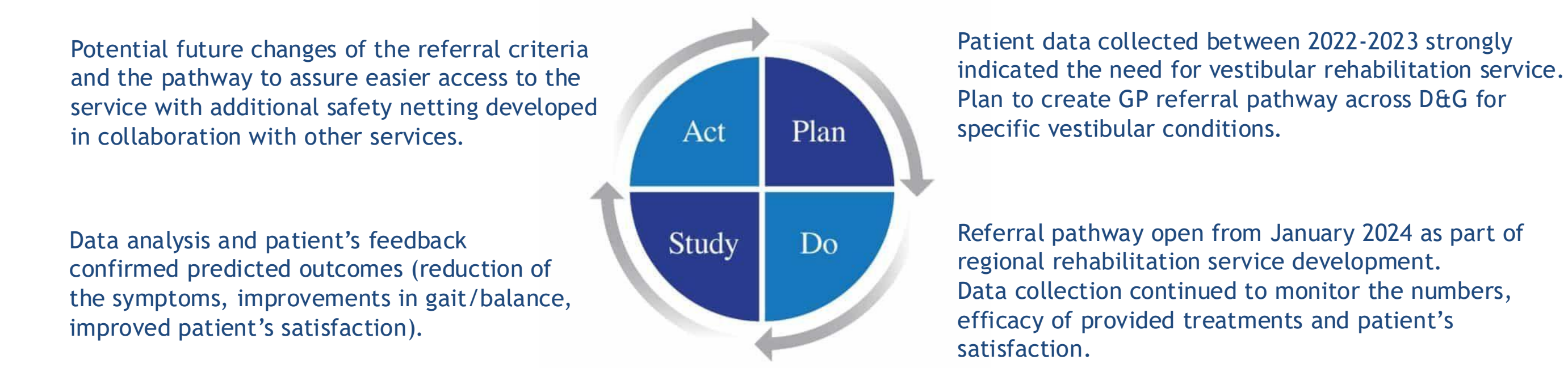


**Aim Statement:** The aim of this project was to assess the efficacy of interventions and quality of the referrals received by vestibular rehabilitation service in year 2024

**Background**

Vestibular rehabilitation (VR) is a specialised form of therapy helpful in the treatment and management of symptoms caused by peripheral vestibular conditions. Unfortunately, a lot of patients suffering from benign form of vertigo wait significant amount of time before they receive appropriate therapy input. It was noted that a high proportion of patients referred to falls clinic require vestibular physiotherapy assessment and input, therefore, a referral pathway was made available to General Practitioners for vestibular rehabilitation referrals from January 2024. Strict referral criteria were proposed as it was important not to discourage primary care clinicians from treating the most common conditions (e.g. BPPV) where skills and capacity permit. The criteria focused on the conditions which respond the most to VR as per clinical practice guidelines<sup>1</sup>.

