# Supporting Information

## Gravel et al. 10.1073/pnas.1502741112

### Description of the CARTaGENE Cohort

A full description of the CARTaGENE cohort can be found in Awadella et al. (1).

The following information was taken directly from the above cited reference.

> CARTaGENE (CaG) is the largest ongoing prospective health study of men and women in Quebec, Canada. A total of 20 007 men and women were enrolled from August 2009 to October 2010 and are tracked based on linkage to governmental health administrative databases and direct reassessment. The content of the data encompasses a broad range of chronic conditions, clinical phenotypes and their potential determinants, making this a versatile research platform for the investigation of the role of genes, the environment and lifestyle on various health conditions. The CaG cohort consists of men and women aged between 40 and 69 y, residing in metropolitan areas representing a total of 55.7% of the Quebec population (Montreal, Quebec, Sherbrooke and Saguenay). Based on population density from the 2006 Census, expected numbers of recruits in each area were as follows: 15 271 for Montreal, 3224 for Quebec City, 804 for Sherbrooke and 701 for Saguenay. Questionnaire modules were completed by most participants (99%). Completion of physiological measurements was also high (>89%) except for spirometry (81.5%), which had strict contraindication criteria and Electrocardiogram (ECG) (39.8%), which was not implemented in all sites.
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> A questionnaire based on the $P_3G$ DataSHaPER [2] was revised by more than 30 experts from various scientific fields. It has also been pretested with 223 respondents. Topics cover the following: sociodemographic factors, lifestyle, mental state, psychosocial environment, personal and family history of disease, health care utilization, medication use and women and men's reproductive health and history. Declared health conditions had to have been diagnosed by a physician.
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> Participants underwent noninvasive physical measurements that included anthropometry, body composition, physical strength, lung function, bone density, blood pressure, cardiac function, peripheral and central blood pressures and cognitive function.
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> Hematological and biochemical tests include immediate assessment of blood cell counts and biochemical analysis. Quality assurance tests in the optimization phase demonstrated that all parameters were measured with test–retest reliability well in excess of 90%.
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> A total of 106.5 mL of blood was drawn in Vacutainers tubes from each participant. Part of the samples was sent to clinical diagnostic laboratories for immediate hematological and biochemical analysis, whereas the rest was sent to the Genome Quebec and Saguenay hospital/ECOGENE-21 Biobank (GQ Biobank) for storage. Whole blood, plasma, serum and urine were collected and stored in various conditions at the biobank. Whole blood (10 mL) was aliquoted in 384-well GenPlates by an automated liquid handler dispensing 10 μl in each well, and then stored at room temperature for extraction of DNA (average DNA concentration per GenPlate element is 60 ng/μl).
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> Population representativity was targeted to ensure the use of the platform for public health research. The obvious benefit of designing CaG as such is to provide unbiased estimations of risk exposure and prevalence of health outcomes. The obvious pitfall is that it limits probable representation of minority subgroups and does not allow self-enrolment of potentially long-term members.


1. Awadalla P, et al.; CARTaGENE Project (2013) Cohort profile of the CARTaGENE study: Quebec's population-based biobank for public health and personalized genomics. *Int J Epidemiol* 42(5):1285–1299.
2. Fortier I, et al. (2010) Quality, quantity and harmony: The DataSHaPER approach to integrating data across bioclinical studies. *Int J Epidemiol* 39(5):1383–1393.

