyst of Bartholins gland:Subset(Females)	1.5 [1.02-2.2]	3.94E-02	0.264	57	24	26	7	25972	14105	10025	1842
Known or suspected fetal abnormality affecting management of mother:Subset(Females)	0.89 [0.79-0.99]	3.95E-02	0.264	909	508	352	49	25852	14026	9973	1853
Fracture of other and unspecified parts of femur	1.21 [1.01-1.46]	3.95E-02	0.264	271	135	108	28	45950	24875	17894	3181
Rosacea	0.92 [0.86-1]	3.96E-02	0.264	1872	1050	708	114	39357	21260	15350	2747
Hypertensive Heart And Renal Disease	0.49 [0.25-0.97]	3.96E-02	0.264	33	23	10	0	43067	23330	16707	3030
Other multiple and ill-defined fractures of lower limb	1.54 [1.02-2.34]	4.02E-02	0.264	49	21	21	7	45989	24894	17912	3183
Atherosclerosis of other specified arteries	1.36 [1.01-1.84]	4.03E-02	0.264	99	41	51	7	40966	22208	15881	2877
Other specified pruritic conditions	1.3 [1.01-1.68]	4.28E-02	0.265	136	64	57	15	39907	21561	15558	2788
Unspecified persistent mental disorders due to conditions classified elsewhere	1.17 [1.01-1.35]	4.31E-02	0.264	420	206	180	34	46823	25416	18129	3278
Fracture of pelvis	1.2 [1.01-1.44]	4.36E-02	0.264	292	143	121	28	47012	25477	18239	3296
Displacement of cervical intervertebral disc without myelopathy	1.07 [1-1.15]	4.40E-02	0.265	2276	1209	872	195	33532	18129	13055	2348
Benign neoplasm of other endocrine glands and related structures	0.89 [0.79-1]	4.47E-02	0.264	785	445	301	39	39971	21637	15536	2798
Gout	1.06 [1-1.13]	4.48E-02	0.264	3385	1793	1337	255	28809	15686	11121	2002
Erythematous conditions	0.94 [0.88-1]	4.56E-02	0.264	2895	1621	1084	190	38353	20722	14958	2673
Non-specific (abnormal) findings on radiological and other examination of abdominal area	0.65 [0.43-0.99]	4.58E-02	0.266	71	48	19	4	23742	12738	9358	1646
Irregular menstrual cycle:Subset(Females)	0.92 [0.85-1]	4.60E-02	0.265	2168	1201	826	141	15169	8152	5955	1062
Encounter for other and unspecified procedures and aftercare	1.03 [1-1.07]	4.69E-02	0.265	18828	10082	7400	1346	21551	11740	8349	1462
Benign mammary dysplasias:Subset(Females)	1.09 [1-1.19]	4.78E-02	0.263	1421	747	556	118	23408	12775	8997	1636
Spondylosis and allied disorders	1.06 [1-1.12]	4.84E-02	0.266	3707	1976	1429	302	32994	17845	12832	2317
Dermatophytosis of unspecified site	0.84 [0.7-1]	4.92E-02	0.264	350	207	124	19	38712	20960	15045	2707
Gastroenteritis and colitis due to radiation	0.54 [0.29-1]	5.00E-02	0.264	37	26	10	1	46796	25343	18169	3284
Concussion	1.21 [1-1.47]	5.05E-02	0.264	247	118	108	21	47983	26018	18618	3347
Spinal stenosis in cervical region	1.12 [1-1.26]	5.05E-02	0.265	726	376	285	65	33789	18272	13149	2368
Panhypopituitarism	0.71 [0.5-1]	5.14E-02	0.266	100	61	37	2	37534	20237	14639	2658
Rhesus Isoimmunization Affecting Management Of Mother:Subset(Females)	0.84 [0.7-1]	5.25E-02	0.264	358	204	137	17	26165	14194	10094	1877
Family history of stroke (cerebrovascular)	0.71 [0.5-1]	5.30E-02	0.264	99	60	38	1	29714	16123	11510	2081
Thyroiditis	0.89 [0.79-1]	5.48E-02	0.264	786	450	293	43	42498	22958	16565	2975
Routine postpartum follow-up	0.89 [0.79-1]	5.55E-02	0.263	1287	711	513	63	41743	22611	16234	2898
Aphasia	1.25 [0.99-1.57]	5.58E-02	0.260	184	89	78	17	10106	5553	3876	677
Hepatic encephalopathy	0.8 [0.63-1.01]	5.59E-02	0.265	206	124	72	10	36489	19650	14288	2551
Disorders of uterus not elsewhere classified:Subset(Females)	0.87 [0.76-1]	5.64E-02	0.265	547	321	191	35	15470	8322	6066	1082
Persistent mental disorders due to conditions classified elsewhere	1.1 [1-1.21]	5.67E-02	0.264	1100	549	476	75	46516	25250	18007	3259
Screening for other and unspecified cardiovascular conditions	1.07 [1-1.14]	5.72E-02	0.267	2632	1373	1063	196	12730	6885	4953	892

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Curvature of spine	1.11 [1-1.24]	5.87E-02	0.264	795	404	328	63	39206	21229	15260	2717
Primary Or Secondary	1.09 [1-1.18]	5.87E-02	0.265	1470	769	584	117	28806	15582	11235	1989
Septicemia Due To Other Gram-Negative Organisms	0.78 [0.61-1.01]	5.92E-02	0.264	175	104	65	6	45032	24377	17517	3138
Retinal detachments and defects	0.89 [0.79-1.01]	5.95E-02	0.262	778	447	287	44	29782	16206	11499	2077
Disorders of adrenal glands	0.89 [0.78-1.01]	6.02E-02	0.265	677	388	250	39	37246	20082	14523	2641
Diverticula of intestine	0.96 [0.91-1]	6.16E-02	0.265	5719	3130	2220	369	29808	16039	11634	2135
Contusion of abdominal wall	0.75 [0.55-1.02]	6.25E-02	0.264	125	76	45	4	45413	24617	17635	3161
Cellulitis and abscess of other specified sites	1.38 [0.98-1.94]	6.28E-02	0.263	76	39	24	13	40949	22214	15909	2826
Other diseases of respiratory system	0.9 [0.81-1.01]	6.29E-02	0.264	877	504	318	55	42503	22999	16548	2956
Hernia of other specified sites without mention of obstruction or gangrene	1.36 [0.98-1.89]	6.37E-02	0.264	81	38	33	10	42377	22958	16443	2976
Superficial injury of eye and adnexa	0.88 [0.76-1.01]	6.37E-02	0.264	554	330	183	41	45800	24749	17855	3196
Benign neoplasm of brain and other parts of nervous system	0.85 [0.72-1.01]	6.40E-02	0.264	381	224	135	22	40148	21742	15595	2811
Placenta Previa Without Hemorrhage:Subset(Females)	0.77 [0.59-1.02]	6.46E-02	0.264	153	92	54	7	25470	13819	9841	1810
Benign neoplasm of cerebral meninges	0.83 [0.67-1.01]	6.53E-02	0.264	263	161	84	18	40215	21770	15631	2814
Social maladjustment	1.55 [0.97-2.46]	6.56E-02	0.265	39	17	16	6	36244	19613	14090	2541
Benign neoplasm of pituitary gland and craniopharyngeal duct	0.84 [0.7-1.01]	6.60E-02	0.264	314	179	124	11	40212	21764	15629	2819
Postpartum care and examination immediately after delivery	0.69 [0.46-1.03]	6.70E-02	0.264	78	50	24	4	41757	22618	16240	2899
Exercise induced bronchospasm;Cough variant asthma	0.83 [0.69-1.01]	6.70E-02	0.264	287	170	101	16	41332	22391	16052	2889
Screening for other and unspecified deficiency anemia	1.17 [0.99-1.39]	6.71E-02	0.266	335	162	146	27	13002	7027	5065	910
Other psoriasis	1.08 [0.99-1.17]	6.77E-02	0.265	1455	753	591	111	39745	21473	15498	2774
Elevated blood pressure reading without diagnosis of hypertension	0.94 [0.89-1]	6.79E-02	0.265	2955	1637	1133	185	22445	12046	8839	1560
Family history of other conditions	0.85 [0.71-1.01]	6.80E-02	0.263	358	201	146	11	29615	16072	11465	2078
Degeneration Of Macula And Posterior Pole Of Retina	0.94 [0.87-1.01]	6.84E-02	0.262	2799	1564	1051	184	29638	16115	11454	2069
Edema	1.05 [1-1.11]	6.94E-02	0.263	8289	4475	3200	614	9258	5086	3552	620
Other disorders of liver	0.92 [0.85-1.01]	6.96E-02	0.266	1402	797	509	96	35763	19235	14020	2508
Diverticula Of Colon	0.96 [0.91-1]	7.02E-02	0.266	5702	3118	2215	369	29841	16054	11649	2138
Superficial injury of cornea	0.88 [0.77-1.01]	7.04E-02	0.264	551	328	182	41	45865	24792	17874	3199
Tracheostomy status	0.71 [0.49-1.03]	7.19E-02	0.263	88	53	34	1	26269	14215	10271	1783
Sout	1.06 [0.99-1.13]	7.21E-02	0.263	3002	1591	1186	225	28912	15747	11156	2009
Cough	1.04 [1-1.09]	7.22E-02	0.263	11237	6048	4396	793	8466	4662	3239	565
General symptoms	1.04 [1-1.09]	7.26E-02	0.265	26574	14274	10413	1887	6582	3605	2541	436
Arthropathy associated with neurological disorders	0.71 [0.49-1.03]	7.27E-02	0.264	88	59	22	7	29486	15955	11485	2046
Acquired absence of both cervix and uterus;Acquired absence of uterus with remaining cervical stump;Acquired absence of cervix with remaining uterus:Subset(Females)	0.88 [0.76-1.01]	7.29E-02	0.264	542	312	201	29	27369	14847	10581	1941
Benign neoplasm of skin	1.05 [1-1.1]	7.45E-02	0.266	4448	2335	1796	317	33495	18120	13032	2343
Other nonspecific abnormal findings	0.95 [0.91-1.01]	7.53E-02	0.264	4609	2548	1768	293	21736	11688	8552	1496
Open wound of buttock	0.59 [0.33-1.06]	7.56E-02	0.264	40	29	8	3	46566	25211	18112	3243
Congenital anomalies of the integument	0.89 [0.79-1.01]	7.63E-02	0.264	670	383	247	40	42088	22787	16363	2938
Inguinal hernia	0.93 [0.85-1.01]	7.77E-02	0.264	1558	861	611	86	41934	22724	16261	2949
Dementia	1.14 [0.99-1.33]	7.79E-02	0.264	448	221	190	37	46950	25473	18191	3286
Noninfectious disorders of lymphatic channels	0.85 [0.71-1.02]	7.84E-02	0.265	341	199	124	18	38340	20726	14892	2722
Unspecified viral hepatitis C without hepatic coma;Unspecified viral hepatitis C with hepatic coma	0.85 [0.71-1.02]	7.86E-02	0.264	347	202	128	17	43692	23674	16982	3036
Inguinal Hernia	0.93 [0.85-1.01]	7.89E-02	0.264	1553	857	611	85	41942	22726	16265	2951
Specified anomalies of nails	0.83 [0.67-1.02]	7.98E-02	0.264	247	145	89	13	43067	23325	16729	3013
Other Aftercare Following Surgery	1.13 [0.99-1.29]	8.00E-02	0.263	520	269	204	47	37646	20467	14559	2620
Fragments Of Torsion Dystonia	1.2 [0.98-1.48]	8.05E-02	0.263	211	101	93	17	43740	23759	16941	3040
Special screening for cardiovascular respiratory and genitourinary diseases	1.06 [0.99-1.13]	8.17E-02	0.266	2789	1460	1124	205	12678	6863	4927	888
Early or threatened labor:Subset(Females)	0.89 [0.79-1.01]	8.20E-02	0.264	776	430	302	44	25086	13600	9703	1783
Other mycoses	0.76 [0.56-1.04]	8.21E-02	0.264	123	76	41	6	39101	21170	15190	2741
Other cellulitis and abscess	1.04 [1-1.09]	8.24E-02	0.264	5917	3171	2287	459	34899	18932	13579	2388
Other forms of chronic ischemic heart disease	0.97 [0.93-1]	8.27E-02	0.264	12612	6869	4906	837	33343	18021	12976	2346
Acute Myocardial Infarction	0.87 [0.74-1.02]	8.28E-02	0.265	429	249	155	25	38977	21077	15146	2754
Mention Of Hemorrhage Or Perforation	1.13 [0.98-1.29]	8.29E-02	0.264	516	260	214	42	39262	21269	15265	2728
Effects of other external causes	1.12 [0.98-1.28]	8.38E-02	0.263	555	282	230	43	43250	23469	16801	2980
Screening For Malignant Neoplasms Of The Breast:Subset(Females)	1.05 [0.99-1.12]	8.47E-02	0.264	16628	9009	6432	1187	4807	2644	1832	331
Dyspepsia and other specified disorders of function of stomach	0.87 [0.74-1.02]	8.47E-02	0.264	430	253	150	27	38714	20967	15048	2699
Benign localized hyperplasia of prostate without urinary obstruction and other lower urinary tract symptoms (LUTS);Benign localized hyperplasia of prostate with urinary obstruction and other lower urinary tract symptoms (LUTS):Subset(Males)	0.89 [0.79-1.02]	8.64E-02	0.262	762	429	295	38	11017	5949	4326	742
Malignant neoplasm of rectosigmoid junction	0.69 [0.45-1.06]	8.79E-02	0.264	66	45	16	5	47900	25935	18614	3351
Urinary tract infection	0.97 [0.93-1.01]	8.87E-02	0.263	10049	5509	3872	668	27255	14764	10560	1931
Supervision of high-risk pregnancy:Subset(Females)	0.92 [0.85-1.01]	8.87E-02	0.263	3073	1686	1195	192	22147	12025	8559	1563
Congenital anomalies of respiratory system	1.16 [0.98-1.37]	8.88E-02	0.264	334	166	140	28	42967	23265	16695	3007
Abnormal finding on antenatal screening	0.83 [0.67-1.03]	8.90E-02	0.266	239	139	88	12	23800	12778	9376	1646
Personal History Of Injury	1.2 [0.97-1.49]	9.03E-02	0.264	203	101	82	20	29588	16052	11464	2072
Mononeuritis of unspecified site	1.08 [0.99-1.19]	9.08E-02	0.264	1172	608	477	87	37888	20543	14734	2611
Diabetes mellitus	0.97 [0.94-1]	9.09E-02	0.265	14993	8174	5782	1037	29202	15705	11398	2099
Unspecified disorder of autonomic nervous system	1.29 [0.96-1.72]	9.09E-02	0.263	105	47	50	8	43763	23771	16949	3043
Chondromalacia of patella	0.85 [0.71-1.03]	9.10E-02	0.264	314	185	111	18	29307	15855	11422	2030

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Foreign body on external eye	1.23 [0.97-1.57]	9.17E-02	0.264	157	76	66	15	47856	25919	18599	3338
Other bacterial pneumonia	0.94 [0.87-1.01]	9.18E-02	0.264	1794	1011	653	130	42430	22926	16545	2959
Intestinal disaccharidase deficiencies and disaccharide malabsorption	1.15 [0.98-1.34]	9.21E-02	0.262	383	197	152	34	29105	15874	11204	2027
Other disorders of stomach and duodenum	0.9 [0.81-1.02]	9.26E-02	0.264	782	450	281	51	38245	20720	14853	2672
Other symptoms involving respiratory system and chest	1.09 [0.99-1.2]	9.32E-02	0.260	1159	597	482	80	10046	5528	3851	667
Asymptomatic states associated with artificial menopause:Subset(Females)	1.18 [0.97-1.43]	9.41E-02	0.266	249	123	103	23	15625	8401	6137	1087
Other Current Conditions Complicating Pregnancy	0.9 [0.79-1.02]	9.44E-02	0.264	760	422	294	44	24977	13538	9665	1774
Thyrotoxicosis Without Mention Of Goiter Or Other Cause	0.91 [0.82-1.02]	9.44E-02	0.265	958	549	345	64	42413	22908	16535	2970
Certain adverse effects not elsewhere classified	1.04 [0.99-1.1]	9.46E-02	0.264	4202	2251	1618	333	40142	21769	15615	2758
Other local infections of skin and subcutaneous tissue	1.11 [0.98-1.25]	9.62E-02	0.264	655	337	265	53	39822	21579	15479	2764
Chronic pulmonary heart disease	0.93 [0.86-1.01]	9.71E-02	0.265	1551	883	557	111	45232	24432	17629	3171
Non-specific findings on examination of urine	0.95 [0.89-1.01]	9.74E-02	0.265	2924	1627	1098	199	22975	12329	9055	1591
Other diseases of blood and blood-forming organs	0.94 [0.88-1.01]	9.76E-02	0.265	2179	1214	822	143	34987	18852	13669	2466
Thoracoabdominal aneurysm	0.69 [0.44-1.07]	9.78E-02	0.264	62	39	21	2	41015	22232	15903	2880
Bacterial pneumonia	0.94 [0.86-1.01]	9.80E-02	0.264	1734	977	631	126	42538	22977	16596	2965
Other specified sites	0.82 [0.64-1.04]	9.82E-02	0.264	192	113	70	9	46756	25316	18163	3277
Poor Fetal Growth Affecting Management Of Mother:Subset(Females)	0.84 [0.68-1.03]	9.87E-02	0.264	257	145	101	11	26147	14191	10079	1877
Chronic laryngitis	1.33 [0.95-1.85]	9.90E-02	0.265	79	40	27	12	39188	21204	15238	2746
Chronic laryngitis and laryngotracheitis	1.33 [0.95-1.85]	9.90E-02	0.265	79	40	27	12	39188	21204	15238	2746
Herpes zoster without mention of complication	1.07 [0.99-1.15]	9.92E-02	0.264	1791	947	700	144	42887	23303	16608	2976
Pernicious anemia	0.91 [0.82-1.02]	9.94E-02	0.266	867	499	307	61	36002	19395	14047	2560
Benign neoplasm of other parts of digestive system	0.96 [0.92-1.01]	9.94E-02	0.264	6721	3678	2616	427	31637	17090	12292	2255
Malignant neoplasm of bladder	0.88 [0.75-1.03]	9.98E-02	0.264	436	254	153	29	45879	24789	17896	3194
Polycythemia	0.83 [0.67-1.04]	1.00E-01	0.266	223	129	85	9	36087	19438	14083	2566
Epiphora	1.23 [0.96-1.56]	1.01E-01	0.263	157	75	69	13	29844	16224	11541	2079
Other specified diseases of nail	0.9 [0.8-1.02]	1.01E-01	0.263	756	435	269	52	29993	16268	11643	2082
Other chronic sinusitis	0.92 [0.84-1.02]	1.01E-01	0.264	1102	615	428	59	38745	20982	15052	2711
Hypertensive heart disease	0.95 [0.88-1.01]	1.02E-01	0.264	2454	1366	930	158	41822	22652	16224	2946
Other chronic pulmonary heart diseases	0.93 [0.85-1.01]	1.02E-01	0.264	1463	832	528	103	45318	24483	17661	3174
Osteitis deformans and osteopathies associated with other disorders classified elsewhere	0.78 [0.57-1.05]	1.03E-01	0.264	125	74	48	3	39570	21434	15401	2735
Benign neoplasm of colon	0.96 [0.92-1.01]	1.03E-01	0.265	6395	3493	2492	410	32381	17467	12597	2317
Lesion of plantar nerve	1.17 [0.97-1.42]	1.03E-01	0.264	260	123	121	16	38292	20761	14894	2637
Acquired absence of other organs and tissue	0.89 [0.78-1.02]	1.03E-01	0.264	553	317	205	31	47463	25691	18451	3321
Uterovaginal prolapse	0.83 [0.66-1.04]	1.04E-01	0.266	218	128	79	11	15658	8414	6152	1092
Coronary Atherosclerosis	0.97 [0.93-1.01]	1.04E-01	0.264	11853	6446	4624	783	33705	18204	13126	2375
Disorders of carbohydrate transport and metabolism	1.14 [0.97-1.33]	1.06E-01	0.262	397	204	159	34	29096	15868	11201	2027
Fracture of unspecified bones	1.19 [0.96-1.46]	1.06E-01	0.264	219	113	82	24	45716	24746	17811	3159
Other Disorders Of Lacrimal Gland	0.94 [0.88-1.01]	1.06E-01	0.262	2523	1402	965	156	29372	15967	11357	2048
Symptoms involving skin and other integumentary tissue	1.04 [0.99-1.09]	1.07E-01	0.263	14084	7616	5434	1034	8201	4508	3145	548
Anemia in chronic kidney disease;Anemia in neoplastic disease;Anemia of other chronic disease	1.07 [0.99-1.15]	1.08E-01	0.267	1767	918	712	137	35728	19253	13941	2534
Secondary Thrombocytopenia	0.86 [0.71-1.03]	1.08E-01	0.266	308	182	106	20	36066	19417	14077	2572
Late effects of cerebrovascular disease	0.91 [0.81-1.02]	1.09E-01	0.264	840	469	323	48	41705	22609	16189	2907
Neoplasm of uncertain behavior of genitourinary organs	1.22 [0.96-1.55]	1.09E-01	0.264	156	74	69	13	46734	25307	18156	3271
Menstruation	0.86 [0.72-1.03]	1.09E-01	0.265	338	195	124	19	36333	19564	14228	2541
Clubbing of fingers	0.56 [0.27-1.14]	1.10E-01	0.259	28	19	9	0	10137	5565	3892	680
Conjunctival Vascular Disorders And Cysts	0.86 [0.71-1.04]	1.10E-01	0.263	310	189	98	23	29575	16076	11435	2064
Unspecified Hypertensive Heart Disease	0.95 [0.88-1.01]	1.11E-01	0.264	2384	1329	899	156	41887	22690	16250	2947
Mild Hyperemesis Gravidarum:Subset(Females)	0.78 [0.58-1.06]	1.12E-01	0.264	122	69	51	2	25446	13799	9836	1811
Open wound of foot except toe(s) alone	1.15 [0.97-1.36]	1.12E-01	0.265	335	180	115	40	47028	25435	18325	3268
Toxic effect of other substances chiefly nonmedicinal as to source	1.12 [0.97-1.29]	1.12E-01	0.264	484	257	177	50	47901	25919	18649	3333
Peritonitis and retroperitoneal infections	0.85 [0.69-1.04]	1.13E-01	0.266	264	154	96	14	33038	17815	12871	2352
Disorders Of Coccyx	0.81 [0.63-1.05]	1.13E-01	0.264	166	107	43	16	33724	18241	13122	2361
Hirsutism	1.12 [0.97-1.28]	1.13E-01	0.264	514	261	215	38	30154	16339	11716	2099
Mitral valve insufficiency and aortic valve stenosis	1.32 [0.94-1.87]	1.13E-01	0.264	74	36	28	10	47755	25869	18561	3325
Unspecified disease of nail	0.86 [0.72-1.04]	1.13E-01	0.263	334	197	116	21	30026	16289	11655	2082
Chronic glomerulonephritis	1.22 [0.95-1.56]	1.14E-01	0.264	151	71	68	12	42693	23134	16559	3000
Missed abortion:Subset(Females)	0.87 [0.72-1.04]	1.14E-01	0.264	340	196	125	19	28060	15220	10854	1986
Other lymphedema	0.86 [0.71-1.04]	1.15E-01	0.265	295	173	105	17	38417	20764	14926	2727
Schizophrenic disorders	1.17 [0.96-1.43]	1.15E-01	0.264	236	118	96	22	44096	23857	17172	3067
Diabetes Mellitus Without Mention Of Complication	0.97 [0.94-1.01]	1.15E-01	0.265	14880	8104	5748	1028	29295	15755	11439	2101
Other and unspecified disorders of metabolism	1.08 [0.98-1.2]	1.16E-01	0.263	1002	520	407	75	28966	15782	11166	2018
Nonallopathic lesions	0.88 [0.75-1.03]	1.16E-01	0.264	429	245	161	23	39393	21330	15340	2723
Symptoms involving cardiovascular system	1.04 [0.99-1.09]	1.16E-01	0.262	8628	4651	3368	609	9093	4993	3494	606
Unspecified otitis media	1.06 [0.99-1.13]	1.17E-01	0.265	2278	1199	904	175	34124	18531	13178	2415
Epilepsy and recurrent seizures	1.07 [0.98-1.17]	1.18E-01	0.264	1245	638	519	88	39820	21626	15429	2765
Symptoms concerning nutrition metabolism and development	1.05 [0.99-1.11]	1.18E-01	0.261	4749	2555	1844	350	9582	5272	3678	632
Congenital Anomalies Of Posterior Segment	0.72 [0.47-1.09]	1.19E-01	0.264	68	43	22	3	43377	23494	16849	3034
Postlaminectomy Syndrome	1.07 [0.98-1.18]	1.19E-01	0.265	1241	649	494	98	33870	18316	13181	2373

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Other testicular hypofunction:Subset(Males)	0.92 [0.82-1.02]	1.20E-01	0.265	887	493	348	46	15017	8066	5918	1033
Glaucoma	1.04 [0.99-1.1]	1.20E-01	0.265	4557	2407	1822	328	29386	15960	11372	2054
Other complications of pregnancy not elsewhere classified:Subset(Females)	0.92 [0.83-1.02]	1.21E-01	0.264	1146	636	439	71	25058	13606	9670	1782
Diabetes Mellitus Complicating Pregnancy	0.84 [0.67-1.05]	1.21E-01	0.264	220	127	82	11	25453	13810	9836	1807
Endometrial Cystic Hyperplasia:Subset(Females)	0.86 [0.71-1.04]	1.21E-01	0.265	302	179	104	19	15624	8402	6131	1091
Encounters For Other Specified Administrative Purpose	1.16 [0.96-1.4]	1.22E-01	0.265	262	126	118	18	35956	19439	14000	2517
Other acute reactions to stress	0.85 [0.69-1.04]	1.22E-01	0.263	261	153	95	13	35210	19087	13682	2441
Anomalies Of Pupillary Function	1.24 [0.94-1.62]	1.23E-01	0.263	124	57	58	9	29832	16223	11532	2077
Prostatitis	1.17 [0.96-1.44]	1.23E-01	0.264	239	120	97	22	11030	5959	4333	738
Classical Migraine	1.06 [0.99-1.13]	1.23E-01	0.264	2225	1185	862	178	39802	21616	15421	2765
Fracture of unspecified bone	1.18 [0.96-1.45]	1.23E-01	0.264	213	110	80	23	45723	24749	17812	3162
Late effects of cerebrovascular disease	1.18 [0.96-1.46]	1.24E-01	0.264	209	97	99	13	41852	22686	16247	2919
Nonallopathic lesions	0.89 [0.77-1.03]	1.25E-01	0.264	518	299	186	33	39283	21268	15297	2718
Personal history of surgery to heart and great vessels	0.78 [0.57-1.07]	1.25E-01	0.264	111	66	41	4	29646	16087	11482	2077
Special screening for endocrine nutritional metabolic and immunity disorders	1.04 [0.99-1.09]	1.25E-01	0.267	6682	3561	2614	507	12342	6669	4803	870
Open wound of scalp	1.17 [0.96-1.43]	1.25E-01	0.264	233	116	96	21	46122	24980	17944	3198
Sprain of lumbar	1.13 [0.97-1.31]	1.26E-01	0.264	420	208	183	29	41663	22594	16171	2898
Gingival and periodontal diseases	0.86 [0.71-1.04]	1.26E-01	0.265	295	166	118	11	42076	22745	16362	2969
Other Specified Intestinal Obstruction	1.27 [0.93-1.73]	1.27E-01	0.266	94	45	39	10	33111	17863	12894	2354
Motion sickness	1.12 [0.97-1.28]	1.27E-01	0.263	494	251	206	37	43468	23590	16883	2995
Coagulation defects	0.92 [0.83-1.02]	1.27E-01	0.266	989	563	356	70	35715	19243	13929	2543
Disorders of menstruation and other abnormal bleeding from female genital tract:Subset(Females)	0.96 [0.91-1.01]	1.27E-01	0.264	6351	3494	2407	450	13749	7403	5381	965
Grand mal status	1.37 [0.91-2.05]	1.28E-01	0.263	53	21	29	3	40090	21774	15531	2785
Temporomandibular Joint Disorders	1.08 [0.98-1.19]	1.28E-01	0.265	1062	556	418	88	41343	22348	16072	2923
Swelling	0.92 [0.83-1.02]	1.28E-01	0.258	1001	576	363	62	9990	5486	3833	671
Other Specified Diseases Due To Viruses And Chlamydiae	0.7 [0.44-1.11]	1.29E-01	0.264	57	37	17	3	43683	23674	16972	3037
Diabetes With Ophthalmic Manifestations	0.93 [0.86-1.02]	1.30E-01	0.265	1372	780	491	101	37349	20136	14565	2648
Other anterior pituitary disorders	0.72 [0.47-1.1]	1.30E-01	0.266	63	39	22	2	37530	20234	14638	2658
Supervision Of Other High-Risk Pregnancy:Subset(Females)	0.93 [0.85-1.02]	1.30E-01	0.263	2879	1581	1118	180	22174	12040	8569	1565
Acute reaction to stress	0.9 [0.78-1.03]	1.30E-01	0.263	557	318	208	31	35000	18962	13609	2429
Disorders	0.88 [0.74-1.04]	1.31E-01	0.264	373	212	143	18	29552	16023	11463	2066
Aplastic anemia and other bone marrow failure syndromes	0.88 [0.74-1.04]	1.31E-01	0.266	373	216	134	23	36091	19433	14091	2567
Other congenital anomalies of upper alimentary tract	1.17 [0.95-1.43]	1.32E-01	0.264	231	115	95	21	42936	23248	16688	3000
Late effect of fracture of spine and trunk without mention of spinal cord lesion	0.73 [0.48-1.1]	1.32E-01	0.264	68	44	20	4	48574	26304	18881	3389
Other Malignant Neoplasm Of Skin	1.11 [0.97-1.26]	1.33E-01	0.264	558	277	242	39	44079	23891	17116	3072
Unspecified Drug Dependence	1.16 [0.96-1.42]	1.33E-01	0.264	241	123	94	24	35373	19192	13730	2451
Lower Limb Amputation Status	0.88 [0.75-1.04]	1.33E-01	0.263	411	245	134	32	26238	14197	10260	1781
Cervicitis and endocervicitis:Subset(Females)	1.25 [0.93-1.67]	1.33E-01	0.264	106	50	46	10	25656	13943	9892	1821
Malaise And Fatigue	1.04 [0.99-1.08]	1.34E-01	0.264	13893	7476	5434	983	7982	4382	3056	544
Migraine	1.04 [0.99-1.08]	1.34E-01	0.264	6334	3382	2487	465	38440	20885	14875	2680
Rhinovirus infection in conditions classified elsewhere and of unspecified site	0.82 [0.62-1.07]	1.34E-01	0.264	155	99	42	14	43632	23636	16965	3031
Injury To Kidney Without Mention Of Open Wound Into Cavity	1.43 [0.9-2.27]	1.34E-01	0.264	40	18	17	5	48661	26363	18901	3397
Injury to kidney	1.43 [0.9-2.27]	1.34E-01	0.264	40	18	17	5	48660	26362	18901	3397
Displacement Of Thoracic Or Lumbar Intervertebral Disc	1.04 [0.99-1.1]	1.34E-01	0.265	4028	2142	1589	297	33506	18133	13033	2340
Spinal Stenosis	1.04 [0.99-1.1]	1.35E-01	0.265	3796	2015	1503	278	33503	18113	13042	2348
Edema Of Eyelid	0.91 [0.8-1.03]	1.35E-01	0.263	698	395	265	38	29781	16193	11510	2078
Abn Reaction To Surgery	1.07 [0.98-1.16]	1.35E-01	0.264	1434	766	544	124	42373	22976	16480	2917
Cervical root lesions	1.14 [0.96-1.37]	1.35E-01	0.264	304	159	115	30	38246	20740	14866	2640
Non-specific (abnormal) findings on radiological and other examination of lung field	1.06 [0.98-1.14]	1.36E-01	0.267	1950	1040	746	164	23277	12500	9165	1612
Suppurative and unspecified otitis media	1.05 [0.98-1.12]	1.36E-01	0.265	2574	1357	1021	196	33810	18351	13067	2392
Anemia Complicating Pregnancy	0.88 [0.75-1.04]	1.36E-01	0.264	420	240	153	27	25283	13715	9772	1796
Unspecified symptom associated with female genital organs:Subset(Females)	0.94 [0.87-1.02]	1.37E-01	0.265	2110	1177	783	150	14913	8030	5831	1052
Sprain of lumbosacral (joint) (ligament)	1.07 [0.98-1.17]	1.37E-01	0.264	1239	645	502	92	40964	22229	15910	2825
Carbuncle and furuncle of unspecified site	1.24 [0.93-1.65]	1.37E-01	0.263	112	51	53	8	40891	22183	15894	2814
Raynauds syndrome	1.1 [0.97-1.23]	1.38E-01	0.264	677	355	264	58	40780	22109	15810	2861
Polydipsia	1.22 [0.94-1.59]	1.39E-01	0.260	133	67	52	14	10121	5556	3887	678
Unspecified prophylactic or treatment measure	1.15 [0.96-1.38]	1.39E-01	0.264	287	138	130	19	33426	18130	12980	2316
Decubitus Ulcer	0.9 [0.78-1.04]	1.40E-01	0.263	560	329	186	45	30116	16341	11684	2091
Kidney replaced by transplant	1.14 [0.96-1.35]	1.40E-01	0.264	327	169	126	32	26272	14220	10268	1784
Long-term (current) use of anticoagulants;Long-term (current) use of antibiotics;Long-term (current) use of antiplatelet/antithrombotic;Long-term (current) use of non-steroidal anti-inflammatories (NSAID);Long-term (current) use of steroids;Long-term (current) use of aspirin;Long-term (current) use of insulin;Long term (current) use of bisphosphonates;Long-term (current) use of other medications	1.03 [0.99-1.06]	1.40E-01	0.264	13948	7495	5452	1001	27164	14776	10527	1861
Other specified viral hepatitis without mention of hepatic coma	0.91 [0.8-1.03]	1.40E-01	0.264	630	362	228	40	43669	23664	16971	3034
Mixed Conductive And Sensorineural Hearing Loss	1.17 [0.95-1.45]	1.40E-01	0.264	210	109	77	24	36146	19645	13961	2540
Hyperplasia of prostate	0.85 [0.69-1.06]	1.41E-01	0.263	253	144	98	11	11045	5962	4341	742
Internal hemorrhoids without mention of complication	0.94 [0.87-1.02]	1.42E-01	0.265	1704	942	659	103	35269	19060	13694	2515
Herpes Simplex With Ophthalmic Complications	1.28 [0.92-1.77]	1.42E-01	0.263	85	41	35	9	44919	24381	17423	3115

