

**Counties Manukau
District Health Board**

**Neurosurgery
Health Services Plan**

February 2008

1.0 Current Services

Neurosurgery Services for the people of Counties Manukau are provided by the ADHB Neurosurgical Service.

The ADHB Department of Neurosurgery treats patients with diseases or trauma involving the central and peripheral nervous system. The services provided include inpatient/daypatient and outpatient services, surgical procedures and neuro-physiological assessments. The responsibilities of the ADHB department decreased in 2006/2007 with the development of the Waikato Hospital Neurosurgery service taking responsibility for the Midland region. The major caseload for this service is within the 25-64 years age group with a concentration on inpatient services.

Specialist services include intra-cranial vascular microsurgery, spine and spinal cord surgery, management of hydrocephalus and increased intracranial pressure, carotid endarterectomy and management, stereotaxic surgery for movement disorders and epilepsy, neurosurgical oncology, stereotactic radio surgery, paediatric neurosurgery. The department is a regional centre for neurosurgical trauma (including transfers of neurosurgical trauma patients from Middlemore Hospital) and is supported by Neuro Intensive Care and diagnostic services.

In addition to a comprehensive regional service, the service provides some national services e.g. epilepsy neurosurgical procedures.

The ADHB service is a teaching and research centre and is Level 6 of the New South Wales Role Delineation Model. Details of current service volumes are attached as an appendix to this workstream.

2.0 Trends and Future Directions

While increases in service volume is forecast as the result of population growth, neurosurgical services for CMDHB will remain at ADHB during the period of the Health Services Plan. This is contingent on ADHB being able to develop the required capacity to provide prompt acute and elective access.

The Health Service Plan workstream includes the development of enhanced visiting neurology services from ADHB to CMDHB. Visiting ADHB Neurology clinicians will increasingly act as a conduit between CMDHB and the ADHB Neurosurgery, to support the development of clinical relationships and coordination of care for people requiring neurosurgical care.

3.0 Key Directions

- ✓ *Neurosurgical services for people of Counties Manukau will continue to be provided at ADHB for the period of the HSP.*

APPENDIX ONE : CURRENT NEUROSURGERY ACTIVITY

CURRENT ACTIVITY INPATIENTS BY SERVICE RELATED GROUP

SRG				2004/05			2005/06			2006/07			
Patient Type	Admit Type	Day/Inpatient	Agency code	Discharges	Caseweights	acw	Discharges	Caseweights	acw	Discharges	Caseweights	acw	
Adult	Acute	Daypatient	Auckland	1	0.51	0.51	2	1.03	0.52	1	0.52	0.52	
			Counties Manukau	16	9.23	0.58	21	11.00	0.52	20	10.34	0.52	
			Non Northern Region	1	0.76	0.76	1	1.64	1.64	3	3.81	1.27	
		Daypatient Total			18	10.51	0.58	24	13.67	0.57	24	14.67	0.61
		Inpatient	Waitemata		1			1			1	2.34	2.34
			Auckland Counties Manukau		131	598.82	4.57	136	656.04	4.82	139	632.49	4.55
	Non Northern Region			19	26.85	1.41	50	103.08	2.06	45	71.22	1.58	
	Inpatient Total			154	637.67	4.14	186	759.12	4.08	188	721.13	3.84	
	Acute Total			172	648.18	3.77	210	772.79	3.68	212	735.80	3.47	
	Elective	Inpatient	Auckland	64	276.50	4.32	50	224.52	4.49	52	193.81	3.73	
			Counties Manukau							2	5.64	2.82	
			Non Northern Region							1	4.64	4.64	
Inpatient Total			64	276.50	4.32	50	224.52	4.49	55	204.10	3.71		
Elective Total			64	276.50	4.32	50	224.52	4.49	55	204.10	3.71		
Adult Total				236	924.68	3.92	260	997.31	3.84	267	939.90	3.52	

CURRENT ACTIVITY (CHILDREN) CONDT.

