

Supplementary file S1: The 38 chronic conditions included

Chronic condition	ICD-10 codes	ATC-codes	Prevalence (%)
Cancer	C150 C151 C152 C153 C154 C155 C158 C159 C160 C161 C162 C163 C164 C165 C166 C168 C169 C269 C180 C181 C182 C183 C184 C185 C186 C187 C188 C189 C199 C209 C210 C211 C212 C218 C220 C221 C229 C239 C240 C241 C248 C249 C250 C251 C252 C253 C254 C257 C258 C259 C320 C321 C322 C323 C328 C329 C379 C340 C341 C342 C343 C348 C349 C430 C431 C432 C433 C434 C435 C436 C437 C438 C439 C450 C451 C452 C457 C459 C480 C481 C482 C488 C490 C491 C492 C494 C495 C496 C498 C499 C762 C809 C500 C501 C502 C503 C504 C505 C506 C508 C509 C530 C531 C532 C533 C534 C538 C539 C540 C541 C542		19.9

	C543 C544 C545 C546 C547 C548 C549 C559 C560 C561 C562 C563 C569 C619 C649 C659 C669 C680 C670 C671 C672 C673 C674 C675 C676 C677 C678 C679 C710 C711 C712 C713 C714 C715 C716 C717 C718 C719 C739 C740 C741 C749 C750 C751 C752 C753 C754 C755 C758 C759 C770 C771 C772 C773 C774 C775 C778 C779 C780 C781 C782 C783 C784 C785 C786 C787 C790 C791 C792 C793 C794 C795 C796 C797 C798 C810 C811 C812 C813 C817 C819 C820 C821 C822 C827 C829 C830 C831 C832 C833 C834 C835 C836 C837 C838 C839 C840 C841 C842 C843 C844 C845 C850 C851 C857 C859 C911 D459 C900 C901 C902 C910 C911 C912 C913 C914 C915		
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	C917 C919 C920 C921 C922 C923 C924 C925 C927 C929 C930 C931 C932 C937 C939 C940 C941 C942 C943 C944 C945 C947 C950 C951 C952 C957 C959 C960 C961 C962 C963 C967 C969		
Colitis ulcerosa/Chron's disease	K500 K501 K508 K509 K510 K511 K512 K513 K514 K515 K518 K519 K570 K571 K572 K573 K574 K575 K578 K579	A07EC02	2.1
Dementia	F000 F001 F002 F009 F010 F011 F012 F013 F018 F019 F020 F021 F022 F023 F024 F028 F039 G300 G301 G308 G309 G318 G310 G319 I694 I693	N06DA02 N06DA03 N06DA04 N06DX01	16.1
Depression	F320 F321 F322 F323 F328 F329 F330 F331 F332 F333 F334 F338 F339 F340 F341 F348 F349		7.7
Diabetes	E100 E101 E102 E103 E104 E105 E106 E107 E108 E109 E110 E111 E112 E113 E114 E115 E116 E117	A10AB01 A10AB04 A10AB05 A10AB06 A10AC01 A10AD01 A10AD04 A10AD05 A10AD06 A10AE04 A10AE05 A10AE06	18.9

	E118 E119 E120 E121 E122 E123 E124 E125 E126 E127 E128 E129 E130 E131 E132 E133 E134 E135 E136 E137 E138 E139 E140 E141 E142 E143 E144 E145 E146 E147 E148 E149 E159 E161 E162 H360	A10BA02 A10BB01 A10BB03 A10BB07 A10BB09 A10BB12 A10BD07 A10BD08 A10BD09 A10BD10 A10BD11 A10BD13 A10BD15 A10BD16 A10BD20 A10BF A10BG03 A10BH01 A10BH02 A10BH03 A10BH04 A10BH05 A10BX02 A10BX04 A10BX07 A10BX09 A10BX10 A10BX11 A10BX12 A10BX14	
Disability	R672 R673 R679		6.8
Brain infarction/hemorrhage	I600 I601 I602 I603 I604 I605 I606 I607 I608 I609 I610 I611 I612 I613 I614 I615 I616 I618 I619 I620 I621 I629 I691 I692 I630 I631 I632 I633 I634 I635 I636 I638 I639 I649 I693 G459		22.1
Hypertension	I109 I110 I119 I120 I129 I130 I131 I132 I139 I150 I151 I152 I158 I159		44.4
COPD/asthma	J409 J410 J411 J418 J429 J430 J431 J432 J438 J439 J440 J441 J448 J449 J479 J450 J451 J458 J459 J619 J841 J849 J982 J961	R03AL03 R03AL04 R03AL05 R03AL06 R03DX07 R03DX05 R03BA08	21.5
Chronic kidney disease	N030 N031 N032 N033 N034 N035 N036 N037 N038		6.4