HSD17B13 and liver disease

Depressive disorder	1.03 [0.99-1.06]	1.42E-01	0.263	14570	7848	5692	1030	26262	14315	10143	1804
Diseases of hair and hair follicles	1.05 [0.98-1.12]	1.43E-01	0.264	2461	1302	980	179	28723	15573	11143	2007
Other nonspecific abnormal serum enzyme levels	0.92 [0.82-1.03]	1.43E-01	0.266	819	457	316	46	23597	12659	9301	1637
Surgical or other procedure not carried out because of patients decision	0.87 [0.72-1.05]	1.44E-01	0.264	293	170	106	17	35335	19105	13764	2466
Other Specified Aftercare	1.03 [0.99-1.08]	1.44E-01	0.264	6829	3646	2694	489	31123	16922	12029	2172
Elevated sedimentation rate	0.85 [0.68-1.06]	1.44E-01	0.266	228	129	91	8	23765	12757	9364	1644
Hyposmolality and/or hyponatremia	0.93 [0.85-1.02]	1.44E-01	0.262	1265	710	481	74	28803	15710	11088	2005
Open wound of foot except toe(s) alone	1.13 [0.96-1.34]	1.44E-01	0.264	345	186	119	40	46996	25418	18314	3264
Disorders of the autonomic nervous system	1.12 [0.96-1.3]	1.44E-01	0.263	420	205	191	24	43525	23653	16852	3020
Carrier Or Suspected Carrier Of Other Specified Bacterial	0.92 [0.81-1.03]	1.45E-01	0.263	802	445	312	45	33249	18015	12939	2295
Other deficiency anemias	0.94 [0.86-1.02]	1.45E-01	0.266	1467	825	541	101	35777	19268	13962	2547
Fracture of neck of femur	1.11 [0.96-1.29]	1.46E-01	0.264	474	244	188	42	45892	24842	17869	3181
Late effects of musculoskeletal and connective tissue injuries	0.82 [0.63-1.07]	1.46E-01	0.264	154	94	50	10	48186	26092	18727	3367
Proteinuria	0.95 [0.88-1.02]	1.46E-01	0.265	2212	1233	829	150	23439	12590	9232	1617
Other affections of shoulder region	1.07 [0.98-1.18]	1.47E-01	0.265	1084	572	422	90	29470	15932	11489	2049
Other malignant neoplasm without specification of site	0.86 [0.7-1.05]	1.47E-01	0.264	262	152	96	14	47157	25521	18341	3295
Benign neoplasm of eyelid	1.17 [0.95-1.44]	1.48E-01	0.265	209	107	81	21	39963	21624	15535	2804
Duodenitis	0.81 [0.62-1.08]	1.48E-01	0.264	141	86	46	9	39217	21243	15240	2734
Abnormal Loss Of Weight	1.06 [0.98-1.14]	1.48E-01	0.261	2503	1324	1006	173	9922	5459	3802	661
Chickenpox	1.11 [0.96-1.28]	1.49E-01	0.264	488	247	204	37	44827	24332	17385	3110
Renal agenesis and dysgenesis	1.22 [0.93-1.6]	1.49E-01	0.264	126	59	57	10	43416	23524	16858	3034
Not Vehic Collision Nos	0.89 [0.76-1.04]	1.49E-01	0.264	434	249	160	25	47174	25540	18336	3298
Other diseases of upper respiratory tract	1.06 [0.98-1.15]	1.50E-01	0.264	1662	872	669	121	37309	20234	14467	2608
Tear of medial cartilage or meniscus of knee	0.89 [0.77-1.04]	1.50E-01	0.264	458	266	162	30	47165	25510	18352	3303
Other acute and subacute forms of ischemic heart disease	0.95 [0.89-1.02]	1.50E-01	0.264	2633	1444	1029	160	38346	20736	14911	2699
Acariasis	0.84 [0.67-1.06]	1.51E-01	0.264	201	115	78	8	47654	25817	18510	3327
Other syndromes affecting cervical region	0.89 [0.75-1.05]	1.52E-01	0.264	382	223	134	25	33812	18290	13154	2368
Perichondritis Of Pinna	1.24 [0.92-1.68]	1.52E-01	0.264	102	47	47	8	36124	19632	13951	2541
Diabetes With Renal Manifestations	0.95 [0.89-1.02]	1.53E-01	0.265	2642	1473	978	191	37290	20111	14534	2645
Muscular dystrophies and other myopathies	1.13 [0.95-1.35]	1.53E-01	0.264	326	168	130	28	38290	20757	14897	2636
Outcome of delivery	0.93 [0.84-1.03]	1.53E-01	0.264	1873	1031	727	115	41445	22442	16124	2879
Late effects of cerebrovascular disease	0.77 [0.54-1.1]	1.53E-01	0.264	91	56	30	5	41835	22678	16241	2916
Dyspnea And Respiratory Abnormalities	1.03 [0.99-1.08]	1.54E-01	0.263	11989	6477	4666	846	9024	4956	3453	615
Cardiomyopathy in other diseases classified elsewhere	1.19 [0.94-1.51]	1.55E-01	0.264	161	76	73	12	35577	19250	13852	2475
Cellulitis and abscess of trunk	1.09 [0.97-1.24]	1.55E-01	0.263	624	327	242	55	40364	21899	15682	2783
Nonspecific abnormal results of function studies	0.97 [0.93-1.01]	1.56E-01	0.264	7670	4235	2904	531	20632	11044	8192	1396
Other and unspecified angina pectoris	0.96 [0.9-1.02]	1.56E-01	0.264	3325	1812	1300	213	37679	20375	14649	2655
Drug-induced mental disorders	1.15 [0.95-1.41]	1.57E-01	0.264	237	119	97	21	46628	25315	18052	3261
Anxiety States	1.03 [0.99-1.06]	1.59E-01	0.265	13494	7283	5223	988	27019	14637	10504	1878
Lack Of Expected Normal Physiological Development	1.21 [0.93-1.58]	1.60E-01	0.260	134	70	47	17	10133	5565	3888	680
Hemorrhoids	0.96 [0.91-1.02]	1.60E-01	0.264	3673	2008	1444	221	33403	18065	12970	2368
Other specified symptoms associated with female genital organs:Subset(Females)	0.84 [0.66-1.07]	1.60E-01	0.266	190	114	63	13	15566	8373	6106	1087
Fracture of humerus	0.9 [0.78-1.04]	1.60E-01	0.265	526	304	186	36	46614	25191	18152	3271
Attention to other artificial opening of urinary tract	1.3 [0.9-1.88]	1.61E-01	0.263	67	30	31	6	38233	20779	14794	2660
Hazards To Health	0.84 [0.67-1.07]	1.61E-01	0.263	193	110	76	7	29667	16106	11480	2081
Osteoarthritis and allied disorders	1.03 [0.99-1.07]	1.62E-01	0.263	14242	7700	5550	992	23663	12869	9176	1618
Other disorders of bone and cartilage	1.03 [0.99-1.08]	1.62E-01	0.264	8874	4790	3439	645	33460	18121	13015	2324
Open wound of hand except finger(s) alone	1.11 [0.96-1.3]	1.63E-01	0.264	414	211	168	35	46474	25162	18076	3236
Polyarteritis nodosa and allied conditions	1.13 [0.95-1.33]	1.64E-01	0.264	337	166	147	24	40866	22157	15833	2876
Closed unspecified fracture of pelvis	1.21 [0.93-1.58]	1.64E-01	0.264	128	63	52	13	47071	25516	18256	3299
Swelling	1.06 [0.98-1.16]	1.64E-01	0.260	1660	888	651	121	10054	5526	3855	673
Other and unspecified fall	1.06 [0.98-1.14]	1.65E-01	0.265	1737	914	684	139	42671	23115	16579	2977
Gastrojejunal Ulcer	1.17 [0.94-1.46]	1.66E-01	0.264	191	96	77	18	39345	21309	15301	2735
Other Specified Forms Of Pleural Effusion	0.82 [0.61-1.09]	1.66E-01	0.264	132	79	46	7	43643	23611	16997	3035
Other General Symptoms	1.05 [0.98-1.12]	1.67E-01	0.261	3444	1848	1347	249	9853	5409	3784	660
Unspecified Hemorrhage In Early Pregnancy:Subset(Females)	1.23 [0.92-1.63]	1.67E-01	0.265	112	53	48	11	25443	13801	9832	1810
Allergic rhinitis due to other allergen	0.96 [0.91-1.02]	1.67E-01	0.264	3401	1882	1291	228	37927	20501	14763	2663
Corneal foreign body	1.22 [0.92-1.63]	1.67E-01	0.264	113	55	47	11	48340	26179	18793	3368
Diseases of mitral and aortic valves	1.17 [0.94-1.46]	1.67E-01	0.264	193	94	83	16	47416	25671	18442	3303
Other dependence on machines	1.12 [0.95-1.32]	1.67E-01	0.264	371	195	139	37	26135	14136	10226	1773
Attention to artificial openings	1.14 [0.95-1.36]	1.68E-01	0.263	293	150	116	27	38078	20691	14740	2647
Other disorders of urethra and urinary tract	0.98 [0.94-1.01]	1.68E-01	0.263	13081	7157	5031	893	25916	14034	10053	1829
Erythemasquamous dermatosis	1.07 [0.97-1.18]	1.68E-01	0.265	1058	533	457	68	39177	21158	15290	2729
Seborrheic dermatitis	1.07 [0.97-1.18]	1.68E-01	0.265	1058	533	457	68	39185	21162	15294	2729
Chronic kidney disease	0.91 [0.79-1.04]	1.68E-01	0.264	555	316	204	35	42710	23140	16566	3004
Subdural hemorrhage	0.86 [0.7-1.06]	1.69E-01	0.264	248	141	95	12	41836	22677	16243	2916
Hepatomegaly	0.85 [0.67-1.07]	1.69E-01	0.259	201	121	69	11	10111	5548	3884	679
Heart disease	0.92 [0.81-1.04]	1.69E-01	0.264	673	381	250	42	35363	19136	13768	2459
Scabies	0.85 [0.67-1.07]	1.69E-01	0.264	198	113	77	8	47672	25830	18513	3329

HSD17B13 and liver disease

Carrier or suspected carrier of infectious diseases	0.93 [0.83-1.03]	1.69E-01	0.263	917	506	360	51	33203	17993	12917	2293
symptoms involving respiratory system and other chest symptoms	1.03 [0.99-1.08]	1.70E-01	0.263	25261	13674	9836	1751	6234	3438	2372	424
supervision of normal first pregnancy:Subset(Females)	0.93 [0.84-1.03]	1.70E-01	0.263	2252	1225	882	145	22157	12030	8563	1564
Polycystic ovaries:Subset(Females)	0.92 [0.81-1.04]	1.71E-01	0.265	731	412	274	45	22200	11999	8599	1602
Other specified disorders of arteries and arterioles	0.85 [0.67-1.07]	1.71E-01	0.264	198	116	71	11	40916	22184	15857	2875
Varicella without mention of complication	1.11 [0.96-1.28]	1.71E-01	0.264	472	241	194	37	44830	24333	17387	3110
Acute Gastric Ulcer Without Mention Of Hemorrhage	1.14 [0.95-1.37]	1.72E-01	0.264	275	135	120	20	39355	21315	15301	2739
Subarachnoid subdural and extradural hemorrhage following injury	1.18 [0.93-1.48]	1.72E-01	0.264	174	85	74	15	48177	26107	18705	3365
Diseases of lips	0.85 [0.67-1.07]	1.73E-01	0.265	198	117	69	12	42131	22776	16379	2976
Herpes zoster	1.05 [0.98-1.13]	1.74E-01	0.263	1984	1054	776	154	42810	23266	16575	2969
Supervision of high-risk pregnancy with other poor obstetric history	0.9 [0.78-1.05]	1.74E-01	0.264	663	365	262	36	41747	22613	16236	2898
Left heart failure	0.87 [0.71-1.06]	1.74E-01	0.264	266	158	90	18	35591	19263	13853	2475
Cellulitis And Abscess Of Toe	1.08 [0.97-1.21]	1.74E-01	0.263	817	428	322	67	40084	21763	15579	2742
Unspecified Complication Of Pregnancy:Subset(Females)	0.87 [0.72-1.06]	1.74E-01	0.264	284	164	102	18	25386	13780	9800	1806
Thyrotoxicosis with or without goiter	0.94 [0.86-1.03]	1.75E-01	0.265	1319	739	496	84	42343	22872	16505	2966
Atopic dermatitis and related conditions	0.91 [0.8-1.04]	1.76E-01	0.265	617	346	235	36	39373	21279	15331	2763
Sprains and strains of ankle and foot	1.06 [0.97-1.16]	1.76E-01	0.264	1256	665	489	102	40228	21834	15602	2792
Other Symptoms Involving Digestive System	1.04 [0.98-1.09]	1.77E-01	0.263	7522	4034	2962	526	9678	5306	3715	657
Genetic Counseling On Procreative Management	0.88 [0.74-1.06]	1.77E-01	0.264	355	197	143	15	41536	22488	16161	2887
Other disorders of breast:Subset(Females)	1.04 [0.98-1.1]	1.77E-01	0.263	3901	2085	1536	280	20973	11453	8066	1454
Vulbus cordis anomalies and anomalies of cardiac septal closure	0.9 [0.78-1.05]	1.78E-01	0.264	490	279	181	30	43252	23441	16788	3023
symptoms involving digestive system	1.03 [0.99-1.08]	1.78E-01	0.263	14743	7955	5758	1030	8796	4826	3375	595
Tracheoesophageal fistula	1.27 [0.9-1.8]	1.79E-01	0.264	73	35	30	8	43415	23518	16859	3038
Mechanical Complication Of Internal Orthopedic Device	1.14 [0.94-1.37]	1.80E-01	0.264	277	141	112	24	44316	23982	17277	3057
Inflammatory disease of breast:Subset(Females)	1.13 [0.94-1.36]	1.81E-01	0.263	288	146	119	23	23913	13031	9205	1677
Hypertrophy of breast:Subset(Females)	1.11 [0.95-1.28]	1.81E-01	0.263	436	223	179	34	23949	13054	9222	1673
Cardiac dysrhythmias	0.97 [0.93-1.01]	1.82E-01	0.264	9173	5007	3522	644	31169	16838	12146	2185
Other abnormal clinical findings	0.93 [0.85-1.03]	1.82E-01	0.265	1137	639	432	66	23472	12603	9253	1616
Abnormality in fetal heart rate or rhythm	0.82 [0.62-1.1]	1.82E-01	0.264	132	78	46	8	25789	14001	9946	1842
Nausea And Vomiting	1.04 [0.98-1.09]	1.83E-01	0.263	7230	3869	2849	512	9463	5189	3636	638
Disorders of parathyroid gland	0.94 [0.86-1.03]	1.83E-01	0.265	1252	698	473	81	37237	20069	14537	2631
Other emphysema	1.06 [0.97-1.15]	1.84E-01	0.264	1534	813	594	127	40992	22213	15915	2864
Occlusion And Stenosis Of Basilar Artery	0.71 [0.43-1.18]	1.84E-01	0.264	46	29	15	2	41867	22690	16257	2920
Rash and other nonspecific skin eruption	1.05 [0.98-1.14]	1.85E-01	0.260	2115	1133	829	153	9693	5337	3713	643
Acute cholecystitis	0.91 [0.79-1.05]	1.85E-01	0.265	515	297	181	37	36310	19556	14214	2540
Toxic effect of venom	1.1 [0.95-1.28]	1.85E-01	0.264	450	241	163	46	47948	25942	18670	3336
Other diseases and conditions of the teeth and supporting structures	0.94 [0.85-1.03]	1.85E-01	0.265	1187	651	471	65	41462	22415	16133	2914
Personality disorders	1.09 [0.96-1.24]	1.85E-01	0.264	580	307	220	53	35285	19145	13694	2446
Candidiasis of skin and nails	0.93 [0.85-1.03]	1.87E-01	0.264	1047	585	395	67	38192	20674	14839	2679
Threatened Abortion:Subset(Females)	0.9 [0.77-1.05]	1.87E-01	0.264	442	248	167	27	25369	13761	9806	1802
Testicular dysfunction:Subset(Males)	0.93 [0.83-1.04]	1.87E-01	0.265	902	497	358	47	14979	8045	5903	1031
Other disorders of breast:Subset(Males)	0.88 [0.73-1.06]	1.88E-01	0.264	308	175	118	15	19488	10523	7627	1338
Legal circumstances	1.27 [0.89-1.81]	1.89E-01	0.265	71	30	37	4	36271	19631	14099	2541
Nerve root and plexus disorders	1.09 [0.96-1.24]	1.89E-01	0.264	574	311	206	57	38086	20646	14812	2628
Unspecified vitamin deficiency	1.08 [0.96-1.2]	1.90E-01	0.265	826	438	317	71	45529	24616	17758	3155
Follow-Up Examination Following Surgery	0.98 [0.94-1.01]	1.91E-01	0.264	11307	6201	4304	802	24665	13280	9678	1707
Unspecified circulatory system disorder	1.15 [0.93-1.42]	1.91E-01	0.265	212	107	85	20	38362	20747	14893	2722
Benign Hypertensive Heart Disease	1.33 [0.87-2.04]	1.93E-01	0.264	48	19	27	2	43036	23317	16684	3035
Diseases and other conditions of the tongue	1.14 [0.94-1.37]	1.93E-01	0.265	260	137	96	27	41952	22683	16311	2958
Dementia In Conditions Classified Elsewhere	1.13 [0.94-1.36]	1.93E-01	0.264	291	138	137	16	47019	25510	18218	3291
Need for isolation and other prophylactic measures	1.04 [0.98-1.09]	1.93E-01	0.265	4395	2336	1739	320	31474	17058	12228	2188
Hyperpotassemia	1.05 [0.98-1.12]	1.94E-01	0.263	2238	1197	869	172	28838	15726	11102	2010
Nondependent abuse of drugs	1.02 [0.99-1.06]	1.95E-01	0.264	11243	6026	4417	800	26978	14662	10466	1850
Other and unspecified manifestations of thiamine deficiency	0.7 [0.4-1.2]	1.95E-01	0.264	40	27	10	3	46028	24900	17934	3194
Malignant neoplasm of bladder	0.91 [0.78-1.05]	1.95E-01	0.264	504	290	178	36	45857	24782	17882	3193
Closed fracture of malar and maxillary bones	0.79 [0.55-1.13]	1.96E-01	0.264	88	54	29	5	48463	26250	18829	3384
Genital prolapse:Subset(Females)	0.94 [0.86-1.03]	1.97E-01	0.266	1482	823	562	97	15339	8229	6040	1070
Fear of lateral cartilage or meniscus of knee	0.83 [0.63-1.1]	1.97E-01	0.264	140	87	42	11	47505	25708	18483	3314
Chronic pain due to trauma;Chronic post-thoracotomy pain;Other chronic postoperative pain;Other chronic pain	1.06 [0.97-1.17]	1.98E-01	0.264	1120	586	449	85	45505	24647	17682	3176
Arteriosclerotic insufficiency of intestine	1.11 [0.95-1.3]	1.99E-01	0.264	375	196	143	36	46551	25217	18070	3264
Intermediate coronary syndrome	0.96 [0.9-1.02]	1.99E-01	0.264	2552	1394	1003	155	38398	20754	14941	2703
Angina pectoris	0.96 [0.91-1.02]	1.99E-01	0.265	3364	1828	1321	215	37662	20363	14645	2654
Anxiety	1.02 [0.99-1.06]	2.00E-01	0.265	14250	7689	5531	1030	26583	14403	10333	1847
Pathologic Fracture	1.07 [0.97-1.18]	2.01E-01	0.264	1097	576	434	87	39302	21291	15291	2720
Disturbances of sensation of smell and taste	0.86 [0.69-1.08]	2.01E-01	0.259	216	129	75	12	10126	5558	3888	680
Certain Sequelae Of Myocardial Infarction	1.13 [0.94-1.35]	2.01E-01	0.264	298	149	125	24	35561	19241	13845	2475
Adjustment disorder with depressed mood	0.97 [0.93-1.02]	2.02E-01	0.263	5819	3220	2193	406	31505	17072	12245	2188
Hyperparathyroidism	0.94 [0.85-1.03]	2.02E-01	0.266	1129	630	426	73	37295	20093	14568	2634

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Antineoplastic chemotherapy induced pancytopenia;Other drug-induced pancytopenia;Other pancytopenia	0.89 [0.75-1.06]	2.02E-01	0.266	348	200	126	22	36122	19451	14101	2570
Dermatophytosis of scalp and beard	1.35 [0.85-2.14]	2.02E-01	0.264	41	20	15	6	39121	21188	15190	2743
Unspecified local infection of skin and subcutaneous tissue	1.12 [0.94-1.32]	2.03E-01	0.264	340	173	141	26	40391	21899	15702	2790
Mental and behavioral problems	1.13 [0.93-1.38]	2.03E-01	0.263	256	133	99	24	26065	14119	10171	1775
Carbuncle and furuncle of leg	1.15 [0.93-1.43]	2.04E-01	0.263	198	101	78	19	40880	22194	15872	2814
Other disorders of middle ear and mastoid	0.79 [0.55-1.14]	2.04E-01	0.263	84	52	27	5	36163	19652	13969	2542
Hyperosmolality and/or hyponatremia	0.86 [0.69-1.08]	2.04E-01	0.262	210	124	73	13	29166	15895	11239	2032
Other ill-defined and unknown causes of morbidity and mortality	1.04 [0.98-1.1]	2.05E-01	0.264	2893	1532	1145	216	43060	23333	16732	2995
Acute myocardial infarction	0.96 [0.91-1.02]	2.05E-01	0.265	3502	1927	1334	241	38503	20819	14957	2727
Other and unspecified congenital anomalies	1.13 [0.94-1.36]	2.06E-01	0.264	266	135	108	23	43249	23425	16798	3026
Epilepsy	1.08 [0.96-1.21]	2.08E-01	0.263	762	390	318	54	39945	21697	15477	2771
Tubal ligation status;Vasectomy status	1.11 [0.94-1.32]	2.09E-01	0.264	339	178	128	33	41071	22257	15976	2838
Premenopausal menorrhagia:Subset(Females)	1.11 [0.94-1.3]	2.09E-01	0.266	394	196	167	31	15615	8402	6126	1087
Cellulitis and abscess of oral soft tissues	0.8 [0.57-1.13]	2.09E-01	0.265	96	56	37	3	42306	22867	16454	2985
Menopausal and postmenopausal disorders:Subset(Females)	0.97 [0.92-1.02]	2.09E-01	0.265	8213	4529	3097	587	11007	5887	4329	791
Tobacco use disorder	1.02 [0.99-1.06]	2.09E-01	0.264	10706	5739	4199	768	27233	14791	10576	1866
Epididymitis:Subset(Males)	1.22 [0.89-1.67]	2.10E-01	0.264	97	47	41	9	11070	5979	4349	742
Major Depressive Disorder	0.95 [0.88-1.03]	2.10E-01	0.264	1647	914	628	105	43014	23284	16749	2981
Duodenal Ulcer	1.14 [0.93-1.4]	2.11E-01	0.264	227	114	95	18	39302	21288	15281	2733
Unspecified hemorrhoids without mention of complication	0.94 [0.84-1.04]	2.11E-01	0.265	988	554	372	62	37849	20467	14703	2679
Disorders Of Vitreous Body	0.96 [0.9-1.02]	2.12E-01	0.262	2714	1494	1060	160	29484	16030	11400	2054
Other nutritional deficiencies	1.06 [0.97-1.17]	2.12E-01	0.265	1042	557	395	90	45318	24493	17689	3136
Herpes simplex without mention of complication	1.06 [0.97-1.16]	2.13E-01	0.264	1241	655	491	95	44123	23947	17101	3075
Signs And Symptoms In Breast:Subset(Females)	1.04 [0.98-1.1]	2.14E-01	0.263	3054	1639	1189	226	21579	11778	8302	1499
Palpitations	1.04 [0.98-1.1]	2.14E-01	0.261	4209	2254	1669	286	9848	5399	3789	660
Unspecified disorder of immune mechanism	1.17 [0.92-1.48]	2.15E-01	0.262	160	82	63	15	29209	15921	11253	2035
Fracture Of Upper End Of Humerus	0.89 [0.74-1.07]	2.16E-01	0.265	312	182	109	21	46698	25232	18192	3274
Diseases of nail	0.96 [0.9-1.03]	2.17E-01	0.263	2582	1437	965	180	29012	15751	11250	2011
Osteoarthritis	1.03 [0.98-1.09]	2.17E-01	0.264	5000	2683	1954	363	28249	15315	10978	1956
Unspecified glaucoma	1.06 [0.97-1.17]	2.17E-01	0.264	1208	638	477	93	29747	16160	11515	2072
Neoplasm of uncertain behavior of digestive and respiratory systems	1.16 [0.92-1.48]	2.18E-01	0.264	163	82	66	15	46668	25286	18121	3261
Non-specific (abnormal) findings on radiological and other examination of other intrathoracic organs	1.08 [0.96-1.22]	2.18E-01	0.266	656	341	264	51	23516	12629	9262	1625
Other specified acquired hypothyroidism	0.96 [0.89-1.03]	2.18E-01	0.264	2027	1125	768	134	41594	22472	16213	2909
Disorders of fluid electrolyte and acid-base balance	1.02 [0.99-1.06]	2.20E-01	0.263	10439	5612	4080	747	25428	13899	9771	1758
Emphysema	1.05 [0.97-1.14]	2.23E-01	0.264	1548	823	597	128	40973	22203	15908	2862
Varicose veins of lower extremities with other complications	0.92 [0.81-1.05]	2.23E-01	0.265	607	347	220	40	38446	20787	14925	2734
Intestinal bypass or anastomosis status	0.9 [0.75-1.07]	2.23E-01	0.263	340	196	123	21	26102	14129	10200	1773
Benign neoplasm of thyroid glands	0.85 [0.66-1.1]	2.24E-01	0.264	160	92	61	7	40095	21698	15583	2814
Other Diseases Of Nasal Cavity And Sinuses	1.07 [0.96-1.2]	2.24E-01	0.264	797	421	311	65	38108	20644	14793	2671
Other specified diseases of hair and hair follicles	1.06 [0.96-1.17]	2.24E-01	0.264	1109	583	444	82	29441	15979	11415	2047
Other dependence on machines and devices	1.1 [0.95-1.27]	2.26E-01	0.264	452	238	173	41	26079	14109	10202	1768
Genetic susceptibility to malignant neoplasm of breast;Genetic susceptibility to malignant neoplasm of ovary;Genetic susceptibility to malignant neoplasm of prostate;Genetic susceptibility to malignant neoplasm of endometrium;Genetic susceptibility to other malignant neoplasm:Subset(Females)	1.26 [0.87-1.83]	2.26E-01	0.264	64	31	26	7	28751	15611	11113	2027
Dysmetabolic syndrome X	1.07 [0.96-1.2]	2.27E-01	0.263	779	406	315	58	29072	15834	11211	2027
Superficial Keratitis Without Conjunctivitis	1.14 [0.92-1.4]	2.28E-01	0.263	218	107	97	14	29814	16211	11527	2076
Renal failure	0.94 [0.84-1.04]	2.29E-01	0.264	922	511	355	56	42538	23048	16498	2992
Malignant neoplasm without specification of site	0.89 [0.73-1.08]	2.29E-01	0.264	277	158	104	15	47149	25516	18338	3295
Sprains and strains of sacroiliac region	1.06 [0.97-1.15]	2.29E-01	0.264	1337	701	540	96	40758	22118	15827	2813
Family history of certain chronic disabling diseases	0.96 [0.91-1.02]	2.29E-01	0.263	3113	1712	1213	188	28142	15276	10899	1967
Procreation Management Investigation And Testing	1.12 [0.93-1.34]	2.30E-01	0.264	314	160	126	28	41646	22558	16194	2894
Excessive vomiting in pregnancy:Subset(Females)	0.86 [0.68-1.1]	2.30E-01	0.264	193	108	76	9	25398	13775	9817	1806
Other disorders of intestine	0.96 [0.91-1.02]	2.30E-01	0.265	3171	1735	1229	207	30273	16363	11757	2153
Unspecified hearing loss	1.04 [0.98-1.1]	2.30E-01	0.264	3400	1794	1358	248	34495	18732	13348	2415
Anomalies of other endocrine glands	0.74 [0.46-1.21]	2.31E-01	0.264	50	31	17	2	43412	23524	16853	3035
Voice Disturbance	0.93 [0.84-1.04]	2.31E-01	0.258	974	556	357	61	10062	5530	3855	677
Adhesive capsulitis of shoulder	0.92 [0.8-1.06]	2.32E-01	0.265	535	313	178	44	29651	15996	11596	2059
Cardiomegaly	1.09 [0.95-1.25]	2.33E-01	0.264	522	268	214	40	35252	19079	13719	2454
Unspecified Gastritis And Gastroduodenitis	1.05 [0.97-1.14]	2.34E-01	0.265	1565	818	635	112	38154	20634	14846	2674
Legal blindness	0.81 [0.57-1.15]	2.34E-01	0.263	93	56	33	4	29880	16247	11551	2082
Contusion of multiple sites	1.24 [0.87-1.78]	2.34E-01	0.264	70	34	29	7	45275	24538	17582	3155
Diffuse diseases of connective tissue	1.06 [0.96-1.18]	2.35E-01	0.265	1021	536	415	70	29355	15877	11441	2037
Deficiency Of Humoral Immunity	1.19 [0.89-1.6]	2.36E-01	0.262	108	50	52	6	29243	15939	11266	2038
Other disorders of plasma protein metabolism	0.87 [0.69-1.1]	2.37E-01	0.262	199	116	72	11	29219	15931	11254	2034
Fracture Carpal Bone-CI	0.88 [0.71-1.09]	2.37E-01	0.265	230	138	74	18	46607	25184	18153	3270
Visual disturbances	1.04 [0.98-1.1]	2.38E-01	0.264	2976	1580	1184	212	27919	15175	10796	1948
Enthesopathy Of Ankle And Tarsus	1.06 [0.97-1.15]	2.39E-01	0.265	1317	695	524	98	29185	15740	11416	2029

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.ipoprotein deficiencies	1.08 [0.95-1.22]	2.39E-01	0.263	630	324	263	43	29164	15892	11241	2031
Valignant neoplasm of central portion of female breast:Subset(Females)	1.27 [0.85-1.9]	2.39E-01	0.264	56	26	25	5	26219	14246	10129	1844
Thoracic or lumbosacral neuritis or radiculitis	1.03 [0.98-1.08]	2.40E-01	0.265	4560	2439	1784	337	33357	18039	12985	2333
Concussion	1.11 [0.93-1.32]	2.42E-01	0.264	308	154	132	22	47561	25789	18461	3311
Unemployment	0.8 [0.54-1.17]	2.43E-01	0.264	75	45	26	4	36261	19621	14101	2539
Noninflammatory disorders of ovary fallopian tube and broad ligament:Subset(Females)	0.95 [0.88-1.03]	2.44E-01	0.266	1766	973	675	118	15197	8165	5966	1066
Other And Unspecified Disorders Of Eating	0.93 [0.83-1.05]	2.44E-01	0.263	827	469	303	55	33650	18272	13055	2323
Other Specified Forms Of Glaucoma	1.13 [0.92-1.38]	2.44E-01	0.263	233	120	93	20	29865	16238	11546	2081
Encounters for administrative purposes	0.93 [0.83-1.05]	2.45E-01	0.264	765	426	293	46	35821	19364	13949	2508
Chronic prostatitis:Subset(Males)	0.9 [0.75-1.08]	2.45E-01	0.263	344	192	136	16	11048	5961	4345	742
Other headache syndromes	1.08 [0.95-1.24]	2.45E-01	0.264	544	283	217	44	47916	25946	18623	3347
Need for prophylactic vaccination and inoculation against diphtheria-tetanus-pertussis	0.96 [0.89-1.03]	2.45E-01	0.263	2107	1179	774	154	24068	13025	9384	1659
Asthma	0.98 [0.94-1.02]	2.47E-01	0.264	7782	4267	2959	556	35785	19341	13950	2494
Chemotherapy Encounter	1.05 [0.97-1.15]	2.47E-01	0.263	1398	737	561	100	38176	20763	14763	2650
Endometriosis:Subset(Females)	0.92 [0.8-1.06]	2.48E-01	0.266	573	328	200	45	15567	8359	6124	1084
Chronic kidney disease	0.95 [0.88-1.04]	2.49E-01	0.264	1582	871	611	100	42646	23105	16545	2996
Contact dermatitis and other eczema due to plants [except food]	0.95 [0.87-1.04]	2.50E-01	0.264	1416	795	520	101	38201	20630	14908	2663
Other extrapyramidal disease and abnormal movement disorders	1.03 [0.98-1.09]	2.50E-01	0.264	3721	1994	1445	282	42211	22918	16355	2938
Bipolar Affective Disorder	1.18 [0.89-1.56]	2.50E-01	0.264	119	56	55	8	44113	23873	17171	3069
Peripheral Retinal Degenerations	0.85 [0.64-1.12]	2.51E-01	0.263	136	82	45	9	29869	16245	11542	2082
Crushing injury of upper limb	0.67 [0.33-1.33]	2.51E-01	0.264	26	17	8	1	48928	26495	19016	3417
Family history of psychiatric condition	0.68 [0.35-1.31]	2.52E-01	0.264	28	18	9	1	29736	16140	11514	2082
Cushings syndrome	0.8 [0.54-1.18]	2.52E-01	0.266	72	44	24	4	37516	20227	14631	2658
Injury other and unspecified	0.95 [0.88-1.04]	2.54E-01	0.265	1585	867	623	95	40923	22114	15933	2876
Overweight	1.02 [0.99-1.06]	2.55E-01	0.265	20144	10842	7884	1418	16159	8817	6196	1146
Strain of neck	1.06 [0.96-1.18]	2.55E-01	0.263	919	485	364	70	41041	22279	15929	2833
Other Symptoms Involving Nervous And Musculoskeletal Systems	1.07 [0.95-1.21]	2.56E-01	0.260	775	417	297	61	10042	5510	3859	673
Other acquired musculoskeletal deformity	0.92 [0.8-1.06]	2.56E-01	0.264	534	306	191	37	39115	21178	15230	2707
Unspecified retinal disorder	0.77 [0.5-1.2]	2.56E-01	0.263	58	35	21	2	29848	16231	11537	2080
Degeneration of cervical intervertebral disc	1.05 [0.97-1.14]	2.57E-01	0.265	1426	756	563	107	33500	18106	13038	2356
Cellulitis and abscess of leg	1.04 [0.97-1.11]	2.57E-01	0.264	2555	1372	979	204	39509	21412	15372	2725
Obstructive hydrocephalus	0.82 [0.57-1.16]	2.57E-01	0.263	88	52	32	4	43761	23767	16955	3039
Other specified contraceptive management	1.15 [0.9-1.46]	2.58E-01	0.264	178	87	77	14	41735	22606	16230	2899
Other benign neoplasm of connective and other soft tissue	1.14 [0.91-1.42]	2.59E-01	0.265	187	96	73	18	39999	21642	15547	2810
Diverticula Of Small Intestine	0.74 [0.44-1.25]	2.59E-01	0.266	42	26	14	2	33104	17861	12891	2352
Contusion Of Back	1.12 [0.92-1.37]	2.59E-01	0.264	235	121	93	21	44999	24409	17454	3136
Chronic hepatitis	0.94 [0.83-1.05]	2.61E-01	0.264	779	435	298	46	43557	23608	16921	3028
Other general medical examination for administrative purposes	0.9 [0.76-1.08]	2.62E-01	0.264	336	194	120	22	12932	6993	5035	904
Acute maxillary sinusitis	1.06 [0.96-1.16]	2.62E-01	0.264	1070	559	431	80	44052	23879	17086	3087
Neuralgia	1.06 [0.96-1.16]	2.62E-01	0.265	1171	615	469	87	29251	15777	11438	2036
Peripheral enthesopathies and allied syndromes	1.02 [0.98-1.06]	2.63E-01	0.266	10541	5672	4095	774	24799	13399	9668	1732
Infections of kidney	0.92 [0.81-1.06]	2.64E-01	0.264	545	304	209	32	35043	18958	13619	2466
Other Specified Antenatal Screening	1.09 [0.94-1.27]	2.65E-01	0.264	617	315	248	54	41752	22616	16237	2899
Excessive or frequent menstruation:Subset(Females)	0.96 [0.89-1.03]	2.65E-01	0.265	2566	1414	969	183	15264	8216	5989	1059
Other indications for care or intervention related to labor and delivery not elsewhere classified:Subset(Females)	0.93 [0.82-1.06]	2.66E-01	0.264	708	397	261	50	25633	13913	9884	1836
Other and unspecified infectious and parasitic diseases	1.21 [0.86-1.7]	2.66E-01	0.264	79	37	36	6	48067	26035	18680	3352
Ovarian dysfunction:Subset(Females)	0.95 [0.87-1.04]	2.66E-01	0.266	1350	745	519	86	21581	11642	8383	1556
Other Specified Erythematous Conditions	0.94 [0.83-1.05]	2.66E-01	0.265	773	434	288	51	39349	21267	15329	2753
Postmenopausal bleeding:Subset(Females)	0.95 [0.87-1.04]	2.68E-01	0.266	1452	827	511	114	15339	8224	6038	1077
Osteoporosis	1.03 [0.98-1.08]	2.68E-01	0.264	7171	3892	2756	523	35712	19319	13923	2470
Dyschalgia	1.07 [0.95-1.19]	2.68E-01	0.264	802	420	323	59	34799	18871	13514	2414
Unspecified visual loss	0.83 [0.61-1.15]	2.70E-01	0.263	105	61	40	4	29772	16184	11510	2078
Special screening for disorders of blood and blood-forming organs	1.07 [0.95-1.22]	2.70E-01	0.266	628	324	257	47	12930	6984	5043	903
Fracture of Humerus Shaft/Nos-CI	0.89 [0.73-1.09]	2.70E-01	0.265	252	147	87	18	46719	25250	18194	3275
Asymptomatic menopausal or female climacteric states:Subset(Females)	0.97 [0.92-1.02]	2.71E-01	0.265	6054	3342	2289	423	11525	6174	4534	817
Obesity	1.02 [0.99-1.05]	2.73E-01	0.265	20023	10780	7830	1413	16200	8837	6213	1150
Adrenocortical Insufficiency	0.89 [0.73-1.09]	2.73E-01	0.266	262	146	104	12	37470	20207	14611	2652
Other venous embolism and thrombosis	1.04 [0.97-1.12]	2.74E-01	0.266	1821	965	715	141	38038	20553	14787	2698
Other retinal disorders	0.97 [0.92-1.02]	2.74E-01	0.262	5027	2769	1921	337	29184	15871	11275	2038
Other specified congenital anomalies of brain	0.82 [0.58-1.17]	2.76E-01	0.264	90	53	33	4	43371	23495	16846	3030
Acute ectasia	1.13 [0.9-1.42]	2.77E-01	0.264	187	94	78	15	40957	22201	15877	2879
Disorders of phosphorus metabolism	1.09 [0.94-1.26]	2.78E-01	0.262	438	222	187	29	29186	15920	11231	2035
Joint Replacement Status	1.03 [0.97-1.09]	2.79E-01	0.264	4031	2156	1575	300	25996	14065	10166	1765
Other Corneal Disorders	0.88 [0.69-1.11]	2.80E-01	0.263	186	110	64	12	29821	16215	11529	2077
Other And Unspecified Disc Disorder	1.03 [0.97-1.1]	2.80E-01	0.265	2961	1562	1199	200	33571	18140	13074	2357
Organ or tissue replaced by other means	1.03 [0.98-1.08]	2.80E-01	0.264	7071	3794	2765	512	25660	13881	10039	1740
Dentofacial anomalies	1.05 [0.96-1.15]	2.80E-01	0.265	1211	640	476	95	41262	22298	16045	2919
Atherosclerosis of aorta	0.91 [0.77-1.08]	2.81E-01	0.264	374	206	151	17	40525	21981	15701	2843

