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Supplementary Table S1. Detailed classification criteria for Modified British Columbia Population Segmentation Framework

Segment	Broad analytic category	Operational definition used in this study	Illustrative examples*
1	Healthy with outpatient utilisation	Individuals with no chronic disease complexity tags , but with ≥ 1 outpatient healthcare encounter (e.g., polyclinic, specialist outpatient clinic, and/or A&E attendance), and no inpatient admission during the assessment period.	Non-chronic conditions managed in outpatient settings
2	Healthy with inpatient admission	Individuals with no chronic disease complexity tags , but with ≥ 1 inpatient admission and/or day surgery during the assessment period.	Non-chronic conditions requiring inpatient/day surgery care
3	Low-complex chronic conditions	Individuals meeting criteria for low-complex chronic disease categories within the adapted ModBC algorithm.	Diabetes; hypertension; osteoporosis; osteoarthritis; asthma; epilepsy; hyperthyroidism; BPH; lipid disorder; episodic depression; allergic rhinitis; gout
4	Medium-complex chronic conditions	Individuals meeting criteria for medium-complex chronic disease categories within the adapted ModBC algorithm.	Angina; COPD; pre-dialysis CKD; CHD; rheumatoid arthritis; Parkinson's disease; moderate liver disease; PVD; chronic liver disease; chronic hepatitis B; psoriasis; osteoporosis with spine fracture; osteoporosis with hip fracture; hypertension with osteoarthritis; hypertension with osteoporosis; osteoarthritis with osteoporosis; CABG; AMI; PCI; LEA
5	Mental health condition	Individuals assigned to the mental health segment based on prespecified diagnosis/procedure-code criteria within the adapted ModBC algorithm. This is a separate operational population segment reflecting distinct healthcare needs and utilisation, and should not be interpreted as implying greater severity than all non-mental-health chronic conditions.	Mental health conditions identified by the algorithm**
6	High-complex chronic conditions	Individuals meeting criteria for high-complex chronic disease categories within the adapted ModBC algorithm.	Dementia; heart failure; kidney transplant; severe liver disease; stroke; TIA; CKD on dialysis; angina with COPD; AMI with pre-dialysis CKD; diabetes with hypertension and osteoarthritis
7	Cancer	Individuals assigned to the cancer segment based on the framework's cancer-related coding rules , including malignant disease and metastatic cancer where applicable . This category	Cancer; metastatic cancer**

was analysed separately because of its distinct care pathways and resource utilisation, and should not be interpreted as a simple cross-disease severity ranking.

The adapted Modified British Columbia (ModBC) framework classifies patients using a hierarchical and mutually exclusive assignment algorithm. Patients are assessed using information captured over a 5-year window (the 4 preceding years plus the current year of assessment). Individuals are first evaluated for predefined higher-priority categories (for example, cancer, high-complex chronic conditions, and mental health conditions) using diagnosis, procedure, and utilisation history within this window. Those not meeting criteria for these higher-priority groups are then assigned to lower-complexity chronic condition groups or, if no chronic disease complexity tags are present, further stratified according to healthcare utilisation intensity. Thus, each patient is assigned to one segment only.

* The listed conditions are illustrative examples of the adapted ModBC categories and do not represent an exhaustive list of all qualifying diagnoses, procedures, or combinations used in the assignment algorithm.

** The mental health and cancer categories are operational population-segmentation groups for health services planning and utilisation analysis. They are not intended as a simple ordinal severity ranking across diseases.

Segment assignment was based on diagnosis, procedure, and utilisation history captured over a 5-year assessment window (the 4 previous years plus the current year). Because the assignment depends on this lookback period, patients may be reclassified over time as their clinical history evolves.

The underlying adapted ModBC framework contains 12 detailed segments. For this study, these were consolidated into 7 broader analytic categories for clarity in presentation and reporting.

Illustrative example: a patient with both diabetes and cancer would be assigned to the cancer segment, because higher-priority categories are assessed first in the hierarchical algorithm.

Abbreviations: A&E, Accident and Emergency; AMI, acute myocardial infarction; BPH, benign prostatic hyperplasia; CABG, coronary artery bypass graft; CHD, coronary heart disease; CKD, chronic kidney disease; COPD, chronic obstructive pulmonary disease; LEA, lower extremity amputation; PCI, percutaneous coronary intervention; TIA, transient ischaemic attack

Supplementary Table S2. Service utilisation rate (%), with year-on-year change (percentage points) in brackets

	Sex		Ethnicity				Age groups (years)						
	Female	Male	Chinese	Malay	Indian	Others	0-4	5-17	18-39	40-59	60-69	70-79	≥ 80
Inpatient													
2019	21.5	22.4	21.5	24.6	21.6	21.5	25.9	11.6	17.6	20.5	25.6	31.6	39.2
2020	21.2 [-1.2]	22.8 [2.1]	21.3 [-0.8]	23.5 [-4.5]	23.2 [7.1]	23.7 [10.3]	23.3 [-10]	10.9 [-6.4]	18.4 [4.3]	20.8 [1.7]	25.3 [-1.1]	30.4 [-3.9]	37.7 [-3.9]
2021	21.8 [3]	22.7 [-0.6]	22 [3.2]	23.9 [1.9]	22.4 [-3.3]	21.8 [-8.1]	25.6 [9.9]	12 [10.9]	17.8 [-3]	20.1 [-3.6]	25.7 [1.5]	31.4 [3.4]	39.9 [6]
2022	22.1 [1.1]	23.1 [1.6]	22.4 [2]	24.6 [2.6]	21.8 [-2.6]	21.4 [-1.8]	27.7 [8.3]	11.6 [-3.4]	17.7 [-0.7]	20 [-0.1]	25.8 [0.4]	32 [2.1]	40.6 [1.8]
2023	22.2 [0.7]	23.2 [0.6]	22.4 [-0.1]	25 [1.8]	22.4 [2.4]	22 [2.5]	26.9 [-2.8]	12.1 [3.7]	17.8 [0.3]	20.2 [0.8]	26 [0.8]	32.2 [0.6]	39.8 [-2.1]
2024	22.8 [2.7]	24.1 [3.7]	23.2 [3.5]	25.5 [2.1]	23.2 [3.9]	22.3 [1.7]	27.4 [1.7]	12.6 [4.1]	18.4 [3.8]	20.9 [3.6]	26.7 [2.7]	33 [2.3]	39.9 [0.3]
Outpatient													
2019	80.1	79.2	80.1	72.8	82.5	83.7	73.4	80.5	77.2	79	80.9	86.5	88.9
2020	80.4 [0.3]	79.1 [-0.1]	80.6 [0.6]	73.2 [0.5]	82.1 [-0.5]	80.5 [-3.8]	66.4 [-9.5]	83.1 [3.3]	78.1 [1.1]	79 [0]	81.2 [0.4]	86 [-0.6]	88.4 [-0.7]
2021	81.1 [1]	80 [1.1]	81.3 [0.9]	74.2 [1.4]	83.4 [1.7]	81.3 [1]	69.8 [5]	84.2 [1.3]	79.5 [1.8]	79.7 [0.9]	81.1 [-0.1]	85.5 [-0.5]	88.3 [0]
2022	82.3 [1.4]	81 [1.2]	82.1 [1]	75.6 [1.9]	84.5 [1.3]	84 [3.3]	77.2 [10.6]	84.7 [0.7]	80 [0.7]	79.9 [0.3]	81.4 [0.3]	86.2 [0.8]	89.3 [1.2]
2023	82.5 [0.3]	81.4 [0.5]	82.2 [0.2]	76.3 [0.9]	84.7 [0.1]	85.2 [1.4]	74.7 [-3.2]	85.2 [0.5]	81.2 [1.4]	80 [0.1]	81.4 [0.1]	86.5 [0.4]	89.8 [0.5]
2024	82.5 [0]	81.4 [0]	82.3 [0.1]	76.6 [0.4]	84.4 [-0.3]	84.6 [-0.7]	73.7 [-1.3]	85 [-0.3]	80.4 [-0.9]	80.2 [0.3]	81.8 [0.5]	87 [0.5]	90.3 [0.6]
Primary care													

2019	44.5	45.2	46.1	54	37.6	30.8	42.5	33.4	42.8	46.2	52.4	49.5	46.7
2020	44.4 [-0.2]	44.7 [-1.2]	45.3 [-1.6]	52.8 [-2.3]	37.4 [-0.5]	34.6 [12.6]	49.2 [15.8]	29.9 [-10.4]	40.9 [-4.3]	45.6 [-1.3]	51.6 [-1.5]	49.7 [0.5]	46 [-1.3]
2021	43.8 [-1.4]	44.4 [-0.6]	44.9 [-1]	51.8 [-1.9]	36.9 [-1.3]	34.9 [0.8]	46.4 [-5.7]	28.9 [-3.2]	40.3 [-1.5]	45.7 [0.2]	51.8 [0.4]	49.7 [-0.1]	45 [-2.2]
2022	43.1 [-1.6]	43.9 [-1]	44.8 [-0.1]	51 [-1.5]	35.7 [-3.2]	31.4 [-10.1]	41.2 [-11.3]	28.7 [-0.9]	39.5 [-2.1]	45.6 [-0.1]	52.3 [0.9]	50.1 [0.7]	45.3 [0.6]
2023	43.5 [0.8]	43.9 [-0.1]	45.2 [0.8]	50.6 [-0.7]	36 [0.7]	30.4 [-3.1]	43.7 [6.2]	28.4 [-1]	38.1 [-3.4]	45.5 [-0.3]	53 [1.4]	50.9 [1.7]	46.4 [2.5]
2024	44.5 [2.4]	44.9 [2.2]	46.2 [2.2]	51.2 [1.1]	37.4 [3.9]	31.6 [4]	44.7 [2.2]	29.4 [3.3]	40 [5]	46 [1.2]	53.4 [0.8]	51.5 [1.1]	47.1 [1.5]

Supplementary Table S3. Expenditure (in SGD millions), with year-on-year change (percentage points) in brackets

	Sex		Ethnicity				Age groups (years)						
	Female	Male	Chinese	Malay	Indian	Others	0-4	5-17	18-39	40-59	60-69	70-79	≥ 80
Total expenditure													
2019	2,215	2,151	3,014	585	368	400	232	182	662	1,053	965	793	480
2020	2,339 [5.6]	2,260 [5.0]	3,204 [6.3]	595 [1.7]	428 [16.5]	370 [-7.5]	196 [-15.4]	166 [-9]	684 [3.4]	1,121 [6.5]	1,036 [7.4]	859 [8.2]	536 [11.7]
2021	2,628 [12.4]	2,512 [11.2]	3,634 [13.4]	650 [9.3]	463 [8.1]	393 [6.1]	235 [19.7]	190 [14.6]	747 [9.3]	1,176 [4.9]	1,140 [10]	999 [16.4]	653 [21.8]
2022	2,740 [4.3]	2,644 [5.2]	3,800 [4.6]	682 [4.8]	457 [-1.4]	446 [13.5]	278 [18.5]	218 [14.7]	713 [-4.6]	1,165 [-1]	1,185 [4]	1,136 [13.7]	689 [5.6]
2023	2,763 [0.8]	2,640 [-0.1]	3,788 [-0.3]	692 [1.4]	468 [2.5]	455 [2]	262 [-6]	238 [9.2]	711 [-0.3]	1,135 [-2.5]	1,180 [-0.4]	1,175 [3.5]	701 [1.7]
2024	3,094 [12.0]	2,953 [11.9]	4,253 [12.3]	767 [10.9]	512 [9.4]	515 [13.2]	274 [4.8]	258 [8.6]	788 [10.8]	1,277 [12.5]	1,299 [10.1]	1,370 [16.5]	781 [11.4]
Inpatient expenditure													
2019	1,353	1,407	1,867	391	238	263	162	101	380	625	609	527	357
2020	1,412 [4.4]	1,479 [5.2]	1,974 [5.7]	393 [0.4]	281 [17.9]	244 [-7.3]	137 [-15.4]	93 [-7.6]	390 [2.5]	665 [6.4]	645 [5.9]	563 [6.9]	399 [11.7]
2021	1,578 [11.8]	1,622 [9.6]	2,230 [13]	424 [7.9]	296 [5.6]	250 [2.3]	163 [19.1]	99 [6]	417 [6.8]	671 [1]	704 [9.2]	655 [16.2]	492 [23.4]
2022	1,662 [5.3]	1,718 [5.9]	2,350 [5.4]	450 [6.3]	293 [-1.3]	287 [15.1]	192 [17.6]	112 [13.6]	395 [-5.2]	671 [0]	741 [5.3]	755 [15.3]	515 [4.7]
2023	1,719 [3.4]	1,738 [1.2]	2,389 [1.7]	465 [3.2]	306 [4.6]	297 [3.3]	182 [-4.9]	124 [10.4]	395 [0.1]	675 [0.5]	758 [2.2]	799 [5.8]	525 [2]
2024	1,911 [11.2]	1,948 [12]	2,674 [11.9]	513 [10.3]	335 [9.6]	336 [13.4]	195 [6.8]	135 [9.3]	445 [12.4]	759 [12.4]	826 [9]	919 [15.1]	581 [10.6]
Outpatient expenditure													
2019	740	631	977	158	111	124	49	75	255	372	296	221	101
2020	796 [7.6]	657 [4.2]	1,050 [7.5]	164 [3.8]	127 [14]	111 [-10.1]	39 [-20.9]	68 [-9.5]	267 [4.5]	395 [6.1]	327 [10.5]	245 [10.6]	113 [11]