**Table S1. Country of birth of iciHHV-6+ subjects, parents, grandparents, and ethnicity**

| Country | Country of birth [*N* (%)] | Mother's country of birth [*N* (%)] | Mother's mother country of birth [*N* (%)] | Mother's father country of birth [*N* (%)] | Father's country of birth [*N* (%)] | Father's mother country of birth [*N* (%)] | Father's father country of birth [*N* (%)] | Ethnicity [*N* (%)] |
|---|---|---|---|---|---|---|---|---|
| Canada | 94 (83.2) | 86 (77.5) | 79 (72.5) | 79 (72.5) | 85 (75.9) | 79 (71.8) | 78 (70.9) | White/European [98 (88.3)] |
| France | 3 (2.7) | 5 (4.5) | 4 (3.7) | 5 (4.6) | 3 (2.7) | 3 (2.7) | 3 (2.7) | Arab [7 (6.3)] |
| United Kingdom | 2 (1.8) | 3 (2.7) | 4 (3.7) | 4 (3.7) | 4 (3.6) | 6 (5.5) | 8 (7.3) | Black African [2 (1.8)] |
| Egypt | 2 (1.8) | 1 (0.9) | 1 (0.9) | 2 (1.8) | 4 (3.6) | 2 (1.8) | 1 (0.9) | Caribbean [1 (0.9)] |
| Lebanon | 2 (1.8) | 1 (0.9) | 2 (1.8) | 2 (1.8) | 1 (0.9) | 2 (1.8) | 2 (1.8) | Latino 1 [(0.9)] |
| Argentina | 1 (0.9) | 1 (0.9) | 1 (0.9) | | 1 (0.9) | 1 (0.9) | 1 (0.9) | Mixed ethnicity [1 (0.9)] |
| Israel | 1 (0.9) | | | | | | | West Asian [1 (0.9)] |
| Romania | 1 (0.9) | 1 (0.9) | 1 (0.9) | 1 (0.9) | 1 (0.9) | 1 (0.9) | 1 (0.9) | |
| Trinidad and Tobago | 1 (0.9) | | | | | | | |
| Equador | 1 (0.9) | 1 (0.9) | | | 1 (0.9) | | | |
| El Salvador | 1 (0.9) | 1 (0.9) | 1 (0.9) | 1 (0.9) | 1 (0.9) | 1 (0.9) | 1 (0.9) | |
| Algeria | 1 (0.9) | | | | | | | |
| Cameroon | 1 (0.9) | | | | | | | |
| Guadeloupe | 1 (0.9) | 1 (0.9) | 1 (0.9) | 1 (0.9) | | | | |
| Morocco | 1 (0.9) | 1 (0.9) | 1 (0.9) | 1 (0.9) | 1 (0.9) | 1 (0.9) | 1 (0.9) | |
| Guinea | | 1 (0.9) | 1 (0.9) | 1 (0.9) | 1 (0.9) | 1 (0.9) | 1 (0.9) | |
| Haiti | | 2 (1.8) | 1 (0.9) | 1 (0.9) | 2 (1.8) | 1 (0.9) | 1 (0.9) | |
| Ireland | | 1 (0.9) | 1 (0.9) | 1 (0.9) | | | | |
| Italy | | 3 (2.7) | 4 (3.7) | 4 (3.7) | 3 (2.7) | 5 (4.5) | 5 (4.5) | |
| Turkey | | 2 (1.8) | 2 (1.8) | 2 (1.8) | 1 (0.9) | 1 (0.9) | 3 (2.7) | |
| United States | | | 3 (2.8) | 2 (1.8) | 1 (0.9) | 4 (3.6) | 1 (0.9) | |
| Algeria | | | 1 (0.9) | | 1 (0.9) | | | |
| Macedonia | | | 1 (0.9) | | | | | |
| Poland | | | | 1 (0.9) | | | | |
| Uruguay | | | | 1 (0.9) | | | | |
| Guyana | | | | | 1 (0.9) | 1 (0.9) | 1 (0.9) | |
| Spain | | | | | | 1 (0.9) | 1 (0.9) | |
| Syrian Arab Republic | | | | | | | 1 (0.9) | |
| Total *N* | 113 | 111 | 109 | 109 | 112 | 110 | 110 | 110 |

**Table S2. Mean ± SE for selected physical, hematological, and biochemical measures in controls and iciHHV-6+ subjects**