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Candidiasis of vulva and vagina:Subset(Females)	0.97 [0.91-1.03]	2.81E-01	0.265	2954	1607	1161	186	20079	10877	7752	1450
Diabetes With Neurological Manifestations	0.96 [0.9-1.03]	2.81E-01	0.265	2529	1396	955	178	37176	20041	14503	2632
Poisoning by psychotropic agents	0.81 [0.54-1.19]	2.82E-01	0.264	71	43	24	4	48434	26239	18813	3382
Disorders of mineral metabolism	0.97 [0.91-1.03]	2.82E-01	0.262	2830	1553	1107	170	28652	15624	11028	2000
Cannabis Abuse	1.11 [0.92-1.35]	2.82E-01	0.264	249	124	107	18	35365	19186	13727	2452
Pregnant state	1.09 [0.93-1.27]	2.84E-01	0.264	539	268	239	32	22163	12040	8563	1560
Insertion Of Intrauterine Contraceptive Device:Subset(Females)	1.14 [0.9-1.43]	2.84E-01	0.264	194	92	90	12	22099	12009	8533	1557
Need for prophylactic immunotherapy	1.09 [0.93-1.28]	2.84E-01	0.264	369	196	138	35	33663	18256	13083	2324
Acute Osteomyelitis	0.83 [0.59-1.17]	2.85E-01	0.264	94	54	37	3	39592	21433	15420	2739
Scrotal varices	0.86 [0.65-1.14]	2.85E-01	0.265	138	79	52	7	38419	20779	14913	2727
Ankle Sprain	1.05 [0.96-1.16]	2.87E-01	0.264	1124	599	434	91	40653	22048	15782	2823
Other symptoms involving cardiovascular system	1.06 [0.95-1.19]	2.87E-01	0.260	954	525	344	85	9920	5446	3803	671
Encephalopathy	1.08 [0.94-1.23]	2.87E-01	0.263	551	282	232	37	39754	21597	15394	2763
Other nonspecific abnormal findings	1.09 [0.93-1.29]	2.88E-01	0.266	366	191	142	33	23596	12674	9300	1622
Other and unspecified ovarian cyst:Subset(Females)	0.96 [0.88-1.04]	2.89E-01	0.266	1719	946	657	116	15284	8213	6000	1071
Other Specified Disorders Of Male Genital Organs:Subset(Males)	0.91 [0.76-1.09]	2.89E-01	0.263	340	190	132	18	10893	5880	4281	732
Uterine prolapse without mention of vaginal wall prolapse:Subset(Females)	0.91 [0.75-1.09]	2.90E-01	0.266	314	180	113	21	15644	8402	6150	1092
Closed fracture of unspecified part of neck of femur	1.09 [0.93-1.28]	2.91E-01	0.264	375	194	150	31	45937	24868	17887	3182
Fracture of rib(s) sternum larynx and trachea	0.94 [0.84-1.05]	2.91E-01	0.264	791	437	309	45	46416	25167	18002	3247
Solitary cyst of breast:Subset(Females)	0.89 [0.72-1.1]	2.92E-01	0.262	232	137	79	16	23996	13081	9239	1676
Sprains and strains of unspecified site of hip and thigh	0.85 [0.62-1.16]	2.93E-01	0.263	113	69	36	8	42239	22923	16390	2926
Screening For Other And Unspecified Endocrine	1.03 [0.97-1.1]	2.94E-01	0.266	3567	1912	1386	269	12730	6885	4952	893
Hemorrhage in early pregnancy:Subset(Females)	0.92 [0.8-1.07]	2.94E-01	0.264	511	282	197	32	25337	13745	9791	1801
Celoid scar	1.14 [0.89-1.45]	2.94E-01	0.264	163	79	74	10	30238	16394	11739	2105
Displacement of intervertebral disc	1.11 [0.92-1.34]	2.95E-01	0.265	264	131	116	17	33841	18300	13170	2371
Sprains and strains of other specified sites of hip and thigh	1.23 [0.84-1.79]	2.97E-01	0.263	63	32	24	7	42459	23051	16474	2934
Secondary diabetes mellitus without mention of complication	1.17 [0.87-1.58]	2.97E-01	0.266	105	53	42	10	37491	20215	14621	2655
Cutting Instrument Accid	1.18 [0.87-1.6]	2.98E-01	0.264	97	47	42	8	47105	25502	18309	3294
Carbuncle and furuncle of buttock	1.15 [0.89-1.48]	2.99E-01	0.263	143	69	65	9	40922	22212	15898	2812
Screening for diabetes mellitus	1.03 [0.97-1.1]	3.00E-01	0.266	3664	1960	1430	274	12722	6878	4952	892
Cholelithiasis	0.97 [0.91-1.03]	3.00E-01	0.266	2780	1537	1041	202	35598	19154	13951	2493
Diseases of the salivary glands	0.94 [0.84-1.06]	3.00E-01	0.265	774	425	305	44	41521	22447	16138	2936
Fracture of carpal bone(s)	0.89 [0.72-1.11]	3.01E-01	0.265	235	139	78	18	46604	25183	18151	3270
Sprains and strains of other and unspecified parts of back	1.04 [0.96-1.13]	3.01E-01	0.264	1544	812	624	108	39475	21398	15331	2746
Benign neoplasm of scalp and skin of neck	1.1 [0.92-1.31]	3.01E-01	0.264	316	157	139	20	39601	21454	15379	2768
Special screening examination for bacterial and spirochetal diseases	0.96 [0.89-1.04]	3.02E-01	0.263	2393	1324	909	160	12710	6868	4954	888
Pulmonary Embolism And Infarction	0.96 [0.88-1.04]	3.02E-01	0.265	1518	837	583	98	45886	24794	17881	3211
Hemorrhage	0.86 [0.64-1.15]	3.02E-01	0.265	123	69	50	4	38384	20763	14898	2723
Organic hypersomnia	0.89 [0.7-1.12]	3.03E-01	0.264	195	111	74	10	45338	24529	17626	3183
Iron deficiency anemias	0.98 [0.93-1.02]	3.04E-01	0.265	5192	2850	1978	364	34593	18659	13488	2446
Follow-up examination	0.88 [0.7-1.12]	3.04E-01	0.264	191	112	66	13	35972	19470	13990	2512
Peripheral vascular disease	0.97 [0.91-1.03]	3.04E-01	0.264	3419	1871	1324	224	39961	21669	15490	2802
Other choreas	1.36 [0.76-2.42]	3.04E-01	0.263	26	14	7	5	43821	23800	16976	3045
Open wound of hand except finger(s) alone	1.08 [0.93-1.26]	3.04E-01	0.264	428	223	169	36	46424	25136	18056	3232
Hand Sprain	1.16 [0.88-1.53]	3.05E-01	0.263	122	60	53	9	42342	22988	16427	2927
Varicose veins of lower extremities	0.96 [0.89-1.04]	3.05E-01	0.265	1843	1019	704	120	37790	20432	14678	2680
Hypoglycemia	0.95 [0.86-1.05]	3.06E-01	0.265	1090	595	430	65	37132	20033	14473	2626
Asthma	0.98 [0.94-1.02]	3.06E-01	0.264	7310	4004	2782	524	36138	19526	14092	2520
Disorders of function of stomach	0.96 [0.87-1.04]	3.07E-01	0.264	1346	753	496	97	38405	20795	14926	2684
Female infertility:Subset(Females)	0.93 [0.81-1.07]	3.08E-01	0.266	610	336	233	41	15616	8391	6139	1086
Acute pulmonary heart disease	0.96 [0.88-1.04]	3.09E-01	0.265	1533	844	591	98	45880	24792	17878	3210
Postsurgical hypothyroidism	1.06 [0.95-1.18]	3.09E-01	0.265	877	461	351	65	42518	22968	16569	2981
Benign Secondary Hypertension	1.09 [0.92-1.29]	3.09E-01	0.264	342	172	148	22	42944	23270	16647	3027
Allergy	1.07 [0.94-1.2]	3.10E-01	0.263	659	339	279	41	43391	23542	16866	2983
Other diseases of pericardium	0.92 [0.77-1.09]	3.11E-01	0.264	361	212	119	30	35495	19210	13816	2469
Place Of Occurrence	0.91 [0.75-1.1]	3.11E-01	0.264	281	158	108	15	45135	24438	17548	3149
Contusion of upper limb	1.07 [0.94-1.2]	3.11E-01	0.264	664	340	279	45	42919	23258	16664	2997
Polynuropathy in other diseases classified elsewhere	1.05 [0.96-1.15]	3.12E-01	0.264	1137	609	436	92	38008	20600	14787	2621
Dermatophytosis of groin and perianal area	1.07 [0.94-1.23]	3.13E-01	0.265	514	269	204	41	38634	20901	15021	2712
Gastric ulcer	1.06 [0.95-1.18]	3.13E-01	0.264	822	429	332	61	39177	21225	15230	2722
Allergic rhinitis	0.98 [0.95-1.02]	3.15E-01	0.264	10886	5940	4209	737	31006	16766	12055	2185
Acute Myocardial Infarction	1.21 [0.83-1.77]	3.15E-01	0.265	64	29	31	4	39071	21132	15180	2759
Visual Field Defects	1.08 [0.93-1.24]	3.16E-01	0.263	467	240	194	33	29723	16158	11488	2077
Other heart block	1.24 [0.82-1.87]	3.16E-01	0.264	54	23	29	2	35592	19260	13858	2474
Hypotension	0.96 [0.88-1.04]	3.17E-01	0.265	1437	796	541	100	37385	20228	14497	2660
Diseases of the oral soft tissues excluding lesions specific for gingiva and tongue	0.96 [0.87-1.05]	3.18E-01	0.264	1275	703	492	80	40560	21958	15746	2856
Presence Of Contraceptive Device	1.09 [0.92-1.29]	3.19E-01	0.264	359	185	146	28	26136	14135	10224	1777
Neoplasm of unspecified nature	0.82 [0.56-1.21]	3.19E-01	0.264	74	44	26	4	47650	25802	18518	3330
Electrolyte and fluid disorders not elsewhere classified	1.03 [0.97-1.09]	3.20E-01	0.263	3130	1686	1201	243	28753	15685	11066	2002

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Other congenital anomalies of circulatory system	0.94 [0.82-1.07]	3.21E-01	0.264	629	347	244	38	42902	23244	16653	3005
Malignant neoplasm of posterior wall of urinary bladder	0.82 [0.55-1.22]	3.21E-01	0.265	70	40	28	2	45916	24809	17909	3198
Acute Conjunctivitis	0.93 [0.82-1.07]	3.23E-01	0.263	581	322	227	32	28828	15685	11137	2006
Sastritis and duodenitis	1.04 [0.97-1.11]	3.23E-01	0.265	2272	1202	907	163	37319	20178	14521	2620
Other specified urticaria	1.14 [0.88-1.47]	3.24E-01	0.264	145	72	62	11	30271	16409	11757	2105
Malignant neoplasm of tongue	1.21 [0.83-1.77]	3.24E-01	0.264	63	31	26	6	48841	26445	18984	3412
Undiagnosed cardiac murmurs	1.05 [0.95-1.16]	3.24E-01	0.260	1213	656	465	92	9969	5478	3823	668
Calculus Of Gallbladder Without Mention Of Cholecystitis	0.97 [0.91-1.03]	3.25E-01	0.266	2463	1353	940	170	35759	19241	14014	2504
Intracerebral hemorrhage	0.89 [0.71-1.12]	3.25E-01	0.264	210	122	73	15	41830	22674	16238	2918
Ulcer Of Esophagus	1.1 [0.91-1.31]	3.25E-01	0.264	291	147	123	21	39335	21310	15290	2735
Acute pharyngitis	1.02 [0.98-1.07]	3.26E-01	0.264	6724	3590	2665	469	34365	18631	13366	2368
Other current conditions in the mother classifiable elsewhere but complicating pregnancy											
Childbirth or the puerperium:Subset(Females)	0.96 [0.89-1.04]	3.27E-01	0.264	2314	1262	898	154	24580	13326	9514	1740
Disorders of lacrimal system	0.97 [0.9-1.03]	3.27E-01	0.263	2711	1493	1041	177	29278	15906	11333	2039
Carcuncle and furuncle of upper arm and forearm	1.18 [0.85-1.64]	3.28E-01	0.263	84	40	38	6	40948	22217	15908	2823
Suspected damage to fetus from drugs affecting management of mother:Subset(Females)	0.87 [0.66-1.15]	3.28E-01	0.265	137	79	49	9	26178	14203	10096	1879
Inflammatory and toxic neuropathy	1.03 [0.97-1.09]	3.29E-01	0.264	3129	1690	1193	246	37370	20233	14559	2578
Closed fracture of unspecified vertebral column without mention of spinal cord injury	0.89 [0.7-1.13]	3.29E-01	0.264	189	105	76	8	47043	25501	18248	3294
Unspecified Polyarthropathy Or Polyarthritits	0.95 [0.86-1.05]	3.29E-01	0.264	1076	609	391	76	29355	15893	11427	2035
Sensorineural Hearing Loss	0.96 [0.9-1.04]	3.30E-01	0.263	2192	1209	834	149	35470	19297	13680	2493
Other Speech Disturbance	1.1 [0.91-1.34]	3.30E-01	0.260	260	136	104	20	10109	5549	3882	678
Paralytic Strabismus	1.12 [0.89-1.42]	3.30E-01	0.263	174	85	79	10	29865	16238	11546	2081
Carcuncle and furuncle	1.05 [0.95-1.15]	3.31E-01	0.264	1133	592	461	80	39521	21433	15364	2724
Nodular prostate without urinary obstruction;Nodular prostate with urinary obstruction:Subset(Males)	1.11 [0.9-1.37]	3.33E-01	0.264	231	117	96	18	11044	5965	4338	741
Dermatophytosis of foot	1.05 [0.95-1.16]	3.33E-01	0.265	1073	573	414	86	38310	20738	14886	2686
Congenital insufficiency of aortic valve	0.9 [0.73-1.11]	3.34E-01	0.264	243	142	83	18	43355	23483	16839	3033
Herpes simplex	1.04 [0.96-1.12]	3.34E-01	0.264	1814	965	717	132	43754	23747	16951	3056
Struck By Object/Person	1.12 [0.89-1.41]	3.35E-01	0.264	175	84	81	10	46926	25427	18207	3292
Mental Disorders Complicating Pregnancy	0.93 [0.8-1.08]	3.35E-01	0.264	507	274	206	27	25262	13712	9762	1788
Other venous embolism and thrombosis of unspecified site	1.05 [0.95-1.17]	3.37E-01	0.265	908	484	347	77	38353	20738	14894	2721
Impetigo	1.11 [0.9-1.36]	3.37E-01	0.263	229	119	90	20	40517	21989	15738	2790
Effusion Of Joint	0.93 [0.79-1.08]	3.37E-01	0.264	431	241	165	25	29040	15724	11308	2008
Other specific muscle disorders	1.17 [0.85-1.6]	3.38E-01	0.265	94	48	37	9	29741	16051	11627	2063
Dysthymic disorder	0.96 [0.88-1.04]	3.40E-01	0.263	1570	857	625	88	34714	18827	13484	2403
Spontaneous abortion:Subset(Females)	0.92 [0.76-1.1]	3.40E-01	0.264	326	184	121	21	28019	15189	10843	1987
Spontaneous Abortion Without Mention Of Complication:Subset(Females)	0.92 [0.76-1.1]	3.41E-01	0.264	326	184	121	21	28023	15191	10845	1987
Other atopic dermatitis and related conditions	0.94 [0.82-1.07]	3.41E-01	0.265	597	330	231	36	39404	21291	15347	2766
Unspecified disorders of menstruation and other abnormal bleeding from female genital tract:Subset(Females)	1.08 [0.92-1.27]	3.41E-01	0.266	383	189	169	25	15578	8373	6126	1079
Functional digestive disorders not elsewhere classified	0.98 [0.95-1.02]	3.42E-01	0.265	9553	5193	3697	663	29220	15763	11374	2083
Other Disorders Of Synovium	0.91 [0.74-1.11]	3.42E-01	0.265	258	141	108	9	29649	15995	11602	2052
Dysmenorrhea:Subset(Females)	1.05 [0.95-1.16]	3.43E-01	0.267	1115	580	443	92	15486	8317	6089	1080
Unspecified follow-up examination	1.04 [0.96-1.12]	3.43E-01	0.265	1858	991	723	144	34450	18604	13431	2415
Diabetic Retinopathy	0.96 [0.88-1.05]	3.44E-01	0.263	1349	761	490	98	29703	16154	11478	2071
Observation For Other Specified Suspected Conditions	1.1 [0.9-1.34]	3.44E-01	0.265	252	130	102	20	12983	7019	5056	908
External hemorrhoids without mention of complication	0.96 [0.88-1.05]	3.45E-01	0.264	1298	712	512	74	36986	20031	14340	2615
Chronic sinusitis	0.97 [0.92-1.03]	3.45E-01	0.264	3079	1692	1185	202	36893	19981	14314	2598
Acute Myocardial Infarction	0.96 [0.87-1.05]	3.45E-01	0.265	1231	691	444	96	38865	21016	15103	2746
Heartburn	1.05 [0.95-1.15]	3.46E-01	0.260	1372	738	536	98	10015	5499	3845	671
Follow-up examination	0.98 [0.95-1.02]	3.47E-01	0.264	13456	7360	5122	974	22531	12120	8860	1551
Postsurgical States Following Surgery Of Eye And Adnexa	1.04 [0.96-1.13]	3.47E-01	0.264	1703	898	694	111	25906	14017	10124	1765
Secondary hypertension	1.07 [0.93-1.24]	3.48E-01	0.264	477	239	211	27	42813	23199	16594	3020
Screening examination for unspecified viral and chlamydial disease	1.07 [0.93-1.24]	3.49E-01	0.265	473	243	198	32	12871	6960	5010	901
Ostium secundum type atrial septal defect	0.93 [0.79-1.09]	3.50E-01	0.264	416	235	154	27	43276	23454	16798	3024
Dermatophytosis of the body	1.05 [0.94-1.18]	3.51E-01	0.264	822	435	323	64	38217	20706	14826	2685
Hematuria	0.98 [0.93-1.03]	3.51E-01	0.264	5243	2881	1997	365	33138	17927	12891	2320
Other specified diseases of sebaceous glands	0.92 [0.78-1.09]	3.51E-01	0.264	383	210	155	18	29949	16235	11629	2085
Barbiturate And Similarly Acting Sedative Or Hypnotic Abuse	0.76 [0.43-1.35]	3.52E-01	0.263	35	22	11	2	35407	19210	13744	2453
Herpes Zoster With Other Nervous System Complications	1.09 [0.91-1.29]	3.52E-01	0.263	327	168	135	24	44822	24331	17392	3099
Gastrointestinal hemorrhage	0.97 [0.91-1.03]	3.53E-01	0.266	2969	1620	1141	208	34572	18587	13571	2414
Backache	1.02 [0.98-1.05]	3.53E-01	0.265	13147	7073	5131	943	24549	13274	9562	1713
Unspecified Enthesopathy	0.89 [0.71-1.13]	3.55E-01	0.265	189	109	69	11	29614	15981	11578	2055
Hereditary and idiopathic peripheral neuropathy	1.04 [0.96-1.13]	3.56E-01	0.264	1509	804	592	113	37774	20479	14680	2615
Enthesopathy Of Elbow Region	1.03 [0.96-1.11]	3.56E-01	0.266	2126	1135	831	160	28733	15496	11238	1999
Parkinsons disease	1.06 [0.93-1.21]	3.57E-01	0.263	598	307	250	41	43770	23770	16955	3045
Lymphosarcoma and reticulosarcoma and other specified malignant tumors of lymphatic tissue	1.14 [0.86-1.5]	3.58E-01	0.264	125	64	50	11	48088	26080	18652	3356
Persistent vomiting	0.87 [0.66-1.16]	3.58E-01	0.264	129	74	48	7	39327	21288	15301	2738
Cardiac dysrhythmia	0.94 [0.83-1.07]	3.59E-01	0.264	674	376	254	44	35040	18951	13645	2444

HSD17B13 and liver disease

Chronic airway obstruction	1.02 [0.98-1.07]	3.59E-01	0.264	5701	3069	2195	437	37946	20567	14749	2630
Unspecified disorder of the teeth and supporting structures	0.94 [0.82-1.07]	3.60E-01	0.265	583	321	228	34	41720	22560	16231	2929
Spontaneous pneumothorax and air leak	0.9 [0.73-1.12]	3.60E-01	0.264	219	125	81	13	43544	23548	16964	3032
Family Disruption	0.82 [0.53-1.26]	3.61E-01	0.264	59	33	25	1	36206	19604	14068	2534
Other Congenital Anomalies Of Peripheral Vascular System	0.91 [0.74-1.12]	3.61E-01	0.264	238	135	88	15	43201	23399	16776	3026
Contact dermatitis and other eczema	0.98 [0.95-1.02]	3.62E-01	0.264	12527	6836	4815	876	25890	13970	10112	1808
Unspecified musculoskeletal disorders and symptoms referable to neck	0.88 [0.67-1.16]	3.64E-01	0.265	146	83	56	7	33778	18265	13146	2367
Other Specified Congenital Anomalies Of Skin	0.92 [0.77-1.1]	3.65E-01	0.264	326	188	114	24	42791	23176	16628	2987
Unspecific (abnormal) findings on radiological and other examination of body structure	1.02 [0.98-1.07]	3.66E-01	0.267	7400	3999	2829	572	20932	11213	8272	1447
Anorexia	1.09 [0.9-1.32]	3.66E-01	0.260	283	145	119	19	10113	5552	3881	680
Hereditary Corneal Dystrophies	0.94 [0.82-1.07]	3.66E-01	0.263	621	345	238	38	29834	16222	11535	2077
Benign neoplasm of stomach	0.92 [0.77-1.1]	3.67E-01	0.264	326	179	132	15	39659	21475	15411	2773
Enlargement of lymph nodes	1.04 [0.95-1.13]	3.68E-01	0.260	1574	846	615	113	9925	5450	3812	663
Other psychosocial circumstances	0.96 [0.87-1.05]	3.68E-01	0.264	1152	636	438	78	35152	19022	13674	2456
Signs And Symptoms In Breast:Subset(Males)	0.89 [0.7-1.14]	3.70E-01	0.264	174	99	66	9	19607	10592	7670	1345
Other and unspecified diseases of the oral soft tissues	0.94 [0.81-1.08]	3.70E-01	0.265	496	275	192	29	41821	22606	16259	2956
Fitting and adjustment of other device	0.94 [0.81-1.08]	3.70E-01	0.263	508	283	196	29	37808	20548	14632	2628
Superficial injury of hip thigh leg and ankle	0.87 [0.64-1.18]	3.70E-01	0.264	115	64	47	4	46006	24878	17913	3215
Dislocation of knee	0.95 [0.86-1.06]	3.71E-01	0.264	992	555	368	69	46527	25172	18095	3260
Closed fracture of nasal bones	0.9 [0.72-1.13]	3.71E-01	0.264	209	119	78	12	48312	26162	18768	3382
Striangles bacillus infection in conditions classified elsewhere and of unspecified site	1.27 [0.75-2.16]	3.72E-01	0.264	32	17	10	5	45155	24455	17545	3155
Iron deficiency anemia	0.98 [0.93-1.03]	3.72E-01	0.265	4661	2557	1771	333	35013	18869	13670	2474
Urinary Incontinence	1.03 [0.96-1.1]	3.73E-01	0.260	3741	2052	1410	279	9912	5456	3793	663
Other Specified Complications Of Procedures	1.09 [0.9-1.32]	3.73E-01	0.264	263	137	104	22	44099	23839	17210	3050
Dystrophy Of Vulva:Subset(Females)	1.16 [0.84-1.61]	3.73E-01	0.266	88	46	32	10	15659	8414	6153	1092
Calculus of ureter	1.04 [0.95-1.15]	3.73E-01	0.265	1151	607	460	84	35158	19028	13660	2470
Superficial perineal pouch:Subset(Females)	0.9 [0.72-1.13]	3.74E-01	0.264	212	117	84	11	25414	13787	9820	1807
Acute Nonsuppurative Otitis Media	0.95 [0.86-1.06]	3.76E-01	0.263	925	498	382	45	35109	19079	13554	2476
Congenital anomalies of urinary system	1.05 [0.95-1.16]	3.77E-01	0.264	962	502	393	67	42707	23150	16564	2993
Parosmia agitata	1.06 [0.93-1.21]	3.77E-01	0.263	577	296	242	39	43776	23774	16957	3045
Mandible Fracture-Closed	1.21 [0.79-1.85]	3.78E-01	0.264	51	23	25	3	48474	26258	18827	3389
Neoplasm of uncertain behavior of other and unspecified sites and tissues	0.98 [0.94-1.02]	3.78E-01	0.264	6839	3704	2674	461	35374	19124	13777	2473
Screening examination for pulmonary tuberculosis	0.97 [0.89-1.05]	3.78E-01	0.264	1962	1086	743	133	12867	6950	5021	896
Central Nervous System	1.16 [0.83-1.64]	3.80E-01	0.266	81	41	32	8	23814	12784	9386	1644
Nonallopathic lesions not elsewhere classified	0.95 [0.85-1.07]	3.81E-01	0.264	803	449	298	56	38901	21065	15142	2694
Intervertebral disc disorders	1.02 [0.98-1.05]	3.81E-01	0.266	10036	5390	3932	714	31941	17257	12432	2252
Throat pain	0.89 [0.68-1.16]	3.81E-01	0.259	154	88	59	7	10096	5540	3877	679
Infertility	0.94 [0.82-1.08]	3.82E-01	0.266	568	313	215	40	15628	8397	6145	1086
Personal history of mental disorder	0.91 [0.74-1.12]	3.82E-01	0.264	235	126	102	7	29584	16055	11457	2072
Localized adiposity	1.07 [0.92-1.24]	3.83E-01	0.262	456	240	181	35	29041	15838	11177	2026
Gastrectomy status	1.1 [0.88-1.38]	3.83E-01	0.263	199	106	74	19	26262	14214	10266	1782
Encounter for routine screening for malformation using ultrasonics	0.9 [0.71-1.14]	3.83E-01	0.264	208	114	84	10	41752	22615	16238	2899
Other congenital anomalies of heart	0.93 [0.79-1.1]	3.84E-01	0.264	390	223	138	29	43208	23410	16777	3021
Contracture of palmar fascia	0.91 [0.75-1.12]	3.85E-01	0.265	260	148	95	17	29757	16063	11630	2064
Routine infant or child health check	1.07 [0.92-1.24]	3.85E-01	0.264	1241	652	505	84	41547	22494	16166	2887
Mitral stenosis	1.13 [0.86-1.49]	3.86E-01	0.264	124	65	46	13	47940	25962	18636	3342
Peripheral autonomic neuropathy in disorders classified elsewhere	1.18 [0.81-1.73]	3.87E-01	0.263	64	31	28	5	43716	23748	16934	3034
Health supervision of infant or child	1.07 [0.92-1.24]	3.87E-01	0.264	1241	652	505	84	41542	22492	16164	2886
Albinism	0.95 [0.86-1.06]	3.87E-01	0.264	919	516	342	61	29749	16115	11555	2079
Unspecified general medical examination	0.97 [0.9-1.04]	3.87E-01	0.264	2106	1155	814	137	12880	6960	5021	899
Anal fistula	0.89 [0.67-1.17]	3.87E-01	0.266	139	81	48	10	33139	17878	12905	2356
Paranoid-Affective Type Schizophrenia	1.12 [0.87-1.43]	3.88E-01	0.264	154	80	60	14	44107	23865	17174	3068
Unspecified disorder of gallbladder	0.91 [0.74-1.13]	3.90E-01	0.265	232	129	91	12	36366	19594	14227	2545
Systemic inflammatory response syndrome	1.03 [0.96-1.11]	3.90E-01	0.264	1838	991	701	146	42865	23241	16679	2945
Screening for malignant neoplasms of cervix:Subset(Females)	0.98 [0.92-1.03]	3.91E-01	0.262	8170	4485	3121	564	5832	3156	2251	425
Organ or tissue replaced by transplant	1.05 [0.93-1.19]	3.91E-01	0.264	694	363	281	50	26244	14207	10254	1783
Personal history of allergy to medicinal agents	1.09 [0.9-1.31]	3.92E-01	0.264	267	140	104	23	28866	15646	11200	2020
Other Specified Disorders Of Stomach And Duodenum	0.94 [0.8-1.09]	3.93E-01	0.264	441	254	152	35	38789	21000	15088	2701
Disorders of muscle ligament and fascia	0.98 [0.94-1.02]	3.93E-01	0.264	7138	3919	2712	507	26095	14079	10212	1804
Entropion And Trichiasis Of Eyelid	1.12 [0.87-1.44]	3.93E-01	0.263	151	79	59	13	29860	16231	11547	2082
Disorders Of Calcium Metabolism	0.97 [0.9-1.04]	3.93E-01	0.262	1873	1030	728	115	28843	15721	11109	2013
Arteriovenous fistula	0.92 [0.75-1.12]	3.94E-01	0.264	273	154	102	17	40959	22200	15881	2878
Parosmia	1.12 [0.86-1.46]	3.94E-01	0.265	136	71	52	13	39916	21554	15569	2793
Bipolar Affective Disorder	1.07 [0.92-1.24]	3.94E-01	0.264	430	224	172	34	44073	23851	17153	3069
Educational circumstances	0.92 [0.75-1.12]	3.94E-01	0.264	269	148	108	13	35856	19412	13932	2512
Atrial Fibrillation And Flutter	0.98 [0.93-1.03]	3.96E-01	0.265	5830	3188	2225	417	33884	18294	13223	2367
Acute pain due to trauma;Acute post-thoracotomy pain;Other acute postoperative pain;Other acute pain	0.93 [0.79-1.1]	3.98E-01	0.264	399	226	146	27	45676	24728	17751	3197
Other anaphylactic reaction	1.12 [0.86-1.44]	3.98E-01	0.263	144	76	54	14	44149	23954	17156	3039

HSD17B13 and liver disease

Calculus of kidney	0.98 [0.92-1.03]	3.98E-01	0.264	3650	1999	1404	247	34701	18772	13492	2437
Other and unspecified noninfectious gastroenteritis and colitis	0.96 [0.88-1.05]	3.98E-01	0.264	1209	655	489	65	44593	24189	17262	3142
Obsessive-compulsive disorders	0.92 [0.76-1.11]	3.99E-01	0.263	297	169	109	19	35373	19189	13730	2454
Malnutrition of moderate degree	0.9 [0.71-1.15]	3.99E-01	0.264	183	109	58	16	45961	24864	17908	3189
Other Malignant Neoplasm Of Skin Of Other And Unspecified	1.04 [0.95-1.13]	3.99E-01	0.264	1555	820	619	116	43523	23598	16893	3032
Nonspecific Reaction To Tuberculin Skin Test Without Active	0.92 [0.76-1.12]	3.99E-01	0.266	275	153	107	15	23788	12766	9377	1645
Labyrinthitis	1.08 [0.9-1.29]	3.99E-01	0.264	305	160	119	26	35755	19423	13809	2523
Other family circumstances	0.96 [0.86-1.06]	4.00E-01	0.264	1000	544	396	60	35637	19285	13862	2490
Unspecified disorder of liver	1.06 [0.92-1.22]	4.01E-01	0.266	505	265	200	40	36257	19506	14211	2540
Benign neoplasm of skin	1.03 [0.96-1.1]	4.01E-01	0.265	2401	1278	951	172	36895	19976	14326	2593
Syncope and collapse	1.03 [0.97-1.09]	4.01E-01	0.261	3825	2057	1493	275	9890	5430	3802	658
Other late effects of cerebrovascular disease	0.91 [0.73-1.14]	4.01E-01	0.264	213	116	88	9	41824	22670	16238	2916
Trigeminal neuralgia	0.93 [0.78-1.11]	4.01E-01	0.263	328	188	116	24	38342	20802	14894	2646
Cellulitis and abscess of foot	1.05 [0.94-1.17]	4.02E-01	0.264	795	425	306	64	40458	21924	15755	2779
Malignant neoplasm of prostate:Subset(Males)	0.96 [0.88-1.05]	4.02E-01	0.265	1528	843	577	108	17875	9597	7060	1218
Abnormal involuntary movements	1.05 [0.94-1.17]	4.03E-01	0.260	877	472	338	67	10074	5533	3864	677
Disorders of lipid metabolism	1.02 [0.98-1.06]	4.04E-01	0.264	32368	17534	12578	2256	10860	5919	4174	767
Nontoxic nodular goiter	0.97 [0.91-1.04]	4.05E-01	0.265	2276	1251	874	151	42180	22777	16443	2960
Retinal Detachment With Retinal Defect	0.94 [0.81-1.09]	4.05E-01	0.263	484	268	189	27	29853	16233	11540	2080
Unspecified Hemiplegia And Hemiparesis	0.9 [0.71-1.15]	4.06E-01	0.263	181	108	58	15	39876	21650	15458	2768
Malignant neoplasm of other specified sites of bladder	0.9 [0.71-1.15]	4.07E-01	0.265	178	104	60	14	45916	24809	17909	3198
Acute prostatitis:Subset(Males)	0.94 [0.8-1.1]	4.10E-01	0.263	434	244	161	29	10958	5925	4299	734
Other arthropod-borne diseases	0.94 [0.82-1.09]	4.10E-01	0.264	523	296	189	38	47965	25954	18660	3351
Actinic keratosis	0.98 [0.92-1.03]	4.10E-01	0.263	4606	2501	1781	324	29170	15833	11318	2019
Other Nonspecific Immunological Findings	1.04 [0.94-1.16]	4.12E-01	0.266	961	503	390	68	23493	12612	9255	1626
Hydronephrosis	0.95 [0.85-1.07]	4.13E-01	0.264	840	461	328	51	35149	19040	13642	2467
Other Personality Disorders	1.09 [0.89-1.34]	4.13E-01	0.264	231	122	88	21	35375	19190	13731	2454
Other disorders of pancreatic internal secretion	0.97 [0.9-1.04]	4.14E-01	0.266	2064	1123	806	135	36860	19867	14384	2609
Dementias	0.93 [0.78-1.11]	4.14E-01	0.264	346	194	129	23	46991	25488	18216	3287
Supervision of other normal pregnancy:Subset(Females)	0.97 [0.89-1.05]	4.15E-01	0.264	3220	1739	1277	204	22088	11991	8540	1557
Leurisy	0.96 [0.88-1.05]	4.16E-01	0.264	1367	762	504	101	42504	22971	16571	2962
Person with feared complaint in whom no diagnosis was made	0.84 [0.54-1.29]	4.16E-01	0.264	58	32	25	1	36165	19579	14049	2537
Metrorrhagia:Subset(Females)	0.92 [0.76-1.12]	4.17E-01	0.266	277	153	107	17	15582	8376	6118	1088
Contracture Of Joint	1.19 [0.78-1.82]	4.17E-01	0.264	52	24	25	3	29457	15936	11478	2043
Other Spontaneous Pneumothorax	0.91 [0.71-1.15]	4.18E-01	0.264	182	103	69	10	43650	23605	17005	3040
Phlebitis And Thrombophlebitis Of Deep Veins Of Lower Extremities	0.95 [0.85-1.07]	4.19E-01	0.265	744	415	277	52	38379	20750	14906	2723
Acute Gastritis	0.93 [0.77-1.12]	4.19E-01	0.264	298	165	118	15	39230	21241	15262	2727
Personal history of other mental disorders	0.88 [0.64-1.21]	4.19E-01	0.263	104	58	42	4	29671	16114	11480	2077
Epistaxis	1.04 [0.94-1.16]	4.20E-01	0.260	1067	578	412	77	10033	5508	3851	674
Acute laryngitis and tracheitis	1.07 [0.9-1.27]	4.20E-01	0.264	328	171	131	26	45007	24367	17510	3130
Arteriosclerotic Dementia	0.9 [0.7-1.16]	4.21E-01	0.264	164	94	59	11	47059	25528	18238	3293
Acute sinusitis	0.99 [0.96-1.02]	4.22E-01	0.264	16000	8699	6214	1087	25652	13868	9971	1813
Other Pyelonephritis Or Pyonephrosis	0.94 [0.81-1.09]	4.23E-01	0.264	474	262	183	29	35091	18986	13638	2467
Disruption Of Operation Wound	1.1 [0.88-1.37]	4.23E-01	0.264	195	102	76	17	44323	23959	17289	3075
Abnormal Glucose Tolerance Test	0.98 [0.94-1.03]	4.23E-01	0.265	6002	3271	2322	409	22607	12151	8891	1565
Unspecified cataract	1.03 [0.96-1.09]	4.23E-01	0.263	3751	2009	1486	256	29255	15906	11305	2044
Pulmonary congestion and hypostasis	0.91 [0.73-1.14]	4.23E-01	0.264	218	120	88	10	43517	23540	16949	3028
Amblyopia Ex Anopsia	1.08 [0.9-1.28]	4.24E-01	0.263	311	164	122	25	29780	16197	11507	2076
Other Specified Diseases Of Blood And Blood-Forming Organs	0.96 [0.86-1.07]	4.25E-01	0.266	841	468	312	61	35987	19385	14043	2559
Other Specified Congenital Anomalies Of Muscle	0.81 [0.48-1.37]	4.26E-01	0.264	40	24	14	2	43412	23507	16869	3036
Pneumococcal pneumonia [Streptococcus pneumoniae pneumonia]	0.82 [0.49-1.35]	4.26E-01	0.264	44	26	16	2	43396	23462	16919	3015
Hallux valgus (acquired)	1.09 [0.88-1.35]	4.26E-01	0.264	209	106	89	14	39450	21361	15356	2733
Other Specified Arthropod-Borne Diseases	0.94 [0.82-1.09]	4.28E-01	0.264	520	294	188	38	47969	25956	18662	3351
Other Background Retinopathy And Retinal Vascular Changes	0.95 [0.84-1.08]	4.29E-01	0.263	663	370	249	44	29780	16186	11518	2076
Infection And Inflammatory Reaction Due To Internal Prosthetic	1.06 [0.92-1.23]	4.31E-01	0.264	445	231	182	32	44355	23997	17284	3074
Other Otitis Externa	0.96 [0.85-1.07]	4.31E-01	0.263	806	447	305	54	35512	19301	13709	2502
Closed fracture of other facial bones	1.12 [0.84-1.49]	4.31E-01	0.264	117	60	47	10	48346	26182	18788	3376
Duodenal ulcer	1.06 [0.91-1.24]	4.32E-01	0.264	429	226	170	33	39241	21261	15253	2727
Cellulitis And Abscess Of Finger	0.94 [0.79-1.1]	4.32E-01	0.263	377	210	145	22	40378	21928	15668	2782
Abdominal Or Pelvic Swelling	1.05 [0.93-1.19]	4.32E-01	0.260	705	377	279	49	10003	5486	3846	671
Aortic aneurysm and dissection	0.97 [0.91-1.04]	4.33E-01	0.264	2360	1272	941	147	40750	22090	15796	2864
Chronic ischemic heart disease	0.98 [0.92-1.03]	4.36E-01	0.265	4008	2146	1620	242	38373	20746	14912	2715
Screening examination for venereal disease	0.94 [0.81-1.1]	4.36E-01	0.264	508	282	194	32	12900	6976	5018	906
Chest Pain	1.02 [0.97-1.07]	4.37E-01	0.261	14952	8139	5792	1021	7915	4343	3029	543
Gun Injury-Closed	0.83 [0.51-1.33]	4.37E-01	0.264	48	28	18	2	48587	26328	18869	3390
Conduction disorders	0.97 [0.9-1.05]	4.39E-01	0.264	2030	1103	797	130	34855	18850	13584	2421
Unspecified diseases due to mycobacteria	0.83 [0.51-1.35]	4.41E-01	0.264	46	28	15	3	45287	24529	17597	3161
Sens replaced by other means	1.03 [0.96-1.11]	4.41E-01	0.264	2354	1267	917	170	26012	14074	10174	1764
Toxic Diffuse Goiter	0.95 [0.84-1.08]	4.42E-01	0.265	642	357	244	41	42555	22994	16581	2980

