

**Response to the Enquiry from Subcommittee on Health Protection
Scheme dated 25 Jan 2013**

Item (b)

The values for the variable of the formulae and projection parameters for calculating the projected manpower requirement for doctors in the Hospital Authority by specialty as set out in Table 2 of Annex A to LC Paper No. CB(2)2011/11-12(01) are provided in Tables 1 – 12.

A summary of projection parameters for calculating the projected manpower requirement for doctors in the Hospital Authority

Table 1: Medicine Specialty

Category	Activity	Projection Parameter (a)	2016		2021		2026	
			Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60	Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60	Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60
A. In-patient Care	A1. Inpatient & Daypatient Admission during day-time [72% ~ 78% of total admissions]	22 ~ 24 (minutes per admission)	469	170 ~ 188	546	198 ~ 219	632	229 ~ 253
	A2. In-patient Bed Days Occupied	19 ~ 21 (minutes per bed day on ward round)	3556	1140 ~ 1260	3658	1173 ~ 1296	4002	1283 ~ 1418
	A3. Other Day-time Activities (e.g. Endoscopic procedure, Percutaneous coronary intervention etc.)	14% ~ 16% of (A1 +A2)		183 ~ 238		192 ~ 249		211 ~ 275
	A4. On-call Service (including on-site and off-site)	Basic on-call requirement	Including but not limited to, 22% ~ 28% of total admissions during on-call hours	419 ~ 485	Including but not limited to, 22% ~ 28% of total admissions during on-call hours	438 ~ 507	Including but not limited to, 22% ~ 28% of total admissions during on-call hours	483 ~ 559
B. Ambulatory & Community Care		10 ~ 11 (minutes per attendance / visit)	3022	499 ~ 552	3452	567 ~ 627	3959	645 ~ 713
C. Others (e.g. Coaching, Training, Administration, Documentation, Communication, etc.)		16% of total doctor hours		471 ~ 532		501 ~ 566		557 ~ 628
D. Total Doctor Hours D = A + B + C				2882 ~ 3254		3069~ 3464		3408 ~ 3847
E. Annual Working hours per Doctor (net of lunch hours)		2330 ~ 2540						
			Doctor Requirement		Doctor Requirement		Doctor Requirement	
F. Total Doctor Manpower Required				1180 ~ 1340		1260 ~ 1420		1400 ~ 1580

Table 2: Surgery Specialty (includes Cardiothoracic Surgery)

Category	Activity	Projection Parameter (a)	2016		2021		2026	
			Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60	Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60	Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60
A. In-patient Care	A1. Inpatient & Daypatient Admission during day-time [79% ~ 86% of total admissions]	19 ~ 21 (minutes per admission)	222	71 ~ 79	255	82 ~ 90	291	93 ~ 103
	A2. In-patient Bed Days Occupied	23 ~ 25 (minutes per bed day on ward round)	727	273 ~ 305	719	270 ~ 302	717	270 ~ 301
	A3. Other Day-time Activities (e.g. Operation, Procedure, etc.)	102% ~ 135% of (A1 +A2)		351 ~ 482		443 ~ 528		456 ~ 544
	A4. On-call Service (including on-site and off-site)	Basic on-call requirement	Including but not limited to, 14% ~ 21% of total admissions during on-call hours	209 ~ 253	Including but not limited to, 14% ~ 21% of total admissions during on-call hours	214 ~ 259	Including but not limited to, 14% ~ 21% of total admissions during on-call hours	220 ~ 267
B. Ambulatory & Community Care		12 ~ 13 (minutes per attendance)	810	159 ~ 175	902	176 ~ 195	995	195 ~ 215
C. Others (e.g. Coaching, Training, Administration, Documentation, Communication, etc.)		21% of total doctor hours		289 ~ 352		322 ~ 373		335 ~ 388
D. Total Doctor Hours D = A + B + C				1352 ~ 1646		1507 ~ 1748		1568 ~ 1817
E. Annual Working hours per Doctor (net of lunch hours)		2330 ~ 2540						
			Doctor Requirement		Doctor Requirement		Doctor Requirement	
F. Total Doctor Manpower Required				560 ~ 680		620 ~ 720		640 ~ 750