	N039 N083 N110 N111 N118 N119 N180 N181 N182 N183 N184 N185 N188 N189 N199 N251 Z992 Z940 I823		
Neuropathy	G540 G541 G542 G543 G544 G545 G546 G547 G548 G549 G550 G551 G552 G553 G558 G560 ¹² G561 G563 G564 G568 G569 G570 G571 G572 G573 G574 G575 G576 G578 G579 G580 G587 G588 G589 G590 G598 G600 G601 G602 G603 G608 G609 G610 G611 G618 G619 G620 G621 G622 G628 G629 G630 G631 G632 G633 G634 G635 G636 G638 G649 G990		3.1
Osteoporosis/osteoarthritis	G550 G551 G552 G553 G558 G952 M431 M459 M460 M461 M462 M463 M464 M465 M468 M469 M470 M471 M472 M478 M479 M480 M481 M482 M483 M484 M485 M488 M489 M490 M491 M492 M493	G03XC01 M05BB03 M05BA04 M05BA06 M05BA07	23.4

	M494 M495 M498 M500 M501 M502 M503 M508 M509 M510 M511 M512 M513 M514 M518 M519 M533 M533B M539 M543 M544 M545 S336 M513 M810 M811 M812 M813 M814 M815 M816 M818 M819 M820 M821 M828		
Parkinson disease	G209 G210 G211 G212 G213 G214 G218 G219 G229 G232	N04BA02 N04BA03 N04BC01 N04BC04 N04BC05 N04BC06 N04BC07 N04BC09 N04BD01 N04BD02 N04BX01 N04BX02 N04BC07 N04BC06 N04BC04	5.8
Arthritis	M050 M051 M052 M053 M058 M059 M060 M061 M062 M063 M068 M069 M080 M081 M082 M083 M084 M088 M089 M070 M071 M072 M073 M074 M075 M076 M100 M101 M102 M103 M104 M109 M110 M111 M112 M118 M119 M121 M123 M124 M125 M126 M127 M128 M129 M130 M131 M138 M139 M140 M141 M142 M143 M144 M145 M146 M148	L04AA13	8.1

	M300 M313 M315 M316 M319 M329 M459 L930 M150 M151 M152 M153 M154 M158 M159 M160 M161 M162 M163 M164 M165 M166 M167 M169 M170 M171 M172 M173 M174 M175 M179 M180 M181 M182 M183 M184 M185 M189 M190 M191 M192 M198 M199 M232 M201 M239 M479		
Disorders of the eyes and ears	H250 H251 H252 H258 H259 H260 H261 H262 H263 H264 H268 H269 H262 H400 H401 H402 H403 H404 H405 H406 H408 H409 H420 H428 H445 H350 H351 H352 H353 H354 H355 H356 H357 H358 H359 H800 H801 H802 H808 H809 H810 H811 H812 H813 H814 H818 H819 H829 H900 H901 H902 H903 H904 H905 H906 H907 H908 H910 H913 H918 H919 H933 H938	S01EA05 S01ED51 S01ED02 S01EC04 S01EC01 S01EC03 S01EB51 S01EE04 S01EE01 S01EE03 S01ED01 S01EC54 S01EE05	28.4
Mental disorders due to tobacco	F170 F171 F172 F178 F179		1.6