HSD17B13 and liver disease

Malignant neoplasm of upper-inner quadrant of female breast:Subset(Females)	0.87 [0.61-1.24]	4.43E-01	0.263	83	49	29	5	26218	14245	10129	1844
Loss Of Teeth Due To Accident	0.94 [0.81-1.1]	4.43E-01	0.265	427	236	166	25	42358	22901	16466	2991
Fracture of one or more tarsal and metatarsal bones	0.95 [0.84-1.08]	4.43E-01	0.264	679	374	264	41	45608	24677	17781	3150
Procreative management	1.04 [0.94-1.16]	4.44E-01	0.264	1020	545	396	79	40727	22059	15847	2821
Unspecified essential hypertension	1.01 [0.98-1.05]	4.46E-01	0.264	29677	16048	11568	2061	16965	9230	6551	1184
Cellulitis and abscess of finger and toe	1.04 [0.95-1.14]	4.46E-01	0.263	1208	642	479	87	39312	21366	15257	2689
Lesion of ulnar nerve	0.95 [0.84-1.08]	4.46E-01	0.263	673	378	249	46	38163	20704	14824	2635
Supervision of unspecified high-risk pregnancy:Subset(Females)	0.93 [0.77-1.12]	4.46E-01	0.264	345	189	134	22	22208	12062	8581	1565
Noninflammatory disorders of vulva and perineum:Subset(Females)	1.07 [0.9-1.28]	4.46E-01	0.267	316	163	129	24	15493	8323	6084	1086
Dyspareunia:Subset(Females)	1.07 [0.91-1.25]	4.47E-01	0.267	371	199	136	36	15548	8355	6105	1088
Aftercare for healing traumatic fracture of arm	0.87 [0.62-1.24]	4.47E-01	0.263	88	50	34	4	38124	20712	14766	2646
Aortic aneurysm of unspecified site without mention of rupture	1.1 [0.86-1.39]	4.47E-01	0.264	170	86	72	12	40986	22218	15892	2876
Alcohol Abuse	0.96 [0.87-1.07]	4.48E-01	0.263	962	529	374	59	34949	18962	13559	2428
Demyelinating disease of central nervous system	0.93 [0.76-1.13]	4.48E-01	0.263	260	143	105	12	40013	21738	15497	2778
Abnormal Movement Disorders	1.03 [0.96-1.1]	4.49E-01	0.264	2345	1262	907	176	42884	23287	16613	2984
Diplopia	1.05 [0.93-1.19]	4.50E-01	0.263	662	340	283	39	29703	16150	11482	2071
Aginitis And Vulvovaginitis:Subset(Females)	0.97 [0.91-1.04]	4.50E-01	0.264	2525	1375	988	162	23381	12695	9009	1677
Acute vascular insufficiency of intestine	1.1 [0.86-1.42]	4.51E-01	0.264	148	84	44	20	46739	25319	18143	3277
Other vitamin B12 deficiency anemia	0.95 [0.84-1.08]	4.52E-01	0.266	620	346	230	44	36026	19399	14060	2567
Retinal Vascular Occlusion	1.05 [0.93-1.19]	4.52E-01	0.263	647	337	267	43	29772	16190	11509	2073
Need for prophylactic vaccination and inoculation against combinations of diseases	0.98 [0.92-1.04]	4.53E-01	0.264	2907	1600	1099	208	21233	11475	8308	1450
Chronic Periodontitis	0.89 [0.66-1.2]	4.53E-01	0.265	115	64	46	5	42374	22908	16472	2994
Abscess of anal and rectal regions	1.08 [0.89-1.31]	4.53E-01	0.266	245	133	86	26	33079	17847	12883	2349
Fracture of patella	1.11 [0.84-1.46]	4.55E-01	0.264	129	65	55	9	45979	24896	17901	3182
Atrioventricular Block	1.06 [0.92-1.22]	4.55E-01	0.264	508	264	208	36	35366	19137	13770	2459
Bladder neck obstruction	0.9 [0.68-1.19]	4.56E-01	0.265	135	71	61	3	35281	19087	13712	2482
Partial Epilepsy	1.06 [0.9-1.25]	4.56E-01	0.263	375	197	149	29	40047	21753	15517	2777
Other paraproteinemias	0.91 [0.71-1.16]	4.56E-01	0.262	176	101	64	11	29249	15944	11267	2038
Blood in stool	0.97 [0.89-1.05]	4.57E-01	0.266	1451	792	561	98	35232	18961	13812	2459
Follow-Up Examination Following Other Treatment	1.03 [0.95-1.11]	4.57E-01	0.264	1712	929	642	141	34302	18572	13338	2392
Other and unspec malignant neoplasm of skin	1.02 [0.96-1.09]	4.59E-01	0.264	2834	1498	1129	207	42576	23077	16527	2972
Other Disorders Of Eustachian Tube	1.03 [0.95-1.12]	4.59E-01	0.264	1433	761	571	101	34840	18932	13472	2436
Unspecified septicemia	1.04 [0.94-1.14]	4.60E-01	0.264	1108	597	420	91	43895	23772	17078	3045
Cerebral atherosclerosis	0.97 [0.89-1.05]	4.60E-01	0.264	1654	891	660	103	41620	22550	16162	2908
Fracture Of Rib-Closed	0.96 [0.85-1.08]	4.60E-01	0.264	742	407	291	44	46444	25180	18016	3248
Essential hypertension	1.01 [0.98-1.05]	4.60E-01	0.264	29747	16090	11592	2065	16904	9197	6528	1179
Leiomyoma of uterus	0.96 [0.87-1.07]	4.60E-01	0.264	969	540	363	66	22496	12194	8716	1586
Primary Angle-Closure Glaucoma	1.06 [0.91-1.23]	4.60E-01	0.263	446	226	195	25	29871	16243	11546	2082
Hypertensive heart and chronic kidney disease	0.93 [0.76-1.14]	4.61E-01	0.264	253	145	90	18	42934	23256	16655	3023
Normal pregnancy:Subset(Females)	0.97 [0.89-1.05]	4.61E-01	0.264	3937	2131	1545	261	22009	11949	8508	1552
Multiple and unspecified open wound of upper limb	1.12 [0.83-1.5]	4.61E-01	0.264	110	59	39	12	47416	25690	18429	3297
Other Musculoskeletal Symptoms Referable To Limbs	0.98 [0.91-1.04]	4.63E-01	0.264	2472	1349	961	162	27610	14908	10791	1911
Localized superficial swelling	1.06 [0.91-1.23]	4.63E-01	0.259	442	238	169	35	10030	5504	3857	669
Malignant neoplasm of ascending colon	1.14 [0.8-1.63]	4.64E-01	0.264	74	36	33	5	47908	25936	18619	3353
Spontaneous ecchymoses	0.92 [0.73-1.16]	4.64E-01	0.259	198	120	60	18	10099	5544	3878	677
Benign neoplasm of other and unspecified parts of mouth	1.25 [0.69-2.24]	4.64E-01	0.264	26	12	12	2	40177	21756	15602	2819
Malignant melanoma of skin of trunk	1.08 [0.88-1.34]	4.65E-01	0.264	216	107	97	12	44387	24057	17235	3095
Hypertrophy of breast:Subset(Males)	0.91 [0.71-1.17]	4.65E-01	0.265	165	92	64	9	19684	10608	7715	1361
Corneal opacity and other disorders of cornea	0.97 [0.88-1.06]	4.65E-01	0.263	1339	734	523	82	29709	16149	11493	2067
Unspecified disorder of esophagus	1.06 [0.9-1.25]	4.66E-01	0.264	371	200	137	34	39006	21148	15143	2715
Idiopathic urticaria	1.14 [0.8-1.62]	4.67E-01	0.264	76	38	32	6	30291	16419	11765	2107
Disorders of optic nerve and visual pathways	1.04 [0.94-1.15]	4.67E-01	0.263	931	499	360	72	29693	16136	11497	2060
Intestinal malabsorption	1.02 [0.96-1.08]	4.67E-01	0.266	3356	1807	1286	263	36326	19566	14216	2544
Central Hernia Without Mention Of Obstruction Or Gangrene	1.03 [0.95-1.11]	4.68E-01	0.264	1626	873	627	126	41884	22699	16252	2933
Thoracic spondylosis without myelopathy	0.86 [0.58-1.29]	4.71E-01	0.265	68	40	24	4	33848	18301	13174	2373
Personal History Of Allergy	1.05 [0.93-1.18]	4.72E-01	0.263	697	367	282	48	29141	15830	11288	2023
Open wound of knee leg (except thigh) and ankle	0.96 [0.85-1.08]	4.72E-01	0.264	705	393	262	50	46533	25173	18133	3227
Other specified personal exposures and history presenting hazards to health	1.12 [0.83-1.51]	4.72E-01	0.264	105	55	40	10	48655	26330	18924	3401
Influenza with other respiratory manifestations	0.95 [0.84-1.09]	4.72E-01	0.264	621	343	238	40	41858	22622	16334	2902
Personal History Of Diseases Of Circulatory System	1.03 [0.96-1.1]	4.72E-01	0.265	2502	1332	984	186	28276	15341	10940	1995
Phobic Disorders	1.06 [0.9-1.26]	4.72E-01	0.264	340	174	145	21	35241	19119	13675	2447
Separation Of Retinal Layers	1.15 [0.78-1.7]	4.73E-01	0.263	62	31	26	5	29879	16246	11551	2082
Body Mass Index	0.89 [0.66-1.22]	4.74E-01	0.264	127	72	48	7	42876	23224	16659	2993
Infective Otitis Externa	1.04 [0.94-1.15]	4.74E-01	0.264	988	525	389	74	35284	19142	13660	2482
ix Lower Radius/Ulna-Cl	1.05 [0.92-1.21]	4.75E-01	0.265	521	276	204	41	46654	25207	18181	3266
Need For Other Specified Vaccinations Against Single Bacterial	1.02 [0.97-1.07]	4.75E-01	0.265	5921	3194	2293	434	24542	13275	9576	1691
Prolapse Of Vaginal Walls Without Mention Of Uterine Prolapse:Subset(Females)	0.97 [0.88-1.06]	4.75E-01	0.266	1291	710	492	89	15428	8278	6074	1076
Otalgia	0.97 [0.88-1.06]	4.76E-01	0.263	1134	628	429	77	34880	18957	13456	2467
Complications affecting specified body system not elsewhere classified	0.95 [0.84-1.09]	4.76E-01	0.265	624	355	219	50	41990	22685	16386	2919

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Other Nonspecific Findings On Examination Of Blood	0.98 [0.92-1.04]	4.77E-01	0.266	3453	1884	1327	242	23135	12411	9121	1603
Constipation	0.98 [0.94-1.03]	4.78E-01	0.265	5695	3084	2218	393	30105	16261	11706	2138
Contusion Shoulder/Arm	1.09 [0.87-1.36]	4.78E-01	0.264	190	97	79	14	44963	24342	17476	3145
Cavernangioma and lymphangioma any site	0.94 [0.8-1.11]	4.79E-01	0.264	380	214	140	26	39604	21435	15385	2784
Other specified noninflammatory disorders of vagina:Subset(Females)	1.08 [0.88-1.32]	4.79E-01	0.266	237	124	92	21	15509	8341	6085	1083
Asymptomatic varicose veins	0.96 [0.87-1.07]	4.80E-01	0.265	1044	569	416	59	38032	20564	14766	2702
Secondary malignant neoplasm of respiratory and digestive systems	0.94 [0.79-1.12]	4.80E-01	0.264	355	196	138	21	47225	25563	18365	3297
Genetic carrier status	0.83 [0.51-1.38]	4.80E-01	0.264	43	26	14	3	48853	26457	18987	3409
Pregnancy Examination Or Test	0.94 [0.78-1.12]	4.82E-01	0.265	357	199	135	23	6544	3538	2534	472
Pneumonia due to other virus not elsewhere classified	1.15 [0.78-1.7]	4.83E-01	0.265	61	33	20	8	43468	23494	16955	3019
Unspecified pleural effusion	0.97 [0.88-1.06]	4.83E-01	0.264	1148	640	422	86	42927	23198	16739	2990
Special investigations and examinations	1.02 [0.97-1.07]	4.83E-01	0.263	27279	14808	10554	1917	5896	3207	2285	404
Dermatophytosis of nail	0.98 [0.93-1.04]	4.83E-01	0.264	3469	1922	1290	257	37508	20333	14550	2625
Senile dementia	0.92 [0.72-1.17]	4.84E-01	0.264	176	99	66	11	47058	25530	18236	3292
Chronic Serous Otitis Media	0.93 [0.76-1.14]	4.85E-01	0.263	262	149	94	19	36099	19620	13942	2537
Isolated heart failure	0.98 [0.91-1.05]	4.85E-01	0.264	2470	1347	957	166	35462	19184	13811	2467
Hearing loss	1.02 [0.97-1.07]	4.86E-01	0.264	4524	2418	1781	325	34047	18498	13172	2377
Abn Reaction To Oth Proc	0.93 [0.76-1.14]	4.86E-01	0.264	255	145	92	18	45825	24805	17820	3200
Unspecified Adverse Effect Of Drug	0.97 [0.89-1.06]	4.86E-01	0.263	1436	803	525	108	42518	23053	16531	2934
Delirium due to conditions classified elsewhere	0.92 [0.72-1.17]	4.87E-01	0.264	177	98	70	9	46898	25441	18180	3277
Classified	0.94 [0.79-1.12]	4.87E-01	0.265	351	187	146	18	26122	14171	10077	1874
Anomalies of spleen	1.18 [0.74-1.88]	4.88E-01	0.264	42	20	19	3	43425	23525	16862	3038
Ill-defined intestinal infections	0.94 [0.79-1.12]	4.89E-01	0.264	328	187	118	23	46987	25462	18241	3284
Borderline Glaucoma (Glaucoma Suspect)	1.02 [0.96-1.08]	4.89E-01	0.264	3363	1794	1340	229	29568	16071	11429	2068
Synovitis And Tenosynovitis	1.02 [0.96-1.08]	4.89E-01	0.266	3457	1860	1336	261	28075	15123	10989	1963
Spotting complicating pregnancy	0.81 [0.44-1.48]	4.91E-01	0.264	30	19	8	3	25463	13816	9837	1810
Contusion Knee/Lower Leg	0.95 [0.83-1.09]	4.91E-01	0.264	560	314	206	40	44053	23861	17118	3074
Abnormal glucose tolerance of mother complicating pregnancy childbirth or the puerperium:Subset(Females)	0.97 [0.87-1.07]	4.91E-01	0.264	1196	659	449	88	25348	13757	9790	1801
After-Cataract	1.02 [0.96-1.09]	4.93E-01	0.264	3798	2006	1540	252	29807	16207	11524	2076
Atrioventricular block	0.95 [0.81-1.11]	4.94E-01	0.264	431	239	164	28	35580	19251	13855	2474
Juvenile Chronic Polyarthrits	0.85 [0.52-1.37]	4.94E-01	0.264	47	30	12	5	29507	15968	11492	2047
Deficiency of other vitamins	1.11 [0.83-1.48]	4.94E-01	0.264	111	59	41	11	45934	24836	17910	3188
Atrophic Gastritis	1.1 [0.84-1.42]	4.94E-01	0.264	142	73	58	11	38981	21108	15160	2713
Unspecified adjustment reaction	1.06 [0.9-1.25]	4.95E-01	0.263	367	193	147	27	35231	19122	13675	2434
Diabetes With Other Specified Manifestations	0.96 [0.87-1.07]	4.96E-01	0.266	965	539	351	75	37366	20155	14561	2650
Dysuria	0.98 [0.93-1.04]	4.96E-01	0.260	6590	3621	2516	453	9486	5201	3638	647
Special screening for malignant neoplasms for intestine	0.98 [0.94-1.03]	4.98E-01	0.263	17162	9367	6599	1196	11050	5984	4286	780
Hypotension	0.98 [0.91-1.05]	4.98E-01	0.265	2115	1157	810	148	36344	19652	14095	2597
Anodontia	0.92 [0.72-1.18]	4.98E-01	0.265	167	97	57	13	42389	22915	16481	2993
Other personal history presenting hazards to health	1.01 [0.98-1.05]	4.99E-01	0.264	10204	5504	3967	733	20724	11301	7966	1457
Internal hemorrhoids with other complication	0.92 [0.74-1.16]	5.00E-01	0.265	197	106	83	8	38354	20729	14897	2728
Complications peculiar to certain specified procedures	1.03 [0.95-1.1]	5.00E-01	0.264	1929	1031	757	141	42091	22804	16374	2913
Deficiency of b-complex components	0.97 [0.89-1.06]	5.00E-01	0.264	1475	818	552	105	45394	24553	17699	3142
Abdominal Pain	1.02 [0.97-1.06]	5.01E-01	0.261	13894	7533	5431	930	8563	4714	3261	588
Gastritis	0.91 [0.69-1.2]	5.01E-01	0.265	134	73	56	5	42173	22816	16380	2977
Gastrointestinal Complications	0.94 [0.77-1.14]	5.01E-01	0.264	276	161	91	24	43935	23742	17150	3043
Influenza	0.96 [0.85-1.08]	5.02E-01	0.264	681	374	264	43	41776	22582	16298	2896
Hemoptysis	0.95 [0.82-1.1]	5.03E-01	0.259	501	281	193	27	10106	5546	3881	679
Subjective Visual Disturbances	1.06 [0.9-1.24]	5.03E-01	0.263	393	221	129	43	29588	16083	11440	2065
Unspecified vitamin D deficiency	1.01 [0.98-1.05]	5.03E-01	0.265	13387	7217	5239	931	31740	17171	12354	2215
Erticaria	1.03 [0.94-1.12]	5.03E-01	0.264	1363	733	526	104	29354	15932	11384	2038
Other demyelinating diseases of central nervous system	0.94 [0.77-1.14]	5.05E-01	0.263	282	154	115	13	40001	21732	15493	2776
Other disorders of prostate:Subset(Males)	0.95 [0.81-1.11]	5.06E-01	0.263	455	253	176	26	10982	5928	4321	733
Adjustment reaction	0.99 [0.95-1.03]	5.06E-01	0.263	7457	4086	2847	524	30910	16753	12019	2138
Personal history of allergy to other specified medicinal agents	0.89 [0.62-1.27]	5.07E-01	0.264	81	49	25	7	29418	15955	11401	2062
Acute Myocardial Infarction	0.95 [0.83-1.1]	5.09E-01	0.265	533	303	187	43	39021	21103	15164	2754
Other specified forms of chronic ischemic heart disease	0.98 [0.91-1.05]	5.09E-01	0.265	2162	1172	844	146	38779	20963	15073	2743
Dental examination	0.98 [0.91-1.05]	5.10E-01	0.264	2248	1235	857	156	12834	6935	4997	902
Chronic pharyngitis	0.87 [0.58-1.31]	5.10E-01	0.264	65	41	17	7	39181	21198	15238	2745
Acute Laryngitis	1.07 [0.88-1.29]	5.10E-01	0.264	265	138	107	20	45160	24464	17560	3136
Vitamin d deficiency	1.01 [0.98-1.05]	5.10E-01	0.265	13394	7221	5242	931	31729	17163	12352	2214
Ipoma	0.95 [0.83-1.1]	5.13E-01	0.265	508	285	188	35	39702	21466	15450	2786
Regional enteritis of unspecified site	0.95 [0.81-1.11]	5.14E-01	0.264	405	229	146	30	46774	25338	18154	3282
Other Advanced Maternal Age:Subset(Females)	0.95 [0.82-1.1]	5.14E-01	0.265	518	283	200	35	26095	14157	10062	1876
Bipolar I disorder	0.94 [0.77-1.14]	5.15E-01	0.264	274	152	105	17	44085	23851	17166	3068
Contusion Of Hip & Thigh	1.07 [0.87-1.33]	5.16E-01	0.264	208	109	82	17	44998	24407	17458	3133
Acute Myocardial Infarction	0.97 [0.9-1.05]	5.17E-01	0.265	1769	949	714	106	38821	20990	15086	2745
Normal delivery:Subset(Females)	0.96 [0.84-1.09]	5.18E-01	0.264	668	359	268	41	24887	13493	9622	1772

HSD17B13 and liver disease

Cyst and pseudocyst of pancreas	0.94 [0.78-1.14]	5.19E-01	0.266	283	155	112	16	36432	19620	14263	2549
Diseases of sebaceous glands	0.98 [0.93-1.04]	5.19E-01	0.264	4479	2437	1749	293	28210	15270	10982	1958
Contact Dermatitis And Other Eczema Due To Solar Radiation	0.96 [0.83-1.1]	5.20E-01	0.265	526	289	203	34	39359	21250	15360	2749
Hemangioma	0.95 [0.8-1.12]	5.20E-01	0.264	371	209	136	26	39614	21442	15388	2784
Hinnitus	1.03 [0.94-1.14]	5.20E-01	0.264	1117	600	434	83	35526	19287	13738	2501
Nontoxic uninodular goiter	0.97 [0.9-1.06]	5.20E-01	0.265	1572	868	593	111	42265	22820	16478	2967
Unspecified disorder of optic nerve and visual pathways	0.92 [0.72-1.18]	5.22E-01	0.263	163	94	57	12	29819	16208	11536	2075
Pain in thoracic spine	0.96 [0.86-1.08]	5.23E-01	0.265	790	434	306	50	33349	18016	12983	2350
Scar conditions and fibrosis of skin	0.97 [0.87-1.07]	5.23E-01	0.263	954	508	397	49	29930	16234	11615	2081
Malignant neoplasm of other specified sites of female breast:Subset(Females)	1.08 [0.85-1.38]	5.23E-01	0.264	165	89	61	15	26209	14240	10126	1843
Intestinal infection due to other organism	0.92 [0.72-1.19]	5.23E-01	0.264	162	85	73	4	46722	25316	18124	3282
Obstructive Chronic Bronchitis	0.98 [0.91-1.05]	5.23E-01	0.264	2263	1252	841	170	40750	22090	15819	2841
Family history of ischemic heart disease	0.97 [0.89-1.06]	5.24E-01	0.263	1426	781	560	85	28891	15691	11174	2026
Trigeminal nerve disorders	0.95 [0.82-1.11]	5.24E-01	0.263	444	247	168	29	38236	20740	14857	2639
Foot Sprain	1.08 [0.85-1.38]	5.25E-01	0.263	160	83	65	12	42067	22844	16315	2908
Malignant neoplasm of lower lobe	0.92 [0.72-1.18]	5.26E-01	0.264	169	97	60	12	48292	26143	18780	3369
Congenital anomalies of genital organs	1.08 [0.85-1.39]	5.26E-01	0.264	155	82	59	14	43187	23403	16764	3020
Corneal Scars And Opacities	1.06 [0.88-1.28]	5.26E-01	0.263	274	144	110	20	29852	16229	11543	2080
Benign Essential Hypertension Complicating Pregnancy	0.92 [0.7-1.2]	5.27E-01	0.264	144	79	57	8	25461	13811	9840	1810
Regional enteritis	0.95 [0.83-1.1]	5.27E-01	0.264	486	274	176	36	46724	25306	18138	3280
Renal osteodystrophy	0.95 [0.81-1.12]	5.27E-01	0.264	396	218	153	25	42701	23137	16560	3004
Other Diseases Of Lung	1.02 [0.96-1.09]	5.29E-01	0.265	2831	1510	1116	205	41562	22500	16161	2901
Asphyxia	1.02 [0.95-1.1]	5.32E-01	0.264	1974	1062	759	153	44571	24165	17308	3098
Benign neoplasm of choroid	0.94 [0.79-1.13]	5.32E-01	0.264	317	176	121	20	40126	21719	15594	2813
Chronic kidney disease	0.95 [0.81-1.12]	5.33E-01	0.264	391	211	160	20	42614	23091	16524	2999
Other disorders of circulatory system	1.02 [0.95-1.09]	5.34E-01	0.265	2270	1230	860	180	37198	20118	14438	2642
Secondary diabetes mellitus	1.06 [0.88-1.27]	5.35E-01	0.266	301	163	110	28	37456	20195	14609	2652
Other specified family circumstances	0.95 [0.8-1.12]	5.35E-01	0.264	351	189	143	19	36141	19554	14052	2535
Closed fracture of pubis	1.11 [0.8-1.53]	5.36E-01	0.264	91	43	44	4	47070	25513	18257	3300
Uterovaginal prolapse	0.93 [0.73-1.18]	5.37E-01	0.266	177	98	69	10	15652	8410	6152	1090
Other persistent mental disorders due to conditions classified elsewhere	0.91 [0.68-1.22]	5.37E-01	0.264	123	66	53	4	47041	25528	18226	3287
Hernia of unspecified site without mention of obstruction or gangrene	0.94 [0.78-1.14]	5.37E-01	0.264	282	154	113	15	42271	22888	16414	2969
Blindness and low vision	0.96 [0.83-1.1]	5.37E-01	0.263	539	297	211	31	29617	16101	11451	2065
Screening for unspecified condition	0.99 [0.94-1.03]	5.38E-01	0.265	12242	6634	4760	848	12351	6657	4829	865
Fracture of radius and ulna	0.97 [0.87-1.08]	5.38E-01	0.265	903	496	347	60	46403	25077	18082	3244
Unspecified disease of pericardium	0.94 [0.79-1.13]	5.38E-01	0.264	305	177	101	27	35508	19213	13824	2471
Unspecific Abnormal Results Of Function Study	1.02 [0.96-1.08]	5.38E-01	0.266	4050	2177	1580	293	21526	11541	8523	1462
Union	0.96 [0.85-1.09]	5.39E-01	0.265	705	391	266	48	29483	15904	11525	2054
Other organic sleep disorders	0.97 [0.89-1.06]	5.40E-01	0.264	1342	735	518	89	43994	23843	17076	3075
Encounter for antenatal screening of mother	1.04 [0.91-1.2]	5.40E-01	0.264	843	437	341	65	41741	22612	16232	2897
Other disorders of ear	1.14 [0.75-1.74]	5.40E-01	0.263	52	26	22	4	36083	19611	13933	2539
Uterine leiomyoma:Subset(Females)	0.97 [0.87-1.07]	5.40E-01	0.264	995	552	374	69	22381	12117	8684	1580
Transient cerebral ischemia	1.02 [0.95-1.1]	5.41E-01	0.264	2227	1184	879	164	41190	22316	15998	2876
Atherosclerosis of renal artery	1.04 [0.91-1.19]	5.41E-01	0.264	546	278	237	31	40947	22198	15875	2874
End stage renal disease	0.96 [0.86-1.09]	5.41E-01	0.264	733	401	286	46	42700	23136	16562	3002
Episodic mood disorders	0.98 [0.94-1.04]	5.42E-01	0.263	4449	2441	1693	315	41899	22702	16298	2899
Uveus	0.92 [0.72-1.19]	5.42E-01	0.264	160	89	63	8	40380	21891	15662	2827
Open wound of knee	0.96 [0.85-1.09]	5.42E-01	0.264	684	381	253	50	46578	25194	18154	3230
Other specified anemias	0.95 [0.79-1.13]	5.43E-01	0.266	329	192	106	31	36061	19417	14081	2563
Carcinoma in situ of cervix uteri:Subset(Females)	0.93 [0.74-1.17]	5.43E-01	0.263	200	115	70	15	28077	15259	10845	1973
Lymphadenitis	0.95 [0.79-1.13]	5.43E-01	0.266	308	170	119	19	35492	19108	13868	2516
Frequency Of Urination And Polyuria	1.02 [0.96-1.08]	5.43E-01	0.261	5984	3261	2300	423	9601	5272	3674	655
Calculus Of Bile Duct Without Mention Of Cholecystitis	0.94 [0.78-1.14]	5.44E-01	0.266	291	165	103	23	36448	19629	14267	2552
Other Disorders Of Muscle	0.98 [0.93-1.04]	5.44E-01	0.264	4339	2387	1633	319	27336	14752	10687	1897
Other hammer toe (acquired)	1.04 [0.91-1.2]	5.45E-01	0.264	541	288	213	40	39179	21209	15257	2713
Other Specified Examinations	1.02 [0.97-1.06]	5.47E-01	0.264	18415	9972	7149	1294	7062	3842	2724	496
Meningitis of unspecified cause	1.1 [0.8-1.51]	5.48E-01	0.264	95	50	36	9	45684	24735	17748	3201
Other Specified Disorders Of Circulatory System	1.02 [0.95-1.1]	5.49E-01	0.265	1885	1022	713	150	37535	20284	14585	2666
Sebaceous cyst	0.98 [0.91-1.05]	5.50E-01	0.264	2267	1226	900	141	29087	15760	11310	2017
Neoplasm of unspecified nature of bladder	0.94 [0.76-1.16]	5.50E-01	0.264	238	131	93	14	47579	25769	18485	3325
One Site	1.05 [0.89-1.24]	5.50E-01	0.264	359	191	140	28	29370	15898	11434	2038
Unspecified hereditary and idiopathic peripheral neuropathy	1.03 [0.94-1.12]	5.51E-01	0.264	1345	721	525	99	37853	20526	14709	2618
Heart failure	0.98 [0.92-1.05]	5.51E-01	0.264	3002	1656	1117	229	35312	19100	13757	2455
Neoplasm of uncertain behavior	0.97 [0.87-1.08]	5.52E-01	0.264	899	494	342	63	45177	24475	17542	3160
Acute kidney failure	0.98 [0.93-1.04]	5.52E-01	0.264	3933	2139	1527	267	41365	22446	16012	2907
Ex Tarsi/Metatars Nec-Cl	0.96 [0.84-1.1]	5.52E-01	0.264	606	332	237	37	45652	24695	17800	3157
Impacted cerumen	0.98 [0.93-1.04]	5.54E-01	0.263	3682	2001	1446	235	33942	18440	13122	2380
Unspecified disorder of thyroid	0.95 [0.79-1.14]	5.57E-01	0.265	298	169	107	22	42395	22906	16522	2967
Disturbance of conduct not elsewhere classified	0.92 [0.68-1.23]	5.57E-01	0.263	121	68	46	7	35361	19184	13728	2449

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Marital Problems	0.96 [0.83-1.11]	5.57E-01	0.265	465	257	176	32	36078	19510	14041	2527
Non-specific (abnormal) findings on radiological and other examination of gastrointestinal tract	0.93 [0.75-1.17]	5.58E-01	0.266	204	115	75	14	23562	12634	9304	1624
Bells palsy	1.05 [0.9-1.23]	5.58E-01	0.263	402	212	161	29	38337	20794	14900	2643
Headache	1.02 [0.97-1.07]	5.58E-01	0.261	8621	4680	3355	586	9042	4970	3467	605
Closed fracture of orbital floor (blow-out)	1.1 [0.81-1.49]	5.59E-01	0.264	101	53	39	9	48470	26252	18831	3387
Other specified disorders of gallbladder	1.05 [0.9-1.21]	5.59E-01	0.266	457	241	182	34	36284	19542	14210	2532
Sprains and strains of knee and leg	1.04 [0.92-1.17]	5.60E-01	0.263	698	375	269	54	41172	22361	15971	2840
Personal History Of Disorders Of Urinary System	0.97 [0.86-1.09]	5.60E-01	0.263	771	423	298	50	29057	15789	11245	2023
Acute kidney failure	0.98 [0.93-1.04]	5.60E-01	0.264	4010	2182	1556	272	41242	22385	15957	2900
Other cerebellar ataxia	1.1 [0.8-1.5]	5.61E-01	0.263	99	51	40	8	43783	23778	16963	3042
Malignant neoplasm of other and unspecified parts of mouth	1.17 [0.69-2.01]	5.61E-01	0.264	32	17	11	4	48838	26442	18985	3411
Chronic bronchitis	0.98 [0.92-1.05]	5.61E-01	0.264	2442	1350	908	184	40633	22032	15770	2831
Splenomegaly	0.93 [0.74-1.18]	5.62E-01	0.259	200	115	72	13	10116	5553	3883	680
Open Wound Of Face	1.06 [0.86-1.31]	5.63E-01	0.264	228	112	106	10	45863	24841	17831	3191
Disorders of amino-acid transport and metabolism	0.95 [0.82-1.12]	5.64E-01	0.262	416	227	167	22	29189	15914	11242	2033
Disorders resulting from impaired renal function	0.97 [0.86-1.09]	5.65E-01	0.264	759	411	302	46	42641	23101	16539	3001
Organic insomnia	1.06 [0.87-1.29]	5.65E-01	0.264	249	130	101	18	45350	24558	17608	3184
Angioneurotic edema	1.06 [0.87-1.28]	5.65E-01	0.263	269	149	92	28	44045	23896	17113	3036
Viral and chlamydial infection in conditions classified elsewhere and of unspecified site	0.98 [0.92-1.05]	5.66E-01	0.263	2398	1324	896	178	39107	21219	15179	2709
Acute tonsillitis	1.05 [0.88-1.26]	5.66E-01	0.264	314	166	123	25	45453	24628	17661	3164
Contusion of chest wall	1.05 [0.89-1.24]	5.67E-01	0.263	366	193	146	27	44579	24199	17295	3085
Family History Of Other Cardiovascular Diseases	0.98 [0.9-1.06]	5.67E-01	0.263	1712	933	674	105	29111	15793	11284	2034
Paralytic ileus	1.06 [0.87-1.29]	5.67E-01	0.266	244	131	90	23	32791	17684	12779	2328
Regional enteritis of small intestine with large intestine	0.93 [0.71-1.2]	5.67E-01	0.264	152	85	58	9	46824	25357	18179	3288
Vaccination Not Carried Out Because Of Contraindication	1.06 [0.87-1.28]	5.67E-01	0.265	260	134	108	18	35872	19399	13966	2507
Disorders of conjunctiva	0.98 [0.93-1.04]	5.68E-01	0.263	3204	1750	1240	214	26569	14428	10297	1844
Other Specified Peripheral Vascular Diseases	0.93 [0.74-1.18]	5.68E-01	0.264	182	107	58	17	40957	22200	15880	2877
Contusion Of Wrist/Hand	1.06 [0.87-1.29]	5.69E-01	0.264	242	126	98	18	44645	24195	17341	3109
Nonallopathic lesions	0.94 [0.76-1.16]	5.69E-01	0.264	229	130	83	16	39442	21356	15358	2728
Multiple and unspecified open wound of upper limb	1.09 [0.82-1.43]	5.69E-01	0.264	123	68	41	14	47387	25672	18420	3295
Mucous polyp of cervix:Subset(Females)	1.06 [0.86-1.31]	5.69E-01	0.266	223	119	85	19	15590	8376	6128	1086
Periapical abscess without sinus	1.03 [0.93-1.13]	5.70E-01	0.265	1056	562	416	78	41475	22436	16111	2928
Acute and subacute endocarditis	0.92 [0.68-1.24]	5.70E-01	0.264	118	66	45	7	35586	19255	13855	2476
Neoplasm of unspecified nature of breast:Subset(Females)	1.09 [0.82-1.44]	5.71E-01	0.264	120	63	47	10	28203	15319	10889	1995
Other specified visual disturbances	1.03 [0.93-1.15]	5.71E-01	0.263	885	477	340	68	29056	15793	11240	2023
Malignant neoplasm of upper lobe	1.06 [0.88-1.27]	5.72E-01	0.264	283	150	110	23	48299	26148	18782	3369
Hypertensive chronic kidney disease	1.02 [0.95-1.09]	5.73E-01	0.265	2472	1299	1007	166	41220	22306	15993	2921
Chronic Or Unspecified Gastric Ulcer With Hemorrhage	0.88 [0.57-1.37]	5.74E-01	0.264	54	29	24	1	39370	21321	15314	2735
Benign neoplasm of breast:Subset(Females)	1.07 [0.85-1.33]	5.75E-01	0.264	193	104	71	18	22902	12410	8874	1618
Acquired absence of breast and nipple;Acquired absence of intestine (large and small);Acquired absence of kidney;Acquired absence of organ	0.95 [0.81-1.13]	5.75E-01	0.264	387	214	148	25	10466	5631	4134	701
Polymyalgia rheumatica	1.04 [0.91-1.18]	5.76E-01	0.265	647	342	260	45	33518	18133	13046	2339
Other and unspecified intracranial hemorrhage	0.95 [0.8-1.14]	5.76E-01	0.264	329	181	128	20	41812	22666	16233	2913
Malignant neoplasm of breast (female)	0.97 [0.89-1.07]	5.77E-01	0.263	1199	660	461	78	26111	14185	10090	1836
Other and unspecified noninfectious gastroenteritis and colitis	0.97 [0.89-1.07]	5.77E-01	0.264	1147	616	469	62	44631	24208	17276	3147
Intestinal Infection Due To Other Specified Bacteria	1.03 [0.93-1.14]	5.77E-01	0.264	973	515	389	69	47023	25482	18247	3294
Dyschromia	0.96 [0.85-1.1]	5.77E-01	0.264	627	349	237	41	29858	16177	11606	2075
Unspecified protein-calorie malnutrition	1.05 [0.89-1.22]	5.78E-01	0.264	395	218	138	39	45552	24634	17752	3166
Other disorders of cervical region	1.01 [0.97-1.05]	5.78E-01	0.266	8215	4447	3159	609	28253	15260	10997	1996
Unspecified family circumstance	0.9 [0.62-1.31]	5.79E-01	0.264	75	44	25	6	36235	19606	14089	2540
General medical examination	0.96 [0.85-1.1]	5.79E-01	0.264	46060	24944	17887	3229	590	305	247	38
Neoplasm of unspecified nature of other genitourinary organs	1.05 [0.89-1.24]	5.79E-01	0.264	342	182	133	27	47453	25706	18430	3317
Streptococcus Infection In Conditions Classified Elsewhere And	0.96 [0.83-1.11]	5.79E-01	0.264	497	273	191	33	44704	24211	17368	3125
Other specified disease of white blood cells	0.95 [0.77-1.15]	5.80E-01	0.266	255	145	90	20	36053	19403	14084	2566
Intervertebral Disc Disorder With Myelopathy	1.05 [0.88-1.27]	5.81E-01	0.265	284	150	113	21	33841	18302	13169	2370
Unspecified disorder of skin and subcutaneous tissue	1.02 [0.95-1.09]	5.84E-01	0.263	2528	1372	967	189	28017	15249	10829	1939
Acute sinusitis	0.99 [0.96-1.02]	5.84E-01	0.264	16337	8880	6337	1120	24909	13477	9679	1753
Carbuncle and furuncle of face	1.11 [0.77-1.6]	5.86E-01	0.263	71	39	24	8	40885	22182	15883	2820
Other paralytic syndromes	1.07 [0.83-1.39]	5.86E-01	0.263	146	78	55	13	39999	21729	15493	2777
Other Psychological Or Physical Stress	0.97 [0.86-1.09]	5.88E-01	0.264	730	407	266	57	35702	19314	13894	2494
Contact With Or Exposure To Other Viral Diseases	1.06 [0.87-1.28]	5.88E-01	0.263	258	138	99	21	33537	18201	13025	2311
Phlebitis And Thrombophlebitis Of Other Sites	1.1 [0.78-1.54]	5.89E-01	0.265	83	45	29	9	38388	20757	14908	2723
Other disorders of arteries and arterioles	1.03 [0.94-1.13]	5.90E-01	0.264	1193	636	470	87	40171	21767	15583	2821
Eukocytosis	1.03 [0.94-1.12]	5.90E-01	0.266	1268	666	516	86	35378	19057	13798	2523
Unspecified diseases of blood and blood-forming organs	0.97 [0.87-1.08]	5.90E-01	0.266	822	455	308	59	36023	19413	14058	2552
Malignant neoplasm of bronchus and lung	1.04 [0.9-1.2]	5.90E-01	0.264	468	249	183	36	48225	26107	18754	3364
Pietzes disease	0.96 [0.84-1.11]	5.93E-01	0.264	539	288	225	26	38644	20918	15041	2685
Disorders of plasma protein metabolism	0.97 [0.86-1.09]	5.95E-01	0.262	794	437	306	51	29189	15915	11241	2033

