MIGRAINE FOUNDATION
Aotearoa New Zealand

Migraine disease in Aotearoa New Zealand

Neurological Advisory Committee meeting (Pharmac)

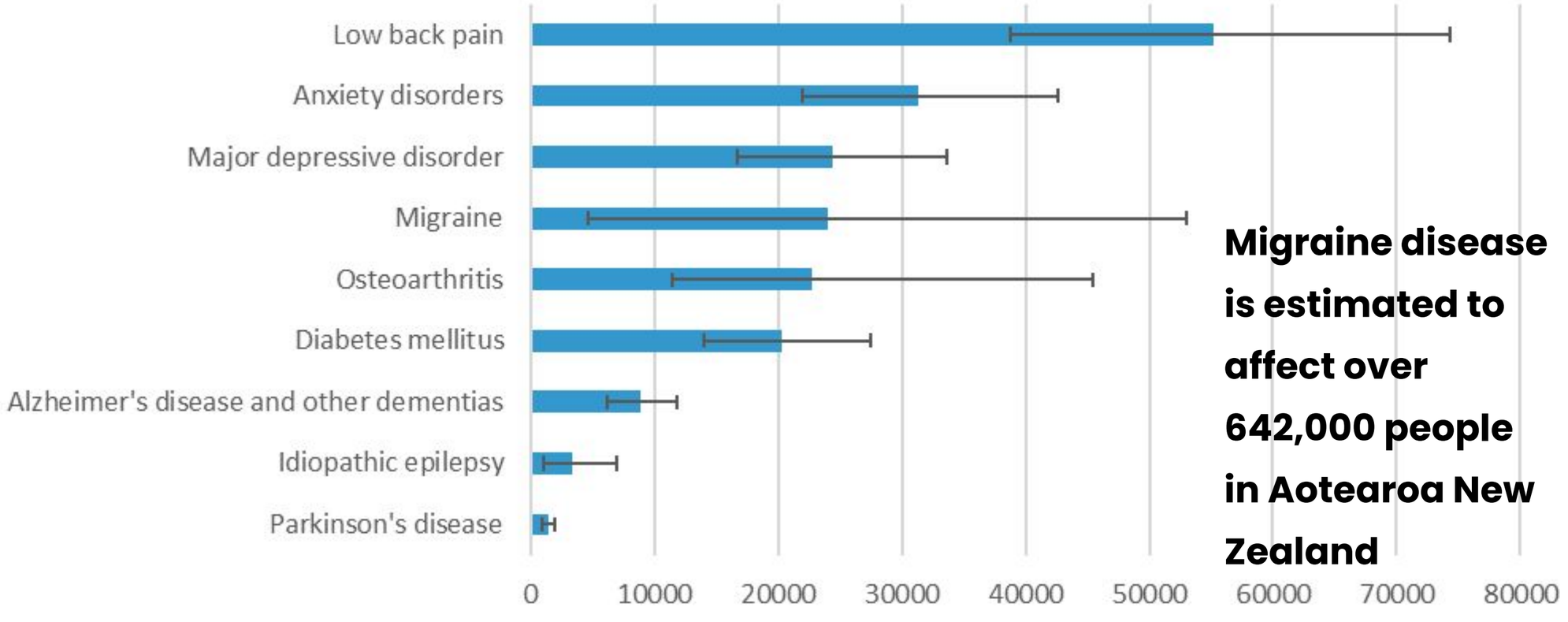
19 September 2023

Dr Fiona Imlach

Dr Desiree Fernandez

Suzanne Vale

Health need: Disability (GBD data)