**Methodology**

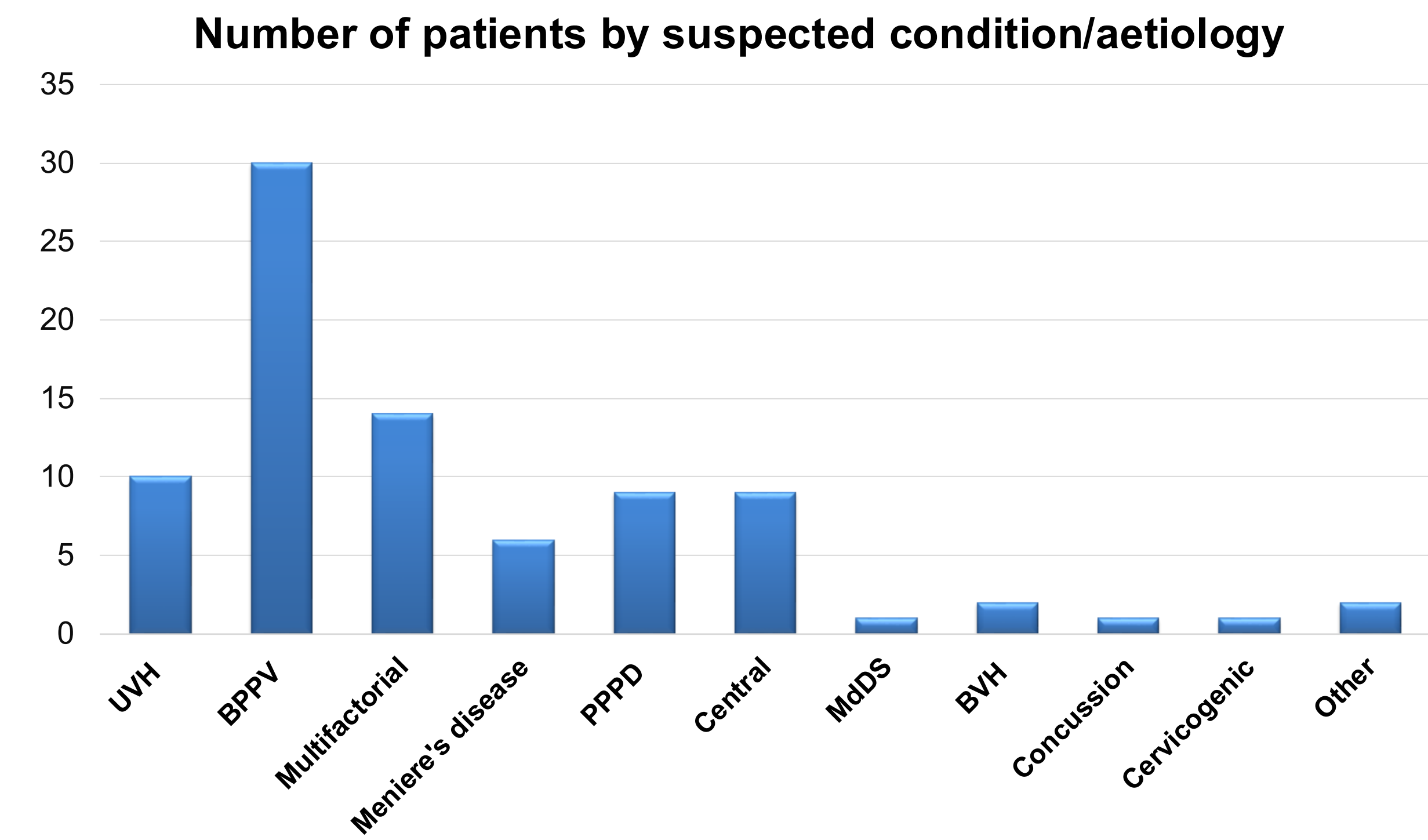