2021	904 [13.6]	753 [14.6]	1,202 [14.5]	185 [12.2]	144 [13.2]	127 [14]	51 [30.7]	86 [26.9]	301 [12.9]	436 [10.5]	363 [11.1]	287 [17.1]	133 [17.7]
2022	924 [2.2]	780 [3.6]	1,232 [2.5]	189 [2.3]	141 [-2.1]	142 [11.8]	66 [29.8]	99 [15.7]	291 [-3.4]	424 [-2.8]	365 [0.6]	314 [9.6]	143 [7.9]
2023	875 [-5.2]	745 [-4.5]	1,161 [-5.8]	182 [-3.6]	137 [-2.4]	141 [-0.9]	59 [-10.3]	107 [8.1]	290 [-0.4]	388 [-8.4]	336 [-8]	299 [-4.8]	140 [-2.2]
2024	991 [13.2]	829 [11.3]	1,309 [12.7]	204 [12.4]	149 [8.4]	158 [12.7]	60 [0.5]	115 [7.4]	312 [7.8]	438 [12.7]	376 [12]	360 [20.2]	159 [13.7]
Primary care expenditure													
2019	122	114	170	35	18	13	21	7	26	56	60	45	22
2020	131 [7.1]	123 [8.1]	180 [6.2]	38 [7.8]	21 [14.7]	14 [15.5]	20 [-2.3]	5 [-23.7]	27 [5.5]	61 [9.5]	65 [8]	51 [12.2]	25 [13.7]
2021	145 [11.2]	138 [11.7]	201 [11.6]	42 [10.8]	23 [11.3]	16 [11.5]	21 [2.6]	6 [7.9]	30 [8.3]	68 [11.3]	73 [12.3]	58 [14.5]	28 [14.6]
2022	154 [6.2]	146 [5.8]	217 [8]	43 [1]	23 [0.4]	16 [2.1]	20 [-2.1]	7 [18.7]	27 [-8.3]	69 [1.1]	79 [8.2]	67 [15.4]	31 [11.5]
2023	168 [9.2]	157 [7.5]	238 [9.6]	45 [4.4]	25 [5.9]	17 [5.4]	20 [-1.4]	7 [5.2]	26 [-4.1]	72 [4.2]	86 [10]	78 [16.1]	36 [14.6]
2024	192 [13.9]	177 [12.8]	271 [13.6]	50 [11.4]	28 [13.1]	20 [15]	20 [-1.3]	8 [14.5]	31 [20]	81 [12.5]	97 [11.9]	91 [16.9]	41 [14]

Supplementary Table S4. Distribution of top ten CCSR codes for inpatient admissions in FY24 and for patients age ≥ 60 years, by patient segment, with counts and percent of admissions in brackets

	Whole cohort	Modified BC Segment					
		Healthy with inpatient admission	Low-complex chronic conditions	Medium-complex chronic conditions	High-complex chronic conditions	Mental health condition	Cancer
1	Pneumonia (except that caused by tuberculosis) [RSP002]: 6138 (4.1)	Abdominal pain and other digestive/abdomen signs and symptoms [SYM006]: 1037 (8.3)	Osteoarthritis [MUS006]: 1149 (5.9)	Coronary atherosclerosis and other heart disease [CIR011]: 1535 (5.4)	Pneumonia (except that caused by tuberculosis) [RSP002]: 3015 (6.4)	Abdominal pain and other digestive/abdomen signs and symptoms [SYM006]: 113 (3.8)	Encounter for antineoplastic therapies [FAC006]: 2163 (5.3)
2	Abdominal pain and other digestive/abdomen signs and symptoms [SYM006]: 4284 (2.8)	Benign neoplasms [NEO073]: 814 (6.5)	Abdominal pain and other digestive/abdomen signs and symptoms [SYM006]: 1028 (5.3)	Osteoarthritis [MUS006]: 1044 (3.7)	Diabetes mellitus with complication [END003]: 2457 (5.2)	Pneumonia (except that caused by tuberculosis) [RSP002]: 109 (3.6)	Gastrointestinal cancers - colorectal [NEO015]: 1617 (4)
3	Diabetes mellitus with complication [END003]: 4232 (2.8)	Gastritis and duodenitis [DIG007]: 677 (5.4)	Benign neoplasms [NEO073]: 910 (4.7)	Pneumonia (except that caused by tuberculosis) [RSP002]: 899 (3.2)	Cerebral infarction [CIR020]: 1763 (3.7)	Other general signs and symptoms [SYM016]: 107 (3.6)	Secondary malignancies [NEO070]: 1370 (3.4)
4	Benign neoplasms [NEO073]: 4052 (2.7)	Gastrointestinal hemorrhage [DIG021]: 346 (2.8)	Gastritis and duodenitis [DIG007]: 764 (3.9)	Abdominal pain and other digestive/abdomen signs and symptoms [SYM006]: 891 (3.1)	Heart failure [CIR019]: 1646 (3.5)	Gastritis and duodenitis [DIG007]: 104 (3.5)	Pneumonia (except that caused by tuberculosis) [RSP002]: 1367 (3.4)

5	Osteoarthritis [MUS006]: 3647 (2.4)	Pneumonia (except that caused by tuberculosis) [RSP002]: 317 (2.5)	Cataract and other lens disorders [EYE002]: 620 (3.2)	Diabetes mellitus with complication [END003]: 858 (3)	Fluid and electrolyte disorders [END011]: 1527 (3.2)	Nonspecific chest pain [CIR012]: 92 (3.1)	Breast cancer - all other types [NEO030]: 1307 (3.2)
6	Gastritis and duodenitis [DIG007]: 3271 (2.2)	Hemorrhoids [DIG014]: 281 (2.3)	Skin and subcutaneous tissue infections [SKN001]: 507 (2.6)	Benign neoplasms [NEO073]: 833 (2.9)	Urinary tract infections [GEN004]: 1418 (3)	Other specified and unspecified gastrointestinal disorders [DIG025]: 84 (2.8)	Respiratory cancers [NEO022]: 1049 (2.6)
7	Urinary tract infections [GEN004]: 3144 (2.1)	Cataract and other lens disorders [EYE002]: 276 (2.2)	Other specified and unspecified upper respiratory disease [RSP007]: 504 (2.6)	Gastritis and duodenitis [DIG007]: 741 (2.6)	Complication of cardiovascular device, implant or graft, initial encounter [INJ033]: 1319 (2.8)	Benign neoplasms [NEO073]: 73 (2.4)	Male reproductive system cancers - prostate [NEO039]: 984 (2.4)
8	Other general signs and symptoms [SYM016]: 3000 (2)	Other aftercare encounter [FAC010]: 263 (2.1)	Pneumonia (except that caused by tuberculosis) [RSP002]: 431 (2.2)	Nonspecific chest pain [CIR012]: 712 (2.5)	Other general signs and symptoms [SYM016]: 1249 (2.6)	Spondylopathies/s pondyloarthropath y (including infective) [MUS011]: 66 (2.2)	Benign neoplasms [NEO073]: 963 (2.4)
9	Coronary atherosclerosis and other heart disease [CIR011]: 2824 (1.9)	Biliary tract disease [DIG017]: 254 (2)	Biliary tract disease [DIG017]: 364 (1.9)	Acute myocardial infarction [CIR009]: 637 (2.2)	Osteoarthritis [MUS006]: 1031 (2.2)	Esophageal disorders [DIG004]: 65 (2.2)	Urinary tract infections [GEN004]: 792 (1.9)
10	Fluid and electrolyte disorders	Other specified and unspecified skin disorders [SKN007]: 253 (2)	Gastrointestinal hemorrhage [DIG021]: 363 (1.9)	Skin and subcutaneous tissue infections [SKN001]: 633 (2.2)	Acute myocardial infarction [CIR009]: 1025 (2.2)	Osteoarthritis [MUS006]: 64 (2.1)	Implant, device or graft related encounter [FAC009]: 718 (1.8)

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	[END011]: 2707 (1.8)						
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Supplementary Table S5. Distribution of top ten CCSR codes for inpatient admissions in FY24 and for patients age 18-59 years, by patient segment, with counts and percent of admissions in brackets

	Whole cohort	Modified BC Segment					
		Healthy with inpatient admission	Low-complex chronic conditions	Medium-complex chronic conditions	High-complex chronic conditions	Mental health condition	Cancer
1	Benign neoplasms [NEO073]: 4863 (4.1)	Benign neoplasms [NEO073]: 3231 (5.7)	Other specified and unspecified upper respiratory disease [RSP007]: 1691 (7.4)	Coronary atherosclerosis and other heart disease [CIR011]: 849 (8.4)	Diabetes mellitus with complication [END003]: 635 (6)	Poisoning by drugs, initial encounter [INJ022]: 198 (3.8)	Breast cancer - all other types [NEO030]: 1105 (8.8)
2	Abdominal pain and other digestive/abdomen signs and symptoms [SYM006]: 3671 (3.1)	Other specified female genital disorders [GEN025]: 2512 (4.4)	Benign neoplasms [NEO073]: 851 (3.7)	Acute myocardial infarction [CIR009]: 554 (5.5)	Cerebral infarction [CIR020]: 521 (5)	Abdominal pain and other digestive/abdomen signs and symptoms [SYM006]: 172 (3.3)	Encounter for antineoplastic therapies [FAC006]: 590 (4.7)
3	Other specified female genital disorders [GEN025]: 3497 (3)	Abdominal pain and other digestive/abdomen signs and symptoms [SYM006]: 2089 (3.7)	Abdominal pain and other digestive/abdomen signs and symptoms [SYM006]: 836 (3.7)	Nonspecific chest pain [CIR012]: 501 (5)	Complication of cardiovascular device, implant or graft, initial encounter [INJ033]: 440 (4.2)	Other specified complications in pregnancy [PRG028]: 151 (2.9)	Secondary malignancies [NEO070]: 547 (4.3)
4	Gastritis and duodenitis [DIG007]: 2986 (2.5)	Other specified complications in pregnancy [PRG028]: 1671 (2.9)	Respiratory signs and symptoms [SYM013]: 827 (3.6)	Diabetes mellitus with complication [END003]: 314 (3.1)	Heart failure [CIR019]: 365 (3.5)	Gastritis and duodenitis [DIG007]: 143 (2.7)	Gastrointestinal cancers - colorectal [NEO015]: 444 (3.5)