HSD17B13 and liver disease

Acquired absence of breast and nipple;Acquired absence of intestine (large small);Acquired absence of kidney;Acquired absence of organ	1.03 [0.92-1.15]	5.97E-01	0.263	819	440	317	62	14661	7965	5676	1020
Adjustment disorder with mixed disturbance of emotions and conduct	1.06 [0.85-1.31]	6.00E-01	0.264	212	113	81	18	35334	19164	13721	2449
Aricose veins of lower extremities with inflammation	0.95 [0.79-1.15]	6.00E-01	0.265	283	157	107	19	38402	20763	14921	2718
Enthesopathy of hip region	1.02 [0.95-1.09]	6.00E-01	0.265	2586	1402	984	200	28999	15656	11318	2025
Iral pneumonia	1.06 [0.85-1.33]	6.01E-01	0.265	198	105	76	17	43374	23446	16916	3012
Inspected disorder of the pituitary gland and its hypothalamic control	1.05 [0.86-1.29]	6.02E-01	0.266	246	124	108	14	37500	20215	14630	2655
Paroxysmal ventricular tachycardia	1.03 [0.92-1.16]	6.02E-01	0.264	743	396	291	56	35452	19184	13799	2469
Hypopotassemia	1.01 [0.96-1.07]	6.02E-01	0.263	4983	2673	1966	344	28157	15343	10845	1969
Volume Depletion	0.98 [0.9-1.06]	6.02E-01	0.261	1496	829	560	107	27971	15261	10783	1927
Optic Atrophy	1.04 [0.9-1.21]	6.03E-01	0.263	439	228	184	27	29816	16204	11537	2075
Open wound(s) (multiple) of unspecified site(s)	0.91 [0.65-1.29]	6.03E-01	0.264	89	53	28	8	46485	25170	18081	3234
Congestive heart failure	0.98 [0.93-1.05]	6.04E-01	0.264	3493	1892	1361	240	35203	19039	13713	2451
Other postprocedural states	0.99 [0.96-1.03]	6.04E-01	0.264	15862	8608	6156	1098	19941	10784	7763	1394
Latulence	0.97 [0.87-1.09]	6.05E-01	0.259	868	480	338	50	10082	5532	3876	674
Malignant neoplasm of colon	1.04 [0.91-1.18]	6.05E-01	0.264	584	304	243	37	47815	25885	18584	3346
Other III-Defined Heart Diseases	1.07 [0.82-1.41]	6.06E-01	0.264	130	68	52	10	35571	19249	13847	2475
Lesion of sciatic nerve	1.13 [0.71-1.8]	6.06E-01	0.263	44	22	19	3	38401	20835	14921	2645
Encounter for palliative care	1.03 [0.92-1.15]	6.08E-01	0.265	821	430	337	54	35629	19270	13857	2502
Bronchiectasis with acute exacerbation	0.92 [0.66-1.28]	6.08E-01	0.264	92	53	32	7	41438	22444	16095	2899
Benign neoplasm of adrenal gland	0.96 [0.8-1.14]	6.08E-01	0.264	334	182	134	18	40126	21716	15601	2809
Thoracic aneurysm without mention of rupture	0.96 [0.83-1.12]	6.09E-01	0.264	463	256	175	32	40954	22200	15875	2879
Knee	0.96 [0.81-1.13]	6.09E-01	0.265	374	203	150	21	45489	24600	17702	3187
Disturbance of salivary secretion	1.05 [0.87-1.26]	6.09E-01	0.265	292	151	121	20	42066	22738	16357	2971
Candidiasis of unspecified site	1.03 [0.91-1.18]	6.09E-01	0.264	611	324	244	43	38579	20906	14982	2691
Oligohydramnios:Subset(Females)	1.11 [0.74-1.67]	6.10E-01	0.265	56	29	21	6	26105	14163	10066	1876
Inspected Viral And Chlamydial Infections	0.98 [0.91-1.06]	6.12E-01	0.263	1984	1087	758	139	39492	21430	15320	2742
Fracture Of Upper End Of Radius And Ulna	0.95 [0.76-1.18]	6.12E-01	0.265	214	121	77	16	46696	25230	18194	3272
Strabismus and other disorders of binocular eye movements	1.03 [0.91-1.18]	6.12E-01	0.263	584	308	238	38	29786	16192	11519	2075
Stiffness Of Joint	1.08 [0.81-1.44]	6.14E-01	0.264	114	64	37	13	29421	15920	11460	2041
Seborrhea	0.94 [0.74-1.19]	6.14E-01	0.264	185	104	68	13	30240	16385	11751	2104
Cystostomy Status	1.15 [0.66-2]	6.15E-01	0.263	31	15	14	2	26270	14217	10269	1784
Other B-complex deficiencies	0.98 [0.9-1.07]	6.16E-01	0.264	1427	787	539	101	45436	24575	17715	3146
Lack of coordination	0.94 [0.75-1.19]	6.16E-01	0.259	193	108	74	11	10120	5557	3885	678
Allergic rhinitis due to pollen	1.05 [0.86-1.28]	6.16E-01	0.264	254	133	103	18	39147	21187	15218	2742
Acquired hypothyroidism	0.99 [0.96-1.03]	6.17E-01	0.264	10782	5881	4147	754	34860	18822	13625	2413
Anomalies of pancreas	0.92 [0.66-1.28]	6.18E-01	0.264	94	50	41	3	43403	23516	16850	3037
Hormone replacement therapy (postmenopausal):Subset(Females)	1.02 [0.94-1.11]	6.18E-01	0.264	1587	857	620	110	19202	10441	7403	1358
Chronic ulcer of other specified sites	0.94 [0.74-1.2]	6.18E-01	0.264	171	100	55	16	30245	16398	11745	2102
Allergic rhinitis	0.99 [0.95-1.03]	6.19E-01	0.264	8958	4871	3471	616	31776	17189	12348	2239
Acute And Subacute Iridocyclitis	0.93 [0.71-1.23]	6.20E-01	0.263	134	76	49	9	29877	16247	11549	2081
Dysphagia	1.02 [0.95-1.09]	6.20E-01	0.260	3075	1679	1182	214	9935	5453	3815	667
Transient global amnesia	0.91 [0.61-1.34]	6.20E-01	0.264	69	39	26	4	41850	22682	16248	2920
Other congenital anomalies of digestive system	0.95 [0.76-1.18]	6.20E-01	0.264	219	114	98	7	42670	23129	16560	2981
Sacroiliitis	0.98 [0.9-1.06]	6.21E-01	0.265	1536	848	578	110	33666	18201	13106	2359
Acute frontal sinusitis	1.06 [0.83-1.36]	6.21E-01	0.264	163	86	64	13	45403	24622	17615	3166
Parent-Child Problems	0.87 [0.5-1.51]	6.21E-01	0.264	35	19	15	1	36274	19630	14102	2542
Body Mass Index 30.0-30.9	1.03 [0.91-1.16]	6.21E-01	0.264	673	356	269	48	40443	21898	15739	2806
Inspected acquired hypothyroidism	0.99 [0.95-1.03]	6.21E-01	0.264	10016	5469	3841	706	34946	18867	13662	2417
Neoplasm of uncertain behavior of skin	0.99 [0.94-1.03]	6.22E-01	0.265	6001	3231	2360	410	36327	19646	14130	2551
Surveillance Of Previously Prescribed Contraceptive Methods	0.98 [0.89-1.07]	6.22E-01	0.264	1699	923	658	118	41537	22513	16140	2884
Organic sleep apnea	0.99 [0.95-1.03]	6.23E-01	0.263	7012	3804	2743	465	38522	20896	14930	2696
Personal history of malignant neoplasm of gastrointestinal tract	0.97 [0.84-1.11]	6.23E-01	0.264	547	293	223	31	29599	16066	11462	2071
Cystitis	0.96 [0.81-1.14]	6.23E-01	0.265	353	196	133	24	35118	19001	13646	2471
Acute bronchitis and bronchiolitis	0.99 [0.96-1.03]	6.23E-01	0.264	11473	6209	4479	785	29517	15985	11464	2068
Benign neoplasm of respiratory and intrathoracic organs	1.08 [0.8-1.45]	6.23E-01	0.264	109	55	47	7	40142	21727	15600	2815
Traumatic amputation of leg(s) (complete) (partial)	0.92 [0.65-1.29]	6.23E-01	0.264	91	53	31	7	47726	25841	18576	3309
Essential and other specified forms of tremor	1.02 [0.93-1.12]	6.23E-01	0.263	1217	650	479	88	43316	23526	16780	3010
Scleritis And Episcleritis	1.06 [0.84-1.34]	6.24E-01	0.263	174	88	76	10	29850	16230	11540	2080
Other nonorganic psychoses	1.04 [0.9-1.19]	6.24E-01	0.265	493	258	201	34	43490	23519	16940	3031
Other Specified Problems Influencing Health Status	1.01 [0.96-1.06]	6.25E-01	0.263	7054	3847	2677	530	24872	13467	9723	1682
Acute and subacute bacterial endocarditis	0.93 [0.69-1.26]	6.25E-01	0.264	113	63	43	7	35586	19255	13855	2476
Cerebral Artery Occlusion	0.98 [0.89-1.07]	6.25E-01	0.264	1158	635	438	85	41699	22605	16191	2903
Other specified general medical examinations	0.93 [0.7-1.24]	6.25E-01	0.265	124	70	46	8	13011	7034	5064	913
Acute bronchitis	0.99 [0.96-1.03]	6.26E-01	0.264	11429	6187	4461	781	29621	16046	11503	2072
Sicca syndrome	1.04 [0.9-1.2]	6.28E-01	0.264	503	269	200	34	29426	15924	11460	2042
Chronic pancreatitis	1.06 [0.85-1.31]	6.29E-01	0.266	202	105	82	15	36472	19647	14275	2550
Carcinoma in situ of breast and genitourinary system:Subset(Females)	1.04 [0.9-1.19]	6.29E-01	0.264	520	284	192	44	27954	15187	10803	1964
Enthesopathy Of Knee	1.02 [0.95-1.09]	6.29E-01	0.265	2185	1169	861	155	28569	15403	11183	1983

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Periodic limb movement disorder;Sleep related leg cramps;Sleep related bruxism;Other organic sleep related movement disorders	0.97 [0.85-1.1]	6.30E-01	0.264	627	348	234	45	45144	24456	17520	3168
Specific delays in development	0.94 [0.72-1.22]	6.30E-01	0.263	154	86	58	10	35363	19187	13725	2451
Enormous Animals/Plants	1.12 [0.7-1.8]	6.31E-01	0.264	42	22	16	4	48314	26152	18782	3380
Hypertensive Renal Disease	1.04 [0.89-1.22]	6.32E-01	0.265	405	210	170	25	42740	23143	16583	3014
Chronic	1.03 [0.91-1.17]	6.33E-01	0.264	667	358	259	50	39198	21223	15246	2729
Calculus of kidney and ureter	0.99 [0.94-1.04]	6.34E-01	0.264	3940	2142	1531	267	34597	18715	13457	2425
Disorders of magnesium metabolism	0.96 [0.83-1.12]	6.35E-01	0.262	457	252	176	29	29209	15926	11250	2033
Other Orthopedic Aftercare	1.04 [0.89-1.21]	6.36E-01	0.263	433	232	168	33	37604	20420	14558	2626
Open wound(s) (multiple) of unspecified site(s)	0.97 [0.87-1.09]	6.36E-01	0.264	798	449	284	65	44786	24256	17409	3121
C6 Cervical Vertebra-C1	0.95 [0.76-1.18]	6.36E-01	0.264	216	118	86	12	47055	25504	18252	3299
Other symptoms referable to back	0.96 [0.79-1.15]	6.37E-01	0.265	289	164	102	23	33567	18150	13069	2348
Unspecified intestinal obstruction	1.03 [0.92-1.16]	6.38E-01	0.266	736	389	292	55	33022	17812	12855	2355
Optic Neuritis	1.05 [0.86-1.28]	6.38E-01	0.263	240	130	89	21	29855	16239	11539	2077
Angioma	0.94 [0.74-1.2]	6.38E-01	0.258	189	111	63	15	10118	5558	3885	675
Nonallopathic lesions	0.94 [0.74-1.21]	6.38E-01	0.264	171	98	60	13	39508	21394	15381	2733
Accident From Overexertion	0.95 [0.78-1.17]	6.39E-01	0.265	243	127	107	9	46415	25112	18035	3268
Special screening for mental disorders and developmental handicaps	0.94 [0.73-1.21]	6.39E-01	0.265	160	85	69	6	12996	7020	5065	911
Herpes Zoster With Ophthalmic Complications	0.94 [0.72-1.23]	6.39E-01	0.263	145	83	51	11	44910	24379	17417	3114
Other problems with internal organs	1.08 [0.79-1.48]	6.41E-01	0.263	97	50	40	7	26129	14142	10217	1770
Osteoarthritic Arthritis	0.93 [0.7-1.25]	6.41E-01	0.264	126	70	49	7	29478	15951	11482	2045
Unspecified psychosis	1.04 [0.9-1.2]	6.41E-01	0.265	468	245	191	32	43536	23547	16954	3035
Occlusion of cerebral arteries	0.98 [0.9-1.07]	6.42E-01	0.264	1423	776	545	102	41666	22587	16179	2900
Neoplasm of uncertain behavior of endocrine glands and nervous system	1.06 [0.83-1.36]	6.43E-01	0.264	160	83	66	11	46902	25410	18215	3277
Glycosuria	0.93 [0.7-1.25]	6.43E-01	0.266	122	70	42	10	23774	12757	9374	1643
Secondary malignant neoplasm of bone and bone marrow	0.95 [0.77-1.17]	6.44E-01	0.264	237	130	93	14	47351	25631	18411	3309
Screening for thyroid disorders	1.03 [0.92-1.14]	6.44E-01	0.265	972	522	376	74	12963	7002	5055	906
Cholangitis	0.94 [0.72-1.22]	6.44E-01	0.266	146	82	53	11	36482	19647	14282	2553
Other Cholecystitis	0.97 [0.85-1.11]	6.45E-01	0.265	598	335	215	48	36284	19549	14200	2535
Other specified disorders of pancreatic internal secretion	0.93 [0.68-1.27]	6.45E-01	0.266	109	58	47	4	37461	20188	14619	2654
Other and unspecified mitral valve diseases	0.9 [0.58-1.4]	6.45E-01	0.264	53	29	22	2	47932	25962	18632	3338
Unspecified Secondary Hypertension	1.06 [0.82-1.39]	6.46E-01	0.264	135	66	63	6	42983	23288	16666	3029
Generalized hyperhidrosis	1.03 [0.91-1.17]	6.47E-01	0.260	642	346	252	44	10070	5526	3867	677
Arthropathy associated with infections	0.94 [0.73-1.22]	6.47E-01	0.264	159	88	62	9	29463	15940	11479	2044
Acute pancreatitis	0.97 [0.87-1.09]	6.47E-01	0.266	829	449	327	53	36338	19575	14221	2542
Intestinal obstruction without mention of hernia	1.02 [0.93-1.13]	6.47E-01	0.266	981	521	386	74	32602	17585	12697	2320
Malignant neoplasm of lateral wall of urinary bladder	0.93 [0.68-1.28]	6.49E-01	0.265	103	58	38	7	45916	24811	17907	3198
Other Specified Personal History Presenting Hazards To Health	1.01 [0.97-1.05]	6.51E-01	0.264	9286	5018	3596	672	21389	11646	8231	1512
Hordeolum And Other Deep Inflammation Of Eyelid	1.04 [0.88-1.23]	6.51E-01	0.263	337	182	128	27	29446	16010	11389	2047
Unspecified pruritic disorder	0.98 [0.88-1.08]	6.51E-01	0.265	1034	574	381	79	38934	21026	15179	2729
Unspecified endocrine disorder	0.95 [0.76-1.19]	6.52E-01	0.266	201	110	79	12	37434	20190	14592	2652
Rheumatic mitral insufficiency	0.91 [0.59-1.4]	6.54E-01	0.264	55	33	17	5	47958	25972	18645	3341
Glaucoma Associated With Other Ocular Disorders	1.05 [0.85-1.3]	6.54E-01	0.263	216	113	88	15	29884	16250	11552	2082
Disorders of sweat glands	0.97 [0.84-1.12]	6.55E-01	0.264	494	266	203	25	30005	16257	11658	2090
Arthrodesis status	1.03 [0.9-1.17]	6.55E-01	0.263	601	320	238	43	25967	14067	10143	1757
Rupture Of Synovium	0.96 [0.79-1.16]	6.57E-01	0.265	271	146	112	13	29667	16002	11607	2058
First-Degree Perineal Laceration During Delivery:Subset(Females)	0.94 [0.73-1.23]	6.57E-01	0.264	148	81	58	9	27298	14818	10521	1959
Other Specified Disorders Of Rectum And Anus	1.03 [0.9-1.19]	6.60E-01	0.266	499	259	208	32	32660	17611	12731	2318
Benign essential hypertension	0.98 [0.89-1.08]	6.60E-01	0.264	1118	611	432	75	41295	22393	16006	2896
Unspecified disorder of prostate:Subset(Males)	0.96 [0.82-1.14]	6.60E-01	0.263	418	231	162	25	11010	5944	4329	737
Ulcer Of Lower Limbs	0.98 [0.91-1.06]	6.61E-01	0.264	1842	1016	684	142	29866	16197	11594	2075
Insect bite	0.98 [0.88-1.08]	6.61E-01	0.264	956	530	355	71	44331	23966	17290	3075
Burn unspecified site	0.94 [0.7-1.25]	6.63E-01	0.264	121	68	45	8	48191	26079	18745	3367
Wound of other skin and subcutaneous tissue	1.03 [0.89-1.2]	6.63E-01	0.265	437	235	167	35	39917	21587	15532	2798
Cellulitis	0.98 [0.91-1.06]	6.63E-01	0.263	1966	1060	787	119	29490	16033	11410	2047
Pain and other symptoms associated with female genital organs:Subset(Females)	0.99 [0.94-1.04]	6.64E-01	0.266	5314	2897	2006	411	13995	7537	5463	995
Other Specified Disorders Of Intestine	1.03 [0.9-1.17]	6.64E-01	0.265	591	315	231	45	32523	17573	12647	2303
Other Cerebral Degeneration	0.95 [0.74-1.21]	6.65E-01	0.263	172	91	74	7	43549	23655	16866	3028
Ulcerative colitis	1.03 [0.9-1.19]	6.66E-01	0.264	502	267	199	36	46749	25315	18150	3284
Other primary cardiomyopathies	0.98 [0.89-1.07]	6.66E-01	0.264	1252	694	463	95	35495	19210	13813	2472
Fibrosis dorsalis	0.91 [0.6-1.38]	6.67E-01	0.264	61	35	22	4	48768	26405	18952	3411
Unspecified disorders of arteries and arterioles	1.05 [0.83-1.33]	6.68E-01	0.264	181	94	75	12	40847	22156	15824	2867
Genital Herpes	1.03 [0.89-1.2]	6.68E-01	0.263	464	242	193	29	44809	24327	17371	3111
Other Specified Organ Or Tissue Replaced By Transplant	1.08 [0.77-1.51]	6.69E-01	0.263	86	45	34	7	26271	14217	10271	1783
Certain congenital musculoskeletal deformities	1.06 [0.82-1.37]	6.69E-01	0.264	146	77	58	11	43243	23428	16794	3021
Extrinsic Asthma	1.04 [0.86-1.26]	6.69E-01	0.264	280	155	97	28	41192	22314	16000	2878
Varicose veins of lower extremities with ulcer	0.96 [0.82-1.14]	6.71E-01	0.265	366	208	127	31	38480	20803	14945	2732
Phlebitis and thrombophlebitis	0.98 [0.9-1.07]	6.71E-01	0.265	1347	743	504	100	37811	20437	14698	2676
Other venereal diseases	0.94 [0.7-1.26]	6.71E-01	0.264	118	62	52	4	48598	26307	18890	3401

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3alanoposthitis:Subset(Males)	1.07 [0.78-1.46]	6.72E-01	0.264	103	53	42	8	11067	5973	4350	744
3clusion And Stenosis Of Carotid Artery	1.01 [0.95-1.08]	6.72E-01	0.264	3061	1623	1238	200	41113	22313	15940	2860
3contact dermatitis and other eczema	0.99 [0.96-1.03]	6.75E-01	0.264	11438	6213	4425	800	27217	14703	10612	1902
3uperficial injury of other multiple and unspecified sites	0.98 [0.9-1.07]	6.75E-01	0.264	1278	700	490	88	42723	23105	16664	2954
3hronic ulcer of skin	0.99 [0.92-1.06]	6.75E-01	0.263	2299	1268	853	178	29550	16048	11454	2048
3isorders of iris and ciliary body	0.97 [0.86-1.11]	6.76E-01	0.263	634	351	239	44	29812	16211	11526	2075
3pen wound of other and unspecified sites except limbs	0.98 [0.89-1.08]	6.76E-01	0.264	1090	612	388	90	44355	24019	17249	3087
3aboratory Examination	0.96 [0.79-1.17]	6.77E-01	0.264	267	148	103	16	12836	6942	5003	891
3pecial screening examination for viral and chlamydial diseases	1.02 [0.93-1.12]	6.78E-01	0.266	1407	740	577	90	12631	6821	4919	891
3enign neoplasm of other specified sites of skin	1.07 [0.77-1.51]	6.78E-01	0.264	84	44	33	7	40059	21688	15561	2810
3cute Glomerulonephritis With Other Specified Pathological	0.88 [0.48-1.61]	6.79E-01	0.264	29	16	12	1	42717	23145	16568	3004
3anniculitis	1.03 [0.9-1.17]	6.82E-01	0.265	612	329	237	46	29695	16022	11617	2056
3eed for prophylactic vaccination and inoculation against bacterial diseases	1.01 [0.96-1.06]	6.82E-01	0.265	6020	3258	2324	438	24214	13081	9472	1661
3emorrhage of gastrointestinal tract	0.98 [0.91-1.06]	6.82E-01	0.266	1832	995	705	132	35846	19292	14046	2508
3ther cataract	1.04 [0.86-1.25]	6.82E-01	0.263	289	154	114	21	29791	16199	11515	2077
3teoarthrosis	1.01 [0.97-1.05]	6.83E-01	0.263	9226	5029	3554	643	26234	14224	10201	1809
3ther derangement of joint	1.04 [0.85-1.27]	6.84E-01	0.264	245	127	103	15	29197	15813	11366	2018
3ther symptoms involving abdomen and pelvis	1.01 [0.97-1.06]	6.85E-01	0.261	14603	7927	5702	974	8416	4625	3209	582
3rythema nodosum	1.08 [0.74-1.58]	6.85E-01	0.265	66	35	25	6	40022	21621	15603	2798
3taphylococcal Septicemia	0.94 [0.69-1.28]	6.85E-01	0.264	105	58	41	6	45169	24468	17553	3148
3ther open wound of head	1.02 [0.93-1.12]	6.85E-01	0.264	1173	621	476	76	44598	24167	17345	3086
3ersonal history of allergy to penicillin	1.07 [0.79-1.44]	6.86E-01	0.264	105	54	44	7	29491	15987	11437	2067
3ther eye problems	1.02 [0.93-1.11]	6.86E-01	0.263	1541	835	598	108	24591	13322	9609	1660
3ther Postsurgical Status	0.99 [0.96-1.03]	6.86E-01	0.264	12268	6673	4740	855	21299	11515	8313	1471
3ymptoms involving urinary system	1.01 [0.96-1.06]	6.86E-01	0.261	14023	7661	5380	982	8586	4733	3266	587
3ostoperative Infection	0.98 [0.89-1.08]	6.86E-01	0.264	1009	565	363	81	43601	23591	16981	3029
3pecial Screening For Malignant Neoplasms Of Other Sites	0.99 [0.94-1.04]	6.86E-01	0.265	10848	5842	4261	745	12142	6559	4725	858
3horioretinal inflammations scars and other disorders of choroid	0.95 [0.75-1.21]	6.87E-01	0.263	181	100	70	11	29861	16236	11545	2080
3ervical spondylosis with myelopathy	1.05 [0.83-1.33]	6.87E-01	0.265	171	90	69	12	33868	18313	13182	2373
3losed fracture of lumbar vertebra without mention of spinal cord injury	1.03 [0.88-1.21]	6.87E-01	0.264	396	208	161	27	46939	25436	18210	3293
3rug dependence	1.03 [0.89-1.19]	6.87E-01	0.263	505	273	192	40	35295	19154	13697	2444
3hronic ulcer of unspecified site	0.96 [0.8-1.16]	6.88E-01	0.264	284	165	91	28	30204	16376	11729	2099
3emorrhage Or Hematoma Complicating A Procedure	1.03 [0.9-1.16]	6.88E-01	0.265	625	344	224	57	43113	23305	16807	3001
3urn of unspecified site	0.93 [0.65-1.34]	6.88E-01	0.264	78	44	29	5	48303	26143	18787	3373
3ther disorders of tympanic membrane	0.96 [0.8-1.16]	6.88E-01	0.263	298	168	106	24	36090	19608	13943	2539
3bnormal feces	0.94 [0.7-1.27]	6.88E-01	0.259	119	66	47	6	10127	5560	3888	679
3ityriasis versicolor	1.04 [0.86-1.26]	6.89E-01	0.264	261	136	108	17	38934	21084	15122	2728
3raumatic amputation of other finger(s) (complete) (partial)	0.92 [0.63-1.36]	6.89E-01	0.264	70	39	27	4	47710	25846	18545	3319
3ther peripheral vascular disease	0.99 [0.94-1.04]	6.89E-01	0.264	4128	2246	1597	285	39642	21499	15366	2777
3ther Malignant Neoplasm Of Scalp And Skin Of Neck	1.03 [0.88-1.22]	6.90E-01	0.264	377	201	146	30	44210	23964	17163	3083
3imple and unspecified goiter	1.02 [0.93-1.12]	6.90E-01	0.265	1144	620	435	89	42221	22822	16455	2944
3contact with or exposure to communicable diseases	1.03 [0.81-1.16]	6.91E-01	0.263	683	372	257	54	32996	17936	12788	2272
3ther specified iron deficiency anemias	0.97 [0.82-1.14]	6.92E-01	0.266	375	201	154	20	36110	19449	14092	2569
3exual and gender identity disorders	0.97 [0.82-1.14]	6.93E-01	0.263	377	204	152	21	35206	19097	13666	2443
3alignant neoplasm of lower-inner quadrant of female breast:Subset(Females)	1.11 [0.67-1.83]	6.94E-01	0.263	37	20	13	4	26218	14247	10128	1843
3emorrhagic Disorder Due To Circulating Anticoagulants	0.96 [0.8-1.16]	6.95E-01	0.266	303	173	103	27	36064	19431	14068	2565
3isorders of sacrum	1.04 [0.86-1.25]	6.97E-01	0.265	281	148	114	19	33744	18244	13136	2364
3ysplasia Of Cervix (Uteri):Subset(Females)	0.97 [0.85-1.12]	6.97E-01	0.266	553	304	206	43	15564	8367	6108	1089
3ther Specified Disorders Of Esophagus	0.99 [0.96-1.03]	6.97E-01	0.264	20014	10817	7831	1366	22817	12359	8832	1626
3amily History Of Digestive Disorders	0.94 [0.69-1.28]	6.98E-01	0.263	106	56	47	3	29649	16102	11474	2073
3enign neoplasm of skin of other and unspecified parts of face	1.02 [0.92-1.14]	6.98E-01	0.264	870	453	367	50	38795	21014	15078	2703
3ther Congenital Anomalies Of Uterus:Subset(Females)	0.93 [0.62-1.37]	6.99E-01	0.264	66	34	31	1	25548	13880	9839	1829
3hlebitis and thrombophlebitis of unspecified site	1.04 [0.84-1.29]	7.00E-01	0.265	221	124	74	23	38383	20753	14909	2721
3esarean Delivery	0.96 [0.79-1.17]	7.02E-01	0.264	270	143	114	13	27975	15183	10799	1993
3alposition and malpresentation of fetus:Subset(Females)	0.93 [0.62-1.38]	7.03E-01	0.265	64	33	29	2	25986	14088	10034	1864
3ther Functional Disorders Of Bladder	1.02 [0.92-1.13]	7.03E-01	0.265	972	525	372	75	35010	18933	13612	2465
3ialolithiasis	0.92 [0.6-1.41]	7.04E-01	0.265	56	30	24	2	42382	22913	16476	2993
3racture of vertebral column without mention of spinal cord injury	1.02 [0.92-1.12]	7.05E-01	0.264	1056	555	434	67	46639	25260	18107	3272
3eneral Counseling And Advice On Contraceptive Management	0.99 [0.91-1.06]	7.05E-01	0.264	3288	1783	1287	218	41227	22333	16035	2859
3ychosexual Dysfunction	0.97 [0.82-1.14]	7.05E-01	0.263	369	200	148	21	35210	19100	13667	2443
3ulmonary collapse	0.96 [0.8-1.16]	7.05E-01	0.265	286	157	110	19	42634	23040	16622	2972
3eoplasm of unspecified nature of brain	0.95 [0.74-1.23]	7.05E-01	0.264	158	89	57	12	47615	25789	18498	3328
3hronic interstitial cystitis	1.05 [0.83-1.33]	7.05E-01	0.265	172	88	74	10	35297	19104	13713	2480
3ther and unspecified capillary diseases	1.04 [0.85-1.28]	7.07E-01	0.264	229	122	91	16	40685	22061	15770	2854
3ardiovascular disease	0.95 [0.75-1.22]	7.09E-01	0.264	177	97	70	10	35459	19187	13807	2465
3luid Overload	1.02 [0.91-1.14]	7.09E-01	0.262	824	439	329	56	29018	15820	11177	2021
3neumonia	0.99 [0.94-1.04]	7.09E-01	0.265	4000	2173	1533	294	40900	22079	15964	2857
3ron deficiency anemia secondary to blood loss (chronic)	1.02 [0.91-1.15]	7.10E-01	0.266	732	390	289	53	35781	19291	13946	2544
3isturbances in tooth eruption	1.03 [0.89-1.18]	7.12E-01	0.265	550	296	212	42	42142	22786	16384	2972

HSD17B13 and liver disease

Malignant neoplasm of body of uterus:Subset(Females)	1.03 [0.88-1.21]	7.12E-01	0.264	403	214	162	27	27864	15101	10791	1972
Malignant neoplasm of corpus uteri	1.03 [0.88-1.21]	7.13E-01	0.264	403	214	162	27	27865	15101	10792	1972
Cystitis	0.99 [0.94-1.05]	7.14E-01	0.265	4118	2224	1612	282	32709	17664	12743	2302
Pyoderma	1.05 [0.83-1.32]	7.14E-01	0.264	177	96	66	15	40725	22080	15829	2816
Paralysis Of Vocal Cords Or Larynx	1.05 [0.79-1.4]	7.15E-01	0.265	120	64	46	10	39189	21207	15234	2748
Other disorders of soft tissues	1.01 [0.97-1.04]	7.15E-01	0.264	19659	10652	7629	1378	16632	9003	6486	1143
Myalgia and myositis	1.01 [0.96-1.05]	7.16E-01	0.265	6729	3633	2626	470	25749	13922	10039	1788
Rupture Of Tendon	1.05 [0.8-1.37]	7.17E-01	0.265	137	71	57	9	29733	16051	11617	2065
Other complications of labor and delivery not elsewhere classified:Subset(Females)	0.96 [0.79-1.17]	7.17E-01	0.264	275	146	115	14	27788	15084	10723	1981
Other disorders of gallbladder	0.99 [0.91-1.07]	7.17E-01	0.265	1725	946	652	127	35789	19301	13995	2493
Transient mental disorders due to conditions classified elsewhere	0.97 [0.84-1.13]	7.17E-01	0.264	450	244	179	27	46621	25298	18069	3254
Torn of upper limb except wrist and hand	1.07 [0.74-1.54]	7.18E-01	0.264	72	36	32	4	48272	26133	18771	3368
Compression of brain	0.94 [0.67-1.32]	7.18E-01	0.263	89	49	35	5	40057	21757	15519	2781
Old myocardial infarction	0.99 [0.93-1.05]	7.19E-01	0.265	3154	1709	1217	228	38643	20896	15015	2732
Other Fibromatoses Of Muscle	0.99 [0.93-1.05]	7.19E-01	0.264	2794	1520	1089	185	28679	15472	11225	1982
Special symptoms or syndromes not elsewhere classified	0.99 [0.94-1.05]	7.21E-01	0.263	3676	2011	1416	249	31772	17244	12347	2181
Premature Beats	0.98 [0.89-1.08]	7.21E-01	0.264	1093	599	420	74	35121	19014	13659	2448
Polyd of corpus uteri:Subset(Females)	0.96 [0.78-1.19]	7.21E-01	0.266	221	123	82	16	15639	8400	6149	1090
Disorders of external ear	0.99 [0.94-1.04]	7.21E-01	0.264	4932	2672	1934	326	32638	17716	12629	2293
Reflex Sympathetic Dystrophy	1.04 [0.85-1.27]	7.21E-01	0.263	234	121	100	13	43760	23770	16950	3040
Cystic Kidney Disease	1.02 [0.9-1.16]	7.23E-01	0.264	599	316	244	39	43028	23333	16680	3015
Sprains and strains of hip and thigh	0.96 [0.75-1.22]	7.24E-01	0.263	176	101	61	14	42134	22875	16345	2914
Poisoning By Antidepressants	1.11 [0.61-2.03]	7.24E-01	0.264	26	14	9	3	48524	26284	18850	3390
Abdominal aneurysm without mention of rupture	0.99 [0.91-1.07]	7.25E-01	0.264	1912	1019	774	119	40847	22138	15841	2868
Other hypertrophic and atrophic conditions of skin	1.01 [0.95-1.08]	7.25E-01	0.264	2758	1493	1069	196	28235	15320	10938	1977
Eukoplakia of oral mucosa	1.06 [0.78-1.44]	7.27E-01	0.265	101	52	42	7	42340	22894	16455	2991
Carcinoma in situ of breast:Subset(Females)	1.03 [0.86-1.24]	7.27E-01	0.264	291	159	108	24	28067	15234	10859	1974
Special screening for other conditions	0.99 [0.95-1.04]	7.28E-01	0.265	12992	7037	5046	909	12193	6570	4769	854
Body Mass Index 40.0-44.9	0.99 [0.95-1.04]	7.28E-01	0.264	5314	2886	2059	369	40876	22126	15898	2852
Boiter	1.02 [0.92-1.12]	7.30E-01	0.265	1131	614	429	88	42225	22825	16456	2944
Acute	0.99 [0.91-1.07]	7.31E-01	0.264	1478	794	585	99	41659	22569	16184	2906
Cerebral Embolism	1.03 [0.88-1.2]	7.34E-01	0.264	408	215	164	29	41849	22683	16249	2917
Non-specific (abnormal) findings on radiological and other examination of breast	1.01 [0.95-1.07]	7.34E-01	0.266	4599	2503	1740	356	22488	12059	8879	1550
Open Wound Internal Mouth	0.98 [0.86-1.11]	7.34E-01	0.264	626	341	245	40	46006	24917	17888	3201
Chronic disease of tonsils and adenoids	1.03 [0.86-1.24]	7.34E-01	0.264	310	166	121	23	38903	21057	15119	2727
Special screening for unspecified malignant neoplasms	0.98 [0.87-1.11]	7.34E-01	0.264	740	402	297	41	12996	7028	5060	908
Fracture of metacarpal bone(s)	1.04 [0.84-1.28]	7.35E-01	0.265	226	120	89	17	46607	25193	18155	3259
Unspecified disorder of stomach and duodenum	0.97 [0.8-1.17]	7.35E-01	0.264	292	156	122	14	38771	21005	15066	2700
Other Specified Disorders Of Sweat Glands	1.03 [0.87-1.22]	7.36E-01	0.264	362	187	156	19	30113	16322	11696	2095
Manic-Depressive Psychosis	0.98 [0.88-1.09]	7.36E-01	0.264	874	476	337	61	44004	23816	17125	3063
Other and nonspecific abnormal cytological	1.01 [0.94-1.08]	7.37E-01	0.266	2412	1289	957	166	22866	12296	8990	1580
Need for prophylactic vaccination and inoculation against unspecified single disease	0.97 [0.81-1.16]	7.37E-01	0.263	303	162	125	16	33439	18141	12985	2313
Inadequate material resources	0.97 [0.81-1.16]	7.37E-01	0.264	301	160	125	16	36192	19584	14073	2535
Observation for suspected cardiovascular disease	0.97 [0.83-1.14]	7.37E-01	0.264	423	233	161	29	12967	7017	5045	905
Profound Vision Impairment	0.96 [0.76-1.22]	7.38E-01	0.263	178	101	64	13	29870	16246	11544	2080
Malignant neoplasm of rectum rectosigmoid junction and anus	0.96 [0.77-1.2]	7.38E-01	0.264	213	123	71	19	47880	25927	18603	3350
Benign neoplasm of skin of trunk	0.98 [0.85-1.12]	7.39E-01	0.265	543	290	223	30	39116	21138	15235	2743
Other Specified Disorders Of Bladder	0.97 [0.82-1.15]	7.39E-01	0.265	340	187	129	24	35073	18980	13627	2466
Other tear of cartilage or meniscus of knee	1.03 [0.88-1.2]	7.40E-01	0.264	408	218	160	30	47199	25535	18369	3295
Generalized Convulsive Epilepsy	1.03 [0.88-1.21]	7.41E-01	0.263	387	203	159	25	40066	21765	15517	2784
Malignant melanoma of skin	1.02 [0.9-1.16]	7.41E-01	0.264	629	326	267	36	44283	23998	17199	3086
Myopia And Other Disorders Of Lens	1.05 [0.79-1.4]	7.41E-01	0.263	118	62	48	8	29877	16245	11550	2082
Screening For Other Specified Conditions	0.99 [0.9-1.08]	7.43E-01	0.265	1563	851	599	113	12887	6967	5019	901
Atypical face pain	0.95 [0.72-1.27]	7.47E-01	0.263	128	70	51	7	38374	20804	14925	2645
Apilledema	1.06 [0.75-1.49]	7.47E-01	0.263	84	47	28	9	29871	16242	11548	2081
Atherosclerosis Of Native Arteries Or Extremities	0.99 [0.92-1.06]	7.48E-01	0.264	2154	1174	825	155	40604	22005	15743	2856
Problems with special senses and other special functions	1.01 [0.94-1.1]	7.48E-01	0.263	1797	968	711	118	24137	13077	9427	1633
Other endocrine disorders	0.97 [0.81-1.17]	7.50E-01	0.266	300	159	126	15	37376	20169	14559	2648
Chronic kidney disease	0.99 [0.95-1.04]	7.52E-01	0.264	8283	4452	3282	549	38038	20649	14690	2699
Staphylococcus Infection In Conditions Classified Elsewhere And	1.03 [0.88-1.2]	7.52E-01	0.264	403	216	157	30	44536	24121	17307	3108
Bipolar Affective Disorder	1.03 [0.86-1.23]	7.53E-01	0.264	315	168	123	24	44088	23856	17164	3068
Polyneuropathy in diabetes	1.01 [0.94-1.09]	7.53E-01	0.264	2007	1091	766	150	37900	20535	14754	2611
Acidosis	0.98 [0.89-1.09]	7.53E-01	0.262	982	536	383	63	28894	15764	11118	2012
Family history of malignant neoplasm	0.99 [0.94-1.05]	7.54E-01	0.263	3540	1946	1347	247	28538	15506	11030	2002
Other hernia of abdominal cavity without mention of obstruction or gangrene	1.01 [0.96-1.06]	7.54E-01	0.265	5376	2888	2109	379	39108	21170	15192	2746
Disorders of the globe	1.04 [0.83-1.29]	7.54E-01	0.263	203	108	81	14	29842	16226	11537	2079
Other specified forms of hearing loss	1.03 [0.86-1.23]	7.54E-01	0.263	306	163	121	22	36070	19603	13929	2538
Malignant neoplasm of stomach	0.92 [0.55-1.55]	7.54E-01	0.264	38	21	15	2	47903	25933	18617	3353
Bacteremia	1.02 [0.9-1.15]	7.55E-01	0.266	692	364	284	44	23709	12725	9344	1640

