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Increased risk of many early-life diseases after surgical removal of adenoids and tonsils in childhood

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Abstract

BACKGROUND

Surgical removal of the adenoids and tonsils are common pediatric procedures, with conventional wisdom suggesting their absence has little impact on health or disease. However, little is known about long-term health consequences beyond the perioperative risks. Such ignorance is significant, for these lymphatic organs play important roles in both the development and the function of the immune system.

METHODS

We tested the long-term consequences of surgery in the population of Denmark by examining risk for 28 diseases with ~1 million individuals followed from birth up to 30 years of age depending on whether any of three common surgeries (adenoidectomy, tonsillectomy, adenotonsillectomy) occurred in the first 9 years of life. To weigh costs and benefits, we also compared the absolute risks for these diseases to the risks for the conditions that these surgeries aimed to treat. We obtained robust results by using stratified Cox regressions with statistically well-powered samples of cases (with surgery) and controls (without surgery) whose general health was no different prior to surgery. We adjusted our estimates of risk for diseases occurring before surgery, stratified for sex (and other effects) and for 18 covariates, including parental disease history and birth metrics.

RESULTS

We found significantly elevated relative risks for many diseases, with effects on respiratory, allergic and infectious disorders after removal of adenoids and tonsils being most pronounced. For some of these diseases, absolute risk increases were considerable. In comparison, many risks for conditions that surgeries aimed to treat were either not significantly different or significantly higher following surgery up to 30 years of age. This suggests that any immediate benefits of these surgeries may not continue longer-term, while resulting in slightly compromised early adult health due to significantly increased risk of many non-target diseases.

CONCLUSIONS

Our results indicate that surgical removal of tonsils and adenoids early in life are associated with longer-term health risks. They underline the importance of these organs and tissues for normal immune functioning and early immune development, and suggest that these longer-term disease risks may outweigh the short-term benefits of these surgeries.

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Introduction

Removal of adenoids and tonsils are common surgical procedures in childhood [1-4] with conventional wisdom suggesting their absence has little negative long-term impact on health [3], yet not much support for this assertion is available beyond assessments of the short-term perioperative risks. Establishing the longer-term impact of these surgeries is critical because the adenoids and tonsils are parts of the larger immune system [3, 5], have known roles in early pathogen detection and defense [3, 5], and are most commonly removed during ages that are most sensitive for early immune system development. Some recent single-disease studies have shown subtle shorter-term changes in risk after surgery [6-9], but no longer-term assessments of risk across a broad range of diseases is yet available. Here we analyzed the long-term health outcomes post-surgery by examining risk for 28 diseases in ~1 million individuals who were followed from birth to up to 30 years of age depending on whether adenoidectomy, tonsillectomy or adenotonsillectomy occurred during the first nine years of life.

Historically, the functions of tonsils and adenoids have intrigued scientists and medical professionals alike [10, 11]. Current research suggests that these tissues play specialized roles in immune development and function. For example, the tonsils help protect directly against pathogens [3, 5] and indirectly by stimulating further immune responses via communication with the rest of the lymphatic system [3, 5, 12]. The three main types of tonsils (pharyngeal, palatine, lingual) surround the apex of the respiratory and digestive tract forming 'Waldeyer's ring', which provides early warnings for ingested or inhaled pathogens [3, 5, 12]. Evidence from other fields is beginning to suggest that altered early-life immune pathways (including dysbiosis, [13]) can have lasting effects on adult health, warranting concern that the surgical removal of adenoids and tonsils in childhood may affect later health in ways that have been underappreciated.

Surgeons often remove adenoids and tonsils to treat common childhood illnesses (e.g. recurrent tonsillitis, middle ear infections). Research on the consequences of these surgeries primarily relates to perioperative risks [3, 14] and the ensuing short-term consequences of surgical procedures for the symptoms to be treated. That tonsils (particularly the adenoids) tend to atrophy with age, being largest in childhood and absent in adulthood [1], has suggested that their absence would not affect adult health [3]. However, this does not exclude the possibility that these lymphoid tissues are most immunologically active in early life because they have a critical role in normal immune system development [3, 5]. In that perspective the potential long-term risks of these surgeries deserves to be assessed in light of an extensive general literature about perturbations to early growth and development that may alter risk of many adult diseases (e.g. [15, 16]).

Recent work provides support for such analyses. Except for rhinosinusitis, ear and throat infections [17, 18], and sleep apnea [19] there has been little work on the health consequences of removing the adenoids or tonsils in childhood. Evidence for consequences of adenoidectomy for the risk of asthma is mixed [9].

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Other studies indicated that tonsillectomy does not necessarily reduce the risk of respiratory diseases in adults, but there have been hints that it may increase the risk of chronic disease, including inflammatory bowel disease [8], and improvements in sleep apnea of children appear to be less than hoped [19]. Some work suggests that surgery changes the risk of non-respiratory diseases, with tonsillectomy being associated with significantly increased risk of breast cancer [6] and premature acute myocardial infarctions [7]. The benefits of tonsillectomy for kidney disease are only realized for a very small sample [20]. These single-disease studies make it clear that more comprehensive assessments of long-term health risks of childhood surgeries could be illuminating.

In our present large-scale study, we estimated disease risk depending on whether adenoids or tonsils were removed in the first nine years of life. In contrast to previous single-disease, single-surgery studies that typically focus on short-term risks, we:

(1) examined effects of all such surgeries at the younger ages that comprise the most sensitive period for early-life immune development, which coincides with the time-window in which these surgeries are most commonly performed (i.e. generally [1, 21] and in Denmark, see Fig. 1);
(2) calculated long-term risks up to 30 years of age for 28 different diseases belonging to 14 generally acknowledged disease groups;
(3) compared relative and absolute risks and number (of patients) needed to treat (to obtain a first case of harm) to adjust risk metrics for naturally occurring background rates of disease and to translate risk statistics into numbers that are clinically applicable;
(4) compared long-term post-surgical absolute risks and benefits for diseases and conditions that these surgeries aim to treat; and
(5) tested for general health differences between cases and controls prior to surgery to establish that individuals who underwent surgery were not sicklier on average than the control group.

Materials and Methods

Study sample obtained from the Danish health registries. We utilized health data on ~1 million individuals born (as singleton live births) between January 1978 and January 2009 from the Danish Birth Registry. This included healthy cases and controls who were not diagnosed with focal diseases during the surgery observation period (i.e. from birth to 9 years of age) and who had no surgery performed during the follow-up period from 9 to maximally 30 years of age; see Table S1 for sample sizes). This sample design ensured sufficient statistical power to detect differences in disease risk between cases and controls while avoiding obvious confounding effects that could suggest reverse causality. Figure 1 provides details on how we optimized observation and follow-up ages. We did not include individuals with missing covariate data or values outside typical ranges for birth weight (i.e. 1850-5400 grams), gestation length (30-42 weeks), paternal age (15-60 yrs), and maternal age (15-46 yrs) at birth, those who were living during (but not born between) 1978 and 2009 because their

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health records were incomplete (see Supplementary Methods - study sample, for further details).

Data on covariates were obtained from the Danish Birth Registry (i.e. pregnancy, birth and pedigree information) and other registries including: Danish Patient Registry holding nation-wide hospital admission and ICD diagnosis data; Danish Psychiatric Registry with psychiatric diagnoses for inpatient admissions; Danish Civil Registration and Cause of Death Registries containing date of death, migration, socioeconomic and other demographic information. We combined individual-level information from different registries using unique personal identification numbers (de-identified from central-person register CPR numbers). Because the health system in Denmark is largely free for all residents and public health data are continuously and rigorously collected for every resident in Denmark thanks to the CPR number assigned from birth, we are confident that we obtained the complete health and socioeconomic histories of the ~1 million individuals in our data set. This allowed us to employ rigorous controls and validations (see below).

Defining surgery groups. There are three main types of tonsils: pharyngeal tonsils (hereafter referred to as the adenoids), palatine tonsils (hereafter referred to as the tonsils) and lingual tonsils. Adenoids are located towards the posterior wall of the nasopharynx, tonsils are located along the anterolateral walls of the oropharynx, and lingual tonsils are located at the base of the tongue. We focused on surgery removing the first two (adenoidectomy, tonsillectomy), for the lingual tonsils are not commonly removed. We included adenotonsillectomy where adenoids and tonsils are removed in the same surgery.

Surgery codes are based on early ICD operation classification codes from Danmarks Statistics (up to 1996) and the later Nordic Medico-Statistical Committee (NOMESCO) Classification of Surgical Procedures (NCSP) from 1996 onwards including: adenoidectomy, 2618, EMB30; tonsillectomy, 2614, EMB10; adenotonsillectomy, EMB20. There was no surgical procedure code for adenotonsillectomy prior to 1996, so this type of surgery was recorded when both surgical codes (2618, 2614) were entered on the same date.

Selecting disease groups. We selected diseases based on whether they were likely to be affected by changes in the immune system (i.e. infections, allergies), and we added other disorders because they have been implicated in previous studies examining shorter-term health impacts for some of the focal surgeries of our study (i.e. respiratory infections). We also included broader disease groups (all circulatory, nervous system, endocrine, and autoimmune diseases) because immune dysfunction or dysbiosis could affect a wide range of organismal processes (see Table S2 for a full list of disease groups and their ICD codes). In Denmark, the International Classification of Diseases, 8th revision (ICD-8) was used from 1969 to 1993, and the 10th revision (ICD-10) from 1994 onwards. To reduce the possibility of encountering false negative results, we carried out power analyses in R and excluded some diseases that did not meet sample size thresholds needed to adequately test the null hypothesis of no association

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between predictor and incident disease (see Supplementary Methods - power analyses, for further details).

Covariates adjusted for. To account for specific health and socioeconomic effects on the prevalence of focal diseases, we included the following covariates: Binary variables for maternal pre-existing conditions (see Table S2 for ICD codes) including hypertension (primary or secondary hypertension, hypertensive heart or renal disease), diabetes (i.e. type-I or type-II, malnutrition-related, other or unspecified), previous spontaneous or induced abortions; maternal pregnancy-related variables including gestation length (in weeks) and binary variables for the presence of maternal bleeding (i.e. haemorrhage, placenta praevia), fetal oxygen deprivation (i.e. hypoxia, asphyxia), and pregnancy oedema. Parental variables included a binary marker for whether either parent had ever been given a disease diagnosis within the same disorder group as the child to account for familial transmission, total number of years of education summed across both parents, and average income (in Dkr) across the study period summed across both parents. Birth-related variables included birth weight (in grams), birth season (calendar month, 1 to 12), birth cohort (3-year cohorts between 1978 – 2009 to account for any changes in diagnostic criteria over time), and the APGAR5 (Appearance, Pulse, Grimace, Activity, Respiration) score of 1-10 (maximally 2 points for each category) given to babies shortly after birth ranging from poor to excellent health. Other child-related variables included sex (0 = male, 1 = female), nationality (0 = Danish national, 1 = immigrant), parity (i.e. whether child was first, second, third, fourth (or higher)-born), and the region within Denmark (Hovedstaden = Copenhagen Area, Sjælland, Syddanmark, Midtjylland and Nordjylland) in which a child had resided for the longest period to account for possible regional differences in diagnoses.

Statistical design and analysis. We used Cox regressions to model the relative risk for each of the 28 diseases up to age 30 (with age as timescale), depending on whether surgery occurred within the first 9 years of life. We validated the assumptions of the Cox regression model and ensured proportional hazards by stratifying for sex, birth cohort, birth season and demographic parity before estimating proportional hazards. A further 18 additional effects (described above and in Fig. 3) on disease prevalence were accounted for as regression covariates. To reduce the possibility of false positives, P values from Cox regressions (presented in Fig. 2-3) were Bonferroni corrected for 78 tests (α=0.05/78= 0.000641). To provide clinically useful statistics, absolute risks and number of patients needed to treat (NNT) before causing benefit or harm to one of them were also calculated from relative risks and disease prevalence within the first 30 years of life (see Supplementary Methods - converting RR to AR and NNT, for further details).

Estimating risks for non-immune diseases and conditions that surgeries aim to treat. To quantify whether disease risks due to the focal surgeries are likely to be justified given their proposed health benefits, we calculated relative risks, absolute risks and number needed to treat for conditions that these surgeries treat using the same samples and statistical setup as described above. Conditions that adenoidectomy, tonsillectomy and adenotonsillectomy treat

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include obstructive sleep apnea, sleep disorders, abnormal breathing, (chronic) sinusitis, labyrinthis, otitis media, and (chronic) tonsillitis (see Table S2 for ICD codes). To test whether these surgeries may affect risk for diseases known to be unrelated to the immune system, we estimated risk for osteoarthritis, cardiac arrhythmias, heart failure, acid-peptic disease and alcoholic hepatitis (see Table S2 for ICD codes) using the same sample and statistical setup described above. Results (see Table S3) showed that surgery did not modify risk up to 30 years of age for these non-immune diseases.

Testing for biases in general health before undergoing surgery. With access to complete medical records from birth, we were able to test whether or not any such biases could influence the assessment of surgery effects on incident risk of disease. The null hypotheses tested were that there was no difference in general health between cases and controls for: (1) age at first disease diagnosis, or (2) age at any disease diagnosis for diseases recorded before surgery. Neither null hypothesis could be rejected, indicating that cases were no more sickly than controls prior to surgery for diseases that occurred in the first 9 years of life (see Supplementary Methods - testing for biases in early general health between cases and controls, for further details and findings).

Results

We use relative risk, absolute risk, and number needed to treat to gain a balanced view of the actual general health effects that adenoidectomy, tonsillectomy or adenotonsillectomy were likely to have in the first 30 years of life in Denmark. We found that disease risks typically increased after any of the three surgeries were performed. For some, relative risks translated into substantial changes in absolute risk with the number needed to treat showing that only a few surgeries had to be performed to cause significant individual harm.

The main impacts are on risk of respiratory disease

Tonsillectomy nearly tripled the relative risk of diseases of the upper respiratory tract (RR=2.72, 95% CI=1.54-4.80, Fig. 2, Table S4, S5(10)) and resulted in a substantial increase in absolute risk (ARD=18.61%, Table S4) and a small number needed to treat (NNT-harm=5, Table S4). Thus only about five tonsillectomies would need to be performed to cause diseases of the upper respiratory tract to appear in one of them. This suggests that the negative health consequences for this procedure in the overall population can be considerable.

Adenoidectomy more than doubled the relative risk of chronic obstructive pulmonary disorder (COPD, RR=2.11, 95% CI=1.53-2.92, Fig. 2, Table S4, S6(16)) and diseases of the upper respiratory tract (RR=1.99, 95% CI=1.51-2.63) and nearly doubled the relative risk of conjunctivitis (RR=1.75, 95% CI=1.35-2.26). This resulted in a substantial increase in absolute risk for upper respiratory tract disorders (ARD=10.7%, Table S4), but gave only very small increases for COPD (ARD=0.29%) and conjunctivitis (ARD=0.16%), consistent with the

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corresponding NNT values (NNT-harm: diseases of upper respiratory tract=9; COPD=349; conjunctivitis=624, Table S4). Although relative risk increases were reasonably similar for these diseases, the large differences in absolute risk were due to the overall prevalence of these disorders in the population. For example, diseases of the upper respiratory tract occur 40-50 times more frequently (i.e. in 10.7% of control individuals up to 30 years of age) than do COPD (0.25%) and conjunctivitis (0.21%).

Other significant effects on long-term disease risks

For some diseases, even modest increases in relative risk (RR 1.17-1.65) resulted in relatively large increases in absolute risk (i.e. 2 to 9%) and relatively low number needed to treat values (i.e. NNT-harm < 50), which was largely due to the high prevalence of these diseases in the population (risk in controls ranged from 5 to 20%, Table S4). They mainly included respiratory diseases (groups including: all, lower, lower-chronic, asthma, pneumonia), infectious diseases (all), skin diseases (all), musculoskeletal (all) and eye/adnexa (all). For example, adenotonsillectomy significantly increased relative risk of infectious diseases by 17% (RR=1.17, 95% CI=1.10-1.25, Table S4, S7(1)), but because infectious diseases are relatively common (i.e. 12%, Table S4), the absolute risk increase was 2.14%, so that about 47 adenotonsillectomy surgeries would need to be performed for an extra infectious disease to occur as a result of one of these surgeries (Table S4).

When all 28 disease groups were considered, there were small but significant and consistent increases in relative risk for most of them: 94% of disease risks were significantly increased before Bonferroni correction, 78% after. Thus, the negative health consequences of these surgeries within the first 30 years of life are likely to be widespread, affecting a range of tissues and organ systems, underlining the importance of the uninterrupted presence of adenoids and tonsils for normal development. The removal of these organs early in life appears to slightly but significantly perturb many processes important for later-life health.

Risk of conditions that surgeries directly aimed to treat were mixed

Risks for conditions that the focal surgeries of our study aimed to treat were mixed (Table S8). Surgery significantly reduced long-term relative risk for some conditions (i.e. 7 out of 23 or 30% of our disease-specific analyses), whereas there were no significant risk modifications for others (10 or 43%), and some significant increases in relative risk observed for a few conditions (6 or 26%).

For example, adenoidectomy resulted in significantly reduced relative risk for sleep disorders (RR=0.30, ARD=-0.083%), and all surgeries significantly reduced risk for tonsillitis and chronic tonsillitis (i.e. RR ranging between 0.09-0.54; ARD ranged between -0.29% to -2.10%). For abnormal breathing, there was no significant change in relative risk up to 30 years of age after adenoidectomy, tonsillectomy or adenotonsillectomy (Table S8), no change in relative risk for sinusitis after adenoidectomy or tonsillectomy, and no change in relative risk of

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labyrinthitis after adenotonsillectomy (Table S8). Conditions where relative risk significantly increased during the follow-up period included otitis media, which showed a 2 to 4-fold increase after surgery (i.e. RR ranged from 2.06-4.84; ARD ranged between +5.3% to 19.4%), and sinusitis, which increased significantly after adenotonsillectomy (RR-1.68; ARD +0.11%, Table S8).

This suggests that short-term health benefits these surgeries may provide for these conditions often do not continue longer-term, at least up to 30 years of age examined in this study. Indeed, apart from the consistently reduced risk for tonsillitis (after any of these surgeries) and sleep disorders (after adenoidectomy), longer-term risks for most other conditions (abnormal breathing, sinusitis, chronic sinusitis, labyrinthitis, otitis media) were either significantly higher post-surgery or not significantly different.

Risk patterns for covariates

The many interesting patterns of disease risk based on covariates included in the analysis (summarized in Fig. 3, full details Table S5-S7) highlight the complexity of the factors influencing the focal disease risks of our study. For example, consider covariates that significantly modified risks of diseases of the upper respiratory tract (Fig. 3), and their largest increases in relative (RR=1.99-2.72) and absolute risk (ARD=10.77%-18.61%) after adenoidectomy and tonsillectomy (Fig. 2). The risks for these diseases slightly decreased for offspring born to older mothers (RR=0.96, 95% CI=0.95-0.98 for both surgeries), slightly increased (tonsillectomy analysis) when maternal bleeding occurred during pregnancy (RR=1.07, 95% CI=1.03-1.12), increased (both analyses) with APGAR5 score (RR=1.09, 95% CI=1.04-1.13, both surgeries), increased (both analyses) when mothers had a previous induced abortion (RR=1.09, 95% CI=1.06-1.12, both surgeries), increased in immigrants relative to Danish nationals (RR=1.40, 95% CI=1.33-1.47, both surgeries), decreased in those living anywhere in Denmark other than Copenhagen (RR=0.69 to 0.93), and increased when fathers or mothers had a history of the same disease (RR=1.29 to 1.38). All such effects were accounted for in our risk estimates and their significance (Fig. 2 and Fig. 3).

Some covariates showed very consistent effects on risk for many diseases. For example, the most consistent effect in Fig. 3 based on relative magnitude of disease risk (e.g. RR ranged from 1.10 to 3.71) and the direction of effect (i.e. risk was increased for every disease) occurred when either parent had been diagnosed previously with the same disease. Other covariates such as parental education, income and country of origin also showed many significant effects, but risk direction varied considerably depending on the disease considered. For example, mental disorders were less frequent in Danish nationals than in immigrants (RR 0.48 to 0.49), yet risk of influenza was much higher in Danes (RR 1.89 to 2.06). Several diseases were sensitive to many covariates (e.g. endocrine, mental) suggesting complex causation. We discuss other interesting and potentially important effects of these covariates in the Supplementary Results.

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Discussion

While most otorhinolaryngologists have focused on the short-term consequences of their procedures for the symptoms that they treat [14, 22-24], not all have been aware of the full range of long-term risks. These are difficult to evaluate due to many potential confounding effects that are unrelated to the original diagnosis and may obscure estimation of disease risk. Using the Danish public health data allowed us to unambiguously control for many medical, socioeconomic and statistical confounders, and we are confident that our estimates of increased disease risks later in life associated with removal of tonsils and adenoids are robust and quantitatively reliable. Our main findings are that tonsillectomy nearly triples the risk of diseases of the upper respiratory tract and that adenoidectomy doubles the risk of chronic obstructive pulmonary disorder (COPD) and diseases of the upper respiratory tract and nearly doubles the risk of conjunctivitis. There were corresponding large increases in absolute risk for diseases of the upper respiratory tract. Smaller but significantly elevated risks were found for a broad range of other diseases, which translated into measureable increases in absolute risk for diseases with high prevalence in the population (i.e. infectious, skin, musculoskeletal and eye/adnexa diseases). These findings add to previous research on single diseases that have shown increased risks of breast cancer [6] and premature acute myocardial infarctions [7] as a consequence of these surgeries. In contrast, the long-term benefits of surgery were generally minor and sometimes actually increased risk for the conditions they aimed to treat.

Our results again raise the important general issue of when the benefits of operating are sufficient to outweigh the combined short- and long-term morbidity costs. For much of the last century these operations were relatively common, but their frequencies have declined in more recent medical practice [25, 26], with the availability of alternative treatments for infections in ear, oral and nasal cavities coinciding with heightened appreciation of the possible short-term risks of surgery [27]. The long-term costs that our study documents and quantifies add a novel perspective to these considerations. They suggest that renewed discussion may be timely, especially given that these surgical procedures remain amongst the most common medical interventions in childhood [3, 4]. It is important to appreciate that the cumulative long-term impact of surgery depends on the prevalence of specific conditions in the population, as we document for many disease categories, for these trends are not straightforward to extrapolate from relative risk ratios. Thus, the impacts of tonsillectomy and adenoidectomy on the absolute risk of diseases of the upper respiratory tract were substantial because these conditions are prevalent, whereas the impacts of adenoidectomy on the absolute risks of COPD and conjunctivitis were small because those diseases have low prevalence.

Our results suggest that there is a direct connection between surgical removal of immune organs in the upper respiratory tract during childhood and increased risk of respiratory and infectious diseases later in life. Given that tonsils and adenoids are part of the lymphatic system that itself is part of the circulatory system and plays a key role both in the normal development of the immune

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system and in pathogen screening during childhood and early life [3], it is perhaps not surprising that their removal would impair pathogen detection and increase risk of respiratory and infectious diseases emerging later in life. However, other correlations between these surgeries and diseases of the skin, eyes, and musculoskeletal system seem unlikely to involve direct causation, and will thus require further investigation. The growing body of research on developmental origins of disease [15, 28] has convincingly demonstrated that even small perturbations to fetal and childhood growth and development can have lifelong consequences for general health. Thus, causative pathways to disease are often complex and not always obvious given the interconnectedness of bodily systems with evolved tradeoffs and compensatory mechanisms. We note that our study sample could not address risks of diseases in those over 30 years of age, the limit of our sample, and even though records of the entire population of Denmark were available, we did not have large enough samples for the rarer diseases to obtain reliable estimates of risk.

Conclusion

This is the first study to estimate long-term health consequences of tonsillectomies and adenoidectomies for a broad range of diseases. Impacts on long-term risks were significant for many diseases and large for some. The strength of our study is its very large coverage of a single relatively homogeneous Danish population, but this may mean that some of our results will not generalize to other populations. The effects of tonsillectomy and adenoidectomy that we uncovered in the Danish population warrant renewed evaluation of potential alternatives to surgery. Our study shows that both absolute risks and the number of patients needed to treat before health risks later in life become apparent were more consistent and widespread than the immediate population-wide benefits of childhood surgery for subsequent health within the first 30 years of life.

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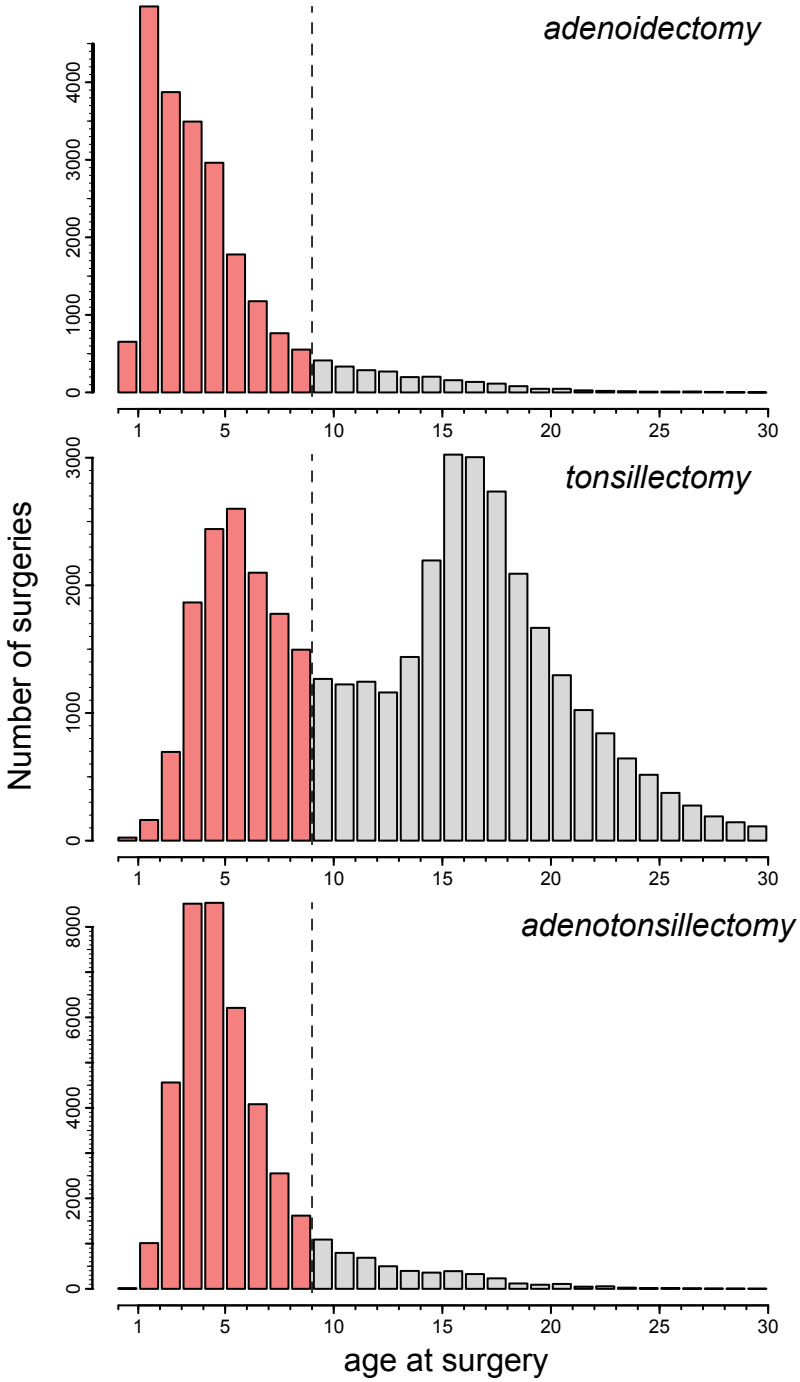

Figure 1. Age at adenoidectomy, tonsillectomy and adenotonsillectomy for 1,753,100 Danes born between 1978-2009 and the selected surgery observation window of nine years. This cut-off for inclusion as surgery cases (red bars) was deemed optimal because the first decade of life is critical for normal immune system development, it represents most of the period in which these surgeries are usually performed, and maximized the number of years available for disease follow-up, post-surgery. For tonsillectomy this meant that we ignored a second peak at ~16-17 years, for inclusion of these surgeries would have implied insufficient time for follow-up (to 30 years of age). Our study thus explores the impact of the three types of surgery when performed during childhood rather than adolescence. Individuals with these surgeries beyond the 9-year observation end-point (dashed vertical line) were not included as either cases or controls. Individuals were also excluded if they had multiple surgeries at different ages, i.e. some individuals underwent adenoidectomy followed by tonsillectomy years later or vice versa. Such cases were rare in the sample (<0.2%).

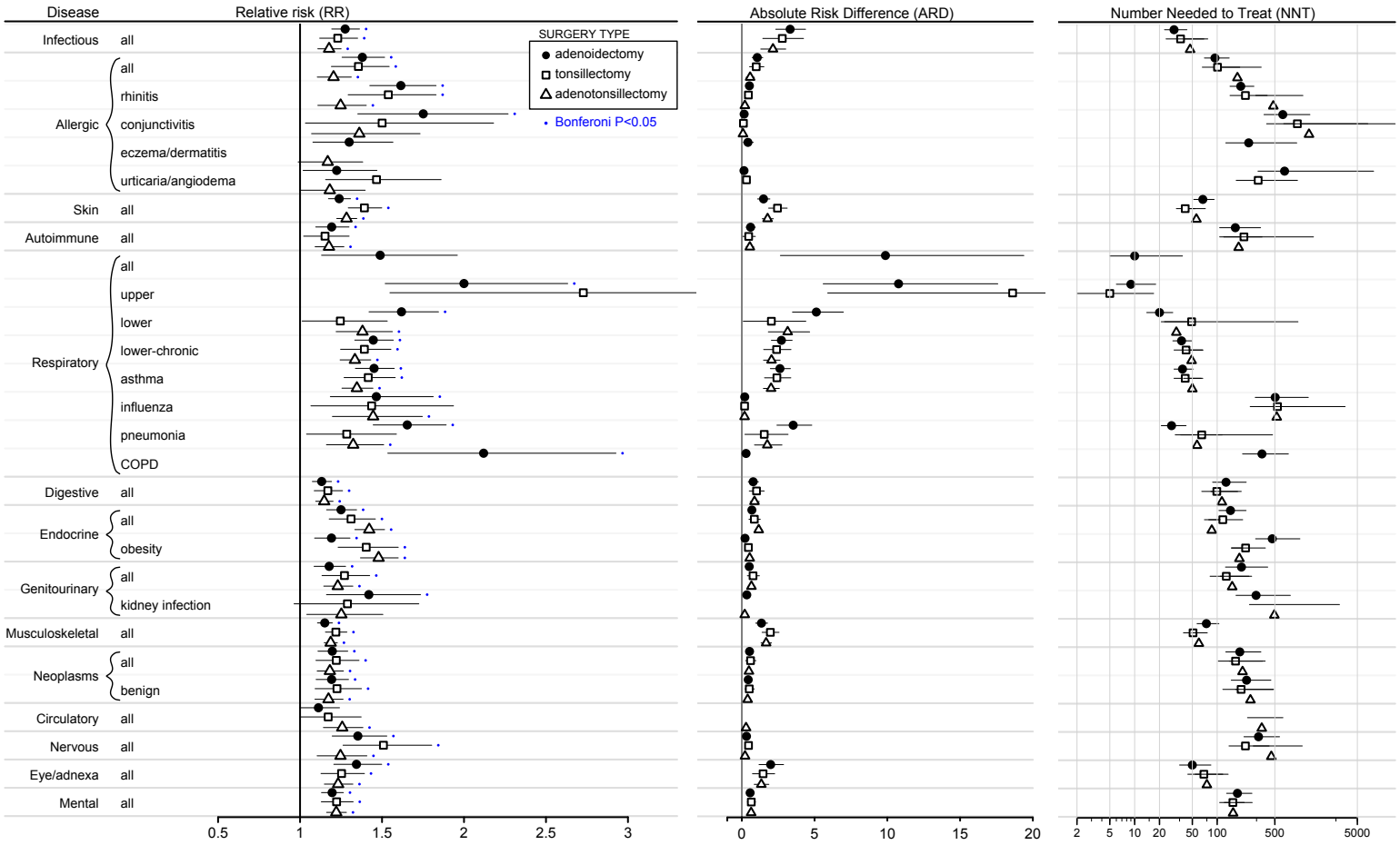

Figure 2. Risk of disease up to 30 years of age after removal of tonsils and adenoids in the first 9 years of life. Relative risks (RR) ± 95% CI are the exponents from Cox regressions that capture risk of each disease up to 30 years of age depending on whether surgery was performed. See key for surgery type. P-values significant after Bonferroni corrections for 78 tests are shown by a blue point above the upper confidence interval for each disease. RR values are presented only for analyses with sufficient power for hypothesis testing (see methods). Absolute risk differences (ARD) ± 95% CI were estimated as ARD = 100 x CR x (1-RR), where CR (control risk) is the risk of the disease in the control sample and RR is the relative risk of disease in individuals post-surgery relative to the disease risk in the control sample that did not undergo surgery. Numbers needed to treat (NNT) ± 95% CI were estimated as NNT = 100 / ARD. Values above or below zero indicate 'harm' or 'benefit' of surgery, respectively, with values closer to zero indicating harm occurring more often to patients. For example, for risk of asthma after adenoidectomy (i.e. RR=1.45, 95% CI 1.33-1.57), the event rate in the control group (or control risk, CR) for asthma up to 30 years of age in our dataset was 5.8%, so ARD = 100 x 0.058 x (1-1.45) = 2.6 and NNT = 100/2.6=38. Relative risk of asthma was 1.45 and thus 45% higher after adenoidectomy compared to controls (no surgery), which translates to an absolute risk difference of 2.6% or 2.6 more cases of asthma per 100 treated patients. In other words, adenoidectomy needs to be performed in ~38 children (100/2.6) to cause asthma to appear in one of them within the first 30 years of life.

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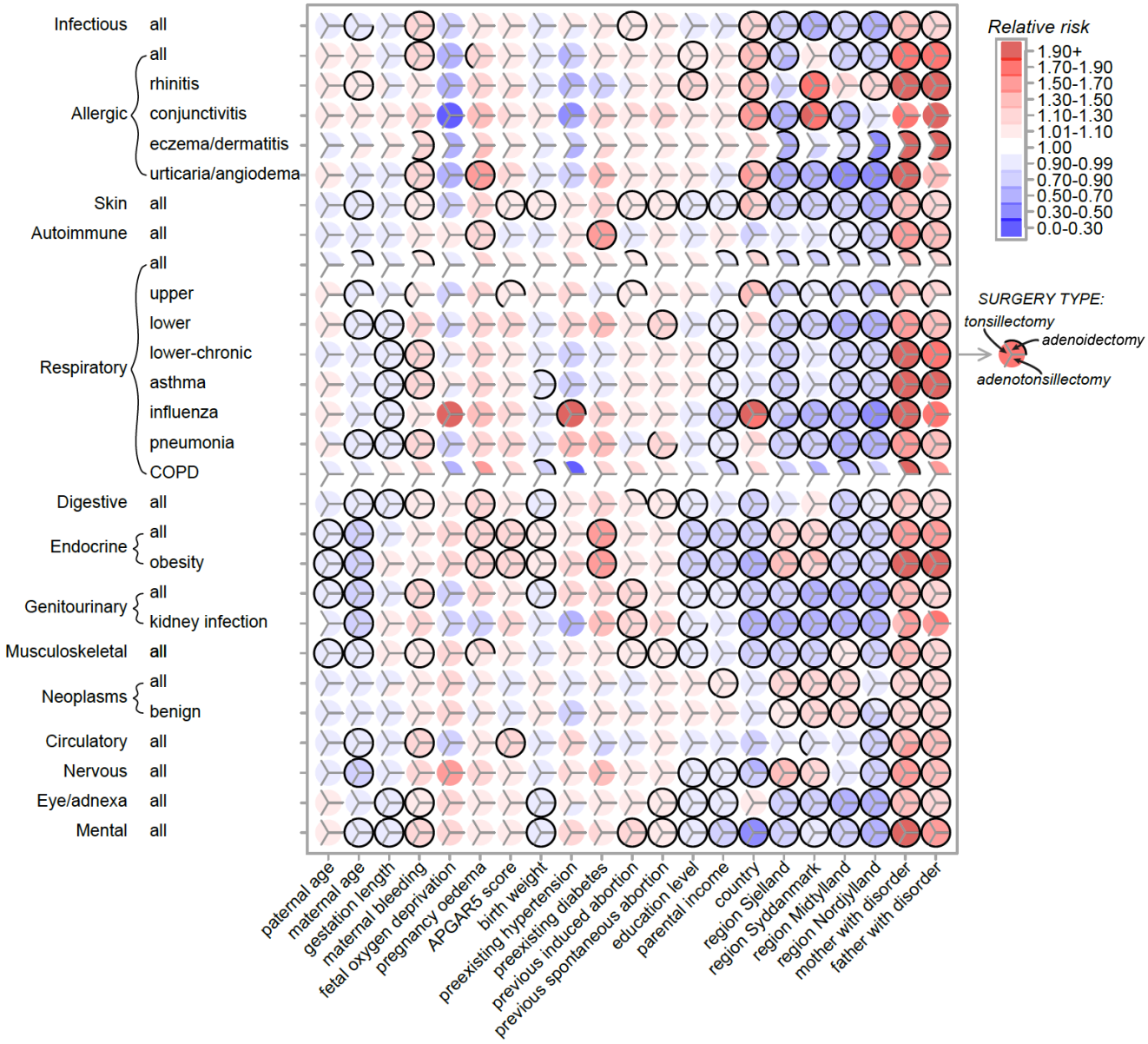

Figure 3. Disease risk patterns for covariates. Relative risk magnitude and direction correspond to red (increased relative risk) and blue (decreased relative risk) colors (see key, top right) derived from Cox regressions capturing the risk of diseases (vertical axis) within the first 30 years of life depending on 21 covariates (horizontal axis). Within each circle there are three divisions corresponding to surgery type (see mid-right key). A black border indicates whether risk for that particular disease-covariate combination was significant after Bonferroni correction for 78 tests; a complete black border surrounding a circle indicates that risks were significant for all three surgeries. Disease risks for the covariate 'region most lived in Denmark' are relative to Hovedstaden (Copenhagen region).