| Variable | *N* | Controls | iciHHV6+ | Control females | iciHHV6+ females | Control males | iciHHV6+ males | *P* value sex* | *P* value iciHHV6+† |
|---|---|---|---|---|---|---|---|---|---|
| Peripheral blood pressure | | | | | | | | | |
| Systolic blood pressure (mmHg) | 19,247 | 124.02 ± 0.11 | 126.83 ± 1.45 | 119.78 ± 0.15 | 123.83 ± 2.17 | 128.27 ± 0.16 | 129.82 ± 1.91 | *<0.001* | 1.00 |
| Diastolic blood pressure (mmHg) | 19,247 | 73.71 ± 0.07 | 75.12 ± 0.97 | 71.97 ± 0.1 | 73.13 ± 1.46 | 75.45 ± 0.1 | 77.11 ± 1.28 | *0.028* | 1.00 |
| Anthropometry | | | | | | | | | |
| BMI (kg/m$^2$) | 18,336 | 27.5 ± 0.04 | 29.03 ± 0.69 | 27.02 ± 0.05 | 29.73 ± 1.03 | 27.98 ± 0.06 | 28.33 ± 0.91 | 1.00 | 0.958 |
| % body fat | 18,336 | 30.42 ± 0.05 | 31.83 ± 0.72 | 35.49 ± 0.07 | 37.81 ± 1.08 | 25.35 ± 0.08 | 25.84 ± 0.95 | *<0.001* | 1.00 |
| Hematology | | | | | | | | | |
| White blood cells (10$^9$ cells/L) | 18,744 | 6.89 ± 0.02 | 6.85 ± 0.22 | 6.98 ± 0.02 | 6.98 ± 0.33 | 6.8 ± 0.02 | 6.71 ± 0.28 | *<0.001* | 1.00 |
| Red blood cells (10$^{12}$ cells/L) | 18,744 | 4.53 ± 0 | 4.6 ± 0.03 | 4.29 ± 0 | 4.38 ± 0.05 | 4.76 ± 0 | 4.82 ± 0.05 | *<0.001* | 1.00 |
| Hemoglobin (g/dL) | 18,746 | 139.59 ± 0.07 | 140.36 ± 0.96 | 131.89 ± 0.1 | 133.2 ± 1.45 | 147.29 ± 0.1 | 147.53 ± 1.25 | *<0.001* | 1.00 |
| Hematocrit | 18,745 | 0.41 ± 0 | 0.42 ± 0 | 0.39 ± 0 | 0.4 ± 0 | 0.43 ± 0 | 0.43 ± 0 | *<0.001* | 1.00 |
| Mean corpuscular volume (fL) | 18,745 | 90.74 ± 0.03 | 90.6 ± 0.44 | 90.82 ± 0.05 | 90.94 ± 0.67 | 90.67 ± 0.05 | 90.25 ± 0.58 | 1.00 | 1.00 |
| Mean corpuscular hemoglobin (pg) | 18,745 | 30.89 ± 0.01 | 30.64 ± 0.19 | 30.78 ± 0.02 | 30.57 ± 0.29 | 31 ± 0.02 | 30.71 ± 0.25 | 1.00 | 1.00 |
| Mean corpuscular hemoglobin concentration (g/L) | 18,745 | 340.24 ± 0.06 | 337.92 ± 0.75 | 338.75 ± 0.08 | 335.91 ± 1.13 | 341.73 ± 0.08 | 339.92 ± 0.97 | *<0.001* | 0.068 |
| Red cell distribution width (RDW)e | 18,746 | 13.38 ± 0.01 | 13.44 ± 0.1 | 13.39 ± 0.01 | 13.34 ± 0.16 | 13.36 ± 0.01 | 13.54 ± 0.13 | 1.00 | 1.00 |
| Platelets (10$^9$ cell/L) | 18,728 | 243.66 ± 0.42 | 237.78 ± 4.56 | 258.65 ± 0.59 | 245.85 ± 6.88 | 228.67 ± 0.6 | 229.7 ± 5.98 | *<0.001* | 1.00 |
| Lymphocytes (in proportion to total leukocytes) | 16,963 | 0.29 ± 0 | 0.3 ± 0.01 | 0.3 ± 0 | 0.31 ± 0.01 | 0.28 ± 0 | 0.29 ± 0.01 | 1.00 | 1.00 |
| Monocytes (in proportion to total leukocytes) | 16,962 | 0.08 ± 0 | 0.08 ± 0 | 0.07 ± 0 | 0.07 ± 0 | 0.08 ± 0 | 0.08 ± 0 | *<0.001* | 1.00 |
| Neutrophils (in proportion to total leukocytes) | 16,820 | 0.61 ± 0 | 0.59 ± 0.01 | 0.61 ± 0 | 0.59 ± 0.01 | 0.61 ± 0 | 0.59 ± 0.01 | 1.00 | 1.00 |
| Eosinophils (in proportion to total leukocytes) | 16,962 | 0.02 ± 0 | 0.03 ± 0 | 0.02 ± 0 | 0.02 ± 0 | 0.03 ± 0 | 0.03 ± 0 | 0.055 | 1.00 |