HSD17B13 and liver disease

Convalescence and palliative care	1.02 [0.91-1.14]	7.55E-01	0.265	879	465	355	59	35583	19241	13842	2500
Other disorders of bladder	1.01 [0.94-1.1]	7.55E-01	0.265	1640	878	645	117	34618	18718	13466	2434
Chronic kidney disease (ckd)	0.99 [0.95-1.04]	7.55E-01	0.264	9219	4948	3663	608	37672	20437	14558	2677
Other complications of procedures not elsewhere classified	0.99 [0.92-1.06]	7.55E-01	0.265	1944	1077	711	156	40962	22118	15971	2873
Screening for other and unspecified genitourinary conditions	0.96 [0.71-1.28]	7.56E-01	0.265	122	68	45	9	13046	7053	5080	913
Trauma to perineum and vulva during delivery:Subset(Females)	0.97 [0.8-1.18]	7.56E-01	0.264	264	142	106	16	26567	14437	10228	1902
Other cerebral degenerations	0.98 [0.86-1.12]	7.56E-01	0.263	610	321	257	32	43146	23428	16718	3000
Extrinsic allergic alveolitis	0.94 [0.64-1.38]	7.56E-01	0.264	69	40	23	6	41417	22432	16087	2898
Iciatica	0.99 [0.95-1.04]	7.56E-01	0.264	4975	2712	1921	342	32128	17395	12498	2235
Diabetes With Peripheral Circulatory Disorders	1.02 [0.88-1.19]	7.57E-01	0.266	443	240	166	37	37486	20214	14620	2652
Other Specified Disorders Of Penis:Subset(Males)	0.99 [0.93-1.05]	7.57E-01	0.263	4188	2285	1616	287	10232	5516	4032	684
Rheumatoid arthritis	1.01 [0.93-1.1]	7.57E-01	0.264	1667	901	650	116	29368	15895	11438	2035
Bacterial infection in conditions classified elsewhere and of unspecified site	0.99 [0.91-1.07]	7.58E-01	0.264	1575	857	610	108	42585	23064	16537	2984
Heart failure	0.99 [0.94-1.04]	7.58E-01	0.264	5738	3105	2228	405	34778	18805	13556	2417
Cardiomyopathy	1.01 [0.93-1.1]	7.58E-01	0.264	1509	821	569	119	35434	19174	13790	2470
Leukorrhea	0.97 [0.8-1.17]	7.59E-01	0.267	294	154	125	15	15439	8285	6075	1079
Deviated nasal septum	1.02 [0.91-1.14]	7.59E-01	0.264	776	419	303	54	44987	24388	17466	3133
Fracture of tibia and fibula	0.98 [0.86-1.12]	7.59E-01	0.264	599	329	229	41	45811	24793	17846	3172
Cerebrobasilar artery syndrome	1.05 [0.75-1.48]	7.61E-01	0.264	85	45	33	7	41843	22675	16247	2921
Cellulitis and abscess of face	0.98 [0.83-1.15]	7.61E-01	0.263	395	217	152	26	40519	21983	15746	2790
Ceratitis	1.02 [0.92-1.13]	7.61E-01	0.263	991	532	393	66	29674	16135	11474	2065
Heart valve replaced by other means	1.01 [0.92-1.11]	7.61E-01	0.263	1343	718	539	86	26227	14195	10252	1780
Malignant neoplasm of lower-outer quadrant of female breast:Subset(Females)	1.06 [0.74-1.52]	7.62E-01	0.264	73	41	24	8	66220	14247	10129	1844
Complications Of Transplanted Organ	1.04 [0.83-1.29]	7.62E-01	0.264	203	112	72	19	44590	24121	17377	3092
Exotropia	0.96 [0.73-1.25]	7.62E-01	0.263	142	79	54	9	29867	16240	11546	2081
Bronchiectasis	0.97 [0.81-1.17]	7.62E-01	0.264	305	171	109	25	41380	22416	16071	2893
Personal History Of Malignant Neoplasm Of Genital Organs	1.02 [0.91-1.14]	7.64E-01	0.264	759	411	284	64	29416	15956	11398	2062
Disorders of penis:Subset(Males)	0.99 [0.93-1.05]	7.65E-01	0.263	4272	2328	1650	294	10178	5483	4013	682
Aortic valve disorders	0.99 [0.93-1.06]	7.65E-01	0.264	2870	1564	1098	208	35266	19085	13735	2446
Screening for depression	1.05 [0.75-1.49]	7.65E-01	0.265	82	40	39	3	13014	7030	5073	911
Pain In Joint	1.01 [0.97-1.04]	7.66E-01	0.265	20590	11141	7997	1452	17210	9299	6716	1195
Vertiginous syndromes and other disorders of vestibular system	1.01 [0.94-1.09]	7.67E-01	0.263	1914	1025	757	132	34624	18838	13342	2444
Other and unspecified anemias	0.99 [0.96-1.03]	7.67E-01	0.266	12252	6634	4735	883	27523	14819	10754	1950
Unspecified fracture of ankle	0.98 [0.86-1.12]	7.67E-01	0.264	614	348	212	54	45720	24753	17803	3164
Symptoms involving head and neck	1.01 [0.96-1.05]	7.68E-01	0.260	11392	6221	4405	766	8612	4737	3296	579
Specific Disorders Of Sleep Of Nonorganic Origin	0.99 [0.92-1.06]	7.68E-01	0.263	1963	1080	744	139	34149	18522	13274	2353
Cervicalgia	1.01 [0.97-1.05]	7.69E-01	0.266	7498	4070	2870	558	28623	15451	11146	2026
Streptococcal sore throat	1.02 [0.91-1.13]	7.69E-01	0.264	914	479	378	57	43513	23555	16923	3035
Unspecified disorder of male genital organs:Subset(Males)	1.03 [0.84-1.26]	7.71E-01	0.263	252	129	110	13	10927	5903	4295	729
Contusion of lower limb and of other and unspecified sites	0.99 [0.92-1.07]	7.71E-01	0.264	1928	1057	729	142	39904	21616	15516	2772
Phlebitis and thrombophlebitis of superficial vessels of lower extremities	0.98 [0.84-1.14]	7.72E-01	0.265	456	249	177	30	38242	20668	14861	2713
Other and unspecified protein-calorie malnutrition	0.98 [0.86-1.12]	7.72E-01	0.264	585	329	207	49	45421	24566	17703	3152
Other conditions of brain	1.01 [0.92-1.12]	7.72E-01	0.263	1087	576	443	68	39330	21365	15245	2720
Umbilical hernia without mention of obstruction or gangrene	0.99 [0.9-1.09]	7.72E-01	0.264	1116	603	440	73	41925	22700	16286	2939
Nephritis and nephropathy not specified as acute or chronic	0.98 [0.84-1.14]	7.73E-01	0.264	450	249	168	33	42505	23028	16492	2985
Acquired spondylolisthesis	1.03 [0.85-1.24]	7.73E-01	0.264	290	157	110	23	39298	21274	15308	2716
Cyst of kidney	1.02 [0.91-1.13]	7.74E-01	0.265	907	482	364	61	34902	18892	13556	2454
Cataract	0.99 [0.95-1.04]	7.74E-01	0.264	10700	5755	4211	734	27809	15085	10781	1943
Common Migraine	1.01 [0.94-1.08]	7.75E-01	0.263	2225	1196	874	155	39759	21588	15409	2762
Hydrocele	1.03 [0.85-1.25]	7.75E-01	0.263	275	147	108	20	11041	5967	4334	740
Hydrocele:Subset(Males)	1.03 [0.85-1.24]	7.76E-01	0.263	292	156	115	21	11034	5963	4331	740
Other Complications Of Internal Prosthetic Device	0.98 [0.88-1.1]	7.76E-01	0.264	812	442	315	55	43194	23371	16824	2999
Bronchiectasis without acute exacerbation	1.03 [0.85-1.24]	7.77E-01	0.264	280	153	102	25	41387	22420	16074	2893
Other Counseling	0.99 [0.94-1.05]	7.78E-01	0.264	4120	2219	1626	275	35232	19071	13694	2467
Non-suppurative otitis media and eustachian tube disorders	0.99 [0.93-1.06]	7.78E-01	0.263	2390	1286	954	150	33757	18337	13056	2364
Chronic Obstructive Asthma	0.98 [0.88-1.1]	7.79E-01	0.264	784	433	291	60	40973	22200	15913	2860
Abnormal weight gain	1.01 [0.93-1.1]	7.80E-01	0.259	1913	1049	723	141	9840	5399	3788	653
Malignant neoplasm of cecum	0.94 [0.63-1.41]	7.80E-01	0.264	63	32	30	1	47903	25936	18616	3351
Alteration Of Consciousness	1.02 [0.9-1.16]	7.81E-01	0.259	677	359	280	38	10107	5553	3877	677
Benign Cataract	0.99 [0.95-1.04]	7.81E-01	0.263	8527	4599	3351	577	28420	15438	11004	1978
Specific nonpsychotic mental disorders due to brain damage	0.98 [0.83-1.16]	7.81E-01	0.263	358	199	133	26	35191	19090	13661	2440
Pneumonitis due to solids and liquids	0.97 [0.81-1.18]	7.81E-01	0.264	284	156	108	20	48110	26037	18711	3362
Other And Unspecified Conjunctivitis	1.01 [0.93-1.09]	7.82E-01	0.263	1703	923	655	125	27953	15181	10829	1943
Ankylosing spondylitis and other inflammatory spondylopathies	0.99 [0.91-1.07]	7.82E-01	0.265	1646	902	627	117	33648	18191	13098	2359
Other disorders of thyroid	0.98 [0.84-1.14]	7.83E-01	0.265	417	229	160	28	42321	22863	16497	2961
Scout With Other Specified Manifestations	0.94 [0.62-1.43]	7.84E-01	0.262	60	34	22	4	29258	15949	11273	2036
Other Symptoms Involving Urinary System	0.98 [0.86-1.12]	7.84E-01	0.259	609	335	236	38	10039	5507	3858	674
Other and unspecified hyperlipidemia	1.01 [0.96-1.05]	7.85E-01	0.264	31205	16930	12100	2175	11446	6224	4415	807
Circumscribed scleroderma	1.03 [0.84-1.27]	7.87E-01	0.264	228	124	85	19	30254	16405	11744	2105

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Cardiac Device In Situ	0.99 [0.91-1.07]	7.88E-01	0.263	1925	1050	745	130	26236	14202	10253	1781
Corns and callosities	0.99 [0.92-1.07]	7.89E-01	0.265	1773	971	668	134	37577	20266	14693	2618
Family History Of Other Endocrine And Metabolic Diseases	0.98 [0.87-1.11]	7.89E-01	0.263	709	391	268	50	29460	15989	11418	2053
Lichenification and lichen simplex chronicus	0.98 [0.83-1.16]	7.91E-01	0.265	358	192	146	20	39755	21465	15512	2778
Other acquired deformities of limbs	1.02 [0.9-1.15]	7.91E-01	0.264	700	370	286	44	38902	21060	15154	2688
Hypertensive Heart And Renal Disease	0.97 [0.79-1.2]	7.92E-01	0.264	231	130	83	18	42973	23279	16667	3027
Osteoarthritis	1.01 [0.96-1.06]	7.92E-01	0.263	6458	3505	2519	434	26997	14625	10509	1863
Other specified hypertrophic and atrophic conditions of skin	0.98 [0.82-1.17]	7.92E-01	0.264	317	180	112	25	30221	16383	11741	2097
Other bursitis	0.98 [0.86-1.13]	7.92E-01	0.265	562	312	208	42	29552	15941	11561	2050
Hemiplegia and hemiparesis	0.98 [0.81-1.18]	7.93E-01	0.263	285	161	101	23	39843	21630	15446	2767
Benign neoplasm of skin of lower limb	1.02 [0.87-1.19]	7.93E-01	0.264	405	222	150	33	39528	21409	15354	2765
Other acquired deformities of toe	0.94 [0.59-1.51]	7.94E-01	0.264	46	25	19	2	39579	21429	15412	2738
Rotator cuff (capsule) sprain	0.99 [0.9-1.08]	7.94E-01	0.263	1318	713	524	81	41765	22662	16216	2887
Dermatomycosis other and unspecified	0.98 [0.82-1.16]	7.94E-01	0.264	341	184	137	20	38814	21020	15075	2719
Seborrheic Keratosis	1.01 [0.95-1.07]	7.95E-01	0.264	3714	1982	1469	263	28313	15334	11017	1962
Personal History Of Malignant Neoplasm Of Other Sites	1.01 [0.94-1.08]	7.95E-01	0.264	2660	1405	1081	174	29072	15787	11256	2029
Irritable bowel syndrome	0.99 [0.93-1.06]	7.96E-01	0.266	2529	1370	986	173	32484	17512	12655	2317
Cluster headache syndrome	1.05 [0.71-1.56]	7.96E-01	0.264	62	31	28	3	48407	26219	18812	3376
Scanty or infrequent menstruation:Subset(Females)	1.03 [0.81-1.32]	7.97E-01	0.266	167	88	66	13	15618	8391	6140	1087
Major Depressive Disorder	0.99 [0.92-1.07]	7.97E-01	0.264	1709	932	656	121	43606	23610	16968	3028
Other specified prophylactic or treatment measure	1.01 [0.94-1.08]	7.97E-01	0.264	2391	1281	946	164	32323	17529	12557	2237
Diastolic heart failure	1.01 [0.94-1.09]	7.97E-01	0.264	1931	1043	745	143	35439	19170	13804	2465
Family history of congenital anomalies	1.05 [0.72-1.53]	7.99E-01	0.264	70	33	35	2	29749	16142	11522	2085
Other congenital anomalies of limbs	1.05 [0.74-1.47]	8.00E-01	0.264	82	43	33	6	43305	23469	16807	3029
Other specified hypoglycemia	0.99 [0.89-1.1]	8.02E-01	0.266	893	486	344	63	37347	20133	14570	2644
Hrticaria	1.01 [0.92-1.11]	8.02E-01	0.263	1145	624	434	87	29507	16020	11440	2047
Anal fissure	1.02 [0.88-1.19]	8.02E-01	0.266	436	232	174	30	32950	17771	12839	2340
Secondary malignant neoplasm of other specified sites	1.02 [0.87-1.2]	8.03E-01	0.264	389	205	159	25	47228	25556	18368	3304
Other Abnormality Of Urination	1.01 [0.92-1.12]	8.04E-01	0.259	1245	678	485	82	10018	5497	3847	674
Chronic Tonsillitis	1.03 [0.81-1.31]	8.05E-01	0.264	173	92	69	12	39097	21163	15190	2744
Abrasion or friction burn of other	1.04 [0.78-1.39]	8.06E-01	0.265	116	61	47	8	46203	24976	17996	3231
Family history of certain other specific conditions	1.01 [0.95-1.07]	8.07E-01	0.263	3085	1679	1185	221	28533	15516	11037	1980
Health examination of defined subpopulations	0.98 [0.83-1.16]	8.08E-01	0.264	364	199	140	25	12946	7003	5036	907
MeniereS Disease	1.02 [0.85-1.24]	8.09E-01	0.264	276	147	109	20	36138	19635	13961	2542
Personal history of other diseases	0.99 [0.9-1.08]	8.09E-01	0.263	1318	711	522	85	28592	15543	11059	1990
Myoneural disorders	0.96 [0.71-1.31]	8.10E-01	0.263	108	59	43	6	38448	20847	14950	2651
Closed Dislocation Of Shoulder	1.03 [0.8-1.34]	8.11E-01	0.264	146	79	55	12	47601	25751	18527	3323
Dislocation of shoulder	1.03 [0.8-1.34]	8.11E-01	0.264	146	79	55	12	47601	25751	18527	3323
Adjustment Reaction With Predominant Disturbance Of	1.01 [0.93-1.1]	8.12E-01	0.263	1415	773	534	108	34915	18950	13550	2415
Noninflammatory disorders of cervix:Subset(Females)	1.01 [0.91-1.13]	8.12E-01	0.266	835	454	311	70	15438	8300	6057	1081
Open wound of finger(s)	0.98 [0.85-1.13]	8.13E-01	0.264	498	268	199	31	45969	24912	17859	3198
Traumatic pneumothorax and hemothorax	0.96 [0.7-1.32]	8.14E-01	0.264	101	55	40	6	48547	26304	18858	3385
Benign intracranial hypertension	0.97 [0.73-1.28]	8.14E-01	0.263	127	70	48	9	40082	21771	15527	2784
Unspecified hypertrophic and atrophic conditions of skin	1.01 [0.94-1.09]	8.14E-01	0.264	1935	1047	754	134	28602	15511	11087	2004
Other chronic cystitis	0.97 [0.72-1.29]	8.15E-01	0.265	120	66	46	8	35304	19104	13716	2484
Nontoxic multinodular goiter	0.99 [0.9-1.09]	8.16E-01	0.265	1125	613	436	76	42512	22963	16573	2976
Other aneurysm	0.98 [0.86-1.12]	8.16E-01	0.264	597	328	224	45	40812	22130	15823	2859
Intestinal infections due to other organisms	1.01 [0.92-1.11]	8.16E-01	0.264	1191	631	483	77	46097	24971	17883	3243
Hypertrophy (benign) of prostate without urinary obstruction and other lower urinary tract symptom (LUTS);Hypertrophy (benign) of prostate with urinary obstruction and other lower urinary tract symptoms (LUTS):Subset(Males)	0.99 [0.93-1.06]	8.16E-01	0.263	5379	2922	2090	367	10128	5472	3987	669
Corneal Ulcer	0.98 [0.81-1.18]	8.16E-01	0.263	296	163	112	21	29834	16218	11539	2077
Other and ill-defined sprains and strains	0.98 [0.79-1.21]	8.17E-01	0.263	223	120	91	12	41701	22623	16193	2885
Candidiasis	1.01 [0.96-1.06]	8.17E-01	0.264	5156	2753	2062	341	34702	18793	13502	2407
Urethral stricture	0.98 [0.82-1.17]	8.17E-01	0.265	319	172	126	21	35263	19081	13703	2479
Contusion of trunk	1.01 [0.9-1.14]	8.18E-01	0.263	730	393	285	52	43553	23637	16898	3018
Personal history of certain other diseases	1.01 [0.96-1.05]	8.19E-01	0.265	6582	3531	2590	461	25641	13898	9911	1832
Closed fracture of one or more phalanges of foot	1.02 [0.86-1.22]	8.21E-01	0.264	323	178	117	28	45588	24681	17752	3155
Pneumonitis due to inhalation of food or vomitus	0.98 [0.81-1.18]	8.21E-01	0.264	283	155	108	20	48112	26038	18712	3362
Need for other prophylactic vaccination and inoculation against single diseases	1.01 [0.95-1.06]	8.22E-01	0.264	4179	2233	1671	275	29766	16132	11594	2040
Hypertensive Renal Disease	1.01 [0.94-1.08]	8.22E-01	0.265	2322	1231	935	156	41324	22372	16027	2925
Myasthenia Gravis	0.96 [0.7-1.33]	8.23E-01	0.263	98	54	38	6	38455	20850	14953	2652
Bronchitis	0.99 [0.93-1.06]	8.23E-01	0.265	2921	1559	1176	186	37632	20332	14660	2640
Other disorders of skin and subcutaneous tissue	1.01 [0.95-1.06]	8.24E-01	0.263	4054	2194	1583	277	27112	14752	10476	1884
Lumbosacral spondylosis without myelopathy	1.01 [0.94-1.08]	8.24E-01	0.265	2023	1093	786	144	33587	18164	13072	2351
Chronic kidney disease	1.01 [0.94-1.08]	8.25E-01	0.265	2054	1085	837	132	41909	22705	16249	2955
Lymphoid Leukemia	1.03 [0.8-1.32]	8.25E-01	0.264	160	85	64	11	48090	26085	18649	3356
Obstruction of bile duct	1.03 [0.79-1.34]	8.25E-01	0.266	141	74	57	10	36478	19642	14284	2552
Observation following other accident	0.96 [0.65-1.41]	8.25E-01	0.265	68	36	29	3	13031	7044	5075	912

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Other Retinal Disorders	0.99 [0.89-1.1]	8.26E-01	0.263	988	540	379	69	29813	16218	11519	2076
Cellulitis and abscess of hand	0.98 [0.81-1.19]	8.27E-01	0.263	272	153	97	22	40653	22060	15789	2804
Fracture of one or more phalanges of foot	1.02 [0.86-1.21]	8.27E-01	0.264	327	180	119	28	45580	24676	17750	3154
Unspecified Osteomyelitis	1.02 [0.88-1.17]	8.28E-01	0.264	504	278	184	42	39445	21361	15359	2725
Unspecified transient cerebral ischemia	1.01 [0.94-1.08]	8.28E-01	0.264	2094	1124	817	153	41302	22379	16041	2882
Pain in limb	1 [0.96-1.03]	8.28E-01	0.264	15201	8262	5889	1050	19621	10597	7673	1351
Observation and evaluation for suspected conditions not found	1.01 [0.91-1.13]	8.28E-01	0.264	911	490	357	64	12819	6939	4986	894
Unspecified infectious and parasitic diseases	1.05 [0.69-1.59]	8.29E-01	0.264	55	29	22	4	48091	26049	18688	3354
Open wound of other and unspecified parts of trunk	1.03 [0.8-1.33]	8.29E-01	0.264	148	83	50	15	46384	25113	18042	3229
Inflammation of eyelids	0.99 [0.93-1.06]	8.30E-01	0.263	2528	1367	998	163	28806	15652	11159	1995
Vaccine for prophylactic vaccination and inoculation against varicella	1.01 [0.92-1.11]	8.30E-01	0.264	1327	706	535	86	31911	17288	12427	2196
Other Symptoms Involving Head And Neck	1.02 [0.88-1.17]	8.31E-01	0.259	553	302	214	37	10009	5497	3839	673
Variants Of Migraine	1.01 [0.9-1.13]	8.31E-01	0.263	802	424	331	47	39818	21640	15415	2763
Chronic Conjunctivitis	1.01 [0.9-1.14]	8.31E-01	0.263	721	385	289	47	29547	16077	11418	2052
Dizziness and giddiness	1.01 [0.95-1.06]	8.32E-01	0.261	6714	3660	2610	444	9561	5227	3684	650
Other disorders of synovium tendon and bursa	1 [0.95-1.04]	8.33E-01	0.266	5741	3109	2219	413	26659	14325	10449	1885
Atherosclerosis	0.99 [0.93-1.06]	8.33E-01	0.264	2980	1607	1172	201	39910	21641	15468	2801
Unspecific abnormal findings on radiological and other examination of other sites of body	1.02 [0.83-1.26]	8.34E-01	0.266	233	125	90	18	23659	12695	9324	1640
Diseases of pancreas	1.01 [0.92-1.1]	8.35E-01	0.266	1283	681	517	85	36076	19442	14111	2523
Contusion Of Ankle And Foot	1.02 [0.84-1.24]	8.35E-01	0.264	256	135	104	17	44654	24181	17368	3105
Malignant essential hypertension	0.98 [0.81-1.18]	8.36E-01	0.264	291	160	111	20	42810	23202	16589	3019
Occlusion and stenosis of precerebral arteries	1.01 [0.95-1.07]	8.36E-01	0.264	3163	1682	1277	204	41014	22256	15906	2852
Unspecified anomaly of urinary system	0.95 [0.59-1.53]	8.36E-01	0.264	45	25	17	3	43378	23498	16846	3034
Embolism And Thrombosis Of Arteries Of The Extremities	0.97 [0.75-1.26]	8.36E-01	0.264	153	83	60	10	40971	22205	15889	2877
Osteomyelitis periostitis and other infections involving bone	0.99 [0.86-1.13]	8.37E-01	0.264	592	331	214	47	39375	21324	15336	2715
Tachycardia	1.01 [0.92-1.11]	8.38E-01	0.259	1192	639	483	70	9987	5483	3839	665
Pain	1.01 [0.94-1.08]	8.38E-01	0.264	1936	1045	752	139	44028	23834	17111	3083
Right bundle branch block	0.99 [0.85-1.14]	8.38E-01	0.264	499	271	194	34	35312	19102	13755	2455
Circadian rhythm sleep disorder	1.02 [0.84-1.24]	8.38E-01	0.264	257	137	102	18	45437	24597	17649	3191
Other	0.98 [0.85-1.14]	8.38E-01	0.263	475	254	193	28	35284	19145	13693	2446
Open Wound Of Elbow	0.97 [0.74-1.27]	8.39E-01	0.264	139	75	56	8	47229	25582	18364	3283
Ectopic pregnancy:Subset(Females)	1.03 [0.75-1.42]	8.39E-01	0.264	97	50	41	6	28146	15262	10889	1995
Jaundice	1.02 [0.84-1.25]	8.40E-01	0.259	259	143	97	19	10124	5558	3886	680
Carpal tunnel syndrome	1.01 [0.96-1.06]	8.40E-01	0.263	4760	2580	1856	324	36739	19913	14287	2539
Other And Unspecified Peripheral Vertigo	0.99 [0.91-1.08]	8.41E-01	0.263	1384	749	544	91	35092	19094	13526	2472
Ascites	1.02 [0.87-1.19]	8.43E-01	0.259	414	228	156	30	10110	5552	3879	679
Personal History Of Diseases Of Digestive System	0.99 [0.94-1.05]	8.43E-01	0.265	3385	1829	1324	232	27749	15042	10732	1975
Embolism And Thrombosis Of Other Specified Veins	1.02 [0.83-1.26]	8.43E-01	0.265	222	119	87	16	38427	20770	14928	2729
Benign neoplasm of eye	0.98 [0.84-1.16]	8.44E-01	0.264	382	208	148	26	40083	21698	15579	2806
Postsurgical Renal Dialysis Status	0.99 [0.85-1.14]	8.44E-01	0.263	466	249	191	26	26237	14195	10261	1781
Habitual Aborter	1.03 [0.74-1.44]	8.45E-01	0.264	91	47	38	6	25474	13820	9843	1811
Other Specified Bacterial Infections In Conditions	1.01 [0.88-1.16]	8.46E-01	0.264	530	286	207	37	44720	24235	17376	3109
Dermatographic urticaria	1.04 [0.69-1.57]	8.46E-01	0.264	57	30	23	4	30285	16419	11761	2105
Special screening for malignant neoplasms	1 [0.96-1.04]	8.46E-01	0.264	29963	16258	11624	2081	9045	4894	3528	623
Acute Arthropathy	1.01 [0.92-1.11]	8.47E-01	0.262	1195	644	472	79	29154	15890	11233	2031
Arthropathy	1.01 [0.94-1.08]	8.47E-01	0.263	2040	1107	794	139	28646	15538	11134	1974
Malignant neoplasm of colon	1.01 [0.88-1.17]	8.47E-01	0.264	486	257	198	31	47840	25903	18589	3348
Incontinence Of Feces	1.02 [0.86-1.2]	8.48E-01	0.259	391	213	150	28	10125	5559	3888	678
Disorders of tooth development and eruption	1.01 [0.9-1.14]	8.49E-01	0.265	755	411	285	59	41989	22700	16330	2959
Acute venous embolism and thrombosis of unspecified deep vessels of lower extremity;Acute venous embolism and thrombosis of deep vessels of proximal lower extremity;Acute venous embolism and thrombosis of deep vessels of distal lower extremity	0.99 [0.89-1.1]	8.49E-01	0.265	959	523	367	69	38332	20721	14890	2721
Adult failure to thrive	0.97 [0.71-1.33]	8.50E-01	0.259	105	61	35	9	10133	5563	3891	679
Other nonspecific findings on examination of urine	0.99 [0.87-1.12]	8.50E-01	0.266	644	351	247	46	23467	12594	9246	1627
Cellulitis and abscess of upper arm and forearm	1.01 [0.89-1.16]	8.51E-01	0.263	572	311	217	44	40274	21866	15636	2772
Delusional disorder	1.05 [0.65-1.67]	8.51E-01	0.264	44	23	18	3	44095	23859	17169	3067
Anal fissure and fistula	0.99 [0.86-1.13]	8.51E-01	0.266	563	305	220	38	32938	17766	12833	2339
Malignant melanoma of skin of lower limb	0.97 [0.69-1.36]	8.52E-01	0.264	86	46	36	4	44408	24069	17241	3098
Other disorders of biliary tract	0.99 [0.88-1.11]	8.52E-01	0.266	739	407	273	59	36232	19516	14179	2537
Cornea replaced by transplant	1.03 [0.73-1.47]	8.52E-01	0.263	82	41	38	3	26272	14217	10271	1784
Traumatic amputation of other finger(s) (complete) (partial)	0.96 [0.66-1.42]	8.52E-01	0.264	68	37	27	4	47714	25848	18546	3320
Sprains and strains of shoulder and upper arm	0.99 [0.92-1.07]	8.53E-01	0.263	1872	1017	729	126	40495	21963	15724	2808
Stenosis of rectum and anus	1.05 [0.63-1.76]	8.55E-01	0.266	36	18	16	2	33146	17880	12910	2356
Other Threatened Labor:Subset(Females)	0.98 [0.82-1.18]	8.56E-01	0.265	321	171	127	23	25362	13752	9806	1804
Personal history of malignant neoplasm of breast:Subset(Females)	1.01 [0.91-1.12]	8.56E-01	0.262	1004	555	370	79	17416	9507	6689	1220
Other dermatoses	1 [0.95-1.04]	8.56E-01	0.264	6564	3543	2565	456	27483	14905	10680	1898
Endocarditis	1.03 [0.78-1.34]	8.57E-01	0.264	135	73	51	11	35583	19256	13852	2475
Chalazion	1.02 [0.86-1.2]	8.58E-01	0.263	358	197	132	29	29647	16116	11466	2065
Other orthopedic aftercare	1.01 [0.88-1.16]	8.59E-01	0.264	532	288	205	39	37370	20274	14491	2605

HSD17B13 and liver disease

Jnspecified nontoxic nodular goiter	0.96 [0.62-1.5]	8.59E-01	0.265	51	31	14	6	42600	23013	16607	2980
nflammatory disease of cervix vagina and vulva:Subset(Females)	0.99 [0.93-1.06]	8.59E-01	0.264	2722	1472	1068	182	22839	12414	8792	1633
Jnspecified visual disturbance	1.01 [0.89-1.14]	8.60E-01	0.263	674	355	281	38	29251	15915	11305	2031
3astroparesis	1.01 [0.9-1.13]	8.60E-01	0.264	820	442	318	60	39212	21236	15244	2732
Calculus Of Gallbladder With Other Cholecystitis	1.02 [0.79-1.33]	8.60E-01	0.266	140	76	52	12	36302	19555	14207	2540
Other and unspecified complications of medical care	0.99 [0.85-1.15]	8.60E-01	0.264	452	255	158	39	44589	24122	17379	3088
Persons encountering health services for specific procedures not carried out	1.01 [0.9-1.14]	8.61E-01	0.265	684	364	274	46	34219	18499	13342	2378
Other conditions influencing health status	1 [0.96-1.05]	8.61E-01	0.263	7443	4076	2806	561	24785	13415	9696	1674
Disturbance of skin sensation	1.01 [0.95-1.06]	8.62E-01	0.260	5269	2888	2010	371	9519	5215	3658	646
Lymphoid leukemia	0.98 [0.77-1.24]	8.62E-01	0.264	183	99	73	11	48089	26084	18649	3356
Dyskinesia of esophagus	0.98 [0.74-1.28]	8.63E-01	0.264	135	74	52	9	39325	21301	15288	2736
Other Specified Gastritis	1.02 [0.85-1.21]	8.63E-01	0.264	326	176	126	24	39092	21168	15199	2725
Need for prophylactic vaccination and inoculation against tetanus-diphtheria [Td] (DT)	1.01 [0.89-1.14]	8.63E-01	0.263	690	374	264	52	30289	16414	11797	2078
Acquired Deformities Of Other Parts Of Limbs	1.03 [0.75-1.42]	8.64E-01	0.264	94	52	33	9	39503	21393	15382	2728
Acquired deformities of toe	0.99 [0.89-1.11]	8.64E-01	0.264	844	466	317	61	38937	21078	15157	2702
Personal history of malignant neoplasm	1 [0.95-1.06]	8.66E-01	0.263	5091	2744	1988	359	28244	15340	10947	1957
Jnspecified Abortion Without Mention Of Complication:Subset(Females)	1.03 [0.7-1.52]	8.68E-01	0.264	66	33	30	3	28139	15260	10886	1993
Degeneration Of Thoracic Or Lumbar Intervertebral Disc	1.01 [0.95-1.06]	8.68E-01	0.265	3908	2104	1540	264	33329	18031	12955	2343
Colostomy status	0.98 [0.8-1.21]	8.69E-01	0.263	233	132	81	20	26259	14208	10268	1783
Open wound of elbow forearm and wrist	0.98 [0.76-1.27]	8.70E-01	0.264	152	81	63	8	47190	25564	18347	3279
Intracranial Injury Of Other And Unspecified Nature Without	1.02 [0.81-1.29]	8.72E-01	0.264	177	95	69	13	48248	26139	18737	3372
Intracranial injury of other and unspecified nature	1.02 [0.81-1.29]	8.72E-01	0.264	177	95	69	13	48248	26139	18737	3372
Neoplasm of uncertain behavior of other lymphatic and hematopoietic tissues	0.99 [0.83-1.18]	8.72E-01	0.264	328	178	129	21	46938	25416	18243	3279
Complications of medical care not elsewhere classified	0.99 [0.86-1.14]	8.73E-01	0.264	525	296	183	46	44331	23981	17278	3072
Septicemia	1.01 [0.92-1.1]	8.74E-01	0.264	1385	753	526	106	43448	23517	16920	3011
Shock Without Mention Of Trauma	0.99 [0.86-1.14]	8.74E-01	0.259	585	324	223	38	10075	5533	3868	674
Difficulty in walking	0.99 [0.87-1.13]	8.75E-01	0.264	601	331	227	43	29345	15879	11425	2041
Secondary malignant neoplasm of lung	0.98 [0.76-1.27]	8.75E-01	0.264	152	82	61	9	47364	25641	18416	3307
Cardiac arrest	1.02 [0.83-1.24]	8.76E-01	0.264	249	134	96	19	35536	19224	13838	2474
Sprain of cruciate ligament of knee	1.02 [0.81-1.28]	8.76E-01	0.263	189	105	67	17	42467	23053	16475	2939
Diseases of hard tissues of teeth	0.99 [0.93-1.06]	8.76E-01	0.265	2386	1284	943	159	41125	22234	15991	2900
Candidiasis Of Other Specified Sites	1.02 [0.82-1.25]	8.77E-01	0.264	225	116	98	11	39006	21128	15146	2732
Mitral valve disorders	0.99 [0.93-1.06]	8.78E-01	0.264	2742	1490	1062	190	35087	18985	13658	2444
Paroxysmal supraventricular tachycardia	1.01 [0.91-1.12]	8.80E-01	0.264	980	536	366	78	35421	19170	13783	2468
Traumatic amputation of leg(s) (complete) (partial)	1.02 [0.76-1.37]	8.81E-01	0.264	114	66	35	13	47715	25836	18571	3308
Jnspecified contraceptive management	0.99 [0.88-1.12]	8.81E-01	0.264	1087	590	420	77	41644	22568	16182	2894
Streptococcal sore throat and scarlet fever	1.01 [0.9-1.12]	8.84E-01	0.264	925	487	381	57	43505	23552	16919	3034
Dental Caries	1 [0.93-1.06]	8.84E-01	0.265	2346	1263	926	157	41233	22290	16036	2907
Other chronic bronchitis	0.97 [0.69-1.38]	8.84E-01	0.264	85	48	30	7	41425	22435	16093	2897
Diseases of other endocardial structures	1.01 [0.89-1.14]	8.85E-01	0.264	658	357	251	50	47224	25576	18361	3287
Carrier Or Suspected Carrier Of Viral Hepatitis	0.98 [0.72-1.32]	8.85E-01	0.263	112	59	48	5	33811	18339	13132	2340
Fracture Clavicle-Closed	0.98 [0.79-1.23]	8.86E-01	0.265	198	108	76	14	46699	25235	18197	3267
Fracture of clavicle	0.98 [0.79-1.23]	8.86E-01	0.265	198	108	76	14	46699	25235	18197	3267
Malignant neoplasm of thyroid gland	1.01 [0.88-1.16]	8.86E-01	0.264	556	301	216	39	47374	25645	18418	3311
WV Traffic Accident Nos	0.99 [0.81-1.2]	8.87E-01	0.264	254	136	103	15	47593	25772	18501	3320
Peptic ulcer site unspecified	1.01 [0.9-1.13]	8.87E-01	0.264	824	445	321	58	39158	21207	15224	2727
Hysteria	0.98 [0.74-1.3]	8.87E-01	0.263	127	70	48	9	35351	19188	13716	2447
Family history of malignant neoplasm of gastrointestinal tract	0.99 [0.93-1.07]	8.88E-01	0.263	2049	1129	769	151	29096	15795	11260	2041
Perforation Of Tympanic Membrane	1.01 [0.83-1.23]	8.89E-01	0.264	255	139	95	21	36137	19634	13960	2543
Neoplasms of unspecified nature	1.01 [0.92-1.1]	8.89E-01	0.264	1321	710	520	91	45381	24620	17601	3160
Other and unspecified postsurgical nonabsorption	1 [0.94-1.06]	8.89E-01	0.266	2941	1604	1113	224	36450	19633	14267	2550
Leaving household and economic circumstances	0.99 [0.87-1.12]	8.90E-01	0.265	652	342	275	35	36137	19550	14056	2531
Abdominal Tenderness	0.99 [0.81-1.2]	8.90E-01	0.259	264	147	99	18	10114	5553	3882	679
Ill-defined descriptions and complications of heart disease	0.99 [0.92-1.08]	8.90E-01	0.264	1738	932	693	113	34822	18841	13556	2425
Other Specified Disorders Resulting From Impaired Renal	0.99 [0.86-1.14]	8.91E-01	0.264	497	265	201	31	42674	23118	16554	3002
Other Specified Adjustment Reactions	1.01 [0.9-1.13]	8.92E-01	0.263	753	412	283	58	35160	19079	13644	2437
Open-Angle Glaucoma	1.01 [0.92-1.1]	8.92E-01	0.263	1543	825	619	99	29839	16231	11530	2078
Facial nerve disorders	0.99 [0.85-1.15]	8.92E-01	0.263	470	254	186	30	38283	20764	14885	2634
Rotator Cuff Syndrome Of Shoulder And Allied Disorders	1 [0.95-1.06]	8.93E-01	0.264	4093	2201	1622	270	28261	15280	11029	1952
Other disorders of ear	1 [0.93-1.06]	8.94E-01	0.264	2439	1329	938	172	34037	18481	13142	2414
Acute Duodenal Ulcer Without Mention Of Hemorrhage	0.98 [0.75-1.29]	8.97E-01	0.264	140	77	53	10	39372	21320	15313	2739
Astigmatism	1.02 [0.78-1.33]	8.98E-01	0.263	141	80	47	14	29853	16232	11540	2081
Urethral stricture	0.99 [0.81-1.2]	8.98E-01	0.265	268	147	100	21	35274	19087	13707	2480
Noninflammatory disorders of vagina:Subset(Females)	1.01 [0.88-1.15]	8.99E-01	0.267	587	307	243	37	15224	8174	5983	1067
Pure hypercholesterolemia	1.01 [0.93-1.09]	8.99E-01	0.262	1754	960	670	124	27251	14852	10507	1892
Tobacco use disorder complicating pregnancy	1.01 [0.85-1.2]	9.00E-01	0.264	363	191	147	25	25412	13797	9811	1804
Family history of malignant neoplasm of breast:Subset(Females)	0.99 [0.89-1.11]	9.00E-01	0.262	924	499	371	54	17307	9450	6646	1211
Other persons seeking consultation	1 [0.95-1.05]	9.00E-01	0.264	4348	2339	1715	294	34805	18854	13508	2443
Other urinary problems	1.02 [0.73-1.44]	9.01E-01	0.263	86	44	38	4	26172	14167	10231	1774