5	Other specified and unspecified upper respiratory disease [RSP007]: 2854 (2.4)	Gastritis and duodenitis [DIG007]: 1633 (2.9)	Skin and subcutaneous tissue infections [SKN001]: 736 (3.2)	Skin and subcutaneous tissue infections [SKN001]: 278 (2.7)	Fluid and electrolyte disorders [END011]: 334 (3.2)	Intestinal infection [DIG001]: 137 (2.6)	Female reproductive system cancers - endometrium [NEO035]: 429 (3.4)
6	Respiratory signs and symptoms [SYM013]: 2591 (2.2)	OB-related trauma to perineum and vulva [PRG026]: 1315 (2.3)	Gastritis and duodenitis [DIG007]: 684 (3)	Gastritis and duodenitis [DIG007]: 261 (2.6)	Chronic kidney disease [GEN003]: 289 (2.8)	Other specified and unspecified upper respiratory disease [RSP007]: 136 (2.6)	Non-Hodgkin lymphoma [NEO058]: 411 (3.3)
7	Skin and subcutaneous tissue infections [SKN001]: 2576 (2.2)	Intestinal infection [DIG001]: 1302 (2.3)	Asthma [RSP009]: 514 (2.2)	Abdominal pain and other digestive/abdomen signs and symptoms [SYM006]: 242 (2.4)	Coronary atherosclerosis and other heart disease [CIR011]: 284 (2.7)	Respiratory signs and symptoms [SYM013]: 128 (2.4)	Benign neoplasms [NEO073]: 350 (2.8)
8	Intestinal infection [DIG001]: 2357 (2)	Respiratory signs and symptoms [SYM013]: 1177 (2.1)	Other specified female genital disorders [GEN025]: 511 (2.2)	Benign neoplasms [NEO073]: 220 (2.2)	Nonspecific chest pain [CIR012]: 278 (2.6)	Nonspecific chest pain [CIR012]: 120 (2.3)	Implant, device or graft related encounter [FAC009]: 333 (2.6)
9	Other specified complications in pregnancy [PRG028]: 2235 (1.9)	Skin and subcutaneous tissue infections [SKN001]: 1171 (2.1)	Sleep wake disorders [NVS016]: 496 (2.2)	Respiratory signs and symptoms [SYM013]: 213 (2.1)	Skin and subcutaneous tissue infections [SKN001]: 233 (2.2)	Depressive disorders [MBD002]: 109 (2.1)	Endocrine system cancers - thyroid [NEO050]: 288 (2.3)

1 0	Other specified and unspecified skin disorders [SKN007]: 1849 (1.6)	Other specified and unspecified skin disorders [SKN007]: 1164 (2)	Intestinal infection [DIG001]: 448 (2)	Osteoarthritis [MUS006]: 160 (1.6)	Acute myocardial infarction [CIR009]: 231 (2.2)	Epilepsy; convulsions [NVS009]: 104 (2)	Breast cancer - ductal carcinoma in situ (DCIS) [NEO029]: 231 (1.8)
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Supplementary Table S6. The ten most prevalent ICD-10 codes within the ten most common CCSR categories for the entire SingHealth cohort in Financial Year (FY) 2024.

CCSR rank	CCSR code	CCSR category	ICD-10 rank within CCSR	ICD-10 code	ICD-10 description	ICD-10 count	% within CCSR
1	RSP002	Pneumonia (except that caused by tuberculosis)	1	J189	Pneumonia, unspecified	5,584	58.00%
			2	J157	Pneumonia due to mycoplasma pneumoniae	1,515	15.70%
			3	J128	Other viral pneumonia	1,331	13.80%
			4	J121	Respiratory syncytial virus pneumonia	399	4.10%
			5	J120	Adenoviral pneumonia	156	1.60%
			6	J122	Parainfluenza virus pneumonia	150	1.60%
			7	J159	Bacterial pneumonia, unspecified	90	0.90%
			8	J180	Bronchopneumonia, unspecified	67	0.70%
			9	J129	Viral pneumonia, unspecified	49	0.50%
			10	J150	Pneumonia due to klebsiella pneumoniae	48	0.50%
2	NEO073	Benign neoplasms	1	D24	Benign neoplasm of breast	1,228	13.30%
			2	K6358	Other polyp of colon	711	7.70%
			3	D122	Benign neoplasm of ascending colon	590	6.40%
			4	D123	Benign neoplasm of transverse colon	460	5.00%
			5	K317	Polyp of stomach and duodenum	413	4.50%
			6	D125	Benign neoplasm of sigmoid colon	411	4.40%
			7	D251	Intramural leiomyoma of uterus	411	4.40%
			8	D27	Benign neoplasm of ovary	400	4.30%
			9	D259	Leiomyoma of uterus, unspecified	369	4.00%
			10	D171	Benign lipomatous neoplasm of skin and subcutaneous tissue of trunk	328	3.50%
3	SYM006		1	R195	Other faecal abnormalities	2,522	30.80%
			2	R194	Change in bowel habit	1,777	21.70%

		Abdominal pain and other digestive/abdomen signs and symptoms	3	R104	Other and unspecified abdominal pain	1,537	18.70%
			4	R103	Pain localised to other parts of lower abdomen	562	6.90%
			5	R14	Flatulence and related conditions	493	6.00%
			6	R13	Dysphagia	484	5.90%
			7	R101	Pain localised to upper abdomen	467	5.70%
			8	R198	Other specified symptoms and signs involving the digestive system and abdomen	200	2.40%
			9	R190	Intra-abdominal and pelvic swelling, mass and lump	56	0.70%
			10	R102	Pelvic and perineal pain	31	0.40%
4	DIG001	Intestinal infection	1	A099	Gastroenteritis and colitis of unspecified origin	4,389	55.60%
			2	A084	Viral intestinal infection, unspecified	1,659	21.00%
			3	A083	Other viral enteritis	348	4.40%
			4	A020	Salmonella enteritis	307	3.90%
			5	A080	Rotaviral enteritis	244	3.10%
			6	A049	Bacterial intestinal infection, unspecified	189	2.40%
			7	A090	Other gastroenteritis and colitis of infectious origin	172	2.20%
			8	A047	Enterocolitis due to clostridium difficile	137	1.70%
			9	A045	Campylobacter enteritis	96	1.20%
			10	A082	Adenoviral enteritis	86	1.10%
5	DIG007	Gastritis and duodenitis	1	K295	Chronic gastritis, unspecified	3,189	50.00%
			2	K297	Gastritis, unspecified	1,103	17.30%
			3	K291	Other acute gastritis	1,044	16.40%
			4	K296	Other gastritis	729	11.40%
			5	K294	Chronic atrophic gastritis	168	2.60%
			6	K298	Duodenitis	103	1.60%

			7	K292	Alcoholic gastritis	22	0.30%
			8	K290	Acute haemorrhagic gastritis	20	0.30%
			9	K299	Gastroduodenitis, unspecified	3	0.00%
6	RSP00 6	Other specified upper respiratory infections	1	J069	Acute upper respiratory infection, unspecified	5,170	88.20%
			2	J050		296	5.00%
			3	B085	Enteroviral vesicular pharyngitis	155	2.60%
			4	J028	Acute pharyngitis due to other specified organisms	71	1.20%
			5	J029	Acute pharyngitis, unspecified	66	1.10%
			6	J040	Acute laryngitis	32	0.50%
			7	J390	Retropharyngeal and parapharyngeal abscess	23	0.40%
			8	J051	Acute epiglottitis	17	0.30%
			9	J020	Streptococcal pharyngitis	16	0.30%
			10	J068	Other acute upper respiratory infections of multiple sites	10	0.20%
7	SKN00 1	Skin and subcutaneous tissue infections	1	L0311	Cellulitis of lower limb	2,267	39.20%
			2	L024	Cutaneous abscess, furuncle and carbuncle of limb	1,026	17.80%
			3	L022	Cutaneous abscess, furuncle and carbuncle of trunk	746	12.90%
			4	L023	Cutaneous abscess, furuncle and carbuncle of buttock	334	5.80%
			5	L0310	Cellulitis of upper limb	269	4.70%
			6	L032	Cellulitis of face	191	3.30%
			7	L021	Cutaneous abscess, furuncle and carbuncle of neck	128	2.20%
			8	L0301	Cellulitis of finger	124	2.10%
			9	L050	Pilonidal cyst with abscess	107	1.90%

			10	L028	Cutaneous abscess, furuncle and carbuncle of other sites	106	1.80%
8	END003	Diabetes mellitus with complication	1	E1122	Type 2 diabetes mellitus with established diabetic nephropathy	1,075	18.90%
			2	E1173	Type 2 diabetes mellitus with foot ulcer due to multiple causes	773	13.60%
			3	E1172	Type 2 diabetes mellitus with features of insulin resistance	527	9.30%
			4	E1129	Type 2 diabetes mellitus with other specified kidney complication	434	7.60%
			5	E1164	Type 2 diabetes mellitus with hypoglycaemia	368	6.50%
			6	E1422	Unspecified diabetes mellitus with established diabetic nephropathy	242	4.20%
			7	E1152	Type 2 diabetes mellitus with peripheral angiopathy, with gangrene	226	4.00%
			8	E1151	Type 2 diabetes mellitus with peripheral angiopathy, without gangrene	207	3.60%
			9	E1472	Unspecified diabetes mellitus with features of insulin resistance	204	3.60%
			10	E1169	Type 2 diabetes mellitus with other specified complication	187	3.30%
9	RSP007	Other specified and unspecified upper respiratory disease	1	J304	Allergic rhinitis, unspecified	1,590	32.20%
			2	J339	Nasal polyp, unspecified	459	9.30%
			3	J343	Hypertrophy of nasal turbinates	423	8.60%
			4	J348	Other specified disorders of nose and nasal sinuses	414	8.40%
			5	J342	Deviated nasal septum	397	8.00%
			6	J303	Other allergic rhinitis	242	4.90%
			7	J383	Other diseases of vocal cords	237	4.80%
			8	J310	Chronic rhinitis	215	4.40%

			9	J3801	Paralysis of vocal cords and larynx, unilateral, partial	197	4.00%
			10	J387	Other diseases of larynx	143	2.90%
10	SYM01 3	Respiratory signs and symptoms	1	R065	Mouth breathing	2,426	49.60%
			2	R040	Epistaxis	883	18.00%
			3	R060	Dyspnoea	760	15.50%
			4	R042	Haemoptysis	338	6.90%
			5	R05	Cough	278	5.70%
			6	R068	Other and unspecified abnormalities of breathing	104	2.10%
			7	R070	Pain in throat	51	1.00%
			8	R064	Hyperventilation	13	0.30%
			9	R090	Asphyxia	10	0.20%
			10	R066	Hiccough	9	0.20%

Supplementary Table S7. The ten most prevalent ICD-10 codes within the ten most common CCSR categories for patients in the Modified British Columbia (ModBC) segment—Healthy with inpatient admission.