SRG				2004/05			2005/06			2006/07			
Patient Type	Admit Type	Day/Inpatient	Agency code	Discharges	Caseweights	acw	Discharges	Caseweights	acw	Discharges	Caseweights	acw	
Child	Acute	Daypatient	Auckland Counties Manukau	1	0.51	0.51	2	1.03	0.52				
				7	3.59	0.51	8	4.14	0.52	7	3.62	0.52	
		Daypatient Total			8	4.10	0.51	10	5.17	0.52	7	3.62	0.52
		Inpatient	Auckland Counties Manukau	31	104.55	3.37	23	116.01	5.04	20	71.94	3.60	
			8	8.21	1.03	5	8.36	1.67	5	5.17	1.03		
	Inpatient Total			39	112.76	2.89	28	124.37	4.44	25	77.11	3.08	
	Acute Total				47	116.87	2.49	38	129.54	3.41	32	80.73	2.52
	Elective	Inpatient	Auckland Counties Manukau	5	22.96	4.59	9	30.02	3.34	10	32.74	3.27	
							1	2.85	2.85				
		Inpatient Total			5	22.96	4.59	10	32.86	3.29	10	32.74	3.27
Elective Total				5	22.96	4.59	10	32.86	3.29	10	32.74	3.27	
Child Total				52	139.83	2.69	48	162.41	3.38	42	113.47	2.70	
Grand Total				288	1064.51	3.70	308	1159.72	3.77	309	1053.37	3.41	

CURRENT ACTIVITY INPATIENT BY PURCHASE UNIT CODE

PUC (S35.01)				2004/05			2005/06			2006/07			
Patient Type	Admit Type	Day/Inpatient	Agency code	Discharges	Caseweights	acw	Discharges	Caseweights	acw	Discharges	Caseweights	acw	
Adult	Acute	Daypatient	Auckland	29	12.61	0.43	25	10.48	0.42	25	10.77	0.43	
			Non Northern Region							1	0.30	0.30	
		Daypatient Total			29	12.61	0.43	25	10.48	0.42	26	11.07	0.43
		Inpatient	Auckland	201	856.85	4.26	214	967.08	4.52	227	813.65	3.58	
			Non Northern Region	3	3.98	1.33				1	4.64	4.64	
	Inpatient Total			204	860.83	4.22	214	967.08	4.52	228	818.30	3.59	
	Acute Total				233	873.44	3.75	239	977.56	4.09	254	829.37	3.27
	Elective	Daypatient	Auckland	10	4.37	0.44	4	2.21	0.55	4	1.95	0.49	
			Non Northern Region	1	0.34	0.34							
		Daypatient Total			11	4.71	0.43	4	2.21	0.55	4	1.95	0.49
		Inpatient	Auckland	92	321.30	3.49	69	288.26	4.18	77	284.27	3.69	
			Non Northern Region							1	4.64	4.64	
	Inpatient Total			92	321.30	3.49	69	288.26	4.18	78	288.92	3.70	
	Elective Total				103	326.01	3.17	73	290.47	3.98	82	290.86	3.55
	Adult Total				336	1199.44	3.57	312	1268.03	4.06	336	1120.23	3.33

CURRENT ACTIVITY INPATIENT (CHILDREN)

PUC (S35.01)				2004/05			2005/06			2006/07			
Patient Type	Admit Type	Day/ Inpatient	Agency code	Discharges	Caseweights	acw	Discharges	Caseweights	acw	Discharges	Caseweights	acw	
Child	Acute	Daypatient	Auckland	6	2.68	0.45	18	8.23	0.46	23	9.93	0.43	
		Daypatient Total		6	2.68	0.45	18	8.23	0.46	23	9.93	0.43	
		Inpatient	Auckland	59	155.60	2.64	48	116.47	2.43	49	183.05	3.74	
		Inpatient Total		59	155.60	2.64	48	116.47	2.43	49	183.05	3.74	
	Acute Total			65	158.28	2.44	66	124.70	1.89	72	192.99	2.68	
	Elective	Daypatient	Auckland	9	3.60	0.40	14	5.95	0.43				
		Daypatient Total		9	3.60	0.40	14	5.95	0.43				
		Inpatient	Auckland	11	33.85	3.08	10	44.92	4.49	11	29.03	2.64	
		Inpatient Total		11	33.85	3.08	10	44.92	4.49	11	29.03	2.64	
	Elective Total			20	37.45	1.87	24	50.87	2.12	11	29.03	2.64	
	Child Total				85	195.73	2.30	90	175.57	1.95	83	222.02	2.67
	Grand Total				421	1395.18	3.31	402	1443.60	3.59	419	1342.25	3.20

