**SUPPLEMENTARY INFORMATION**

Supplementary Table 1 - SNOMED-CT terms by diagnosis (each search term separated by a comma), with their respective ICD-9-CM equivalents. If multiple search terms were used, the OR operand was used to include these conditions.

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| **Condition** | **SNOMED-CT term(s)** | **Equivalent ICD-9-CM codes** |
| Ulcerative Colitis | Ulcerative colitis, left sided ulcerative colitis, acute ulcerative colitis | 556.5, 556.9 |
| Crohn’s Disease | Crohn’s Disease, Crohn's disease of small intestine, Crohn's disease of large bowel, Crohn's disease of colon, Crohn's disease of small AND large intestines, Crohn's disease of intestine, Gastrointestinal Crohn's disease | 555.9, 555.2, 555.1 |
| Myocardial infarction | Myocardial infarction & Acute myocardial infarction | 410.90, 410.91, 410.92 |
| Diabetes | Diabetes Mellitus | 250.0 |
| Hypertension | “Hypertensive disorder, systemic arterial” | 401.0, 401.1, 401.9 |
| Hyperlipidemia | Dyslipidemia, Hyperlipidemia, Hypercholesterolemia, Disorder of lipoprotein storage and metabolism | 272.4, 272.0, 272.9 |
| Smoking | Tobacco user, History of tobacco use | v69.8, v15.82 |
| Obesity | Obesity | 278.00 |

Supplementary Table 2. Prevalence of MI in IBD; Data from last 3 years and last 1 year