| Basophils (in proportion to total leukocytes) | 16,962 | 0.01 ± 0 | 0.01 ± 0 | 0.01 ± 0 | 0.01 ± 0 | 0.01 ± 0 | 0.01 ± 0 | 1.00 | 1.00 |
| Biochemistry | | | | | | | | | |
| Glucose (mmol/L) | 18,835 | 5.75 ± 0.01 | 5.84 ± 0.17 | 5.54 ± 0.02 | 5.78 ± 0.26 | 5.96 ± 0.02 | 5.89 ± 0.23 | 1.00 | 1.00 |
| Uric acid (μmol/L) | 18,670 | 302.52 ± 0.51 | 304.14 ± 6.87 | 261.48 ± 0.71 | 270.42 ± 10.53 | 343.56 ± 0.72 | 337.87 ± 8.84 | *<0.001* | 1.00 |
| Creatinine (μmol/L) | 19,365 | 77.43 ± 0.12 | 77.74 ± 1.59 | 68.16 ± 0.16 | 70.96 ± 2.41 | 86.69 ± 0.17 | 84.52 ± 2.07 | *<0.001* | 1.00 |
| Albumin (g/L) | 19,365 | 42.69 ± 0.02 | 42.53 ± 0.29 | 42.17 ± 0.03 | 42.2 ± 0.44 | 43.2 ± 0.03 | 42.87 ± 0.38 | 0.067 | 1.00 |
| Total calcium (mmol/L) | 18,819 | 2.37 ± 0 | 2.38 ± 0.01 | 2.37 ± 0 | 2.38 ± 0.01 | 2.37 ± 0 | 2.38 ± 0.01 | 1.00 | 1.00 |
| Sodium (mmol/L) | 19,365 | 138.98 ± 0.02 | 139.18 ± 0.23 | 138.93 ± 0.02 | 139.41 ± 0.35 | 139.04 ± 0.02 | 138.95 ± 0.3 | 1.00 | 1.00 |
| Potassium (mmol/L) | 19,296 | 4.29 ± 0 | 4.34 ± 0.06 | 4.25 ± 0 | 4.29 ± 0.09 | 4.33 ± 0 | 4.39 ± 0.08 | 0.847 | 1.00 |
| Chloride (mmol/L) | 19,365 | 103.7 ± 0.02 | 103.92 ± 0.25 | 103.72 ± 0.03 | 104.28 ± 0.38 | 103.67 ± 0.03 | 103.55 ± 0.33 | 1.00 | 1.00 |
| Aspartate aminotransferase (AST) (IU/L) | 19,365 | 24.84 ± 0.07 | 26.05 ± 0.8 | 22.99 ± 0.1 | 24.83 ± 1.21 | 26.68 ± 0.11 | 27.27 ± 1.04 | *0.003* | 1.00 |
| Alanine aminotransferase (ALT) (IU/L) | 19,362 | 25.28 ± 0.1 | 27.44 ± 1.44 | 21.39 ± 0.15 | 24.91 ± 2.18 | 29.17 ± 0.15 | 29.97 ± 1.88 | *<0.001* | 1.00 |
| Gamma glutamyltransferase (GGT) (IU/L) | 19,364 | 27.57 ± 0.24 | 29.38 ± 3.23 | 22.09 ± 0.34 | 24.04 ± 4.89 | 33.04 ± 0.35 | 34.73 ± 4.21 | *0.017* | 1.00 |
| Triglycerides (mmol/L) | 19,364 | 1.88 ± 0.01 | 1.86 ± 0.12 | 1.6 ± 0.01 | 1.64 ± 0.18 | 2.15 ± 0.01 | 2.07 ± 0.16 | *0.001* | 1.00 |
| Total cholesterol (mmol/L) | 19,365 | 5.12 ± 0.01 | 5.16 ± 0.1 | 5.25 ± 0.01 | 5.21 ± 0.15 | 4.98 ± 0.01 | 5.1 ± 0.13 | 0.974 | 1.00 |
| HDL-cholesterol (mmol/L) | 19,364 | 1.24 ± 0 | 1.27 ± 0.04 | 1.41 ± 0 | 1.43 ± 0.06 | 1.07 ± 0 | 1.11 ± 0.05 | *<0.001* | 1.00 |
| LDL-cholesterol (mmol/L) | 18,774 | 3.04 ± 0.01 | 3.07 ± 0.09 | 3.11 ± 0.01 | 3.03 ± 0.13 | 2.97 ± 0.01 | 3.11 ± 0.12 | 1.00 | 1.00 |
| Glycated hemoglobin HbA1C (0–1) | 19,230 | 0.06 ± 0 | 0.06 ± 0 | 0.06 ± 0 | 0.06 ± 0 | 0.06 ± 0 | 0.06 ± 0 | 1.00 | 1.00 |
| Thyroid stimulating hormone (TSH) (UI/L) | 19,352 | 1.91 ± 0.01 | 2.11 ± 0.18 | 1.9 ± 0.02 | 2.21 ± 0.27 | 1.92 ± 0.02 | 2 ± 0.23 | 1.00 | 1.00 |
| Free-T4 (pmol/L) | 19,363 | 11.45 ± 0.02 | 11.77 ± 0.25 | 11.39 ± 0.03 | 11.58 ± 0.38 | 11.51 ± 0.03 | 11.96 ± 0.33 | 1.00 | 1.00 |