Table 1. Characteristics of the study samples for initial surgery and control groups. Numbers (n), means (μ), percentages (*%*, binary traits multiplied by 100, so they are percentages) and Standard Deviations (SD, in brackets) are provided.

	adenoidectomy	tonsillectomy	adenotonsillectomy	control	total
sample size (*n*)	22637	39685	42384	1648394	1753100
paternal age (μ)	30.1 (5.8)	29.7 (5.6)	30.1 (5.7)	31.3 (5.7)	31.2 (5.7)
maternal age (μ)	27.0 (4.9)	26.8 (4.7)	27.2 (4.8)	28.5 (4.8)	28.4 (4.9)
gestation length, weeks (μ)	39.4 (1.9)	39.7 (1.6)	39.6 (1.7)	39.7 (1.6)	40.0 (1.6)
maternal bleeding (*%*)	9.6 (0.3)	8.1 (0.2)	9.0 (0.2)	7.3 (0.2)	7.4 (0.2)
fetal oxygen deprivation (*%*)	0.13 (0.04)	0.13 (0.04)	0.09 (0.03)	0.09 (0.03)	0.09 (0.03)
pregnancy oedema (*%*)	1.44 (0.12)	1.42 (0.12)	1.08 (0.10)	0.79 (0.09)	0.82 (0.09)
APGAR 5 score 1-10 (μ)	9.8 (0.7)	9.8 (0.5)	9.8 (0.6)	9.8 (0.6)	9.8 (0.6)
birth weight (grams) (μ)	3377 (597)	3443 (537)	3448 (574)	3499 (541)	3495 (543)
pre-existing hypertension (*%*)	0.26 (0.05)	0.15 (0.04)	0.27 (0.05)	0.33 (0.06)	0.32 (0.06)
pre-existing diabetes (*%*)	0.40 (0.06)	0.35 (0.06)	0.50 (0.07)	0.39 (0.06)	0.39 (0.06)
previous induced abortion (*%*)	20.2 (0.4)	19.5 (0.4)	19.6 (0.4)	18.2 (0.3)	18.3 (0.3)
previous spontaneous abortion (*%*)	16.3 (0.3)	15.5 (0.3)	15.6 (0.3)	14.2 (0.3)	14.3 (0.3)
education, combined total yrs (μ)	24.4 (4.9)	24.5 (4.6)	24.4 (4.6)	25.6 (4.7)	25.5 (4.8)
income, combined average Dkr. (μ)	381030 (188098)	394585 (163759)	361933 (145965)	362241 (172797)	363188 (172296)
nationality, 0=Danish, 1=other (*%*)	5.58 (0.23)	4.33 (0.2)	7.69 (0.27)	6.89 (0.25)	6.83 (0.25)
region in Denmark most lived (*%*)					
Hovedstaden	29.1 (0.4)	27.4 (0.4)	23.6 (0.4)	28.7 (0.4)	28.5 (0.4)
Sjælland	21.8 (0.4)	18.6 (0.3)	16.2 (0.3)	14.5 (0.3)	14.7 (0.3)
Syddanmark	23.1 (0.4)	19.7 (0.4)	22.1 (0.4)	22.4 (0.4)	22.3 (0.4)
Midtjylland	15.0 (0.3)	23.3 (0.4)	24.9 (0.4)	23.7 (0.4)	23.6 (0.4)
Nordjylland	10.8 (0.3)	10.7 (0.3)	13.0 (0.3)	10.5 (0.3)	10.6 (0.3)
birth year (μ)	1988 (8)	1987 (6)	1991 (7)	1994 (8)	1993 (8)
birth season, months 1-12 (μ)	6.4 (3.3)	6.3 (3.3)	6.4 (3.3)	6.4 (3.3)	6.4 (3.3)
sex, 0=male, 1=female *(%)*	40.7 (0.4)	58.9 (0.4)	44.5 (0.5)	48.6 (0.5)	48.7 (0.5)
demographic parity *(%)*					
first born	46.2 (0.5)	45.5 (0.5)	47.9 (0.5)	44.1 (0.5)	44.3 (0.5)
second born	37.2 (0.4)	38.2 (0.4)	35.1 (0.4)	37.3 (0.4)	37.3 (0.4)
third born	12.0 (0.3)	12.3 (0.3)	12.6 (0.3)	13.8 (0.3)	13.7 (0.3)
fourth (or higher born)	4.33 (0.20)	3.84 (0.19)	4.33 (0.20)	4.7 (0.21)	4.67 (0.21)

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Table S1. Sample sizes used for each analysis including the number of individuals who underwent surgery between birth and 9 years, number diagnosed with a particular disease after 9 years and up to 30 years of age, and total sample size available.

		adenoidectomy			tonsillectomy			adenotonsillectomy		
Disease		**Surgery (*n*)**	**Disease (*n*)**	**Total (*n*)**	**Surgery (*n*)**	**Disease (*n*)**	**Total (*n*)**	**Surgery (*n*)**	**Disease (*n*)**	**Total (*n*)**
infectious	**all**	14508	37433	1061466	9852	36972	1056810	26456	37618	1073414
allergic	**all**	16813	17503	1154039	11542	17283	1148768	30516	17588	1167742
	rhinitis	17293	8875	1171807	11783	8748	1166297	31206	8903	1185720
	conjunctivitis	17462	1948	1175146	11830	1916	1169514	31377	1957	1189061
	eczema/dermatitis	17046	4853	1162563	-	-	-	30883	4880	1176400
	urticaria/angiodema	17399	4645	1171672	11769	4595	1166042	31229	4667	1185502
skin	**all**	16750	51882	1138501	11274	51259	1133025	29936	52284	1151687
autoimmune	**all**	16905	23536	1154549	11582	23256	1149226	30654	23698	1168298
respiratory	**all**	677	50906	960489	-	-	-	-	-	-
	upper	869	33148	1054535	140	33109	1053806	-	-	-
	lower	14325	7389	1083597	10355	7244	1079627	27359	7413	1096631
	chronic lower	15781	22967	1123530	11037	22684	1118786	29046	23174	1136795
	asthma	15994	22726	1127539	11077	22450	1122622	29231	22939	1140776
	influenza	17394	2832	1173084	11794	2787	1167484	31278	2856	1186968
	pneumonia	15253	6734	1114290	10837	6597	1109874	28660	6741	1127697
	COPD	17353	701	1173478	-	-	-	-	-	-
digestive	**all**	15897	61591	1116977	11054	60823	1112134	29366	61969	1130446
endocrine	**all**	16707	26761	1157402	11549	26355	1152244	30511	27001	1171206
	obesity	17405	16710	1173967	11788	16452	1168350	31257	16886	1187819
genitourinary	**all**	16969	24206	1157015	11511	23907	1151557	30684	24372	1170730
	kidney infection	17246	3785	1169259	11723	3732	1163736	31123	3803	1183136
musculoskeletal	**all**	16898	109299	1144964	11433	108111	1139499	30319	110222	1158385
neoplasms	**all**	17152	29050	1164289	11669	28698	1158806	30975	29224	1178112
	benign	17220	25081	1166731	11703	24796	1161214	31047	25245	1180558
circulatory	**all**	17262	12991	1172014	11787	12813	1166539	31263	13093	1186015
nervous	**all**	17183	8193	1170431	11757	8050	1165005	31188	8197	1184436
eye/adnexa	**all**	8086	30052	1111548	10415	30070	1113877	25783	30514	1129245
mental	**all**	17460	48824	1174924	11830	48167	1169294	31368	49174	1188832

Footnotes: Numbers are presented only for analyses with sufficient power for hypothesis testing (see methods)

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Table S2. ICD-8 and ICD-10 classification codes used for A. main diseases tested, B. covariate effects, C. conditions surgeries treat and D. non-immune diseases. Surgeries include adenotomy, tonsillectomy and adenotonsillectomy.

A. MAIN DISEASES		
Infectious – all	**ICD-8:**	00009,00019,00099,00199,00209,00219,00299,00300,00301,00308, 00309,00390,00391,00398,00399,00409,00419,00429,00439,00489, 00499,00509,00519,00529,00589,00599,00609,00690,00698,00699, 00709,00719,00720,00799,00809,00819,00820,00821,00829,00839, 00880,00889,00890,00899,00909,00919,00920,00921,00922,00928, 00929,00999,01099,01100,01101,01102,01103,01104,01105,01108, 01109,01200,01201,01208,01209,01210,01211,01218,01219,01229, 01239,01290,01291,01292,01299,01300,01301,01308,01309,01390, 01391,01399,01400,01401,01402,01409,01509,01519,01529,01589, 01599,01600,01601,01602,01603,01604,01605,01606,01608,01609, 01700,01701,01702,01708,01709,01710,01718,01719,01729,01739, 01790,01799,01809,01819,01899,01900,01901,01902,01903,01904, 01908,01909,01919,01920,01921,01929,01930,01931,01932,01938, 01939,01999,02009,02099,02199,02299,02309,02319,02329,02399, 02499,02599,02609,02700,02701,02708,02709,02719,02790,02799, 03009,03019,03029,03039,03099,03199,03299,03319,03399,03400, 03401,03409,03410,03411,03419,03599,03609,03610,03611,03612, 03618,03619,03689,03699,03799,03809,03819,03829,03880,03889, 03899,03909,03919,03990,03991,03992,03993,03999,04000,04009, 04199,04299,04399,04499,04509,04519,04599,04699,05009,05019, 05099,05199,05200,05201,05208,05209,05300,05301,05302,05303, 05308,05309,05400,05401,05402,05403,05404,05408,05409,05500, 05501,05508,05509,05600,05601,05608,05609,05709,05719,05789, 05799,06009,06099,06199,06209,06219,06239,06299,06309,06329, 06399,06499,06599,06600,06608,06609,06709,06749,06759,06799, 06809,06819,06829,06899,07000,07001,07002,07003,07004,07005, 07006,07007,07008,07009,07199,07200,07201,07202,07203,07204, 07208,07209,07399,07409,07419,07429,07499,07500,07501,07508, 07509,07699,07799,07809,07819,07829,07889,07899,07909,07910, 07911,07918,07919,07929,07939,07949,07951,07959,07982,07983, 07984,07989,07999,08099,08109,08119,08129,08199,08209,08219, 08229,08299,08309,08319,08389,08399,08409,08419,08429,08439, 08449,08459,08480,08489,08499,08509,08519,08599,08609,08699, 08709,08719,08789,08799,08809,08819,08899,08909,08999,10009, 10080,10089,10099,10199,10209,10219,10229,10269,10289,10299, 10309,10339,10399,10409,10499,11000,11001,11002,11003,11004, 11005,11008,11009,11109,11119,11129,11180,11189,11199,11200, 11201,11208,11209,11399,11499,11599,11609,11699,11709,11719, 11729,11739,11749,11789,11799,12009,12019,12029,12089,12099, 12109,12119,12129,12139,12199,12209,12219,12289,12299,12309, 12319,12329,12339,12349,12369,12399,12499,12509,12519,12529, 12539,12559,12589,12599,12609,12619,12689,12699,12709,12719, 12729,12739,12749,12759,12799,12809,12889,12899,12999,13100, 13101,13108,13109,13200,13201,13208,13209,13309,13399,13409, 13419,13429,13439,13449,13459,13469,13499,13599,13600,13601, 13602,13603,13609
	ICD10:	A00,A000,A001,A009,A01,A010,A011,

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A692B,A692C,A692D,A692E,A692F,A692G,A698,A699,A70,A709,
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A90,A909,A91,A919,A929,A931,A94,A949,A959,A962,
A968,A969,A98,A984,A985,A985A,A985B,A985C,A988,A99,
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B003,B004,B004A,B005,B005A,B005B,B005C,B005D,B005E,B005F,
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B019,B02,B020,B020A,B021,B022,B022A,B022B,B023,B023A,
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B060,B068,B069,B07,B079,B079A,B079B,B079C,B079D,B08,
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B088A,B088C,B09,B099,B15,B150,B159,B159A,B16,B160,
B161,B162,B169,B17,B170,B171,B172,B178,B18,B180,
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B301A,B301B,B302,B303,B308,B309,B33,B330,B331,B332,

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		B333,B338,B34,B340,B341,B341A,B341B,B342,B343,B344, B348,B349,B349A,B35,B350,B350A,B350C,B351,B352,B353, B354,B355,B356,B356A,B358,B358A,B359,B36,B360,B360A, B360B,B361,B362,B363,B368,B368A,B369,B37,B370,B370A, B371,B372,B372A,B372B,B373,B373A,B373B,B374,B374A,B375, B376,B377,B378,B378A,B378B,B378C,B379,B38,B389,B39, B399,B40,B409,B419,B429,B43,B439,B44,B440,B441, B441A,B441B,B442,B447,B448,B448A,B449,B450,B451,B451A, B452,B453,B457,B458,B459,B46,B469,B469A,B469C,B47, B470,B471,B479,B48,B480,B481,B482,B483,B484,B487, B488,B49,B499,B499A,B50,B509,B51,B519,B52,B529, B53,B530,B538,B54,B549,B55,B550,B550A,B551,B552, B559,B56,B560,B561,B569,B57,B579,B579A,B58,B580, B581,B582,B582A,B583,B588,B588A,B589,B59,B599,B600, B601,B601A,B601B,B602,B608,B649,B65,B650,B651,B652, B656,B658,B659,B66,B660,B661,B663,B664,B665,B668, B669,B67,B670,B671,B672,B673,B674,B675,B676,B677, B678,B679,B68,B680,B681,B689,B699,B700,B701,B71, B719,B729,B739,B74,B740,B749,B75,B759,B76,B760, B761,B768,B769,B769A,B77,B770,B778,B779,B78,B789, B79,B799,B80,B809,B81,B814,B818,B82,B820,B829, B83,B830,B838,B839,B85,B850,B851,B852,B853,B854, B86,B869,B869A,B869B,B87,B879,B88,B880,B881,B888, B888B,B888C,B888D,B889,B89,B899,B899A
allergic – all	**ICD-8:**	69299,69292,69291,69290,69289,69288,69287,69286,69285,69284, 69283,69282,69281,69280,69279,69269,69263,69262,69261,69260, 69259,69249,69243,69242,69241,69240,69239,69233,69232,69231, 69230,69229,69223,69222,69221,69220,69219,69213,69212,69211, 69210,69209,69203,69202,69201,69200,69109,69108,69101,69100, 50709,50708,50703,50702,50701,50700,36003,99949,70899,70891, 70890,70809
	ICD10:	T886,T805,T782A,T782,T780B,T780A,T780,L509,L508E,L508D, L508C,L508B,L508A,L508,L506A,L506,L505,L504,L503,L502B, L502A,L502,L501,L500,L50,L239A,L239,L238C,L238B,L238A, L238,L237A,L237,L236A,L236,L235I,L235H,L235G,L235F,L235E, L235D,L235C,L235B,L235A,L235,L234A,L234,L233A,L233,L232G, L232F,L232E,L232D,L232C,L232B,L232A,L232,L231A,L231,L230E, L230D,L230C,L230B,L230A,L230,L23,L209,L208D,L208C,L208B, L208A,L208,L200A,L200,L20,J304,J303A,J303,J302,J301C, J301B,J301A,J301,H101A,H101
allergic – rhinitis	**ICD-8:**	50700,50701,50702,50703,50708,50709
	ICD10:	J301,J301A,J301B,J301C,J302,J303,J303A,J304
allergic – conjunctivitis	**ICD-8:**	36003
	ICD10:	H101,H101A
allergic – eczema/dermatitis	**ICD-8:**	69100,69101,69108,69109,69200,69201,69202,69203,69209,69210, 69211,69212,69213,69219,69220,69221,69222,69223,69229,69230, 69231,69232,69233,69239,69240,69241,69242,69243,69249,69259, 69260,69261,69262,69263,69269,69279,69280,69281,69282,69283, 69284,69285,69286,69287,69288,69289,69290,69291,69292,69299
	ICD10:	L20,L200,L200A,L208,L208A,L208B,L208C,L208D,L209,L23, L230,L230A,L230B,L230C,L230D,L230E,L231,L231A,L232,L232A, L232B,L232C,L232D,L232E,L232F,L232G,L233,L233A,L234,L234A, L235,L235A,L235B,L235C,L235D,L235E,L235F,L235G,L235H,L235I,

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Table S2

		L236,L236A,L237,L237A,L238,L238A,L238B,L238C,L239,L239A
allergic – urticaria/angiodema	**ICD-8:**	70809,70890,70891,70899
	ICD10:	L50,L500,L501,L502,L502A,L502B,L503,L504,L505,L506, L506A,L508,L508A,L508B,L508C,L508D,L508E,L509
skin – all	**ICD-8:**	68009,68019,68029,68039,68049,68059,68069,68080,68081,68089, 68099,68100,68101,68102,68103,68104,68105,68106,68107,68108, 68109,68200,68201,68202,68209,68219,68229,68239,68249,68259, 68290,68299,68399,68400,68408,68409,68500,68501,68509,68600, 68608,68609,68619,68690,68692,68693,68694,68695,68696,68699, 69000,69001,69002,69003,69008,69009,69300,69308,69309,69400, 69401,69402,69403,69405,69408,69409,69519,69529,69530,69538, 69539,69549,69590,69591,69599,69609,69610,69619,69620,69621, 69628,69629,69639,69649,69650,69659,69699,69709,69719,69790, 69799,69809,69819,69829,69830,69831,69839,69849,69890,69899, 70099,70100,70101,70108,70109,70110,70112,70114,70115,70118, 70119,70129,70139,70190,70191,70199,70200,70201,70202,70203, 70209,70300,70301,70302,70303,70304,70305,70308,70309,70400, 70401,70402,70403,70404,70405,70406,70408,70409,70509,70519, 70590,70591,70592,70593,70599,70700,70701,70708,70709,70809, 70890
	ICD10:	L00,L009,L009A,L009B,L01,L010,L010A,L010B,L011,L02, L020,L020A,L020B,L020C,L021,L021A,L021B,L021C,L022,L022A, L022B,L022C,L022D,L022E,L022F,L022G,L022H,L022I,L022J,L022K, L022L,L022N,L022O,L022P,L022Q,L022R,L022S,L022T,L023,L023A, L023B,L023C,L023D,L024,L024A,L024B,L024C,L024D,L024E,L024F, L024G,L024H,L024I,L024J,L024K,L024L,L024M,L028,L028A,L028B, L028C,L029,L029A,L029B,L029C,L03,L030,L030A,L030B,L030C, L030D,L030E,L030F,L030G,L030H,L030I,L030J,L030K,L031,L031A, L031B,L031C,L031D,L031E,L031F,L031G,L031H,L031I,L032,L033, L033A,L033B,L033C,L033D,L033E,L033F,L038,L038A,L038B,L039, L039A,L04,L040,L040A,L040B,L040C,L041,L042,L042A,L043, L048,L049,L05,L050,L059,L08,L080,L080A,L081,L088, L088A,L088B,L088C,L089,L10,L100,L101,L102,L103,L104, L104A,L108,L108A,L109,L11,L110,L111,L118,L119,L12, L120,L121,L121A,L123,L128,L129,L13,L130,L131,L131A, L138,L138A,L138B,L138C,L139,L20,L200,L200A,L208,L208A, L208B,L208C,L208D,L209,L21,L210,L210A,L210B,L218,L218A, L218B,L218C,L218E,L218F,L218G,L219,L28,L280,L280A,L280B, L280C,L281,L282,L282A,L282B,L282C,L282E,L30,L300,L301, L301A,L301B,L302,L302A,L303,L304,L305,L305A,L308,L308A, L308B,L308C,L308D,L308E,L308F,L308G,L308H,L308I,L309,L40, L400,L400A,L400B,L400C,L401,L401A,L401B,L402,L402A,L402B, L403,L403A,L403B,L404,L405,L408,L408A,L408B,L408C,L408D, L408E,L409,L41,L410,L410A,L410B,L410C,L411,L412,L413, L414,L415,L418,L419,L42,L429,L43,L430,L431,L433, L438,L438A,L438B,L438C,L438D,L438E,L439,L44,L440,L441, L442,L443,L448,L448A,L448B,L448C,L448D,L449,L50,L500, L501,L502,L502A,L502B,L503,L504,L505,L506,L506A,L508, L508A,L508B,L508C,L508D,L508E,L509,L51,L510,L511,L511A, L512,L518,L518A,L519,L52,L529,L53,L531,L532,L533, L538,L538A,L538B,L538C,L538D,L539,L539A,L539B,L60,L600, L601,L602,L603,L603A,L603B,L604,L605,L608,L608A,L608C, L608D,L608E,L608F,L608G,L608H,L608I,L609,L63,L630,L631,

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		L632,L638,L638A,L639,L64,L648,L649,L65,L650,L651, L652,L658,L658A,L658B,L658C,L659,L66,L660,L661,L662, L663,L664,L668,L668A,L669,L67,L670,L671,L671D,L671E, L678,L678A,L678B,L678D,L679,L68,L682,L683,L688,L689, L71,L711,L718,L718A,L718B,L718C,L718D,L718E,L719,L72, L720,L721,L721A,L721B,L722,L728,L729,L73,L730,L731, L732,L738,L738A,L738B,L738D,L738E,L738F,L738H,L738I,L739, L74,L740,L741,L742,L743,L744,L744A,L748,L748A,L749, L75,L750,L751,L752,L752A,L758,L759,L84,L849,L849A, L849B,L87,L870,L871,L872,L878,L878A,L879,L88,L889, L889B,L889D,L89,L899,L899A,L899B,L899C,L899D,L899E,L899F, L90,L900,L900A,L900B,L901,L902,L903,L904,L904A,L905, L905A,L905B,L905C,L905D,L906,L906A,L906B,L906C,L906D,L908, L908A,L908B,L908D,L908F,L908G,L908J,L908K,L909,L91,L910, L910A,L918,L918B,L919,L92,L920,L920A,L920C,L921,L922, L923,L923A,L923B,L928,L928A,L928D,L928E,L928G,L929,L929A, L929B,L94,L940,L940A,L940B,L941,L942,L942A,L942B,L943, L944,L945,L946,L948,L949,L95,L950,L950A,L951,L958, L958A,L958B,L959,L97,L979,L979A,L979B,L979C,L979D,L979E, L98,L980,L981,L981A,L982,L983,L984,L984A,L984B,L984C, L984D,L984E,L985,L985A,L985B,L985C,L985D,L985E,L985F,L985G, L985H,L985I,L986,L988,L988A,L988B,L988C,L988D,L989
autoimmune – all	**ICD-8:**	13599,13601,13602,24200,24401,24503,24900,24901,24902,24903, 24904,24905,24906,24907,24908,24909,25510,26900,28100,28101, 28108,28109,28390,28391,28709,28710,34000,34001,34008,34009, 34809,35400,36401,39099,39109,39119,39129,39199,44301,44302, 44308,44309,44319,44609,44619,44629,44630,44631,44639,44691, 44692,51701,56301,56302,56308,56309,56319,57109,59502,69100, 69308,69309,69400,69401,69402,69403,69405,69408,69409,69529, 69549,69609,69610,69619,70101,70108,70109,70901,71209,71219, 71229,71239,71249,71259,71609,71619,73309,73390,73400,73401, 73402,73408,73409,73419,73490,73491
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		M082B,M084,M088,M088A,M089,M300,M303,M310A,M313,M314, M315,M315A,M316,M316A,M32,M321,M321A,M321B,M321C,M321D, M321E,M328,M329,M33,M330,M331,M332,M339,M34,M340, M341,M348,M348A,M348B,M348C,M349,M350,M350A,M350B,M350C, M350D,M350E,M351,M351A,M352,M353,M45,M459,M459A,M459B, M720,N301
respiratory – all	**ICD-8:**	46099,46100,46101,46102,46103,46104,46108,46109,46200,46201, 46208,46209,46300,46301,46302,46308,46309,46400,46401,46402, 46403,46408,46409,46599,46600,46601,46602,46608,46609,47099, 47100,47101,47108,47109,47200,47201,47209,47300,47308,47309, 47400,47408,47409,48099,48100,48101,48108,48109,48209,48219, 48229,48239,48290,48299,48300,48308,48309,48499,48599,48699, 49000,49001,49009,49100,49101,49102,49103,49104,49108,49109, 49200,49201,49208,49209,49300,49301,49302,49308,49309,50000, 50001,50002,50008,50009,50199,50209,50210,50211,50212,50213, 50214,50215,50218,50219,50300,50301,50302,50303,50304,50305, 50306,50307,50308,50309,50400,50499,50500,50501,50502,50503, 50504,50508,50509,50699,50700,50701,50702,50703,50708,50709, 50800,50801,50802,50803,50804,50805,50806,50807,50809,51000, 51001,51002,51003,51004,51008,51009,51100,51101,51108,51109, 51119,51120,51121,51122,51129,51299,51300,51301,51302,51309, 51400,51408,51409,51700,51701,51709,51899,51909,51919,51920, 51921,51922,51923,51929,51990,51991,51992,51993,51999
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		J841C,J841D,J841E,J842,J843,J848,J848A,J849,J85,J850, J850A,J851,J852,J853,J86,J860,J860A,J869,J869A,J90, J909,J92,J929,J93,J930,J931,J938,J939,J94,J940, J941,J942,J942A,J948,J948A,J949,J96,J960,J961,J969, J98,J980,J980A,J980B,J980C,J980D,J980E,J980G,J980H,J980I, J981,J982,J982A,J983,J984,J984B,J984C,J985,J985A,J985B, J985C,J985D,J986,J986A,J986B,J986C,J986D,J988,J989
respiratory – upper	**ICD-8:**	46099,46100,46101,46102,46103,46104,46108,46109,46200,46201, 46208,46209,46300,46301,46302,46308,46309,46400,46401,46402, 46403,46408,46409,46599,50000,50001,50002,50008,50009,50199, 50209,50210,50211,50212,50213,50214,50215,50218,50219,50300, 50301,50302,50303,50304,50305,50306,50307,50308,50309,50400, 50499,50500,50501,50502,50503,50504,50508,50509,50699,50700, 50701,50702,50703,50708,50709,50800,50801,50802,50803,50804, 50805,50806,50807,50809
	ICD10:	J00,J009,J009A,J009B,J009C,J01,J010,J010A,J010B,J011, J011A,J011B,J012,J012A,J012B,J013,J013B,J014,J014A,J018, J019,J02,J020,J020A,J028,J029,J029A,J029B,J029C,J03, J030,J038,J039,J039A,J039B,J039C,J039D,J039E,J039F,J04, J040,J040A,J040B,J040D,J041,J042,J042A,J05,J050,J051, J06,J060,J068,J069,J30,J300,J300A,J300B,J301,J301A, J301B,J301C,J302,J303,J303A,J304,J31,J310,J310A,J310B, J310D,J310E,J310F,J311,J312,J312A,J312B,J32,J320,J321, J322,J323,J324,J328,J329,J33,J330,J330A,J330B,J331, J331A,J338,J338A,J338B,J338C,J338D,J339,J34,J340,J340A, J340B,J340C,J340D,J340E,J340F,J340J,J341,J341A,J341B,J342, J343,J343A,J348,J348A,J348B,J348C,J35,J350,J351,J351A, J351B,J352,J353,J358,J358A,J358C,J359,J36,J369,J37, J370,J370A,J370B,J370C,J371,J38,J380,J380A,J380B,J381, J381A,J381B,J382,J382A,J383,J383A,J383B,J383C,J383D,J383E, J384,J384A,J384B,J384C,J384D,J385,J385A,J385B,J386,J387, J387A,J387B,J387D,J387E,J387G,J39,J390,J390A,J390B,J390C, J391,J391A,J392,J392A,J392B,J392C,J392D,J398,J399
respiratory – lower	**ICD-8:**	46600,46601,46602,46608,46609,48099,48100,48101,48108,48109, 48209,48219,48229,48239,48290,48299,48300,48308,48309,48499, 48599,48699
	ICD10:	J12,J120,J121,J122,J128,J129,J13,J139,J139A,J139B, J14,J149,J149A,J149B,J15,J150,J151,J152,J153,J154, J155,J156,J156A,J157,J158,J159,J16,J160,J168,J18, J180,J181,J182,J188,J189,J20,J200,J201,J202,J203, J204,J205,J206,J207,J208,J209,J209A,J21,J210,J218, J219,J22,J229
respiratory – lower-chronic	**ICD-8:**	49000,49001,49009,49100,49101,49102,49103,49104,49108,49109, 49200,49201,49208,49209,49300,49301,49302,49308,49309
	ICD10:	J40,J409,J41,J410,J411,J418,J42,J429,J429A,J429B, J43,J430,J430A,J431,J431A,J432,J438,J439,J439A,J44, J440,J441,J448,J448A,J448B,J449,J45,J450,J450A,J451, J451A,J458,J459,J459A,J46,J469,J47,J479
respiratory – asthma	**ICD-8:**	49300,49301,49302,49308,49309
	ICD10:	J45,J450,J450A,J451,J451A,J458,J459,J459A,J46,J469
respiratory – influenza	**ICD-8:**	47099,47100,47101,47108,47109,47200,47201,47209,47300,47308 47309,47400,47408,47409
	ICD10:	J09,J091,J091A,J091B,J099,J10,J100,J101,J101A,J101B,

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Table S2

		J101C,J108,J108A,J108B,J108C,J11,J110,J111,J111A,J111B, J111C,J118,J118A,J118B,J118C
respiratory – pneumonia	**ICD-8:**	48099,48100,48101,48108,48109,48209,48219,48229,48239,48290, 48299,48300,48308,48309,48499,48599,48699
	ICD10:	J12,J120,J121,J122,J128,J129,J13,J139,J139A,J139B, J14,J149,J149A,J149B,J15,J150,J151,J152,J153,J154, J155,J156,J156A,J157,J158,J159,J16,J160,J168,J18, J180,J181,J182,J188,J189
respiratory – COPD	**ICD-8:**	49100,49101,49102,49103,49104,49108,49109,49200,49201,49208, 49209
	ICD10:	J41,J410,J411,J418,J42,J429,J429A,J429B,J43,J430, J430A,J431,J431A,J432,J438,J439,J439A,J44,J440,J441, J448,J448A,J448B,J449
digestive – all	**ICD-8:**	53000,53001,53002,53008,53009,53090,53091,53092,53093,53094, 53095,53096,53097,53098,53099,53100,53101,53108,53109,53190, 53191,53192,53193,53194,53195,53196,53198,53199,53209,53290, 53291,53299,53309,53390,53391,53399,53409,53490,53491,53499, 53500,53501,53502,53503,53504,53505,53506,53508,53509,53600, 53608,53609,53619,53690,53691,53692,53693,53699,53700,53701, 53702,53703,53704,53705,53706,53709,54000,54001,54002,54008, 54009,54090,54091,54092,54098,54099,54199,54200,54209,54300, 54301,54302,54309,55000,55001,55008,55009,55100,55101,55109, 55119,55129,55130,55131,55139,55180,55181,55182,55183,55189, 55199,55299,55309,55319,55329,55339,55380,55381,55389,55399, 56000,56001,56002,56008,56009,56019,56020,56021,56022,56028, 56029,56030,56038,56039,56090,56091,56092,56093,56094,56099, 56100,56101,56102,56103,56108,56109,56200,56208,56209,56210, 56211,56212,56218,56219,56300,56301,56302,56308,56309,56319, 56399,56419,56490,56499,56700,56701,56702,56703,56704,56708, 56709,56899,56900,56901,56904,56905,56906,56907,56908,56912, 56913,56914,56915,56916,56917,56920,56999,57000,57001,57002, 57008,57009,57109,57111,57119,57190,57191,57192,57193,57194, 57199,57200,57201,57209,57300,57301,57302,57303,57304,57305, 57309,57400,57401,57402,57403,57404,57405,57406,57407,57408, 57409,57500,57501,57502,57503,57504,57508,57509,57600,57601, 57602,57603,57604,57605,57609,57700,57701,57702,57703,57704, 57708,57709,57711,57719,57790,57791,57792,57793,57799
	ICD10:	K20,K209,K209A,K209B,K209C,K21,K210,K210A,K219,K219A, K22,K220,K220A,K221,K221A,K221B,K221C,K221D,K221E,K222, K222A,K222B,K222C,K225,K225A,K225B,K228,K228A,K228B,K228C, K228D,K228E,K228F,K228G,K228H,K228I,K229,K25,K250,K250A, K250B,K250C,K250D,K250E,K250F,K251,K251A,K251B,K251C,K251D, K251E,K252,K252A,K252B,K252C,K252D,K252E,K253,K253A,K253B, K253C,K253D,K253E,K254,K254A,K254B,K254C,K254D,K254E,K254F, K254G,K254H,K254I,K254J,K255,K255A,K255D,K255E,K255F,K255H, K255I,K255J,K256,K256B,K256D,K256E,K256F,K256H,K256I,K256J, K257,K257A,K257B,K257C,K257D,K257E,K259,K259A,K26,K260, K260A,K261,K261A,K262,K262A,K263,K263A,K264,K264A,K264B, K264C,K264D,K265,K265A,K265B,K265D,K266,K266A,K266B,K266C, K266D,K267,K267A,K267B,K269,K27,K270,K271,K272,K273, K274,K275,K276,K277,K279,K28,K280,K280A,K280B,K281, K281A,K281B,K282,K282B,K283,K283A,K283B,K283C,K284,K284A, K284B,K284C,K284D,K284E,K284F,K285,K285A,K285B,K285C,K285D,

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		K285F,K286,K286A,K286B,K287,K287A,K287B,K287C,K289,K29, K290,K291,K293,K294,K295,K296,K296A,K296B,K296C,K297, K298,K298A,K299,K30,K309,K31,K310,K310A,K311,K311A, K312,K312A,K312B,K312C,K313,K314,K314A,K315,K315A,K315B, K316,K316A,K316B,K316C,K316D,K316E,K318,K318A,K318B,K318C, K318E,K318F,K318G,K318H,K319,K35,K350,K350A,K351,K351A, K359,K359A,K359B,K36,K369,K37,K379,K38,K380,K381, K381A,K382,K383,K388,K388A,K388B,K388C,K388D,K389,K40, K400,K401,K402,K402A,K403,K403A,K403B,K404,K409,K41, K410,K411,K412,K412A,K413,K413A,K413B,K414,K419,K42, K420,K420A,K420B,K421,K429,K43,K430,K430A,K430B,K431, K439,K439A,K439A1,K439A2,K439A3,K439A4,K44,K440,K440A,K440B, K441,K449,K45,K450,K450A,K450B,K450C,K450F,K450I,K451, K451A,K451C,K451E,K451F,K451H,K451I,K458,K458A,K458B,K458C, K458F,K458G,K458H,K458I,K458J,K458K,K458M,K458P,K46,K460, K460A,K460B,K461,K469,K51,K510,K511,K512,K512A,K513, K513A,K514,K515,K518,K518A,K518B,K519,K55,K550,K550A, K550B,K550C,K550D,K550E,K550F,K550G,K550H,K551,K551A,K551B, K551C,K551D,K551E,K551F,K552,K553,K553A,K553B,K553C,K558, K559,K56,K560,K560A,K560B,K561,K561A,K561B,K561C,K561D, K562,K562A,K562B,K562C,K563,K564,K564A,K564B,K565,K565A, K565B,K565C,K565D,K565E,K566,K566A,K566B,K566C,K566D,K566E, K566F,K566G,K566H,K567,K57,K570,K570A,K570B,K570C,K571, K571A,K571B,K572,K572A,K572B,K572C,K573,K573A,K573B,K573C, K573D,K573E,K573F,K574,K574A,K575,K578,K579,K579A,K58, K580,K580A,K589,K589A,K63,K630,K631,K631A,K632,K632A, K632B,K632C,K632D,K632E,K632F,K632G,K632H,K632I,K632J,K633, K634,K638,K638A,K638B,K638C,K638D,K638E,K638F,K639,K65, K650,K650A,K650B,K650C,K650D,K650E,K650F,K650G,K650H,K650I, K650J,K650K,K650L,K650M,K650N,K650O,K650P,K658,K658A,K658B, K658C,K658D,K658E,K658F,K658G,K658I,K659,K66,K660,K660A, K660B,K660C,K660D,K660E,K660F,K661,K668,K668A,K668B,K669, K72,K720,K720A,K720C,K720D,K720E,K720F,K721,K729,K73, K730,K731,K732,K732A,K732B,K732C,K732D,K732E,K732F,K732G, K738,K739,K74,K740,K740A,K740B,K741,K742,K743,K743A, K744,K745,K746,K746A,K746B,K746C,K746D,K746E,K746F,K746G, K75,K750,K750A,K750B,K750C,K750D,K751,K751A,K752,K753, K758,K759,K76,K760,K760A,K760B,K760C,K761,K761A,K762, K763,K764,K764A,K765,K766,K766A,K766B,K767,K768,K768A, K768B,K768C,K768E,K769,K80,K800,K800A,K800B,K800C,K800D, K801,K801A,K801B,K801C,K801D,K802,K802A,K802B,K802C,K802D, K802E,K802F,K803,K803A,K803B,K803C,K804,K804A,K804B,K804C, K804D,K804E,K805,K805A,K805B,K805C,K805D,K805E,K805F,K805G, K805H,K805I,K805J,K805K,K808,K81,K810,K810A,K810B,K810C, K810D,K811,K818,K819,K82,K820,K820A,K821,K822,K822A, K823,K823A,K823B,K824,K828,K828B,K828D,K828F,K828G,K828H, K828I,K828J,K828K,K829,K83,K830,K830A,K830B,K830C,K830D, K830E,K830F,K830G,K831,K831A,K831B,K832,K832A,K833,K833A, K833B,K834,K835,K838,K838B,K838D,K838E,K839,K85,K859, K859A,K859B,K859C,K859D,K859E,K859F,K86,K861,K861A,K861B, K861C,K861D,K862,K863,K868,K868A,K868B,K868C,K868D,K868E, K868F,K868G,K868I,K868L,K868M,K868N,K869
endocrine – all	**ICD-8:**	24009,24019,24099,24109,24119,24199,24200,24201,24208,24209, 24219,24220,24228,24229,24400,24401,24402,24403,24408,24409,

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		24500,24501,24502,24503,24504,24508,24509,24600,24609,25000, 25001,25002,25003,25004,25005,25006,25007,25008,25009,25100, 25101,25102,25103,25108,25109,25200,25201,25202,25203,25204, 25205,25208,25209,25210,25211,25218,25219,25299,25300,25301, 25302,25308,25309,25310,25311,25312,25313,25314,25315,25318, 25319,25329,25390,25399,25499,25500,25501,25508,25509,25510, 25511,25512,25518,25519,25529,25590,25599,25800,25801,25809, 25819,25890,25891,25892,25899,26009,26010,26019,26089,26099, 26199,26299,26309,26319,26380,26381,26389,26399,26401,26408, 26409,26509,26519,26529,26599,26609,26680,26689,26699,26700, 26708,26709,26899,26900,26901,26902,26909,26919,26990,26991, 26992,26999,27400,27401,27408,27409,27509,27519,27529,27539, 27549,27559,27590,27599,27600,27601,27602,27608,27609,27799, 27809,27819,27829,27899,27900,27901,27902,27903,27904,27905, 27906,27907,27908,27909
	ICD10:	E01,E010,E010A,E011,E011A,E012,E018,E02,E029,E03, E033,E034,E035,E038,E039,E04,E040,E041,E041A,E042, E042A,E048,E048A,E049,E05,E050,E050A,E050B,E050C,E050D, E051,E052,E053,E054,E055,E058,E058A,E058B,E059,E059A, E06,E060,E060A,E060B,E061,E061A,E061B,E061C,E062,E063, E063A,E063B,E063C,E065,E065A,E065C,E069,E07,E070,E070A, E078,E078A,E078B,E078E,E079,E11,E110,E110A,E110B,E110C, E110D,E110E,E111,E112,E113,E114,E115,E115A,E115B,E115C, E115D,E116,E117,E118,E119,E119A,E13,E130,E131,E132, E133,E134,E135,E136,E137,E138,E139,E14,E140,E140A, E140B,E140C,E140D,E141,E142,E143,E144,E145,E145A,E145B, E145C,E145D,E146,E147,E148,E149,E16,E161,E161A,E161B, E161C,E161D,E162,E163,E168,E168A,E168C,E168E,E169,E20, E200,E201,E208,E209,E21,E210,E210A,E210B,E211,E212, E213,E213A,E213B,E214,E215,E22,E220,E220A,E220C,E221, E222,E229,E23,E230,E230A,E230B,E230C,E230D,E230E,E230F, E230G,E230H,E230I,E232,E233,E236,E236A,E236B,E236C,E236E, E237,E24,E240,E241,E243,E248,E249,E26,E260,E260A, E260B,E261,E268,E268A,E269,E27,E271,E271A,E272,E272A, E274,E274A,E274B,E274C,E274D,E274E,E275,E275A,E278,E279, E31,E310,E310A,E311,E318,E319,E32,E320,E321,E328, E329,E34,E340,E341,E342,E349,E40,E409,E41,E419, E42,E429,E43,E439,E439A,E44,E440,E441,E45,E459, E46,E469,E47,E470,E50,E500,E501,E502,E503,E504, E505,E506,E507,E507A,E508,E508A,E509,E51,E511,E512, E513,E519,E52,E529,E529A,E53,E530,E531,E538,E538A, E538B,E538C,E538D,E538E,E539,E549,E55,E559,E56,E560, E561,E568,E569,E58,E589,E59,E599,E599A,E60,E609, E609A,E609B,E609C,E609D,E61,E610,E611,E612,E613,E614, E615,E616,E617,E618,E619,E63,E630,E631,E638,E639, E64,E640,E641,E642,E643,E648,E648A,E649,E649A,E649B, E65,E658,E658A,E658B,E659,E66,E660,E660A,E660B,E660C, E660D,E660E,E660F,E660G,E660H,E662,E662A,E668,E669,E67, E670,E671,E672,E673,E678,E68,E689,E78,E780,E780A, E780C,E780D,E780E,E781,E781A,E781B,E781C,E781D,E781E,E782, E782A,E782B,E782C,E782D,E782E,E782F,E782G,E782H,E782I,E782J, E783,E783A,E785
endocrine – obesity	**ICD-8:**	27799