Thyroid dysfunction	E010 E011 E012 E018 E029 E030 E031 E032 E033 E038 E039 E040 E041 E042 E048 E049 E050 E051 E052 E053 E054 E055 E058 E059 E060 E061 E062 E063 E064 E065 E069 I248	H03AA01 H03BA02 H03BB01 H03BB02 H03CA	11.6
Mental disorders due to alcohol	F101 F102 F103 F104 F105 F106 F107 F108 F109 G312 K700 K701 K702 K703 K704 K709 K860	N07BB01 N07BB03 N07BB05	5.4
Obesity	E660 E661 E662 E668 E669	A08AB01 A08AA03	5.1
Gastritis	K210 K219 K221 K222 K254 K255 K256 K257 K258 K259 K264 K265 K266 K267 K268 K269 K274 K275 K276 K277 K278 K279 K284 K285 K286 K287 K288 K289 K292 K293 K294 K295		8.2
Cardiac disease	I062 I080 I081 I082 I083 I088 I089 I340 I341 I342 I348 I349 I350 I351 I352 I358 I359 I360 I361 I362 I368 I369 I370 I371 I372 I378 I379 Z952 Z953 Z954 I099 I420 I421 I422 I423	C01EB10 C01DA02 C01DA14 C01DX16 C01CA07	57.0

	I424 I425 I426 I427 I428 I429 I500 I501 I200 I201 I208 I209 I248 I250 I251 I252 I253 I254 I255 I256 I258 I259 I210 I211 I212 I213 I214 I219 I230 I231 I232 I233 I234 I235 I236 I238 I260 I269 I270 I279 I440 I441 I442 I443 I444 I445 I446 I447 I450 I451 I452 I453 I454 I455 I456 I458 I459 I470 I471 I472 I479 I481 I482 I489 I490 I491 I492 I494 I495 I498 I499 Z950 I510 I511 I512 I513 I514 I515 I517 I518 I519		
Disorders of the lipoprotein metabolism	E780 E781 E782 E783 E784 E785 E786 E788 E789 I652 I650 I651 I653 I658 I659 I660 I661 I662 I663 I664 I668 I669 I672 I700 I701 I702 I708 I709 I738 I739 I740 I741 I742 I743 I744 I745 I748 I749 K551 I710 I711 I712 I713 I714 I715 I716 I718 I719 I729	C10AA01 C10AA02 C10AA03 C10AA04 C10AA05 C10AA07 C10AB02 C10AB04 C10AC02 C10AC04 C10AD06 C10AX09 C10AX13 C10BA02 C10BA05 B01AC30 B01AC24 B01AC04 B01AC07 B01AC22 B01AC09 B01AC06 B01AC11 B01AC16 B01AC13	75.3
Genitourinary diseases	N393 N394 R329 N409 N411 N810 N811 N812 N813 N814 N815 N816	G04CA02 G04CA53 G04CA01 G04CB02 G04CA52 G04CB01	23.0

	N817 N818 N819 N950		
Senility	R549		0.1
Ulcer of the skin	L890 L891 L892 L893 L899 L979 L984		3.6
Liver-, gallbladder- and pancreas disease	K721 K730 K731 K732 K738 K739 K740 K741 K742 K743 K744 K745 K746 K758 K761 K766 K767 K778 K830 K861 K862 K863 K868 K869 K870 K871		1.6
Chronic periodontitis and gingivitis	K045 K051 K053		1.7
Chronic sinusitis	J320 J321 J322 J323 J324 J328 J329		0.4
Epilepsy	G400 G401 G402 G403 G404 G405 G406 G407 G408 G409	N03AD01	3.1
Multiple sclerosis	G359		0.4
Sleep disorder	F510 F511 F512 F513 F514 F515 F518 F519 G473 G478		1.1
Anxiety	F400 F401 F402 F408 F409 F410 F411 F412 F413 F418 F419 F420 F421 F422 F428 F429	N05BE01	1.6
Mental and behavioral disorders	F200 F201 F202 F203 F204 F205 F206 F208 F209 F219 F220 F228		1.6

	F229 F250 F251 F252 F258 F259 F299 F310 F311 F312 F313 F314 F315 F316 F317 F318 F319 F349 F999		
Delirium	F050 F051 F058 F059		2.0
Vitamin-D deficiency	E559		1.5
Malnutrition and cachexia	E419 E429 E441 E469 E470 R649		0.6
Parathyroidism	E200 E209 E210 E211 E213		0.8
Anemia	D500 D550 D551 D552 D553 D558 D559 D560 D561 D563 D569 D570 D571 D573 D578 D580 D581 D582 D588 D589 D590 D591 D592 D593 D594 D595 D596 D597 D598 D599 D600 D601 D608 D609 D610 D611 D612 D613 D618 D619 D630 D638 D640 D641 D642 D643 D648 D649		1.5