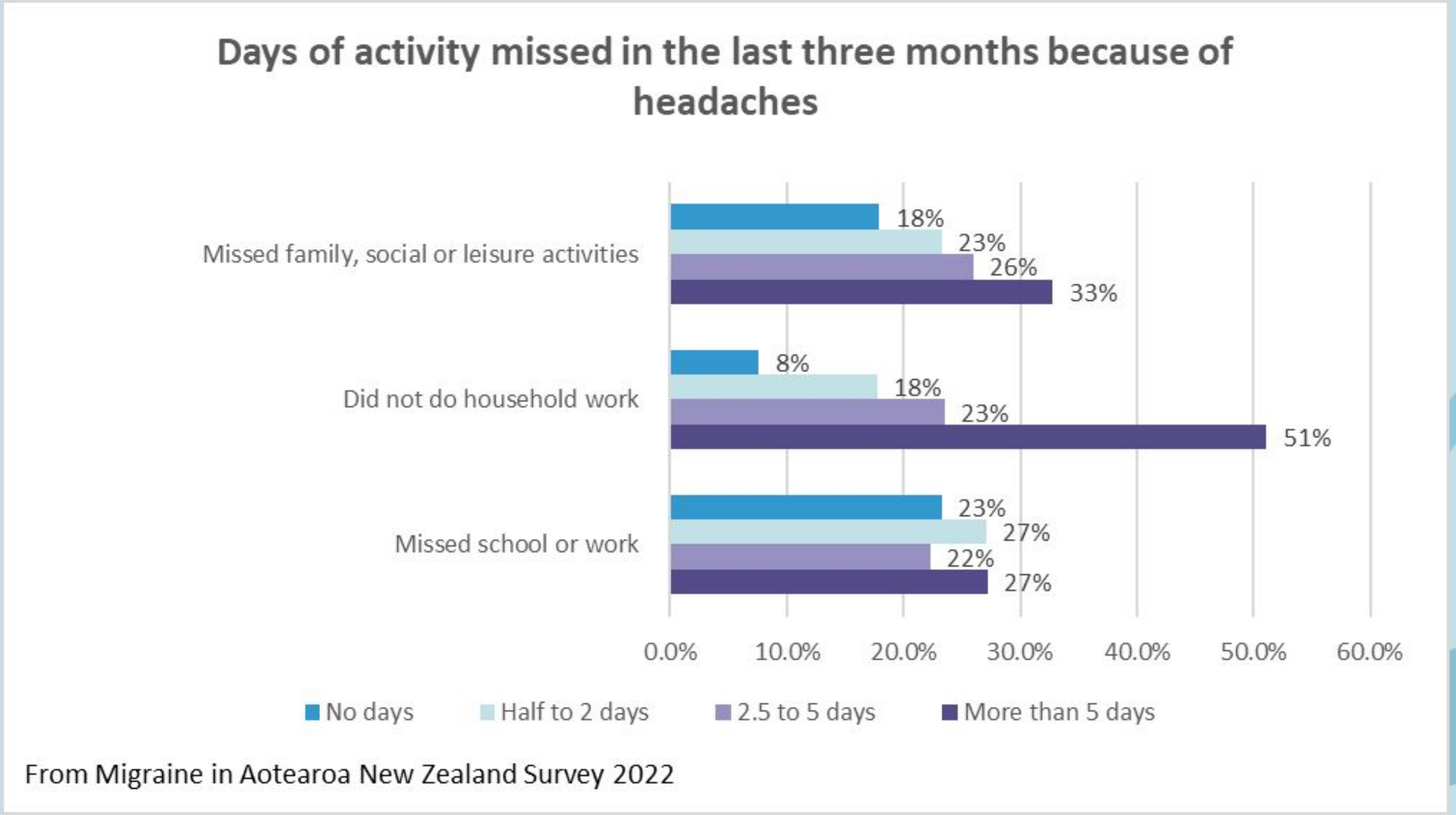


Migraine disease is estimated to affect over 642,000 people in Aotearoa New Zealand

Global Burden of Disease, 2019

(http://ghdx.healthdata.org/gbd-results-tool, accessed February 2022)

Health need: Disability (NZ data)