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	ICD10:	E66,E660,E660A,E660B,E660C,E660D,E660E,E660F,E660G,E660H, E662,E662A,E668,E669
genitourinary – all	**ICD-8:**	58000,58001,58002,58008,58009,58199,58200,58201,58202,58208, 58209,58300,58301,58302,58308,58309,58499,59009,59010,59011, 59012,59013,59014,59015,59019,59020,59021,59029,59099,59100, 59101,59108,59109,59200,59201,59202,59203,59204,59205,59208, 59209,59309,59319,59320,59321,59322,59323,59324,59325,59326, 59327,59329,59330,59331,59338,59339,59340,59341,59349,59350, 59351,59352,59359,59400,59401,59409,59500,59501,59502,59503, 59504,59508,59509,59600,59601,59602,59603,59604,59605,59606, 59607,59608,59609,59700,59701,59702,59703,59708,59709,59800, 59801,59802,59803,59808,59809,59900,59901,59902,59903,59904, 59905,59906,59909,60100,60101,60102,60103,60108,60109,61200, 61201,61202,61203,61204,61208,61209,61300,61301,61302,61303, 61304,61308,61309,61499,61600,61601,61602,61603,61608,61609, 61619,61629,61690,61699,62009,62090,62099
	ICD10:	N00,N000,N001,N002,N003,N004,N005,N005A,N005C,N006, N007,N008,N008A,N008B,N009,N01,N010,N011,N012,N013, N014,N015,N015C,N016,N017,N018,N018A,N018B,N019,N03, N030,N031,N032,N033,N034,N035,N035A,N035C,N036,N037, N038,N038A,N038B,N039,N05,N050,N051,N052,N053,N054, N055,N055B,N055C,N056,N057,N058,N058A,N058B,N059,N06, N060,N061,N062,N063,N064,N065,N065C,N066,N067,N068, N068A,N068B,N069,N10,N109,N11,N110,N110A,N111,N111A, N111B,N112,N118,N119,N12,N129,N13,N130,N131,N131A, N132,N132A,N132B,N133,N133A,N134,N135,N135A,N135B,N135C, N136,N136A,N136B,N136C,N136D,N137,N138,N138A,N139,N139A, N139B,N15,N150,N151,N151A,N151B,N158,N159,N17,N170, N170A,N171,N171A,N172,N172B,N172C,N178,N179,N18,N180, N188,N188A,N188B,N189,N19,N199,N20,N200,N200A,N200F, N200I,N200M,N200S,N200X,N200X1,N200X2,N200Y,N200Z,N201,N201A, N201F,N201I,N201M,N201S,N201X,N201Y,N201Z,N202,N202A,N202F, N202I,N202M,N202S,N202X,N202X2,N202Y,N202Z,N209,N209A,N21, N210,N210A,N211,N218,N219,N23,N239,N25,N250,N250B, N250C,N250D,N251,N258,N258A,N258B,N258C,N259,N26,N269, N27,N270,N271,N279,N28,N280,N280A,N280B,N280D,N281, N288,N288A,N288B,N288D,N288E,N288F,N288G,N288H,N289,N289A, N30,N300,N301,N302,N303,N303A,N308,N308A,N308B,N308C, N308D,N308E,N308F,N308G,N308H,N308J,N308K,N309,N31,N310, N311,N312,N318,N318A,N319,N319B,N32,N320,N320A,N320B, N321,N321A,N322,N323,N324,N325,N325A,N325B,N328,N328A, N328B,N328C,N328D,N328E,N329,N34,N340,N340A,N340B,N340C, N341,N342,N342A,N342B,N342C,N342D,N342E,N342F,N342G,N343, N35,N351,N358,N358A,N359,N36,N360,N360A,N360B,N360C, N361,N362,N363,N368,N368A,N368C,N368D,N368E,N369,N39, N391,N392,N394,N394A,N394B,N394C,N398,N399,N41,N410, N411,N412,N412A,N413,N413A,N418,N419,N679,N70,N700, N700A,N700B,N700C,N700D,N700E,N700F,N700G,N701,N701A,N701B, N701C,N701D,N701E,N701F,N701G,N701H,N702,N709,N709B,N709C, N71,N710,N710A,N710B,N710C,N710D,N710E,N710F,N711,N711A, N711B,N711C,N711D,N711F,N719,N72,N729,N729A,N729B,N729C, N729D,N729E,N729F,N73,N730,N730B,N730C,N730E,N731,N731B, N731C,N732,N732A,N732B,N732C,N732E,N733,N733A,N734,N734A, N735,N735A,N736,N736A,N736B,N738,N738A,N738B,N738C,N739

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genitourinary – kidney infection	**ICD-8:**	59009,59010,59011,59012,59013,59014,59015, 59019,59020,59021,59029,59099
	ICD10:	N10,N109,N11,N110,N110A,N111,N111A,N111B,N112,N118, N119,N12,N129
musculoskeletal – all	**ICD-8:**	71000,71001,71002,71003,71004,71008,71009,71199,71219,71229, 71239,71249,71259,71300,71301,71302,71303,71304,71305,71306, 71308,71309,71310,71311,71312,71313,71314,71315,71318,71319, 71490,71491,71492,71493,71494,71499,71599,71609,71619,71709, 71719,71729,71790,71791,71799,71899,72000,72001,72002,72003, 72008,72009,72010,72011,72012,72013,72018,72019,72029,72030, 72031,72032,72038,72039,72199,72220,72221,72222,72223,72224, 72225,72289,72299,72309,72319,72390,72391,72392,72393,72394, 72395,72399,72409,72419,72499,72500,72501,72509,72510,72511, 72519,72589,72599,72699,72709,72719,72729,72739,72749,72759, 72769,72779,72789,72799,72809,72819,72829,72839,72849,72859, 72869,72879,72889,72890,72899,72900,72901,72902,72903,72904, 72905,72906,72907,72909,73099,73100,73101,73102,73103,73104, 73105,73108,73109,73299,73309,73319,73390,73391,73392,73393, 73399,73400,73401,73402,73408,73409,73419,73490,73491,73499, 73500,73501,73502,73503,73504,73508,73509,73699,73799,73800, 73801,73802,73803,73804,73805,73806,73809
	ICD10:	M00,M000,M000A,M000B,M001,M001A,M002,M002A,M002B,M008, M009,M02,M021,M022,M023,M028,M029,M05,M050,M050A, M051,M051B,M051C,M051D,M051E,M051F,M052,M053,M053A,M053C, M053D,M053E,M058,M059,M06,M060,M061,M062,M063,M064, M068,M069,M11,M110,M112,M112A,M118,M119,M12,M120, M121,M122,M123,M124,M128,M128A,M13,M130,M131,M138, M138A,M139,M15,M150,M151,M152,M153,M153A,M154,M158, M159,M16,M160,M161,M161A,M161B,M162,M163,M163A,M163B, M166,M167,M167A,M167B,M169,M17,M170,M171,M171A,M171B, M174,M175,M175A,M175B,M179,M18,M180,M181,M181A,M181B, M184,M185,M185A,M185B,M189,M19,M190,M190A,M192,M192A, M198,M198A,M199,M30,M300,M301,M303,M308,M308A,M31, M310,M310A,M310B,M311,M311A,M311B,M312,M313,M314,M315, M315A,M316,M316A,M318,M318A,M318B,M319,M33,M331,M332, M339,M34,M340,M341,M348,M348A,M348B,M348C,M349,M35, M350,M350A,M350B,M350C,M350D,M350E,M351,M351A,M352,M353, M354,M355,M356,M358,M359,M40,M400,M401,M401A,M402, M402A,M403,M404,M404A,M404B,M404C,M405,M41,M412,M413, M413A,M415,M415A,M415B,M418,M419,M42,M421,M429,M43, M430,M431,M432,M432A,M433,M434,M434A,M435,M435A,M436, M438,M439,M45,M459,M459A,M459B,M46,M460,M461,M462, M463,M463A,M464,M465,M465A,M468,M469,M47,M470,M470A, M470B,M471,M471A,M471B,M471C,M472,M472A,M472B,M478,M478A, M478B,M478C,M478D,M478E,M479,M48,M480,M481,M481A,M482, M482A,M483,M484,M485,M485A,M485B,M488,M488A,M489,M50, M500,M500A,M500B,M500C,M500D,M500E,M500F,M501,M501A,M501B, M501C,M501D,M501E,M501F,M502,M503,M508,M509,M51,M510, M510A,M510B,M510C,M510D,M510E,M510F,M510G,M511,M511A,M511B, M511C,M511D,M511E,M511F,M511H,M511I,M512,M512A,M512B,M512C, M512D,M512E,M512F,M512G,M513,M513A,M513B,M513C,M514,M518, M519,M53,M530,M530A,M531,M532,M533,M533A,M533B,M538, M539,M54,M540,M540A,M540B,M541,M541A,M541B,M541C,M541D,

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		M542,M543,M544,M545,M545A,M546,M548,M549,M60,M600, M600A,M601,M602,M602B,M608,M609,M61,M610,M611,M612, M612A,M612B,M613,M614,M615,M619,M619A,M62,M620,M620A, M621,M621A,M622,M623,M624,M625,M625A,M626,M628,M628A, M628B,M629,M65,M650,M651,M652,M653,M653A,M654,M658, M658A,M658B,M659,M659A,M659B,M66,M660,M661,M661A,M662, M663,M664,M665,M67,M670,M671,M672,M673,M674,M678, M679,M71,M710,M711,M712,M713,M713A,M714,M715,M718, M719,M72,M720,M721,M722,M723,M724,M725,M725A,M725B, M728,M728A,M728B,M728C,M729,M75,M750,M751,M751A,M751B, M751C,M752,M753,M753A,M754,M755,M758,M759,M76,M760, M761,M762,M763,M763B,M764,M765,M766,M766A,M766B,M767, M768,M768A,M768B,M769,M77,M770,M771,M772,M773,M774, M775,M778,M779,M779A,M79,M790,M790A,M790B,M791,M792, M792A,M792B,M793,M793A,M793B,M793C,M793F,M794,M795,M796, M797,M798,M798A,M798B,M798C,M798D,M799,M80,M800,M801, M802,M805,M808,M809,M809A,M809B,M809C,M809D,M81,M810, M811,M812,M815,M816,M818,M818A,M819,M83,M830,M831, M832,M832A,M833,M838,M839,M84,M840,M841,M842,M843, M844,M844A,M848,M849,M85,M850,M851,M852,M852A,M853, M854,M855,M856,M858,M858A,M859,M86,M860,M861,M862, M863,M864,M865,M865A,M866,M868,M868A,M869,M869A,M869B, M869C,M87,M870,M873,M878,M879,M88,M880,M888,M889, M89,M890,M890A,M891,M892,M893,M894,M894C,M895,M896, M898,M898A,M898B,M899,M93,M930,M931,M932,M932A,M932B, M938,M939,M94,M940,M941,M942,M943,M948,M948A,M948B, M948D,M948E,M948F,M948G,M949
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		D225E,D225F,D225G,D225H,D225K,D225L,D225M,D225P,D225Q,D225V, D225Z,D226,D226B,D226D,D226E,D226F,D226G,D226N,D226P,D226V, D226Z,D227,D227A,D227B,D227D,D227E,D227F,D227G,D227H,D227P, D227V,D228,D228A,D228D,D228E,D228G,D228H,D228L,D228N,D228P, D228Q,D229,D229D,D229E,D229F,D229G,D229H,D229K,D229L,D229M, D229N,D229P,D229Q,D229V,D229Z,D23,D230,D2301,D2308,D230D, D230F,D230H,D230J,D230K,D230L,D230Q,D230T,D230U,D230X,D231, D2318,D231A,D231B,D231D,D231F,D231H,D231I,D231J,D231K,D231L, D231Q,D231T,D231X,D232,D2328,D232A,D232B,D232D,D232F,D232H, D232J,D232L,D232N,D232Q,D232R,D232X,D233,D2331,D2338,D233D, D233F,D233G,D233H,D233I,D233L,D233Q,D233R,D233T,D233X,D233Y, D233Z,D234,D2341,D2348,D234A,D234B,D234D,D234F,D234G,D234H, D234I,D234J,D234L,D234N,D234Q,D234R,D234T,D234X,D235,D2351, D2358,D235A,D235B,D235C,D235D,D235H,D235I,D235J,D235K,D235L, D235M,D235N,D235Q,D235R,D235T,D235X,D235Y,D236,D2361,D2368, D236B,D236D,D236E,D236H,D236I,D236J,D236K,D236L,D236N,D236R, D236X,D237,D2371,D2378,D237A,D237B,D237D,D237E,D237H,D237J, D237K,D237L,D237M,D237N,D237R,D237S,D237X,D237Y,D238,D2381, D2388,D238D,D238E,D238G,D238H,D238J,D238L,D238N,D238Q,D238R, D238X,D238Y,D238Z,D239,D2391,D2392,D2398,D239A,D239D,D239E, D239G,D239H,D239I,D239J,D239K,D239L,D239M,D239N,D239Q,D239R, D239T,D239X,D239Z,D24,D249,D249A,D249B,D249C,D249D,D249E, D249F,D249G,D249W,D25,D250,D250A,D250B,D250C,D251,D252, D259,D26,D260,D261,D267,D269,D27,D270,D271,D272, D278,D279,D28,D280,D281,D282,D282A,D282C,D287,D289, D2891,D2898,D289H,D289M,D289N,D289Q,D289R,D289X,D29,D290, D291,D292,D293,D294,D297,D297A,D297C,D299,D2998,D299J, D299K,D299L,D299M,D299Q,D299T,D299X,D30,D300,D301,D302, D303,D304,D307,D309,D31,D310,D311,D312,D313,D314, D315,D315A,D315B,D316,D316A,D317,D319,D32,D320,D321, D329,D329A,D33,D330,D330A,D330B,D330C,D330D,D331,D331A, D331B,D331C,D331D,D332,D333,D333A,D333B,D334,D337,D339, D34,D349,D35,D350,D350A,D351,D352,D352A,D353,D354, D355,D356,D356B,D356C,D357,D358,D359,D36,D360,D361, D361A,D367,D369,D37,D370,D370A,D370B,D370C,D371,D372, D373,D374,D375,D375A,D376,D376A,D376B,D376C,D377,D379, D38,D380,D381,D381A,D381B,D381C,D382,D383,D384,D385, D385A,D385B,D385C,D389,D39,D390,D391,D391A,D392,D392A, D392B,D397,D399,D40,D400,D401,D407,D409,D41,D410, D411,D412,D413,D414,D417,D419,D42,D420,D421,D429, D43,D430,D430B,D430C,D430D,D430E,D430F,D431,D431A,D431B, D431C,D431D,D431E,D431F,D432,D433,D434,D437,D439,D44, D440,D441,D442,D443,D444,D445,D446,D447,D447B,D448, D449,D45,D459,D46,D460,D461,D462,D463,D464,D467, D469,D47,D470,D470A,D471,D471A,D472,D473,D474,D477, D477A,D479,D48,D480,D481,D482,D483,D484,D485,D486, D487,D487A,D487B,D487C,D487D,D489
neoplasms – benign	**ICD-8:**	21009,21019,21020,21021,21022,21029,21039,21040,21041,21042, 21049,21059,21069,21079,21089,21099,21109,21119,21120,21121, 21122,21128,21129,21130,21131,21132,21133,21134,21135,21136, 21138,21139,21149,21150,21151,21152,21158,21159,21169,21170, 21171,21179,21199,21200,21201,21202,21203,21204,21209,21219, 21229,21230,21231,21239,21249,21259,21299,21300,21301,21302, 21303,21304,21305,21306,21307,21308,21309,21499,21500,21501,

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	21502,21503,21508,21509,21600,21601,21602,21603,21604,21605, 21606,21607,21608,21609,21619,21629,21689,21699,21700,21701, 21702,21708,21709,21899,21909,21919,21990,21991,21999,22099, 22100,22101,22102,22109,22119,22129,22189,22199,22209,22219, 22280,22281,22289,22299,22309,22319,22329,22330,22331,22332, 22338,22339,22380,22389,22399,22400,22401,22402,22403,22404, 22408,22409,22500,22501,22502,22503,22504,22505,22506,22507, 22508,22509,22510,22511,22518,22519,22520,22521,22522,22523, 22524,22525,22528,22529,22530,22531,22539,22549,22559,22569, 22599,22609,22619,22620,22621,22629,22639,22689,22699,22700, 22701,22702,22703,22709,22899
ICD10:	D10,D100,D101,D101A,D102, D103,D103A,D103B,D104,D104A,D105,D106,D107,D109,D11, D110,D117,D117A,D117B,D119,D12,D120,D120A,D121,D122, D123,D123A,D123B,D124,D125,D126,D126A,D126B,D126C,D126F, D127,D128,D129,D129A,D129B,D13,D130,D131,D132,D133, D133A,D134,D134A,D135,D136,D137,D137A,D137B,D139,D14, D140,D140A,D140B,D140C,D141,D142,D143,D143A,D143B,D144, D15,D150,D151,D152,D157,D159,D16,D160,D160A,D160C, D160D,D161,D161A,D161B,D162,D162A,D162B,D163,D163A,D163B, D163C,D164,D164A,D164C,D164D,D165,D165A,D166,D166B,D167, D167A,D167B,D167D,D167E,D167F,D168,D168B,D168D,D168E,D168F, D169,D169A,D169B,D17,D170,D170A,D170B,D170C,D170D,D170E, D170F,D171,D171A,D171B,D172,D172A,D172B,D173,D173A,D173B, D174,D175,D176,D177,D177A,D177B,D179,D18,D180,D180A, D180B,D180C,D180D,D180E,D180F,D181,D181A,D181B,D189,D19, D190,D191,D192,D192D,D193,D194,D195,D196,D197,D199, D20,D200,D201,D21,D210,D210A,D210B,D210C,D211,D211A, D211B,D212,D212A,D212B,D213,D214,D215,D216,D217,D217A, D219,D22,D220,D220D,D220E,D220G,D220P,D220Z,D221,D221A, D221B,D221D,D221G,D221N,D221P,D222,D222A,D222B,D222D,D222F, D222G,D222P,D223,D223A,D223D,D223E,D223F,D223G,D223H,D223K, D223L,D223N,D223P,D223Q,D223V,D223Z,D224,D224A,D224B,D224D, D224E,D224F,D224G,D224L,D224P,D224Q,D224V,D225,D225B,D225D, D225E,D225F,D225G,D225H,D225K,D225L,D225M,D225P,D225Q,D225V, D225Z,D226,D226B,D226D,D226E,D226F,D226G,D226N,D226P,D226V, D226Z,D227,D227A,D227B,D227D,D227E,D227F,D227G,D227H,D227P, D227V,D228,D228A,D228D,D228E,D228G,D228H,D228L,D228N,D228P, D228Q,D229,D229D,D229E,D229F,D229G,D229H,D229K,D229L,D229M, D229N,D229P,D229Q,D229V,D229Z,D23,D230,D2301,D2308,D230D, D230F,D230H,D230J,D230K,D230L,D230Q,D230T,D230U,D230X,D231, D2318,D231A,D231B,D231D,D231F,D231H,D231I,D231J,D231K,D231L, D231Q,D231T,D231X,D232,D2328,D232A,D232B,D232D,D232F,D232H, D232J,D232L,D232N,D232Q,D232R,D232X,D233,D2331,D2338,D233D, D233F,D233G,D233H,D233I,D233L,D233Q,D233R,D233T,D233X,D233Y, D233Z,D234,D2341,D2348,D234A,D234B,D234D,D234F,D234G,D234H, D234I,D234J,D234L,D234N,D234Q,D234R,D234T,D234X,D235,D2351, D2358,D235A,D235B,D235C,D235D,D235H,D235I,D235J,D235K,D235L, D235M,D235N,D235Q,D235R,D235T,D235X,D235Y,D236,D2361,D2368, D236B,D236D,D236E,D236H,D236I,D236J,D236K,D236L,D236N,D236R, D236X,D237,D2371,D2378,D237A,D237B,D237D,D237E,D237H,D237J, D237K,D237L,D237M,D237N,D237R,D237S,D237X,D237Y,D238,D2381, D2388,D238D,D238E,D238G,D238H,D238J,D238L,D238N,D238Q,D238R, D238X,D238Y,D238Z,D239,D2391,D2392,D2398,D239A,D239D,D239E,

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		D239G,D239H,D239I,D239J,D239K,D239L,D239M,D239N,D239Q,D239R, D239T,D239X,D239Z,D24,D249,D249A,D249B,D249C,D249D,D249E, D249F,D249G,D249W,D25,D250,D250A,D250B,D250C,D251,D252, D259,D26,D260,D261,D267,D269,D27,D270,D271,D272, D278,D279,D28,D280,D281,D282,D282A,D282C,D287,D289, D2891,D2898,D289H,D289M,D289N,D289Q,D289R,D289X,D29,D290, D291,D292,D293,D294,D297,D297A,D297C,D299,D2998,D299J, D299K,D299L,D299M,D299Q,D299T,D299X,D30,D300,D301,D302, D303,D304,D307,D309,D31,D310,D311,D312,D313,D314, D315,D315A,D315B,D316,D316A,D317,D319,D32,D320,D321, D329,D329A,D33,D330,D330A,D330B,D330C,D330D,D331,D331A, D331B,D331C,D331D,D332,D333,D333A,D333B,D334,D337,D339, D34,D349,D35,D350,D350A,D351,D352,D352A,D353,D354, D355,D356,D356B,D356C,D357,D358,D359,D36,D360,D361, D361A,D367,D369
circulatory – all	**ICD-8:**	39099,39109,39119, 39129,39199,39209,39299,39300,39301,39308,39309,39400,39401, 39402,39408,39409,39490,39491,39492,39498,39499,39500,39501, 39502,39508,39509,39590,39591,39592,39598,39599,39600,39601, 39602,39603,39604,39608,39609,39690,39691,39692,39693,39694, 39698,39699,39700,39701,39709,39899,40009,40019,40029,40039, 40099,40199,40299,40399,40499,41009,41099,41109,41199,41209, 41299,41309,41399,41409,41499,42000,42001,42008,42009,42100, 42101,42108,42109,42199,42299,42300,42301,42302,42308,42309, 42400,42401,42402,42408,42409,42410,42411,42412,42418,42419, 42490,42491,42492,42499,42599,42600,42601,42602,42608,42609, 42709,42710,42711,42719,42720,42721,42722,42723,42724,42725, 42726,42727,42728,42729,42790,42791,42792,42793,42794,42795, 42796,42797,42799,42899,42900,42908,42909,43000,43001,43008, 43009,43090,43091,43098,43099,43100,43101,43108,43109,43190, 43191,43198,43199,43200,43201,43202,43208,43209,43290,43291, 43292,43298,43299,43309,43399,43409,43499,43509,43599,43600, 43601,43609,43690,43699,43700,43701,43708,43709,43790,43791, 43798,43799,43809,43899,44009,44019,44020,44021,44028,44029, 44030,44039,44099,44109,44110,44111,44119,44120,44121,44129, 44199,44299,44300,44301,44302,44308,44309,44319,44329,44380, 44381,44382,44389,44399,44400,44408,44409,44419,44420,44421, 44428,44429,44439,44440,44441,44442,44443,44444,44448,44449, 44490,44499,44609,44619,44629,44630,44631,44639,44649,44690, 44691,44692,44699,44799,44801,44802,44808,44809,044990,
	ICD10:	I00,I009,I009A,I009B,I01,I010,I011,I012,I018,I018A, I019,I02,I020,I020A,I029,I05,I050,I051,I052,I058, I059,I06,I060,I061,I062,I068,I069,I07,I070,I071, I072,I078,I079,I08,I080,I080A,I081,I081A,I082,I082A, I083,I088,I089,I09,I090,I091,I091A,I091B,I092,I092B, I092C,I098,I098A,I098B,I098E,I099,I10,I109,I11,I110, I119,I12,I120,I129,I13,I130,I131,I132,I139,I15, I150,I151,I152,I158,I159,I20,I200,I200A,I200B,I200C, I201,I201A,I201B,I208,I208A,I208B,I208D,I209,I21,I210, I210A,I210B,I211,I211A,I211B,I212,I212A,I212B,I212C,I212E, I212G,I212H,I213,I214,I219,I22,I220,I220A,I220C,I221, I221A,I221B,I228,I228B,I228C,I228F,I228G,I229,I23,I230, I231,I232,I233,I234,I235,I236,I236A,I236B,I238,I238A, I24,I240,I240A,I241,I241A,I248,I248A,I249,I25,I250,

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		I251,I251A,I251B,I251C,I252,I252A,I252B,I252C,I253,I254, I255,I256,I256A,I258,I259,I26,I260,I260A,I269,I269A, I27,I270,I271,I272,I278,I279,I279A,I28,I280,I281, I288,I288A,I288B,I289,I30,I300,I301,I301A,I301B,I301C, I301E,I308,I309,I31,I310,I310B,I311,I311A,I311B,I312, I313,I313A,I318,I318B,I319,I319A,I33,I330,I330A,I330B, I330C,I330D,I330E,I330F,I339,I34,I340,I341,I342,I348, I348A,I349,I35,I350,I351,I352,I358,I358A,I359,I36, I360,I361,I362,I368,I368A,I369,I37,I370,I371,I372, I378,I379,I38,I389,I40,I400,I400A,I400B,I401,I408, I409,I42,I420,I421,I421A,I422,I423,I423B,I424,I424A, I425,I428,I428A,I428B,I429,I44,I440,I441,I441A,I441B, I441C,I441D,I441E,I442,I442A,I443,I443A,I444,I445,I446, I446A,I446B,I447,I45,I450,I451,I451A,I452,I453,I454, I455,I455A,I455B,I455C,I455G,I455H,I455K,I455L,I456,I456A, I456AA,I456B,I456C,I456D,I456DA,I456DB,I456E,I458,I458M,I459, I459A,I46,I460,I461,I469,I47,I470,I470A,I470B,I470C, I470D,I470H,I470HA,I470HB,I471,I471A,I471B,I471C,I471E,I471EA, I471EB,I471F,I471FA,I471G,I471H,I471J,I471L,I471LA,I471M,I471N, I471P,I471PA,I471PB,I471R,I471RA,I471RB,I471RC,I471X,I472,I472A, I472B,I472D,I472E,I472EA,I472F,I472FA,I472H,I472L,I472LA,I472LB, I472LC,I472M,I472N,I472NA,I478,I478A,I479,I479A,I48,I489, I489A,I489AA,I489AB,I489AC,I489AD,I489AE,I489B,I489BA,I489BB,I489BC, I489BD,I49,I490,I490A,I490B,I491,I491A,I491B,I491C,I491D, I491E,I492,I493,I493A,I493B,I493C,I494,I494A,I495,I495A, I495B,I498,I498A,I498B,I498C,I498D,I498E,I499,I499A,I50, I500,I500A,I501,I501A,I501B,I501C,I502,I503,I508,I508A, I509,I509A,I509B,I51,I510,I510A,I510B,I511,I511A,I512, I513,I513A,I513B,I513C,I514,I514A,I515,I516,I517,I517A, I517B,I517C,I518,I518A,I519,I60,I600,I601,I602,I603, I604,I605,I606,I606A,I606B,I606C,I606D,I607,I607A,I608, I609,I61,I610,I610A,I611,I611A,I611B,I612,I613,I614, I615,I616,I618,I619,I62,I620,I621,I629,I63,I630, I631,I632,I633,I634,I634A,I635,I636,I638,I639,I64, I649,I65,I650,I650A,I650B,I651,I651A,I651B,I652,I652A, I652B,I653,I653B,I653C,I653D,I658,I659,I66,I660,I660A, I660B,I661,I662,I662A,I663,I664,I668,I668A,I669,I67, I670,I671,I671A,I672,I672A,I673,I673A,I674,I676,I676A, I677,I678,I678A,I678B,I679,I69,I690,I691,I692,I693, I694,I698,I70,I700,I701,I702,I702A,I702B,I708,I709, I71,I710,I710A,I710B,I711,I712,I713,I714,I715,I716, I718,I719,I719A,I719B,I72,I720,I721,I722,I723,I724, I728,I729,I73,I730,I731,I738,I738A,I738B,I738C,I738D, I739,I739A,I739B,I739C,I74,I740,I740A,I740B,I740C,I740D, I741,I741A,I741B,I742,I742A,I742B,I743,I743A,I743B,I744, I744A,I744B,I744C,I744D,I744E,I745,I745A,I745B,I748,I749, I77,I770,I770A,I771,I772,I772A,I772B,I773,I774,I775, I776,I776A,I778,I778A,I779,I78,I781,I781A,I781B,I781C, I781D,I788,I788A,I788B,I788C,I788D,I789
nervous – all	**ICD-8:**	32009,32019, 32080,32089,32090,32091,32092,32093,32099,32199,32200,32201, 32202,32203,32204,32205,32208,32209,32300,32301,32302,32303, 32308,32309,32400,32401,32408,32409,34000,34001,34008,34009, 34100,34101,34109,34299,34600,34601,34608,34609,34790,34791,

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		34792,34793,34794,34795,34796,34799,35799,35800,35801,35808, 35809
	ICD10:	G00,G000,G001,G002,G003,G008,G008A,G008B,G009,G009A, G03,G030,G031,G032,G038,G039,G04,G040,G040A,G041, G042,G042A,G048,G048A,G048B,G048C,G049,G049A,G049B,G049C, G06,G060,G060B,G060C,G060D,G060E,G060F,G060G,G060I,G060J, G060M,G061,G061A,G061B,G061C,G061E,G062,G062A,G062B,G062C, G08,G089,G089A,G089B,G089L,G09,G099,G20,G209,G209A, G21,G210,G211,G212,G213,G218,G218A,G219,G23,G231, G231A,G232,G238,G239,G30,G300,G301,G308,G309,G31, G310,G310A,G310B,G311,G318,G318B,G318D,G318E,G319,G35, G359,G359A,G359B,G359C,G36,G360,G360A,G361,G368,G369, G37,G370,G370A,G371,G372,G373,G373A,G374,G375,G378, G379,G54,G540,G540A,G540B,G540C,G541,G542,G543,G544, G545,G545A,G545B,G546,G547,G547A,G548,G549,G56,G560, G561,G562,G562A,G563,G564,G568,G568A,G569,G57,G570, G571,G571A,G572,G573,G574,G575,G576,G576A,G578,G578A, G579,G58,G580,G587,G588,G589,G59,G590,G598,G61, G610,G610A,G611,G618,G619,G64,G649,G649A,G90,G900, G900A,G902,G903,G903A,G903B,G908,G909,G93,G930,G930A, G930B,G931,G932,G933,G933A,G934,G935,G935A,G935B,G935C, G936,G937,G939,G95,G950,G950A,G950B,G951,G951A,G951B, G951D,G951G,G952,G952A,G958,G958A,G958B,G958C,G959,G96, G960,G960A,G960B,G961,G968,G969,G98,G989
eye/adnexa – all	**ICD-8:**	36000,36001,36002, 36003,36004,36005,36008,36009,36100,36101,36102,36103,36108, 36109,36200,36201,36202,36208,36209,36300,36301,36302,36303, 36308,36309,36390,36391,36392,36393,36394,36395,36398,36399, 36400,36401,36402,36403,36404,36408,36409,36500,36501,36502, 36503,36508,36509,36600,36601,36602,36603,36604,36609,36700, 36701,36702,36708,36709,36800,36801,36802,36803,36804,36805, 36806,36808,36809,36900,36901,36902,36903,36904,36905,36908, 36909,37000,37001,37002,37003,37004,37008,37009,37100,37102, 37108,37109,37299,37300,37301,37302,37303,37304,37305,37306, 37308,37309,37401,37402,37403,37404,37405,37406,37407,37408, 37409,37500,37501,37502,37503,37504,37508,37509,37510,37511, 37512,37513,37514,37515,37516,37518,37519,37520,37521,37528, 37529,37590,37599,37600,37601,37602,37603,37608,37609,37700, 37701,37702,37703,37704,37705,37706,37707,37708,37709,37710, 37711,37718,37719,37729,37739,37790,37791,37792,37793,37799, 37809,37810,37813,37814,37815,37820,37821,37822,37823,37825, 37830,37831,37832,37840,37850,37851,37852,37860,37861,37862, 37863,37864,37865,37866,37867,37868,37869,37870,37871,37872, 37873,37874,37875,37876,37877,37878,37879,37880,37881,37882, 37883,37884,37885,37886,37887,37888,37889,37899,37909,37919, 37929,37939,38000,38001,38002,38003,38008,38009,38100,38101, 38102,38108,38109,38119,38199,38209,38219,38299,38309,38319, 38399,38400,38401,38402,38409,38599,38699,38709,38719,38790, 38791,38792,38793,38794,38795,38796,38797,38799,38800,38809, 38909,38919,38929,38999
	ICD10:	H00,H000,H000A,H000B,H000C,H000D,H001,H01,H010,H011, H011A,H011B,H011C,H011D,H011E,H018,H019,H02,H020,H020A, H020B,H021,H022,H023,H024,H025,H025A,H025B,H025C,H025D,

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	H026,H027,H027B,H027C,H028,H028A,H028B,H028C,H029,H04, H040,H041,H041B,H041C,H041D,H041E,H041F,H042,H043,H043A, H043B,H043C,H043D,H043F,H044,H044A,H044B,H044C,H045,H045A, H045B,H045C,H045D,H045E,H045F,H046,H046A,H048,H049,H05, H050,H050A,H050B,H050D,H050E,H051,H051A,H052,H052A,H052B, H053,H053A,H053B,H053C,H053D,H054,H055,H055A,H055B,H058, H058A,H058B,H059,H10,H100,H101,H101A,H102,H103,H104, H104A,H105,H108,H109,H11,H110,H111,H111B,H111C,H111D, H111E,H112,H112A,H114,H114A,H114B,H114C,H114D,H118,H118A, H119,H13,H130,H131,H131A,H131B,H131C,H131D,H131F,H131I, H131J,H131M,H131N,H132,H133,H133A,H138,H15,H150,H151, H158,H158A,H158B,H159,H16,H160,H160A,H160B,H160C,H160D, H160E,H160F,H160G,H160H,H161,H161A,H161B,H161C,H161D,H161E, H161F,H161G,H161H,H162,H162A,H162B,H163,H164,H168,H169, H17,H170,H171,H178,H178A,H179,H18,H180,H180A,H180B, H180C,H180D,H180E,H181,H182,H183,H183B,H184,H184A,H184B, H186,H187,H187A,H187B,H187C,H187D,H188,H188A,H188B,H188C, H189,H20,H200,H200A,H200B,H200C,H200D,H200E,H200F,H200G, H200H,H200I,H200J,H200K,H201,H202,H202A,H208,H209,H21, H210,H211,H211A,H212,H212A,H212B,H212D,H212E,H212F,H212H, H212I,H213,H213B,H213C,H213D,H213E,H213H,H214,H214A,H214B, H215,H215A,H215B,H215D,H215E,H215F,H218,H219,H25,H250, H250A,H250B,H250C,H250D,H250E,H250F,H250G,H251,H251A,H251B, H252,H252A,H258,H259,H26,H262,H262A,H262B,H264,H264A, H268,H269,H27,H270,H271,H271A,H271B,H271C,H278,H279, H30,H300,H300A,H300B,H301,H301A,H301B,H302,H308,H308A, H309,H31,H310,H310A,H310B,H310C,H311,H311A,H311B,H313, H313A,H313B,H313C,H314,H314A,H318,H319,H33,H330,H330A, H331,H331A,H331B,H331C,H331D,H331E,H332,H332A,H332B,H333, H333A,H333B,H334,H334A,H335,H34,H340,H340A,H341,H341A, H341B,H342,H342A,H342B,H342C,H348,H348A,H348B,H348C,H348D, H348E,H348F,H349,H35,H350,H350A,H350B,H350C,H350D,H350E, H350F,H350G,H350H,H350I,H350J,H350K,H351,H351A,H352,H352A, H353,H353A,H353B,H353C,H353D,H353E,H353F,H353G,H353H,H353J, H353K,H353L,H354,H354A,H354C,H354D,H356,H357,H357A,H357B, H358,H359,H40,H400,H401,H401A,H401B,H401C,H401D,H401E, H401F,H402,H402A,H402B,H402C,H404,H405,H408,H409,H43, H430,H431,H432,H433,H433A,H438,H438A,H438B,H438C,H439, H44,H440,H441,H441A,H441B,H441D,H442,H443,H444,H445, H445B,H445C,H446,H446B,H446C,H446E,H446F,H447,H447A,H447B, H447C,H447D,H447E,H447F,H448,H448A,H448B,H448C,H449,H46, H469,H469A,H469B,H469C,H47,H470,H470A,H470B,H470C,H471, H471A,H472,H472A,H473,H473A,H473B,H474,H475,H475A,H475C, H476,H477,H49,H490,H491,H492,H493,H494,H498,H498A, H498B,H499,H50,H500,H500A,H500B,H501,H501A,H501B,H502, H503,H503A,H503B,H504,H504A,H504B,H504C,H504D,H504E,H504F, H504G,H505,H505A,H505B,H505C,H506,H506A,H506B,H508,H508A, H509,H51,H510,H511,H512,H518,H519,H52,H520,H521, H522,H523,H523A,H523B,H524,H525,H525A,H525B,H526,H527, H53,H530,H530A,H530B,H530C,H531,H531A,H531C,H531D,H531E, H531F,H531G,H531H,H532,H533,H533A,H533B,H533C,H534,H534A, H534B,H534C,H534D,H534E,H534G,H534H,H534I,H535,H535B,H535C, H535D,H535E,H536,H538,H539,H54,H540,H541,H542,H543, H544,H545,H546,H547,H55,H559,H559A,H559B,H559C,H559D,

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		H559X,H57,H570,H570A,H571,H578,H579
mental – all	**ICD-8:**	29009,29010, 29011,29018,29019,29209,29219,29229,29239,29299,29309,29319, 29329,29339,29349,29399,29409,29419,29429,29489,29499,29509, 29519,29529,29539,29559,29569,29589,29599,29709,29719,29799, 29839,29689,30183,29609,29619,29629,29639,29699,29809,29819, 30019,30049,30119,29829,30009,30029,30039,30059,30069,30079, 30089,30099,30509,30519,30529,30539,30549,30559,30560,30568, 30569,30109,30129,30139,30149,30159,30169,30179,30180,30181, 30182,30184,30189,30199
	ICD10:	F00,F000,F0000,F0001,F0002,F0003,F0004,F001,F0010,F0011, F0012,F0013,F0014,F002,F0020,F0021,F0022,F0023,F0024,F009, F0090,F0091,F0092,F0093,F0094,F01,F010,F0100,F0101,F0102, F0103,F0104,F011,F0110,F0111,F0112,F0113,F0114,F012,F0120, F0121,F0122,F0123,F0124,F013,F0130,F0131,F0132,F0133,F0134, F018,F0180,F0181,F0182,F0183,F0184,F019,F0190,F0191,F0192, F0193,F0194,F03,F039,F0390,F0391,F0392,F0393,F0394,F04, F049,F05,F050,F051,F058,F059,F09,F099,F20,F200, F2000,F2001,F2002,F2003,F2004,F2005,F2006,F2007,F2008,F2009, F201,F2010,F2011,F2012,F2013,F2014,F2015,F2018,F2019,F202, F2020,F2021,F2022,F2023,F2024,F2025,F2028,F2029,F203,F2030, F2031,F2032,F2033,F2034,F2035,F2038,F2039,F204,F2040,F2044, F205,F2050,F2051,F2052,F2053,F2054,F2055,F2058,F2059,F206, F2060,F2061,F2062,F2063,F2064,F2065,F2069,F208,F2080,F2081, F2084,F2088,F209,F2090,F2091,F2092,F2093,F2094,F2095,F2098, F2099,F21,F210,F2100,F219,F22,F220,F2200,F222,F228, F229,F25,F250,F2500,F2501,F251,F2510,F2511,F252,F2520, F2521,F258,F2580,F2581,F259,F2590,F2591,F28,F280,F289, F29,F299,F30,F300,F301,F302,F3020,F3021,F308,F309, F31,F310,F311,F312,F3120,F3121,F313,F3130,F3131,F314, F315,F3150,F3151,F316,F317,F318,F319,F32,F320,F3200, F3201,F321,F3210,F3211,F322,F323,F3230,F3231,F328,F329, F329A,F33,F330,F3300,F3301,F331,F3310,F3311,F332,F3321, F333,F3330,F3331,F334,F338,F339,F34,F340,F3400,F3401, F341,F3410,F3411,F348,F349,F38,F380,F3800,F381,F3810, F388,F39,F399,F40,F400,F4000,F4001,F401,F402,F402A, F408,F409,F41,F410,F4100,F4101,F411,F412,F413,F418, F419,F42,F420,F421,F422,F4220,F4222,F428,F429,F43, F430,F4300,F4301,F4302,F431,F432,F4320,F4321,F4322,F4323, F4324,F4325,F4328,F433,F4330,F438,F439,F44,F440,F441, F442,F443,F444,F445,F446,F447,F448,F4480,F4481,F4482, F4488,F449,F45,F450,F451,F452,F452A,F453,F4530,F4531, F4532,F4533,F4534,F4538,F454,F458,F459,F48,F480,F481, F488,F489,F60,F600,F601,F602,F6020,F603,F6030,F6031, F604,F605,F606,F607,F608,F609,F6090,F61,F610,F611, F619,F68,F680,F681,F688,F69,F690,F699