Supplementary file S2: The 22 chronic conditions covering 95% of the chronic conditions in the cohort

Chronic condition	ICD-10 codes	ATC-codes
Cancer	C150 C151 C152 C153 C154 C155 C158 C159 C160 C161 C162 C163 C164 C165 C166 C168 C169 C269 C180 C181 C182 C183 C184 C185 C186	

	C187 C188 C189 C199 C209 C210 C211 C212 C218 C220 C221 C229 C239 C240 C241 C248 C249 C250 C251 C252 C253 C254 C257 C258 C259 C320 C321 C322 C323 C328 C329 C379 C340 C341 C342 C343 C348 C349 C430 C431 C432 C433 C434 C435 C436 C437 C438 C439 C450 C451 C452 C457 C459 C480 C481 C482 C488 C490 C491 C492 C494 C495 C496 C498 C499 C762 C809 C500 C501 C502 C503 C504 C505 C506 C508 C509 C530 C531 C532 C533 C534 C538 C539 C540 C541 C542 C543 C544 C545 C546 C547 C548 C549 C559 C560 C561 C562 C563 C569 C619 C649 C659 C669 C680 C670 C671 C672 C673 C674 C675 C676 C677 C678 C679 C710 C711 C712 C713 C714 C715 C716 C717 C718 C719 C739 C740 C741 C749 C750 C751 C752 C753 C754 C755 C758 C759 C770 C771 C772 C773 C774 C775 C778 C779 C780 C781 C782 C783 C784 C785 C786 C787 C790 C791 C792 C793 C794 C795 C796 C797 C798 C810 C811 C812 C813 C817 C819 C820 C821 C822 C827 C829 C830 C831 C832 C833 C834 C835 C836 C837 C838 C839 C840 C841 C842 C843 C844 C845 C850 C851 C857 C859 C911 D459 C900	
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	C901 C902 C910 C911 C912 C913 C914 C915 C917 C919 C920 C921 C922 C923 C924 C925 C927 C929 C930 C931 C932 C937 C939 C940 C941 C942 C943 C944 C945 C947 C950 C951 C952 C957 C959 C960 C961 C962 C963 C967 C969	
Ulcer of the skin	L890 L891 L892 L893 L899	
Dementia	F000 F001 F002 F009 F010 F011 F012 F013 F018 F019 F020 F021 F022 F023 F024 F028 F039 G300 G301 G308 G309 G318 G310 G319 I694 I693	N06DA02 N06DA03 N06DA04 N06DX01
Depression	F320 F321 F322 F323 F328 F329 F330 F331 F332 F333 F334 F338 F339 F340 F341 F348 F349	
Diabetes	E100 E101 E102 E103 E104 E105 E106 E107 E108 E109 E110 E111 E112 E113 E114 E115 E116 E117 E118 E119 E120 E121 E122 E123 E124 E125 E126 E127 E128 E129 E130 E131 E132 E133 E134 E135 E136 E137 E138 E139 E140 E141 E142 E143 E144 E145 E146 E147 E148 E149 E159 E161 E162 H360	A10AB01 A10AB04 A10AB05 A10AB06 A10AC01 A10AD01 A10AD04 A10AD05 A10AD06 A10AE04 A10AE05 A10AE06 A10BA02 A10BB01 A10BB03 A10BB07 A10BB09 A10BB12 A10BD07 A10BD08 A10BD09 A10BD10 A10BD11 A10BD13 A10BD15 A10BD16 A10BD20 A10BF A10BG03 A10BH01 A10BH02 A10BH03 A10BH04 A10BH05 A10BX02 A10BX04 A10BX07 A10BX09 A10BX10 A10BX11 A10BX12 A10BX14
Disability	R672 R673 R679	
Brain infarction/hemorrhage	I600 I601 I602 I603 I604 I605 I606 I607 I608 I609 I610 I611 I612 I613 I614 I615 I616 I618 I619 I620 I621 I629 I691 I692	