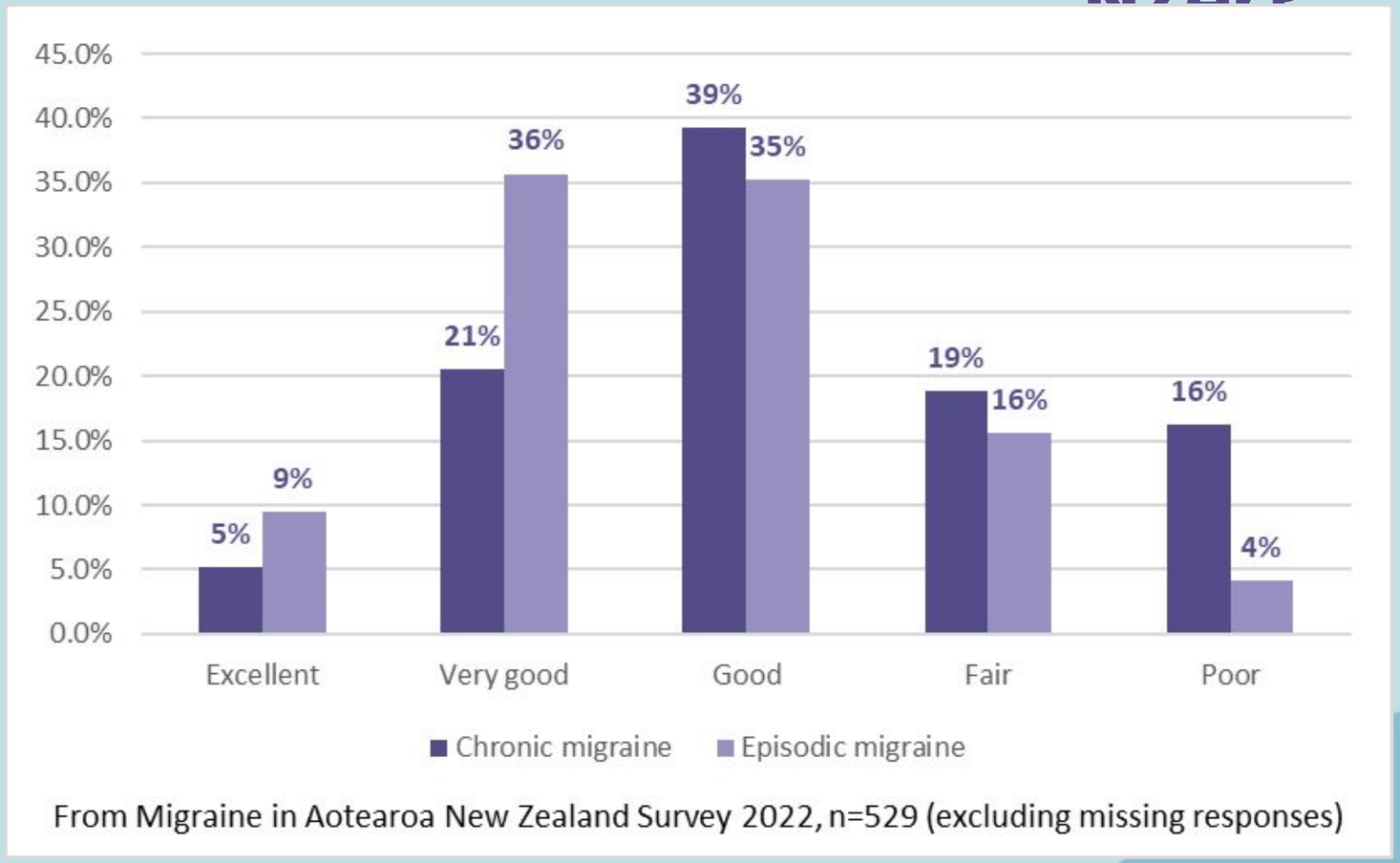


From Migraine in Aotearoa New Zealand Survey 2022

https://www.migrainefoundation.org.nz/migraine-disabil

Health need: Individual

How unwell is a person compared to the average healthy NZer?