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B. COVARIATE EFFECTS [PRE-EXISTING CONDITIONS]		
pre-existing maternal hypertension – essential (primary) hypertension, hypertensive heart disease, hypertensive renal disease, hypertensive heart and renal disease, secondary hypertension	**ICD-8:**	40009, 40019, 40029, 40039, 40099, 40199, 40299, 40399, 40499
	ICD10:	O10, O100, O100A-0C, O101, O101A-1C, O102, O102A-2C, O103, O103A, O104, O104A-4C, O109, O109A-9C, O11, O119, O119A-9C, I10, I109, I11, I110, I119, I12, I120, I129, I13, I130-2, I139, I15, I150-2, I158-9
pre-existing maternal diabetes – type I (insulin dependent) and type II (non-insulin dependent), malnutrition-related, other, unspecified	**ICD-8:**	24900-09, 25000-09
	ICD10:	E10, E100, E100A-0F, E101-5, E105A-5D, E106-9, E109A, E11, E110, E110A-0E, E111-5, E115A-5D, E116-9, E119A, E12, E120, E120A-0E, E121-5, E125A-5C, E126-9, E13, E130-9, E14, E140, E140A-0D, E141-5, E145A-5D, E146-9, O240, O240A-0C, O241, O241A-1C, O242, O242A, O243, O243A-3B
B. COVARIATE EFFECTS [PREGNANCY-INDUCED]		
maternal bleeding – haemorrhage in early pregnancy, placenta praevia, premature separation of placenta, antepartum haemorrhage	**ICD-8:**	63209, 63219, 63229, 63239, 63249, 63299, 65100-22, 65124-43, 65145-60, 65163, 65165-66, 65168-80, 65182, 65185-87, 65189-99
	ICD10:	O20, O200, O208, O208A, O208B, O209, O44, O440-3, O449, O45, O450, O450D, O451, O451B, O452-3, O458-9, O46, O460, O468, O468A, O469
fetal oxygen deprivation – intrauterine hypoxia, birth asphyxia	**ICD-8:**	77639, 77649, 77690-93, 77698-99
	ICD10:	P20, P200, P200A-0E, P201, P201A-1B, P201D-1E, P209, P21, P210, P210A-0D, P211, P211A-1D, P219
pregnancy oedema	**ICD-8:**	63702
	ICD10:	O12, O120-2

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C. CONDITIONS SURGERIES TREAT		
abnormal breathing	**ICD-8:**	
	ICD10:	R065,R065A
sleep disorders	**ICD-8:**	30649,78069
	ICD10:	G47,G470,G4700,G4703,G471,G4710,G4711,G4712,G4713,G4715, G472,G4720,G4721,G4722,G4723,G4726,G473,G4730,G4731,G4732, G4734,G4735,G4735A,G4735C,G4735E,G4736,G4739,G474,G4741,G4742, G4743,G4744,G474A,G474B,G475,G4750,G4751,G4752,G4753,G4756, G4757,G475W,G476,G4760,G4761,G4762,G4763,G4764,G4765,G4766, G478,G478A,G479,G479A
obstructive sleep apnea	**ICD-8:**	
	ICD10:	G473,G4730,G4731,G4732,G4734,G4735,G4735A,G4735C,G4735E,G4736, G4739
tonsillitis	**ICD-8:**	46300,46301,46302,46308,46309
	ICD10:	J03,J030,J038,J039,J039A,J039B,J039C,J039D,J039E,J039F
chronic tonsillitis	**ICD-8:**	50000,50001,50002,50008,50009,
	ICD10:	J35,J350,J351,J351A,J351B,J352,J353,J358,J358A,J358C, J359
sinusitis	**ICD-8:**	46100,46101,46102,46103,46104,46108,46109,
	ICD10:	J01,J010,J010A,J010B,J011,J011A,J011B,J012,J012A,J012B, J013,J013B,J014,J014A,J018,J019
chronic sinusitis	**ICD-8:**	50300,50301,50302,50303,50304,50305,50306,50307,50308,50309
	ICD10:	J32,J320,J321,J322,J323,J324,J328,J329
otitis media	**ICD-8:**	38100,38101,38102,38108,38109,38119,38199,38209,38219,38299
	ICD10:	H650,H650A,H650B,H651,H651A,H651B,H651C,H651D,H651E,H651F H651G,H652,H652A,H653,H653A,H653B,H654,H654A,H654B,H654C H659,H66,H660,H660A,H661,H661A,H662,H663,H664,H669
labyrinthitis	**ICD-8:**	38400,38401,38402,
	ICD10:	H830,H830A
appendicitis	**ICD-8:**	54000,54001,54002,54008,54009,54090,54091,54092,54098,54099, 54199,54200,54209
	ICD10:	K35,K350,K350A,K351,K351A,K359,K359A,K359B,K36,K369

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D. NON-IMMUNE DISEASES		
osteoarthritis	**ICD-8:**	71300,71301,71302,71303,71304,71305,71306,71308,71309,71310, 71311,71312,71313,71314,71315,71318,71319
	ICD10:	M15,M150,M151,M152,M153,M153A,M154,M158,M159,M16, M160,M161,M161A,M161B,M162,M163,M163A,M163B,M164,M165, M165A,M165B,M166,M167,M167A,M167B,M169,M17,M170,M171, M171A,M171B,M172,M173,M173A,M173B,M174,M175,M175A,M175B, M179,M18,M180,M181,M181A,M181B,M182,M183,M184,M185, M185A,M185B,M189,M19,M190,M190A,M191,M191A,M192,M192A, M198,M198A,M199,M47,M470,M470A,M470B,M471,M471A,M471B, M471C,M472,M472A,M472B,M478,M478A,M478B,M478C,M478D,M478E, M479
cardiac arrhythmias	**ICD-8:**	427.5,42790,42791,42792,427.4,42793,42794,427.9,42799,78229
	ICD10:	I47,I47,I470,I470A,I470B,I470C,I470D,I470H,I470HA,I470HB, I471,I471A,I471B,I471C,I471E,I471EA,I471EB,I471F,I471FA,I471G, I471H,I471J,I471L,I471LA,I471M,I471N,I471P,I471PA,I471PB,I471R, I471RA,I471RB,I471RC,I471X,I472,I472A,I472B,I472D,I472E,I472EA, I472F,I472FA,I472H,I472L,I472LA,I472LB,I472LC,I472M,I472N,I472NA, I478,I478A,I479,I479A,I48,I48,I489,I489A,I489AA,I489AB, I489AC,I489AD,I489AE,I489B,I489BA,I489BB,I489BC,I489BD,I49,I49, I490,I490A,I490B,I491,I491A,I491B,I491C,I491D,I491E,I492, I493,I493A,I493B,I493C,I494,I494A,I495,I495A,I495B,I498, I498A,I498B,I498C,I498D,I498E,I499,I499A,R000,R001
heart failure	**ICD-8:**	747090,39490,39491,39492,39498,39499,39590,39591,39592,39598, 39599,39700,74609,74619,74629,74639,74640,74641,74649,74659, 74660,74661,74662,74663,74669,74679,74689,74699,74709,74719, 74729,74739,74749,74759,74769,74789,74799
	ICD10:	I061,I051,Q250,Q210,I34,I340,I341,I342,I348,I348A, I349,I35,I350,I351,I352,I358,I358A,I359,I36,I360, I361,I362,I368,I368A,I369,I37,I370,I371,I372,I378, I379,Q20,Q200,Q201,Q202,Q203,Q203A,Q204,Q205,Q205B, Q206,Q208,Q209,Q21,Q211,Q211A,Q211B,Q212,Q213,Q213A, Q214,Q218,Q218A,Q218B,Q218C,Q219,Q22,Q220,Q221,Q222, Q223,Q224,Q225,Q226,Q228,Q229,Q23,Q230,Q230A,Q231, Q231A,Q232,Q232A,Q233,Q234,Q238,Q238A,Q238B,Q239,Q24, Q240,Q241,Q242,Q243,Q244,Q245,Q246,Q248,Q248A,Q248D, Q248G,Q248H,Q248I,Q248K,Q249,Q25,Q251,Q251A,Q252,Q253, Q253A,Q254,Q254B,Q254C,Q254E,Q254G,Q254H,Q254I,Q255,Q256, Q257,Q257C,Q257F,Q257G,Q258,Q259,Q26,Q260,Q261,Q262, Q263,Q264,Q265,Q266,Q268,Q268A,Q268B,Q269,Q27,Q270, Q270A,Q270B,Q271,Q272,Q273,Q274,Q278,Q278A,Q278B,Q278C, Q278E,Q278H,Q278J,Q278L,Q279,Q28,Q280,Q281,Q282,Q283, Q283A,Q283B,Q283C,Q283D,Q283E,Q288,Q288A,Q289
acid-peptic disease	**ICD-8:**	53600,53608,53609,53619,53690,53691,53692,53693,53699
	ICD10:	K30,K309
alcoholic hepatitis	**ICD-8:**	57109
	ICD10:	DK701,DK703

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Table S3. Relative risk (RR) for non-immune diseases up to age 30 depending on whether any of the three surgeries occurred between birth to 9 years of age.

	adenoidectomy	tonsillectomy	adenotonsillectomy
Disease	**RR**	**RR**	**RR**
osteoarthritis	1.04(0.85-1.29)	1.03(0.75-1.41)	0.87(0.71-1.07)
cardiac arrhythmias	0.99(0.82-1.21)	0.99(0.75-1.31)	1.17(0.99-1.37)
heart failure	1.24(0.95-1.61)	1.28(0.92-1.78)	1.15(0.93-1.42)
acid-peptic disease	1.17(1.01-1.36)	1.36(1.10-1.68)	1.24(1.08-1.41)
alcoholic hepatitis	1.92(0.23-15.84)	-	5.78(1.21-27.59)

Footnotes:

- *RR exclusion: Missing relative risks (RR) occur when the exponentiated coefficient for the Cox regression was infinite or there was insufficient power for hypothesis testing (see methods)*
- *RR p-values: None of the relative risks above were significant after Bonferroni correction for 14 analyses (i.e. $\alpha=0.05/14= 0.00357$)*

Table S4. Accompanying values for Fig. 1 including relative risks (RR), absolute risk difference (ARD), number needed to treat (NNT(B/H) or benefit/harm)

		adenoidectomy				tonsillectomy				adenotonsillectomy				
Disease		**RR**	**ER**	**ARD**	**NNT(B/H)**	**RR**	**ER**	**ARD**	**NNT(B/H)**	**RR**	**ER**	**ARD**	**NNT(B/H)**	**CR**
infectious	**all**	1.27(1.19-1.36)	15.39	+3.32 %	30 (H)	1.22(1.11-1.35)	14.84	+2.78 %	36 (H)	1.17(1.10-1.25)	14.21	+2.14 %	47 (H)	12.07
allergic	**all**	1.37(1.25-1.51)	3.84	+1.06 %	94 (H)	1.35(1.19-1.54)	3.77	+0.99 %	101 (H)	1.20(1.10-1.31)	3.35	+0.57 %	176 (H)	2.78
	rhinitis	1.61(1.42-1.82)	1.36	+0.52 %	193 (H)	1.53(1.29-1.82)	1.29	+0.45 %	220 (H)	1.24(1.10-1.40)	1.05	+0.21 %	479 (H)	0.84
	conjunctivitis	1.75(1.35-2.26)	0.37	+0.16 %	624 (H)	1.50(1.03-2.18)	0.32	+0.11 %	937 (H)	1.36(1.07-1.73)	0.29	+0.08 %	1297 (H)	0.21
	eczema/dermatitis	1.29(1.07-1.56)	1.80	+0.42 %	241 (H)	-	-	-	-	1.16(0.98-1.38)	-	-	-	1.38
	urticaria/angiodema	1.22(1.01-1.46)	0.83	+0.15 %	656 (H)	1.46(1.15-1.86)	1.00	+0.32 %	314 (H)	1.18(0.99-1.39)	-	-	-	0.68
skin	**all**	1.23(1.17-1.30)	7.74	+1.49 %	67 (H)	1.39(1.29-1.49)	8.70	+2.45 %	41 (H)	1.28(1.22-1.34)	8.02	+1.77 %	56 (H)	6.25
autoimmune	**all**	1.19(1.09-1.29)	3.71	+0.60 %	166 (H)	1.15(1.02-1.29)	3.59	+0.47 %	211 (H)	1.17(1.09-1.26)	3.66	+0.55 %	182 (H)	3.11
respiratory	**all**	1.48(1.13-1.95)	30.06	+9.87 %	10 (H)	-	-	-	-	-	-	-	-	20.19
	upper	1.99(1.51-2.63)	21.54	+10.77 %	9 (H)	2.72(1.54-4.80)	29.38	+18.61 %	5 (H)	-	-	-	-	10.77
	lower	1.61(1.42-1.84)	13.38	+5.12 %	20 (H)	1.24(1.01-1.53)	10.30	+2.03 %	49 (H)	1.38(1.21-1.56)	11.41	+3.15 %	32 (H)	8.26
	chronic lower	1.44(1.33-1.56)	8.80	+2.72 %	37 (H)	1.39(1.24-1.55)	8.47	+2.39 %	42 (H)	1.33(1.24-1.43)	8.12	+2.04 %	49 (H)	6.08
	asthma	1.45(1.33-1.57)	8.42	+2.62 %	38 (H)	1.41(1.26-1.58)	8.21	+2.41 %	41 (H)	1.34(1.25-1.44)	7.81	+2.01 %	50 (H)	5.80
	influenza	1.46(1.18-1.81)	0.62	+0.20 %	505 (H)	1.43(1.06-1.93)	0.61	+0.19 %	538 (H)	1.44(1.19-1.74)	0.61	+0.19 %	527 (H)	0.42
	pneumonia	1.65(1.44-1.89)	8.93	+3.53 %	28 (H)	1.28(1.03-1.58)	6.94	+1.54 %	65 (H)	1.32(1.16-1.51)	7.15	+1.75 %	57 (H)	5.40
	COPD	2.11(1.53-2.92)	0.54	+0.29 %	349 (H)	-	-	-	-	-	-	-	-	0.25
digestive	**all**	1.13(1.07-1.19)	6.71	+0.78 %	128 (H)	1.16(1.08-1.25)	6.94	+1.01 %	99 (H)	1.14(1.09-1.20)	6.80	+0.87 %	114 (H)	5.93
endocrine	**all**	1.24(1.16-1.34)	3.44	+0.69 %	145 (H)	1.31(1.17-1.45)	3.61	+0.86 %	117 (H)	1.42(1.33-1.51)	3.92	+1.16 %	86 (H)	2.75
	obesity	1.19(1.08-1.30)	1.33	+0.22 %	465 (H)	1.40(1.23-1.59)	1.57	+0.45 %	221 (H)	1.47(1.36-1.59)	1.66	+0.54 %	186 (H)	1.12
genitourinary	**all**	1.17(1.08-1.27)	3.36	+0.51 %	197 (H)	1.27(1.13-1.42)	3.62	+0.77 %	129 (H)	1.23(1.14-1.32)	3.51	+0.66 %	152 (H)	2.85
	kidney infection	1.41(1.16-1.73)	1.14	+0.34 %	296 (H)	1.28(0.96-1.72)	-	-	-	1.25(1.04-1.50)	1.00	+0.20 %	493 (H)	0.80
musculoskeletal	**all**	1.15(1.10-1.19)	10.30	+1.35 %	74 (H)	1.21(1.15-1.28)	10.91	+1.96 %	51 (H)	1.18(1.14-1.22)	10.63	+1.67 %	60 (H)	8.95
neoplasms	**all**	1.19(1.10-1.29)	3.23	+0.53 %	188 (H)	1.22(1.09-1.35)	3.30	+0.60 %	167 (H)	1.18(1.10-1.26)	3.19	+0.49 %	203 (H)	2.70
	benign	1.19(1.09-1.29)	2.72	+0.44 %	227 (H)	1.22(1.09-1.37)	2.79	+0.51 %	195 (H)	1.17(1.09-1.26)	2.67	+0.40 %	253 (H)	2.28
circulatory	**all**	1.11(0.99-1.24)	-	-	-	1.17(0.99-1.37)	-	-	-	1.25(1.14-1.38)	1.40	+0.29 %	347 (H)	1.12
nervous	**all**	1.35(1.19-1.52)	1.21	+0.32 %	317 (H)	1.50(1.26-1.80)	1.35	+0.46 %	220 (H)	1.24(1.10-1.40)	1.11	+0.22 %	453 (H)	0.89
eye/adnexa	**all**	1.34(1.20-1.49)	7.74	+1.98 %	50 (H)	1.25(1.12-1.39)	7.21	+1.46 %	69 (H)	1.23(1.14-1.32)	7.09	+1.34 %	75 (H)	5.75
mental	**all**	1.19(1.13-1.26)	3.46	+0.57 %	176 (H)	1.22(1.12-1.32)	3.54	+0.65 %	155 (H)	1.22(1.16-1.28)	3.53	+0.64 %	156 (H)	2.89

Footnotes:

- CR - Control Risk (i.e. event rate (%) in the control group)

- ER - Experimental Risk (i.e. event rate (%) in the case (surgery) group)

- ARD - Absolute Risk Difference (a.k.a. absolute risk reduction/increase) [ARD=100 X CR X (1-RR)]

- NNT(B/H) - Number Needed to Treat-Benefit or Harm [NNT=100/ARD]

- RR exclusion: Relative risks (RR) are presented only for analyses with sufficient power for hypothesis testing (see methods)

-> e.g. there was insufficient power for testing COPD and eczema/dermatitis in the tonsillectomy analysis

- ER, ARD and NNT exclusion: these values are presented only when Bonferroni corrected p-value (78 tests; α=0.05/78=0.000641) for relative risks (RR) were significant

-> Bonferroni corrected p-values are given in Fig.1

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Table S5 - Full Cox regression outputs - impact of tonsillectomy on risk of later disease.

1. Infectious - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2299	1.1194	1.3513	0.0480	4.3098	<0.0001
paternal age	0.9947	0.9810	1.0087	0.0071	-0.7329	0.4636
maternal age	0.9712	0.9558	0.9869	0.0081	-3.5733	0.0003
gestation length	0.9861	0.9751	0.9973	0.0057	-2.4194	0.0155
maternal bleeding	1.1194	1.0770	1.1634	0.0196	5.7323	<0.0001
fetal oxygen deprivation	0.8436	0.6517	1.0920	0.1316	-1.2912	0.1966
pregnancy oedema	1.0568	0.9652	1.1572	0.0462	1.1950	0.2320
apgar5 score	1.0457	1.0014	1.0920	0.0221	2.0252	0.0428
birth weight	0.9927	0.9823	1.0033	0.0053	-1.3437	0.1790
preexisting hypertension	1.0271	0.7882	1.3386	0.1351	0.1985	0.8425
preexisting diabetes	1.0522	0.8787	1.2598	0.0919	0.5536	0.5798
previous induced abortion	1.0906	1.0627	1.1192	0.0132	6.5663	<0.0001
previous spontaneous abortion	1.0458	1.0166	1.0758	0.0144	3.0998	0.0019
education level	0.9900	0.9781	1.0020	0.0061	-1.6313	0.1028
parental income	0.9885	0.9759	1.0013	0.0065	-1.7547	0.0793
country	1.2804	1.2213	1.3424	0.0241	10.2439	<0.0001
region Sjelland	0.7832	0.7584	0.8088	0.0164	-14.8789	<0.0001
region Syddanmark	0.6843	0.6647	0.7045	0.0148	-25.6018	<0.0001
region Midtylland	0.7016	0.6819	0.7219	0.0145	-24.3924	<0.0001
region Nordjylland	0.6145	0.5910	0.6388	0.0198	-24.5179	<0.0001
mother with disorder	1.3909	1.3469	1.4363	0.0163	20.1262	<0.0001
father with disorder	1.2472	1.2058	1.2901	0.0172	12.8118	<0.0001

2. Allergic - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.3559	1.1909	1.5437	0.0661	4.5999	<0.0001
paternal age	1.0028	0.9823	1.0237	0.0105	0.2697	0.7873
maternal age	1.0314	1.0074	1.0559	0.0119	2.5806	0.0098
gestation length	0.9966	0.9806	1.0130	0.0082	-0.3994	0.6895
maternal bleeding	1.1283	1.0672	1.1928	0.0283	4.2562	<0.0001
fetal oxygen deprivation	0.6123	0.3902	0.9609	0.2298	-2.1331	0.0329
pregnancy oedema	1.2471	1.1032	1.4097	0.0625	3.5317	0.0004
apgar5 score	1.0872	1.0233	1.1551	0.0308	2.7074	0.0067
birth weight	0.9774	0.9624	0.9926	0.0078	-2.8975	0.0037
preexisting hypertension	0.6993	0.4403	1.1107	0.2360	-1.5148	0.1298
preexisting diabetes	1.0535	0.8035	1.3812	0.1381	0.3771	0.7060
previous induced abortion	1.0356	0.9964	1.0763	0.0196	1.7799	0.0750
previous spontaneous abortion	1.0442	1.0017	1.0884	0.0211	2.0434	0.0410
education level	1.0645	1.0457	1.0837	0.0090	6.8851	<0.0001
parental income	1.0197	1.0006	1.0392	0.0096	2.0228	0.0430
country	1.4006	1.3052	1.5031	0.0360	9.3580	<0.0001
region Sjelland	0.7015	0.6664	0.7385	0.0262	-13.5225	<0.0001
region Syddanmark	1.0262	0.9858	1.0682	0.0204	1.2652	0.2057
region Midtylland	0.7817	0.7492	0.8156	0.0216	-11.3641	<0.0001
region Nordjylland	0.7070	0.6675	0.7489	0.0293	-11.8104	<0.0001
mother with disorder	1.8600	1.7403	1.9879	0.0339	18.2820	<0.0001
father with disorder	1.7478	1.6085	1.8991	0.0423	13.1795	<0.0001

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3. Allergic - rhinitis	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.5382	1.2932	1.8295	0.0885	4.8655	<0.0001
paternal age	1.0128	0.9834	1.0431	0.0150	0.8486	0.3960
maternal age	1.0714	1.0362	1.1077	0.0170	4.0537	<0.0001
gestation length	1.0011	0.9786	1.0241	0.0116	0.0966	0.9230
maternal bleeding	1.0580	0.9760	1.1469	0.0411	1.3719	0.1700
fetal oxygen deprivation	0.5662	0.2942	1.0896	0.3339	-1.7028	0.0885
pregnancy oedema	1.1823	0.9899	1.4121	0.0906	1.8482	0.0645
apgar5 score	1.0991	1.0109	1.1950	0.0427	2.2138	0.0268
birth weight	0.9839	0.9628	1.0054	0.0110	-1.4639	0.1432
preexisting hypertension	0.6089	0.3042	1.2185	0.3539	-1.4015	0.1610
preexisting diabetes	0.7827	0.5040	1.2157	0.2246	-1.0901	0.2756
previous induced abortion	0.9982	0.9442	1.0552	0.0283	-0.0617	0.9507
previous spontaneous abortion	1.0399	0.9808	1.1027	0.0298	1.3124	0.1893
education level	1.1277	1.0994	1.1567	0.0129	9.2748	<0.0001
parental income	1.0268	0.9994	1.0550	0.0138	1.9173	0.0551
country	1.4448	1.2992	1.6067	0.0542	6.7892	<0.0001
region Sjelland	0.8918	0.8250	0.9640	0.0397	-2.8818	0.0039
region Syddanmark	1.7541	1.6552	1.8589	0.0296	18.9800	<0.0001
region Midtylland	1.1054	1.0377	1.1776	0.0322	3.1079	0.0018
region Nordjylland	1.2850	1.1904	1.3870	0.0389	6.4311	<0.0001
mother with disorder	3.1501	2.8050	3.5376	0.0591	19.3836	<0.0001
father with disorder	2.8009	2.4327	3.2248	0.0719	14.3247	<0.0001

4. Allergic - conjunctivitis	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.5005	1.0326	2.1804	0.1906	2.1284	0.0333
paternal age	1.0129	0.9517	1.0780	0.0317	0.4051	0.6853
maternal age	1.0698	0.9969	1.1482	0.0360	1.8741	0.0609
gestation length	1.0263	0.9780	1.0769	0.0245	1.0580	0.2900
maternal bleeding	1.2087	1.0277	1.4216	0.0827	2.2901	0.0220
fetal oxygen deprivation	0.0000	0.0000	Inf	375.9072	-0.0339	0.9729
pregnancy oedema	1.4339	1.0084	2.0389	0.1795	2.0068	0.0447
apgar5 score	1.1163	0.9374	1.3295	0.0891	1.2352	0.2167
birth weight	1.0095	0.9640	1.0572	0.0235	0.4047	0.6856
preexisting hypertension	0.3289	0.0462	2.3384	1.0007	-1.1110	0.2665
preexisting diabetes	1.2502	0.5928	2.6367	0.3807	0.5866	0.5574
previous induced abortion	1.0699	0.9532	1.2010	0.0589	1.1477	0.2510
previous spontaneous abortion	1.1904	1.0563	1.3415	0.0609	2.8598	0.0042
education level	1.0669	1.0107	1.1262	0.0275	2.3469	0.0189
parental income	1.0354	0.9770	1.0974	0.0296	1.1763	0.2394
country	1.6231	1.3202	1.9953	0.1053	4.5974	<0.0001
region Sjelland	0.6811	0.5728	0.8099	0.0883	-4.3463	<0.0001
region Syddanmark	1.9167	1.7072	2.1518	0.0590	11.0194	<0.0001
region Midtylland	0.7041	0.6083	0.8148	0.0745	-4.7063	<0.0001
region Nordjylland	0.9790	0.8251	1.1617	0.0872	-0.2420	0.8087
mother with disorder	1.7031	0.8103	3.5793	0.3789	1.4050	0.1600
father with disorder	2.9024	1.3805	6.1024	0.3791	2.8104	0.0049

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5. Allergic - eczema/dermatitis	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.1019	0.8381	1.4486	0.1395	0.6953	0.4868
paternal age	0.9902	0.9521	1.0299	0.0200	-0.4867	0.6264
maternal age	0.9997	0.9558	1.0456	0.0229	-0.0115	0.9907
gestation length	1.0213	0.9900	1.0535	0.0158	1.3308	0.1832
maternal bleeding	1.2004	1.0824	1.3313	0.0527	3.4607	0.0005
fetal oxygen deprivation	0.6863	0.3077	1.5305	0.4091	-0.9198	0.3576
pregnancy oedema	1.3341	1.0635	1.6736	0.1156	2.4927	0.0126
apgar5 score	1.0482	0.9309	1.1802	0.0605	0.7785	0.4362
birth weight	0.9805	0.9521	1.0098	0.0149	-1.3066	0.1913
preexisting hypertension	0.7147	0.2971	1.7194	0.4478	-0.7497	0.4534
preexisting diabetes	1.1093	0.6667	1.8459	0.2598	0.3995	0.6895
previous induced abortion	1.0811	1.0060	1.1619	0.0367	2.1234	0.0337
previous spontaneous abortion	1.0661	0.9856	1.1531	0.0400	1.5993	0.1097
education level	1.0391	1.0044	1.0749	0.0173	2.2178	0.0265
parental income	1.0532	1.0161	1.0917	0.0183	2.8335	0.0046
country	1.2574	1.0953	1.4436	0.0704	3.2532	0.0011
region Sjelland	0.6079	0.5509	0.6707	0.0501	-9.9151	<0.0001
region Syddanmark	0.8919	0.8269	0.9620	0.0386	-2.9625	0.0030
region Midtylland	0.8007	0.7414	0.8647	0.0392	-5.6603	<0.0001
region Nordjylland	0.3985	0.3492	0.4547	0.0673	-13.6625	<0.0001
mother with disorder	2.4342	2.0175	2.9370	0.0958	9.2859	<0.0001
father with disorder	1.9319	1.4446	2.5836	0.1482	4.4407	<0.0001

6. Allergic - urticaria/angiodema	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.4662	1.1556	1.8604	0.1214	3.1505	0.0016
paternal age	1.0023	0.9639	1.0422	0.0199	0.1173	0.9065
maternal age	0.9915	0.9481	1.0369	0.0228	-0.3720	0.7098
gestation length	0.9868	0.9561	1.0185	0.0161	-0.8205	0.4118
maternal bleeding	1.2402	1.1191	1.3744	0.0524	4.1074	<0.0001
fetal oxygen deprivation	0.5421	0.2031	1.4470	0.5008	-1.2221	0.2216
pregnancy oedema	1.5418	1.2480	1.9049	0.1078	4.0139	<0.0001
apgar5 score	1.1011	0.9793	1.2380	0.0598	1.6112	0.1071
birth weight	0.9722	0.9436	1.0018	0.0152	-1.8420	0.0654
preexisting hypertension	0.7370	0.3062	1.7736	0.4480	-0.6809	0.4958
preexisting diabetes	1.3225	0.8302	2.1068	0.2375	1.1769	0.2392
previous induced abortion	1.0636	0.9886	1.1443	0.0373	1.6533	0.0982
previous spontaneous abortion	1.0419	0.9619	1.1287	0.0407	1.0082	0.3133
education level	1.0362	1.0016	1.0720	0.0173	2.0542	0.0399
parental income	0.9716	0.9373	1.0071	0.0182	-1.5732	0.1156
country	1.5065	1.3342	1.7011	0.0619	6.6140	<0.0001
region Sjelland	0.5995	0.5467	0.6575	0.0471	-10.8578	<0.0001
region Syddanmark	0.6471	0.5988	0.6993	0.0395	-10.9932	<0.0001
region Midtylland	0.4922	0.4527	0.5352	0.0426	-16.6034	<0.0001
region Nordjylland	0.3523	0.3096	0.4009	0.0659	-15.8221	<0.0001
mother with disorder	1.9543	1.6053	2.3791	0.1003	6.6767	<0.0001
father with disorder	1.4122	1.0653	1.8720	0.1438	2.4003	0.0163

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7. Skin - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.3924	1.2939	1.4985	0.0374	8.8447	<0.0001
paternal age	0.9912	0.9796	1.0029	0.0059	-1.4631	0.1434
maternal age	0.9513	0.9385	0.9642	0.0069	-7.2204	<0.0001
gestation length	0.9959	0.9865	1.0054	0.0048	-0.8331	0.4047
maternal bleeding	1.0664	1.0318	1.1021	0.0167	3.8285	0.0001
fetal oxygen deprivation	0.8474	0.6903	1.0402	0.1045	-1.5822	0.1135
pregnancy oedema	1.1205	1.0428	1.2041	0.0366	3.1024	0.0019
apgar5 score	1.0923	1.0541	1.1319	0.0181	4.8674	<0.0001
birth weight	1.0216	1.0125	1.0307	0.0045	4.6988	<0.0001
preexisting hypertension	1.0325	0.8230	1.2953	0.1157	0.2767	0.7819
preexisting diabetes	1.1552	1.0013	1.3328	0.0729	1.9787	0.0478
previous induced abortion	1.0887	1.0650	1.1130	0.0112	7.5617	<0.0001
previous spontaneous abortion	1.0473	1.0223	1.0729	0.0123	3.7505	0.0001
education level	0.9642	0.9544	0.9741	0.0052	-6.9593	<0.0001
parental income	0.9686	0.9580	0.9792	0.0055	-5.7084	<0.0001
country	1.3015	1.2506	1.3546	0.0203	12.9285	<0.0001
region Sjelland	0.7931	0.7709	0.8159	0.0144	-16.0040	<0.0001
region Syddanmark	0.8648	0.8442	0.8860	0.0123	-11.7786	<0.0001
region Midtylland	0.8520	0.8319	0.8727	0.0122	-13.0988	<0.0001
region Nordjylland	0.5931	0.5727	0.6143	0.0179	-29.1776	<0.0001
mother with disorder	1.3334	1.3002	1.3674	0.0128	22.3863	<0.0001
father with disorder	1.2956	1.2626	1.3296	0.0131	19.6305	<0.0001

8. Autoimmune - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.1522	1.0218	1.2993	0.0612	2.3122	0.0207
paternal age	0.9820	0.9646	0.9997	0.0091	-1.9900	0.0465
maternal age	0.9716	0.9520	0.9916	0.0104	-2.7653	0.0056
gestation length	0.9930	0.9791	1.0071	0.0072	-0.9706	0.3317
maternal bleeding	1.0831	1.0313	1.1376	0.0250	3.1916	0.0014
fetal oxygen deprivation	1.0618	0.7993	1.4106	0.1448	0.4144	0.6785
pregnancy oedema	1.2177	1.0967	1.3520	0.0533	3.6904	0.0002
apgar5 score	0.9849	0.9319	1.0409	0.0282	-0.5370	0.5912
birth weight	0.9945	0.9814	1.0078	0.0067	-0.8083	0.4188
preexisting hypertension	1.0167	0.7328	1.4106	0.1670	0.0994	0.9207
preexisting diabetes	1.5193	1.2801	1.8031	0.0873	4.7866	<0.0001
previous induced abortion	0.9745	0.9419	1.0082	0.0173	-1.4853	0.1374
previous spontaneous abortion	1.0515	1.0146	1.0898	0.0182	2.7557	0.0058
education level	0.9912	0.9760	1.0066	0.0078	-1.1132	0.2655
parental income	1.0111	0.9946	1.0279	0.0083	1.3186	0.1872
country	0.8997	0.8386	0.9651	0.0358	-2.9485	0.0031
region Sjelland	0.9677	0.9285	1.0085	0.0211	-1.5543	0.1201
region Syddanmark	0.9810	0.9460	1.0173	0.0185	-1.0317	0.3021
region Midtylland	0.9185	0.8855	0.9527	0.0186	-4.5572	<0.0001
region Nordjylland	0.7750	0.7377	0.8142	0.0251	-10.1141	<0.0001
mother with disorder	1.5399	1.4781	1.6043	0.0208	20.6582	<0.0001
father with disorder	1.4445	1.3836	1.5081	0.0219	16.7272	<0.0001

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9. Respiratory - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.4400	0.7488	2.7688	0.3335	1.0931	0.2743
paternal age	0.9997	0.9879	1.0117	0.0060	-0.0369	0.9705
maternal age	0.9594	0.9463	0.9727	0.0070	-5.9061	<0.0001
gestation length	0.9853	0.9759	0.9949	0.0049	-2.9920	0.0027
maternal bleeding	1.0835	1.0475	1.1207	0.0172	4.6531	<0.0001
fetal oxygen deprivation	0.9174	0.7402	1.1369	0.1094	-0.7875	0.4309
pregnancy oedema	1.1043	1.0234	1.1917	0.0388	2.5568	0.0105
apgar5 score	1.0526	1.0145	1.0922	0.0188	2.7254	0.0064
birth weight	1.0013	0.9923	1.0104	0.0046	0.2992	0.7647
preexisting hypertension	1.1665	0.9426	1.4436	0.1087	1.4171	0.1564
preexisting diabetes	1.0098	0.8614	1.1838	0.0811	0.1208	0.9038
previous induced abortion	1.0563	1.0328	1.0804	0.0114	4.7721	<0.0001
previous spontaneous abortion	1.0332	1.0082	1.0587	0.0124	2.6181	0.0088
education level	1.0009	0.9906	1.0113	0.0052	0.1779	0.8587
parental income	0.9741	0.9633	0.9850	0.0056	-4.6215	<0.0001
country	1.2269	1.1770	1.2790	0.0211	9.6535	<0.0001
region Sjelland	0.8113	0.7885	0.8348	0.0145	-14.3802	<0.0001
region Syddanmark	0.8773	0.8563	0.8989	0.0123	-10.5596	<0.0001
region Midtylland	0.7366	0.7185	0.7552	0.0127	-24.0311	<0.0001
region Nordjylland	0.7293	0.7061	0.7533	0.0165	-19.1266	<0.0001
mother with disorder	1.3296	1.3012	1.3586	0.0110	25.8778	<0.0001
father with disorder	1.2409	1.2142	1.2683	0.0111	19.4347	<0.0001

10. Respiratory - upper	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	2.7275	1.5479	4.8062	0.2890	3.4715	0.0005
paternal age	1.0015	0.9868	1.0165	0.0075	0.2086	0.8347
maternal age	0.9667	0.9503	0.9833	0.0086	-3.8974	<0.0001
gestation length	0.9926	0.9809	1.0045	0.0060	-1.2117	0.2256
maternal bleeding	1.0770	1.0332	1.1226	0.0211	3.5040	0.0004
fetal oxygen deprivation	0.8364	0.6316	1.1075	0.1432	-1.2466	0.2125
pregnancy oedema	1.1379	1.0373	1.2483	0.0472	2.7367	0.0062
apgar5 score	1.0880	1.0405	1.1376	0.0227	3.7046	0.0002
birth weight	1.0024	0.9913	1.0137	0.0056	0.4313	0.6662
preexisting hypertension	1.1326	0.8669	1.4797	0.1363	0.9131	0.3611
preexisting diabetes	0.9443	0.7705	1.1572	0.1037	-0.5522	0.5807
previous induced abortion	1.0955	1.0657	1.1260	0.0140	6.4950	<0.0001
previous spontaneous abortion	1.0321	1.0014	1.0637	0.0153	2.0553	0.0398
education level	1.0128	0.9999	1.0258	0.0065	1.9505	0.0511
parental income	0.9899	0.9764	1.0035	0.0070	-1.4477	0.1476
country	1.4076	1.3397	1.4788	0.0252	13.5635	<0.0001
region Sjelland	0.8285	0.7998	0.8582	0.0179	-10.4782	<0.0001
region Syddanmark	0.9349	0.9076	0.9631	0.0151	-4.4418	<0.0001
region Midtylland	0.7404	0.7177	0.7638	0.0158	-18.9470	<0.0001
region Nordjylland	0.7012	0.6730	0.7306	0.0209	-16.9242	<0.0001
mother with disorder	1.3801	1.3365	1.4251	0.0163	19.6833	<0.0001
father with disorder	1.2905	1.2480	1.3345	0.0170	14.9346	<0.0001