	I630 I631 I632 I633 I634 I635 I636 I638 I639 I649 I693 G459	
Hypertension	I109 I110 I119 I120 I129 I130 I131 I132 I139 I150 I151 I152 I158 I159	
COPD/asthma	J409 J410 J411 J418 J429 J430 J431 J432 J438 J439 J440 J441 J448 J449 J479 J450 J451 J458 J459 J619 J841 J849 J982 J961	R03AL03 R03AL04 R03AL05 R03AL06 R03DX07 R03DX05 R03BA08
Chronic kidney disease	N030 N031 N032 N033 N034 N035 N036 N037 N038 N039 N083 N110 N111 N118 N119 N180 N181 N182 N183 N184 N185 N188 N189 N199 N251 Z992 Z940 I823	
Osteoporosis/osteoarthritis	G550 G551 G552 G553 G558 G952 M431 M459 M460 M461 M462 M463 M464 M465 M468 M469 M470 M471 M472 M478 M479 M480 M481 M482 M483 M484 M485 M488 M489 M490 M491 M492 M493 M494 M495 M498 M500 M501 M502 M503 M508 M509 M510 M511 M512 M513 M514 M518 M519 M533 M533B M539 M543 M544 M545 S336 M513 M810 M811 M812 M813 M814 M815 M816 M818 M819 M820 M821 M828	G03XC01 M05BB03 M05BA04 M05BA06 M05BA07
Parkinson disease	G209 G210 G211 G212 G213 G214 G218 G219 G229 G232	N04BA02 N04BA03 N04BC01 N04BC04 N04BC05 N04BC06 N04BC07 N04BC09 N04BD01

		N04BD02 N04BX01 N04BX02 N04BC07 N04BC06 N04BC04
Arthritis	M050 M051 M052 M053 M058 M059 M060 M061 M062 M063 M068 M069 M080 M081 M082 M083 M084 M088 M089 M070 M071 M072 M073 M074 M075 M076 M100 M101 M102 M103 M104 M109 M110 M111 M112 M118 M119 M121 M123 M124 M125 M126 M127 M128 M129 M130 M131 M138 M139 M140 M141 M142 M143 M144 M145 M146 M148 M300 M313 M315 M316 M319 M329 M459 L930 M150 M151 M152 M153 M154 M158 M159 M160 M161 M162 M163 M164 M165 M166 M167 M169 M170 M171 M172 M173 M174 M175 M179 M180 M181 M182 M183 M184 M185 M189 M190 M191 M192 M198 M199 M232 M201 M239 M479	L04AA13
Disorders of the eyes and ears	H250 H251 H252 H258 H259 H260 H261 H262 H263 H264 H268 H269 H262 H400 H401 H402 H403 H404 H405 H406 H408 H409 H420 H428 H445 H350 H351 H352 H353 H354 H355 H356 H357 H358 H359 H800 H801 H802 H808 H809 H810 H811 H812 H813 H814 H818 H819 H829 H900 H901 H902 H903 H904 H905 H906	S01EA05 S01ED51 S01ED02 S01EC04 S01EC01 S01EC03 S01EB51 S01EE04 S01EE01 S01EE03 S01ED01 S01EC54 S01EE05

	H907 H908 H910 H913 H918 H919 H933 H938	
Epilepsy	G400 G401 G402 G403 G404 G405 G406 G407 G408 G409	N03AD01
Thyroid dysfunction	E010 E011 E012 E018 E029 E030 E031 E032 E033 E038 E039 E040 E041 E042 E048 E049 E050 E051 E052 E053 E054 E055 E058 E059 E060 E061 E062 E063 E064 E065 E069 I248	H03AA01 H03BA02 H03BB01 H03BB02 H03CA
Mental disorders due to alcohol	F101 F102 F103 F104 F105 F106 F107 F108 F109 G312 K700 K701 K702 K703 K704 K709 K860	N07BB01 N07BB03 N07BB05
Obesity	E660 E661 E662 E668 E669	A08AB01 A08AA03
Gastritis	K210 K219 K221 K222 K254 K255 K256 K257 K258 K259 K264 K265 K266 K267 K268 K269 K274 K275 K276 K277 K278 K279 K284 K285 K286 K287 K288 K289 K292 K293 K294 K295	
Cardiac disease	I062 I080 I081 I082 I083 I088 I089 I340 I341 I342 I348 I349 I350 I351 I352 I358 I359 I360 I361 I362 I368 I369 I370 I371 I372 I378 I379 Z952 Z953 Z954 I099 I420 I421 I422 I423 I424 I425 I426 I427 I428 I429 I500 I501 I200 I201 I208 I209 I248 I250 I251 I252 I253 I254 I255 I256 I258 I259 I210 I211 I212 I213 I214 I219 I230 I231 I232 I233 I234 I235 I236 I238 I260 I269 I270 I279 I440 I441 I442 I443 I444 I445 I446 I447 I450 I451 I452 I453 I454 I455 I456 I458 I459 I470 I471	C01EB10 C01DA02 C01DA14 C01DX16 C01CA07