From Migraine in Aotearoa New Zealand Survey 2022, n=529 (excluding missing responses)

Self-rated health is a measure of general well being and a strong predictor of mortality and morbidity.

From NZ population surveys (e.g. NZ Health Survey 2021/22)around 88% of the general NZ population rate their health excellent, very good or good.

https://www.migrainefoundation.org.nz/the-impact-of-chronic-migraine/

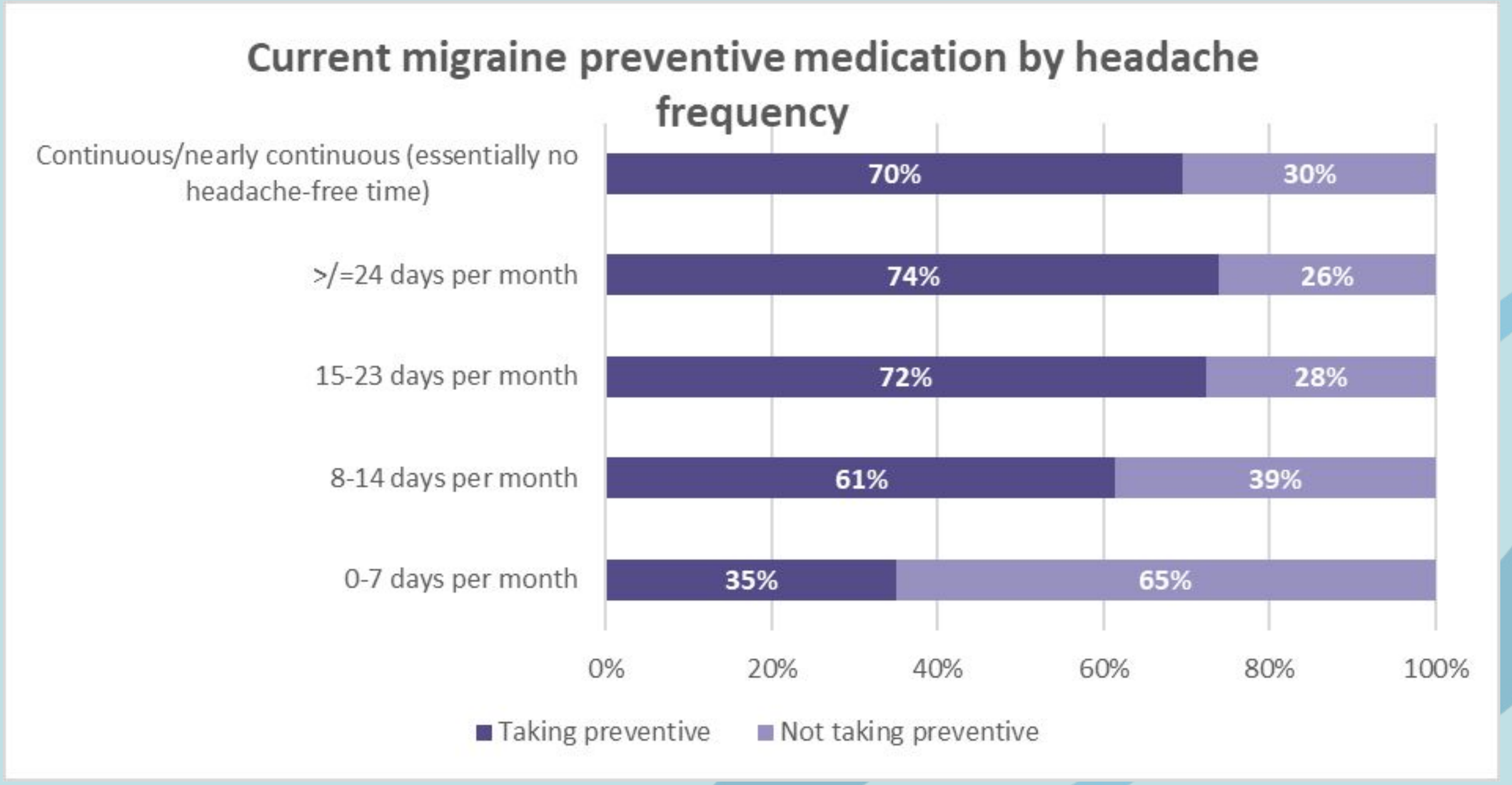
From Migraine in Aotearoa NZ

Health need: Current options

Medication	Current use n (%)	Previous use (stopped for any reason) n (%)
Antidepressants		
Amitriptyline	52 (10.8%)	173 (36.0%)
Nortriptyline	41 (8.8%)	121 (25.9%)
Venlafaxine	23 (5.1%)	51 (11.4%)
Fluoxetine	19 (4.2%)	84 (18.8%)
Antihypertensives		
Propranolol	24 (5.1%)	98 (20.7%)
Candesartan	21 (4.6%)	34 (7.4%)
Metoprolol	20 (4.4%)	38 (8.3%)
Nadolol	12 (2.6%)	47 (10.2%)
Verapamil	5 (1.1%)	17 (3.7%)
Lisinopril	1 (0.2%)	7 (1.6%)
Antiepileptics		
Topiramate	24 (5.0%)	128 (26.6%)
Gabapentin	17 (3.7%)	44 (9.5%)
Lamotrigine	4 (0.9%)	14 (3.1%)
Sodium valproate	2 (0.4%)	45 (9.8%)

https://www.migrainefoundation.org.nz/medications-used-for-migraine-prevention/

Health need: Existing medicines



https://www.migrainefoundation.org.nz/preventive-migraine-medication-use-in-nz/

Health need: Māori

- **Prevalence of migraine disease in Māori is likely to be the same (if not higher) than non-Māori**
  - From the New Zealand Health Survey 2013/14, prevalence is around 16%, but this was based on question about doctor-diagnosed migraine disease*
  - International research has found higher rates of migraine in Indigenous peoples (and in people who live in poverty)
- **Prevalence of risk factors for chronification of migraine are higher in Māori**
  - These include obesity, anxiety, depression, stressful life events