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11. Respiratory - lower	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2455	1.0126	1.5321	0.1056	2.0790	0.0376
paternal age	1.0082	0.9776	1.0397	0.0157	0.5222	0.6014
maternal age	0.9128	0.8807	0.9459	0.0182	-5.0081	<0.0001
gestation length	0.9405	0.9170	0.9645	0.0128	-4.7639	<0.0001
maternal bleeding	1.1599	1.0662	1.2618	0.0429	3.4536	0.0005
fetal oxygen deprivation	0.8676	0.4919	1.5305	0.2895	-0.4900	0.6240
pregnancy oedema	1.1776	0.9752	1.4220	0.0962	1.6992	0.0892
apgar5 score	1.1187	1.0193	1.2278	0.0474	2.3625	0.0181
birth weight	0.9817	0.9586	1.0053	0.0121	-1.5233	0.1276
preexisting hypertension	1.2347	0.7157	2.1302	0.2782	0.7578	0.4485
preexisting diabetes	1.4446	1.0285	2.0290	0.1733	2.1225	0.0337
previous induced abortion	1.0027	0.9444	1.0646	0.0305	0.0904	0.9279
previous spontaneous abortion	1.1349	1.0658	1.2084	0.0320	3.9511	<0.0001
education level	0.9658	0.9399	0.9924	0.0138	-2.5042	0.0122
parental income	0.9275	0.9010	0.9549	0.0148	-5.0755	<0.0001
country	1.0940	0.9836	1.2168	0.0542	1.6558	0.0977
region Sjelland	0.7779	0.7235	0.8365	0.0370	-6.7823	<0.0001
region Syddanmark	0.7157	0.6710	0.7633	0.0328	-10.1723	<0.0001
region Midtylland	0.6392	0.5985	0.6827	0.0335	-13.3337	<0.0001
region Nordjylland	0.6467	0.5938	0.7043	0.0435	-10.0182	<0.0001
mother with disorder	1.5768	1.4343	1.7334	0.0483	9.4255	<0.0001
father with disorder	1.3687	1.2471	1.5022	0.0474	6.6124	<0.0001

12. Respiratory - chronic lower	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.3922	1.2469	1.5543	0.0562	5.8865	<0.0001
paternal age	0.9996	0.9821	1.0174	0.0089	-0.0401	0.9679
maternal age	0.9735	0.9539	0.9935	0.0103	-2.5811	0.0098
gestation length	0.9689	0.9553	0.9826	0.0071	-4.3906	<0.0001
maternal bleeding	1.1222	1.0693	1.1776	0.0246	4.6867	<0.0001
fetal oxygen deprivation	0.9788	0.7053	1.3584	0.1671	-0.1276	0.8983
pregnancy oedema	1.1210	0.9985	1.2586	0.0590	1.9357	0.0528
apgar5 score	1.0757	1.0207	1.1337	0.0267	2.7253	0.0064
birth weight	0.9788	0.9657	0.9920	0.0068	-3.1255	0.0017
preexisting hypertension	0.8536	0.5964	1.2217	0.1828	-0.8650	0.3869
preexisting diabetes	0.9364	0.7385	1.1874	0.1211	-0.5417	0.5879
previous induced abortion	1.0199	0.9863	1.0547	0.0171	1.1548	0.2481
previous spontaneous abortion	1.0553	1.0178	1.0941	0.0184	2.9219	0.0034
education level	1.0239	1.0080	1.0401	0.0079	2.9670	0.0030
parental income	0.9440	0.9283	0.9599	0.0085	-6.7432	<0.0001
country	0.9591	0.8990	1.0232	0.0330	-1.2630	0.2065
region Sjelland	0.8108	0.7768	0.8463	0.0218	-9.5984	<0.0001
region Syddanmark	0.9658	0.9318	1.0010	0.0182	-1.8999	0.0574
region Midtylland	0.7513	0.7235	0.7803	0.0192	-14.8149	<0.0001
region Nordjylland	0.8606	0.8215	0.9017	0.0237	-6.3126	<0.0001
mother with disorder	1.9910	1.9002	2.0862	0.0238	28.9090	<0.0001
father with disorder	1.7675	1.6773	1.8626	0.0267	21.3127	<0.0001

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13. Respiratory - asthma	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.4159	1.2684	1.5806	0.0561	6.1961	<0.0001
paternal age	1.0091	0.9914	1.0272	0.0090	1.0115	0.3117
maternal age	0.9742	0.9545	0.9944	0.0104	-2.4931	0.0126
gestation length	0.9642	0.9506	0.9779	0.0072	-5.0431	<0.0001
maternal bleeding	1.1287	1.0754	1.1846	0.0246	4.9112	<0.0001
fetal oxygen deprivation	1.0129	0.7331	1.3994	0.1649	0.0778	0.9379
pregnancy oedema	1.1048	0.9823	1.2425	0.0599	1.6630	0.0962
apgar5 score	1.0762	1.0210	1.1345	0.0268	2.7351	0.0062
birth weight	0.9769	0.9638	0.9902	0.0068	-3.3816	0.0007
preexisting hypertension	0.8542	0.5968	1.2224	0.1829	-0.8615	0.3889
preexisting diabetes	0.9425	0.7433	1.1951	0.1211	-0.4884	0.6252
previous induced abortion	1.0221	0.9883	1.0572	0.0171	1.2765	0.2017
previous spontaneous abortion	1.0589	1.0211	1.0980	0.0185	3.0920	0.0019
education level	1.0164	1.0005	1.0325	0.0080	2.0324	0.0421
parental income	0.9381	0.9225	0.9541	0.0085	-7.4342	<0.0001
country	0.9375	0.8784	1.0007	0.0332	-1.9368	0.0527
region Sjelland	0.8117	0.7775	0.8475	0.0219	-9.4899	<0.0001
region Syddanmark	0.9631	0.9291	0.9985	0.0183	-2.0394	0.0414
region Midtylland	0.7556	0.7274	0.7848	0.0193	-14.4720	<0.0001
region Nordjylland	0.8586	0.8193	0.8998	0.0239	-6.3746	<0.0001
mother with disorder	2.1970	2.0877	2.3121	0.0260	30.2113	<0.0001
father with disorder	2.0534	1.9294	2.1855	0.0317	22.6292	<0.0001

14. Respiratory - influenza	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.4366	1.0660	1.9360	0.1522	2.3802	0.0173
paternal age	1.0216	0.9735	1.0721	0.0246	0.8708	0.3838
maternal age	0.9097	0.8600	0.9622	0.0286	-3.3020	0.0009
gestation length	0.9182	0.8820	0.9559	0.0205	-4.1529	<0.0001
maternal bleeding	1.0935	0.9541	1.2532	0.0695	1.2848	0.1988
fetal oxygen deprivation	1.9670	1.0192	3.7961	0.3354	2.0167	0.0437
pregnancy oedema	1.4519	1.0923	1.9299	0.1452	2.5680	0.0102
apgar5 score	1.1007	0.9486	1.2772	0.0758	1.2654	0.2057
birth weight	0.9723	0.9358	1.0102	0.0194	-1.4389	0.1501
preexisting hypertension	2.8766	1.6261	5.0890	0.2910	3.6304	0.0002
preexisting diabetes	1.2246	0.6916	2.1681	0.2914	0.6952	0.4868
previous induced abortion	1.0072	0.9154	1.1081	0.0487	0.1473	0.8828
previous spontaneous abortion	1.0814	0.9765	1.1976	0.0520	1.5039	0.1326
education level	0.9496	0.9099	0.9911	0.0218	-2.3665	0.0179
parental income	0.8955	0.8551	0.9379	0.0235	-4.6772	<0.0001
country	1.9006	1.6636	2.1714	0.0679	9.4508	<0.0001
region Sjelland	0.7051	0.6293	0.7900	0.0580	-6.0235	<0.0001
region Syddanmark	0.5638	0.5074	0.6265	0.0537	-10.6520	<0.0001
region Midtylland	0.5167	0.4640	0.5754	0.0548	-12.0318	<0.0001
region Nordjylland	0.4883	0.4213	0.5659	0.0752	-9.5242	<0.0001
mother with disorder	2.4573	1.8937	3.1886	0.1329	6.7638	<0.0001
father with disorder	1.7400	1.2126	2.4969	0.1842	3.0064	0.0026

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15. Respiratory - pneumonia	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2847	1.0395	1.5878	0.1080	2.3184	0.0204
paternal age	1.0061	0.9741	1.0391	0.0164	0.3700	0.7113
maternal age	0.9160	0.8824	0.9509	0.0190	-4.5956	<0.0001
gestation length	0.9419	0.9174	0.9670	0.0134	-4.4541	<0.0001
maternal bleeding	1.2001	1.1004	1.3089	0.0442	4.1241	<0.0001
fetal oxygen deprivation	0.8013	0.4304	1.4920	0.3171	-0.6981	0.4850
pregnancy oedema	1.1802	0.9685	1.4383	0.1008	1.6428	0.1004
apgar5 score	1.1350	1.0308	1.2498	0.0491	2.5777	0.0099
birth weight	0.9923	0.9679	1.0173	0.0126	-0.6071	0.5437
preexisting hypertension	1.3648	0.7910	2.3550	0.2783	1.1176	0.2637
preexisting diabetes	1.4049	0.9843	2.0052	0.1815	1.8729	0.0610
previous induced abortion	0.9962	0.9356	1.0607	0.0319	-0.1181	0.9059
previous spontaneous abortion	1.1315	1.0595	1.2084	0.0335	3.6849	0.0002
education level	0.9619	0.9349	0.9897	0.0145	-2.6652	0.0076
parental income	0.9382	0.9101	0.9672	0.0155	-4.1069	<0.0001
country	1.0972	0.9820	1.2260	0.0566	1.6398	0.1010
region Sjelland	0.7543	0.6990	0.8140	0.0388	-7.2569	<0.0001
region Syddanmark	0.7193	0.6727	0.7691	0.0341	-9.6461	<0.0001
region Midtylland	0.6261	0.5844	0.6708	0.0351	-13.3046	<0.0001
region Nordjylland	0.6020	0.5495	0.6595	0.0465	-10.8978	<0.0001
mother with disorder	1.5816	1.4253	1.7551	0.0531	8.6340	<0.0001
father with disorder	1.3513	1.2208	1.4957	0.0518	5.8118	<0.0001

16. Respiratory - COPD	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2914	0.6683	2.4954	0.3360	0.7609	0.4467
paternal age	0.9553	0.8652	1.0547	0.0505	-0.9044	0.3657
maternal age	0.9423	0.8410	1.0558	0.0580	-1.0236	0.3059
gestation length	1.0288	0.9478	1.1166	0.0418	0.6792	0.4969
maternal bleeding	1.2019	0.9185	1.5726	0.1371	1.3408	0.1799
fetal oxygen deprivation	0.6765	0.0947	4.8284	1.0027	-0.3897	0.6967
pregnancy oedema	1.6775	1.0459	2.6904	0.2410	2.1463	0.0318
apgar5 score	1.2120	0.8993	1.6333	0.1522	1.2633	0.2064
birth weight	0.8631	0.7991	0.9323	0.0393	-3.7430	0.0001
preexisting hypertension	0.0000	0.0000	Inf	715.4281	-0.0182	0.9854
preexisting diabetes	1.1341	0.2813	4.5713	0.7112	0.1769	0.8595
previous induced abortion	1.1440	0.9484	1.3800	0.0956	1.4070	0.1594
previous spontaneous abortion	1.0416	0.8447	1.2843	0.1068	0.3815	0.7027
education level	1.0035	0.9190	1.0959	0.0449	0.0795	0.9365
parental income	0.8012	0.7301	0.8792	0.0473	-4.6756	<0.0001
country	1.1277	0.8026	1.5846	0.1735	0.6928	0.4884
region Sjelland	0.8439	0.6709	1.0615	0.1170	-1.4494	0.1472
region Syddanmark	0.7189	0.5830	0.8864	0.1068	-3.0871	0.0020
region Midtylland	0.5843	0.4675	0.7303	0.1137	-4.7227	<0.0001
region Nordjylland	0.7244	0.5536	0.9480	0.1372	-2.3490	0.0188
mother with disorder	1.9004	1.3296	2.7163	0.1822	3.5232	0.0004
father with disorder	1.7672	1.2534	2.4917	0.1752	3.2487	0.0011

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17. Digestive - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.1695	1.0861	1.2592	0.0377	4.1504	<0.0001
paternal age	0.9836	0.9729	0.9944	0.0055	-2.9569	0.0031
maternal age	0.9146	0.9031	0.9262	0.0064	-13.8939	<0.0001
gestation length	0.9811	0.9725	0.9897	0.0044	-4.2553	<0.0001
maternal bleeding	1.0617	1.0298	1.0946	0.0155	3.8483	0.0001
fetal oxygen deprivation	1.0670	0.8996	1.2655	0.0870	0.7457	0.4558
pregnancy oedema	1.1270	1.0567	1.2020	0.0328	3.6386	0.0002
apgar5 score	1.0604	1.0256	1.0963	0.0170	3.4448	0.0005
birth weight	0.9804	0.9724	0.9885	0.0041	-4.7078	<0.0001
preexisting hypertension	1.0017	0.8085	1.2411	0.1093	0.0159	0.9872
preexisting diabetes	1.1318	0.9854	1.2999	0.0706	1.7524	0.0796
previous induced abortion	1.0362	1.0150	1.0579	0.0105	3.3693	0.0007
previous spontaneous abortion	1.0498	1.0267	1.0734	0.0113	4.2864	<0.0001
education level	0.9593	0.9502	0.9684	0.0048	-8.5621	<0.0001
parental income	0.9852	0.9752	0.9952	0.0051	-2.8741	0.0040
country	0.8471	0.8112	0.8847	0.0221	-7.4960	<0.0001
region Sjelland	0.9638	0.9391	0.9891	0.0132	-2.7818	0.0054
region Syddanmark	1.0317	1.0087	1.0551	0.0114	2.7237	0.0064
region Midtylland	0.8742	0.8542	0.8947	0.0118	-11.3621	<0.0001
region Nordjylland	0.9170	0.8909	0.9438	0.0147	-5.8822	<0.0001
mother with disorder	1.3003	1.2775	1.3235	0.0090	29.0573	<0.0001
father with disorder	1.1832	1.1625	1.2044	0.0090	18.6474	<0.0001

18. Endocrine - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.3109	1.1775	1.4594	0.0547	4.9445	<0.0001
paternal age	0.9506	0.9354	0.9660	0.0082	-6.1565	<0.0001
maternal age	0.8678	0.8518	0.8842	0.0095	-14.8606	<0.0001
gestation length	0.9858	0.9728	0.9990	0.0067	-2.0925	0.0363
maternal bleeding	1.0583	1.0101	1.1089	0.0238	2.3841	0.0171
fetal oxygen deprivation	1.1836	0.9271	1.5110	0.1246	1.3528	0.1760
pregnancy oedema	1.2449	1.1438	1.3549	0.0432	5.0713	<0.0001
apgar5 score	1.1617	1.1055	1.2206	0.0252	5.9314	<0.0001
birth weight	1.0355	1.0227	1.0484	0.0063	5.5061	<0.0001
preexisting hypertension	1.0762	0.7946	1.4576	0.1547	0.4747	0.6349
preexisting diabetes	1.5062	1.2786	1.7743	0.0835	4.9005	<0.0001
previous induced abortion	1.0243	0.9923	1.0573	0.0161	1.4831	0.1380
previous spontaneous abortion	1.0555	1.0203	1.0919	0.0173	3.1207	0.0018
education level	0.8463	0.8344	0.8585	0.0072	-22.9296	<0.0001
parental income	0.8855	0.8720	0.8992	0.0078	-15.5256	<0.0001
country	0.8490	0.7998	0.9011	0.0304	-5.3800	<0.0001
region Sjelland	1.2465	1.2004	1.2943	0.0192	11.4728	<0.0001
region Syddanmark	1.1640	1.1250	1.2043	0.0173	8.7420	<0.0001
region Midtylland	0.8216	0.7918	0.8525	0.0188	-10.4284	<0.0001
region Nordjylland	0.8624	0.8237	0.9030	0.0234	-6.3035	<0.0001
mother with disorder	1.6553	1.6079	1.7042	0.0148	33.9806	<0.0001
father with disorder	1.5066	1.4560	1.5590	0.0174	23.5112	<0.0001

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19. Endocrine - obesity	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.4035	1.2319	1.5991	0.0665	5.0951	<0.0001
paternal age	0.9270	0.9086	0.9458	0.0102	-7.4072	<0.0001
maternal age	0.8194	0.8004	0.8390	0.0120	-16.5699	<0.0001
gestation length	1.0024	0.9858	1.0194	0.0085	0.2923	0.7700
maternal bleeding	1.0644	1.0037	1.1288	0.0299	2.0841	0.0371
fetal oxygen deprivation	1.2060	0.8899	1.6342	0.1550	1.2082	0.2269
pregnancy oedema	1.2866	1.1650	1.4208	0.0506	4.9785	<0.0001
apgar5 score	1.1963	1.1250	1.2722	0.0313	5.7189	<0.0001
birth weight	1.0746	1.0579	1.0915	0.0079	9.0279	<0.0001
preexisting hypertension	1.1458	0.7950	1.6514	0.1864	0.7301	0.4653
preexisting diabetes	1.6444	1.3380	2.0208	0.1051	4.7290	<0.0001
previous induced abortion	1.0238	0.9836	1.0657	0.0204	1.1539	0.2485
previous spontaneous abortion	1.0756	1.0303	1.1229	0.0219	3.3230	0.0008
education level	0.7634	0.7497	0.7774	0.0092	-29.1082	<0.0001
parental income	0.8561	0.8396	0.8728	0.0099	-15.6876	<0.0001
country	0.6092	0.5615	0.6610	0.0416	-11.9058	<0.0001
region Sjelland	1.4771	1.4096	1.5479	0.0238	16.3335	<0.0001
region Syddanmark	1.2958	1.2408	1.3533	0.0221	11.7073	<0.0001
region Midtylland	0.7949	0.7571	0.8346	0.0248	-9.2347	<0.0001
region Nordjylland	0.8510	0.8016	0.9035	0.0305	-5.2858	<0.0001
mother with disorder	2.3414	2.2320	2.4561	0.0244	34.8526	<0.0001
father with disorder	1.9915	1.8490	2.1450	0.0378	18.1910	<0.0001

20. Genitourinary - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2709	1.1337	1.4247	0.0582	4.1132	<0.0001
paternal age	0.9697	0.9533	0.9863	0.0086	-3.5479	0.0003
maternal age	0.8892	0.8718	0.9070	0.0101	-11.6181	<0.0001
gestation length	0.9799	0.9663	0.9936	0.0071	-2.8492	0.0043
maternal bleeding	1.1145	1.0631	1.1685	0.0241	4.4969	<0.0001
fetal oxygen deprivation	0.8451	0.6143	1.1625	0.1627	-1.0340	0.3010
pregnancy oedema	1.1302	1.0190	1.2536	0.0528	2.3175	0.0204
apgar5 score	1.0438	0.9888	1.1018	0.0275	1.5549	0.1199
birth weight	0.9574	0.9449	0.9701	0.0067	-6.4757	<0.0001
preexisting hypertension	1.1551	0.8466	1.5760	0.1585	0.9100	0.3627
preexisting diabetes	1.2174	0.9851	1.5046	0.1080	1.8214	0.0685
previous induced abortion	1.1254	1.0902	1.1618	0.0162	7.2793	<0.0001
previous spontaneous abortion	1.0422	1.0058	1.0799	0.0181	2.2808	0.0225
education level	0.9231	0.9093	0.9370	0.0076	-10.4461	<0.0001
parental income	0.9278	0.9131	0.9426	0.0081	-9.2417	<0.0001
country	0.8833	0.8307	0.9392	0.0313	-3.9592	<0.0001
region Sjelland	0.7105	0.6824	0.7397	0.0205	-16.6272	<0.0001
region Syddanmark	0.6690	0.6456	0.6931	0.0181	-22.1925	<0.0001
region Midtylland	0.6222	0.6002	0.6451	0.0183	-25.8170	<0.0001
region Nordjylland	0.6236	0.5952	0.6535	0.0238	-19.8144	<0.0001
mother with disorder	1.3189	1.2766	1.3625	0.0166	16.6573	<0.0001
father with disorder	1.2736	1.2166	1.3332	0.0233	10.3625	<0.0001

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21. Genitourinary - kidney infection	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2889	0.9632	1.7245	0.1485	1.7081	0.0876
paternal age	0.9999	0.9577	1.0440	0.0220	-0.0006	0.9994
maternal age	0.8507	0.8087	0.8949	0.0258	-6.2576	<0.0001
gestation length	1.0171	0.9818	1.0536	0.0180	0.9419	0.3462
maternal bleeding	1.1192	0.9922	1.2624	0.0614	1.8329	0.0668
fetal oxygen deprivation	0.9303	0.4169	2.0760	0.4095	-0.1762	0.8601
pregnancy oedema	0.8642	0.6320	1.1817	0.1596	-0.9138	0.3608
apgar5 score	1.1312	0.9897	1.2930	0.0681	1.8086	0.0705
birth weight	0.9892	0.9568	1.0227	0.0169	-0.6345	0.5257
preexisting hypertension	0.5301	0.1707	1.6463	0.5780	-1.0975	0.2723
preexisting diabetes	1.4537	0.8995	2.3495	0.2449	1.5275	0.1266
previous induced abortion	1.1812	1.0914	1.2784	0.0403	4.1275	<0.0001
previous spontaneous abortion	1.1176	1.0237	1.2200	0.0447	2.4839	0.0129
education level	0.9277	0.8927	0.9640	0.0196	-3.8268	0.0001
parental income	0.9574	0.9193	0.9970	0.0207	-2.1015	0.0355
country	0.6379	0.5350	0.7606	0.0897	-5.0086	<0.0001
region Sjelland	0.6935	0.6261	0.7682	0.0521	-7.0134	<0.0001
region Syddanmark	0.6344	0.5792	0.6948	0.0464	-9.7977	<0.0001
region Midtylland	0.6425	0.5872	0.7029	0.0458	-9.6443	<0.0001
region Nordjylland	0.6320	0.5623	0.7103	0.0595	-7.7004	<0.0001
mother with disorder	1.4632	1.1728	1.8256	0.1128	3.3724	0.0007
father with disorder	1.6448	1.0705	2.5272	0.2191	2.2711	0.0231

22. Musculoskeletal - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2185	1.1547	1.2857	0.0274	7.2069	<0.0001
paternal age	0.9737	0.9658	0.9818	0.0041	-6.3389	<0.0001
maternal age	0.9359	0.9271	0.9448	0.0048	-13.7206	<0.0001
gestation length	1.0001	0.9936	1.0066	0.0033	0.0409	0.9673
maternal bleeding	1.0874	1.0631	1.1123	0.0115	7.2734	<0.0001
fetal oxygen deprivation	1.1597	1.0294	1.3065	0.0608	2.4375	0.0147
pregnancy oedema	1.0978	1.0429	1.1556	0.0261	3.5663	0.0003
apgar5 score	1.0158	0.9904	1.0420	0.0129	1.2170	0.2235
birth weight	0.9904	0.9843	0.9965	0.0031	-3.0694	0.0021
preexisting hypertension	1.0329	0.8856	1.2047	0.0784	0.4131	0.6795
preexisting diabetes	1.0178	0.9154	1.1317	0.0541	0.3275	0.7432
previous induced abortion	1.0467	1.0307	1.0629	0.0078	5.8128	<0.0001
previous spontaneous abortion	1.0317	1.0146	1.0491	0.0085	3.6718	0.0002
education level	0.9555	0.9487	0.9624	0.0036	-12.4498	<0.0001
parental income	0.9929	0.9853	1.0005	0.0039	-1.8176	0.0691
country	0.8543	0.8275	0.8819	0.0162	-9.7021	<0.0001
region Sjelland	0.8484	0.8315	0.8657	0.0102	-15.9992	<0.0001
region Syddanmark	0.8867	0.8716	0.9022	0.0088	-13.6500	<0.0001
region Midtylland	1.0416	1.0246	1.0589	0.0084	4.8541	<0.0001
region Nordjylland	0.8347	0.8163	0.8536	0.0113	-15.8763	<0.0001
mother with disorder	1.3431	1.3268	1.3597	0.0062	47.3507	<0.0001
father with disorder	1.2313	1.2162	1.2466	0.0062	33.0863	<0.0001

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23. Neoplasms - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2211	1.0966	1.3598	0.0548	3.6415	0.0002
paternal age	0.9855	0.9697	1.0016	0.0082	-1.7577	0.0787
maternal age	0.9694	0.9516	0.9874	0.0094	-3.2962	0.0009
gestation length	0.9982	0.9855	1.0110	0.0065	-0.2716	0.7859
maternal bleeding	1.0751	1.0282	1.1240	0.0227	3.1877	0.0014
fetal oxygen deprivation	1.1286	0.8935	1.4256	0.1191	1.0154	0.3098
pregnancy oedema	0.9849	0.8908	1.0890	0.0512	-0.2953	0.7677
apgar5 score	0.9769	0.9287	1.0277	0.0258	-0.9003	0.3679
birth weight	1.0171	1.0049	1.0293	0.0061	2.7748	0.0055
preexisting hypertension	0.9508	0.6914	1.3074	0.1625	-0.3103	0.7562
preexisting diabetes	1.0287	0.8326	1.2709	0.1078	0.2623	0.7930
previous induced abortion	0.9953	0.9652	1.0262	0.0156	-0.3011	0.7632
previous spontaneous abortion	1.0262	0.9934	1.0601	0.0165	1.5623	0.1182
education level	1.0071	0.9932	1.0212	0.0070	1.0080	0.3134
parental income	1.0281	1.0130	1.0434	0.0075	3.6791	0.0002
country	0.9152	0.8554	0.9792	0.0344	-2.5675	0.0102
region Sjelland	1.1109	1.0693	1.1542	0.0194	5.4004	<0.0001
region Syddanmark	1.1857	1.1468	1.2259	0.0170	10.0164	<0.0001
region Midtylland	1.1391	1.1018	1.1777	0.0169	7.6675	<0.0001
region Nordjylland	0.9369	0.8963	0.9793	0.0225	-2.8842	0.0039
mother with disorder	1.1890	1.1599	1.2188	0.0126	13.7133	<0.0001
father with disorder	1.1534	1.1158	1.1923	0.0169	8.4357	<0.0001

24. Neoplasms - benign	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2251	1.0916	1.3749	0.0588	3.4504	0.0005
paternal age	0.9803	0.9633	0.9975	0.0089	-2.2307	0.0257
maternal age	0.9763	0.9571	0.9960	0.0101	-2.3535	0.0185
gestation length	0.9963	0.9827	1.0101	0.0070	-0.5236	0.6004
maternal bleeding	1.0647	1.0148	1.1171	0.0245	2.5610	0.0104
fetal oxygen deprivation	1.1699	0.9111	1.5022	0.1275	1.2306	0.2184
pregnancy oedema	0.9981	0.8950	1.1131	0.0556	-0.0331	0.9735
apgar5 score	0.9698	0.9183	1.0242	0.0278	-1.0993	0.2715
birth weight	1.0140	1.0010	1.0272	0.0065	2.1216	0.0338
preexisting hypertension	0.8833	0.6208	1.2567	0.1799	-0.6896	0.4903
preexisting diabetes	1.0415	0.8318	1.3040	0.1146	0.3548	0.7226
previous induced abortion	1.0013	0.9690	1.0348	0.0167	0.0814	0.9350
previous spontaneous abortion	1.0474	1.0117	1.0845	0.0177	2.6187	0.0088
education level	1.0126	0.9975	1.0279	0.0076	1.6439	0.1001
parental income	1.0253	1.0091	1.0418	0.0081	3.0778	0.0020
country	0.9220	0.8580	0.9907	0.0366	-2.2124	0.0269
region Sjelland	1.0985	1.0541	1.1448	0.0210	4.4670	<0.0001
region Syddanmark	1.1979	1.1557	1.2416	0.0182	9.8824	<0.0001
region Midtylland	1.1487	1.1083	1.1905	0.0182	7.5940	<0.0001
region Nordjylland	0.8990	0.8566	0.9436	0.0246	-4.3137	<0.0001
mother with disorder	1.2202	1.1852	1.2562	0.0148	13.4010	<0.0001
father with disorder	1.1921	1.1412	1.2452	0.0222	7.9035	<0.0001

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25. Circulatory - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.1715	0.9997	1.3729	0.0809	1.9565	0.0503
paternal age	0.9688	0.9459	0.9922	0.0121	-2.5997	0.0093
maternal age	0.9481	0.9227	0.9743	0.0138	-3.8377	0.0001
gestation length	0.9712	0.9530	0.9898	0.0096	-3.0116	0.0025
maternal bleeding	1.1373	1.0670	1.2122	0.0325	3.9549	<0.0001
fetal oxygen deprivation	0.8505	0.5782	1.2508	0.1968	-0.8226	0.4107
pregnancy oedema	1.0466	0.9091	1.2048	0.0718	0.6341	0.5259
apgar5 score	1.2291	1.1481	1.3158	0.0347	5.9292	<0.0001
birth weight	0.9757	0.9585	0.9932	0.0090	-2.7033	0.0068
preexisting hypertension	1.1880	0.8233	1.7141	0.1870	0.9209	0.3570
preexisting diabetes	0.9621	0.7068	1.3096	0.1573	-0.2454	0.8061
previous induced abortion	0.9862	0.9422	1.0323	0.0232	-0.5927	0.5533
previous spontaneous abortion	1.0432	0.9940	1.0949	0.0246	1.7173	0.0859
education level	0.9706	0.9508	0.9908	0.0105	-2.8323	0.0046
parental income	0.9825	0.9613	1.0042	0.0111	-1.5761	0.1149
country	0.8854	0.8052	0.9735	0.0484	-2.5134	0.0119
region Sjelland	0.9937	0.9405	1.0500	0.0280	-0.2215	0.8246
region Syddanmark	0.9101	0.8661	0.9564	0.0253	-3.7177	0.0002
region Midtylland	0.9468	0.9018	0.9941	0.0248	-2.1940	0.0282
region Nordjylland	0.7628	0.7138	0.8151	0.0338	-8.0004	<0.0001
mother with disorder	1.4985	1.4338	1.5661	0.0225	17.9650	<0.0001
father with disorder	1.3353	1.2811	1.3917	0.0211	13.6985	<0.0001

26. Nervous System - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.5085	1.2620	1.8031	0.0910	4.5166	<0.0001
paternal age	0.9776	0.9490	1.0070	0.0151	-1.4953	0.1348
maternal age	0.8889	0.8588	0.9199	0.0175	-6.7135	<0.0001
gestation length	0.9955	0.9718	1.0198	0.0122	-0.3622	0.7171
maternal bleeding	1.1232	1.0352	1.2187	0.0416	2.7909	0.0052
fetal oxygen deprivation	1.5467	1.0724	2.2309	0.1868	2.3341	0.0195
pregnancy oedema	1.2077	1.0301	1.4159	0.0811	2.3256	0.0200
apgar5 score	1.0712	0.9767	1.1750	0.0471	1.4605	0.1441
birth weight	0.9770	0.9553	0.9992	0.0114	-2.0268	0.0426
preexisting hypertension	1.1102	0.6296	1.9575	0.2893	0.3614	0.7177
preexisting diabetes	1.4977	1.0718	2.0927	0.1706	2.3665	0.0179
previous induced abortion	1.0604	1.0018	1.1224	0.0289	2.0252	0.0428
previous spontaneous abortion	1.0826	1.0191	1.1501	0.0308	2.5730	0.0100
education level	0.9062	0.8830	0.9301	0.0132	-7.4335	<0.0001
parental income	0.9368	0.9112	0.9631	0.0141	-4.6145	<0.0001
country	0.7051	0.6197	0.8023	0.0658	-5.3038	<0.0001
region Sjelland	1.4341	1.3411	1.5336	0.0342	10.5360	<0.0001
region Syddanmark	1.1590	1.0880	1.2345	0.0322	4.5797	<0.0001
region Midtylland	0.9868	0.9245	1.0534	0.0333	-0.3968	0.6914
region Nordjylland	0.7523	0.6877	0.8229	0.0457	-6.2153	<0.0001
mother with disorder	1.5647	1.4591	1.6780	0.0356	12.5576	<0.0001
father with disorder	1.4133	1.2973	1.5397	0.0437	7.9168	<0.0001

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27. Eye/adnexa - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2531	1.1274	1.3928	0.0539	4.1857	<0.0001
paternal age	1.0033	0.9880	1.0189	0.0078	0.4281	0.6685
maternal age	0.9744	0.9574	0.9917	0.0089	-2.8761	0.0040
gestation length	0.9570	0.9452	0.9690	0.0063	-6.9171	<0.0001
maternal bleeding	1.0874	1.0419	1.1348	0.0218	3.8421	0.0001
fetal oxygen deprivation	1.1464	0.8947	1.4690	0.1265	1.0804	0.2799
pregnancy oedema	1.0639	0.9643	1.1737	0.0501	1.2363	0.2163
apgar5 score	1.0673	1.0184	1.1185	0.0239	2.7253	0.0064
birth weight	0.9581	0.9470	0.9694	0.0059	-7.1573	<0.0001
preexisting hypertension	1.0024	0.7455	1.3478	0.1510	0.0159	0.9872
preexisting diabetes	1.0952	0.9007	1.3318	0.0997	0.9122	0.3616
previous induced abortion	1.0290	0.9993	1.0596	0.0149	1.9192	0.0549
previous spontaneous abortion	1.0694	1.0364	1.1034	0.0159	4.2025	<0.0001
education level	0.9591	0.9463	0.9720	0.0068	-6.1012	<0.0001
parental income	0.9569	0.9433	0.9706	0.0072	-6.0417	<0.0001
country	1.0354	0.9806	1.0934	0.0277	1.2548	0.2095
region Sjelland	0.7687	0.7415	0.7969	0.0183	-14.3111	<0.0001
region Syddanmark	0.7515	0.7283	0.7755	0.0160	-17.8031	<0.0001
region Midtylland	0.6381	0.6176	0.6592	0.0166	-26.9935	<0.0001
region Nordjylland	0.6704	0.6429	0.6991	0.0213	-18.6939	<0.0001
mother with disorder	1.3262	1.2781	1.3761	0.0188	14.9739	<0.0001
father with disorder	1.2401	1.1941	1.2880	0.0193	11.1484	<0.0001

28. Mental - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2229	1.1295	1.3239	0.0405	4.9665	<0.0001
paternal age	1.0143	1.0026	1.0261	0.0059	2.4050	0.0161
maternal age	0.9173	0.9050	0.9299	0.0069	-12.4658	<0.0001
gestation length	0.9821	0.9726	0.9917	0.0049	-3.6345	0.0002
maternal bleeding	1.1313	1.0953	1.1684	0.0164	7.4817	<0.0001
fetal oxygen deprivation	1.2019	0.9971	1.4489	0.0953	1.9300	0.0535
pregnancy oedema	1.0852	1.0062	1.1705	0.0385	2.1203	0.0339
apgar5 score	1.0591	1.0206	1.0990	0.0188	3.0447	0.0023
birth weight	0.9710	0.9621	0.9799	0.0046	-6.2740	<0.0001
preexisting hypertension	1.1793	0.9504	1.4633	0.1101	1.4980	0.1341
preexisting diabetes	1.1352	0.9809	1.3138	0.0745	1.7015	0.0888
previous induced abortion	1.1292	1.1047	1.1543	0.0112	10.8523	<0.0001
previous spontaneous abortion	1.0692	1.0432	1.0958	0.0125	5.3334	<0.0001
education level	0.9600	0.9497	0.9703	0.0054	-7.4523	<0.0001
parental income	0.7864	0.7774	0.7955	0.0058	-40.8631	<0.0001
country	0.4841	0.4590	0.5105	0.0271	-26.7619	<0.0001
region Sjelland	0.8414	0.8177	0.8657	0.0145	-11.8655	<0.0001
region Syddanmark	0.9152	0.8933	0.9377	0.0123	-7.1517	<0.0001
region Midtylland	0.7653	0.7460	0.7851	0.0130	-20.5091	<0.0001
region Nordjylland	0.5591	0.5389	0.5801	0.0187	-30.9937	<0.0001
mother with disorder	2.0420	1.9934	2.0917	0.0122	58.0955	<0.0001
father with disorder	1.6294	1.5836	1.6765	0.0145	33.5810	<0.0001

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Table S6 - Full Cox regression outputs - impact of adenoidectomy on risk of later disease.