CURRENT ACTIVITY OUTPATIENT

	FSA			FU		
	2004/05	2005/06	2006/07	2004/05	2005/06	2006/07
DHB	121	102	146	520	536	616
Other DHBs		1	1	1		5
Grand Total	121	103	147	521	536	621

APPENDIX TWO: FUTURE ACTIVITY CARDIOTHORACIC

FUTURE ACTIVITY INPATIENTS BY SERVICE RELATED GROUP

SRG				Forecast Discharge Numbers @2.8% growth				Forecast WIES @ 2.8% growth				
Patient Type	Admit Type	Day/Inpatient	Agency code	2009/10	2011/12	20016/17	2026/27	2009/10	2011/12	20016/17	2026/27	
Adult	Acute	Daypatient	Auckland Counties	1	1	1	2	0.56	0.59	0.68	0.90	
			Manukau	22	23	26	35	11.24	11.88	13.63	17.97	
			Non Northern Region	3	3	4	5	4.13	4.37	5.02	6.61	
		Daypatient Total			26	28	32	42	15.93	16.84	19.33	25.48
		Inpatient	Waitemata	1	1	1	2	2.54	2.68	3.08	4.06	
			Auckland Counties	151	160	183	241	687.12	726.14	833.66	1098.80	
	Manukau		49	52	59	78	77.37	81.76	93.87	123.73		
	Inpatient Total			3	3	4	5	16.38	17.31	19.88	26.20	
	Inpatient Total			204	216	248	327	783.42	827.90	950.48	1252.78	
	Acute Total				230	243	279	368	799.35	844.74	969.81	1278.26
	Elective	Inpatient	Auckland Counties	56	60	69	90	210.55	222.51	255.46	336.70	
			Manukau	2	2	3	3	6.13	6.48	7.44	9.81	
			Non Northern Region	1	1	1	2	5.04	5.33	6.12	8.07	
		Inpatient Total			60	63	72	96	221.73	234.32	269.02	354.58
Elective Total				60	63	72	96	221.73	234.32	269.02	354.58	
Adult Total				290	307	352	464	1021.08	1079.06	1238.83	1632.84	

FUTURE ACTIVITY INPATIENTS (CHILDREN)

SRG				Forecast Discharge Numbers @2.8% growth				Forecast WIES @ 2.8% growth				
Patient Type	Admit Type	Day/Inpatient	Agency code	2009/10	2011/12	20016/17	2026/27	2009/10	2011/12	20016/17	2026/27	
Child	Acute	Daypatient	Auckland Counties	0	0	0	0	0.00	0.00	0.00	0.00	
			Manukau	8	8	9	12	3.93	4.16	4.77	6.29	
		Daypatient Total			8	8	9	12	3.93	4.16	4.77	6.29
		Inpatient	Auckland Counties	22	23	26	35	78.15	82.59	94.82	124.98	
	Manukau		5	6	7	9	5.62	5.94	6.82	8.99		
	Inpatient Total			27	29	33	43	83.77	88.53	101.64	133.96	
	Acute Total				35	37	42	56	87.70	92.68	106.41	140.25
	Elective	Inpatient	Auckland Counties	11	11	13	17	35.57	37.59	43.16	56.88	
			Manukau	0	0	0	0	0.00	0.00	0.00	0.00	
		Inpatient Total			11	11	13	17	35.57	37.59	43.16	56.88
Elective Total				11	11	13	17	35.57	37.59	43.16	56.88	
Child Total				46	48	55	73	123.28	130.28	149.56	197.13	
Grand Total				336	355	407	537	1144.36	1209.34	1388.40	1829.97	