CCSR rank	CCSR code	CCSR category	ICD-10 rank within CCSR	ICD-10 code	ICD-10 description	ICD-10 count	% within CCSR
1	NEO 073	Benign neoplasms	1	D24	Benign neoplasm of breast	827	19.10%
			2	D251	Intramural leiomyoma of uterus	322	7.40%
			3	D27	Benign neoplasm of ovary	284	6.60%
			4	D259	Leiomyoma of uterus, unspecified	261	6.00%
			5	D171	Benign lipomatous neoplasm of skin and subcutaneous tissue of trunk	188	4.30%
			6	K635 8	Other polyp of colon	181	4.20%
			7	D252	Subserosal leiomyoma of uterus	161	3.70%
			8	D250	Submucous leiomyoma of uterus	129	3.00%
			9	K317	Polyp of stomach and duodenum	126	2.90%
			10	D122	Benign neoplasm of ascending colon	114	2.60%
2	DIG0 01	Intestinal infection	1	A099	Gastroenteritis and colitis of unspecified origin	2,108	51.30%
			2	A084	Viral intestinal infection, unspecified	876	21.30%
			3	A083	Other viral enteritis	268	6.50%
			4	A080	Rotaviral enteritis	192	4.70%
			5	A020	Salmonella enteritis	190	4.60%
			6	A049	Bacterial intestinal infection, unspecified	124	3.00%
			7	A090	Other gastroenteritis and colitis of infectious origin	82	2.00%

			8	A082	Adenoviral enteritis	76	1.80%
			9	A045	Campylobacter enteritis	57	1.40%
			10	A047	Enterocolitis due to clostridium difficile	36	0.90%
3	SYM006	Abdominal pain and other digestive/abdomen signs and symptoms	1	R195	Other faecal abnormalities	1,005	30.40%
			2	R104	Other and unspecified abdominal pain	697	21.10%
			3	R194	Change in bowel habit	682	20.60%
			4	R103	Pain localised to other parts of lower abdomen	299	9.10%
			5	R14	Flatulence and related conditions	217	6.60%
			6	R101	Pain localised to upper abdomen	174	5.30%
			7	R13	Dysphagia	103	3.10%
			8	R198	Other specified symptoms and signs involving the digestive system and abdomen	82	2.50%
			9	R102	Pelvic and perineal pain	10	0.30%
			10	R15	Faecal incontinence	9	0.30%
4	RSP006	Other specified upper respiratory infections	1	J069	Acute upper respiratory infection, unspecified	2,639	82.50%
			2	J050		270	8.40%
			3	B085	Enteroviral vesicular pharyngitis	146	4.60%
			4	J028	Acute pharyngitis due to other specified organisms	47	1.50%
			5	J029	Acute pharyngitis, unspecified	36	1.10%
			6	J040	Acute laryngitis	17	0.50%
			7	J020	Streptococcal pharyngitis	14	0.40%

			8	J390	Retropharyngeal and parapharyngeal abscess	13	0.40%
			9	J068	Other acute upper respiratory infections of multiple sites	8	0.30%
			10	J051	Acute epiglottitis	7	0.20%
5	FAC003	Encounter for observation and examination for conditions ruled out (excludes infectious disease, neoplasm, mental disorders)	1	Z0379	Observation of newborn for other suspected condition	2,329	85.10%
			2	Z0373	Observation of newborn for suspected respiratory condition	315	11.50%
			3	Z036	Observation for suspected toxic effect from ingested substance	34	1.20%
			4	Z1383	Special screening examination for digestive tract disorder	30	1.10%
			5	Z136	Special screening examination for cardiovascular disorders	11	0.40%
			6	Z039	Observation for suspected disease or condition, unspecified	9	0.30%
			7	Z043	Examination and observation following other accident	4	0.10%
			8	Z0370	Observation of newborn for unspecified suspected condition	2	0.10%
			9	Z035	Observation for other suspected cardiovascular diseases	1	0.00%
			10	Z041	Examination and observation following transport accident	1	0.00%
6	GEN025	Other specified female genital disorders	1	N840	Polyp of corpus uteri	708	26.40%
			2	N939	Abnormal uterine and vaginal bleeding, unspecified	507	18.90%
			3	N870	Mild cervical dysplasia	439	16.40%
			4	N859	Noninflammatory disorder of uterus, unspecified	212	7.90%

			5	N850	Endometrial glandular hyperplasia	190	7.10%
			6	N871	Moderate cervical dysplasia	184	6.90%
			7	N841	Polyp of cervix uteri	110	4.10%
			8	N835	Torsion of ovary, ovarian pedicle and fallopian tube	51	1.90%
			9	N938	Other specified abnormal uterine and vaginal bleeding	45	1.70%
			10	N851	Endometrial adenomatous hyperplasia	27	1.00%
7	RSP002	Pneumonia (except that caused by tuberculosis)	1	J157	Pneumonia due to mycoplasma pneumoniae	1,164	44.60%
			2	J189	Pneumonia, unspecified	571	21.90%
			3	J128	Other viral pneumonia	362	13.90%
			4	J121	Respiratory syncytial virus pneumonia	215	8.20%
			5	J120	Adenoviral pneumonia	119	4.60%
			6	J122	Parainfluenza virus pneumonia	53	2.00%
			7	J180	Bronchopneumonia, unspecified	35	1.30%
			8	J159	Bacterial pneumonia, unspecified	22	0.80%
			9	J13	Pneumonia due to streptococcus pneumoniae	15	0.60%
			10	J154	Pneumonia due to other streptococci	9	0.30%
8	DIG007	Gastritis and duodenitis	1	K295	Chronic gastritis, unspecified	1,238	51.70%
			2	K297	Gastritis, unspecified	411	17.20%
			3	K291	Other acute gastritis	377	15.70%
			4	K296	Other gastritis	270	11.30%

			5	K294	Chronic atrophic gastritis	46	1.90%
			6	K298	Duodenitis	41	1.70%
			7	K290	Acute haemorrhagic gastritis	6	0.30%
			8	K292	Alcoholic gastritis	3	0.10%
			9	K299	Gastroduodenitis, unspecified	3	0.10%
9	PNLO 07	Hemolytic jaundice and perinatal jaundice	1	P599	Neonatal jaundice, unspecified	1,228	57.30 %
			2	P551	Abo isoimmunisation of fetus and newborn	600	28.00 %
			3	P590	Neonatal jaundice associated with preterm delivery	176	8.20%
			4	P598	Neonatal jaundice from other specified causes	108	5.00%
			5	P550	Rh isoimmunisation of fetus and newborn	16	0.70%
			6	P593	Neonatal jaundice from breast milk inhibitor	12	0.60%
			7	P558	Other immune haemolytic diseases of fetus and newborn	2	0.10%
			8	P589	Neonatal jaundice due to excessive haemolysis, unspecified	1	0.00%
10	RSP0 05	Acute bronchitis	1	J210	Acute bronchiolitis due to respiratory syncytial virus	699	34.50 %
			2	J218	Acute bronchiolitis due to other specified organisms	662	32.60 %
			3	J206	Acute bronchitis due to rhinovirus	331	16.30 %
			4	J208	Acute bronchitis due to other specified organisms	87	4.30%
			5	J205	Acute bronchitis due to respiratory syncytial virus	74	3.60%
			6	J219	Acute bronchiolitis, unspecified	61	3.00%

			7	J209	Acute bronchitis, unspecified	55	2.70%
			8	J200	Acute bronchitis due to mycoplasma pneumoniae	25	1.20%
			9	J204	Acute bronchitis due to parainfluenza virus	22	1.10%
			10	J40	Bronchitis, not specified as acute or chronic	12	0.60%

Supplementary Table S8. The ten most prevalent ICD-10 codes within the ten most common CCSR categories for patients in the ModBC segment—Low complex chronic conditions.

CCSR rank	CCSR code	CCSR category	ICD-10 rank within CCSR	ICD-10 code	ICD-10 description	ICD-10 count	% within CCSR
1	RSP007	Other specified and unspecified upper respiratory disease	1	J304	Allergic rhinitis, unspecified	1,285	51.80%
			2	J343	Hypertrophy of nasal turbinates	242	9.80%
			3	J342	Deviated nasal septum	191	7.70%
			4	J303	Other allergic rhinitis	186	7.50%
			5	J339	Nasal polyp, unspecified	139	5.60%
			6	J348	Other specified disorders of nose and nasal sinuses	106	4.30%
			7	J310	Chronic rhinitis	66	2.70%
			8	J383	Other diseases of vocal cords	51	2.10%
			9	J387	Other diseases of larynx	35	1.40%
			10	J382	Nodules of vocal cords	26	1.00%
2	SYM006	Abdominal pain and other digestive/abdomen signs and symptoms	1	R195	Other faecal abnormalities	623	32.70%
			2	R194	Change in bowel habit	480	25.20%
			3	R104	Other and unspecified abdominal pain	317	16.60%
			4	R14	Flatulence and related conditions	122	6.40%
			5	R103	Pain localised to other parts of lower abdomen	113	5.90%
			6	R101	Pain localised to upper abdomen	89	4.70%
			7	R13	Dysphagia	81	4.30%
			8	R198	Other specified symptoms and signs involving the digestive system and abdomen	43	2.30%
			9	R190	Intra-abdominal and pelvic swelling, mass and lump	10	0.50%

			10	R102	Pelvic and perineal pain	9	0.50%
3	NEO073	Benign neoplasms	1	K6358	Other polyp of colon	165	9.20%
			2	D24	Benign neoplasm of breast	154	8.60%
			3	D122	Benign neoplasm of ascending colon	130	7.30%
			4	D123	Benign neoplasm of transverse colon	124	6.90%
			5	D125	Benign neoplasm of sigmoid colon	104	5.80%
			6	K317	Polyp of stomach and duodenum	93	5.20%
			7	D171	Benign lipomatous neoplasm of skin and subcutaneous tissue of trunk	72	4.00%
			8	D251	Intramural leiomyoma of uterus	65	3.60%
			9	D124	Benign neoplasm of descending colon	62	3.50%
			10	D259	Leiomyoma of uterus, unspecified	61	3.40%
4	MUS006	Osteoarthritis	1	M171	Other primary gonarthrosis	1,210	78.90%
			2	M170	Primary gonarthrosis, bilateral	122	8.00%
			3	M161	Other primary coxarthrosis	119	7.80%
			4	M1907	Primary arthrosis of other joints, ankle and foot	27	1.80%
			5	M163	Other dysplastic coxarthrosis	13	0.80%
			6	M181	Other primary arthrosis of first carpometacarpal joint	12	0.80%
			7	M1901	Primary arthrosis of other joints, shoulder region	9	0.60%
			8	M1904	Primary arthrosis of other joints, hand	8	0.50%
			9	M160	Primary coxarthrosis, bilateral	4	0.30%
			10	M1984	Other specified arthrosis, hand	3	0.20%
5	DIG007	Gastritis and duodenitis	1	K295	Chronic gastritis, unspecified	754	51.10%
			2	K291	Other acute gastritis	246	16.70%
			3	K297	Gastritis, unspecified	240	16.30%

			4	K296	Other gastritis	158	10.70%
			5	K294	Chronic atrophic gastritis	39	2.60%
			6	K298	Duodenitis	28	1.90%
			7	K292	Alcoholic gastritis	6	0.40%
			8	K290	Acute haemorrhagic gastritis	4	0.30%
6	SYM013	Respiratory signs and symptoms	1	R065	Mouth breathing	862	60.50%
			2	R040	Epistaxis	286	20.10%
			3	R060	Dyspnoea	90	6.30%
			4	R05	Cough	79	5.50%
			5	R042	Haemoptysis	70	4.90%
			6	R068	Other and unspecified abnormalities of breathing	18	1.30%
			7	R070	Pain in throat	11	0.80%
			8	R062	Wheezing	2	0.10%
			9	R093	Abnormal sputum	2	0.10%
			10	R048	Haemorrhage from other sites in respiratory passages	1	0.10%
7	RSP009	Asthma	1	J459	Asthma, unspecified	1,155	82.30%
			2	J450	Predominantly allergic asthma	237	16.90%
			3	J46	Status asthmaticus	11	0.80%
8	SKN001	Skin and subcutaneous tissue infections	1	L0311	Cellulitis of lower limb	453	34.30%
			2	L024	Cutaneous abscess, furuncle and carbuncle of limb	273	20.70%
			3	L022	Cutaneous abscess, furuncle and carbuncle of trunk	229	17.30%
			4	L023	Cutaneous abscess, furuncle and carbuncle of buttock	68	5.20%
			5	L021	Cutaneous abscess, furuncle and carbuncle of neck	46	3.50%

			6	L032	Cellulitis of face	44	3.30%
			7	L028	Cutaneous abscess, furuncle and carbuncle of other sites	35	2.70%
			8	L0301	Cellulitis of finger	32	2.40%
			9	L0310	Cellulitis of upper limb	31	2.30%
			10	L050	Pilonidal cyst with abscess	19	1.40%
9	DIG001	Intestinal infection	1	A099	Gastroenteritis and colitis of unspecified origin	694	60.60%
			2	A084	Viral intestinal infection, unspecified	264	23.00%
			3	A080	Rotaviral enteritis	36	3.10%
			4	A083	Other viral enteritis	34	3.00%
			5	A020	Salmonella enteritis	25	2.20%
			6	A090	Other gastroenteritis and colitis of infectious origin	21	1.80%
			7	A049	Bacterial intestinal infection, unspecified	19	1.70%
			8	A045	Campylobacter enteritis	14	1.20%
			9	A082	Adenoviral enteritis	7	0.60%
			10	A044	Other intestinal escherichia coli infections	6	0.50%
10	RSP002	Pneumonia (except that caused by tuberculosis)	1	J189	Pneumonia, unspecified	457	40.60%
			2	J157	Pneumonia due to mycoplasma pneumoniae	288	25.60%
			3	J128	Other viral pneumonia	198	17.60%
			4	J121	Respiratory syncytial virus pneumonia	61	5.40%
			5	J122	Parainfluenza virus pneumonia	32	2.80%
			6	J120	Adenoviral pneumonia	26	2.30%
			7	J180	Bronchopneumonia, unspecified	18	1.60%
			8	J159	Bacterial pneumonia, unspecified	10	0.90%
			9	J129	Viral pneumonia, unspecified	8	0.70%
			10	A310	Pulmonary mycobacterial infection	5	0.40%

Supplementary Table S9. The ten most prevalent ICD-10 codes within the ten most common CCSR categories for patients in the ModBC segment—Medium complex chronic conditions.