$P < 0.05$ indicates a difference between males and females. Statistically significant values are italic.

*$P$ value sex indicates whether the mean of the parameter monitored differs according to sex.

†$P$ value iciHHV-6+ indicates whether mean of the parameter monitored differs between iciHHV-6+ and iciHHV-6−, irrespective of sex.

**Table S3. Prevalence of disease in iciHHV-6− and iciHHV-6+ subjects**

| Variable | *N* tested | iciHHV-6− *N*+ out of *N* tested (%) | iciHHV6+ *N*+ out of 113 (%) | iciHHV-6− females [*N* (%)] | iciHHV6+ females [*N* (%)] | iciHHV-6− males [*N* (%)] | iciHHV6+ males [*N* (%)] | iciHHV6+ vs. iciHHV-6− [OR (95% CI)] | *P* value sex* | *P* value i iciHHV-6+† | *P* value interaction‡ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Currently taking prescribed medication | 19,542 | 12,829 (65.6%) | 70 (61.9%) | 7087 (71.1%) | 33 (67.3%) | 5742 (60.7%) | 37 (57.8%) | 0.86 (0.58–1.27) | 1.00 | 1.00 | 1.00 |
| Disease of the circulatory system | | | | | | | | | | | |
| High blood pressure occcurrence | 19,436 | 4,820 (24.9%) | 29 (25.9%) | 2217 (22.3%) | 10 (20.8%) | 2603 (27.7%) | 19 (29.7%) | 1 (0.65–1.56) | 1.00 | 1.00 | 1.00 |
| Myocardial infarct | 19,520 | 542 (2.8%) | 3 (2.7%) | 114 (1.1%) | 1 (2%) | 428 (4.5%) | 2 (3.1%) | 1.11 (0.33–3.74) | 1.00 | 1.00 | 1.00 |
| Angina occurrence | 19,473 | 624 (3.2%) | 11 (9.7%) | 219 (2.2%) | 7 (14.3%) | 405 (4.3%) | 4 (6.3%) | *3.31 (1.73–6.35)* | 1.00 | *0.017* | 0.839 |
| Stroke occurrence | 19,520 | 311 (1.6%) | 5 (4.5%) | 134 (1.3%) | 3 (6.3%) | 177 (1.9%) | 2 (3.1%) | 2.87 (1.14–7.23) | 1.00 | 1.00 | 1.00 |
| Endocrine/metabolic disease | | | | | | | | | | | |
| Diabetes type 1 | 19,438 | 120 (0.6%) | 2 (1.8%) | 35 (0.4%) | 1 (2%) | 85 (0.9%) | 1 (1.6%) | 3.2 (0.78–13.14) | 1.00 | 1.00 | 1.00 |
| Diabetes type 2 | 19,438 | 1,329 (6.9%) | 7 (6.2%) | 488 (4.9%) | 2 (4.1%) | 841 (8.9%) | 5 (7.8%) | 0.84 (0.36–1.96) | 1.00 | 1.00 | 1.00 |
| Thyroid disease occurrence | 19,506 | 2,102 (10.8%) | 15 (13.3%) | 1604 (16.1%) | 11 (22.4%) | 498 (5.3%) | 4 (6.3%) | 1.34 (0.73–2.47) | *<0.001* | 1.00 | 1.00 |
| High blood cholesterol occurrence | 19,040 | 5,522 (29.2%) | 31 (28.2%) | 2186 (22.5%) | 11 (22.4%) | 3336 (36.3%) | 20 (32.8%) | 0.93 (0.6–1.42) | 0.295 | 1.00 | 1.00 |
| Diseases of the respiratory system | | | | | | | | | | | |
| Chronic bronchitis occurrence | 19,489 | 976 (5%) | 2 (1.8%) | 627 (6.3%) | 1 (2%) | 349 (3.7%) | 1 (1.6%) | 0.36 (0.09–1.46) | 1.00 | 1.00 | 1.00 |
| Asthma occurrence | 19,498 | 2,515 (13%) | 15 (13.3%) | 1539 (15.5%) | 8 (16.3%) | 976 (10.3%) | 7 (10.9%) | 1.07 (0.62–1.84) | 1.00 | 1.00 | 1.00 |
| Diseases of the genitourinary tract | | | | | | | | | | | |
| Renal failure occurrence | 19,511 | 106 (0.5%) | 0 (0%) | 40 (0.4%) | 0 (0%) | 66 (0.7%) | 0 (0%) | 1.64 (0.22–12.1) | 1.00 | 1.00 | 1.00 |