	I472 I479 I481 I482 I489 I490 I491 I492 I494 I495 I498 I499 Z950 I510 I511 I512 I513 I514 I515 I517 I518 I519	
Disorders of the lipoprotein metabolism	E780 E781 E782 E783 E784 E785 E786 E788 E789 I652 I650 I651 I653 I658 I659 I660 I661 I662 I663 I664 I668 I669 I672 I700 I701 I702 I708 I709 I738 I739 I740 I741 I742 I743 I744 I745 I748 I749 K551 I710 I711 I712 I713 I714 I715 I716 I718 I719 I729	C10AA01 C10AA02 C10AA03 C10AA04 C10AA05 C10AA07 C10AB02 C10AB04 C10AC02 C10AC04 C10AD06 C10AX09 C10AX13 C10BA02 C10BA05 B01AC30 B01AC24 B01AC04 B01AC07 B01AC22 B01AC09 B01AC06 B01AC11 B01AC16 B01AC13
Genitourinary diseases	N393 N394 R329 N409 N411 N810 N811 N812 N813 N814 N815 N816 N817 N818 N819 N950	G04CA02 G04CA53 G04CA01 G04CB02 G04CA52 G04CB01

Supplementary file S3 Estimates for latent class regression analysis of healthcare utilization and healthcare complexity among the eight multimorbid patterns for women (n=68,687)																
	Cancer		Cardiovascular disorders		Neurological and vascular disorders		Degenerative and pulmonary disorders		Degenerative, lifestyle and mental disorders		Metabolic and cardiovascular disorders		Complex multimorbidity		Neuropsychiatric disorders	
Outpatient visits																
Mean (SE)	3.8	(0.1)	3.4	(0.1)	2.3	(0.1)	4.1	(0.1)	3.9	(0.1)	5.5	(0.2)	6.4	(0.2)	3.9	(0.1)
OR (95%CI) ^a	Ref		0.95	(0.94-0.96)	0.77	(0.76-0.79)	1.01	(1.01-1.01)	1.00	(0.99-1.02)	1.02	(1.02-1.03)	1.05	(1.04-1.05)	1.01	(1.01-1.02)
GP visits																
Mean (SE)	8.2	(0.1)	10.8	(0.1)	8.9	(0.1)	12.5	(0.1)	10.6	(0.1)	13.3	(0.2)	14.2	(0.1)	11.	(0.1)
OR (95%CI) ^a	Ref		1.10	(1.10-1.11)	1.00	(0.99-1.00)	1.14	(1.14-1.15)	1.10	(1.09-1.11)	1.14	(1.13-1.14)	1.17	(1.16-1.18)	1.12	(1.11-1.13)
Specialists in private																