CCSR rank	CCSR code	CCSR category	ICD-10 rank within CCSR	ICD-10 code	ICD-10 description	ICD-10 count	% within CCSR
1	CIR01 1	Coronary atherosclerosis and other heart disease	1	I2511	Atherosclerotic heart disease, of native coronary artery	1,506	63.20%
			2	I209	Angina pectoris, unspecified	275	11.50%
			3	I200	Unstable angina	252	10.60%
			4	I208	Other forms of angina pectoris	214	9.00%
			5	I259	Chronic ischaemic heart disease, unspecified	92	3.90%
			6	I201	Angina pectoris with documented spasm	13	0.50%
			7	I258	Other forms of chronic ischaemic heart disease	12	0.50%
			8	I255	Ischaemic cardiomyopathy	10	0.40%
			9	I2510	Atherosclerotic heart disease, of unspecified vessel	5	0.20%
			10	I2512	Atherosclerotic heart disease, of autologous bypass graft	4	0.20%
2	CIR01 2	Nonspecific chest pain	1	R074	Chest pain, unspecified	830	68.30%
			2	R073	Other chest pain	385	31.70%
3	MUS0 06	Osteoarthritis	1	M171	Other primary gonarthrosis	998	82.90%
			2	M170	Primary gonarthrosis, bilateral	81	6.70%
			3	M161	Other primary coxarthrosis	75	6.20%
			4	M1907	Primary arthrosis of other joints, ankle and foot	17	1.40%
			5	M181	Other primary arthrosis of first carpometacarpal joint	6	0.50%
			6	M1901	Primary arthrosis of other joints, shoulder region	6	0.50%
			7	M1904	Primary arthrosis of other joints, hand	5	0.40%
			8	M1987	Other specified arthrosis, ankle and foot	5	0.40%

			9	M163	Other dysplastic coxarthrosis	4	0.30%
			10	M160	Primary coxarthrosis, bilateral	3	0.20%
4	CIR00 9	Acute myocardial infarction	1	I214	Acute subendocardial myocardial infarction	576	48.30%
			2	I211	Acute transmural myocardial infarction of inferior wall	259	21.70%
			3	I210	Acute transmural myocardial infarction of anterior wall	251	21.10%
			4	I212	Acute transmural myocardial infarction of other sites	37	3.10%
			5	I213	Acute transmural myocardial infarction of unspecified site	34	2.90%
			6	I219	Acute myocardial infarction, unspecified	32	2.70%
			7	I228	Subsequent myocardial infarction of other sites	3	0.30%
5	END00 3	Diabetes mellitus with complication	1	E1173	Type 2 diabetes mellitus with foot ulcer due to multiple causes	231	19.70%
			2	E1122	Type 2 diabetes mellitus with established diabetic nephropathy	180	15.40%
			3	E1172	Type 2 diabetes mellitus with features of insulin resistance	87	7.40%
			4	E1151	Type 2 diabetes mellitus with peripheral angiopathy, without gangrene	78	6.70%
			5	E1129	Type 2 diabetes mellitus with other specified kidney complication	76	6.50%
			6	E1164	Type 2 diabetes mellitus with hypoglycaemia	69	5.90%
			7	E1422	Unspecified diabetes mellitus with established diabetic nephropathy	58	4.90%
			8	E1152	Type 2 diabetes mellitus with peripheral angiopathy, with gangrene	54	4.60%
			9	E1472	Unspecified diabetes mellitus with features of insulin resistance	41	3.50%
			10	E1169	Type 2 diabetes mellitus with other specified complication	38	3.20%

6	SYM006	Abdominal pain and other digestive/abdomen signs and symptoms	1	R195	Other faecal abnormalities	417	36.60%
			2	R194	Change in bowel habit	273	24.00%
			3	R104	Other and unspecified abdominal pain	157	13.80%
			4	R13	Dysphagia	79	6.90%
			5	R101	Pain localised to upper abdomen	67	5.90%
			6	R14	Flatulence and related conditions	63	5.50%
			7	R103	Pain localised to other parts of lower abdomen	46	4.00%
			8	R198	Other specified symptoms and signs involving the digestive system and abdomen	23	2.00%
			9	R15	Faecal incontinence	5	0.40%
			10	R12	Heartburn	3	0.30%
7	NEO073	Benign neoplasms	1	K6358	Other polyp of colon	157	14.90%
			2	D122	Benign neoplasm of ascending colon	121	11.50%
			3	K317	Polyp of stomach and duodenum	81	7.70%
			4	D123	Benign neoplasm of transverse colon	80	7.60%
			5	D125	Benign neoplasm of sigmoid colon	79	7.50%
			6	D124	Benign neoplasm of descending colon	57	5.40%
			7	D24	Benign neoplasm of breast	53	5.00%
			8	D120	Benign neoplasm of caecum	45	4.30%
			9	D110	Benign neoplasm of parotid gland	35	3.30%
			10	D171	Benign lipomatous neoplasm of skin and subcutaneous tissue of trunk	27	2.60%
8	RSP002	Pneumonia (except that caused by tuberculosis)	1	J189	Pneumonia, unspecified	746	73.20%
			2	J128	Other viral pneumonia	145	14.20%
			3	J121	Respiratory syncytial virus pneumonia	23	2.30%
			4	J159	Bacterial pneumonia, unspecified	18	1.80%

			5	J157	Pneumonia due to mycoplasma pneumoniae	16	1.60%
			6	J122	Parainfluenza virus pneumonia	13	1.30%
			7	J150	Pneumonia due to klebsiella pneumoniae	11	1.10%
			8	A310	Pulmonary mycobacterial infection	8	0.80%
			9	J129	Viral pneumonia, unspecified	7	0.70%
			10	J13	Pneumonia due to streptococcus pneumoniae	5	0.50%
9	DIG00 7	Gastritis and duodenitis	1	K295	Chronic gastritis, unspecified	518	51.60%
			2	K297	Gastritis, unspecified	155	15.40%
			3	K291	Other acute gastritis	148	14.70%
			4	K296	Other gastritis	130	12.90%
			5	K294	Chronic atrophic gastritis	36	3.60%
			6	K298	Duodenitis	11	1.10%
			7	K290	Acute haemorrhagic gastritis	4	0.40%
			8	K292	Alcoholic gastritis	2	0.20%
10	SKN00 1	Skin and subcutaneous tissue infections	1	L0311	Cellulitis of lower limb	534	58.40%
			2	L024	Cutaneous abscess, furuncle and carbuncle of limb	105	11.50%
			3	L022	Cutaneous abscess, furuncle and carbuncle of trunk	81	8.90%
			4	L023	Cutaneous abscess, furuncle and carbuncle of buttock	46	5.00%
			5	L0310	Cellulitis of upper limb	29	3.20%
			6	L028	Cutaneous abscess, furuncle and carbuncle of other sites	19	2.10%
			7	A46	Erysipelas	16	1.70%
			8	L021	Cutaneous abscess, furuncle and carbuncle of neck	16	1.70%
			9	L0301	Cellulitis of finger	14	1.50%

			10	L032	Cellulitis of face	12	1.30%
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Supplementary Table S10. The ten most prevalent ICD-10 codes within the ten most common CCSR categories for patients in the ModBC segment—High complex chronic conditions.

CCSR rank	CCSR code	CCSR category	ICD-10 rank within CCSR	ICD-10 code	ICD-10 description	ICD-10 count	% within CCSR
1	RSP002	Pneumonia (except that caused by tuberculosis)	1	J189	Pneumonia, unspecified	2,514	78.80%
			2	J128	Other viral pneumonia	437	13.70%
			3	J121	Respiratory syncytial virus pneumonia	72	2.30%
			4	J122	Parainfluenza virus pneumonia	31	1.00%
			5	J150	Pneumonia due to klebsiella pneumoniae	24	0.80%
			6	J159	Bacterial pneumonia, unspecified	20	0.60%
			7	J129	Viral pneumonia, unspecified	18	0.60%
			8	J157	Pneumonia due to mycoplasma pneumoniae	16	0.50%
			9	J151	Pneumonia due to pseudomonas	7	0.20%
			10	J180	Bronchopneumonia, unspecified	7	0.20%
2	END003	Diabetes mellitus with complication	1	E1122	Type 2 diabetes mellitus with established diabetic nephropathy	781	25.30%
			2	E1173	Type 2 diabetes mellitus with foot ulcer due to multiple causes	440	14.20%
			3	E1172	Type 2 diabetes mellitus with features of insulin resistance	264	8.50%
			4	E1129	Type 2 diabetes mellitus with other specified kidney complication	259	8.40%
			5	E1164	Type 2 diabetes mellitus with hypoglycaemia	189	6.10%
			6	E1422	Unspecified diabetes mellitus with established diabetic nephropathy	154	5.00%
			7	E1152	Type 2 diabetes mellitus with peripheral angiopathy, with gangrene	149	4.80%
			8	E1151	Type 2 diabetes mellitus with peripheral angiopathy, without gangrene	106	3.40%

			9	E1169	Type 2 diabetes mellitus with other specified complication	93	3.00%
			10	E1472	Unspecified diabetes mellitus with features of insulin resistance	81	2.60%
3	CIR020	Cerebral infarction	1	I639	Cerebral infarction, unspecified	781	34.10%
			2	I638	Other cerebral infarction	589	25.80%
			3	I635	Cerebral infarction due to unspecified occlusion or stenosis of cerebral arterie	355	15.50%
			4	I632	Cerebral infarction due to unspecified occlusion or stenosis of precerebral arte	272	11.90%
			5	I634	Cerebral infarction due to embolism of cerebral arteries	248	10.80%
			6	I633	Cerebral infarction due to thrombosis of cerebral arteries	19	0.80%
			7	I631	Cerebral infarction due to embolism of precerebral arteries	18	0.80%
			8	I630	Cerebral infarction due to thrombosis of precerebral arteries	5	0.20%
4	CIR019	Heart failure	1	I509	Heart failure, unspecified	1,068	53.00%
			2	I500	Congestive heart failure	781	38.80%
			3	I501	Left ventricular failure	166	8.20%
5	END011	Fluid and electrolyte disorders	1	E877	Fluid overload	1,266	68.00%
			2	R18	Ascites	168	9.00%
			3	E875	Hyperkalaemia	144	7.70%
			4	E871	Hypo-osmolality and hyponatraemia	100	5.40%
			5	E86	Volume depletion	88	4.70%
			6	E876	Hypokalaemia	67	3.60%
			7	E870	Hyperosmolality and hypernatraemia	13	0.70%
			8	E872	Acidosis	11	0.60%

			9	E878	Other disorders of electrolyte and fluid balance, not elsewhere classified	4	0.20%
6	INJ033	Complication of cardiovascular device, implant or graft, initial encounter	1	T828	Other complications of cardiac and vascular prosthetic devices, implants and gra	1,441	81.80%
			2	T827	Infection and inflammatory reaction dueto other cardiac and vascular devices, im	240	13.60%
			3	T825	Mechanical complication of other cardiac and vascular devices and implants	61	3.50%
			4	T821	Mechanical complication of cardiac electronic device	7	0.40%
			5	T820	Mechanical complication of heart valve prosthesis	5	0.30%
			6	T829	Unspecified complication of cardiac andvascular prosthetic device, implant andgr	3	0.20%
			7	T823	Mechanical complication of other vascular grafts	2	0.10%
			8	T826	Infection and inflammatory reaction dueto cardiac valve prosthesis	2	0.10%
			9	T822	Mechanical complication of coronary artery bypass and valve grafts	1	0.10%
7	GEN004	Urinary tract infections	1	N390	Urinary tract infection, site not specified	1,195	78.90%
			2	N12	Tubulo-interstitial nephritis, not specified as acute or chronic	162	10.70%
			3	N309	Cystitis, unspecified	68	4.50%
			4	N10	Acute tubulo-interstitial nephritis	38	2.50%
			5	N308	Other cystitis	17	1.10%
			6	N300	Acute cystitis	7	0.50%
			7	N304	Irradiation cystitis	7	0.50%
			8	N151	Renal and perinephric abscess	6	0.40%
			9	B374	Candidiasis of other urogenital sites	5	0.30%
			10	N136	Pyonephrosis	5	0.30%