1. Infectious - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2751	1.1931	1.3627	0.0339	7.1651	<0.0001
paternal age	0.9933	0.9796	1.0072	0.0070	-0.9405	0.3469
maternal age	0.9731	0.9578	0.9887	0.0081	-3.3560	0.0007
gestation length	0.9878	0.9768	0.9989	0.0057	-2.1485	0.0316
maternal bleeding	1.1079	1.0661	1.1513	0.0196	5.2296	<0.0001
fetal oxygen deprivation	0.8918	0.6948	1.1448	0.1273	-0.8980	0.3691
pregnancy oedema	1.0579	0.9673	1.1570	0.0456	1.2333	0.2174
apgar5 score	1.0433	0.9994	1.0892	0.0219	1.9343	0.0530
birth weight	0.9913	0.9810	1.0018	0.0053	-1.6162	0.1060
preexisting hypertension	1.0357	0.7966	1.3465	0.1338	0.2625	0.7929
preexisting diabetes	1.0546	0.8814	1.2618	0.0915	0.5809	0.5612
previous induced abortion	1.0931	1.0654	1.1216	0.0131	6.7951	<0.0001
previous spontaneous abortion	1.0461	1.0171	1.0760	0.0143	3.1438	0.0016
education level	0.9923	0.9805	1.0043	0.0061	-1.2552	0.2093
parental income	0.9864	0.9739	0.9991	0.0065	-2.0943	0.0362
country	1.2691	1.2104	1.3306	0.0241	9.8712	<0.0001
region Sjelland	0.7845	0.7599	0.8099	0.0162	-14.9030	<0.0001
region Syddanmark	0.6846	0.6651	0.7046	0.0147	-25.7642	<0.0001
region Midtylland	0.7020	0.6824	0.7223	0.0144	-24.4181	<0.0001
region Nordjylland	0.6156	0.5923	0.6399	0.0196	-24.6213	<0.0001
mother with disorder	1.3780	1.3346	1.4229	0.0163	19.6287	<0.0001
father with disorder	1.2447	1.2036	1.2873	0.0171	12.7714	<0.0001

2. Allergic - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.3799	1.2562	1.5159	0.0479	6.7173	<0.0001
paternal age	1.0061	0.9857	1.0269	0.0104	0.5832	0.5597
maternal age	1.0268	1.0032	1.0511	0.0118	2.2304	0.0257
gestation length	0.9972	0.9812	1.0134	0.0082	-0.3397	0.7340
maternal bleeding	1.1426	1.0816	1.2070	0.0279	4.7651	<0.0001
fetal oxygen deprivation	0.6034	0.3845	0.9468	0.2298	-2.1975	0.0279
pregnancy oedema	1.2391	1.0974	1.3990	0.0619	3.4611	0.0005
apgar5 score	1.0825	1.0193	1.1495	0.0306	2.5846	0.0097
birth weight	0.9780	0.9632	0.9931	0.0078	-2.8362	0.0045
preexisting hypertension	0.7289	0.4646	1.1435	0.2297	-1.3763	0.1687
preexisting diabetes	1.0399	0.7932	1.3634	0.1381	0.2834	0.7768
previous induced abortion	1.0402	1.0012	1.0808	0.0195	2.0242	0.0429
previous spontaneous abortion	1.0433	1.0012	1.0872	0.0210	2.0175	0.0436
education level	1.0654	1.0467	1.0844	0.0090	7.0149	<0.0001
parental income	1.0196	1.0006	1.0389	0.0095	2.0307	0.0422
country	1.3856	1.2911	1.4871	0.0360	9.0506	<0.0001
region Sjelland	0.7125	0.6772	0.7497	0.0259	-13.0736	<0.0001
region Syddanmark	1.0327	0.9923	1.0747	0.0203	1.5842	0.1131
region Midtylland	0.7876	0.7550	0.8217	0.0216	-11.0424	<0.0001
region Nordjylland	0.7121	0.6726	0.7540	0.0291	-11.6537	<0.0001
mother with disorder	1.8645	1.7454	1.9918	0.0336	18.5010	<0.0001
father with disorder	1.7644	1.6250	1.9158	0.0420	13.5176	<0.0001

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3. Allergic - rhinitis	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.6148	1.4252	1.8296	0.0637	7.5203	<0.0001
paternal age	1.0191	0.9898	1.0492	0.0148	1.2732	0.2029
maternal age	1.0643	1.0297	1.1001	0.0168	3.6957	0.0002
gestation length	0.9994	0.9771	1.0222	0.0115	-0.0517	0.9587
maternal bleeding	1.0643	0.9828	1.1526	0.0406	1.5342	0.1249
fetal oxygen deprivation	0.5550	0.2884	1.0680	0.3339	-1.7629	0.0779
pregnancy oedema	1.1629	0.9751	1.3870	0.0899	1.6795	0.0930
apgar5 score	1.0914	1.0044	1.1860	0.0423	2.0647	0.0389
birth weight	0.9888	0.9678	1.0103	0.0109	-1.0195	0.3079
preexisting hypertension	0.6024	0.3010	1.2056	0.3539	-1.4315	0.1522
preexisting diabetes	0.7667	0.4937	1.1908	0.2246	-1.1823	0.2370
previous induced abortion	1.0042	0.9505	1.0610	0.0280	0.1525	0.8787
previous spontaneous abortion	1.0328	0.9744	1.0947	0.0297	1.0883	0.2764
education level	1.1294	1.1012	1.1582	0.0128	9.4599	<0.0001
parental income	1.0258	0.9986	1.0538	0.0137	1.8620	0.0625
country	1.4185	1.2751	1.5780	0.0543	6.4295	<0.0001
region Sjelland	0.9071	0.8400	0.9795	0.0391	-2.4869	0.0128
region Syddanmark	1.7590	1.6605	1.8633	0.0293	19.2115	<0.0001
region Midtylland	1.1154	1.0473	1.1879	0.0321	3.3992	0.0006
region Nordjylland	1.2836	1.1897	1.3849	0.0387	6.4435	<0.0001
mother with disorder	3.1455	2.8026	3.5304	0.0588	19.4586	<0.0001
father with disorder	2.8219	2.4535	3.2456	0.0713	14.5365	<0.0001

4. Allergic - conjunctivitis	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.7514	1.3518	2.2691	0.1321	4.2421	<0.0001
paternal age	1.0119	0.9514	1.0762	0.0314	0.3770	0.7061
maternal age	1.0713	0.9990	1.1489	0.0356	1.9319	0.0533
gestation length	1.0248	0.9770	1.0749	0.0243	1.0057	0.3145
maternal bleeding	1.2086	1.0295	1.4188	0.0818	2.3155	0.0205
fetal oxygen deprivation	0.0000	0.0000	Inf	370.1012	-0.0344	0.9724
pregnancy oedema	1.4792	1.0510	2.0818	0.1743	2.2457	0.0247
apgar5 score	1.0437	0.8738	1.2466	0.0906	0.4722	0.6367
birth weight	1.0132	0.9678	1.0606	0.0233	0.5616	0.5743
preexisting hypertension	0.3226	0.0453	2.2934	1.0006	-1.1304	0.2582
preexisting diabetes	1.2298	0.5832	2.5932	0.3806	0.5434	0.5868
previous induced abortion	1.1018	0.9837	1.2340	0.0578	1.6766	0.0936
previous spontaneous abortion	1.1712	1.0398	1.3192	0.0607	2.6032	0.0092
education level	1.0673	1.0116	1.1261	0.0273	2.3824	0.0171
parental income	1.0253	0.9680	1.0860	0.0293	0.8523	0.3940
country	1.5564	1.2648	1.9152	0.1058	4.1797	<0.0001
region Sjelland	0.6708	0.5653	0.7960	0.0873	-4.5727	<0.0001
region Syddanmark	1.8783	1.6752	2.1060	0.0583	10.7975	<0.0001
region Midtylland	0.6978	0.6035	0.8067	0.0740	-4.8608	<0.0001
region Nordjylland	0.9588	0.8091	1.1361	0.0865	-0.4857	0.6271
mother with disorder	1.6499	0.7851	3.4676	0.3789	1.3215	0.1863
father with disorder	2.8925	1.3758	6.0812	0.3791	2.8014	0.0050

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5. Allergic - eczema/dermatitis	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2997	1.0782	1.5666	0.0953	2.7505	0.0059
paternal age	0.9893	0.9515	1.0287	0.0199	-0.5354	0.5923
maternal age	0.9966	0.9531	1.0422	0.0227	-0.1455	0.8842
gestation length	1.0211	0.9901	1.0531	0.0157	1.3314	0.1830
maternal bleeding	1.2056	1.0883	1.3356	0.0522	3.5796	0.0003
fetal oxygen deprivation	0.6818	0.3057	1.5204	0.4091	-0.9358	0.3493
pregnancy oedema	1.2988	1.0354	1.6291	0.1156	2.2610	0.0237
apgar5 score	1.0580	0.9411	1.1895	0.0597	0.9446	0.3448
birth weight	0.9816	0.9534	1.0107	0.0148	-1.2429	0.2138
preexisting hypertension	0.7051	0.2931	1.6961	0.4478	-0.7801	0.4353
preexisting diabetes	1.0918	0.6561	1.8166	0.2597	0.3381	0.7352
previous induced abortion	1.0789	1.0044	1.1590	0.0365	2.0816	0.0373
previous spontaneous abortion	1.0723	0.9920	1.1591	0.0397	1.7594	0.0785
education level	1.0411	1.0066	1.0768	0.0171	2.3460	0.0189
parental income	1.0582	1.0212	1.0966	0.0181	3.1159	0.0018
country	1.2608	1.0985	1.4471	0.0703	3.2970	0.0009
region Sjelland	0.6128	0.5559	0.6755	0.0497	-9.8518	<0.0001
region Syddanmark	0.9003	0.8352	0.9704	0.0382	-2.7429	0.0060
region Midtylland	0.8009	0.7416	0.8648	0.0391	-5.6631	<0.0001
region Nordjylland	0.4031	0.3538	0.4594	0.0666	-13.6332	<0.0001
mother with disorder	2.4876	2.0684	2.9919	0.0941	9.6778	<0.0001
father with disorder	2.0043	1.5079	2.6641	0.1451	4.7886	<0.0001

6. Allergic - urticaria/angiodema	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2233	1.0186	1.4691	0.0934	2.1572	0.0309
paternal age	1.0063	0.9680	1.0461	0.0197	0.3201	0.7488
maternal age	0.9894	0.9464	1.0344	0.0226	-0.4679	0.6398
gestation length	0.9903	0.9597	1.0218	0.0160	-0.6076	0.5434
maternal bleeding	1.2773	1.1548	1.4127	0.0514	4.7600	<0.0001
fetal oxygen deprivation	0.5341	0.2001	1.4256	0.5008	-1.2519	0.2106
pregnancy oedema	1.5592	1.2664	1.9197	0.1061	4.1854	<0.0001
apgar5 score	1.1153	0.9935	1.2520	0.0589	1.8507	0.0642
birth weight	0.9683	0.9400	0.9975	0.0151	-2.1207	0.0339
preexisting hypertension	0.7246	0.3011	1.7436	0.4480	-0.7189	0.4721
preexisting diabetes	1.3165	0.8266	2.0970	0.2374	1.1581	0.2468
previous induced abortion	1.0613	0.9869	1.1414	0.0370	1.6055	0.1083
previous spontaneous abortion	1.0461	0.9663	1.1325	0.0404	1.1153	0.2647
education level	1.0288	0.9947	1.0641	0.0172	1.6529	0.0983
parental income	0.9741	0.9400	1.0094	0.0181	-1.4421	0.1492
country	1.4941	1.3234	1.6868	0.0619	6.4866	<0.0001
region Sjelland	0.6060	0.5530	0.6640	0.0466	-10.7258	<0.0001
region Syddanmark	0.6497	0.6015	0.7018	0.0393	-10.9571	<0.0001
region Midtylland	0.4924	0.4528	0.5354	0.0427	-16.5806	<0.0001
region Nordjylland	0.3630	0.3197	0.4121	0.0647	-15.6455	<0.0001
mother with disorder	1.9275	1.5848	2.3443	0.0998	6.5704	<0.0001
father with disorder	1.4300	1.0818	1.8903	0.1423	2.5128	0.0119

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7. Skin - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2386	1.1730	1.3078	0.0277	7.7116	<0.0001
paternal age	0.9884	0.9769	1.0000	0.0059	-1.9541	0.0506
maternal age	0.9546	0.9418	0.9675	0.0068	-6.7703	<0.0001
gestation length	0.9965	0.9872	1.0059	0.0047	-0.7222	0.4701
maternal bleeding	1.0696	1.0353	1.1051	0.0166	4.0493	<0.0001
fetal oxygen deprivation	0.8429	0.6874	1.0336	0.1040	-1.6420	0.1005
pregnancy oedema	1.1263	1.0492	1.2090	0.0361	3.2901	0.0010
apgar5 score	1.0963	1.0584	1.1356	0.0179	5.1213	<0.0001
birth weight	1.0224	1.0134	1.0315	0.0045	4.9134	<0.0001
preexisting hypertension	1.0731	0.8603	1.3385	0.1127	0.6261	0.5311
preexisting diabetes	1.1615	1.0079	1.3386	0.0723	2.0690	0.0385
previous induced abortion	1.0888	1.0652	1.1129	0.0111	7.6198	<0.0001
previous spontaneous abortion	1.0468	1.0220	1.0722	0.0122	3.7382	0.0001
education level	0.9623	0.9526	0.9722	0.0051	-7.3767	<0.0001
parental income	0.9707	0.9602	0.9813	0.0055	-5.3601	<0.0001
country	1.2997	1.2489	1.3527	0.0203	12.8804	<0.0001
region Sjelland	0.7951	0.7730	0.8178	0.0143	-15.9584	<0.0001
region Syddanmark	0.8676	0.8470	0.8886	0.0122	-11.6087	<0.0001
region Midtylland	0.8544	0.8342	0.8751	0.0121	-12.9038	<0.0001
region Nordjylland	0.5976	0.5772	0.6188	0.0177	-29.0272	<0.0001
mother with disorder	1.3345	1.3016	1.3683	0.0127	22.6340	<0.0001
father with disorder	1.2917	1.2589	1.3254	0.0131	19.5177	<0.0001

8. Autoimmune - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.1928	1.0955	1.2987	0.0433	4.0637	<0.0001
paternal age	0.9839	0.9666	1.0015	0.0090	-1.7920	0.0731
maternal age	0.9715	0.9521	0.9914	0.0103	-2.7895	0.0052
gestation length	0.9934	0.9796	1.0074	0.0071	-0.9192	0.3579
maternal bleeding	1.0847	1.0333	1.1388	0.0248	3.2813	0.0010
fetal oxygen deprivation	1.0483	0.7891	1.3925	0.1448	0.3256	0.7446
pregnancy oedema	1.2107	1.0915	1.3429	0.0528	3.6166	0.0002
apgar5 score	0.9841	0.9316	1.0396	0.0279	-0.5697	0.5688
birth weight	0.9950	0.9819	1.0082	0.0067	-0.7438	0.4569
preexisting hypertension	1.0326	0.7476	1.4263	0.1647	0.1951	0.8452
preexisting diabetes	1.5553	1.3135	1.8415	0.0861	5.1250	<0.0001
previous induced abortion	0.9742	0.9419	1.0077	0.0172	-1.5116	0.1306
previous spontaneous abortion	1.0520	1.0153	1.0901	0.0181	2.8010	0.0050
education level	0.9911	0.9760	1.0064	0.0078	-1.1384	0.2549
parental income	1.0117	0.9953	1.0284	0.0083	1.3997	0.1615
country	0.8921	0.8315	0.9570	0.0358	-3.1834	0.0014
region Sjelland	0.9654	0.9266	1.0058	0.0209	-1.6790	0.0931
region Syddanmark	0.9770	0.9424	1.0129	0.0184	-1.2608	0.2073
region Midtylland	0.9182	0.8854	0.9522	0.0185	-4.5920	<0.0001
region Nordjylland	0.7767	0.7396	0.8156	0.0249	-10.1193	<0.0001
mother with disorder	1.5299	1.4688	1.5935	0.0207	20.4572	<0.0001
father with disorder	1.4422	1.3817	1.5053	0.0218	16.7602	<0.0001

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9. Respiratory - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.4886	1.1309	1.9594	0.1402	2.8377	0.0045
paternal age	0.9996	0.9877	1.0116	0.0060	-0.0615	0.9509
maternal age	0.9595	0.9464	0.9728	0.0070	-5.8935	<0.0001
gestation length	0.9852	0.9757	0.9947	0.0049	-3.0253	0.0024
maternal bleeding	1.0834	1.0474	1.1206	0.0172	4.6513	<0.0001
fetal oxygen deprivation	0.9176	0.7404	1.1371	0.1094	-0.7855	0.4321
pregnancy oedema	1.1050	1.0241	1.1923	0.0388	2.5740	0.0100
apgar5 score	1.0527	1.0146	1.0923	0.0188	2.7320	0.0062
birth weight	1.0015	0.9925	1.0106	0.0046	0.3321	0.7397
preexisting hypertension	1.1662	0.9424	1.4432	0.1087	1.4145	0.1572
preexisting diabetes	1.0094	0.8610	1.1833	0.0811	0.1158	0.9077
previous induced abortion	1.0560	1.0324	1.0800	0.0114	4.7433	<0.0001
previous spontaneous abortion	1.0331	1.0081	1.0586	0.0124	2.6136	0.0089
education level	1.0008	0.9904	1.0112	0.0052	0.1548	0.8769
parental income	0.9741	0.9634	0.9850	0.0056	-4.6150	<0.0001
country	1.2267	1.1768	1.2787	0.0211	9.6487	<0.0001
region Sjelland	0.8114	0.7886	0.8348	0.0145	-14.3841	<0.0001
region Syddanmark	0.8771	0.8561	0.8986	0.0123	-10.5862	<0.0001
region Midtylland	0.7360	0.7179	0.7546	0.0127	-24.0978	<0.0001
region Nordjylland	0.7285	0.7053	0.7524	0.0164	-19.1977	<0.0001
mother with disorder	1.3296	1.3013	1.3586	0.0110	25.8926	<0.0001
father with disorder	1.2407	1.2140	1.2680	0.0111	19.4280	<0.0001

10. Respiratory - upper	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.9998	1.5191	2.6326	0.1402	4.9410	<0.0001
paternal age	1.0013	0.9866	1.0162	0.0075	0.1786	0.8581
maternal age	0.9668	0.9504	0.9833	0.0086	-3.8879	0.0001
gestation length	0.9923	0.9806	1.0041	0.0060	-1.2674	0.2049
maternal bleeding	1.0761	1.0324	1.1217	0.0211	3.4681	0.0005
fetal oxygen deprivation	0.8362	0.6315	1.1073	0.1432	-1.2482	0.2119
pregnancy oedema	1.1372	1.0366	1.2475	0.0472	2.7225	0.0064
apgar5 score	1.0902	1.0427	1.1399	0.0227	3.8019	0.0001
birth weight	1.0024	0.9913	1.0137	0.0056	0.4308	0.6665
preexisting hypertension	1.1318	0.8663	1.4787	0.1363	0.9082	0.3637
preexisting diabetes	0.9439	0.7702	1.1568	0.1037	-0.5558	0.5783
previous induced abortion	1.0949	1.0652	1.1254	0.0140	6.4613	<0.0001
previous spontaneous abortion	1.0316	1.0010	1.0632	0.0153	2.0251	0.0428
education level	1.0127	0.9998	1.0257	0.0065	1.9369	0.0527
parental income	0.9900	0.9765	1.0036	0.0069	-1.4359	0.1510
country	1.4063	1.3386	1.4775	0.0251	13.5348	<0.0001
region Sjelland	0.8276	0.7990	0.8572	0.0179	-10.5500	<0.0001
region Syddanmark	0.9339	0.9066	0.9620	0.0151	-4.5181	<0.0001
region Midtylland	0.7395	0.7169	0.7628	0.0158	-19.0335	<0.0001
region Nordjylland	0.6998	0.6716	0.7291	0.0209	-17.0259	<0.0001
mother with disorder	1.3807	1.3371	1.4257	0.0163	19.7293	<0.0001
father with disorder	1.2904	1.2479	1.3343	0.0170	14.9377	<0.0001

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11. Respiratory - lower	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.6187	1.4204	1.8446	0.0666	7.2258	<0.0001
paternal age	1.0031	0.9730	1.0342	0.0155	0.2016	0.8401
maternal age	0.9158	0.8840	0.9487	0.0180	-4.8791	<0.0001
gestation length	0.9408	0.9176	0.9646	0.0127	-4.7868	<0.0001
maternal bleeding	1.1543	1.0620	1.2546	0.0425	3.3752	0.0007
fetal oxygen deprivation	0.9896	0.5850	1.6740	0.2682	-0.0388	0.9690
pregnancy oedema	1.1558	0.9588	1.3934	0.0953	1.5190	0.1287
apgar5 score	1.1228	1.0242	1.2309	0.0468	2.4716	0.0134
birth weight	0.9824	0.9596	1.0058	0.0119	-1.4761	0.1399
preexisting hypertension	1.2103	0.7015	2.0879	0.2782	0.6861	0.4926
preexisting diabetes	1.4144	1.0071	1.9864	0.1732	2.0010	0.0453
previous induced abortion	1.0015	0.9439	1.0626	0.0302	0.0497	0.9603
previous spontaneous abortion	1.1303	1.0622	1.2029	0.0317	3.8630	0.0001
education level	0.9675	0.9418	0.9939	0.0137	-2.4023	0.0162
parental income	0.9277	0.9014	0.9547	0.0146	-5.1210	<0.0001
country	1.1097	0.9986	1.2332	0.0538	1.9339	0.0531
region Sjelland	0.7978	0.7428	0.8569	0.0364	-6.1951	<0.0001
region Syddanmark	0.7261	0.6812	0.7740	0.0325	-9.8266	<0.0001
region Midtylland	0.6505	0.6093	0.6945	0.0333	-12.8737	<0.0001
region Nordjylland	0.6551	0.6021	0.7128	0.0430	-9.8243	<0.0001
mother with disorder	1.5851	1.4441	1.7399	0.0475	9.6899	<0.0001
father with disorder	1.3628	1.2430	1.4941	0.0469	6.5931	<0.0001

12. Respiratory - chronic lower	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.4465	1.3335	1.5690	0.0414	8.8969	<0.0001
paternal age	0.9980	0.9807	1.0156	0.0089	-0.2172	0.8280
maternal age	0.9755	0.9560	0.9954	0.0102	-2.4069	0.0160
gestation length	0.9670	0.9535	0.9806	0.0071	-4.7003	<0.0001
maternal bleeding	1.1178	1.0655	1.1726	0.0244	4.5602	<0.0001
fetal oxygen deprivation	1.0408	0.7597	1.4261	0.1606	0.2493	0.8030
pregnancy oedema	1.1233	1.0023	1.2590	0.0581	2.0000	0.0454
apgar5 score	1.0730	1.0185	1.1303	0.0265	2.6522	0.0079
birth weight	0.9772	0.9643	0.9903	0.0068	-3.3801	0.0007
preexisting hypertension	0.8698	0.6113	1.2376	0.1799	-0.7747	0.4384
preexisting diabetes	0.9545	0.7553	1.2062	0.1194	-0.3899	0.6965
previous induced abortion	1.0226	0.9891	1.0572	0.0169	1.3194	0.1870
previous spontaneous abortion	1.0530	1.0158	1.0914	0.0183	2.8211	0.0047
education level	1.0239	1.0081	1.0400	0.0079	2.9890	0.0027
parental income	0.9431	0.9276	0.9589	0.0084	-6.9059	<0.0001
country	0.9559	0.8960	1.0197	0.0329	-1.3669	0.1716
region Sjelland	0.8193	0.7853	0.8547	0.0215	-9.2252	<0.0001
region Syddanmark	0.9663	0.9325	1.0013	0.0181	-1.8852	0.0593
region Midtylland	0.7513	0.7235	0.7802	0.0192	-14.8478	<0.0001
region Nordjylland	0.8561	0.8173	0.8967	0.0236	-6.5653	<0.0001
mother with disorder	1.9777	1.8882	2.0715	0.0236	28.8591	<0.0001
father with disorder	1.7727	1.6831	1.8671	0.0264	21.6381	<0.0001

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13. Respiratory - asthma	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.4513	1.3374	1.5748	0.0416	8.9332	<0.0001
paternal age	1.0082	0.9906	1.0261	0.0089	0.9119	0.3618
maternal age	0.9757	0.9560	0.9957	0.0103	-2.3732	0.0176
gestation length	0.9623	0.9488	0.9759	0.0071	-5.3570	<0.0001
maternal bleeding	1.1237	1.0710	1.1789	0.0244	4.7644	<0.0001
fetal oxygen deprivation	1.0800	0.7913	1.4739	0.1586	0.4853	0.6274
pregnancy oedema	1.1080	0.9869	1.2439	0.0590	1.7372	0.0823
apgar5 score	1.0726	1.0180	1.1302	0.0266	2.6305	0.0085
birth weight	0.9758	0.9628	0.9890	0.0068	-3.5724	0.0003
preexisting hypertension	0.8696	0.6111	1.2373	0.1799	-0.7763	0.4375
preexisting diabetes	0.9582	0.7582	1.2109	0.1194	-0.3573	0.7208
previous induced abortion	1.0245	0.9908	1.0594	0.0170	1.4236	0.1545
previous spontaneous abortion	1.0565	1.0191	1.0953	0.0184	2.9903	0.0027
education level	1.0159	1.0002	1.0319	0.0079	1.9914	0.0464
parental income	0.9375	0.9219	0.9532	0.0085	-7.5791	<0.0001
country	0.9329	0.8740	0.9957	0.0332	-2.0893	0.0366
region Sjelland	0.8203	0.7861	0.8560	0.0217	-9.1132	<0.0001
region Syddanmark	0.9636	0.9297	0.9987	0.0182	-2.0269	0.0426
region Midtylland	0.7551	0.7271	0.7843	0.0193	-14.5290	<0.0001
region Nordjylland	0.8550	0.8161	0.8958	0.0237	-6.5858	<0.0001
mother with disorder	2.1842	2.0761	2.2978	0.0258	30.1915	<0.0001
father with disorder	2.0609	1.9372	2.1923	0.0315	22.9156	<0.0001

14. Respiratory - influenza	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.4652	1.1845	1.8124	0.1085	3.5204	0.0004
paternal age	1.0202	0.9726	1.0701	0.0243	0.8219	0.4111
maternal age	0.9128	0.8634	0.9651	0.0283	-3.2111	0.0013
gestation length	0.9109	0.8753	0.9479	0.0203	-4.5871	<0.0001
maternal bleeding	1.0735	0.9375	1.2293	0.0691	1.0268	0.3044
fetal oxygen deprivation	1.9432	1.0070	3.7499	0.3354	1.9807	0.0476
pregnancy oedema	1.3781	1.0339	1.8368	0.1465	2.1877	0.0286
apgar5 score	1.1003	0.9500	1.2744	0.0749	1.2756	0.2020
birth weight	0.9716	0.9355	1.0091	0.0193	-1.4885	0.1365
preexisting hypertension	2.8172	1.5926	4.9834	0.2910	3.5592	0.0003
preexisting diabetes	1.3105	0.7567	2.2694	0.2801	0.9653	0.3343
previous induced abortion	1.0225	0.9306	1.1235	0.0480	0.4634	0.6430
previous spontaneous abortion	1.0899	0.9852	1.2056	0.0514	1.6719	0.0945
education level	0.9502	0.9107	0.9913	0.0216	-2.3608	0.0182
parental income	0.8971	0.8570	0.9392	0.0233	-4.6444	<0.0001
country	1.9293	1.6906	2.2018	0.0673	9.7526	<0.0001
region Sjelland	0.7028	0.6278	0.7868	0.0575	-6.1223	<0.0001
region Syddanmark	0.5771	0.5202	0.6403	0.0529	-10.3719	<0.0001
region Midtylland	0.5170	0.4643	0.5756	0.0547	-12.0414	<0.0001
region Nordjylland	0.4885	0.4219	0.5656	0.0747	-9.5847	<0.0001
mother with disorder	2.5029	1.9371	3.2339	0.1307	7.0172	<0.0001
father with disorder	1.7058	1.1888	2.4475	0.1842	2.8990	0.0037

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15. Respiratory - pneumonia	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.6536	1.4459	1.8912	0.0684	7.3452	<0.0001
paternal age	0.9994	0.9680	1.0319	0.0163	-0.0319	0.9745
maternal age	0.9195	0.8861	0.9541	0.0188	-4.4449	<0.0001
gestation length	0.9415	0.9173	0.9663	0.0132	-4.5359	<0.0001
maternal bleeding	1.1920	1.0939	1.2988	0.0437	4.0101	<0.0001
fetal oxygen deprivation	0.7814	0.4197	1.4549	0.3171	-0.7775	0.4368
pregnancy oedema	1.1725	0.9649	1.4247	0.0994	1.6006	0.1094
apgar5 score	1.1345	1.0314	1.2478	0.0485	2.5983	0.0093
birth weight	0.9902	0.9662	1.0149	0.0125	-0.7787	0.4361
preexisting hypertension	1.3374	0.7752	2.3076	0.2782	1.0449	0.2960
preexisting diabetes	1.3807	0.9675	1.9705	0.1814	1.7780	0.0753
previous induced abortion	0.9952	0.9354	1.0589	0.0316	-0.1507	0.8801
previous spontaneous abortion	1.1223	1.0514	1.1979	0.0332	3.4694	0.0005
education level	0.9627	0.9359	0.9902	0.0144	-2.6368	0.0083
parental income	0.9391	0.9112	0.9677	0.0153	-4.0913	<0.0001
country	1.1092	0.9936	1.2383	0.0561	1.8459	0.0648
region Sjelland	0.7750	0.7191	0.8353	0.0381	-6.6694	<0.0001
region Syddanmark	0.7303	0.6835	0.7803	0.0337	-9.3001	<0.0001
region Midtylland	0.6380	0.5957	0.6833	0.0349	-12.8422	<0.0001
region Nordjylland	0.6024	0.5502	0.6596	0.0462	-10.9559	<0.0001
mother with disorder	1.5898	1.4350	1.7613	0.0522	8.8721	<0.0001
father with disorder	1.3477	1.2190	1.4899	0.0511	5.8299	<0.0001

16. Respiratory - COPD	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	2.1195	1.5349	2.9268	0.1646	4.5620	<0.0001
paternal age	0.9527	0.8649	1.0495	0.0493	-0.9807	0.3267
maternal age	0.9454	0.8460	1.0566	0.0567	-0.9888	0.3227
gestation length	1.0242	0.9455	1.1094	0.0407	0.5867	0.5573
maternal bleeding	1.2796	0.9911	1.6520	0.1303	1.8918	0.0585
fetal oxygen deprivation	0.6305	0.0883	4.5002	1.0026	-0.4598	0.6456
pregnancy oedema	1.5897	0.9917	2.5483	0.2407	1.9255	0.0541
apgar5 score	1.1194	0.8310	1.5080	0.1520	0.7424	0.4578
birth weight	0.8669	0.8040	0.9347	0.0384	-3.7147	0.0002
preexisting hypertension	0.0000	0.0000	Inf	699.1457	-0.0186	0.9851
preexisting diabetes	1.1143	0.2766	4.4894	0.7109	0.1523	0.8789
previous induced abortion	1.1268	0.9378	1.3540	0.0936	1.2752	0.2022
previous spontaneous abortion	1.0182	0.8283	1.2515	0.1052	0.1713	0.8639
education level	0.9994	0.9169	1.0892	0.0439	-0.0136	0.9891
parental income	0.8112	0.7408	0.8883	0.0463	-4.5148	<0.0001
country	1.1506	0.8256	1.6037	0.1693	0.8285	0.4073
region Sjelland	0.8304	0.6644	1.0378	0.1137	-1.6337	0.1023
region Syddanmark	0.6986	0.5690	0.8576	0.1046	-3.4268	0.0006
region Midtylland	0.5772	0.4634	0.7190	0.1120	-4.9042	<0.0001
region Nordjylland	0.7104	0.5463	0.9238	0.1340	-2.5508	0.0107
mother with disorder	1.9286	1.3686	2.7177	0.1749	3.7534	0.0001
father with disorder	1.6667	1.1832	2.3478	0.1748	2.9226	0.0034

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17. Digestive - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.1319	1.0747	1.1921	0.0264	4.6864	<0.0001
paternal age	0.9811	0.9705	0.9918	0.0055	-3.4424	0.0005
maternal age	0.9174	0.9060	0.9289	0.0063	-13.5176	<0.0001
gestation length	0.9826	0.9741	0.9912	0.0044	-3.9438	<0.0001
maternal bleeding	1.0647	1.0329	1.0974	0.0154	4.0634	<0.0001
fetal oxygen deprivation	1.0383	0.8749	1.2323	0.0873	0.4308	0.6665
pregnancy oedema	1.1367	1.0668	1.2112	0.0323	3.9597	<0.0001
apgar5 score	1.0578	1.0234	1.0934	0.0168	3.3320	0.0008
birth weight	0.9809	0.9729	0.9889	0.0041	-4.6309	<0.0001
preexisting hypertension	1.0011	0.8090	1.2388	0.1086	0.0107	0.9913
preexisting diabetes	1.1478	1.0010	1.3161	0.0698	1.9752	0.0482
previous induced abortion	1.0374	1.0163	1.0590	0.0104	3.5102	0.0004
previous spontaneous abortion	1.0460	1.0231	1.0694	0.0112	3.9893	<0.0001
education level	0.9591	0.9501	0.9682	0.0048	-8.6570	<0.0001
parental income	0.9855	0.9756	0.9955	0.0051	-2.8342	0.0045
country	0.8454	0.8096	0.8828	0.0220	-7.6009	<0.0001
region Sjelland	0.9590	0.9346	0.9840	0.0131	-3.1806	0.0014
region Syddanmark	1.0309	1.0082	1.0542	0.0113	2.6825	0.0073
region Midtylland	0.8759	0.8560	0.8964	0.0117	-11.2440	<0.0001
region Nordjylland	0.9177	0.8918	0.9444	0.0146	-5.8751	<0.0001
mother with disorder	1.3052	1.2825	1.3284	0.0089	29.7029	<0.0001
father with disorder	1.1841	1.1634	1.2051	0.0089	18.8522	<0.0001

18. Endocrine - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2498	1.1615	1.3448	0.0373	5.9680	<0.0001
paternal age	0.9493	0.9343	0.9646	0.0081	-6.3778	<0.0001
maternal age	0.8715	0.8556	0.8878	0.0094	-14.5499	<0.0001
gestation length	0.9888	0.9758	1.0020	0.0067	-1.6617	0.0965
maternal bleeding	1.0630	1.0151	1.1131	0.0235	2.5993	0.0093
fetal oxygen deprivation	1.1572	0.9064	1.4773	0.1246	1.1720	0.2411
pregnancy oedema	1.2313	1.1321	1.3393	0.0428	4.8531	<0.0001
apgar5 score	1.1654	1.1098	1.2237	0.0249	6.1377	<0.0001
birth weight	1.0353	1.0227	1.0482	0.0062	5.5293	<0.0001
preexisting hypertension	1.0635	0.7852	1.4404	0.1547	0.3979	0.6906
preexisting diabetes	1.5223	1.2944	1.7905	0.0827	5.0777	<0.0001
previous induced abortion	1.0197	0.9881	1.0524	0.0160	1.2183	0.2230
previous spontaneous abortion	1.0518	1.0169	1.0878	0.0171	2.9394	0.0032
education level	0.8468	0.8349	0.8589	0.0072	-23.0261	<0.0001
parental income	0.8842	0.8709	0.8978	0.0077	-15.8490	<0.0001
country	0.8548	0.8056	0.9070	0.0302	-5.1861	<0.0001
region Sjelland	1.2519	1.2060	1.2995	0.0190	11.7993	<0.0001
region Syddanmark	1.1694	1.1305	1.2095	0.0172	9.0799	<0.0001
region Midtylland	0.8271	0.7972	0.8580	0.0187	-10.1180	<0.0001
region Nordjylland	0.8678	0.8292	0.9083	0.0232	-6.0970	<0.0001
mother with disorder	1.6514	1.6044	1.6997	0.0147	34.1040	<0.0001
father with disorder	1.5128	1.4625	1.5649	0.0172	23.9887	<0.0001

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19. Endocrine - obesity	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.1916	1.0885	1.3046	0.0462	3.7952	0.0001
paternal age	0.9285	0.9103	0.9471	0.0101	-7.3198	<0.0001
maternal age	0.8198	0.8009	0.8391	0.0118	-16.6960	<0.0001
gestation length	1.0050	0.9885	1.0218	0.0084	0.5936	0.5527
maternal bleeding	1.0765	1.0160	1.1406	0.0295	2.4979	0.0124
fetal oxygen deprivation	1.1821	0.8724	1.6019	0.1550	1.0795	0.2803
pregnancy oedema	1.2645	1.1456	1.3959	0.0504	4.6559	<0.0001
apgar5 score	1.1945	1.1242	1.2693	0.0309	5.7399	<0.0001
birth weight	1.0755	1.0590	1.0923	0.0079	9.2091	<0.0001
preexisting hypertension	1.1374	0.7892	1.6392	0.1864	0.6905	0.4898
preexisting diabetes	1.6679	1.3602	2.0452	0.1040	4.9169	<0.0001
previous induced abortion	1.0187	0.9790	1.0600	0.0202	0.9145	0.3604
previous spontaneous abortion	1.0662	1.0216	1.1128	0.0218	2.9422	0.0032
education level	0.7639	0.7503	0.7778	0.0092	-29.2593	<0.0001
parental income	0.8557	0.8394	0.8723	0.0098	-15.8812	<0.0001
country	0.6193	0.5712	0.6716	0.0413	-11.5984	<0.0001
region Sjelland	1.4857	1.4184	1.5563	0.0236	16.7269	<0.0001
region Syddanmark	1.3026	1.2478	1.3599	0.0219	12.0420	<0.0001
region Midtylland	0.7980	0.7602	0.8377	0.0247	-9.1105	<0.0001
region Nordjylland	0.8534	0.8042	0.9055	0.0302	-5.2406	<0.0001
mother with disorder	2.3340	2.2258	2.4475	0.0242	34.9937	<0.0001
father with disorder	1.9770	1.8367	2.1281	0.0375	18.1434	<0.0001

20. Genitourinary - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.1776	1.0853	1.2777	0.0416	3.9267	<0.0001
paternal age	0.9672	0.9510	0.9836	0.0086	-3.8722	0.0001
maternal age	0.8900	0.8726	0.9076	0.0100	-11.6140	<0.0001
gestation length	0.9816	0.9681	0.9953	0.0070	-2.6129	0.0089
maternal bleeding	1.1251	1.0738	1.1789	0.0238	4.9503	<0.0001
fetal oxygen deprivation	0.8135	0.5889	1.1239	0.1648	-1.2512	0.2108
pregnancy oedema	1.1380	1.0275	1.2605	0.0521	2.4806	0.0131
apgar5 score	1.0480	0.9934	1.1056	0.0272	1.7202	0.0853
birth weight	0.9581	0.9456	0.9707	0.0066	-6.4206	<0.0001
preexisting hypertension	1.2001	0.8862	1.6252	0.1547	1.1793	0.2382
preexisting diabetes	1.1710	0.9452	1.4507	0.1092	1.4447	0.1485
previous induced abortion	1.1267	1.0917	1.1629	0.0161	7.4076	<0.0001
previous spontaneous abortion	1.0440	1.0078	1.0815	0.0180	2.3915	0.0167
education level	0.9250	0.9113	0.9389	0.0076	-10.2393	<0.0001
parental income	0.9283	0.9138	0.9430	0.0080	-9.2393	<0.0001
country	0.8874	0.8347	0.9433	0.0312	-3.8270	0.0001
region Sjelland	0.7068	0.6791	0.7357	0.0203	-17.0072	<0.0001
region Syddanmark	0.6676	0.6445	0.6915	0.0179	-22.4944	<0.0001
region Midtylland	0.6189	0.5970	0.6415	0.0183	-26.1738	<0.0001
region Nordjylland	0.6194	0.5913	0.6488	0.0236	-20.2316	<0.0001
mother with disorder	1.3177	1.2758	1.3610	0.0164	16.7316	<0.0001
father with disorder	1.2786	1.2218	1.3379	0.0231	10.6155	<0.0001

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21. Genitourinary - kidney infection	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.4194	1.1611	1.7350	0.1024	3.4185	0.0006
paternal age	0.9844	0.9431	1.0277	0.0219	-0.7128	0.4759
maternal age	0.8572	0.8151	0.9014	0.0256	-6.0013	<0.0001
gestation length	1.0140	0.9792	1.0502	0.0178	0.7834	0.4333
maternal bleeding	1.1370	1.0100	1.2799	0.0604	2.1254	0.0335
fetal oxygen deprivation	0.7711	0.3202	1.8569	0.4483	-0.5795	0.5622
pregnancy oedema	0.8451	0.6180	1.1555	0.1596	-1.0540	0.2918
apgar5 score	1.1387	0.9981	1.2991	0.0672	1.9321	0.0533
birth weight	0.9874	0.9553	1.0206	0.0168	-0.7468	0.4551
preexisting hypertension	0.5216	0.1679	1.6195	0.5780	-1.1259	0.2602
preexisting diabetes	1.4261	0.8824	2.3047	0.2449	1.4493	0.1472
previous induced abortion	1.1702	1.0817	1.2659	0.0401	3.9185	<0.0001
previous spontaneous abortion	1.1164	1.0232	1.2181	0.0444	2.4758	0.0132
education level	0.9354	0.9003	0.9719	0.0194	-3.4217	0.0006
parental income	0.9560	0.9183	0.9953	0.0205	-2.1859	0.0288
country	0.6327	0.5305	0.7546	0.0898	-5.0920	<0.0001
region Sjelland	0.6796	0.6139	0.7524	0.0519	-7.4392	<0.0001
region Syddanmark	0.6308	0.5764	0.6904	0.0460	-10.0116	<0.0001
region Midtylland	0.6346	0.5801	0.6942	0.0457	-9.9351	<0.0001
region Nordjylland	0.6390	0.5696	0.7169	0.0586	-7.6325	<0.0001
mother with disorder	1.5065	1.2137	1.8699	0.1102	3.7173	0.0002
father with disorder	1.7034	1.1196	2.5916	0.2141	2.4877	0.0128

22. Musculoskeletal - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.1507	1.1060	1.1972	0.0201	6.9515	<0.0001
paternal age	0.9734	0.9655	0.9814	0.0041	-6.4612	<0.0001
maternal age	0.9366	0.9278	0.9454	0.0047	-13.6665	<0.0001
gestation length	1.0002	0.9937	1.0067	0.0033	0.0669	0.9465
maternal bleeding	1.0876	1.0634	1.1122	0.0114	7.3392	<0.0001
fetal oxygen deprivation	1.1704	1.0404	1.3165	0.0600	2.6209	0.0087
pregnancy oedema	1.1067	1.0522	1.1641	0.0257	3.9332	<0.0001
apgar5 score	1.0178	0.9925	1.0437	0.0128	1.3744	0.1693
birth weight	0.9898	0.9838	0.9959	0.0031	-3.2653	0.0010
preexisting hypertension	1.0574	0.9087	1.2304	0.0773	0.7221	0.4701
preexisting diabetes	1.0131	0.9114	1.1261	0.0539	0.2420	0.8087
previous induced abortion	1.0479	1.0320	1.0640	0.0078	5.9985	<0.0001
previous spontaneous abortion	1.0304	1.0135	1.0477	0.0084	3.5428	0.0003
education level	0.9552	0.9484	0.9620	0.0036	-12.6205	<0.0001
parental income	0.9932	0.9856	1.0008	0.0038	-1.7512	0.0799
country	0.8558	0.8291	0.8834	0.0161	-9.6201	<0.0001
region Sjelland	0.8460	0.8293	0.8630	0.0101	-16.4093	<0.0001
region Syddanmark	0.8842	0.8692	0.8995	0.0087	-14.0782	<0.0001
region Midtylland	1.0389	1.0220	1.0561	0.0083	4.5636	<0.0001
region Nordjylland	0.8327	0.8144	0.8513	0.0112	-16.2125	<0.0001
mother with disorder	1.3412	1.3250	1.3576	0.0061	47.3784	<0.0001
father with disorder	1.2297	1.2147	1.2449	0.0062	33.0616	<0.0001