| Kidney stones occurrence | 19,511 | 1,076 (5.5%) | 7 (6.2%) | 391 (3.9%) | 2 (4.1%) | 685 (7.3%) | 5 (7.8%) | 1.06 (0.46–2.47) | 1.00 | 1.00 | 1.00 |
| Renal infection occurrence | 19,511 | 319 (1.6%) | 3 (2.7%) | 251 (2.5%) | 2 (4.1%) | 68 (0.7%) | 1 (1.6%) | 1.9 (0.56–6.44) | 1.00 | 1.00 | 1.00 |
| Diseases of the musculoskeletal system and connective tissue | | | | | | | | | | | |
| Osteoarthritis occurrence | 19,325 | 3,088 (16.1%) | 18 (16.2%) | 2003 (20.3%) | 12 (25%) | 1085 (11.6%) | 6 (9.5%) | 1.02 (0.6–1.75) | *0.043* | 1.00 | 1.00 |
| Rheumatoid arthritis occurrence | 19,325 | 544 (2.8%) | 2 (1.8%) | 333 (3.4%) | 1 (2.1%) | 211 (2.3%) | 1 (1.6%) | 0.65 (0.16–2.65) | 1.00 | 1.00 | 1.00 |
| Osteoporosis occurrence | 19,391 | 1,252 (6.5%) | 4 (3.6%) | 1037 (10.5%) | 4 (8.2%) | 215 (2.3%) | 0 (0%) | 0.54 (0.12–2.37) | 0.295 | 1.00 | 1.00 |
| Diseases of the eyes | | | | | | | | | | | |
| Glaucoma occurrence | 19,466 | 537 (2.8%) | 2 (1.8%) | 312 (3.1%) | 1 (2%) | 225 (2.4%) | 1 (1.6%) | 0.65 (0.16–2.64) | 1.00 | 1.00 | 1.00 |
| Cataract occurrence | 19,466 | 1,103 (5.7%) | 7 (6.3%) | 575 (5.8%) | 3 (6.1%) | 528 (5.6%) | 4 (6.3%) | 1.1 (0.51–2.39) | 1.00 | 1.00 | 1.00 |
| Macular degeneration occurrence | 19,466 | 123 (0.6%) | 1 (0.9%) | 75 (0.8%) | 1 (2%) | 48 (0.5%) | 0 (0%) | 2.48 (0.48–12.71) | 1.00 | 1.00 | 1.00 |
| Diseases of the digestive system | | | | | | | | | | | |
| Cirrhosis occurrence | 19,511 | 52 (0.3%) | 0 (0%) | 15 (0.2%) | 0 (0%) | 37 (0.4%) | 0 (0%) | 3.55 (0.48–26.44) | 1.00 | 1.00 | 1.00 |
| Chronic hepatitis occurrence | 19,511 | 205 (1.1%) | 0 (0%) | 78 (0.8%) | 0 (0%) | 127 (1.3%) | 0 (0%) | 0.85 (0.12–6.22) | 1.00 | 1.00 | 1.00 |
| Bowel disorder occurrence | 19,483 | 2,549 (13.2%) | 12 (10.6%) | 1556 (15.7%) | 7 (14.3%) | 993 (10.5%) | 5 (7.8%) | 0.8 (0.44–1.48) | 1.00 | 1.00 | 1.00 |
| Stomach disorder occurrence | 19,485 | 4,530 (23.4%) | 23 (20.5%) | 2415 (24.3%) | 10 (20.8%) | 2115 (22.4%) | 13 (20.3%) | 0.85 (0.53–1.35) | 1.00 | 1.00 | 1.00 |
| Irritable bowel occurrence | 19,483 | 868 (4.5%) | 5 (4.4%) | 670 (6.7%) | 3 (6.1%) | 198 (2.1%) | 2 (3.1%) | 1.16 (0.47–2.92) | 1.00 | 1.00 | 1.00 |
| Polyps occurrence | 19,483 | 862 (4.5%) | 8 (7.1%) | 421 (4.2%) | 5 (10.2%) | 441 (4.7%) | 3 (4.7%) | 1.61 (0.76–3.38) | 1.00 | 1.00 | 1.00 |
| Diverticular disease occurrence | 19,483 | 546 (2.8%) | 3 (2.7%) | 329 (3.3%) | 3 (6.1%) | 217 (2.3%) | 0 (0%) | 0.85 (0.19–3.84) | 1.00 | 1.00 | 1.00 |
| Crohn's occurrence | 19,483 | 119 (0.6%) | 0 (0%) | 66 (0.7%) | 0 (0%) | 53 (0.6%) | 0 (0%) | 1.43 (0.19–10.49) | 1.00 | 1.00 | 1.00 |
| *H. pylori* occurrence | 19,439 | 538 (2.8%) | 2 (1.8%) | 296 (3%) | 1 (2%) | 242 (2.6%) | 1 (1.6%) | 0.64 (0.16–2.59) | 1.00 | 1.00 | 1.00 |
| Diseases of the skin and subcutaneous tissue | | | | | | | | | | | |
| Skin disease occurrence | 19,458 | 3,808 (19.7%) | 24 (21.4%) | 2170 (21.9%) | 12 (24.5%) | 1638 (17.4%) | 12 (19%) | 1.14 (0.72–1.79) | 1.00 | 1.00 | 1.00 |