8	SYM0 16	Other general signs and symptoms	1	R296	Tendency to fall, not elsewhere classified	1,062	79.10%
			2	R634	Abnormal weight loss	93	6.90%
			3	R490	Dysphonia	31	2.30%
			4	R600	Localised oedema	30	2.20%
			5	R630	Anorexia	28	2.10%
			6	R638	Other symptoms and signs concerning food and fluid intake	25	1.90%
			7	R688	Other specified general symptoms and signs	16	1.20%
			8	R590	Localised enlarged lymph nodes	11	0.80%
			9	R252	Cramp and spasm	9	0.70%
			10	R591	Generalised enlarged lymph nodes	7	0.50%
9	CIR00 9	Acute myocardial infarction	1	I214	Acute subendocardial myocardial infarction	826	65.80%
			2	I210	Acute transmural myocardial infarction of anterior wall	191	15.20%
			3	I211	Acute transmural myocardial infarction of inferior wall	138	11.00%
			4	I219	Acute myocardial infarction, unspecified	51	4.10%
			5	I212	Acute transmural myocardial infarction of other sites	20	1.60%
			6	I213	Acute transmural myocardial infarction of unspecified site	18	1.40%
			7	I228	Subsequent myocardial infarction of other sites	8	0.60%
			8	I229	Subsequent myocardial infarction of unspecified site	3	0.20%
			9	I220	Subsequent myocardial infarction of anterior wall	1	0.10%
10	CIR01 1	Coronary atherosclerosis and other heart disease	1	I2511	Atherosclerotic heart disease, of native coronary artery	687	55.50%
			2	I200	Unstable angina	149	12.00%

			3	I208	Other forms of angina pectoris	123	9.90%
			4	I209	Angina pectoris, unspecified	123	9.90%
			5	I259	Chronic ischaemic heart disease, unspecified	74	6.00%
			6	I255	Ischaemic cardiomyopathy	56	4.50%
			7	I258	Other forms of chronic ischaemic heart disease	12	1.00%
			8	I201	Angina pectoris with documented spasm	8	0.60%
			9	I2510	Atherosclerotic heart disease, of unspecified vessel	2	0.20%
			10	I2512	Atherosclerotic heart disease, of autologous bypass graft	2	0.20%

Supplementary Table S11. The ten most prevalent ICD-10 codes within the ten most common CCSR categories for patients in the ModBC segment—Mental health condition.

CCSR rank	CCSR code	CCSR category	ICD-10 rank within CCSR	ICD-10 code	ICD-10 description	ICD-10 count	% within CCSR
1	INJ022	Poisoning by drugs, initial encounter	1	T391	4-aminophenol derivatives	85	27.60%
			2	T424	Benzodiazepines	63	20.50%
			3	T432	Other and unspecified antidepressants	39	12.70%
			4	T435	Other and unspecified antipsychotics and neuroleptics	29	9.40%
			5	T426	Other antiepileptic and sedative-hypnotic drugs	18	5.80%
			6	T509	Other and unspecified drugs, medicaments and biological substances	10	3.20%
			7	T402	Other opioids	7	2.30%
			8	T450	Antiallergic and antiemetic drugs	7	2.30%
			9	T393	Other nonsteroidal anti-inflammatory drugs [nsaid]	5	1.60%
			10	T427	Antiepileptic and sedative-hypnotic drugs, unspecified	5	1.60%
2	SYM006	Abdominal pain and other digestive/abdomen signs and symptoms	1	R104	Other and unspecified abdominal pain	86	28.70%
			2	R194	Change in bowel habit	55	18.30%
			3	R195	Other faecal abnormalities	47	15.70%
			4	R103	Pain localised to other parts of lower abdomen	30	10.00%
			5	R13	Dysphagia	23	7.70%
			6	R101	Pain localised to upper abdomen	19	6.30%
			7	R14	Flatulence and related conditions	16	5.30%
			8	R198	Other specified symptoms and signs involving the digestive system and abdomen	13	4.30%

			9	R102	Pelvic and perineal pain	7	2.30%
			10	R15	Faecal incontinence	3	1.00%
3	DIG007	Gastritis and duodenitis	1	K295	Chronic gastritis, unspecified	110	43.00%
			2	K297	Gastritis, unspecified	68	26.60%
			3	K296	Other gastritis	34	13.30%
			4	K291	Other acute gastritis	33	12.90%
			5	K292	Alcoholic gastritis	5	2.00%
			6	K294	Chronic atrophic gastritis	5	2.00%
			7	K298	Duodenitis	1	0.40%
4	DIG001	Intestinal infection	1	A099	Gastroenteritis and colitis of unspecified origin	152	61.80%
			2	A084	Viral intestinal infection, unspecified	63	25.60%
			3	A083	Other viral enteritis	5	2.00%
			4	A040	Enteropathogenic escherichia coli infection	4	1.60%
			5	A080	Rotaviral enteritis	4	1.60%
			6	A081	Acute gastroenteropathy due to norwalk agent	4	1.60%
			7	A020	Salmonella enteritis	3	1.20%
			8	A090	Other gastroenteritis and colitis of infectious origin	3	1.20%
			9	A045	Campylobacter enteritis	2	0.80%
			10	A047	Enterocolitis due to clostridium difficile	2	0.80%
5	CIR012	Nonspecific chest pain	1	R074	Chest pain, unspecified	142	63.40%
			2	R073	Other chest pain	82	36.60%
6	SYM013	Respiratory signs and symptoms	1	R065	Mouth breathing	98	50.30%
			2	R060	Dyspnoea	47	24.10%
			3	R040	Epistaxis	24	12.30%
			4	R05	Cough	11	5.60%

			5	R042	Haemoptysis	5	2.60%
			6	R064	Hyperventilation	3	1.50%
			7	R068	Other and unspecified abnormalities of breathing	3	1.50%
			8	R070	Pain in throat	2	1.00%
			9	R061	Stridor	1	0.50%
			10	R066	Hiccough	1	0.50%
7	RSP007	Other specified and unspecified upper respiratory disease	1	J304	Allergic rhinitis, unspecified	70	37.40%
			2	J342	Deviated nasal septum	22	11.80%
			3	J343	Hypertrophy of nasal turbinates	21	11.20%
			4	J339	Nasal polyp, unspecified	12	6.40%
			5	J303	Other allergic rhinitis	11	5.90%
			6	J310	Chronic rhinitis	8	4.30%
			7	J348	Other specified disorders of nose and nasal sinuses	8	4.30%
			8	J392	Other diseases of pharynx	6	3.20%
			9	J382	Nodules of vocal cords	4	2.10%
			10	J383	Other diseases of vocal cords	4	2.10%
8	NEO07 3	Benign neoplasms	1	D24	Benign neoplasm of breast	24	13.60%
			2	K6358	Other polyp of colon	17	9.70%
			3	D122	Benign neoplasm of ascending colon	13	7.40%
			4	D27	Benign neoplasm of ovary	11	6.20%
			5	K317	Polyp of stomach and duodenum	9	5.10%
			6	D123	Benign neoplasm of transverse colon	8	4.50%
			7	D259	Leiomyoma of uterus, unspecified	7	4.00%
			8	D172	Benign lipomatous neoplasm of skin and subcutaneous tissue of limbs	6	3.40%

			9	D171	Benign lipomatous neoplasm of skin and subcutaneous tissue of trunk	5	2.80%
			10	D250	Submucous leiomyoma of uterus	5	2.80%
9	RSP002	Pneumonia (except that caused by tuberculosis)	1	J189	Pneumonia, unspecified	113	64.60%
			2	J128	Other viral pneumonia	24	13.70%
			3	J157	Pneumonia due to mycoplasma pneumoniae	22	12.60%
			4	J159	Bacterial pneumonia, unspecified	3	1.70%
			5	A310	Pulmonary mycobacterial infection	2	1.10%
			6	J121	Respiratory syncytial virus pneumonia	2	1.10%
			7	J122	Parainfluenza virus pneumonia	2	1.10%
			8	J129	Viral pneumonia, unspecified	1	0.60%
			9	J13	Pneumonia due to streptococcus pneumoniae	1	0.60%
			10	J152	Pneumonia due to staphylococcus	1	0.60%
10	SYM016	Other general signs and symptoms	1	R296	Tendency to fall, not elsewhere classified	79	45.90%
			2	R634	Abnormal weight loss	33	19.20%
			3	R490	Dysphonia	14	8.10%
			4	R590	Localised enlarged lymph nodes	11	6.40%
			5	R638	Other symptoms and signs concerning food and fluid intake	6	3.50%
			6	R600	Localised oedema	4	2.30%
			7	R630	Anorexia	4	2.30%
			8	R631	Polydipsia	4	2.30%
			9	R591	Generalised enlarged lymph nodes	3	1.70%
			10	R688	Other specified general symptoms and signs	3	1.70%

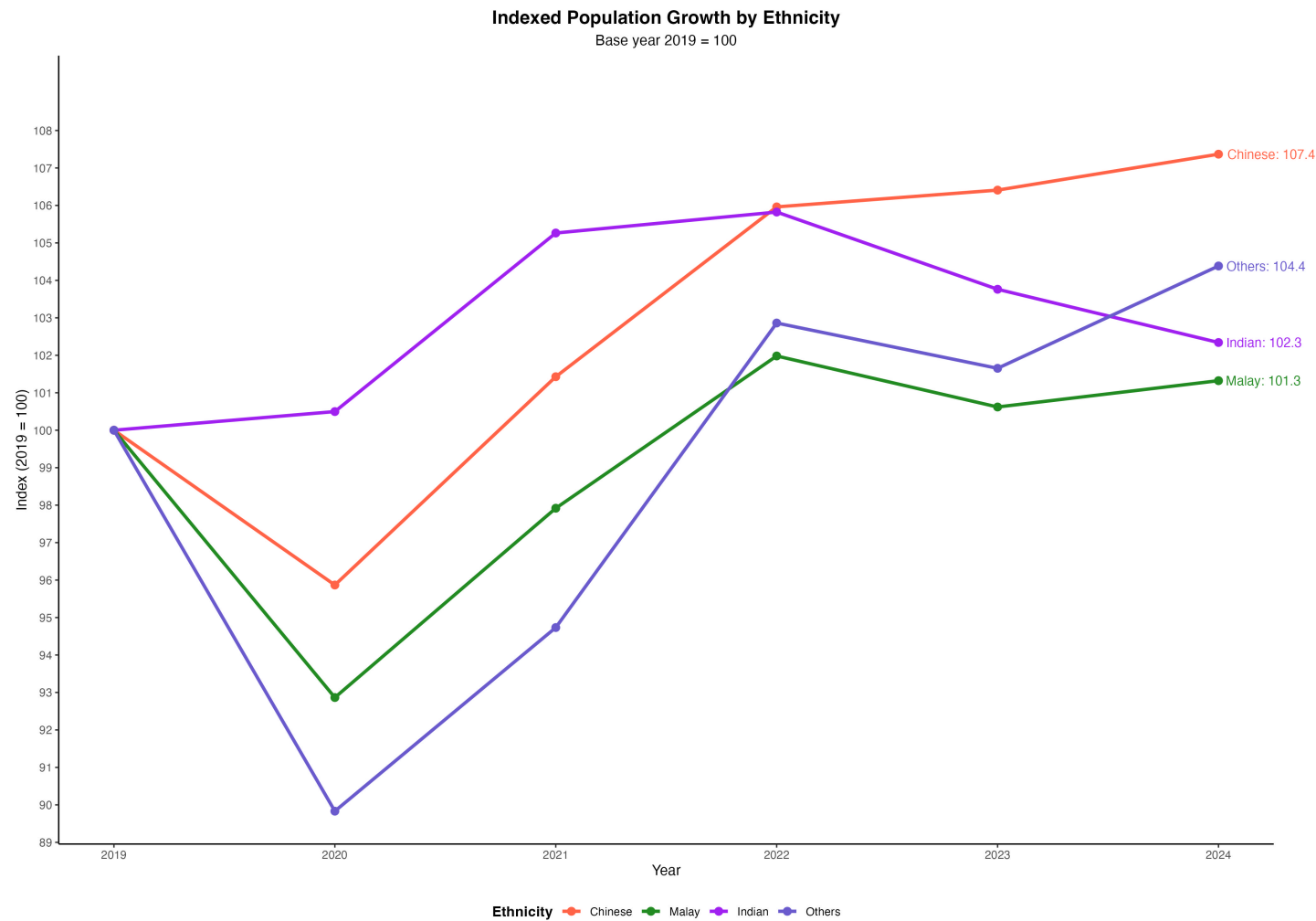
Supplementary Table S12. The ten most prevalent ICD-10 codes within the ten most common CCSR categories for patients in the ModBC segment—Cancer.