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23. Neoplasms - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.1965	1.1090	1.2910	0.0387	4.6301	<0.0001
paternal age	0.9826	0.9669	0.9986	0.0082	-2.1247	0.0336
maternal age	0.9713	0.9537	0.9893	0.0093	-3.0998	0.0019
gestation length	0.9992	0.9866	1.0120	0.0064	-0.1093	0.9129
maternal bleeding	1.0699	1.0235	1.1183	0.0225	2.9919	0.0027
fetal oxygen deprivation	1.1125	0.8807	1.4053	0.1191	0.8948	0.3708
pregnancy oedema	1.0002	0.9063	1.1039	0.0503	0.0050	0.9960
apgar5 score	0.9849	0.9368	1.0355	0.0255	-0.5920	0.5538
birth weight	1.0192	1.0071	1.0314	0.0060	3.1394	0.0016
preexisting hypertension	0.9166	0.6637	1.2658	0.1646	-0.5285	0.5970
preexisting diabetes	1.0152	0.8217	1.2542	0.1078	0.1399	0.8887
previous induced abortion	0.9909	0.9612	1.0216	0.0155	-0.5825	0.5601
previous spontaneous abortion	1.0214	0.9889	1.0550	0.0165	1.2880	0.1977
education level	1.0070	0.9932	1.0210	0.0070	1.0015	0.3165
parental income	1.0274	1.0124	1.0426	0.0074	3.6129	0.0003
country	0.9162	0.8565	0.9801	0.0343	-2.5445	0.0109
region Sjelland	1.1096	1.0683	1.1525	0.0193	5.3800	<0.0001
region Syddanmark	1.1874	1.1488	1.2273	0.0168	10.1777	<0.0001
region Midtylland	1.1417	1.1044	1.1802	0.0169	7.8273	<0.0001
region Nordjylland	0.9370	0.8967	0.9790	0.0224	-2.9026	0.0037
mother with disorder	1.1846	1.1558	1.2140	0.0125	13.5036	<0.0001
father with disorder	1.1538	1.1164	1.1924	0.0167	8.5200	<0.0001

24. Neoplasms - benign	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.1925	1.0976	1.2956	0.0423	4.1633	<0.0001
paternal age	0.9773	0.9605	0.9944	0.0088	-2.5897	0.0096
maternal age	0.9775	0.9584	0.9970	0.0100	-2.2489	0.0245
gestation length	0.9976	0.9841	1.0113	0.0069	-0.3386	0.7348
maternal bleeding	1.0580	1.0086	1.1098	0.0243	2.3147	0.0206
fetal oxygen deprivation	1.1542	0.8989	1.4820	0.1275	1.1243	0.2608
pregnancy oedema	1.0003	0.8981	1.1141	0.0549	0.0062	0.9950
apgar5 score	0.9801	0.9286	1.0343	0.0274	-0.7304	0.4651
birth weight	1.0163	1.0034	1.0295	0.0065	2.4868	0.0128
preexisting hypertension	0.8470	0.5918	1.2121	0.1828	-0.9080	0.3638
preexisting diabetes	1.0284	0.8214	1.2876	0.1146	0.2447	0.8066
previous induced abortion	0.9972	0.9651	1.0303	0.0166	-0.1656	0.8683
previous spontaneous abortion	1.0420	1.0066	1.0787	0.0176	2.3338	0.0196
education level	1.0121	0.9971	1.0273	0.0075	1.5853	0.1128
parental income	1.0249	1.0088	1.0413	0.0080	3.0484	0.0023
country	0.9226	0.8588	0.9912	0.0365	-2.2005	0.0277
region Sjelland	1.0989	1.0548	1.1449	0.0208	4.5164	<0.0001
region Syddanmark	1.2012	1.1592	1.2447	0.0181	10.1049	<0.0001
region Midtylland	1.1515	1.1112	1.1933	0.0181	7.7536	<0.0001
region Nordjylland	0.9003	0.8581	0.9445	0.0244	-4.2881	<0.0001
mother with disorder	1.2137	1.1791	1.2494	0.0147	13.1172	<0.0001
father with disorder	1.1925	1.1420	1.2453	0.0220	7.9773	<0.0001

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25. Circulatory - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.1121	0.9969	1.2407	0.0558	1.9046	0.0568
paternal age	0.9728	0.9501	0.9961	0.0120	-2.2772	0.0227
maternal age	0.9462	0.9211	0.9721	0.0137	-4.0185	<0.0001
gestation length	0.9690	0.9509	0.9874	0.0095	-3.2755	0.0010
maternal bleeding	1.1394	1.0697	1.2136	0.0322	4.0526	<0.0001
fetal oxygen deprivation	0.8315	0.5654	1.2229	0.1968	-0.9371	0.3486
pregnancy oedema	1.0120	0.8785	1.1658	0.0721	0.1661	0.8680
apgar5 score	1.2349	1.1544	1.3209	0.0343	6.1392	<0.0001
birth weight	0.9760	0.9589	0.9934	0.0090	-2.6886	0.0071
preexisting hypertension	1.1761	0.8152	1.6970	0.1870	0.8676	0.3855
preexisting diabetes	0.9493	0.6974	1.2921	0.1573	-0.3307	0.7408
previous induced abortion	0.9829	0.9393	1.0285	0.0231	-0.7436	0.4571
previous spontaneous abortion	1.0404	0.9917	1.0916	0.0244	1.6201	0.1052
education level	0.9741	0.9544	0.9942	0.0104	-2.5081	0.0121
parental income	0.9792	0.9582	1.0007	0.0110	-1.8948	0.0581
country	0.8924	0.8121	0.9806	0.0481	-2.3651	0.0180
region Sjelland	0.9897	0.9370	1.0454	0.0279	-0.3682	0.7126
region Syddanmark	0.9163	0.8723	0.9625	0.0251	-3.4798	0.0005
region Midtylland	0.9554	0.9101	1.0029	0.0247	-1.8413	0.0655
region Nordjylland	0.7704	0.7214	0.8227	0.0334	-7.7861	<0.0001
mother with disorder	1.4909	1.4270	1.5576	0.0223	17.8648	<0.0001
father with disorder	1.3222	1.2689	1.3777	0.0209	13.3130	<0.0001

26. Nervous System - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.3524	1.1959	1.5293	0.0627	4.8112	<0.0001
paternal age	0.9804	0.9521	1.0096	0.0149	-1.3191	0.1871
maternal age	0.8900	0.8603	0.9208	0.0173	-6.7132	<0.0001
gestation length	0.9920	0.9687	1.0160	0.0121	-0.6543	0.5129
maternal bleeding	1.1314	1.0441	1.2260	0.0409	3.0149	0.0025
fetal oxygen deprivation	1.5102	1.0471	2.1782	0.1868	2.2065	0.0273
pregnancy oedema	1.1832	1.0098	1.3865	0.0808	2.0807	0.0374
apgar5 score	1.0732	0.9799	1.1755	0.0464	1.5231	0.1277
birth weight	0.9768	0.9553	0.9988	0.0113	-2.0651	0.0389
preexisting hypertension	1.0825	0.6139	1.9085	0.2893	0.2740	0.7840
preexisting diabetes	1.4650	1.0485	2.0469	0.1706	2.2380	0.0252
previous induced abortion	1.0664	1.0082	1.1279	0.0286	2.2463	0.0246
previous spontaneous abortion	1.0933	1.0300	1.1606	0.0304	2.9303	0.0033
education level	0.9016	0.8787	0.9251	0.0131	-7.8894	<0.0001
parental income	0.9399	0.9145	0.9661	0.0139	-4.4255	<0.0001
country	0.6862	0.6027	0.7813	0.0661	-5.6882	<0.0001
region Sjelland	1.3932	1.3035	1.4890	0.0339	9.7673	<0.0001
region Syddanmark	1.1524	1.0828	1.2265	0.0317	4.4642	<0.0001
region Midtylland	0.9780	0.9166	1.0434	0.0330	-0.6726	0.5011
region Nordjylland	0.7574	0.6935	0.8272	0.0449	-6.1784	<0.0001
mother with disorder	1.5697	1.4651	1.6818	0.0351	12.8151	<0.0001
father with disorder	1.4063	1.2917	1.5311	0.0433	7.8650	<0.0001

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27. Eye/adnexa - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.3439	1.2057	1.4980	0.0553	5.3374	<0.0001
paternal age	1.0036	0.9883	1.0191	0.0078	0.4623	0.6438
maternal age	0.9761	0.9591	0.9935	0.0089	-2.6837	0.0072
gestation length	0.9557	0.9439	0.9677	0.0063	-7.1251	<0.0001
maternal bleeding	1.0895	1.0440	1.1370	0.0217	3.9370	<0.0001
fetal oxygen deprivation	1.1580	0.9055	1.4810	0.1255	1.1691	0.2423
pregnancy oedema	1.0570	0.9579	1.1664	0.0502	1.1039	0.2696
apgar5 score	1.0668	1.0179	1.1179	0.0239	2.7062	0.0068
birth weight	0.9580	0.9469	0.9693	0.0059	-7.1712	<0.0001
preexisting hypertension	1.0174	0.7591	1.3635	0.1493	0.1157	0.9078
preexisting diabetes	1.0961	0.9015	1.3329	0.0997	0.9206	0.3572
previous induced abortion	1.0355	1.0057	1.0662	0.0149	2.3417	0.0191
previous spontaneous abortion	1.0649	1.0320	1.0988	0.0159	3.9337	<0.0001
education level	0.9582	0.9454	0.9711	0.0068	-6.2411	<0.0001
parental income	0.9567	0.9431	0.9704	0.0072	-6.0702	<0.0001
country	1.0333	0.9785	1.0913	0.0278	1.1797	0.2381
region Sjelland	0.7686	0.7414	0.7968	0.0183	-14.3026	<0.0001
region Syddanmark	0.7535	0.7302	0.7775	0.0160	-17.6485	<0.0001
region Midtylland	0.6397	0.6192	0.6610	0.0166	-26.8004	<0.0001
region Nordjylland	0.6694	0.6419	0.6980	0.0213	-18.7850	<0.0001
mother with disorder	1.3313	1.2831	1.3814	0.0188	15.1965	<0.0001
father with disorder	1.2361	1.1901	1.2838	0.0193	10.9628	<0.0001

28. Mental - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.1956	1.1306	1.2644	0.0285	6.2604	<0.0001
paternal age	1.0122	1.0007	1.0239	0.0058	2.0859	0.0369
maternal age	0.9184	0.9061	0.9308	0.0068	-12.3935	<0.0001
gestation length	0.9811	0.9717	0.9906	0.0049	-3.8751	0.0001
maternal bleeding	1.1328	1.0971	1.1696	0.0163	7.6405	<0.0001
fetal oxygen deprivation	1.1972	0.9948	1.4407	0.0944	1.9052	0.0567
pregnancy oedema	1.0729	0.9953	1.1566	0.0383	1.8385	0.0659
apgar5 score	1.0600	1.0219	1.0995	0.0186	3.1251	0.0017
birth weight	0.9718	0.9630	0.9807	0.0046	-6.1335	<0.0001
preexisting hypertension	1.1690	0.9421	1.4505	0.1100	1.4188	0.1559
preexisting diabetes	1.0875	0.9378	1.2611	0.0755	1.1106	0.2667
previous induced abortion	1.1292	1.1049	1.1541	0.0111	10.9336	<0.0001
previous spontaneous abortion	1.0701	1.0443	1.0965	0.0124	5.4413	<0.0001
education level	0.9607	0.9505	0.9710	0.0054	-7.3597	<0.0001
parental income	0.7863	0.7774	0.7953	0.0058	-41.1905	<0.0001
country	0.4847	0.4597	0.5111	0.0270	-26.7723	<0.0001
region Sjelland	0.8470	0.8234	0.8713	0.0144	-11.5155	<0.0001
region Syddanmark	0.9173	0.8954	0.9396	0.0122	-7.0261	<0.0001
region Midtylland	0.7687	0.7493	0.7885	0.0129	-20.2398	<0.0001
region Nordjylland	0.5602	0.5402	0.5811	0.0186	-31.1175	<0.0001
mother with disorder	2.0378	1.9897	2.0871	0.0121	58.4125	<0.0001
father with disorder	1.6307	1.5853	1.6775	0.0144	33.9188	<0.0001

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Table S7 - Full Cox regression outputs - impact of adenotonsillectomy on risk of later disease.

1. Infectious - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.1771	1.1080	1.2505	0.0308	5.2852	<0.0001
paternal age	0.9953	0.9816	1.0091	0.0070	-0.6677	0.5042
maternal age	0.9702	0.9550	0.9858	0.0080	-3.7259	0.0001
gestation length	0.9896	0.9787	1.0007	0.0056	-1.8208	0.0686
maternal bleeding	1.1192	1.0773	1.1628	0.0194	5.7807	<0.0001
fetal oxygen deprivation	0.8632	0.6697	1.1125	0.1294	-1.1361	0.2559
pregnancy oedema	1.0653	0.9742	1.1649	0.0455	1.3888	0.1648
apgar5 score	1.0487	1.0048	1.0946	0.0218	2.1792	0.0293
birth weight	0.9941	0.9838	1.0046	0.0053	-1.0977	0.2723
preexisting hypertension	0.9798	0.7500	1.2799	0.1363	-0.1494	0.8811
preexisting diabetes	1.0066	0.8394	1.2071	0.0926	0.0717	0.9428
previous induced abortion	1.0968	1.0690	1.1252	0.0130	7.0702	<0.0001
previous spontaneous abortion	1.0436	1.0147	1.0733	0.0143	2.9790	0.0028
education level	0.9911	0.9793	1.0031	0.0061	-1.4516	0.1465
parental income	0.9868	0.9743	0.9995	0.0065	-2.0335	0.0419
country	1.2756	1.2171	1.3368	0.0239	10.1711	<0.0001
region Sjelland	0.7852	0.7605	0.8107	0.0162	-14.8414	<0.0001
region Syddanmark	0.6859	0.6664	0.7060	0.0146	-25.6594	<0.0001
region Midtylland	0.7030	0.6834	0.7231	0.0144	-24.4581	<0.0001
region Nordjylland	0.6169	0.5936	0.6411	0.0196	-24.5919	<0.0001
mother with disorder	1.3806	1.3373	1.4254	0.0162	19.8202	<0.0001
father with disorder	1.2319	1.1911	1.2740	0.0171	12.1469	<0.0001

2. Allergic - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2042	1.1049	1.3125	0.0439	4.2314	<0.0001
paternal age	1.0015	0.9812	1.0222	0.0104	0.1451	0.8845
maternal age	1.0292	1.0055	1.0535	0.0118	2.4265	0.0152
gestation length	0.9928	0.9769	1.0089	0.0082	-0.8785	0.3796
maternal bleeding	1.1314	1.0709	1.1952	0.0280	4.4082	<0.0001
fetal oxygen deprivation	0.6066	0.3866	0.9519	0.2298	-2.1741	0.0296
pregnancy oedema	1.2399	1.0979	1.4003	0.0620	3.4659	0.0005
apgar5 score	1.0841	1.0211	1.1511	0.0305	2.6437	0.0081
birth weight	0.9783	0.9635	0.9934	0.0077	-2.8059	0.0050
preexisting hypertension	0.7466	0.4813	1.1580	0.2239	-1.3046	0.1920
preexisting diabetes	1.0876	0.8375	1.4123	0.1333	0.6300	0.5286
previous induced abortion	1.0345	0.9957	1.0748	0.0194	1.7436	0.0812
previous spontaneous abortion	1.0488	1.0066	1.0928	0.0209	2.2762	0.0228
education level	1.0639	1.0453	1.0829	0.0090	6.8756	<0.0001
parental income	1.0197	1.0008	1.0391	0.0095	2.0445	0.0408
country	1.3837	1.2903	1.4840	0.0356	9.1027	<0.0001
region Sjelland	0.6975	0.6628	0.7341	0.0260	-13.8274	<0.0001
region Syddanmark	1.0294	0.9893	1.0711	0.0202	1.4324	0.1520
region Midtylland	0.7763	0.7442	0.8097	0.0215	-11.7692	<0.0001
region Nordjylland	0.7079	0.6688	0.7493	0.0290	-11.9081	<0.0001
mother with disorder	1.8689	1.7501	1.9957	0.0335	18.6651	<0.0001
father with disorder	1.7588	1.6203	1.9091	0.0418	13.4972	<0.0001

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3. Allergic - rhinitis	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2474	1.1082	1.4041	0.0603	3.6636	0.0002
paternal age	1.0147	0.9855	1.0447	0.0148	0.9828	0.3256
maternal age	1.0653	1.0307	1.1011	0.0168	3.7532	0.0001
gestation length	0.9957	0.9735	1.0183	0.0114	-0.3731	0.7090
maternal bleeding	1.0652	0.9838	1.1534	0.0405	1.5592	0.1189
fetal oxygen deprivation	0.5600	0.2910	1.0776	0.3339	-1.7360	0.0825
pregnancy oedema	1.2134	1.0200	1.4434	0.0885	2.1845	0.0289
apgar5 score	1.1074	1.0198	1.2026	0.0420	2.4267	0.0152
birth weight	0.9851	0.9642	1.0065	0.0109	-1.3657	0.1720
preexisting hypertension	0.7307	0.3928	1.3594	0.3166	-0.9903	0.3220
preexisting diabetes	0.8232	0.5409	1.2528	0.2142	-0.9076	0.3640
previous induced abortion	1.0001	0.9466	1.0566	0.0280	0.0044	0.9964
previous spontaneous abortion	1.0349	0.9764	1.0968	0.0296	1.1575	0.2470
education level	1.1292	1.1011	1.1580	0.0128	9.4542	<0.0001
parental income	1.0263	0.9990	1.0543	0.0137	1.8941	0.0582
country	1.4283	1.2857	1.5868	0.0536	6.6430	<0.0001
region Sjelland	0.8852	0.8192	0.9565	0.0395	-3.0854	0.0020
region Syddanmark	1.7586	1.6603	1.8628	0.0293	19.2333	<0.0001
region Midtylland	1.0976	1.0308	1.1688	0.0320	2.9074	0.0036
region Nordjylland	1.2889	1.1952	1.3901	0.0385	6.5873	<0.0001
mother with disorder	3.2098	2.8646	3.5967	0.0580	20.0863	<0.0001
father with disorder	2.8043	2.4399	3.2232	0.0710	14.5180	<0.0001

4. Allergic - conjunctivitis	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.3613	1.0700	1.7321	0.1228	2.5105	0.0120
paternal age	1.0121	0.9516	1.0763	0.0314	0.3833	0.7014
maternal age	1.0623	0.9905	1.1393	0.0357	1.6934	0.0903
gestation length	1.0211	0.9736	1.0709	0.0242	0.8606	0.3894
maternal bleeding	1.2102	1.0309	1.4206	0.0817	2.3328	0.0196
fetal oxygen deprivation	0.0000	0.0000	Inf	370.7101	-0.0344	0.9725
pregnancy oedema	1.4491	1.0246	2.0495	0.1768	2.0974	0.0359
apgar5 score	1.0475	0.8776	1.2502	0.0902	0.5142	0.6071
birth weight	1.0077	0.9627	1.0548	0.0233	0.3318	0.7400
preexisting hypertension	0.6319	0.1577	2.5318	0.7081	-0.6481	0.5169
preexisting diabetes	1.1978	0.5680	2.5261	0.3806	0.4742	0.6353
previous induced abortion	1.0707	0.9551	1.2002	0.0582	1.1730	0.2407
previous spontaneous abortion	1.1493	1.0198	1.2953	0.0610	2.2812	0.0225
education level	1.0637	1.0082	1.1223	0.0273	2.2595	0.0238
parental income	1.0372	0.9791	1.0988	0.0294	1.2443	0.2133
country	1.5300	1.2440	1.8817	0.1055	4.0288	<0.0001
region Sjelland	0.6452	0.5421	0.7679	0.0888	-4.9314	<0.0001
region Syddanmark	1.8996	1.6943	2.1297	0.0583	10.9978	<0.0001
region Midtylland	0.6906	0.5975	0.7982	0.0739	-5.0081	<0.0001
region Nordjylland	0.9974	0.8439	1.1788	0.0852	-0.0296	0.9763
mother with disorder	1.8907	0.9436	3.7884	0.3545	1.7962	0.0724
father with disorder	2.8409	1.3513	5.9726	0.3791	2.7541	0.0058

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5. Allergic - eczema/dermatitis	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.1687	0.9881	1.3824	0.0856	1.8209	0.0686
paternal age	0.9864	0.9487	1.0256	0.0198	-0.6867	0.4922
maternal age	1.0039	0.9603	1.0496	0.0226	0.1757	0.8605
gestation length	1.0206	0.9897	1.0524	0.0156	1.3021	0.1928
maternal bleeding	1.2050	1.0880	1.3346	0.0521	3.5794	0.0003
fetal oxygen deprivation	0.6867	0.3079	1.5313	0.4091	-0.9184	0.3583
pregnancy oedema	1.3291	1.0626	1.6626	0.1142	2.4916	0.0127
apgar5 score	1.0432	0.9276	1.1733	0.0599	0.7069	0.4795
birth weight	0.9868	0.9585	1.0159	0.0148	-0.8910	0.3729
preexisting hypertension	0.6868	0.2855	1.6522	0.4478	-0.8387	0.4016
preexisting diabetes	1.2062	0.7474	1.9468	0.2442	0.7679	0.4425
previous induced abortion	1.0715	0.9976	1.1509	0.0364	1.8953	0.0580
previous spontaneous abortion	1.0733	0.9933	1.1598	0.0395	1.7906	0.0733
education level	1.0392	1.0049	1.0747	0.0171	2.2455	0.0247
parental income	1.0477	1.0110	1.0856	0.0181	2.5668	0.0102
country	1.2562	1.0965	1.4392	0.0693	3.2881	0.0010
region Sjelland	0.6011	0.5451	0.6628	0.0498	-10.2037	<0.0001
region Syddanmark	0.8992	0.8344	0.9689	0.0381	-2.7878	0.0053
region Midtylland	0.7870	0.7291	0.8496	0.0390	-6.1351	<0.0001
region Nordjylland	0.3941	0.3458	0.4491	0.0667	-13.9580	<0.0001
mother with disorder	2.4378	2.0254	2.9341	0.0945	9.4239	<0.0001
father with disorder	1.9400	1.4552	2.5863	0.1467	4.5171	<0.0001

6. Allergic - urticaria/angiodema	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.1812	0.9985	1.3973	0.0857	1.9434	0.0519
paternal age	1.0045	0.9664	1.0442	0.0197	0.2307	0.8174
maternal age	0.9836	0.9408	1.0282	0.0226	-0.7287	0.4661
gestation length	0.9829	0.9526	1.0141	0.0159	-1.0795	0.2803
maternal bleeding	1.2430	1.1229	1.3759	0.0518	4.1974	<0.0001
fetal oxygen deprivation	0.5339	0.2000	1.4249	0.5008	-1.2529	0.2102
pregnancy oedema	1.5137	1.2253	1.8701	0.1078	3.8445	0.0001
apgar5 score	1.0982	0.9778	1.2334	0.0592	1.5820	0.1136
birth weight	0.9722	0.9438	1.0015	0.0151	-1.8602	0.0628
preexisting hypertension	0.7050	0.2929	1.6967	0.4480	-0.7799	0.4354
preexisting diabetes	1.3536	0.8602	2.1298	0.2312	1.3093	0.1904
previous induced abortion	1.0644	0.9899	1.1444	0.0369	1.6881	0.0913
previous spontaneous abortion	1.0504	0.9705	1.1370	0.0403	1.2188	0.2229
education level	1.0342	0.9998	1.0696	0.0172	1.9540	0.0506
parental income	0.9719	0.9379	1.0072	0.0181	-1.5631	0.1180
country	1.4708	1.3033	1.6598	0.0616	6.2550	<0.0001
region Sjelland	0.5977	0.5454	0.6551	0.0467	-11.0020	<0.0001
region Syddanmark	0.6426	0.5950	0.6941	0.0392	-11.2509	<0.0001
region Midtylland	0.4909	0.4518	0.5333	0.0423	-16.8068	<0.0001
region Nordjylland	0.3534	0.3111	0.4014	0.0650	-15.9940	<0.0001
mother with disorder	1.9059	1.5657	2.3202	0.1003	6.4283	<0.0001
father with disorder	1.4106	1.0672	1.8646	0.1423	2.4168	0.0156

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7. Skin - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2834	1.2235	1.3462	0.0243	10.2405	<0.0001
paternal age	0.9930	0.9815	1.0046	0.0059	-1.1796	0.2381
maternal age	0.9498	0.9372	0.9626	0.0068	-7.5213	<0.0001
gestation length	0.9975	0.9882	1.0068	0.0047	-0.5215	0.6019
maternal bleeding	1.0672	1.0331	1.1025	0.0165	3.9223	<0.0001
fetal oxygen deprivation	0.8423	0.6870	1.0329	0.1040	-1.6487	0.0992
pregnancy oedema	1.1287	1.0515	1.2114	0.0361	3.3529	0.0007
apgar5 score	1.0966	1.0587	1.1357	0.0179	5.1493	<0.0001
birth weight	1.0237	1.0147	1.0328	0.0045	5.2101	<0.0001
preexisting hypertension	1.0193	0.8149	1.2751	0.1142	0.1681	0.8664
preexisting diabetes	1.1840	1.0303	1.3607	0.0709	2.3809	0.0172
previous induced abortion	1.0865	1.0630	1.1104	0.0111	7.4543	<0.0001
previous spontaneous abortion	1.0451	1.0204	1.0704	0.0122	3.6170	0.0002
education level	0.9641	0.9543	0.9739	0.0051	-7.0552	<0.0001
parental income	0.9681	0.9576	0.9786	0.0055	-5.8508	<0.0001
country	1.2951	1.2449	1.3473	0.0201	12.8258	<0.0001
region Sjelland	0.7942	0.7722	0.8168	0.0143	-16.0742	<0.0001
region Syddanmark	0.8635	0.8431	0.8844	0.0122	-12.0255	<0.0001
region Midtylland	0.8484	0.8285	0.8688	0.0121	-13.5722	<0.0001
region Nordjylland	0.5890	0.5689	0.6098	0.0177	-29.8768	<0.0001
mother with disorder	1.3364	1.3035	1.3700	0.0126	22.8440	<0.0001
father with disorder	1.2905	1.2579	1.3239	0.0130	19.5323	<0.0001

8. Autoimmune - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.1764	1.0916	1.2677	0.0381	4.2595	<0.0001
paternal age	0.9849	0.9677	1.0024	0.0090	-1.6869	0.0916
maternal age	0.9701	0.9507	0.9899	0.0103	-2.9426	0.0032
gestation length	0.9924	0.9786	1.0063	0.0071	-1.0669	0.2859
maternal bleeding	1.0878	1.0363	1.1417	0.0247	3.4064	0.0006
fetal oxygen deprivation	1.0539	0.7933	1.3999	0.1448	0.3624	0.7170
pregnancy oedema	1.2427	1.1218	1.3768	0.0522	4.1593	<0.0001
apgar5 score	0.9829	0.9306	1.0382	0.0279	-0.6155	0.5381
birth weight	0.9945	0.9815	1.0077	0.0067	-0.8113	0.4171
preexisting hypertension	1.0277	0.7472	1.4136	0.1626	0.1684	0.8662
preexisting diabetes	1.5506	1.3125	1.8318	0.0850	5.1579	<0.0001
previous induced abortion	0.9700	0.9379	1.0033	0.0171	-1.7678	0.0770
previous spontaneous abortion	1.0443	1.0079	1.0820	0.0181	2.3953	0.0166
education level	0.9910	0.9759	1.0063	0.0078	-1.1541	0.2484
parental income	1.0127	0.9963	1.0294	0.0083	1.5202	0.1284
country	0.9092	0.8484	0.9743	0.0352	-2.6954	0.0070
region Sjelland	0.9706	0.9317	1.0112	0.0209	-1.4233	0.1546
region Syddanmark	0.9822	0.9475	1.0183	0.0183	-0.9721	0.3309
region Midtylland	0.9145	0.8819	0.9483	0.0185	-4.8282	<0.0001
region Nordjylland	0.7812	0.7440	0.8202	0.0248	-9.9344	<0.0001
mother with disorder	1.5423	1.4811	1.6060	0.0206	20.9806	<0.0001
father with disorder	1.4493	1.3888	1.5124	0.0217	17.0605	<0.0001

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9. Respiratory - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.3680	0.5690	3.2885	0.4475	0.7002	0.4837
paternal age	0.9997	0.9878	1.0117	0.0060	-0.0445	0.9644
maternal age	0.9595	0.9464	0.9728	0.0070	-5.8898	<0.0001
gestation length	0.9853	0.9759	0.9949	0.0049	-2.9932	0.0027
maternal bleeding	1.0836	1.0476	1.1208	0.0172	4.6590	<0.0001
fetal oxygen deprivation	0.9175	0.7403	1.1370	0.1094	-0.7862	0.4317
pregnancy oedema	1.1045	1.0236	1.1919	0.0388	2.5613	0.0104
apgar5 score	1.0521	1.0139	1.0916	0.0188	2.6968	0.0070
birth weight	1.0013	0.9923	1.0103	0.0046	0.2831	0.7770
preexisting hypertension	1.1655	0.9418	1.4424	0.1087	1.4090	0.1588
preexisting diabetes	1.0093	0.8610	1.1833	0.0811	0.1153	0.9081
previous induced abortion	1.0563	1.0327	1.0803	0.0114	4.7662	<0.0001
previous spontaneous abortion	1.0331	1.0081	1.0587	0.0124	2.6138	0.0089
education level	1.0008	0.9905	1.0112	0.0052	0.1600	0.8728
parental income	0.9741	0.9633	0.9850	0.0056	-4.6199	<0.0001
country	1.2267	1.1768	1.2787	0.0211	9.6433	<0.0001
region Sjelland	0.8107	0.7880	0.8342	0.0145	-14.4274	<0.0001
region Syddanmark	0.8774	0.8563	0.8989	0.0123	-10.5551	<0.0001
region Midtylland	0.7362	0.7181	0.7548	0.0127	-24.0740	<0.0001
region Nordjylland	0.7288	0.7056	0.7528	0.0165	-19.1648	<0.0001
mother with disorder	1.3300	1.3016	1.3590	0.0110	25.9046	<0.0001
father with disorder	1.2410	1.2143	1.2683	0.0111	19.4381	<0.0001

10. Respiratory - upper	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.7428	0.7248	4.1902	0.4475	1.2410	0.2145
paternal age	1.0016	0.9869	1.0166	0.0075	0.2207	0.8252
maternal age	0.9666	0.9503	0.9832	0.0086	-3.9001	<0.0001
gestation length	0.9926	0.9809	1.0044	0.0060	-1.2232	0.2212
maternal bleeding	1.0773	1.0335	1.1230	0.0211	3.5192	0.0004
fetal oxygen deprivation	0.8366	0.6318	1.1079	0.1432	-1.2446	0.2132
pregnancy oedema	1.1358	1.0352	1.2461	0.0472	2.6934	0.0070
apgar5 score	1.0874	1.0399	1.1370	0.0227	3.6786	0.0002
birth weight	1.0024	0.9912	1.0136	0.0056	0.4238	0.6716
preexisting hypertension	1.1318	0.8663	1.4786	0.1363	0.9080	0.3638
preexisting diabetes	0.9440	0.7703	1.1569	0.1037	-0.5548	0.5790
previous induced abortion	1.0955	1.0658	1.1261	0.0140	6.4992	<0.0001
previous spontaneous abortion	1.0321	1.0014	1.0637	0.0153	2.0536	0.0400
education level	1.0127	0.9998	1.0258	0.0065	1.9369	0.0527
parental income	0.9900	0.9765	1.0037	0.0070	-1.4260	0.1538
country	1.4084	1.3405	1.4797	0.0252	13.5888	<0.0001
region Sjelland	0.8276	0.7990	0.8573	0.0179	-10.5342	<0.0001
region Syddanmark	0.9349	0.9076	0.9631	0.0151	-4.4406	<0.0001
region Midtylland	0.7396	0.7170	0.7630	0.0158	-19.0094	<0.0001
region Nordjylland	0.7003	0.6721	0.7297	0.0209	-16.9806	<0.0001
mother with disorder	1.3807	1.3371	1.4258	0.0163	19.7127	<0.0001
father with disorder	1.2904	1.2479	1.3343	0.0170	14.9262	<0.0001

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11. Respiratory - lower	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.3809	1.2198	1.5632	0.0632	5.1000	<0.0001
paternal age	1.0049	0.9747	1.0359	0.0155	0.3159	0.7520
maternal age	0.9151	0.8833	0.9479	0.0180	-4.9272	<0.0001
gestation length	0.9419	0.9187	0.9657	0.0127	-4.7041	<0.0001
maternal bleeding	1.1484	1.0565	1.2483	0.0425	3.2534	0.0011
fetal oxygen deprivation	0.8564	0.4855	1.5107	0.2895	-0.5350	0.5926
pregnancy oedema	1.1677	0.9686	1.4077	0.0953	1.6264	0.1038
apgar5 score	1.1110	1.0132	1.2182	0.0470	2.2398	0.0251
birth weight	0.9841	0.9613	1.0074	0.0119	-1.3362	0.1814
preexisting hypertension	1.1838	0.6862	2.0424	0.2782	0.6066	0.5440
preexisting diabetes	1.3914	0.9908	1.9540	0.1732	1.9066	0.0565
previous induced abortion	1.0042	0.9466	1.0653	0.0301	0.1414	0.8875
previous spontaneous abortion	1.1371	1.0687	1.2098	0.0316	4.0604	<0.0001
education level	0.9608	0.9353	0.9870	0.0137	-2.9082	0.0036
parental income	0.9273	0.9010	0.9544	0.0146	-5.1420	<0.0001
country	1.0764	0.9687	1.1960	0.0537	1.3689	0.1710
region Sjelland	0.7781	0.7242	0.8360	0.0366	-6.8495	<0.0001
region Syddanmark	0.7139	0.6698	0.7609	0.0325	-10.3531	<0.0001
region Midtylland	0.6391	0.5989	0.6821	0.0331	-13.4845	<0.0001
region Nordjylland	0.6543	0.6017	0.7115	0.0427	-9.9259	<0.0001
mother with disorder	1.5992	1.4573	1.7548	0.0473	9.9064	<0.0001
father with disorder	1.3706	1.2502	1.5025	0.0468	6.7224	<0.0001

12. Respiratory - chronic lower	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.3345	1.2440	1.4316	0.0358	8.0575	<0.0001
paternal age	0.9974	0.9802	1.0149	0.0088	-0.2869	0.7741
maternal age	0.9741	0.9547	0.9939	0.0102	-2.5555	0.0106
gestation length	0.9676	0.9543	0.9812	0.0071	-4.6231	<0.0001
maternal bleeding	1.1185	1.0664	1.1731	0.0243	4.6080	<0.0001
fetal oxygen deprivation	0.9566	0.6893	1.3275	0.1671	-0.2651	0.7908
pregnancy oedema	1.1406	1.0184	1.2774	0.0577	2.2765	0.0228
apgar5 score	1.0680	1.0139	1.1250	0.0265	2.4821	0.0130
birth weight	0.9779	0.9650	0.9910	0.0067	-3.2862	0.0010
preexisting hypertension	0.8525	0.5991	1.2130	0.1799	-0.8865	0.3753
preexisting diabetes	0.9282	0.7345	1.1730	0.1194	-0.6235	0.5329
previous induced abortion	1.0202	0.9870	1.0546	0.0168	1.1869	0.2352
previous spontaneous abortion	1.0575	1.0204	1.0959	0.0182	3.0718	0.0021
education level	1.0246	1.0088	1.0406	0.0079	3.0751	0.0021
parental income	0.9407	0.9253	0.9565	0.0084	-7.2144	<0.0001
country	0.9506	0.8916	1.0134	0.0326	-1.5516	0.1207
region Sjelland	0.8152	0.7815	0.8504	0.0215	-9.4759	<0.0001
region Syddanmark	0.9580	0.9246	0.9926	0.0180	-2.3672	0.0179
region Midtylland	0.7450	0.7176	0.7734	0.0191	-15.4054	<0.0001
region Nordjylland	0.8530	0.8146	0.8932	0.0234	-6.7624	<0.0001
mother with disorder	1.9907	1.9012	2.0844	0.0234	29.3286	<0.0001
father with disorder	1.7636	1.6746	1.8572	0.0264	21.4886	<0.0001

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13. Respiratory - asthma	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.3467	1.2554	1.4447	0.0358	8.3104	<0.0001
paternal age	1.0065	0.9890	1.0243	0.0089	0.7311	0.4646
maternal age	0.9749	0.9553	0.9948	0.0103	-2.4610	0.0138
gestation length	0.9631	0.9497	0.9767	0.0071	-5.2622	<0.0001
maternal bleeding	1.1258	1.0733	1.1809	0.0243	4.8678	<0.0001
fetal oxygen deprivation	0.9913	0.7175	1.3696	0.1649	-0.0523	0.9582
pregnancy oedema	1.1248	1.0027	1.2618	0.0586	2.0062	0.0448
apgar5 score	1.0684	1.0141	1.1256	0.0266	2.4863	0.0129
birth weight	0.9759	0.9630	0.9890	0.0068	-3.5757	0.0003
preexisting hypertension	0.8542	0.6004	1.2155	0.1799	-0.8751	0.3814
preexisting diabetes	0.9348	0.7397	1.1813	0.1194	-0.5645	0.5724
previous induced abortion	1.0223	0.9888	1.0569	0.0169	1.3022	0.1928
previous spontaneous abortion	1.0612	1.0238	1.1000	0.0183	3.2489	0.0011
education level	1.0173	1.0016	1.0333	0.0079	2.1715	0.0298
parental income	0.9348	0.9193	0.9505	0.0084	-7.9282	<0.0001
country	0.9293	0.8713	0.9912	0.0328	-2.2287	0.0258
region Sjelland	0.8159	0.7820	0.8513	0.0216	-9.3841	<0.0001
region Syddanmark	0.9553	0.9218	0.9900	0.0182	-2.5087	0.0121
region Midtylland	0.7483	0.7207	0.7770	0.0191	-15.1170	<0.0001
region Nordjylland	0.8505	0.8120	0.8908	0.0236	-6.8525	<0.0001
mother with disorder	2.1944	2.0867	2.3076	0.0256	30.6122	<0.0001
father with disorder	2.0570	1.9343	2.1875	0.0313	22.9828	<0.0001

14. Respiratory - influenza	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.4457	1.1971	1.7459	0.0962	3.8297	0.0001
paternal age	1.0206	0.9732	1.0703	0.0242	0.8427	0.3993
maternal age	0.9085	0.8594	0.9603	0.0283	-3.3877	0.0007
gestation length	0.9203	0.8844	0.9576	0.0202	-4.0983	<0.0001
maternal bleeding	1.0844	0.9476	1.2410	0.0688	1.1780	0.2387
fetal oxygen deprivation	1.9236	0.9968	3.7120	0.3353	1.9506	0.0510
pregnancy oedema	1.4361	1.0835	1.9034	0.1437	2.5183	0.0117
apgar5 score	1.0914	0.9421	1.2645	0.0750	1.1661	0.2435
birth weight	0.9711	0.9352	1.0085	0.0192	-1.5197	0.1285
preexisting hypertension	2.7574	1.5588	4.8775	0.2909	3.4855	0.0004
preexisting diabetes	1.1812	0.6671	2.0915	0.2914	0.5714	0.5676
previous induced abortion	1.0048	0.9144	1.1042	0.0481	0.1007	0.9197
previous spontaneous abortion	1.0645	0.9619	1.1782	0.0517	1.2095	0.2264
education level	0.9554	0.9159	0.9967	0.0215	-2.1097	0.0348
parental income	0.8900	0.8503	0.9317	0.0233	-4.9894	<0.0001
country	1.8900	1.6574	2.1553	0.0670	9.4994	<0.0001
region Sjelland	0.6863	0.6130	0.7685	0.0576	-6.5237	<0.0001
region Syddanmark	0.5597	0.5044	0.6210	0.0530	-10.9338	<0.0001
region Midtylland	0.5139	0.4622	0.5714	0.0541	-12.3020	<0.0001
region Nordjylland	0.4872	0.4214	0.5633	0.0739	-9.7174	<0.0001
mother with disorder	2.5245	1.9578	3.2551	0.1296	7.1403	<0.0001
father with disorder	1.7947	1.2649	2.5463	0.1784	3.2768	0.0010