Table 3: Obstetrics & Gynaecology Specialty

Category	Activity	Projection Parameter (a)	2016		2021		2026	
			Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60	Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60	Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60
A. In-patient Care	A1. Inpatient & Daypatient Admission during day-time [60% ~ 63% of total admissions]	27 ~ 29 (minutes per admission)	84	37 ~ 41	89	40 ~ 44	92	41 ~ 45
	A2. In-patient Bed Days Occupied	19 ~ 21 (minutes per bed day on ward round)	246	78 ~ 86	245	78 ~ 86	234	74 ~ 82
	A3. Other Day-time Activities (e.g. Operation, Delivery, etc.)	106% ~ 115% of (A1 +A2)		122 ~ 146		124 ~ 149		122 ~ 146
	A4. On-call Service (including on-site and off-site)	Basic on-call requirement	Including but not limited to, 37% ~ 40% of total admissions during on-call hours	145 ~ 163	Including but not limited to, 37% ~ 40% of total admissions during on-call hours	147 ~ 166	Including but not limited to, 37% ~ 40% of total admissions during on-call hours	145 ~ 163
B. Ambulatory & Community Care		15 ~ 16 (minutes per attendance)	537	133 ~ 147	559	138 ~ 153	575	142 ~ 157
C. Others (e.g. Coaching, Training, Administration, Documentation, Communication, etc.)		15% of total doctor hours		90 ~ 102		92 ~ 105		92 ~ 104
D. Total Doctor Hours D = A + B + C				605 ~ 685		619 ~ 702		616 ~ 698
E. Annual Working hours per Doctor (net of lunch hours)		2330 ~ 2540						
			Doctor Requirement		Doctor Requirement		Doctor Requirement	
F. Total Doctor Manpower Required				250 ~ 280		250 ~ 290		250 ~ 290

Table 4: Paediatric Specialty

Category	Activity	Projection Parameter (a)	2016		2021		2026	
			Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60	Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60	Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60
A. In-patient Care	A1. Inpatient & Daypatient Admission during day-time [70% ~ 73% of total admissions]	44 ~ 49 (minutes per admission)	79	58 ~ 65	85	63 ~ 70	87	65 ~ 72
	A2. In-patient Bed Days Occupied	31 ~ 35 (minutes per bed day on ward round)	353	184 ~ 203	354	184 ~ 204	338	176 ~ 194
	A3. Other Day-time Activities (e.g. Procedure, Inter-specialty consultation, etc.)	30% ~ 37% of (A1 + A2)		74 ~ 100		75 ~ 102		73 ~ 99
	A4. On-call Service (including on-site and off-site)	Basic on-call requirement	Including but not limited to, 27% ~ 30% of total admissions during on-call hours	232 ~ 272	Including but not limited to, 27% ~ 30% of total admissions during on-call hours	237 ~ 278	Including but not limited to, 27% ~ 30% of total admissions during on-call hours	231 ~ 270
B. Ambulatory & Community Care		20 ~ 22 (minutes per attendance)	259	84 ~ 93	274	89 ~ 99	280	91 ~ 101
C. Others (e.g. Coaching, Training, Administration, Documentation, Communication, etc.)		17% of total doctor hours		127 ~ 149		130 ~ 153		126 ~ 148
D. Total Doctor Hours D = A + B + C				759 ~ 882		778 ~ 905		762 ~ 885
E. Annual Working hours per Doctor (net of lunch hours)		2330 ~ 2540						
			Doctor Requirement		Doctor Requirement		Doctor Requirement	
F. Total Doctor Manpower Required				310 ~ 360		320 ~ 370		310 ~ 360

