

Supplementary Material

A supported primary health pathway for mild traumatic brain injury quality improvement report

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Supplementary Information 1. Further details of the digital support health pathway for mTBI and the integrated assessment tool

Clinicians were able to access the mTBI digital pathway tool by logging into the MedTech system, going to the Manage my Health Tools tab and clicking on the BIST tool option. The tool prepopulated key patient details and prompted the clinician to complete the various stages of assessment including clinical appraisal, symptom evaluation and identification of risks of prolonged recovery using the Brain Injury Screening Tool. The BIST includes a series of questions about the incident, signs of mTBI such as duration of loss consciousness and known risk factors for prolonged recovery such as previous history of mTBI and high acute symptom burden. The symptom scale includes 16 symptoms commonly experienced after a mTBI. Patients are asked to rate how much they have experienced each symptom since their injury, compared to before the injury, on a scale of 0 (not experienced) to 10 (severe). As some impacts of mTBI have not been experienced on the day of injury (e.g., sleep disturbance) a <24 hour version of the BIST (12 items) and a >24 hour version of the BIST (16 items) are available. Symptom item scores are totalled to yield a total symptom burden score (between 0 and 120 if <24 hours and between 0 and 160 if >24 hours). Scores of >50 (if <24 hours) or >66 (>24 hours) are indicative of high acute symptom burden who may benefit from early referral to a concussion service. The symptom scale was completed again in subsequent follow-up appointments, to track patient recovery.

	Total PHOs	Percentage	ProCare	Pegasus	Percentage	ProCare and Pegasus	Percentage	Total Pilot PHOs	Percentage
Number of Enrolments June 2023	4898133	-	823,185	473182	-	1296367	-	2780260	-
Sex									
Male	2376755	49%	397105	228620	48%	625725	48%	1343867	48%
Female	2521378	51%	426080	244562	52%	670642	52%	1436393	52%
Deprivation									
0	94981	2%	13972	8363	2%	22335	2%	57529	2%
1	1071195	22%	208998	172903	37%	381901	29%	688894	25%
2	977789	20%	185398	100559	21%	285957	22%	601954	22%
3	935880	19%	151718	79326	17%	231044	18%	549164	20%
4	913398	19%	127318	70901	15%	198219	15%	489986	18%
5	904890	18%	135781	41130	9%	176911	14%	392733	14%
Ethnicity									
Asian	773274	16%	205477	56826	12%	262303	20%	417114	15%
European	2893267	59%	409598	344423	73%	754021	58%	1781145	64%
Māori	752093	15%	79209	44845	9%	124054	10%	352460	13%
Unknown	19871	0%	2353	3076	1%	5429	0%	10769	0%
Other	106599	2%	23338	10218	2%	33556	3%	62728	2%
Pacific	353029	7%	103210	13794	3%	117004	9%	156494	6%
Age in years									
<18	1114599	23%	188060	103528	22%	291588	22%	623720	22%
18-24	399023	8%	68556	36599	8%	105155	8%	216603	8%
25-44	1316652	27%	236439	127421	27%	363860	28%	738657	27%
45-64	1220273	25%	208005	122303	26%	330308	25%	705928	25%
65+	847586	17%	122125	83331	18%	205456	16%	495352	18%