**Table S3. Cont.**

| Variable | *N* tested | iciHHV-6− *N*+ out of *N* tested (%) | iciHHV6+ *N*+ out of 113 (%) | iciHHV-6− females [*N* (%)] | iciHHV6+ females [*N* (%)] | iciHHV-6− males [*N* (%)] | iciHHV6+ males [*N* (%)] | iciHHV6+ vs. iciHHV-6− [OR (95% CI)] | *P* value sex* | *P* value i iciHHV-6+† | *P* value interaction‡ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Eczema occurrence | 19,458 | 2,224 (11.5%) | 14 (12.5%) | 1425 (14.4%) | 8 (16.3%) | 799 (8.5%) | 6 (9.5%) | 1.15 (0.65–2.03) | 1.00 | 1.00 | 1.00 |
| Psoriasis occurrence | 19,458 | 1,167 (6%) | 11 (9.8%) | 550 (5.5%) | 4 (8.2%) | 617 (6.5%) | 7 (11.1%) | 1.64 (0.86–3.14) | 1.00 | 1.00 | 1.00 |
| Other skin disease occurrence | 19,458 | 524 (2.7%) | 0 (0%) | 288 (2.9%) | 0 (0%) | 236 (2.5%) | 0 (0%) | 0.32 (0.04–2.35) | 1.00 | 1.00 | 1.00 |
| Allergies and food intolerances | | | | | | | | | | | |
| Allergy pollen | 19,471 | 3,427 (17.7%) | 21 (18.8%) | 1919 (19.3%) | 10 (20.4%) | 1508 (16%) | 11 (17.5%) | 1.09 (0.68–1.76) | 1.00 | 1.00 | 1.00 |
| Allergy medication | 19,471 | 2,868 (14.8%) | 22 (19.6%) | 2019 (20.3%) | 18 (36.7%) | 849 (9%) | 4 (6.3%) | 1.25 (0.7–2.24) | *<0.001* | 1.00 | 1.00 |
| Allergy metal | 19,471 | 268 (1.4%) | 1 (0.9%) | 237 (2.4%) | 1 (2%) | 31 (0.3%) | 0 (0%) | 1.72 (0.34–8.84) | 1.00 | 1.00 | 1.00 |
| Allergy latex | 19,471 | 187 (1%) | 1 (0.9%) | 156 (1.6%) | 1 (2%) | 31 (0.3%) | 0 (0%) | 2.13 (0.41–10.94) | 1.00 | 1.00 | 1.00 |
| Allergy insect bites | 19,471 | 453 (2.3%) | 5 (4.5%) | 290 (2.9%) | 3 (6.1%) | 163 (1.7%) | 2 (3.2%) | 2.01 (0.8–5.04) | 1.00 | 1.00 | 1.00 |
| Allergy food | 19,471 | 1,332 (6.9%) | 9 (8%) | 869 (8.8%) | 8 (16.3%) | 463 (4.9%) | 1 (1.6%) | 0.8 (0.28–2.3) | 0.192 | 1.00 | 1.00 |
| Allergy animals | 19,471 | 2,335 (12.1%) | 10 (8.9%) | 1430 (14.4%) | 5 (10.2%) | 905 (9.6%) | 5 (7.9%) | 0.74 (0.39–1.42) | 1.00 | 1.00 | 1.00 |
| Allergy other | 19,471 | 2,230 (11.5%) | 17 (15.2%) | 1383 (13.9%) | 11 (22.4%) | 847 (9%) | 6 (9.5%) | 1.38 (0.81–2.37) | 0.294 | 1.00 | 1.00 |