Table 5: Orthopaedics Specialty

Category	Activity	Projection Parameter (a)	2016		2021		2026	
			Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60	Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60	Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60
A. In-patient Care	A1. Inpatient & Daypatient Admission during day-time [66% ~ 72% of total admissions]	35 ~ 40 (minutes per admission)	62	36 ~ 42	69	40 ~ 46	77	45 ~ 52
	A2. In-patient Bed Days Occupied	19 ~ 20 (minutes per bed day on ward round)	635	206 ~ 217	642	208 ~ 219	686	222 ~ 234
	A3. Other Day-time Activities (e.g. Operation, Procedure, etc.)	65% ~ 81% of (A1 +A2)		157 ~ 209		161 ~ 214		174 ~ 231
	A4. On-call Service (including on-site and off-site)	Basic on-call requirement	Including but not limited to, 28% ~ 34% of total admissions during on-call hours	130 ~ 141	Including but not limited to, 28% ~ 34% of total admissions during on-call hours	133 ~ 145	Including but not limited to, 28% ~ 34% of total admissions during on-call hours	144 ~ 156
B. Ambulatory & Community Care		11 ~ 13 (minutes per attendance)	564	108 ~ 119	611	117 ~ 129	657	125 ~ 139
C. Others (e.g. Coaching, Training, Administration, Documentation, Communication, etc.)		20% ~ 21% of total doctor hours		157 ~ 187		161 ~ 192		174 ~ 207
D. Total Doctor Hours D = A + B + C				794 ~ 914		821 ~ 946		885 ~ 1020
E. Annual Working hours per Doctor (net of lunch hours)		2330 ~ 2540						
			Doctor Requirement		Doctor Requirement		Doctor Requirement	
F. Total Doctor Manpower Required				330 ~ 380		340 ~ 390		360 ~ 420

Table 6: Psychiatric Specialty

Category	Activity	Projection Parameter (a)	2016		2021		2026	
			Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60	Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60	Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60
A. In-patient Care	A1. Inpatient & Daypatient Admission	38 ~ 41 (minutes per admission)	32	20 ~ 22	33	21 ~ 23	34	22 ~ 24
	A2. In-patient Bed Days Occupied	9 ~ 10 (minutes per bed day on ward round)	1056	166 ~ 184	1120	177 ~ 195	1178	186 ~ 205
	A3. Other Day-time Activities (e.g. Inter-specialty consultation, etc.)	9% ~ 10% of (A1 +A2)		18 ~ 20		19 ~ 21		20 ~ 22
	A4. On-call Service (including on-site and off-site)	Basic on-call requirement		62 ~ 69		66 ~ 73		69 ~ 77
B. Ambulatory & Community Care		9 ~ 10 (minutes per attendance /visit)	1228	181 ~ 223	1319	196 ~ 241	1414	210 ~ 257
C. Others (e.g. Coaching, Training, Administration, Documentation, Communication, etc.)		20% of total doctor hours		110 ~ 127		117 ~ 135		124 ~ 143
D. Total Doctor Hours D = A + B + C				558 ~ 646		595 ~ 689		630 ~ 729
E. Annual Working hours per Doctor (net of lunch hours)		1650 ~ 1900						
			Doctor Requirement		Doctor Requirement		Doctor Requirement	
F. Total Doctor Manpower Required				310 ~ 360		340 ~ 390		360 ~ 410