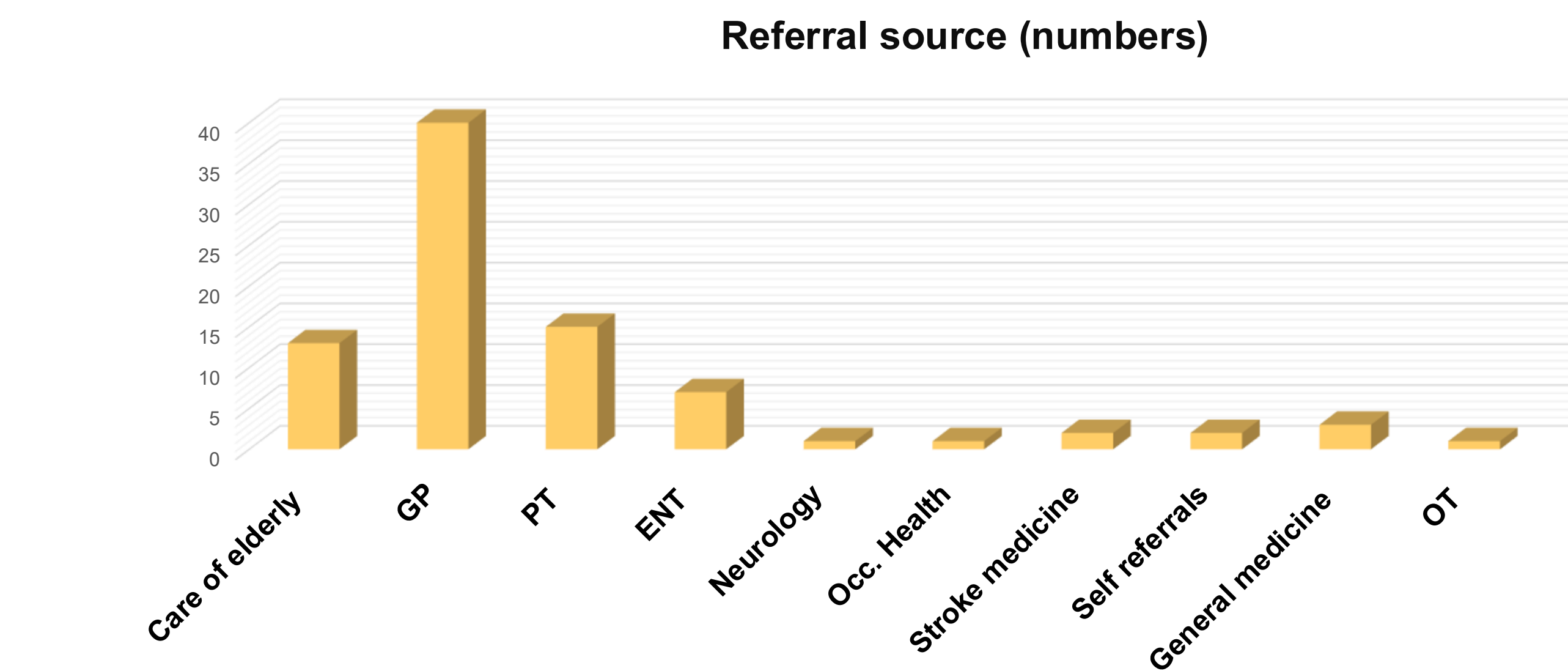
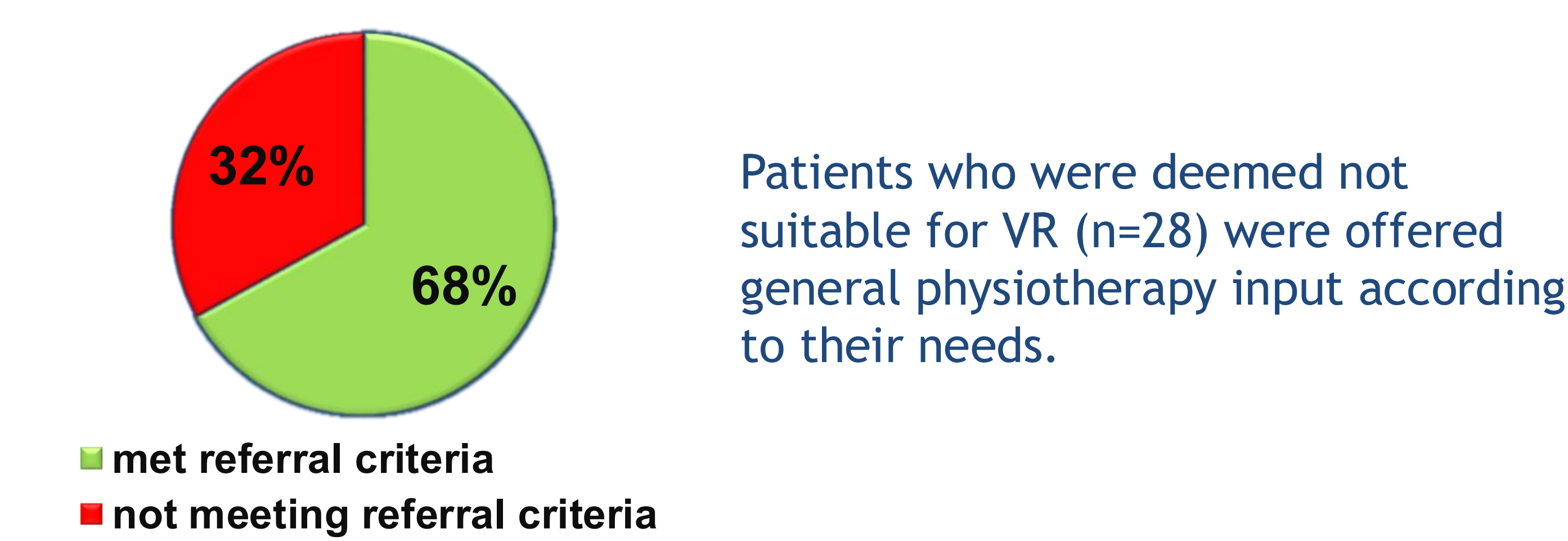