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15. Respiratory - pneumonia	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.3240	1.1608	1.5101	0.0671	4.1832	<0.0001
paternal age	1.0006	0.9691	1.0331	0.0163	0.0393	0.9686
maternal age	0.9206	0.8871	0.9553	0.0188	-4.3808	<0.0001
gestation length	0.9410	0.9168	0.9658	0.0132	-4.5762	<0.0001
maternal bleeding	1.1810	1.0836	1.2872	0.0439	3.7884	0.0001
fetal oxygen deprivation	0.7919	0.4253	1.4744	0.3171	-0.7355	0.4619
pregnancy oedema	1.1764	0.9672	1.4309	0.0998	1.6268	0.1037
apgar5 score	1.1410	1.0377	1.2546	0.0484	2.7253	0.0064
birth weight	0.9932	0.9691	1.0180	0.0125	-0.5366	0.5914
preexisting hypertension	1.3055	0.7566	2.2526	0.2783	0.9580	0.3380
preexisting diabetes	1.3517	0.9472	1.9291	0.1814	1.6611	0.0966
previous induced abortion	1.0011	0.9410	1.0650	0.0315	0.0359	0.9713
previous spontaneous abortion	1.1282	1.0571	1.2041	0.0332	3.6339	0.0002
education level	0.9571	0.9305	0.9846	0.0144	-3.0354	0.0024
parental income	0.9415	0.9135	0.9703	0.0153	-3.9167	<0.0001
country	1.0843	0.9713	1.2104	0.0561	1.4422	0.1492
region Sjelland	0.7564	0.7015	0.8156	0.0384	-7.2614	<0.0001
region Syddanmark	0.7169	0.6709	0.7661	0.0338	-9.8329	<0.0001
region Midtylland	0.6266	0.5853	0.6709	0.0348	-13.4182	<0.0001
region Nordjylland	0.6103	0.5579	0.6675	0.0457	-10.7932	<0.0001
mother with disorder	1.6197	1.4629	1.7933	0.0519	9.2838	<0.0001
father with disorder	1.3583	1.2287	1.5017	0.0511	5.9842	<0.0001

16. Respiratory - COPD	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	0.8602	0.5235	1.4136	0.2534	-0.5940	0.5525
paternal age	0.9531	0.8638	1.0517	0.0502	-0.9549	0.3396
maternal age	0.9586	0.8563	1.0731	0.0575	-0.7335	0.4632
gestation length	1.0362	0.9553	1.1240	0.0415	0.8584	0.3906
maternal bleeding	1.2130	0.9290	1.5839	0.1360	1.4194	0.1557
fetal oxygen deprivation	0.6738	0.0944	4.8088	1.0026	-0.3937	0.6937
pregnancy oedema	1.6544	1.0316	2.6531	0.2409	2.0893	0.0366
apgar5 score	1.3064	0.9802	1.7412	0.1465	1.8236	0.0682
birth weight	0.8751	0.8105	0.9447	0.0390	-3.4140	0.0006
preexisting hypertension	0.0000	0.0000	Inf	708.9937	-0.0183	0.9853
preexisting diabetes	1.1172	0.2772	4.5027	0.7111	0.1559	0.8760
previous induced abortion	1.1376	0.9438	1.3713	0.0952	1.3536	0.1758
previous spontaneous abortion	1.0150	0.8227	1.2522	0.1071	0.1394	0.8890
education level	0.9960	0.9125	1.0870	0.0446	-0.0892	0.9288
parental income	0.8047	0.7336	0.8826	0.0471	-4.6047	<0.0001
country	1.1794	0.8448	1.6463	0.1701	0.9696	0.3322
region Sjelland	0.8507	0.6770	1.0691	0.1165	-1.3863	0.1656
region Syddanmark	0.7234	0.5873	0.8910	0.1063	-3.0445	0.0023
region Midtylland	0.5806	0.4647	0.7254	0.1136	-4.7842	<0.0001
region Nordjylland	0.7352	0.5635	0.9593	0.1357	-2.2654	0.0234
mother with disorder	1.9447	1.3673	2.7659	0.1797	3.7008	0.0002
father with disorder	1.8048	1.2858	2.5331	0.1729	3.4137	0.0006

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17. Digestive - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.1473	1.0954	1.2016	0.0236	5.8203	<0.0001
paternal age	0.9842	0.9736	0.9949	0.0055	-2.8773	0.0040
maternal age	0.9152	0.9039	0.9267	0.0063	-13.9125	<0.0001
gestation length	0.9817	0.9733	0.9903	0.0044	-4.1507	<0.0001
maternal bleeding	1.0632	1.0316	1.0958	0.0153	3.9837	<0.0001
fetal oxygen deprivation	1.0666	0.9005	1.2635	0.0864	0.7471	0.4549
pregnancy oedema	1.1464	1.0762	1.2212	0.0322	4.2373	<0.0001
apgar5 score	1.0548	1.0205	1.0902	0.0168	3.1642	0.0015
birth weight	0.9811	0.9732	0.9891	0.0041	-4.5845	<0.0001
preexisting hypertension	1.0167	0.8247	1.2535	0.1068	0.1557	0.8761
preexisting diabetes	1.1361	0.9917	1.3014	0.0693	1.8407	0.0656
previous induced abortion	1.0330	1.0120	1.0544	0.0104	3.1031	0.0019
previous spontaneous abortion	1.0464	1.0236	1.0697	0.0112	4.0339	<0.0001
education level	0.9596	0.9506	0.9687	0.0048	-8.5606	<0.0001
parental income	0.9845	0.9746	0.9944	0.0051	-3.0356	0.0024
country	0.8444	0.8089	0.8814	0.0218	-7.7226	<0.0001
region Sjelland	0.9640	0.9395	0.9891	0.0131	-2.7911	0.0052
region Syddanmark	1.0301	1.0074	1.0533	0.0113	2.6106	0.0090
region Midtylland	0.8758	0.8559	0.8961	0.0117	-11.3160	<0.0001
region Nordjylland	0.9154	0.8896	0.9420	0.0145	-6.0592	<0.0001
mother with disorder	1.2999	1.2773	1.3229	0.0089	29.3263	<0.0001
father with disorder	1.1919	1.1713	1.2130	0.0089	19.6794	<0.0001

18. Endocrine - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.4219	1.3340	1.5156	0.0325	10.8107	<0.0001
paternal age	0.9523	0.9373	0.9676	0.0081	-6.0194	<0.0001
maternal age	0.8700	0.8541	0.8862	0.0094	-14.7928	<0.0001
gestation length	0.9850	0.9721	0.9980	0.0067	-2.2535	0.0242
maternal bleeding	1.0539	1.0065	1.1035	0.0234	2.2385	0.0251
fetal oxygen deprivation	1.1634	0.9113	1.4852	0.1245	1.2150	0.2243
pregnancy oedema	1.2464	1.1468	1.3547	0.0424	5.1848	<0.0001
apgar5 score	1.1561	1.1010	1.2140	0.0249	5.8204	<0.0001
birth weight	1.0364	1.0238	1.0492	0.0062	5.7184	<0.0001
preexisting hypertension	1.0717	0.7967	1.4415	0.1512	0.4579	0.6469
preexisting diabetes	1.5356	1.3089	1.8015	0.0814	5.2640	<0.0001
previous induced abortion	1.0237	0.9921	1.0563	0.0159	1.4695	0.1416
previous spontaneous abortion	1.0572	1.0224	1.0932	0.0170	3.2597	0.0011
education level	0.8435	0.8317	0.8555	0.0071	-23.6601	<0.0001
parental income	0.8854	0.8720	0.8989	0.0077	-15.7053	<0.0001
country	0.8546	0.8060	0.9062	0.0298	-5.2544	<0.0001
region Sjelland	1.2495	1.2038	1.2968	0.0189	11.7352	<0.0001
region Syddanmark	1.1639	1.1254	1.2038	0.0171	8.8387	<0.0001
region Midtylland	0.8184	0.7890	0.8488	0.0186	-10.7530	<0.0001
region Nordjylland	0.8643	0.8260	0.9043	0.0231	-6.3058	<0.0001
mother with disorder	1.6494	1.6028	1.6975	0.0146	34.1846	<0.0001
father with disorder	1.5019	1.4520	1.5535	0.0172	23.6047	<0.0001

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19. Endocrine - obesity	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.4791	1.3682	1.5989	0.0397	9.8496	<0.0001
paternal age	0.9309	0.9127	0.9495	0.0100	-7.1037	<0.0001
maternal age	0.8191	0.8003	0.8383	0.0118	-16.8246	<0.0001
gestation length	1.0006	0.9842	1.0172	0.0084	0.0716	0.9428
maternal bleeding	1.0597	1.0001	1.1229	0.0295	1.9663	0.0492
fetal oxygen deprivation	1.1808	0.8714	1.6001	0.1550	1.0724	0.2834
pregnancy oedema	1.2806	1.1614	1.4121	0.0498	4.9627	<0.0001
apgar5 score	1.1922	1.1222	1.2666	0.0308	5.6922	<0.0001
birth weight	1.0761	1.0596	1.0928	0.0078	9.3232	<0.0001
preexisting hypertension	1.1605	0.8149	1.6527	0.1803	0.8254	0.4091
preexisting diabetes	1.6440	1.3460	2.0080	0.1020	4.8717	<0.0001
previous induced abortion	1.0239	0.9843	1.0652	0.0201	1.1774	0.2390
previous spontaneous abortion	1.0744	1.0298	1.1210	0.0216	3.3165	0.0009
education level	0.7633	0.7497	0.7771	0.0091	-29.4817	<0.0001
parental income	0.8559	0.8397	0.8725	0.0097	-15.8830	<0.0001
country	0.6170	0.5696	0.6684	0.0407	-11.8338	<0.0001
region Sjelland	1.4695	1.4031	1.5391	0.0235	16.3228	<0.0001
region Syddanmark	1.2905	1.2364	1.3470	0.0218	11.6744	<0.0001
region Midtylland	0.7888	0.7517	0.8277	0.0245	-9.6629	<0.0001
region Nordjylland	0.8477	0.7992	0.8991	0.0300	-5.4979	<0.0001
mother with disorder	2.3217	2.2148	2.4338	0.0240	35.0183	<0.0001
father with disorder	1.9865	1.8466	2.1370	0.0372	18.4222	<0.0001

20. Genitourinary - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2301	1.1444	1.3223	0.0368	5.6202	<0.0001
paternal age	0.9673	0.9512	0.9837	0.0085	-3.8680	0.0001
maternal age	0.8871	0.8699	0.9047	0.0100	-11.9583	<0.0001
gestation length	0.9828	0.9693	0.9965	0.0070	-2.4554	0.0140
maternal bleeding	1.1235	1.0723	1.1770	0.0237	4.9003	<0.0001
fetal oxygen deprivation	0.8370	0.6085	1.1514	0.1626	-1.0930	0.2743
pregnancy oedema	1.1196	1.0103	1.2407	0.0524	2.1562	0.0310
apgar5 score	1.0349	0.9809	1.0919	0.0273	1.2571	0.2087
birth weight	0.9589	0.9465	0.9714	0.0066	-6.3134	<0.0001
preexisting hypertension	1.1440	0.8416	1.5549	0.1565	0.8592	0.3902
preexisting diabetes	1.1792	0.9542	1.4573	0.1080	1.5260	0.1270
previous induced abortion	1.1282	1.0932	1.1642	0.0160	7.5174	<0.0001
previous spontaneous abortion	1.0498	1.0135	1.0873	0.0179	2.7116	0.0066
education level	0.9235	0.9099	0.9374	0.0075	-10.4747	<0.0001
parental income	0.9292	0.9146	0.9439	0.0080	-9.1300	<0.0001
country	0.8827	0.8307	0.9380	0.0309	-4.0235	<0.0001
region Sjelland	0.7110	0.6832	0.7400	0.0203	-16.7614	<0.0001
region Syddanmark	0.6689	0.6458	0.6928	0.0179	-22.4353	<0.0001
region Midtylland	0.6183	0.5966	0.6408	0.0182	-26.3803	<0.0001
region Nordjylland	0.6184	0.5904	0.6476	0.0235	-20.3667	<0.0001
mother with disorder	1.3248	1.2829	1.3680	0.0163	17.1603	<0.0001
father with disorder	1.2897	1.2329	1.3492	0.0229	11.0648	<0.0001

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21. Genitourinary - kidney infection	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2517	1.0408	1.5053	0.0941	2.3857	0.0170
paternal age	0.9927	0.9511	1.0361	0.0218	-0.3329	0.7391
maternal age	0.8495	0.8078	0.8932	0.0256	-6.3609	<0.0001
gestation length	1.0194	0.9844	1.0556	0.0178	1.0801	0.2800
maternal bleeding	1.1398	1.0127	1.2828	0.0603	2.1708	0.0299
fetal oxygen deprivation	0.7703	0.3199	1.8550	0.4483	-0.5817	0.5607
pregnancy oedema	0.8616	0.6325	1.1736	0.1577	-0.9445	0.3448
apgar5 score	1.1320	0.9920	1.2918	0.0673	1.8413	0.0655
birth weight	0.9890	0.9569	1.0221	0.0168	-0.6558	0.5119
preexisting hypertension	0.5109	0.1645	1.5865	0.5781	-1.1615	0.2454
preexisting diabetes	1.4170	0.8768	2.2900	0.2449	1.4232	0.1546
previous induced abortion	1.1697	1.0813	1.2652	0.0400	3.9136	<0.0001
previous spontaneous abortion	1.1309	1.0370	1.2332	0.0441	2.7842	0.0053
education level	0.9301	0.8953	0.9662	0.0194	-3.7233	0.0001
parental income	0.9641	0.9260	1.0037	0.0205	-1.7768	0.0756
country	0.6556	0.5516	0.7791	0.0880	-4.7930	<0.0001
region Sjelland	0.6920	0.6252	0.7658	0.0517	-7.1162	<0.0001
region Syddanmark	0.6402	0.5852	0.7005	0.0458	-9.7202	<0.0001
region Midtylland	0.6340	0.5798	0.6933	0.0456	-9.9903	<0.0001
region Nordjylland	0.6342	0.5651	0.7117	0.0588	-7.7415	<0.0001
mother with disorder	1.5184	1.2248	1.8824	0.1096	3.8105	0.0001
father with disorder	1.6859	1.1081	2.5650	0.2141	2.4395	0.0147

22. Musculoskeletal - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.1867	1.1471	1.2276	0.0173	9.8858	<0.0001
paternal age	0.9732	0.9653	0.9811	0.0041	-6.5519	<0.0001
maternal age	0.9367	0.9280	0.9455	0.0047	-13.6810	<0.0001
gestation length	1.0003	0.9939	1.0068	0.0032	0.1048	0.9165
maternal bleeding	1.0873	1.0633	1.1119	0.0113	7.3536	<0.0001
fetal oxygen deprivation	1.1636	1.0340	1.3094	0.0602	2.5153	0.0118
pregnancy oedema	1.0897	1.0357	1.1465	0.0259	3.3127	0.0009
apgar5 score	1.0198	0.9945	1.0456	0.0127	1.5350	0.1247
birth weight	0.9899	0.9839	0.9960	0.0031	-3.2379	0.0012
preexisting hypertension	1.0509	0.9043	1.2212	0.0766	0.6481	0.5169
preexisting diabetes	1.0042	0.9042	1.1153	0.0535	0.0796	0.9365
previous induced abortion	1.0476	1.0318	1.0637	0.0077	5.9926	<0.0001
previous spontaneous abortion	1.0306	1.0137	1.0478	0.0084	3.5788	0.0003
education level	0.9542	0.9474	0.9610	0.0036	-12.9474	<0.0001
parental income	0.9930	0.9855	1.0006	0.0038	-1.7933	0.0729
country	0.8545	0.8281	0.8818	0.0160	-9.8085	<0.0001
region Sjelland	0.8453	0.8286	0.8623	0.0101	-16.5041	<0.0001
region Syddanmark	0.8856	0.8706	0.9009	0.0087	-13.9288	<0.0001
region Midtylland	1.0379	1.0211	1.0550	0.0083	4.4759	<0.0001
region Nordjylland	0.8323	0.8141	0.8508	0.0112	-16.3189	<0.0001
mother with disorder	1.3418	1.3256	1.3581	0.0061	47.6482	<0.0001
father with disorder	1.2296	1.2147	1.2447	0.0062	33.1873	<0.0001

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23. Neoplasms - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.1818	1.1042	1.2648	0.0346	4.8240	<0.0001
paternal age	0.9866	0.9709	1.0026	0.0081	-1.6423	0.1005
maternal age	0.9691	0.9516	0.9870	0.0093	-3.3521	0.0008
gestation length	1.0002	0.9876	1.0129	0.0064	0.0365	0.9708
maternal bleeding	1.0718	1.0256	1.1202	0.0224	3.0862	0.0020
fetal oxygen deprivation	1.1266	0.8933	1.4207	0.1183	1.0071	0.3138
pregnancy oedema	1.0020	0.9080	1.1057	0.0502	0.0413	0.9669
apgar5 score	0.9880	0.9400	1.0385	0.0254	-0.4717	0.6370
birth weight	1.0187	1.0067	1.0309	0.0060	3.0684	0.0021
preexisting hypertension	0.9176	0.6673	1.2618	0.1624	-0.5287	0.5969
preexisting diabetes	0.9963	0.8065	1.2309	0.1078	-0.0337	0.9730
previous induced abortion	0.9947	0.9650	1.0254	0.0154	-0.3395	0.7341
previous spontaneous abortion	1.0285	0.9959	1.0621	0.0164	1.7130	0.0867
education level	1.0055	0.9918	1.0195	0.0070	0.7907	0.4290
parental income	1.0278	1.0129	1.0430	0.0074	3.6747	0.0002
country	0.9095	0.8506	0.9724	0.0341	-2.7797	0.0054
region Sjelland	1.1015	1.0605	1.1441	0.0193	5.0010	<0.0001
region Syddanmark	1.1813	1.1429	1.2209	0.0168	9.8893	<0.0001
region Midtylland	1.1349	1.0980	1.1729	0.0168	7.5155	<0.0001
region Nordjylland	0.9290	0.8892	0.9707	0.0223	-3.2886	0.0010
mother with disorder	1.1866	1.1578	1.2160	0.0125	13.6780	<0.0001
father with disorder	1.1509	1.1137	1.1894	0.0167	8.3812	<0.0001

24. Neoplasms - benign	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.1734	1.0906	1.2625	0.0373	4.2819	<0.0001
paternal age	0.9808	0.9640	0.9979	0.0088	-2.1957	0.0281
maternal age	0.9758	0.9568	0.9952	0.0100	-2.4287	0.0151
gestation length	0.9985	0.9850	1.0121	0.0069	-0.2138	0.8306
maternal bleeding	1.0624	1.0131	1.1142	0.0242	2.4983	0.0124
fetal oxygen deprivation	1.1722	0.9147	1.5021	0.1265	1.2557	0.2092
pregnancy oedema	1.0070	0.9046	1.1211	0.0547	0.1290	0.8973
apgar5 score	0.9802	0.9290	1.0344	0.0274	-0.7258	0.4679
birth weight	1.0169	1.0040	1.0300	0.0065	2.5787	0.0099
preexisting hypertension	0.8518	0.5986	1.2119	0.1799	-0.8915	0.3726
preexisting diabetes	1.0204	0.8161	1.2757	0.1139	0.1773	0.8592
previous induced abortion	1.0020	0.9700	1.0351	0.0165	0.1249	0.9005
previous spontaneous abortion	1.0476	1.0122	1.0842	0.0175	2.6509	0.0080
education level	1.0106	0.9957	1.0257	0.0075	1.4002	0.1614
parental income	1.0247	1.0086	1.0411	0.0080	3.0291	0.0024
country	0.9149	0.8521	0.9823	0.0362	-2.4504	0.0142
region Sjelland	1.0861	1.0425	1.1315	0.0208	3.9553	<0.0001
region Syddanmark	1.1912	1.1497	1.2342	0.0180	9.6718	<0.0001
region Midtylland	1.1392	1.0995	1.1803	0.0180	7.2084	<0.0001
region Nordjylland	0.8886	0.8471	0.9322	0.0244	-4.8336	<0.0001
mother with disorder	1.2197	1.1850	1.2554	0.0147	13.5030	<0.0001
father with disorder	1.1915	1.1412	1.2441	0.0220	7.9609	<0.0001

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25. Circulatory - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2572	1.1423	1.3836	0.0488	4.6819	<0.0001
paternal age	0.9735	0.9508	0.9967	0.0120	-2.2269	0.0259
maternal age	0.9472	0.9221	0.9730	0.0137	-3.9523	<0.0001
gestation length	0.9678	0.9499	0.9862	0.0095	-3.4116	0.0006
maternal bleeding	1.1376	1.0682	1.2115	0.0321	4.0168	<0.0001
fetal oxygen deprivation	0.8318	0.5656	1.2233	0.1968	-0.9356	0.3494
pregnancy oedema	1.0047	0.8718	1.1578	0.0723	0.0652	0.9479
apgar5 score	1.2107	1.1315	1.2955	0.0345	5.5366	<0.0001
birth weight	0.9762	0.9592	0.9935	0.0089	-2.6791	0.0073
preexisting hypertension	1.1746	0.8191	1.6845	0.1839	0.8753	0.3813
preexisting diabetes	0.8929	0.6535	1.2200	0.1592	-0.7109	0.4771
previous induced abortion	0.9872	0.9437	1.0327	0.0230	-0.5581	0.5767
previous spontaneous abortion	1.0385	0.9900	1.0894	0.0244	1.5498	0.1211
education level	0.9725	0.9528	0.9925	0.0104	-2.6777	0.0074
parental income	0.9822	0.9612	1.0038	0.0110	-1.6158	0.1061
country	0.8739	0.7953	0.9603	0.0480	-2.8020	0.0050
region Sjelland	1.0000	0.9468	1.0561	0.0278	0.0005	0.9995
region Syddanmark	0.9184	0.8744	0.9647	0.0250	-3.3894	0.0007
region Midtylland	0.9612	0.9159	1.0087	0.0246	-1.6048	0.1085
region Nordjylland	0.7713	0.7224	0.8235	0.0334	-7.7712	<0.0001
mother with disorder	1.5048	1.4406	1.5718	0.0222	18.3929	<0.0001
father with disorder	1.3268	1.2735	1.3823	0.0209	13.5241	<0.0001

26. Nervous System - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2465	1.1038	1.4077	0.0620	3.5523	0.0003
paternal age	0.9775	0.9492	1.0067	0.0149	-1.5108	0.1308
maternal age	0.8869	0.8572	0.9177	0.0173	-6.8959	<0.0001
gestation length	0.9914	0.9681	1.0154	0.0121	-0.7013	0.4830
maternal bleeding	1.1226	1.0355	1.2169	0.0411	2.8090	0.0049
fetal oxygen deprivation	1.5720	1.0966	2.2535	0.1837	2.4620	0.0138
pregnancy oedema	1.2383	1.0597	1.4469	0.0794	2.6910	0.0071
apgar5 score	1.0651	0.9719	1.1673	0.0467	1.3514	0.1765
birth weight	0.9760	0.9545	0.9979	0.0113	-2.1384	0.0324
preexisting hypertension	1.0660	0.6046	1.8796	0.2893	0.2211	0.8249
preexisting diabetes	1.4444	1.0338	2.0180	0.1706	2.1548	0.0311
previous induced abortion	1.0577	0.9999	1.1189	0.0286	1.9576	0.0502
previous spontaneous abortion	1.0778	1.0151	1.1445	0.0306	2.4496	0.0142
education level	0.9068	0.8837	0.9304	0.0131	-7.4494	<0.0001
parental income	0.9420	0.9164	0.9682	0.0140	-4.2622	<0.0001
country	0.7021	0.6177	0.7980	0.0653	-5.4111	<0.0001
region Sjelland	1.4244	1.3326	1.5225	0.0339	10.4064	<0.0001
region Syddanmark	1.1577	1.0875	1.2325	0.0319	4.5873	<0.0001
region Midtylland	0.9924	0.9303	1.0586	0.0329	-0.2293	0.8186
region Nordjylland	0.7426	0.6793	0.8118	0.0454	-6.5443	<0.0001
mother with disorder	1.5513	1.4474	1.6626	0.0353	12.4189	<0.0001
father with disorder	1.4043	1.2898	1.5290	0.0433	7.8257	<0.0001

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27. Eye/adnexa - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2321	1.1481	1.3224	0.0360	5.7893	<0.0001
paternal age	1.0041	0.9889	1.0196	0.0077	0.5377	0.5907
maternal age	0.9744	0.9575	0.9916	0.0089	-2.9049	0.0036
gestation length	0.9555	0.9438	0.9674	0.0062	-7.2176	<0.0001
maternal bleeding	1.0886	1.0435	1.1357	0.0216	3.9319	<0.0001
fetal oxygen deprivation	1.1691	0.9159	1.4923	0.1245	1.2547	0.2095
pregnancy oedema	1.0748	0.9753	1.1843	0.0495	1.4569	0.1451
apgar5 score	1.0598	1.0116	1.1104	0.0237	2.4470	0.0144
birth weight	0.9579	0.9469	0.9691	0.0059	-7.2482	<0.0001
preexisting hypertension	0.9791	0.7281	1.3165	0.1510	-0.1396	0.8889
preexisting diabetes	1.0886	0.8970	1.3213	0.0988	0.8599	0.3898
previous induced abortion	1.0299	1.0004	1.0602	0.0148	1.9901	0.0465
previous spontaneous abortion	1.0697	1.0370	1.1035	0.0158	4.2557	<0.0001
education level	0.9576	0.9449	0.9704	0.0067	-6.3771	<0.0001
parental income	0.9588	0.9453	0.9726	0.0072	-5.7941	<0.0001
country	1.0282	0.9741	1.0852	0.0275	1.0099	0.3125
region Sjelland	0.7668	0.7399	0.7948	0.0182	-14.5350	<0.0001
region Syddanmark	0.7503	0.7273	0.7741	0.0159	-18.0320	<0.0001
region Midtylland	0.6379	0.6176	0.6589	0.0165	-27.2123	<0.0001
region Nordjylland	0.6678	0.6406	0.6962	0.0212	-19.0308	<0.0001
mother with disorder	1.3216	1.2740	1.3711	0.0187	14.8854	<0.0001
father with disorder	1.2350	1.1895	1.2823	0.0191	11.0076	<0.0001

28. Mental - all	exp(coef)	LCL	UCL	SE	Z	Pr(Z)
surgery	1.2207	1.1617	1.2827	0.0252	7.8881	<0.0001
paternal age	1.0128	1.0013	1.0245	0.0058	2.1899	0.0285
maternal age	0.9186	0.9063	0.9310	0.0068	-12.3982	<0.0001
gestation length	0.9816	0.9722	0.9911	0.0049	-3.7726	0.0001
maternal bleeding	1.1343	1.0988	1.1711	0.0162	7.7552	<0.0001
fetal oxygen deprivation	1.1764	0.9759	1.4180	0.0953	1.7046	0.0882
pregnancy oedema	1.0797	1.0019	1.1635	0.0381	2.0109	0.0443
apgar5 score	1.0604	1.0224	1.0998	0.0186	3.1532	0.0016
birth weight	0.9713	0.9625	0.9802	0.0046	-6.2651	<0.0001
preexisting hypertension	1.1697	0.9451	1.4477	0.1087	1.4410	0.1495
preexisting diabetes	1.0996	0.9505	1.2721	0.0743	1.2782	0.2011
previous induced abortion	1.1278	1.1035	1.1525	0.0110	10.8546	<0.0001
previous spontaneous abortion	1.0700	1.0443	1.0964	0.0124	5.4555	<0.0001
education level	0.9604	0.9502	0.9706	0.0054	-7.4472	<0.0001
parental income	0.7861	0.7772	0.7951	0.0058	-41.2779	<0.0001
country	0.4837	0.4589	0.5098	0.0267	-27.1019	<0.0001
region Sjelland	0.8449	0.8214	0.8691	0.0144	-11.6955	<0.0001
region Syddanmark	0.9181	0.8963	0.9404	0.0122	-6.9658	<0.0001
region Midtylland	0.7672	0.7480	0.7869	0.0129	-20.5154	<0.0001
region Nordjylland	0.5602	0.5402	0.5809	0.0185	-31.2647	<0.0001
mother with disorder	2.0486	2.0005	2.0979	0.0121	59.1078	<0.0001
father with disorder	1.6284	1.5831	1.6749	0.0143	33.9213	<0.0001

Table S8. Relative risks (RR), absolute risk difference (ARD), number needed to treat (NNT(B/H) or benefit/harm) for conditions surgeries aim to treat

	adenoidectomy				tonsillectomy				adenotonsillectomy				
Conditions	**RR**	**ER**	**ARD**	**NNT(B/H)**	**RR**	**ER**	**ARD**	**NNT(B/H)**	**RR**	**ER**	**ARD**	**NNT(B/H)**	**CR**
Sleep disorders	0.30(0.15-0.60)*	1.05	-0.083 %	-1209 (B)	0.24(0.07-0.75)	-	-	-	0.46(0.28-0.77)	-	-	-	0.119
Abnormal breathing	1.04(0.61-1.78)	-	-	-	0.70(0.26-1.89)	-	-	-	0.59(0.30-1.14)	-	-	-	0.045
Sinusitis	1.54(1.14-2.08)	-	-	-	1.03(0.63-1.69)	-	-	-	1.68(1.32-2.14)***	0.479	+0.116%	865 (H)	0.169
Chronic sinusitis	2.25(1.69-3.00)***	1.47	+0.11%	905 (H)	1.25(0.75-2.08)	-	-	-	1.17(0.84-1.63)	-	-	-	0.088
Labyrinthitis	4.76(1.82-12.40)*	10.21	+0.171%	586 (H)	-	-	-	-	3.27(0.99-10.74)	-	-	-	0.045
Otitis media	4.84(4.48-5.23)***	57.75	+19.495%	5 (H)	2.22(1.94-2.54)***	10.263	+6.217%	16 (H)	2.06(1.88-2.25)***	27.513	+5.385%	19 (H)	5.073
Tonsillitis	0.21(0.16-0.29)***	5.86	-1.815 %	-55 (B)	0.09(0.05-0.17)***	16.487	-2.102 %	-48 (B)	0.09(0.06-0.14)***	14.685	-2.092 %	-48 (B)	2.321
Chronic tonsillitis	0.54(0.39-0.74)**	92.36	-0.299 %	-334 (B)	0.20(0.11-0.38)***	80.486	-0.52 %	-192 (B)	0.11(0.06-0.19)***	98.315	-0.582 %	-172 (B)	0.657

Footnotes:

- CR - Control Risk (i.e. event rate (%) in the control group)

- ER - Experimental Risk (i.e. event rate (%) in the case (surgery) group)

- ARD - Absolute Risk Difference (a.k.a. absolute risk reduction/increase) [ARD=100 X CR X (1-RR)]

- NNT(B/H) - Number Needed to Treat-Benefit or Harm [NNT=100/ARD]

- RR exclusion: Relative risks (RR) are presented only for analyses with sufficient power for hypothesis testing (see methods)

-> i.e. there was insufficient power for testing labyrinthis for the tonsillectomy analysis and insufficient power to test obstructive sleep apnea in any analysis (hence, there are no results here)

- ER, ARD and NNT exclusion: these values are presented only when Bonferroni corrected p-value (23 tests; α=0.05/23=0.00217) for relative risks (RR) were significant

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Supplementary Methods

Study sample: While we had access to health data on individuals older than 30 years, we focused on individuals born and living between 1978o 2009 for two important reasons. Firstly, we needed to code whether surgery was performed for adenoidectomy, tonsillectomy or adenotonsillectomy between birth and 9 years of age. For any individual born before 1978 (who had no record of these surgeries after 1978), we could not determine that. Secondly, for individuals born before 1978, we had no prior disease history or information on most of their covariates. Therefore, including those individuals would have introduced both bias in censoring in the Cox regression model between those born before or after 1978 as well as introducing large amounts of missing information for those born before 1978 (i.e. they would have had to be removed before analysis anyway). Electronic health data were not available before 1977-78 in Denmark, and data after 2009 were not available at the time of request.

Power analyses: To reduce the possibility of encountering false negative results, we carried out power analyses with the powerSurvEpi package in R v 3.2.1, which checks whether sample sizes are large enough to test the null hypothesis of no association between predictor and subsequent disease. The powerSurvEpi algorithm calculates the minimum sample size needed to detect an effect of a given size with a given degree of confidence based on the risk ratio, which we derived from the actual relative risks for focal diseases, the variance of the main covariate of interest (surgery), the proportion of subjects who were diagnosed with the disease, the postulated power, and the type I error rate. Most diseases within each surgery group met these thresholds. Of the 84 disease x surgery combinations examined (28 disease groups x 3 surgery groups = 84), 6 (~7%) did not and were excluded from the results reported.

Converting RR to AR and NNT: To interpret risks based on their actual effect size in the population [1] and provide statistics that are more clinically useful [2], we used risks derived from Cox regressions and prevalence of disease in control samples (control risk, CR) to estimate absolute risk difference (ARD, also known as absolute risk reduction or increase) and number needed to treat (NNT). ARD=100 x CR x (1-RR) and NNT=100/ARD. Conversion between RR and ARD is mainly modified by the control risk, i.e. if RR for a disease is large but its prevalence in the population is low, it will generally have a small ARD and thus low impact. Conversion between ARD and NNT implies they are inversely linked, i.e. if ARD is large, very few patients need to be treated to observe benefit or harm in one of them. If ARD is small, many patients need to be treated to observe benefit or harm in one of them. Positive and negative NNT values are used to indicate whether treatment results in harm (NNT-harm) or benefit (NNT-benefit) respectively, with numbers closer to zero indicating harm or benefit more often than larger values. For example, an NNT-benefit value of 5 suggests that treatment in 5 patients would need to be performed for one of them to benefit. An NNT-harm value of 100 suggests that treatment in 100 patients would need to be performed for one of them to experience an adverse effect.

Testing for biases in early general health between cases and controls: In order to test whether there were significant differences between (surgery) cases and controls regarding diseases diagnosed in the first 9 years of life, i.e. testing whether individuals who underwent surgery in the first 9 years of life represented a generally 'more sickly'

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sample of individuals that could bias estimation of incident disease risk beyond 9 years of age, we tested two null hypotheses. *Null hypothesis 1:* There is no difference between case and control age distributions for diseases diagnosed in the first 9 years of life. This sought to compare age at diagnosis distributions for any disease (potentially multiple diagnoses for each individual) to see whether individuals who underwent the three focal surgeries also tended to have more disease diagnoses overall in the first 9 years of life. *Null hypothesis 2:* There is no difference in age at first disease diagnosed in the first 9 years of life between cases and controls. This sought to compare age at diagnosis distributions for the first disease diagnosed to see whether individuals who underwent the three focal surgeries received their first disease diagnosis earlier in life within the first 9 years. General health: In order to test for differences in general health, we pooled ICD diagnoses that capture almost all of the main disease groups described by ICD10, i.e. the same broad set defined in Hollegaard et al [3]. These capture a much wider range of diseases and should be more representative of general health in a population.

For null hypotheis 1, we randomly sampled from the control individuals (those who did not undergo surgery during 1978-2009) the same number of individuals who had undergone each specific surgery. For example, there were 20,238 (out of 1,668,632) individuals who underwent adenoidectomy between birth and 9 years of age in our sample. We randomly sampled the same number (n=20,238) from the control sample (n=1,648,394 without surgery) and tested whether distributions for general health diseases diagnosed at any age within the first 9 years between surgery individuals and controls were significantly different with a Kolmogorov-Smirnov test. We repeated this 1000 times, each time randomly sampling 20,238 individuals (with replacement) from the control sample and comparing this to the surgery group's distribution for age at any general health disease diagnosis within the first 9 years. The permuted p value was based on the number of times (out of 1000) that the two distributions were the same. Permuted p was >0.05 in all cases supporting the null hypothesis no difference between case and control age distributions for general health diseases diagnosed in the first 9 years of life. *For null hypothesis 2*, the same permutation procedure was carried out as for null hypothesis 1, except only the age at first diagnosis was considered. For all three surgery groups, permuted p was > 0.05, supporting the null hypothesis. These results show that general health in the first 9 years of life was not significantly different between the surgery groups versus control individuals. In other words, individuals who underwent these surgeries in the first 9 years of life were not sicklier prior to surgery, compared to the general population.

There are two further pieces of information that help us be more confident here. Firstly, medical records for Danish residents are (unusually compared to other countries) very complete given that 1) the Danish health system is free for all residents so there is no need for residents to worry about going to the doctor whenever they need to, meaning there is also no difference or bias in health care access based on socioeconomic status and 2) clinicians are paid per diagnosis, so it is in their interest to rigorously document all diagnosis and health problems seen in their patients, which means that the health information this study is based on is likely to reflect the complete medical history of individuals included.

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Supplementary Results

Consistent impact of covariates on risk of many diseases:- Some covariates showed very consistent effects on risk for many diseases. Accounting for these effects is therefore likely to be important in any longitudinal population-based study examining these types of disease risks.

The most consistent effect in Fig. 2 in terms of disease relative risk magnitude (e.g. RR ranged from 1.10 to 3.71) and direction of effect (i.e. risk was increased for every disease) was whether either parent had previously been diagnosed within the same disease group (i.e. had received an ICD code for the same disease within the hospital system). The largest relative risks were found for asthma (RR ranged from 2.05 to 2.19 across all analyses), allergies (RR ranged from 1.10 to 3.26), obesity (RR ranged from 1.97 to 2.34), and mental disorders (RR ranged from 1.60 to 2.04): a family history of these diseases greatly increased risk of these in their children. As would be expected for polygenic diseases, these effects were largely consistent regardless of whether that disease was diagnosed on the maternal or paternal side. The exceptions were urticaria/angiodema, influenza, and kidney infections, where risk was significantly increased only if the mother (and not father) had a history of these diseases.

Maternal age at birth of individuals in our sample was consistently significantly associated with decreased risk for 16 of the 28 disease groups in Fig. 2. This effect was largest in endocrine (RR 0.79 to 0.87 across all analyses), genitourinary (RR 0.84 to 0.89), and nervous system (RR 0.87 to 0.89) diseases. The exception was allergic rhinitis, where older mothers conferred increased risk (RR 1.05 to 1.07). Maternal bleeding during pregnancy had many widespread and consistent effects, with 16 out of 28 diseases examined showing significantly elevated risks if this complication occurred (RR 1.02 to 1.27).

Other covariates such as parental education, income and country of origin also showed many significant effects, but risk direction varied considerably depending on the disease considered. For example, mental disorders were less frequent in Danish nationals than in immigrants (RR 0.48 to 0.49), yet risk of influenza was much higher in Danes (RR 1.89 to 2.06). Higher parental education and income mostly decreased the risk of many diseases (RR 0.76 to 0.99), but increased the risk of a few, including some allergic diseases (RR 1.04-1.06). Both effects could result from differences in the microbiota children are exposed to. Many complex patterns highlighted regional differences in diseases. For example, obesity risk was higher in Sjelland (RR 1.46 to 1.48) and Syddanmark (RR 1.29 to 1.39) but lower in Midtylland (RR 0.78 to 0.84) and Nordjylland (RR 0.84 to 0.92) relative to Hovedstaden.

Other important and interesting associations of covariates with disease risk:- That risk for several diseases was sensitive to many covariates suggests that these diseases may have particularly complex causation. For example, risk of skin (group: all), digestive (group: all) endocrine (group: all, obesity) and mental diseases (group: all) were influenced by many (up to 15 out of 21) covariates. There were also very specific disease risk-covariate interactions. For example, the relative risk of influenza (RR 2.75 to 3.12) (but no other disease) was significantly and massively increased by maternal hypertension prior to pregnancy; oedema during pregnancy greatly increased relative risk for

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urticaria/angiodema (RR 1.51 to 1.56); and diabetes prior to pregnancy greatly increased risk for all endocrine (RR 1.44 to 1.66) and autoimmune diseases (RR 1.47 to 1.55).