Table 7: Neurosurgery Specialty

Category	Activity	Projection Parameter (a)	2016		2021		2026	
			Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60	Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60	Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60
A. In-patient Care	A1. Inpatient & Daypatient Admission during day-time [63% ~ 65% of total admissions]	28 ~ 31 (minutes per admission)	8	4	9	4 ~ 5	10	5
	A2. In-patient Bed Days Occupied	30 ~ 33 (minutes per bed day on ward round)	117	59 ~ 65	122	61 ~ 68	127	64 ~ 70
	A3. Other Day-time Activities (e.g. Operation, Inter-specialty Consultation, etc.)	66% ~ 78% of (A1 + A2)		43 ~ 52		45 ~ 54		47 ~ 56
	A4. On-call Service (including on-site and off-site)	Basic on-call requirement	Including but not limited to, 35% ~ 37% of total admissions during on-call hours	45 ~ 50	Including but not limited to, 35% ~ 37% of total admissions during on-call hours	47 ~ 53	Including but not limited to, 35% ~ 37% of total admissions during on-call hours	49 ~ 55
B. Ambulatory & Community Care		25 ~ 27 (minutes per attendance)	63	26 ~ 29	69	28 ~ 31	74	30 ~ 33
C. Others (e.g. Coaching, Training, Administration, Documentation, Communication, etc.)		18% ~ 19% of total doctor hours		40 ~ 46		42 ~ 48		43 ~ 50
D. Total Doctor Hours D = A + B + C				216 ~ 246		227 ~ 259		237 ~ 270
E. Annual Working hours per Doctor (net of lunch hours)		2330 ~ 2540						
			Doctor Requirement		Doctor Requirement		Doctor Requirement	
F. Total Doctor Manpower Required				90 ~ 100		90 ~ 110		100 ~ 110

Table 8: Ear, Nose and Throat Specialty

Category	Activity	Projection Parameter (a)	2016		2021		2026	
			Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60	Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60	Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60
A. In-patient Care	A1. Inpatient & Daypatient Admission during day-time [~ 94% of total admissions]	22 ~ 25 (minutes per admission)	14	5 ~ 6	15	6	16	6
	A2. In-patient Bed Days Occupied	28 ~ 31 (minutes per bed day on ward round)	30	14 ~ 16	30	14 ~ 16	30	14 ~ 16
	A3. Other Day-time Activities (e.g. Operation, Procedure, etc.), including procedure done in out-patient setting	356% ~ 389% of (A1 +A2)		69 ~ 83		71 ~ 85		71 ~ 86
	A4. On-call Service (including on-site and off-site)	Basic on-call requirement	Including but not limited to, 6% of total admissions during on-call hours	2 ~ 3	Including but not limited to, 6% of total admissions during on-call hours	2 ~ 3	Including but not limited to, 6% of total admissions during on-call hours	2 ~ 3
B. Ambulatory & Community Care		13 ~ 14 (minutes per attendance)	323	68 ~ 75	348	73 ~ 81	370	78 ~ 86
C. Others (e.g. Coaching, Training, Administration, Documentation, Communication, etc.)		22% of total doctor hours		45 ~ 52		47 ~ 55		49 ~ 56
D. Total Doctor Hours D = A + B + C				203 ~ 235		213 ~ 247		220 ~ 254
E. Annual Working hours per Doctor (net of lunch hours)		2330 ~ 2540						
			Doctor Requirement		Doctor Requirement		Doctor Requirement	
F. Total Doctor Manpower Required				80 ~ 100		90 ~ 100		90 ~ 110

Table 9: Ophthalmology Specialty

Category	Activity	Projection Parameter (a)	2016		2021		2026	
			Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60	Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60	Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60
A. In-patient Care	A1. Inpatient & Daypatient Admission during day-time [~ 99% of total admissions]	20 ~ 22 (minutes per admission)	34	12 ~ 13	40	13 ~ 15	47	16 ~ 18
	A2. In-patient Bed Days Occupied	14 ~ 16 (minutes per bed day on ward round)	30	7 ~ 8	27	6 ~ 7	23	5 ~ 6
	A3. Other Day-time Activities (e.g. Operation, Procedure, etc.), including procedure done in out-patient setting	388% ~ 504% of (A1 + A2)		73 ~ 104		77 ~ 110		82 ~ 118
	A4. On-call Service (including on-site and off-site)	Basic on-call requirement	Including but not limited to, 1% of total admissions & consultation to A&E referral cases during on-call hours	27 ~ 63	Including but not limited to, 1% of total admissions & consultation to A&E referral cases during on-call hours	29 ~ 67	Including but not limited to, 1% of total admissions & consultation to A&E referral cases during on-call hours	31 ~ 72
B. Ambulatory & Community Care		9 ~ 10 (minutes per attendance)	1030	149 ~ 164	1175	170 ~ 188	1340	194 ~ 214
C. Others (e.g. Coaching, Training, Administration, Documentation, Communication, etc.)		19% of total doctor hours		62 ~ 81		68 ~ 89		76 ~ 98
D. Total Doctor Hours D = A + B + C				329 ~ 434		363 ~ 475		404 ~ 526
E. Annual Working hours per Doctor (net of lunch hours)		2120 ~ 2330	Doctor Requirement		Doctor Requirement		Doctor Requirement	
F. Total Doctor Manpower Required				150 ~ 200		160 ~ 210		180 ~ 240