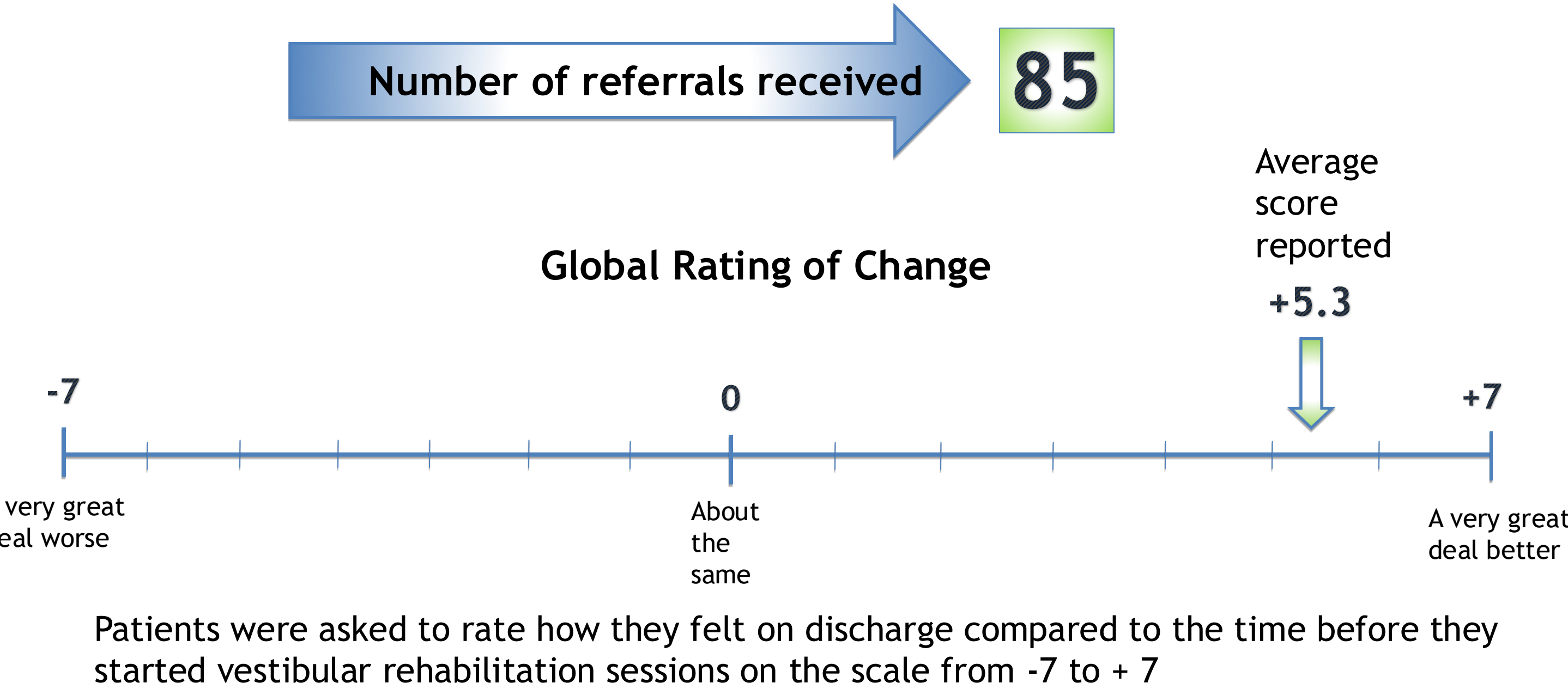