|  | **Last 3 years** | | | | | **Last 1 year** | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age group (years) | UC (N =  114,710) | CD (N =  134,870) | Non-IBD (N=  20,634,420) | **Odds of MI in UC** | **Odds of MI in CD** | UC (n=  58,060) | CD (n=  66,490) | Non-IBD (n =  7,524,390) | **Odds of MI in UC** | **Odds of MI in CD** |
| 20-24 | 4410 (3.8) | 6780 (5.0) | 1454000 (7.2) | 23.67 [20-28]; P<0.0001 | 32.2 [28.52-36.3]; P<0.0001 | 2390 (4.1) | 3560 (5.4) | 470080 (6.2) | 18.24 [15-22.3]; P<0.0001 | 23.71 [20.4-27.54]; P<0.0001 |
| 25-29 | 6900 (6.0) | 10340 (7.7) | 1630970 (8.1) | 12.87 [11.1-15]; P<0.0001 | 20.68 [18.7-22.86]; P<0.0001 | 3460 (6.0) | 5020 (7.6) | 520230 (6.9) | 10.71 [8.93-12.83]; P<0.0001 | 16.81 [14.81-19.09]; P<0.0001 |
| 30-34 | 8390 (7.3) | 11590 (8.6) | 1610480 (8.0) | 8.26 [7.18-9.5]; P<0.0001 | 12.99 [11.79-14.33]; P<0.0001 | 4260 (7.3) | 5630 (8.5) | 524980 (7.0) | 7.3 [6.18-8.64]; P<0.0001 | 11.27 [9.96-12.73]; P<0.0001 |
| 35-39 | 8800 (7.7) | 11770 (8.7) | 1594870 (7.9) | 3.89 [3.34-4.54]; P<0.0001 | 6.97 [6.28-7.71]; P<0.0001 | 4410 (7.6) | 5670 (8.5) | 534270 (7.1) | 3.65 [3.04-4.39]; P<0.0001 | 5.52 [4.8-6.3]; P<0.0001 |
| 40-44 | 7520 (6.6) | 10060 (7.5) | 1471820 (7.3) | 1.79 [1.49-2.15]; P<0.0001 | 3.74 [3.35-4.19]; P<0.0001 | 3720 (6.4) | 4850 (7.3) | 514790 (6.8) | 1.67 [1.34-2.09]; P<0.0001 | 3.28 [2.84-3.78]; P<0.0001 |
| 45-49 | 8190 (7.1) | 10520 (7.8) | 1598840 (7.9) | 1.48 [1.28-1.71]; P<0.0001 | 3.04 [2.78-3.33]; P<0.0001 | 4330 (7.5) | 5250 (7.9) | 588040 (7.8) | 1.41 [1.18-1.69]; P = 0.0001 | 2.76 [2.46-3.11]; P<0.0001 |
| 50-54 | 8680 (7.6) | 10730 (8.0) | 1694670 (8.4) | 1.31 [1.16-1.48]; P<0.0001 | 2.49 [2.3-2.7]; P<0.0001 | 4600 (7.9) | 5360 (8.1) | 649800 (8.6) | 1.07 [0.91-1.25]; P = 0.43 | 2.26 [2.03-2.51]; P<0.0001 |
| 55-59 | 10330 (9.0) | 12170 (9.0) | 1885590 (9.3) | 1.4 [1.28-1.53]; P<0.0001 | 2.31 [2.16-2.47]; P<0.0001 | 5580 (9.6) | 6090 (9.2) | 738130 (9.8) | 1.23 [1.1-1.38]; P<0.001 | 2.2 [2.02-2.4]; P<0.0001 |
| 60-64 | 10740 (9.4) | 12230 (9.1) | 1841700 (9.1) | 1.49 [1.39-1.61]; P<0.0001 | 2.06 [1.93-2.19]; P<0.0001 | 5870 (10.1) | 6190 (9.3) | 745200 (9.9) | 1.34 [1.21-1.47]; P<0.0001 | 1.92 [1.77-2.09]; P<0.0001 |
| 65+ | 40750 (35.5) | 38680 (28.7) | 5441740 (26.9) | 1.5 [1.45-1.54]; P<0.0001 | 2.06 [2-2.11]; P<0.0001 | 19440 (33.5) | 18870 (28.4) | 2238870 (29.8) | 1.44 [1.39-1.5]; P<0.0001 | 2.08 [2.01-2.12]; P<0.0001 |
| Total | 114710 (100) | 134870 (100) | 20634420 (100) | 1.86 [1.82-1.9]; P<0.0001 | 2.43 [2.38-2.47]; P<0.0001 | 58060 (100) | 66490 (100) | 7524390 (100) | 1.64 [1.59-1.69]; P<0.0001 | 2.28 [2.22-2.34]; P<0.0001 |
| **Female** | 67750 (59.1) | 84690 (62.8) | 11742450 (56.9) | 2.32 [2.25-2.4]; P<0.0001 | 3.12 [3.04-3.2]; P<0.0001 | 35,760 (61.6%) | 41,620 (62.3) | 4381490 (58.2) | 2.03 [1.95-2.12]; P<0.0001 | 2.98 [2.88-3.08]; P<0.0001 |
| **Male** | 46960(40.9) | 50180 (37.2) | 8891970 (43.1) | 1.67 [1.62-1.73]; P<0.0001 | 2.04 [1.98-2.11]; P<0.0001 | 22300 (38.4) | 24870 (37.7) | 3142900 (41.8) | 1.41 [1.35-1.48]; P<0.0001 | 1.84 [1.77-1.91]; P<0.0001 |
| **Race** |  |  |  |  |  |  |  |  |  |  |
| Caucasian | 94040(84.4) | 109920(83.5) | 14298490(69.0) | 1.67 [1.63-1.71]; P<0.0001 | 2.23 [2.19-2.28]; P<0.0001 | 50760 (85.96) | 57550 (84.9) | 5636040 (72.6) | 1.48 [1.43-1.53]; P<0.0001 | 2.09 [2.04-2.15]; P<0.0001 |
| Non-Caucasian | 17320(15.6) | 21710(16.5) | 6430260(31.0) | 2.83 [2.66-3.02]; P<0.0001 | 2.23 [2.19-2.28]; P<0.0001 | 8290 (14.0) | 10230 (15.1) | 2126950 (27.4) | 2.46 [2.26-2.67]; P<0.0001 | 3.09 [2.89-3.31]; P<0.0001 |