Table 10: Family Medicine Specialty

Category	Activity	Projection Parameter (a)	2016		2021		2026	
			Activity ('000) (b)	Doctors Required (c)=(b)/(a)	Activity ('000) (b)	Doctors Required (c)=(b)/(a)	Activity ('000) (b)	Doctors Required (c)=(b)/(a)
A. General Outpatient Clinic	A. General Outpatient Attendances	12400 ~ 13700 (attendances per doctor)	5636	411 ~ 455	6187	452 ~ 499	6850	500 ~ 553
B. Family Medicine Specialist Clinic	B. Family Medicine Specialist Clinic Attendances	16% of (A)		65 ~ 72		71 ~ 79		79 ~ 87
C. Others (e.g. Coaching, Training, Administration, Documentation, Communication, etc.)		15% of total doctor manpower required		83 ~ 92		92 ~ 101		101 ~ 112
			Doctor Requirement		Doctor Requirement		Doctor Requirement	
D. Total Doctor Manpower Required D = A + B + C				560 ~ 620		610 ~ 680		680 ~ 750

Table 11: Radiology Specialty

Category	Activity	Projection Parameter (a)	2016		2021		2026	
			Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60	Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60	Activity ('000) (b)	Doctor Hours ('000) (c)=(a)x(b)/60
A. Radiodiagnostic Service	A. Radiological Examinations	7 ~ 8 (minutes per examination)	4593	550 ~ 585	5149	616 ~ 692	5701	682 ~ 766
B. Others (e.g. Coaching, Training, Administration, Documentation, Communication, etc.)		20% of total doctor hours		137 ~ 146		154 ~ 173		171 ~ 191
C. Total Doctor Hours C = A + B				687 ~ 732		770 ~ 865		853 ~ 957
D. Annual Working hours per Doctor (net of lunch hours)		2120 ~ 2330	Doctor Requirement		Doctor Requirement		Doctor Requirement	
E. Total Doctor Manpower Required				310 ~ 330		350 ~ 390		380 ~ 430

Table 12: Accident & Emergency, Anaesthesiology, Clinical Oncology and Pathology Specialties

Specialty	Projection Parameter
Clinical Oncology	Based on the projected per annum growth rate (~2.0%) of new cancer cases compiled by the Hong Kong Cancer Registry, and apply it to the actual manpower strength in the baseline year to derive the projected manpower requirement in 2016, 2021 and 2026 respectively
Accident & Emergency (A&E)	Based on the projected per annum growth rate (~1.8%) of A&E services due to population growth and ageing after having adjusted for the age-sex-specific utilisation rate per capita in the baseline year, and apply it to the actual manpower strength in the baseline year to derive the projected manpower requirement in 2016, 2021 and 2026 respectively
Anaesthesiology	Based on the projected per annum growth rate (~1.8%) of anaesthesia services due to population growth and ageing after having adjusted for the age-sex-specific utilisation rate per capita in the baseline year, and apply it to the actual manpower strength in the baseline year to derive the projected manpower requirement in 2016, 2021 and 2026 respectively
Pathology	Based on the projected per annum growth rate (~1.6%) of doctor requirement for all other specialties, and apply it to the actual manpower strength in the baseline year to derive the projected manpower requirement in 2016, 2021 and 2026 respectively