Referrals were accepted across Dumfries and Galloway for adults (>16y) with suspected peripheral vestibular system deficit as per criteria below. Patient received assessment and treatment sessions at Mountainhall Treatment Centre in Dumfries and Newton Stewart Hospital.

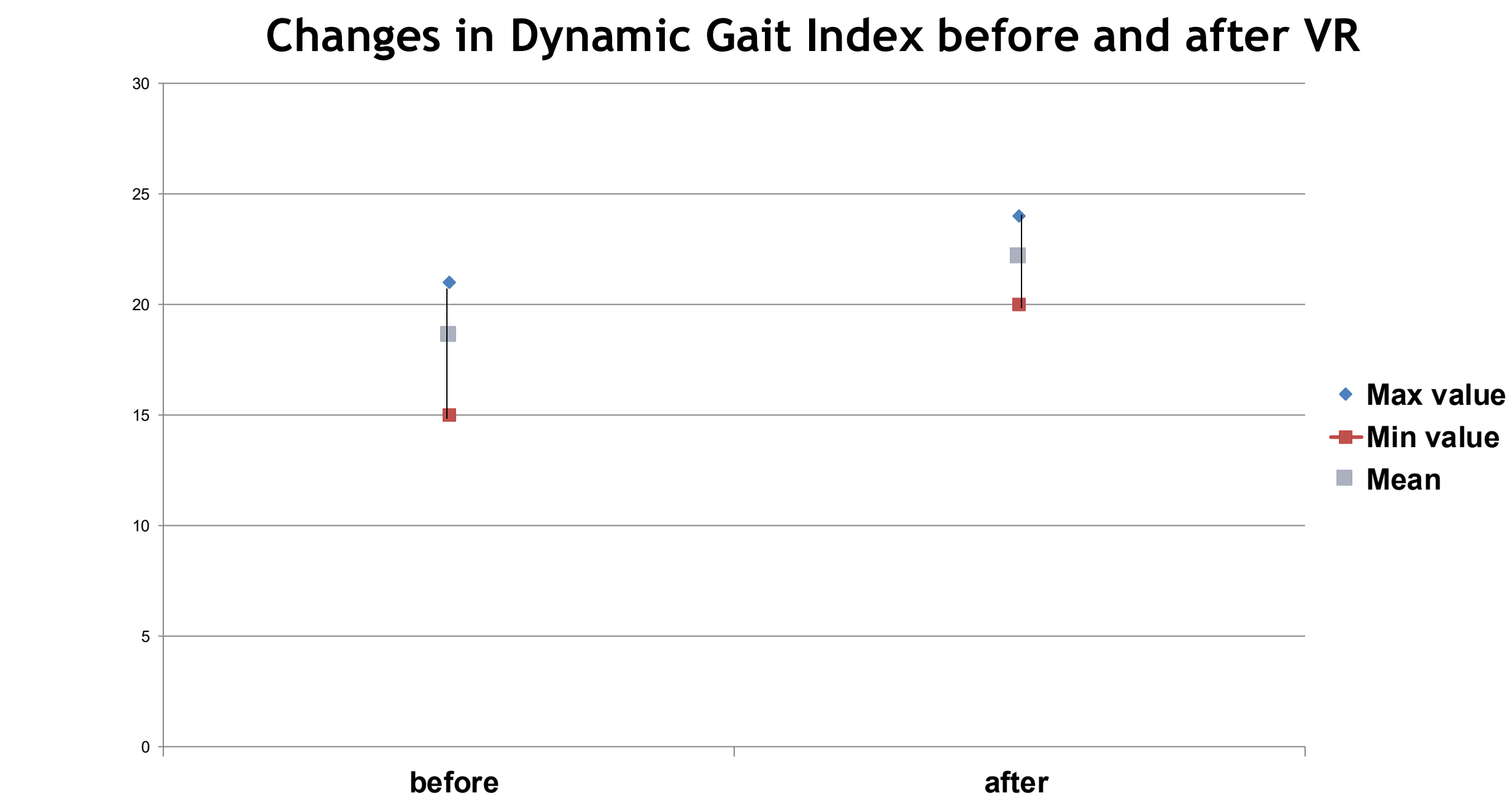
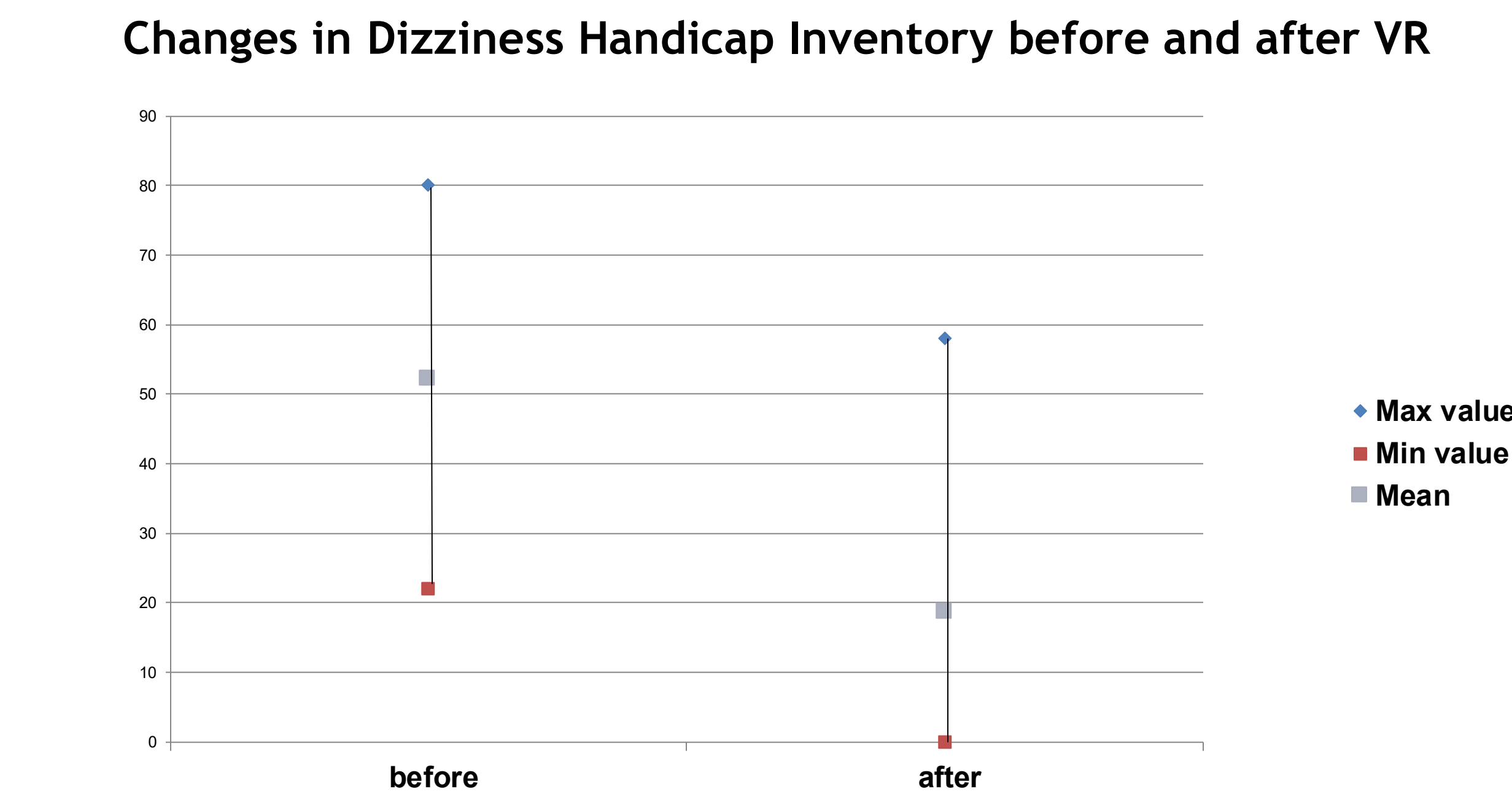
Dizziness Handicap Inventory (DHI) questionnaire was used to capture patient's symptoms perception and the impact on their daily activities (where higher scores indicate severe handicap) . Patient's balance was assessed with Dynamic Gait Index (DGI - where higher scores represent better balance) and perceived improvement or worsening was reported by patients with Global Rating of Change form. The above outcome measures were collected on first and last appointments only for patients who met referral criteria and would benefit from VR (n=58).