CCSR rank	CCSR code	CCSR category	ICD-10 rank within CCSR	ICD-10 code	ICD-10 description	ICD-10 count	% within CCSR
1	FAC006	Encounter for antineoplastic therapies	1	Z080	Follow-up examination after surgery for malignant neoplasm	1,821	64.20%
			2	Z081	Follow-up examination after radiotherapy for malignant neoplasm	504	17.80%
			3	Z087	Follow-up examination after combined treatment for malignant neoplasm	327	11.50%
			4	Z511	Pharmacotherapy session for neoplasm	98	3.50%
			5	Z082	Follow-up examination after pharmacotherapy for malignant neoplasm	43	1.50%
			6	Z088	Follow-up examination after other treatment for malignant neoplasm	33	1.20%
			7	Z089	Follow-up examination after unspecified treatment for malignant neoplasm	11	0.40%
2	NEO030	Breast cancer - all other types	1	C509	Malignant neoplasm of breast, unspecified part	1,170	48.50%
			2	C504	Malignant neoplasm of upper-outer quadrant of breast	409	17.00%
			3	C508	Overlapping malignant lesion of breast	188	7.80%
			4	C501	Malignant neoplasm of central portion of breast	181	7.50%
			5	C502	Malignant neoplasm of upper-inner quadrant of breast	161	6.70%
			6	C505	Malignant neoplasm of lower-outer quadrant of breast	121	5.00%
			7	C503	Malignant neoplasm of lower-inner quadrant of breast	90	3.70%
			8	C500	Malignant neoplasm of nipple and areola	37	1.50%
			9	D050	Lobular carcinoma in situ of breast	20	0.80%
			10	D057	Other carcinoma in situ of breast	15	0.60%
3	NEO015		1	C187	Malignant neoplasm of sigmoid colon	589	28.60%

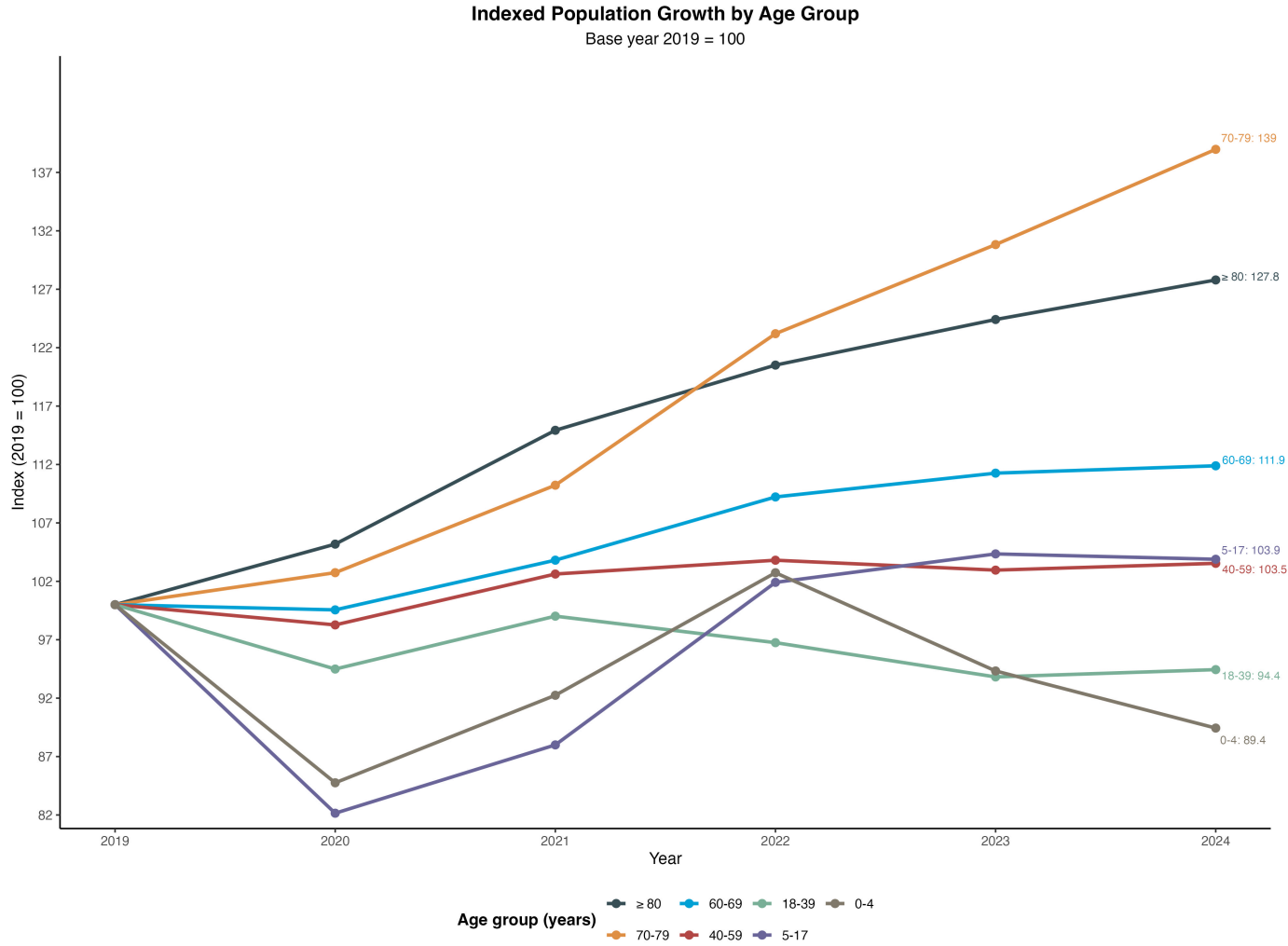
		Gastrointestinal cancers - colorectal	2	C20	Malignant neoplasm of rectum	475	23.00%
			3	C19	Malignant neoplasm of rectosigmoid junction	310	15.00%
			4	C182	Malignant neoplasm of ascending colon	156	7.60%
			5	C184	Malignant neoplasm of transverse colon	137	6.60%
			6	C186	Malignant neoplasm of descending colon	116	5.60%
			7	C180	Malignant neoplasm of caecum	110	5.30%
			8	C183	Malignant neoplasm of hepatic flexure	60	2.90%
			9	C189	Malignant neoplasm of colon, unspecified part	43	2.10%
			10	C185	Malignant neoplasm of splenic flexure	40	1.90%
4	NEO070	Secondary malignancies	1	C782	Secondary malignant neoplasm of pleura	370	19.20%
			2	C795	Secondary malignant neoplasm of bone and bone marrow	333	17.30%
			3	C787	Secondary malignant neoplasm of liver	265	13.70%
			4	C786	Secondary malignant neoplasm of retroperitoneum and peritoneum	228	11.80%
			5	C793	Secondary malignant neoplasm of brain and cerebral meninges	175	9.10%
			6	C780	Secondary malignant neoplasm of lung	157	8.10%
			7	C770	Secondary and unspecified malignant neoplasm of lymph nodes of head, face and ne	81	4.20%
			8	C773	Secondary and unspecified malignant neoplasm of axillary and upper limb lymph no	67	3.50%
			9	C7988	Secondary malignant neoplasm of other specified sites	62	3.20%
			10	C771	Secondary and unspecified malignant neoplasm of intrathoracic lymph nodes	41	2.10%
5	RSP002	Pneumonia (except that caused by tuberculosis)	1	J189	Pneumonia, unspecified	1,183	78.40%
			2	J128	Other viral pneumonia	165	10.90%
			3	J121	Respiratory syncytial virus pneumonia	26	1.70%

			4	J122	Parainfluenza virus pneumonia	19	1.30%
			5	J159	Bacterial pneumonia, unspecified	17	1.10%
			6	J150	Pneumonia due to klebsiella pneumoniae	12	0.80%
			7	J129	Viral pneumonia, unspecified	9	0.60%
			8	J157	Pneumonia due to mycoplasma pneumoniae	9	0.60%
			9	J188	Other pneumonia, organism unspecified	9	0.60%
			10	J151	Pneumonia due to pseudomonas	8	0.50%
6	NEO073	Benign neoplasms	1	D122	Benign neoplasm of ascending colon	148	11.20%
			2	D24	Benign neoplasm of breast	147	11.20%
			3	K6358	Other polyp of colon	133	10.10%
			4	D123	Benign neoplasm of transverse colon	101	7.70%
			5	D124	Benign neoplasm of descending colon	83	6.30%
			6	D125	Benign neoplasm of sigmoid colon	70	5.30%
			7	K317	Polyp of stomach and duodenum	59	4.50%
			8	D120	Benign neoplasm of caecum	52	4.00%
			9	D110	Benign neoplasm of parotid gland	35	2.70%
			10	K6350	Polyp of colon, unspecified	33	2.50%
7	NEO022	Respiratory cancers	1	C341	Malignant neoplasm of upper lobe, bronchus or lung	456	35.90%
			2	C349	Malignant neoplasm of bronchus or lung,unspecified	426	33.60%
			3	C343	Malignant neoplasm of lower lobe, bronchus or lung	275	21.70%
			4	C340	Malignant neoplasm of main bronchus	41	3.20%
			5	C342	Malignant neoplasm of middle lobe, bronchus or lung	41	3.20%
			6	C384	Malignant neoplasm of pleura	16	1.30%
			7	C348	Overlapping malignant lesion of bronchus and lung	7	0.60%
			8	D022	Carcinoma in situ of bronchus and lung	5	0.40%