HSD17B13 and liver disease

hallucinations	0.98 [0.77-1.26]	9.01E-01	0.259	173	91	75	7	10131	5563	3890	678
Cellulitis and abscess of buttock	1.02 [0.8-1.29]	9.01E-01	0.263	178	100	61	17	40935	22209	15910	2816
Urinary Obstruction	0.98 [0.68-1.41]	9.01E-01	0.265	75	41	29	5	35272	19085	13709	2478
Fitting And Adjustment Of Ileostomy Or Other Intestinal	0.98 [0.72-1.33]	9.02E-01	0.263	108	57	46	5	38239	20787	14793	2659
Aneurysm of unspecified site	1.01 [0.81-1.27]	9.03E-01	0.264	190	105	68	17	40912	22176	15865	2871
Other Ovarian Failure:Subset(Females)	1.01 [0.88-1.16]	9.05E-01	0.266	548	293	217	38	21833	11787	8473	1573
Influenza with pneumonia	1.02 [0.69-1.51]	9.06E-01	0.265	65	33	29	3	43453	23485	16949	3019
Personal History Of Infectious And Parasitic Diseases	1.01 [0.87-1.17]	9.06E-01	0.264	461	245	187	29	29455	15996	11391	2068
Epidermoma	0.99 [0.9-1.1]	9.06E-01	0.265	948	519	360	69	39150	21146	15250	2754
Hyperplasia of prostate:Subset(Males)	1 [0.94-1.07]	9.07E-01	0.263	5748	3113	2235	400	9965	5389	3915	661
Anemia	1 [0.96-1.04]	9.07E-01	0.266	10781	5840	4160	781	28696	15461	11212	2023
Presbyopia	1 [0.95-1.05]	9.08E-01	0.263	5845	3173	2259	413	28121	15273	10881	1967
Unspecific abnormal findings in stool contents	1.01 [0.92-1.09]	9.09E-01	0.266	1543	823	620	100	22932	12313	9023	1596
Regional enteritis of small intestine	0.98 [0.76-1.28]	9.09E-01	0.264	145	80	54	11	46806	25346	18175	3285
Poisoning by unspecified drug or medicinal substance	1.01 [0.82-1.24]	9.10E-01	0.264	233	127	87	19	48467	26241	18839	3387
Certain Types Of Keratoconjunctivitis	1.01 [0.88-1.16]	9.10E-01	0.263	524	282	208	34	29828	16219	11528	2081
Corneal Degenerations	1.01 [0.81-1.26]	9.10E-01	0.263	209	111	85	13	29866	16242	11545	2079
Mixed hyperlipidemia	1 [0.95-1.04]	9.10E-01	0.261	6555	3589	2520	446	25330	13851	9709	1770
Unspecified sinusitis (chronic)	1 [0.93-1.07]	9.11E-01	0.265	2292	1252	874	166	37495	20288	14561	2646
Chronic venous hypertension without complications;Chronic venous hypertension with ulcer;Chronic venous hypertension with inflammation;Chronic venous hypertension with ulcer and inflammation;Chronic venous hypertension with other complication	1.02 [0.78-1.32]	9.11E-01	0.265	144	85	41	18	38515	20827	14952	2736
Body mass index (bmi)	1 [0.95-1.04]	9.13E-01	0.264	6136	3321	2386	429	38171	20658	14871	2642
Inflammatory diseases of prostate:Subset(Males)	0.99 [0.89-1.11]	9.13E-01	0.263	853	465	327	61	10861	5871	4263	727
Other left bundle branch block	0.99 [0.87-1.13]	9.14E-01	0.264	591	320	231	40	35528	19229	13825	2474
Unspecific Abnormal Papanicolaou Smear Of Other Site	0.99 [0.79-1.23]	9.14E-01	0.266	203	109	80	14	23765	12754	9371	1640
Problems related to lifestyle	0.99 [0.8-1.22]	9.14E-01	0.264	231	124	92	15	35993	19491	13980	2522
Other disorders of eye	1 [0.95-1.06]	9.15E-01	0.263	3487	1872	1392	223	28768	15625	11135	2008
Diseases of white blood cells	1 [0.93-1.07]	9.16E-01	0.267	2334	1253	922	159	34972	18812	13667	2493
Orchitis and epididymitis:Subset(Males)	1.01 [0.86-1.19]	9.17E-01	0.264	396	209	163	24	10906	5883	4296	727
Contusion of unspecified site	1.01 [0.9-1.12]	9.17E-01	0.264	834	453	318	63	43801	23723	17032	3046
Other Specified Transient Organic Mental Disorders	0.99 [0.82-1.2]	9.17E-01	0.264	273	148	107	18	46903	25459	18168	3276
Poisoning by other and unspecified drugs and medicinal substances	1.01 [0.82-1.24]	9.17E-01	0.264	235	128	88	19	48439	26225	18828	3386
Other hernia of abdominal cavity with obstruction but without mention of gangrene	1.02 [0.75-1.37]	9.19E-01	0.264	109	60	40	9	42300	22923	16408	2969
Postgastric surgery syndromes	1 [0.93-1.07]	9.20E-01	0.266	2349	1287	879	183	32849	17717	12796	2336
Other Disorders Of Eyelid	1.01 [0.91-1.11]	9.20E-01	0.263	1069	575	424	70	29635	16121	11450	2064
Migraine	1 [0.95-1.06]	9.21E-01	0.263	3660	1984	1415	261	39252	21330	15194	2728
Diseases of esophagus	1 [0.97-1.03]	9.21E-01	0.265	21186	11445	8273	1468	22262	12067	8612	1583
Chronic pain syndrome	1.01 [0.88-1.15]	9.21E-01	0.264	583	322	212	49	46800	25349	18183	3268
Vaccine for prophylactic vaccination and inoculation against other specified disease	1.01 [0.91-1.11]	9.21E-01	0.264	1023	548	404	71	32348	17542	12570	2236
Nursing care following surgery of the sense organs	1 [0.9-1.1]	9.22E-01	0.263	1056	575	409	72	37486	20383	14489	2614
Other and unspecified derangement of medial meniscus	0.99 [0.78-1.25]	9.22E-01	0.264	188	105	69	14	29410	15917	11454	2039
Secondary diabetes mellitus with neurological manifestations	0.99 [0.74-1.31]	9.23E-01	0.266	122	68	44	10	37523	20231	14636	2656
Disturbances of sulphur-bearing amino-acid metabolism	1.01 [0.85-1.2]	9.23E-01	0.262	344	183	140	21	29208	15923	11251	2034
Chronic rhinitis	1 [0.95-1.06]	9.23E-01	0.264	3706	1991	1469	246	37353	20235	14524	2594
Diseases of tricuspid valve	1.01 [0.89-1.14]	9.23E-01	0.264	652	355	247	50	47238	25582	18367	3289
Other disorders of kidney and ureter	1 [0.94-1.07]	9.23E-01	0.264	3061	1647	1204	210	33881	18339	13167	2375
Sprains and strains of other specified sites of shoulder and upper arm	0.99 [0.86-1.14]	9.23E-01	0.264	517	284	194	39	41603	22562	16156	2885
Screening For Other Specific Viral And Chlamydial Diseases	0.99 [0.89-1.11]	9.25E-01	0.265	978	521	395	62	12788	6902	4982	904
Unspecified iridocyclitis	0.99 [0.83-1.18]	9.25E-01	0.263	323	173	131	19	29849	16231	11541	2077
Other conditions or status of the mother complicating pregnancy	0.99 [0.88-1.12]	9.26E-01	0.264	837	441	339	57	25290	13726	9766	1798
Orthostatic hypotension	1.01 [0.9-1.13]	9.26E-01	0.265	776	416	304	56	37820	20445	14688	2687
Chronic kidney disease	0.99 [0.71-1.36]	9.26E-01	0.264	97	54	35	8	42697	23129	16565	3003
Unspecified personality disorder	1.01 [0.85-1.19]	9.27E-01	0.263	349	195	123	31	35347	19178	13721	2448
Other acne	1 [0.93-1.09]	9.28E-01	0.264	1834	1001	705	128	29814	16160	11580	2074
Other and unspecified disorders of joint	1 [0.97-1.04]	9.28E-01	0.265	20926	11333	8117	1476	16983	9168	6631	1184
Unspecified disease of pancreas	1.01 [0.82-1.24]	9.29E-01	0.266	237	124	99	14	36355	19583	14229	2543
Renal colic	1.01 [0.86-1.18]	9.30E-01	0.259	420	232	158	30	10079	5537	3870	672
Examination Of Ears And Hearing	1.03 [0.57-1.86]	9.31E-01	0.265	28	15	11	2	13030	7044	5073	913
Artificial opening status	0.99 [0.87-1.13]	9.31E-01	0.263	618	342	228	48	26185	14165	10245	1775
Epidermoma of other specified sites	0.99 [0.73-1.33]	9.31E-01	0.264	112	62	42	8	40099	21708	15577	2814
Unspecified condition of brain	0.99 [0.7-1.38]	9.31E-01	0.263	88	46	38	4	40041	21749	15507	2785
Routine general medical examination at a health care facility	1 [0.96-1.04]	9.32E-01	0.264	18722	10153	7237	1332	9956	5390	3874	692
Primary Thrombocytopenia	1.01 [0.85-1.2]	9.33E-01	0.266	342	181	140	21	36113	19448	14096	2569
Encounter for contraceptive management	1 [0.94-1.07]	9.34E-01	0.264	4552	2463	1772	317	40817	22136	15849	2832
Premenstrual tension syndromes:Subset(Females)	1.01 [0.86-1.18]	9.35E-01	0.266	433	235	163	35	15619	8389	6140	1090
Other disorders of eyelids	1 [0.92-1.08]	9.35E-01	0.263	1932	1052	745	135	29392	15987	11352	2053
Other congenital musculoskeletal anomalies	1 [0.91-1.11]	9.36E-01	0.264	1029	550	411	68	42798	23182	16626	2990
Other Specified Disorders Of Breast:Subset(Females)	0.99 [0.81-1.22]	9.39E-01	0.263	231	124	93	14	23918	13018	9226	1674

HSD17B13 and liver disease

Family history of diabetes mellitus	1 [0.94-1.07]	9.39E-01	0.263	2262	1234	865	163	29008	15755	11225	2028
Malignant neoplasm of trachea bronchus and lung	1 [0.88-1.13]	9.40E-01	0.264	622	343	230	49	48171	26083	18728	3360
Dietary surveillance and counseling	1.01 [0.77-1.32]	9.41E-01	0.265	135	73	52	10	36130	19550	14045	2535
Unspecified disorder of refraction and accommodation	1 [0.96-1.04]	9.41E-01	0.264	10051	5472	3858	721	26052	14107	10128	1817
Other disorders of menstruation and other abnormal bleeding from female genital tract:Subset(Females)	1 [0.91-1.09]	9.42E-01	0.267	1553	844	587	122	15320	8232	6012	1076
Giant cell arteritis	0.99 [0.8-1.23]	9.42E-01	0.264	215	113	91	11	40906	22182	15848	2876
Benign neoplasm of skin of upper limb	1.01 [0.83-1.22]	9.43E-01	0.265	260	130	121	9	39606	21429	15396	2781
Rheumatoid arthritis and other inflammatory polyarthropathies	1 [0.93-1.08]	9.43E-01	0.264	1814	984	707	123	29347	15883	11430	2034
Sterilization	1.01 [0.86-1.18]	9.44E-01	0.264	433	238	156	39	41569	22522	16160	2887
Organic sleep disorders	1 [0.96-1.04]	9.44E-01	0.264	8240	4449	3227	564	37218	20186	14426	2606
Other and unspecified arthropathies	1 [0.94-1.06]	9.46E-01	0.263	3109	1705	1187	217	28431	15427	11047	1957
Other diseases of lung	1 [0.94-1.06]	9.46E-01	0.264	3190	1727	1231	232	40414	21868	15723	2823
Cocaine Abuse	1.01 [0.72-1.41]	9.46E-01	0.263	88	49	31	8	35405	19206	13746	2453
Unspecific abnormal findings in other body substances	1 [0.92-1.09]	9.46E-01	0.266	1572	840	630	102	22762	12232	8947	1583
Alcohol dependence syndrome	1 [0.89-1.12]	9.46E-01	0.263	791	431	305	55	35231	19115	13676	2440
Esophagitis	1 [0.95-1.05]	9.46E-01	0.264	4547	2465	1762	320	37449	20274	14555	2620
Other and unspecified disorders of back	1 [0.97-1.03]	9.46E-01	0.265	19307	10445	7487	1375	20822	11220	8147	1455
Other And Unspecified Injury To Face And Neck	0.99 [0.85-1.17]	9.46E-01	0.264	382	206	151	25	45952	24883	17850	3219
Nephritis And Nephropathy	1.01 [0.85-1.19]	9.47E-01	0.264	361	200	131	30	42533	23042	16502	2989
Stricture and stenosis of esophagus	1.01 [0.88-1.15]	9.48E-01	0.264	528	285	205	38	39113	21190	15206	2717
Traumatic pneumothorax without mention of open wound into thorax	0.99 [0.7-1.4]	9.48E-01	0.264	84	45	34	5	48614	26338	18881	3395
Unspecific abnormal results of function study of thyroid	1 [0.9-1.11]	9.49E-01	0.266	962	517	378	67	23535	12640	9264	1631
Xyrexia Of Unknown Origin	1 [0.93-1.07]	9.49E-01	0.259	2597	1422	995	180	9799	5382	3760	657
Lumbago	1 [0.96-1.04]	9.49E-01	0.265	9243	5008	3579	656	28244	15252	11032	1960
Aggranulocytosis	1 [0.88-1.15]	9.49E-01	0.266	558	294	231	33	36038	19407	14068	2563
Other And Unspecified Affective Psychoses	1 [0.9-1.12]	9.50E-01	0.264	850	469	312	69	43528	23561	16937	3030
Fracture Of Unspecified Part Of Tibia And Fibula	1.01 [0.86-1.17]	9.50E-01	0.264	413	219	169	25	45886	24837	17871	3178
Thyroiditis	0.99 [0.77-1.28]	9.51E-01	0.265	151	80	63	8	42585	23007	16598	2980
Malignant neoplasm of upper-outer quadrant of female breast:Subset(Females)	0.99 [0.82-1.2]	9.51E-01	0.264	283	153	112	18	26212	14241	10127	1844
Other diseases of endocardium	1 [0.95-1.05]	9.53E-01	0.264	5000	2694	1954	352	34737	18791	13531	2415
Unspecified site injury	1.01 [0.73-1.4]	9.53E-01	0.265	92	50	35	7	46785	25316	18187	3282
Malignant neoplasm of female breast:Subset(Females)	1 [0.91-1.09]	9.54E-01	0.263	1340	733	512	95	26088	14170	10084	1834
Monoclonal paraproteinemia	1 [0.86-1.16]	9.54E-01	0.262	452	243	181	28	29245	15938	11270	2037
Malignant neoplasm of rectum	1.01 [0.77-1.31]	9.55E-01	0.264	143	80	50	13	47896	25932	18612	3352
Family History Of Malignant Neoplasm Of Genital Organs	1 [0.87-1.14]	9.56E-01	0.264	587	324	219	44	29574	16059	11439	2076
Fracture of ankle	1 [0.9-1.12]	9.56E-01	0.264	782	432	286	64	45654	24712	17780	3162
Abnormality of gait	1 [0.93-1.08]	9.57E-01	0.259	2720	1508	1019	193	9988	5483	3836	669
Other Diseases Of Larynx	1 [0.84-1.18]	9.58E-01	0.264	362	199	135	28	38983	21098	15158	2727
And Lung	1.01 [0.74-1.37]	9.58E-01	0.264	104	54	44	6	29716	16126	11510	2080
Fracture of face bones	1 [0.87-1.16]	9.59E-01	0.264	488	260	198	30	48108	26053	18692	3363
Dermatophytosis	1 [0.96-1.05]	9.60E-01	0.264	5313	2898	2019	396	35093	19007	13634	2452
Anomalies Of Spine	1 [0.9-1.11]	9.60E-01	0.264	899	482	359	58	42983	23301	16680	3002
Other unspecified back disorders	1.01 [0.8-1.26]	9.60E-01	0.265	198	116	59	23	33853	18305	13177	2371
Disorders of refraction and accommodation	1 [0.96-1.04]	9.62E-01	0.264	10736	5829	4141	766	25841	13994	10045	1802
Other Diseases Of Pharynx	1.01 [0.74-1.37]	9.62E-01	0.264	106	56	44	6	39011	21124	15154	2733
Unspecified abortion:Subset(Females)	1.01 [0.69-1.48]	9.63E-01	0.264	69	35	31	3	28135	15258	10885	1992
Acute appendicitis without mention of peritonitis	1.01 [0.82-1.24]	9.63E-01	0.264	230	125	88	17	48508	26271	18845	3392
Unspecified disorder of biliary tract	1.01 [0.82-1.22]	9.63E-01	0.266	255	142	90	23	36438	19623	14264	2551
Examination of eyes and vision	1 [0.9-1.1]	9.64E-01	0.265	1197	638	480	79	12795	6907	4991	897
Postconcussion syndrome	1 [0.83-1.21]	9.64E-01	0.263	285	155	110	20	35265	19130	13690	2445
Other problems associated with amniotic cavity and membranes:Subset(Females)	0.99 [0.77-1.29]	9.65E-01	0.265	147	78	58	11	25854	14019	9981	1854
Second-Degree Perineal Laceration During Delivery:Subset(Females)	1.01 [0.74-1.37]	9.65E-01	0.265	104	54	44	6	27460	14896	10602	1962
Other Internal Derangement Of Knee	1.01 [0.57-1.79]	9.66E-01	0.264	30	16	12	2	29485	15958	11480	2047
Other And Unspecified Alcohol Dependence	1 [0.89-1.13]	9.66E-01	0.263	768	418	295	55	35247	19122	13682	2443
Retention Of Urine	1 [0.92-1.08]	9.67E-01	0.258	2370	1303	918	149	9963	5476	3820	667
Mononeuritis of upper limb and mononeuritis multiplex	1 [0.95-1.05]	9.67E-01	0.263	5190	2825	2007	358	36323	19688	14116	2519
Other Specified Complications Of Pregnancy:Subset(Females)	1 [0.87-1.15]	9.69E-01	0.264	615	323	249	43	25278	13718	9764	1796
Oral aphthae	1 [0.84-1.2]	9.69E-01	0.265	303	162	121	20	41799	22626	16228	2945
Meningitis	1.01 [0.73-1.4]	9.69E-01	0.264	92	50	35	7	45691	24739	17749	3203
Unspecific Abnormal Papanicolaou Smear Of Cervix:Subset(Females)	1 [0.9-1.11]	9.70E-01	0.265	1035	557	406	72	13504	7281	5276	947
Symptoms involving nervous and musculoskeletal systems	1 [0.94-1.07]	9.70E-01	0.259	4312	2382	1630	300	9817	5390	3767	660
Other Specified Cardiac Dysrhythmias	1 [0.94-1.07]	9.70E-01	0.265	2753	1473	1091	189	33627	18186	13101	2340
Finger injury	1 [0.81-1.22]	9.70E-01	0.265	236	128	91	17	46201	24988	17977	3236
Other and ill-defined cerebrovascular disease	1 [0.93-1.07]	9.71E-01	0.264	2185	1168	863	154	41379	22409	16078	2892
Malnutrition of mild degree	0.99 [0.66-1.49]	9.71E-01	0.264	61	33	24	4	46000	24887	17920	3193
Diseases of mitral valve	1 [0.81-1.24]	9.73E-01	0.264	218	120	80	18	47876	25934	18609	3333
Need For Prophylactic Vaccination And Inoculation Against	1 [0.97-1.03]	9.74E-01	0.264	24529	13281	9537	1711	16924	9172	6589	1163
Drug induced headache	1 [0.79-1.27]	9.74E-01	0.264	175	94	69	12	48391	26210	18807	3374

HSD17B13 and liver disease

Need for prophylactic vaccination and inoculation against viral hepatitis	1 [0.92-1.08]	9.75E-01	0.263	1728	928	688	112	33350	18098	12949	2303
Without Mention Of Abscess:Subset(Males)	1 [0.85-1.18]	9.76E-01	0.264	392	208	160	24	10907	5883	4297	727
Attention Deficit Disorder Of Childhood	1 [0.88-1.13]	9.77E-01	0.263	728	399	275	54	35341	19180	13714	2447
Need for prophylactic vaccination and inoculation against certain viral diseases	1 [0.97-1.03]	9.77E-01	0.264	24568	13293	9560	1715	16910	9162	6585	1163
Other Acquired Deformities Of Ankle And Foot	1 [0.87-1.16]	9.78E-01	0.264	482	256	197	29	39200	21224	15264	2712
Ulcerative enterocolitis	1 [0.88-1.14]	9.78E-01	0.264	608	329	238	41	46683	25279	18127	3277
Endometriosis	1 [0.85-1.17]	9.79E-01	0.266	412	226	151	35	15646	8408	6150	1088
Neurosyphilis	0.99 [0.68-1.46]	9.79E-01	0.264	67	36	27	4	48765	26402	18952	3411
Injury to heart and lung	1.01 [0.65-1.56]	9.80E-01	0.264	51	28	19	4	48571	26317	18865	3389
Diaphragmatic hernia without mention of obstruction or gangrene	1 [0.94-1.06]	9.80E-01	0.264	2932	1574	1158	200	40219	21786	15605	2828
Ascitis	0.99 [0.63-1.57]	9.80E-01	0.265	48	26	19	3	29778	16070	11646	2062
Stress incontinence	1 [0.93-1.08]	9.81E-01	0.266	2135	1171	791	173	15093	8106	5932	1055
Closed fracture of dorsal [thoracic] vertebra without mention of spinal cord injury	1 [0.84-1.2]	9.82E-01	0.264	305	162	124	19	46989	25458	18236	3295
Chronic pharyngitis and nasopharyngitis	1 [0.95-1.06]	9.84E-01	0.264	3745	2016	1479	250	37296	20198	14508	2590
Melanoma of skin	1 [0.78-1.28]	9.85E-01	0.264	163	88	64	11	44375	24053	17229	3093
Anomalies of skull and face bones	1.01 [0.47-2.16]	9.85E-01	0.264	17	10	5	2	43452	23540	16873	3039
Other congenital anomalies of nervous system	1 [0.78-1.28]	9.86E-01	0.264	158	85	63	10	43316	23466	16824	3026
Screening for iron deficiency anemia	1 [0.84-1.2]	9.86E-01	0.265	308	168	117	23	12988	7016	5065	907
Other Ill-Defined Conditions	1 [0.83-1.21]	9.87E-01	0.264	281	147	120	14	45671	24769	17721	3181
Disease of capillaries	1 [0.85-1.18]	9.88E-01	0.264	390	211	154	25	40078	21731	15541	2806
Unspecified disorder of kidney and ureter	1 [0.93-1.08]	9.89E-01	0.265	1996	1087	761	148	34424	18625	13380	2419
Personal History Of Other Genital System And Obstetric	1 [0.77-1.3]	9.90E-01	0.264	146	77	60	9	29584	16053	11457	2074
Fall On Level-Tripping	1 [0.86-1.16]	9.91E-01	0.264	460	253	171	36	44599	24159	17342	3098
Other disorders of male genital organs:Subset(Males)	1 [0.88-1.14]	9.91E-01	0.263	673	360	270	43	10728	5798	4213	717
Examination of participant in clinical trial	1 [0.89-1.13]	9.93E-01	0.264	44548	24126	17300	3122	700	372	282	46
Viral pneumonia	1 [0.75-1.33]	9.95E-01	0.264	124	66	50	8	43406	23467	16925	3014
Anal and rectal polyp	1 [0.78-1.29]	9.95E-01	0.266	157	85	60	12	32697	17645	12731	2321
Acute cystitis	1 [0.95-1.06]	9.96E-01	0.265	3794	2038	1491	265	32908	17779	12806	2323
Pruritus and related conditions	1 [0.93-1.08]	9.96E-01	0.265	1709	929	653	127	38167	20586	14900	2681
Diverticulum of esophagus	1 [0.63-1.58]	9.97E-01	0.264	47	28	13	6	39392	21334	15318	2740
Growing nail	1 [0.93-1.08]	9.97E-01	0.264	1791	973	687	131	29532	16016	11462	2054
Acute appendicitis	1 [0.82-1.21]	9.98E-01	0.264	269	146	104	19	48460	26249	18827	3384
Open wound of finger(s)	1 [0.87-1.15]	9.98E-01	0.264	541	291	213	37	45859	24853	17816	3190
Foreign body in ear	1 [0.59-1.69]	9.98E-01	0.264	36	20	13	3	48387	26212	18801	3374
Hyperkinetic syndrome of childhood	1 [0.89-1.13]	9.98E-01	0.263	729	399	276	54	35332	19176	13709	2447
Diseases of pulp and periapical tissues	1 [0.91-1.1]	1.00E+00	0.265	1244	673	482	89	41199	22294	15998	2907

Gray shading indicates P-values meeting the Bonferroni significance threshold of $P < 1.58E-05$.

Abbreviations: AAF, alternate allele frequency; SE, standard error.

Table S9. Evaluation of Putative HSD17B13 Substrates

Compound Name	HSD17B13 Enzymatic Activity	
	Relative Light Units	Percent Estradiol Control
(±)10-HDHA	801680	38.28
(±)11-HDHA	1259280	72.31
(±)11-HEDE	1334080	77.87
(±)11-HEPE	791920	37.56
(±)11-HETE	767720	35.76
(±)11(12)-DiHET	599000	20.69
(±)11(12)-EET	306600	1.47
(±)12-HEPE	761600	35.30
(±)12-HETE	1324640	77.17
(±)12-HpETE	165800	-9.27
(±)12(13)-EpOME	358360	2.52
(±)13-HDHA	1154720	64.54
(±)13-HODE	954080	49.62
(±)14(15)-DiHET	403560	5.93
(±)14(15)-DiHETE	356480	2.37
(±)14(15)-EET	305720	1.41
(±)14(15)-EpETE	306600	1.86
(±)15-HEDE	1430720	85.06
(±)15-HEPE	578600	21.70
(±)15-HETE	47880	30.81
(±)16(17)-EpDPA	274120	-0.71
(±)17-HDHA	492440	15.29
(±)17(18)-DiHETE	369120	3.33
(±)17(18)-EpETE	316240	2.19
(±)19(20)-DiHDPA	827600	37.95
(±)19(20)-EpDPA	300600	1.38
(±)20-HDHA	1400640	82.82
(±)4(5)-EpDPA methyl ester	338320	1.00
(±)5-HEPE	344480	4.85
(±)5-HETE	431960	10.79
(±)5-HETE lactone	348120	4.56
(±)5-HETE methyl ester	337600	3.78
(±)5(6)-DiHET	353120	4.93
(±)5(6)-DiHET lactone	411120	6.50
(±)5(6)-EET	360960	5.51
(±)5(6)-EET Ethanolamide	450160	9.45
(±)7-HDHA	361320	5.54
(±)8-HDHA	773120	36.16
(±)8-HEPE	472800	13.83
(±)8-HETE	592720	22.75
(±)8(9)-DiHET	472120	11.11
(±)9-HEPE	699960	30.72
(±)9-HETE	1110120	61.22
(±)9-HODE	695320	30.38
(±)9(10)-DiHOME	391000	4.98
(±)9(10)-EpOME	354560	2.23
10-Nitrooleate	28200	-22.42
11-dehydro Thromboxane B2	349160	5.22
11-dehydro Thromboxane B2-d4	366280	3.11
11-dehydro Thromboxane B3	322480	3.11
11-dehydro-2,3-dinor Thromboxane B2	183120	-7.90
11(12)-EET Ethanolamide	440800	8.74
11(R)-HEDE	1674200	103.16
11(R)-HEPE	940920	48.64

11(R)-HETE	1064120	57.80
11(S)-HEDE	1056440	57.23
11(S)-HEPE	1525600	92.11
11(S)-HETE	696400	30.46
11 β -13,14-dihydro-15-keto Prostaglandin F2 α	310000	2.13
11 β -Misoprostol	331200	3.80
11 β -Prostaglandin E2	354840	5.67
12-epi Leukotriene B3	481880	15.71
12-epi Leukotriene B4	389240	8.39
12(R)-HETE	1932320	122.36
12(S)-HpETE	199760	-6.47
13-epi-12-oxo Phytodienoic Acid	320640	2.97
13,14-dehydro-15-cyclohexyl Carbaprostacyclin	356360	5.79
13,14-dihydro-19(R)-hydroxy Prostaglandin E1	337040	4.26
13(R)-HODE	1105960	60.91
13(S)-HODE	792800	37.62
13(S)-HOTrE	528240	17.95
13(S)-HOTrE(γ)	458840	12.79
13(S)-HpODE	183040	-7.72
13(S)-HpOTrE	35320	-18.70
13(S)-HpOTrE(γ)	268840	-1.34
14(15)-EET Ethanolamide	428760	7.83
15-deoxy- Δ 12,14-Prostaglandin J2-biotin	252400	-2.43
15-OxoEDE	261480	-1.88
15-OxoETE	616120	-8.98
15(R)-HEDE	1862960	117.20
15(R)-HETE	701120	61.00
15(R),19(R)-hydroxy Prostaglandin E1	333200	3.96
15(R),19(R)-hydroxy Prostaglandin E2	346000	4.97
15(R),19(R)-hydroxy Prostaglandin F2 α	382720	7.88
15(S)-Fluprostenol isopropyl ester	410960	10.11
15(S)-HEDE	1060680	57.54
15(S)-HEPE	505240	16.24
15(S)-HETE	1107240	24.49
15(S)-HETE Ethanolamide	535680	19.97
15(S)-HETrE	638320	26.14
15(S)-HpEDE	232720	-4.02
15(S)-HpEPE	316200	2.18
16,16-dimethyl Prostaglandin E2 p-(p-acetamidobenzamido) phenyl ester	322280	3.10
17-trans Prostaglandin F3 α	371720	7.01
19(R)-hydroxy Prostaglandin A2	323320	3.18
19(R)-hydroxy Prostaglandin E1	333160	3.96
19(R)-hydroxy Prostaglandin E2	347280	5.07
19(R)-hydroxy Prostaglandin F1 α	207560	-5.97
19(R)-hydroxy Prostaglandin F2 α	371400	6.98
2,3-dinor Prostaglandin E1	344240	4.83
2,3-dinor Thromboxane B1	364840	3.01
2,3-dinor-11 β -Prostaglandin F2 α	265000	-1.43
2,3-dinor-6-keto Prostaglandin F1 α (sodium salt)	341800	4.64
2,3-dinor-8-iso Prostaglandin F2 α	230040	-4.19
20-carboxy Arachidonic Acid	293760	-2.36
20-carboxy Leukotriene B4	400440	9.28
20-HETE	332640	0.57
20-HETE Ethanolamide	879760	41.89
20-hydroxy Leukotriene B4	654120	29.33
20-hydroxy Prostaglandin E2	348240	5.15
20-hydroxy Prostaglandin F2 α	378680	7.56
5-iPF2 α -VI	293200	0.80

5-OxoETE	261280	-1.90
5-trans Fluprostenol isopropyl ester	551400	21.21
5,6-dehydro Arachidonic Acid	210160	-8.68
5(6)-EpETE methyl ester	337400	0.93
5(S)-HEPE	429120	10.58
5(S)-HETE	430800	10.71
5(S)-HETE lactone	288400	0.12
5(S)-HpETE	225600	-4.55
5(S),15(S)-DiHETE	486600	14.86
5(S),6(R)-DiHETE	166040	1.66
5(S),6(S)-DiHETE	309080	4.07
6-trans Leukotriene B4	1209480	68.61
6,15-diketo-13,14-dihydro Prostaglandin F1 α	262680	-1.61
6(S)-Lipoxin A4	383000	7.90
8-iso Prostaglandin F3 α	361040	6.16
8-iso-13,14-dihydro-15-keto Prostaglandin F2 α	212520	-5.58
8-iso-15-keto Prostaglandin E2	262160	-1.65
8-iso-15-keto Prostaglandin F2 α	312360	2.31
8(9)-EET Ethanolamide	446000	9.14
8(S)-HETRe	412960	9.38
8(S),15(S)-DiHETE	410440	9.19
9-Nitrooleate	31600	-22.16
9-OxoODE	359280	5.39
9(R)-HETE	1656640	101.86
9(R)-HODE	413280	9.40
9(S)-HEPE	564200	20.63
9(S)-HETE	497640	15.68
9(S)-HODE	539560	18.79
9(S)-HOTRe	586800	22.31
9(S)-HpODE	219240	-5.03
Calcitriol	336640	0.88
Carbaprostacyclin	380280	7.68
Carbocyclic Thromboxane A2	309000	2.05
Cholesteryl Linoleate Hydroperoxides	256120	-2.28
Ciprostene (calcium salt)	360560	6.12
D-myo-Inositol-1,2,3,4-tetraphosphate (sodium salt)	447960	9.28
D-myo-Inositol-1,2,3,5-tetraphosphate (sodium salt)	430640	7.98
D-myo-Inositol-1,2,3,6-tetraphosphate (sodium salt)	424280	7.49
D-myo-Inositol-1,2,4,5-tetraphosphate (sodium salt)	403880	5.95
D-myo-Inositol-1,2,4,5,6-pentaphosphate (sodium salt)	398080	5.52
D-myo-Inositol-1,3-diphosphate (sodium salt)	487280	12.25
D-myo-Inositol-1,3,4,5-tetraphosphate (sodium salt)	358920	2.56
D-myo-Inositol-1,4-diphosphate (sodium salt)	439280	8.63
D-myo-Inositol-1,4,5-triphosphate (potassium salt)	358400	2.52
D-myo-Inositol-1,5-diphosphate (sodium salt)	443840	8.97
D-myo-Inositol-2,3,4,5-tetraphosphate (ammonium salt)	372320	3.57
D-myo-Inositol-2,4-diphosphate (sodium salt)	306720	-1.38
D-myo-Inositol-3,4,5-triphosphate (sodium salt)	400520	5.70
D-myo-Inositol-4-phosphate (ammonium salt)	408880	6.33
D-myo-Inositol-4,5-diphosphate (sodium salt)	281680	-3.27
Fluprostenol isopropyl ester	467040	14.54
HPF	273840	-0.73
Hyperforin	23920	-22.74
I-BOP	358960	6.00
I-SAP	245520	-2.97
Iloprost	358880	5.99
Lactacystin	328520	0.26
Leukotriene A3 methyl ester	990560	55.92

Leukotriene A4 methyl ester	463120	14.23
Leukotriene B3	2077280	141.82
Leukotriene B4	1743000	115.40
Leukotriene B4 dimethyl amide	1910040	128.60
Leukotriene B4 Ethanolamide	1948920	131.68
Leukotriene F4	400400	9.27
Lipoxin A4	352680	2.09
MK-571	281520	-0.12
PGPC	371440	6.98
Prostaglandin A1-biotin	309320	2.07
Prostaglandin A3	227000	-4.43
Prostaglandin D2-biotin	367880	3.24
Prostaglandin D3	298960	1.25
Prostaglandin E2 p-benzamidophenyl ester	404280	9.58
Prostaglandin E2-biotin	389960	4.90
Prostaglandin E3	379960	7.66
Prostaglandin F2 α -biotin	340200	1.14
Prostaglandin F3 α	385360	8.08
Prostaglandin H1	145840	-10.85
Prostaglandin H2	166640	-9.20
Prostaglandin I3 (sodium salt)	333560	3.99
Prostaglandin K1	223160	-4.74
Prostaglandin K2	155600	-10.08
PtdIns-(3,4,5)-P3 (1,2-dipalmitoyl) (sodium salt)	334600	0.72
PtdIns-(3,4)-P2 (1,2-dipalmitoyl) (sodium salt)	351680	2.01
PtdIns-(3)-P1 (1,2-diocanoyl) (sodium salt)	319680	-0.40
PtdIns-(3)-P1 (1,2-dipalmitoyl) (ammonium salt)	15520	-23.38
PtdIns-(4,5)-P2 (1,2-diocanoyl) (sodium salt)	348680	1.79
PtdIns-(4,5)-P2 (1,2-dipalmitoyl) (ammonium salt)	24120	-22.73
PtdIns-(4)-P1 (1,2-dipalmitoyl) (ammonium salt)	123240	-15.24
PtdIns-(5)-P1 (1,2-dipalmitoyl) (ammonium salt)	19160	-23.10
tetranor-12(R)-HETE	708640	31.37
tetranor-12(S)-HETE	379280	4.10
tetranor-PGDM-d6	375520	3.81
tetranor-PGEM	348440	5.17
tetranor-PGFM	367640	6.68
Thromboxane B3	348080	5.14
U-51605	278680	-0.35
U-75302	425520	7.59
Δ 12-Prostaglandin J2	343320	4.76
Δ 17-6-keto Prostaglandin F1 α	286120	0.24
Estradiol Control	1548190	100.00
DMSO	283090	0.00
Steroid Library		
Apigenin	24440	-2.38
(2a,3a,52,17b)-Androstan-17ol,2,3-epithio-17-methyl	100160	-1.06
(2b,3a,5a,16b,17b)-2-(4-morpholinyl)-16-(1-pyrrolidinyl)androsta	191960	0.55
11-oxo-androsterone	196640	0.63
11-oxo-etiocholanolone	195960	0.62
11beta-Hydroxyandrosterone	224720	1.12
16alpha-Hydroxyandrosterone	221840	1.07
18beta-Glycyrrhetic acid	32720	-2.23
2alpha, 3alpha, 5alpha, 16beta-16-(1-pyrrolidinyl)-2,3-epoxyandr	166400	0.10
2alpha, 3alpha, 5alpha, 16beta, 17beta-16-(1-pyrrolidinyl)-2,3-e	103360	-1.00
3b,5-Dihydroxy-6b,7b:15b,16b-dimethylene-5b-androstan17-one	183120	0.39
5a-androstanedione	181840	0.37
5alpha-Androsta-2,16-dien-17-yl acetate	197640	0.65
5alpha-Androstane-3,11,17-trione	228280	1.18

5alpha-androstane-3beta, 17beta-diol	398600	4.16
5alpha-dihydrocortisol	139720	-0.36
5alpha-Tetrahydrocortisol	229040	1.20
6-ethylchenodeoxycholic acid	76200	-1.47
Aldosterone	217400	0.99
Androstanediol	488440	5.73
Androstanolone 17-benzoate	217200	0.99
Androstanolone acetate	200560	0.70
Androstenediol	1364160	21.02
Androstenedione	172400	0.21
Androsterone	158120	-0.04
Beta-estradiol	4292760	72.17
Beta-sitosterol	168880	0.14
Corticosterone	215320	0.96
Corticosterone 21-acetate	190160	0.52
cortisol	40080	-2.10
cortisone	204080	0.76
Cortisone 21-acetate	200240	0.69
Dehydroepiandrosterone	196240	0.62
DHT	1886360	30.14
Dromostanolone propionate	212040	0.90
Epiandrosterone	185800	0.44
Epiandrosterone acetate	210960	0.88
Equilin	186840	0.46
Estradiol	5070800	85.76
Estrone	186200	0.45
Formestane	196520	0.63
Glycyrrhizic acid	163600	0.05
Honokiol	52920	-1.88
Oleic Acid	17520	-2.50
Oxymetholone	92000	-1.20
Prednisone	196720	0.63
Pregnanetriol	163920	0.06
Progesterone	175680	0.26
Rostafuroxin	187520	0.47
Spironolactone	184280	0.41
Stanozol	140840	-0.35
Superdrol	105920	-0.95
Testosterone	1125600	16.86
TetrahydroCortisone	232320	1.25
Trilostane	1896560	30.32
Estradiol Control	5885860	100.00
DMSO	160593	0.00

Supplementary Figures

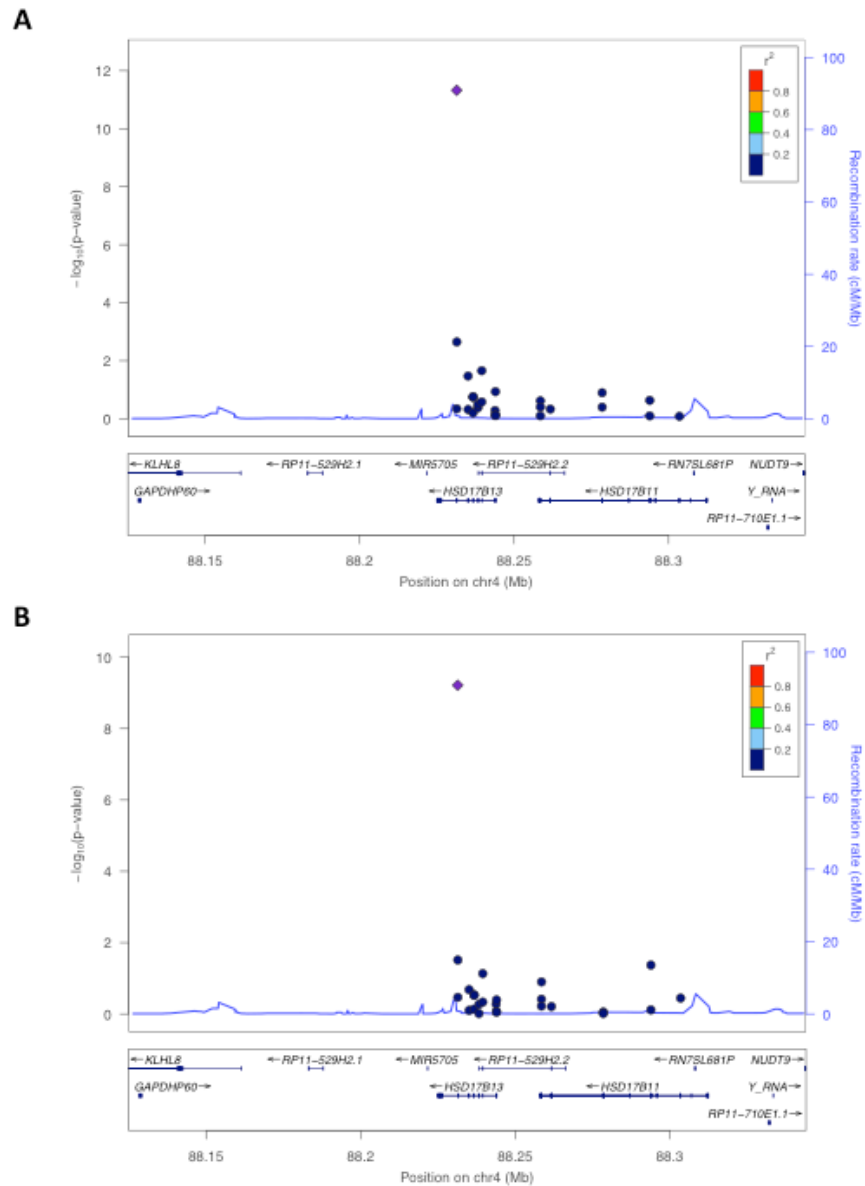


Figure S1. Regional Association Plots for Alanine Aminotransferase (ALT; A) and Aspartate Aminotransferase (AST; B) Levels in the GHS Discovery Cohort in the Region Around *HSD17B13*.