Scan QR code for referral criteria used

**Results**



UVH - Unilateral vestibular hypofunction	BPPV - Benign paroxysmal positional vertigo
Multifactorial - Presbystasis, small vessel disease, neuropathy	PPPD - Persistent postural perceptual dizziness
Central - related to previous stroke, vestibular migraine	MdDS - Mal de Debarquement syndrome
BVH - Bilateral vestibular hypofunction	Other - anxiety, myelopathy, cancer



**Analysis & conclusions**

Tailored vestibular physiotherapy intervention resulted in significant improvements in perceived dizziness and objectively assessed dynamic balance in qualifying patients. Mean values of Dizziness Handicap Inventory questionnaire reduced from 52.2% (score suggesting borderline moderate/severe handicap) to 18.6% (mild handicap) after therapeutic input. Mean values of Dynamic Gait Index balance test measuring dynamic components of gait and balance improved from 18.6 points (scores ≤19/24 are predictive of falls) to 22.2 points after the intervention.

Patient's perception of change after received rehabilitation measured with Global Rating of Change scale confirmed significant improvements with mean value of +5.3 (on the scale from -7 to +7). Received feedback from service users highlighted the satisfaction with how quickly their symptoms got better, how more confident they were about their balance and abilities in daily life after the physiotherapy service input. High proportion of the referrals (32%) did not meet referral criteria which is likely caused by uncertainty among referrers of the aetiology of symptoms, patient's complex presentation due to multiple co-morbidities and/or advanced age as well as limited access to specialist vestibular lab testing which can objectively measure vestibular function to help in diagnosis process. Majority of the referrals (>50%) did not point towards specific diagnosis and frequently used general terms of "vertigo" and "dizziness".

**Next Steps**

Reviewing and changing referral criteria to further shorten waiting times and increase service access for patients (e.g. removing prerequisites for BPPV referrals). Continuous work on increasing awareness of benefits of VR through in-services and meetings. Enhancing cooperation with ENT service and exploring access to vestibular laboratory testing for complex patients.

**Key References**

<sup>1</sup> J Neurol Phys Ther. 2022 Apr 1;46(2):118-177.