Mean (SE)	1.1	(0.0)	1.1	(0.0)	0.9	(0.0)	1.3	(0.0)	0.8	(0.0)	1.1	(0.0)	6.7	(0.1)	0.8	(0.0)
OR (95%CI) ^a	Ref		1.08	(1.06-1.10)	0.99	(0.97-1.01)	1.19	(1.17-1.21)	0.92	(0.87-0.97)	1.11	(1.09-1.13)	1.19	(1.17-1.21)	0.94	(0.91-0.97)
Admissions																
Mean (SE)	0.9	(0.0)	1.0	(0.0)	0.8	(0.0)	1.2	(0.0)	1.4	(0.0)	1.5	(0.0)	1.8	(0.0)	1.7	(0.0)
OR (95%CI) ^a	Ref		0.99	(0.95-1.02)	0.72	(0.69-0.75)	1.24	(1.19-1.28)	1.63	(1.56-1.70)	1.37	(1.33-1.42)	1.66	(1.60-1.72)	1.60	(1.54-1.65)
Acute admissions																
Mean (SE)	0.7	(0.0)	0.8	(0.0)	0.7	(0.0)	1.0	(0.0)	1.2	(0.1)	1.1	(0.0)	1.5	(0.0)	1.6	(0.0)
OR (95%CI) ^a	Ref		1.07	(1.02-1.11)	0.83	(0.79-0.87)	1.39	(1.34-1.45)	1.97	(1.89-2.06)	1.48	(1.42-1.54)	2.11	(2.04-2.20)	2.04	(1.97-2.11)
Cummulated LOS																
Mean (SE)	4.4	(0.1)	4.6	(0.1)	4.7	(0.1)	6.5	(0.1)	9.1	(0.2)	7.5	(0.3)	11.3	(0.2)	12.0	(0.3)
OR (95%CI) ^a	Ref		0.99	(0.99-1.00)	0.94	(0.93-0.95)	1.03	(1.03-1.04)	1.07	(1.07-1.08)	1.04	(1.03-1.04)	1.07	(1.07-1.08)	1.07	(1.07-1.08)
Diff. specialists (private)																
Mean (SE)	0.7	(0.0)	0.8	(0.0)	0.6	(0.0)	1.0	(0.0)	0.6	(0.0)	0.9	(0.0)	1.0	(0.1)	0.6	(0.0)
OR (95%CI) ^a	Ref		1.22	(1.18-1.26)	0.98	(0.94-1.03)	1.46	(1.41-1.51)	0.77	(0.71-0.83)	1.31	(1.26-1.36)	1.50	(1.44-1.55)	0.89	(0.85-0.93)
Diff. specialists (Secondary)																
Mean (SE)	4.2	(0.0)	4.4	(0.0)	3.7	(0.0)	6.0	(0.1)	3.7	(0.1)	6.7	(0.3)	6.3	(0.4)	3.8	(0.1)
OR (95%CI) ^a	Ref		1.13	(1.12-1.14)	0.99	(0.97-1.00)	1.34	(1.32-1.36)	1.02	(1.00-1.05)	1.27	(1.25-1.29)	1.42	(1.40-1.44)	1.09	(1.07-1.11)
Diff. reasons for admission																
Mean (SE)	0.6	(0.0)	0.7	(0.0)	0.5	(0.0)	0.8	(0.0)	3.3	(0.1)	0.9	(0.0)	4.6	(0.1)	1.3	(0.0)
OR (95%CI) ^a	Ref		1.05	(1.01-1.08)	0.79	(0.76-0.82)	1.32	(1.28-1.36)	1.86	(1.80-1.92)	1.46	(1.41-1.51)	2.10	(2.03-2.16)	2.09	(2.03-2.15)