FUTURE ACTIVITY INPATIENTS BY PURCHASE UNIT CODE

PUC (S35.01)				Forecast Discharge Numbers @2.8% growth				Forecast WIES @ 2.8% growth				
Type	Admit Type	Day/Inpatient	Agency code	2009/10	2011/12	20016/17	2026/27	2009/10	2011/12	20016/17	2026/27	
Adult	Acute	Daypatient	Auckland	27	29	33	43	11.70	12.36	14.19	18.71	
			Non Northern Region	1	1	1	2	0.33	0.34	0.40	0.52	
		Daypatient Total			28	30	34	45	12.03	12.71	14.59	19.23
		Inpatient	Auckland	247	261	299	394	883.93	934.12	1072.43	1413.52	
			Non Northern Region	1	1	1	2	5.04	5.33	6.12	8.07	
		Inpatient Total			248	262	301	396	888.98	939.46	1078.55	1421.59
	Acute Total				276	292	335	441	901.00	952.16	1093.14	1440.82
	Elective	Daypatient	Auckland	4	5	5	7	2.12	2.24	2.57	3.38	
			Non Northern Region	0	0	0	0	0.00	0.00	0.00	0.00	
		Daypatient Total			4	5	5	7	2.12	2.24	2.57	3.38
		Inpatient	Auckland	84	88	101	134	308.83	326.36	374.68	493.85	
			Non Northern Region	1	1	1	2	5.04	5.33	6.12	8.07	
		Inpatient Total			85	90	103	136	313.87	331.69	380.81	501.92
	Elective Total				89	94	108	142	315.99	333.93	383.37	505.30
Adult Total				365	386	443	584	1216.99	1286.09	1476.52	1946.12	

FUTURE ACTIVITY INPATIENTS (CHILDREN)

PUC (S35.01)				Forecast Discharge Numbers @2.8% growth				Forecast WIES @ 2.8% growth			
Type	Admit Type	Day/Inpatient	Agency code	2009/10	2011/12	20016/17	2026/27	2009/10	2011/12	20016/17	2026/27
Child	Acute	Daypatient	Auckland	25	26	30	40	10.79	11.40	13.09	17.26
		Daypatient Total		25	26	30	40	10.79	11.40	13.09	17.26
		Inpatient	Auckland	53	56	65	85	198.86	210.16	241.27	318.01
		Inpatient Total		53	56	65	85	198.86	210.16	241.27	318.01
	Acute Total			78	83	95	125	209.66	221.56	254.37	335.27
	Elective	Daypatient	Auckland	0	0	0	0	0.00	0.00	0.00	0.00
		Daypatient Total		0	0	0	0	0.00	0.00	0.00	0.00
		Inpatient	Auckland	12	13	14	19	31.54	33.33	38.27	50.44
		Inpatient Total		12	13	14	19	31.54	33.33	38.27	50.44
	Elective Total			12	13	14	19	31.54	33.33	38.27	50.44
PUC (S35.01)				Forecast Discharge Numbers @2.8% growth				Forecast WIES @ 2.8% growth			
Type	Admit Type	Day/Inpatient	Agency code	2009/10	2011/12	20016/17	2026/27	2009/10	2011/12	20016/17	2026/27
Child Total				90	95	109	144	241.20	254.89	292.63	385.70
Grand Total				455	481	552	728	1458.19	1540.99	1769.15	2331.82

FUTURE ACTIVITY OUTPATIENTS

	Forecast FSA Numbers @2.8% growth				Forecast FU Numbers @2.8% growth			
	2009/10	2011/12	20016/17	2026/27	2009/10	2011/12	20016/17	2026/27
DHB								
ADHB	159	168	192	254	669	707	812	1070
Other DHBs	1	1	1	2	5	6	7	9
Grand Total	160	169	193	256	674	713	819	1,079