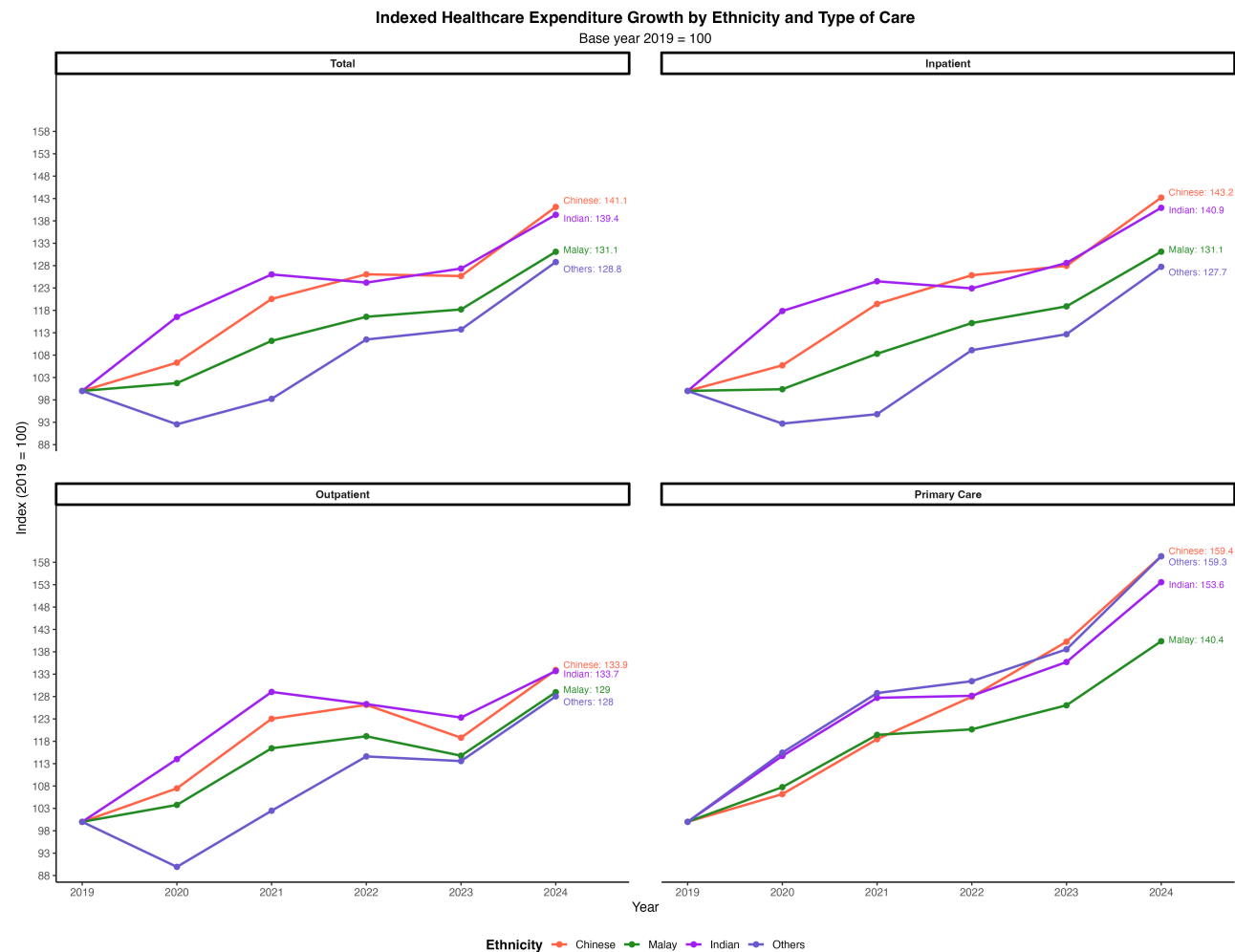
			9	C33	Malignant neoplasm of trachea	2	0.20%
8	NEO058	Non-Hodgkin lymphoma	1	C833	Large cell (diffuse) non-hodgkin lymphoma	516	46.50%
			2	C851	B-cell lymphoma, unspecified	173	15.60%
			3	C844	Peripheral t-cell lymphoma	112	10.10%
			4	C829	Follicular non-hodgkin lymphoma, unspecified	59	5.30%
			5	C857	Other specified types of non-hodgkin lymphoma	40	3.60%
			6	C845	Other and unspecified t-cell lymphomas	38	3.40%
			7	C837	Burkitt tumour	31	2.80%
			8	C838	Other types of diffuse non-hodgkin lymphoma	30	2.70%
			9	C822	Large cell, follicular non-hodgkin lymphoma	29	2.60%
			10	C859	Non-hodgkin lymphoma, unspecified type	24	2.20%
9	FAC009	Implant, device or graft related encounter	1	Z452	Adjustment and management of vascular access device	625	58.40%
			2	Z466	Fitting and adjustment of urinary device	200	18.70%
			3	Z465	Fitting and adjustment of ileostomy and other intestinal appliances	80	7.50%
			4	Z468	Fitting and adjustment of other specified devices	78	7.30%
			5	Z458	Adjustment and management of other implanted devices	70	6.50%
			6	Z450	Adjustment and management of cardiac device	16	1.50%
			7	Z443	Fitting and adjustment of external breast prosthesis	2	0.20%
10	NEO039	Male reproductive system cancers - prostate	1	C61	Malignant neoplasm of prostate	1,040	99.20%
			2	D075	Carcinoma in situ of prostate	8	0.80%



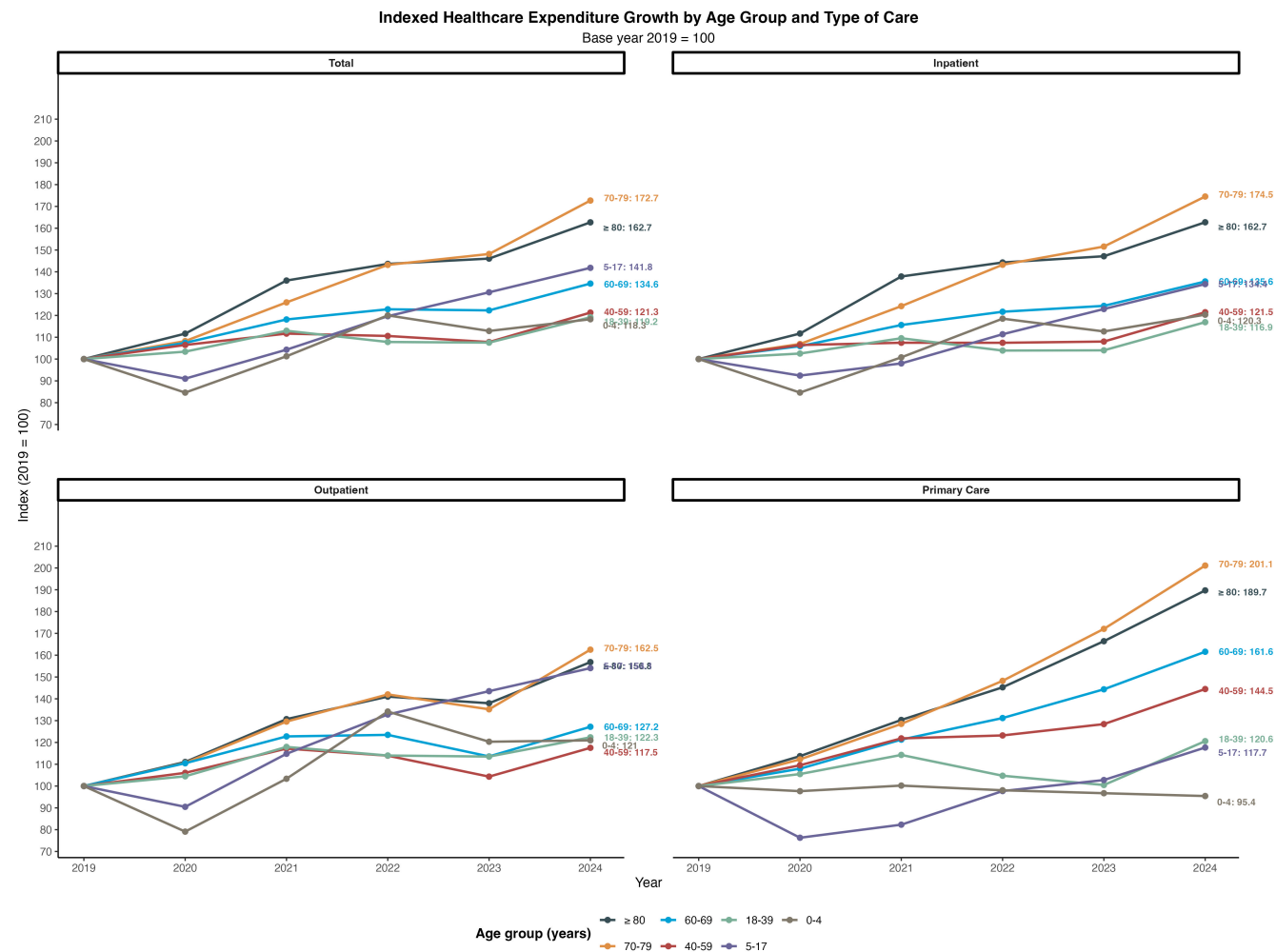
Supplementary Figure S1. Indexed population growth by ethnicity



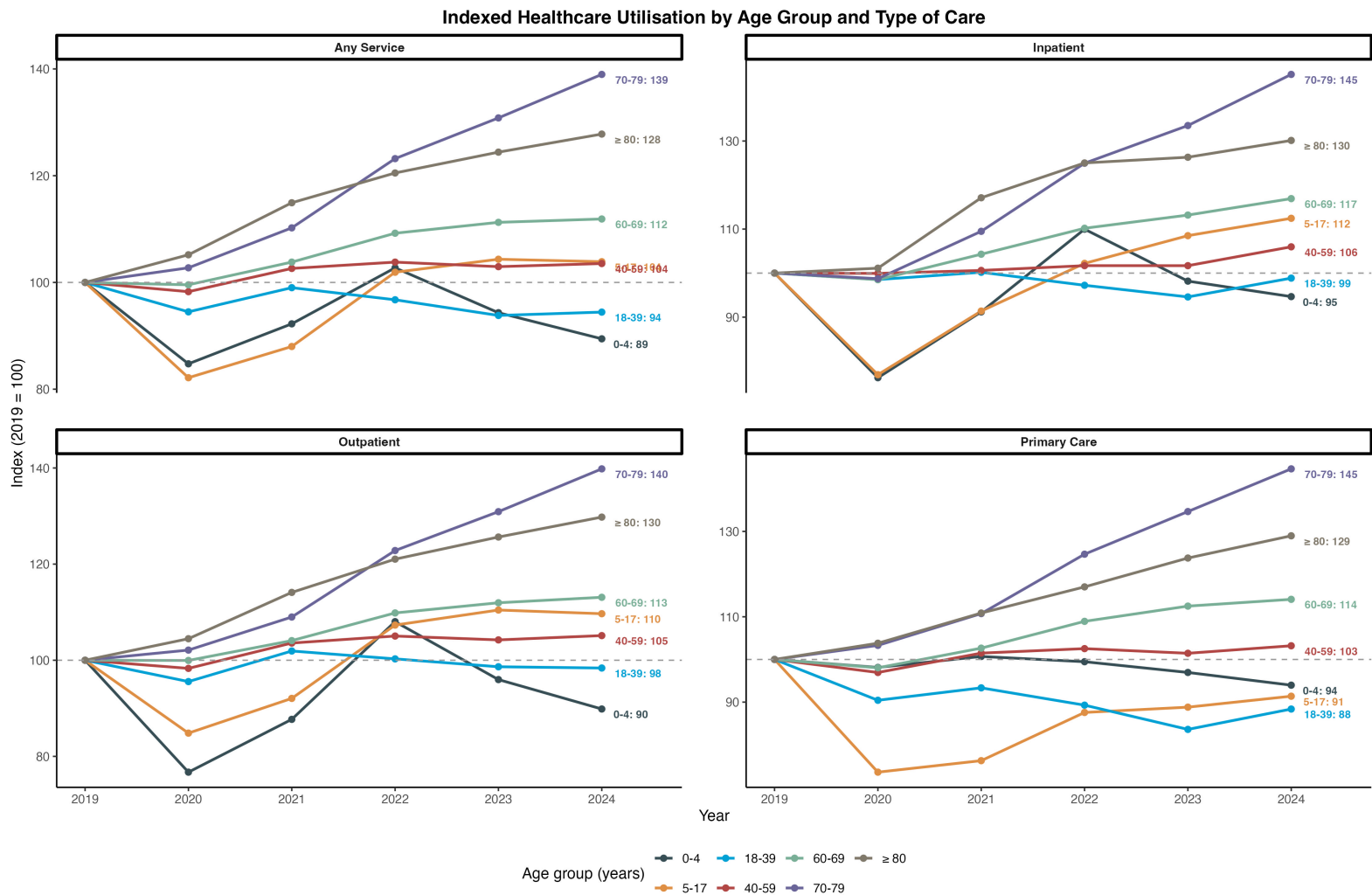
Supplementary Figure S2. Indexed population growth by age band



Supplementary Figure S3. Indexed healthcare expenditure growth by ethnicity and type of care



Supplementary Figure S4. Indexed healthcare expenditure growth by age group and type of care



Supplementary Figure S5. Indexed service utilization (absolute counts) by age group and type of care