Note: ^aAdjusted for age

Supplementary file S4 Estimates for latent class regression analysis of healthcare utilization and healthcare complexity among the eight multimorbid patterns for men (n=61,213)																
	Cancer		Cardiovascular disorders		Neurological and vascular disorders		Dementia and Parkinson's Disease		Lifestyle and mental disorders		Degenerative and pulmonary disorders		Metabolic and cardiovascular disorders		Neuropsychiatric disorders	
Outpatient visits																
Mean (SE)	4.8	(0.1)	4.1	(0.1)	2.7	(0.1)	2.2	(0.1)	4.8	(0.1)	6.3	(0.1)	7.5	(0.2)	4.8	(0.1)
OR (95%CI) ^a	Ref		0.94	(0.94-0.96)	0.82	(0.80-0.84)	0.82	(0.80-0.84)	0.98	(0.97-0.99)	1.03	(1.03-1.03)	1.03	(1.03-1.04)	1.00	(1.00-1.01)
GP visits																
Mean (SE)	8.4	(0.1)	11.1	(0.1)	7.6	(0.1)	9.4	(0.2)	10.7	(0.2)	14.1	(0.1)	14.0	(0.1)	11.9	(0.1)
OR (95%CI) ^a	Ref		1.06	(1.06-1.07)	0.97	(0.96-0.98)	1.03	(1.02-1.04)	1.09	(1.08-1.10)	1.14	(1.14-1.15)	1.13	(1.13-1.14)	1.10	(1.09-1.10)
Specialists in private																
Mean (SE)	0.8	(0.0)	0.8	(0.0)	0.8	(0.0)	0.7	(0.0)	0.6	(0.0)	5.8	(0.1)	1.2	(0.0)	0.8	(0.0)
OR (95%CI) ^a	Ref		1.03	(1.02-1.05)	1.02	(0.99-1.04)	1.06	(1.01-1.12)	0.95	(0.90-1.01)	1.29	(1.26-1.31)	1.19	(1.17-1.21)	1.04	(1.02-1.06)
Admissions																
Mean (SE)	1.1	(0.0)	1.1	(0.0)	0.7	(0.0)	1.0	(0.0)	1.8	(0.0)	1.7	(0.0)	1.8	(0.0)	1.8	(0.0)
OR (95%CI) ^a	Ref		0.92	(0.89-0.94)	0.67	(0.63-0.70)	0.93	(0.89-0.98)	1.35	(1.31-1.40)	1.46	(1.41-1.50)	1.36	(1.33-1.40)	1.38	(1.35-1.42)
Acute admissions																
Mean (SE)	0.7	(0.0)	0.8	(0.0)	0.6	(0.0)	0.9	(0.0)	1.5	(0.0)	1.3	(0.0)	1.4	(0.0)	1.5	(0.0)
OR (95%CI) ^a	Ref		0.93	(0.90-0.96)	0.72	(0.68-0.76)	1.18	(1.12-1.24)	1.73	(1.67-1.80)	1.76	(1.70-1.83)	1.66	(1.60-1.71)	1.73	(1.68-1.79)
Cummulated LOS																
Mean (SE)	5.2	(0.1)	5.1	(0.1)	4.1	(0.2)	6.1	(0.3)	10.3	(0.4)	9.5	(0.2)	10.7	(0.2)	11.7	(0.2)
OR (95%CI) ^a	Ref		0.97	(0.97-0.98)	0.91	(0.90-0.93)	1.00	(0.99-1.01)	1.05	(1.04-1.05)	1.05	(1.04-1.05)	1.05	(1.04-1.05)	1.05	(1.05-1.06)
Diff. specialists (private)																
Mean (SE)	0.5	(0.0)	0.5	(0.0)	0.6	(0.0)	0.5	(0.0)	0.4	(0.0)	2.6	(0.0)	0.8	(0.0)	0.6	(0.0)
OR (95%CI) ^a	Ref		1.12	(1.09-1.16)	1.04	(1.00-1.09)	0.88	(0.80-0.96)	0.87	(0.80-0.95)	1.72	(1.65-1.80)	1.58	(1.53-1.63)	1.08	(1.04-1.13)
Diff. specialists (Secondary)																
Mean (SE)	4.3	(0.0)	4.7	(0.0)	4.1	(0.1)	2.7	(0.0)	4.7	(0.1)	6.7	(0.2)	6.6	(0.1)	4.3	(0.0)
OR (95%CI) ^a	Ref		1.10	(1.09-1.11)	0.97	(0.96-0.99)	0.76	(0.73-0.79)	1.05	(1.02-1.07)	1.36	(1.34-1.38)	1.30	(1.29-1.32)	1.09	(1.07-1.10)
Diff. reasons for admission																
Mean (SE)	0.7	(0.0)	0.6	(0.0)	0.5	(0.0)	0.7	(0.0)	6.1	(0.1)	3.6	(0.0)	1	(0.0)	1.6	(0.0)
OR (95%CI) ^a	Ref		0.96	(0.94-0.99)	0.72	(0.69-0.76)	1.09	(1.04-1.15)	1.67	(1.61-1.72)	1.68	(1.63-1.73)	1.65	(1.60-1.69)	1.75	(1.71-1.79)

Note: ^aAdjusted for age