Purple diamonds indicate the splice variant rs72613567. Each circle indicates a single nucleotide variant with the color of the circle indicating the linkage disequilibrium (r^2 calculated in the DiscovEHR cohort) between that variant and rs72613567. Blue lines indicate estimated recombination rates in HapMap. The bottom panels show the relative position and the transcribed strand of each gene in the locus. There were no significant associations between ALT or AST and coding or splice region variants in the neighboring gene *HSD17B11* (most significant P-values 1.4×10^{-1} and 4.3×10^{-2} for ALT and AST, respectively).

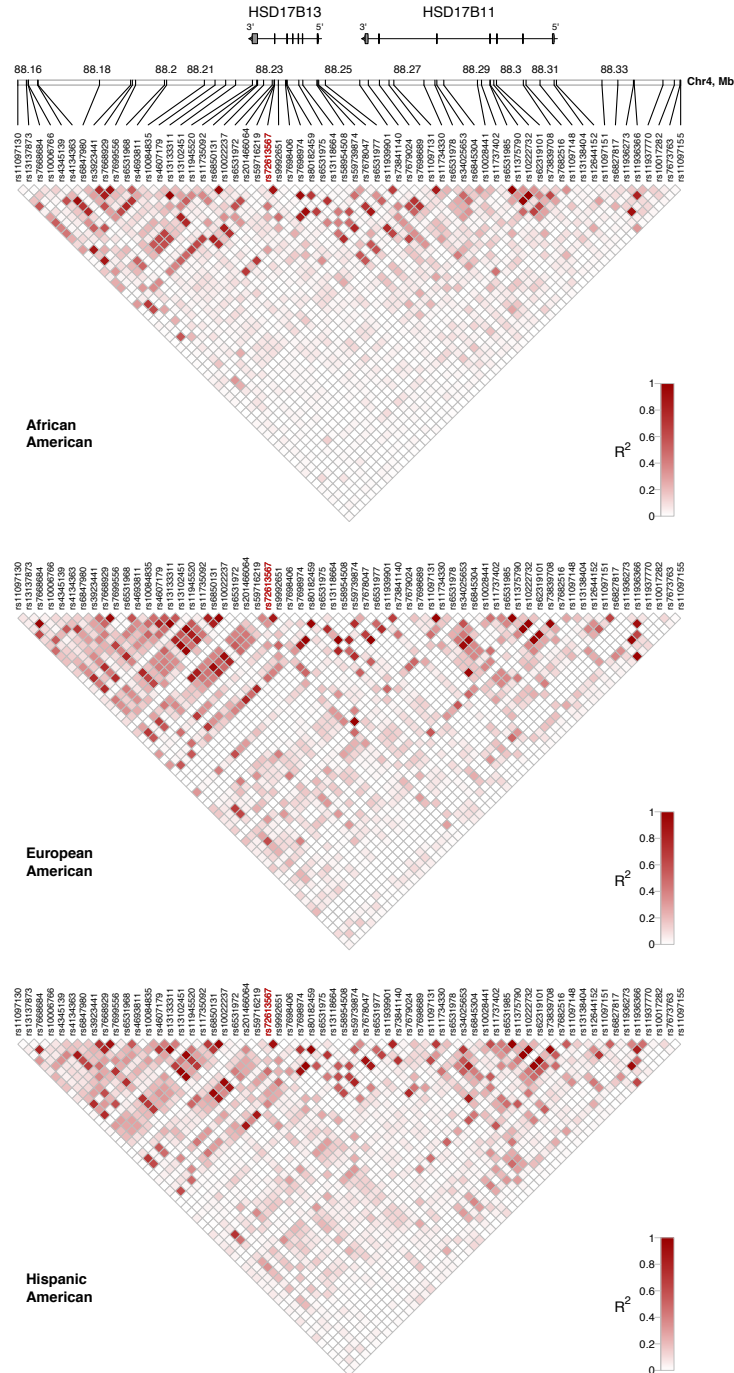


Figure S2. Haploview Plots Showing Linkage Disequilibrium Around *HSD17B13* and *HSD17B11* in the Dallas Heart Study.

The two genes fall into separate haplotype blocks in European and Hispanic Americans, the populations in which *HSD17B13* rs72613567 association signals were strongest. In particular, rs72613567 (indicated in red) is not in significant linkage disequilibrium with variants in *HSD17B11* ($r^2 < 0.4$). Red shading indicates pairwise r^2 .

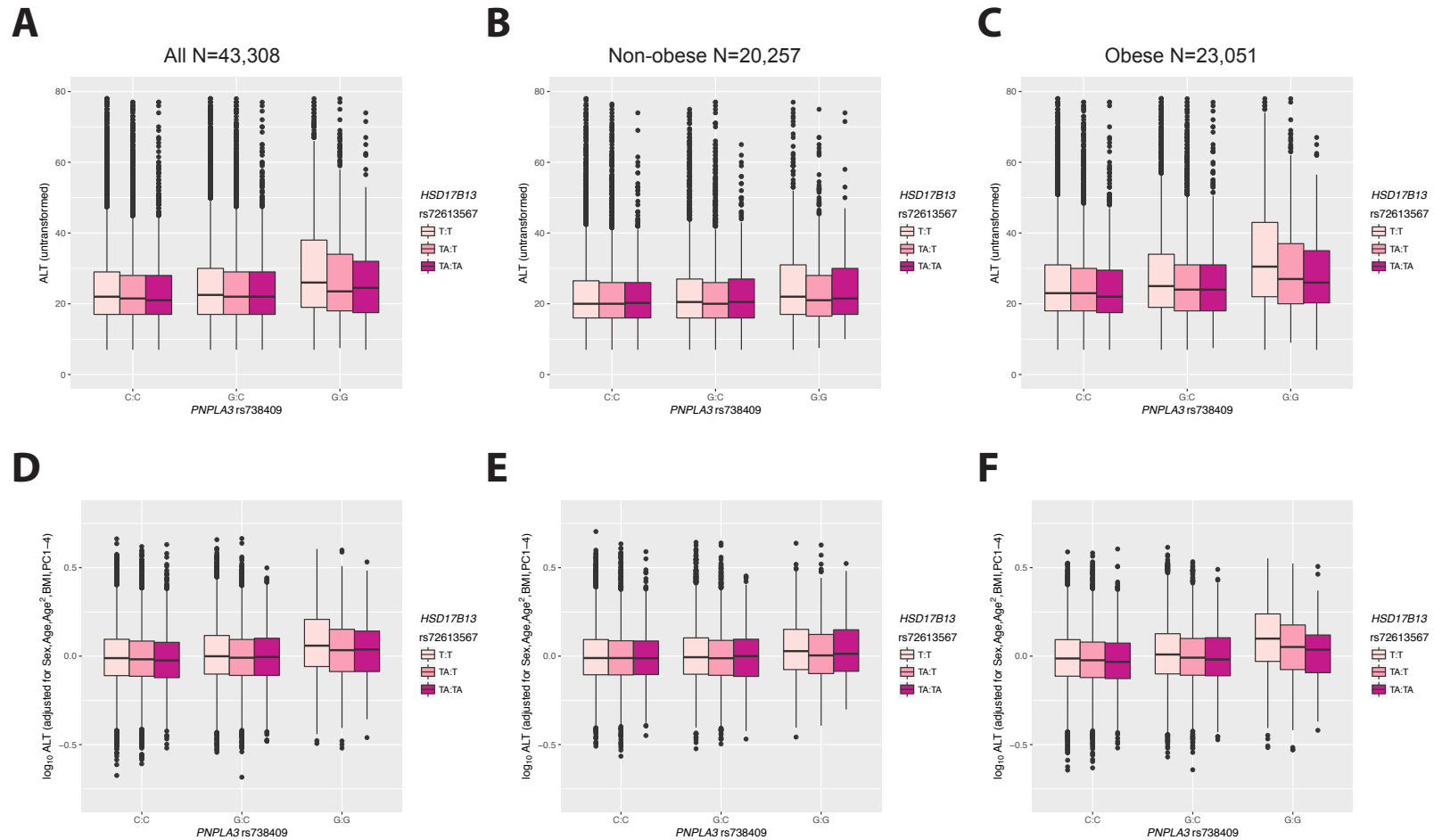


Figure S3. Raw and Residualized ALT levels by *PNPLA3* rs738409 (p.I148M) and *HSD17B13* rs72613567 Genotype.

Residuals calculated by linear regression adjusted for age, age², sex, BMI, and four principal components 1-4.

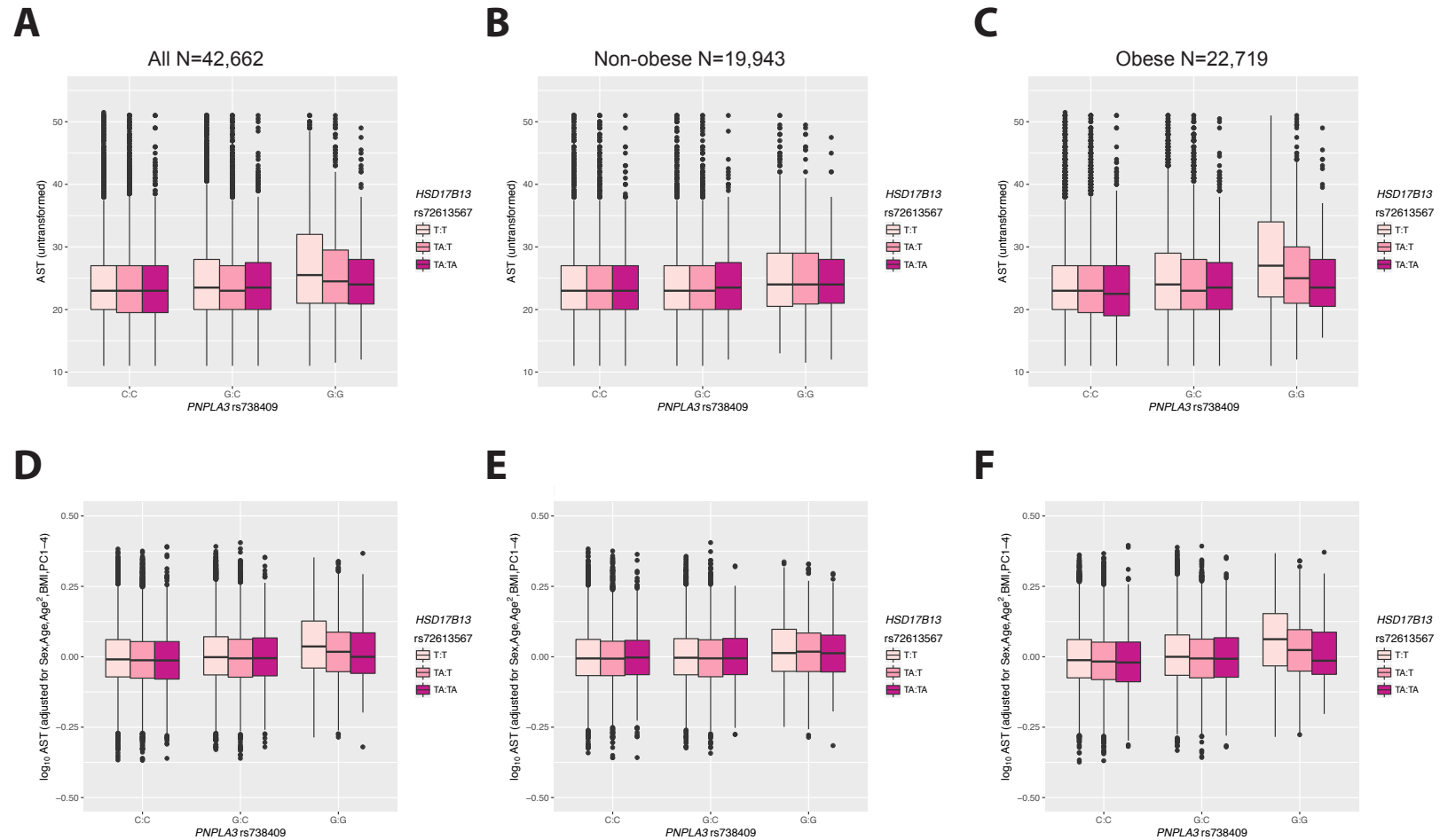


Figure S4. Raw and Residualized AST levels by *PNPLA3* rs738409 (p.I148M) and *HSD17B13* rs72613567 Genotype. Residuals calculated by linear regression adjusted for age, age², sex, BMI, and four principal components 1-4.

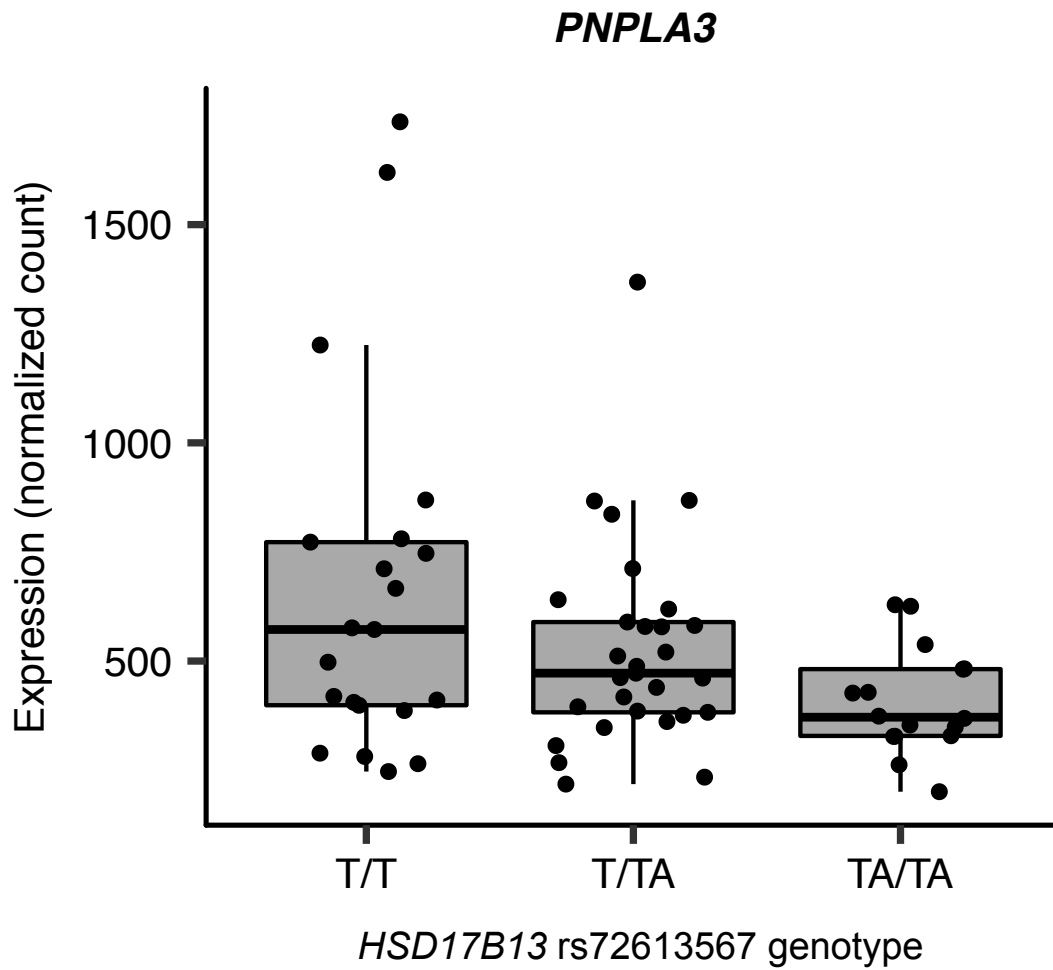


Figure S5. *PNPLA3* mRNA Expression According to *HSD17B13* rs72613567 Genotype.

mRNA expression is displayed in normalized count.

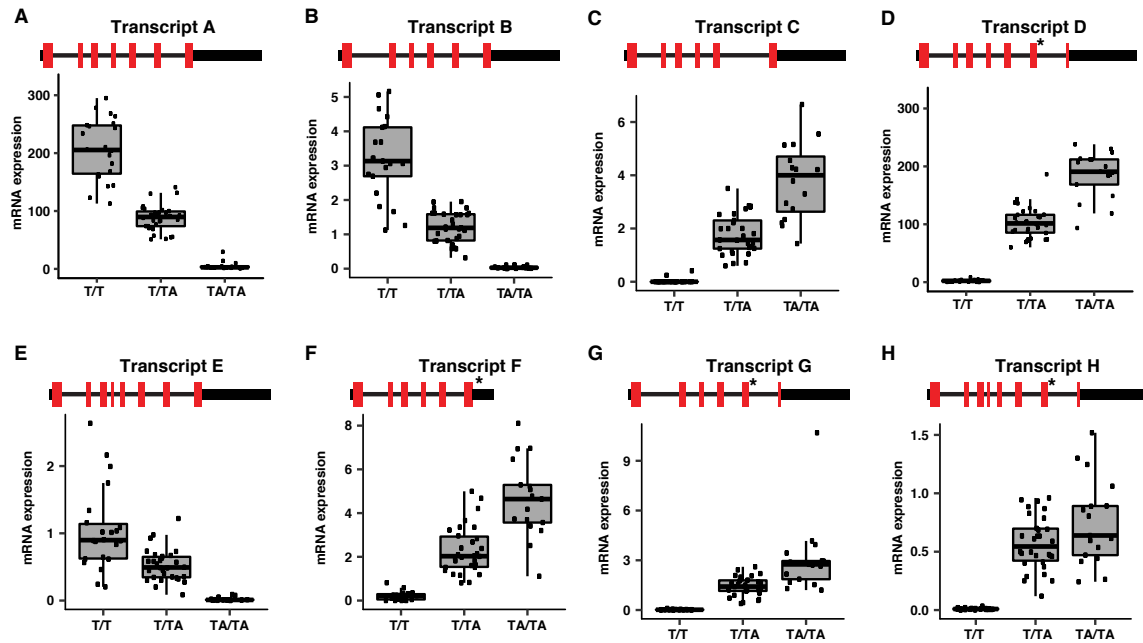


Figure S6. mRNA Expression of Eight *HSD17B13* Transcripts (A-H) in Homozygous Reference (T/T), Heterozygous (T/TA), and Homozygous Alternate (TA/TA) Allele Carriers of the *HSD17B13* Splice Variant.

Each transcript is illustrated with a corresponding gene model. Coding regions in gene models are indicated in red, untranslated regions as thick black lines, and introns as thin black lines. The asterisks indicate the A insertion from rs72613567. Transcripts are differentially expressed according to *HSD17B13* genotype, as shown in the box plots. mRNA expression is displayed in FPKM units (Fragments Per Kilobase of transcript per Million mapped reads).

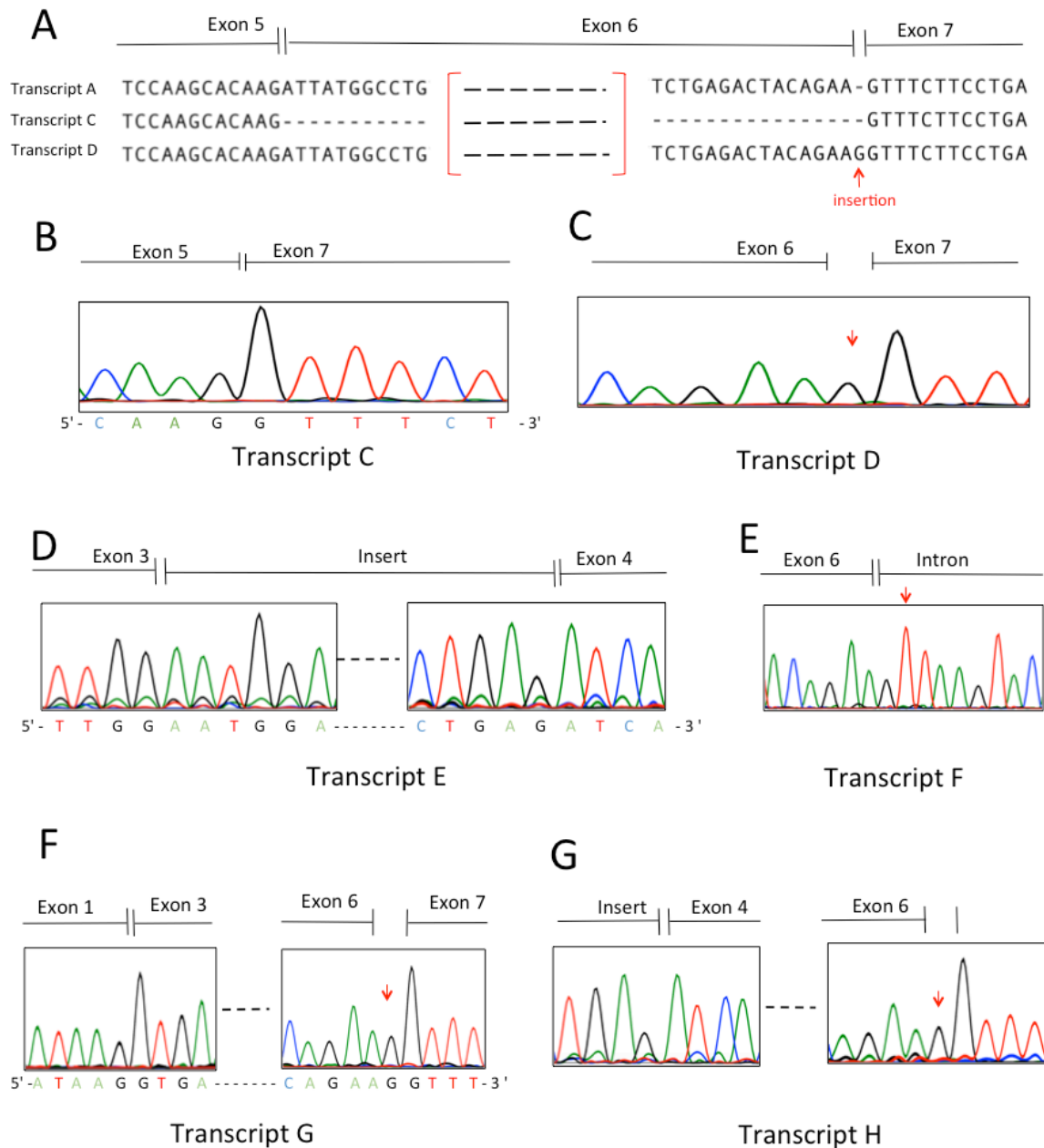


Figure S7. Verification of Novel *HSD17B13* Transcripts (C-H) by Sanger Sequencing of RT-PCR Product.

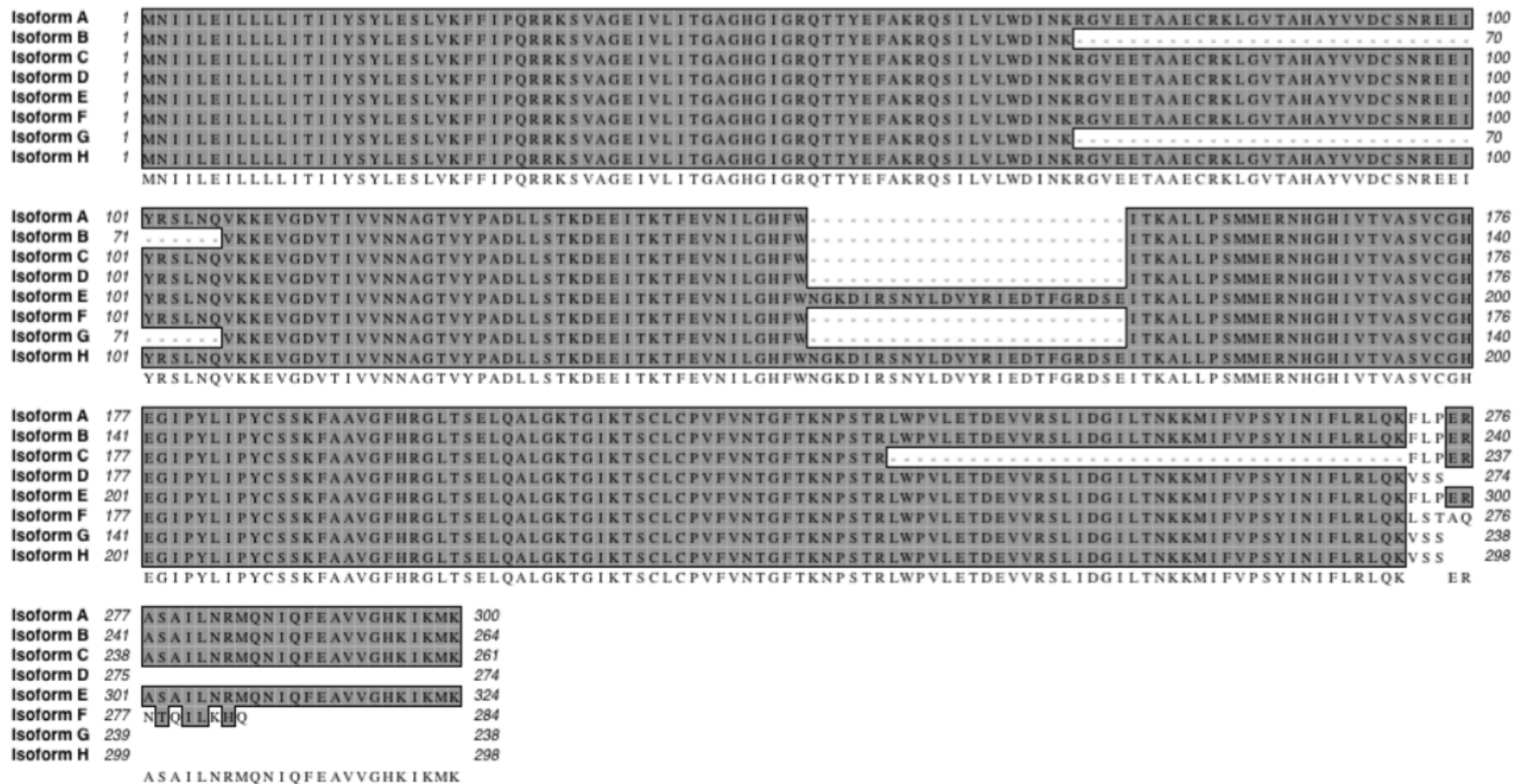


Figure S8. Protein Sequence Alignment of All Identified HSD17B13 Isoforms (A-H).

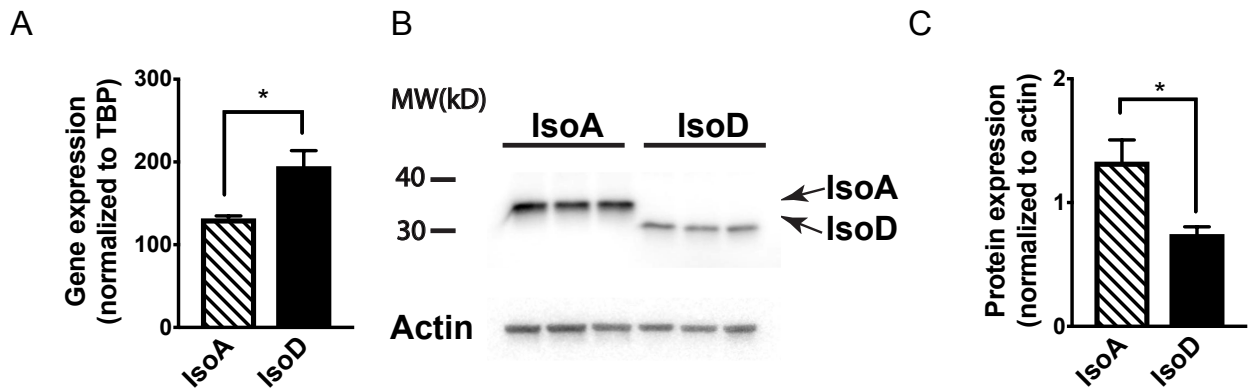


Figure S9. HSD17B13 Isoform D Protein has Lower Molecular Weight and is Unstable when Overexpressed in HEK 293 Cells.

(A) RT-PCR of *HSD17B13* from HEK 293 cells overexpressing *HSD17B13* transcripts A (IsoA) and D (IsoD) indicated that *HSD17B13* IsoD RNA level was higher than IsoA RNA level. (B) Western blot from the same cell lines indicated that *HSD17B13* transcript D was translated to a truncated protein with lower molecular weight compared to *HSD17B13* transcript A. (C) *HSD17B13* IsoD protein levels were lower than IsoA protein levels although the RNA level was higher. *HSD17B13* protein level was normalized to actin.

*P<0.05.

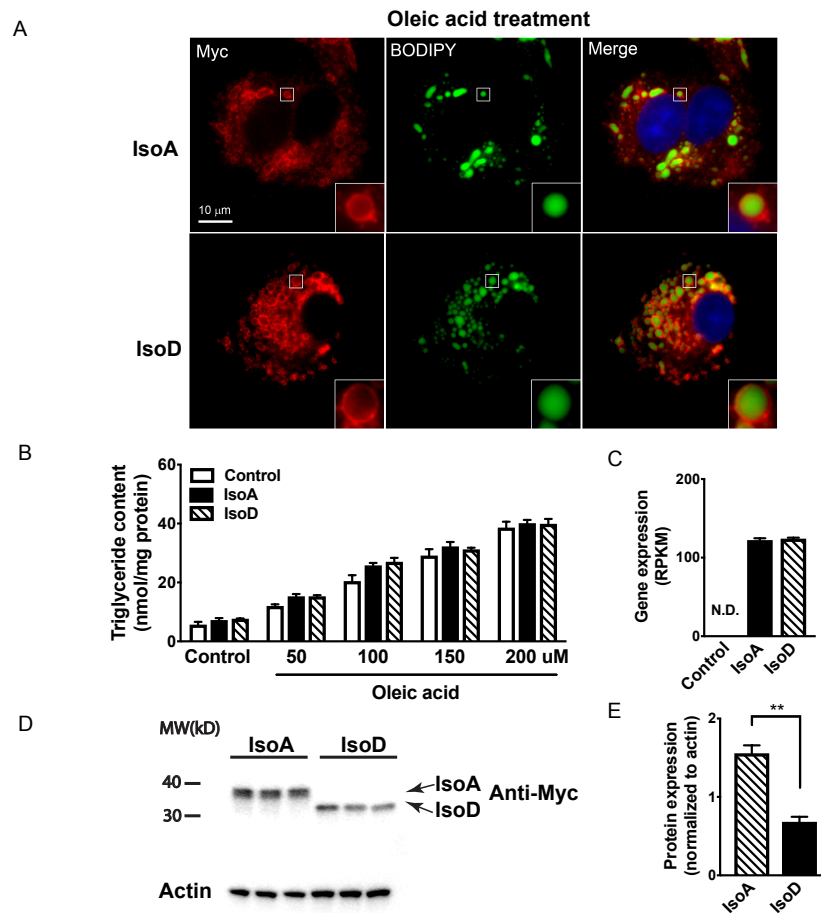


Figure S10. Oleic Acid Increased Triglyceride Content in HepG2 Cells Overexpressing *HSD17B13* Transcript A or D.

(A) Oleic acid treatment (200 μ M) increased lipid accumulation in lipid droplets in both *HSD17B13* transcript A and D expressing HepG2 cell lines to a similar degree. Cells were labeled with BODIPY to show lipid droplets and anti-Myc to show *HSD17B13* localization. Scale bar indicates 10 μ m and for all images. Insets represent 4x amplification of the original images. (B) Treatment with increasing concentrations of oleic acid increased triglyceride (TG) content to a similar extent in control (GFP overexpressing cells), *HSD17B13* transcript A and D cell lines. (C) *HSD17B13* transcripts A and D RNA levels were similar in the cell lines. RNA levels are shown reads per kilobase of transcript per million mapped reads (RPKM). (D) Western blot from HepG2 cells overexpressing *HSD17B13* transcripts A and D. *HSD17B13* transcript D was translated to a truncated protein with lower molecular weight compared to *HSD17B13* transcript A. (E) *HSD17B13* IsoD protein levels were lower than IsoA protein levels. Protein level normalized to actin.

**P<0.01

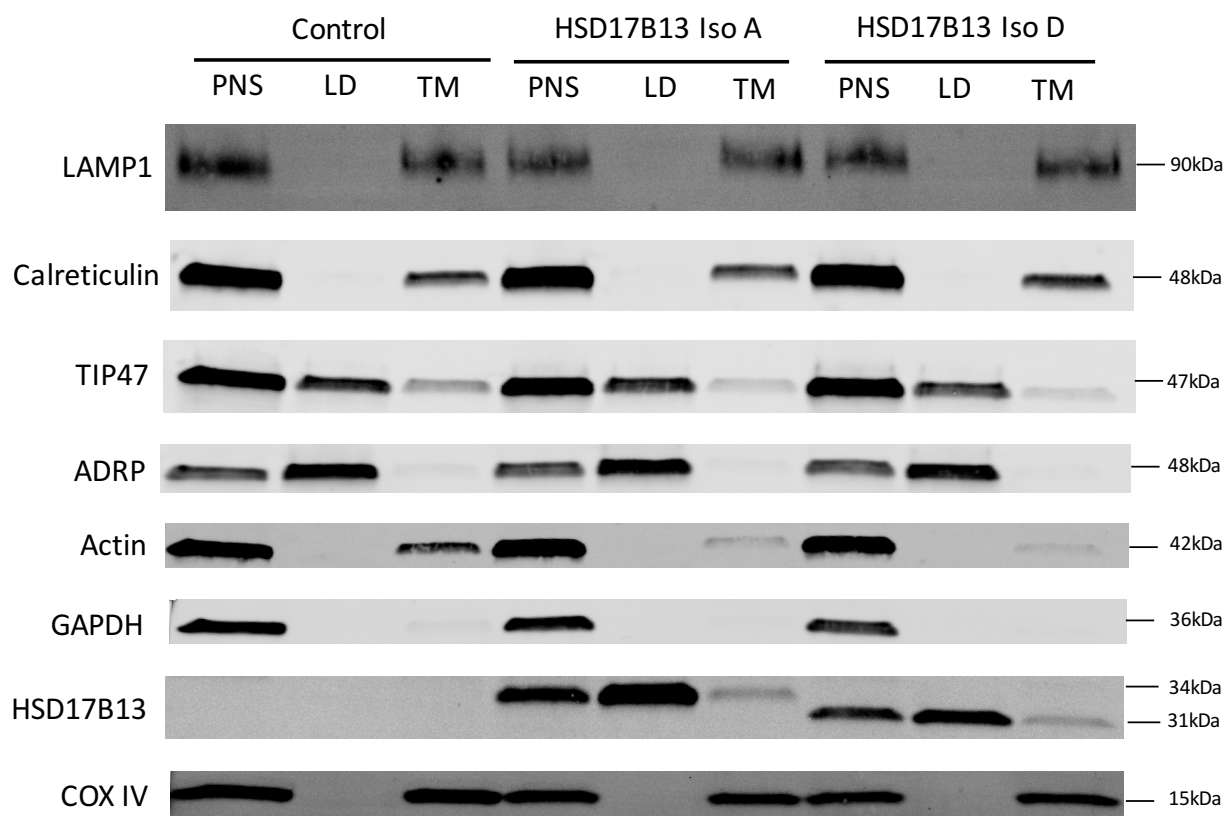


Figure S11. Similar Localization Patterns of HSD17B13 Isoform A and Isoform D to Isolated Lipid Droplets (LD) Derived from HepG2 Stable Cell Lines.

ADRP and TIP47 were used as lipid droplet markers; LAMP1, calreticulin, and COX IV were used as markers for the lysosomal, endoplasmic reticulum, and mitochondrial compartments, respectively; GAPDH was included as a cytosolic marker; and actin was used as a cytoskeletal marker. This experiment was repeated twice in HepG2 cells, with the above being representative of both runs. (PNS=Post-nuclear fraction; TM=total membrane).

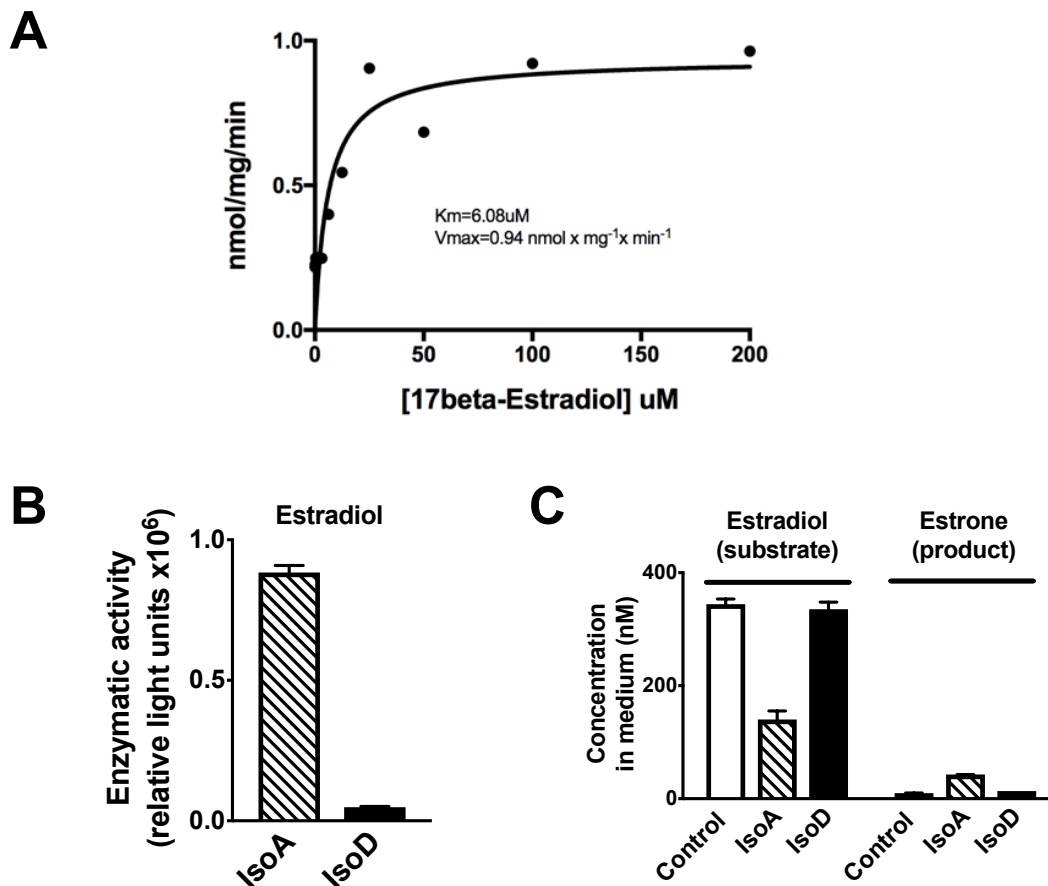


Figure S12. Enzymatic Activity of HSD17B13 Against Estradiol

(A) K_m and V_{max} Values for Estradiol Using Purified Recombinant HSD17B13 Protein. Enzymatic conversion of 17 β -estradiol by HSD17B13 results in oxidation of a hydroxyl to a ketone group. For K_m and V_{max} determinations, assays were performed with a dose range of 17 β -estradiol between 0.2 μM to 200 μM and time points from 5 min to 180 min, with 500 μM NAD $^+$ and 228 nM HSD17B13. V_{max} and K_m were then determined using the Michaelis-Menten model and Prism software (GraphPad Software, USA). (B) Enzymatic activity of recombinant human HSD17B13 isoforms A and D purified from *E. coli* to 17-beta estradiol (estradiol). Enzymatic activity was determined through luciferase-based measurement of NADH production using the NAD(P)H-Glo Detection System (Promega). (C) Enzymatic conversion of estradiol (substrate) to estrone (product) by HSD17B13 isoforms A and D overexpressed in HEK293 cells.

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