| Autoimmune disease | | | | | | | | | | | |
| Lupus occurrence | 19,531 | 51 (0.3%) | 0 (0%) | 37 (0.4%) | 0 (0%) | 14 (0.1%) | 0 (0%) | 3.7 (0.5–27.62) | 1.00 | 1.00 | 1.00 |
| Diseases of the nervous system | | | | | | | | | | | |
| Epilepsy occurrence | 19,512 | 108 (0.6%) | 1 (0.9%) | 48 (0.5%) | 0 (0%) | 60 (0.6%) | 1 (1.6%) | 2.78 (0.54–14.29) | 1.00 | 1.00 | 1.00 |
| Migraine occurrence | 19,512 | 2,108 (10.9%) | 9 (8%) | 1569 (15.8%) | 4 (8.3%) | 539 (5.7%) | 5 (7.8%) | 0.91 (0.47–1.76) | 1.00 | 1.00 | 1.00 |
| Multiple sclerosis occurrence | 19,512 | 81 (0.4%) | 0 (0%) | 65 (0.7%) | 0 (0%) | 16 (0.2%) | 0 (0%) | 2.63 (0.35–19.5) | 1.00 | 1.00 | 1.00 |
| Parkinson occurrence | 19,512 | 22 (0.1%) | 0 (0%) | 6 (0.1%) | 0 (0%) | 16 (0.2%) | 0 (0%) | 8.36 (1.09–64.17) | 1.00 | 1.00 | 1.00 |
| Schizophrenia occurrence | 19,542 | 73 (0.4%) | 1 (0.9%) | 26 (0.3%) | 0 (0%) | 47 (0.5%) | 1 (1.6%) | 4.21 (0.81–21.8) | 1.00 | 1.00 | 1.00 |
| Minor depression occurrence | 17,889 | 2,627 (14.8%) | 13 (13.1%) | 1650 (18.5%) | 9 (22.5%) | 977 (11%) | 4 (6.8%) | 0.87 (0.46–1.63) | 0.099 | 1.00 | 1.00 |
| Major unipolar depression occurrence | 19,271 | 1,448 (7.6%) | 13 (11.7%) | 920 (9.4%) | 10 (20.4%) | 528 (5.6%) | 3 (4.8%) | 1.45 (0.74–2.86) | 0.086 | 1.00 | 1.00 |
| Major bipolar depression occurrence | 19,271 | 261 (1.4%) | 4 (3.6%) | 136 (1.4%) | 1 (2%) | 125 (1.3%) | 3 (4.8%) | 2.36 (0.74–7.48) | 1.00 | 1.00 | 1.00 |
| Neoplasms | | | | | | | | | | | |
| Cancer occurrence | 19,511 | 1,553 (8%) | 12 (10.6%) | 932 (9.4%) | 7 (14.3%) | 621 (6.6%) | 5 (7.8%) | 1.39 (0.76–2.56) | 1.00 | 1.00 | 1.00 |

Statistically significant results ($P < 0.05$) are italic.

*$P$ value sex indicates whether prevalence of disease differs according to sex.

†$P$ value iciHHV-6+ indicates whether prevalence of disease differs between iciHHV-6+ and iciHHV-6−, irrespective of sexes.

‡$P$ value interaction indicates whether the observed difference between iciHHV-6+ and iciHHV-6− subjects is the same for both sexes.