- **Māori have higher rates of unmet need for primary care and experience more barriers to accessing specialist pain services**
  - Specialist only prescribing will increase inequities

***https://www.migrainefoundation.org.nz/blog/post/93215/new-zealand-health-survey-data--a-decade-to-be-released/ & https://www.migrainefoundation.org.nz/current-issues-and-challenges/**

Health system: Government priorities

- **Pae Ora, Healthy Futures Strategies**
  - **New Zealand Health Strategy 2023**
    - People's voice at the heart of the system
    - Flexible, appropriate care with focus on preventing ill health and access for all
    - Timely access, making best use of resources, tailored services, affordability
  - **Women's Health Strategy 2023**
    - Improving health care for issues that are more common in women
    - Headache disorders listed in the top 5 burdens of disease for women aged 15-49 years in NZ
    - “Health entities need to…prioritise pathways, treatments and services to manage health conditions that…more commonly affect women.” (p 40)
- **Mental health – "immediate and enduring Government priority"**
  - Strong bidirectional link between migraine and mood disorders
- **Health System Indicators: Acute bed day rates**

Health need: Personal experience

“As a single parent, losing work days to migraine causes financial strain and low mood due to feeling inadequate and unreliable to my colleagues. The toll migraine headaches take on a person's mental health is devastating and severely overlooked. You feel useless and worthless because you can't provide. Even completing daily household tasks can be challenging when you feel so unwell. It's very isolating when you have chronic migraine that keeps you shut away in the dark and in silence. Your self worth takes a dive.”

(Māori female, 35-44 years)

"Thankfully, I only had to visit the emergency department once but that

Health benefit: Individual

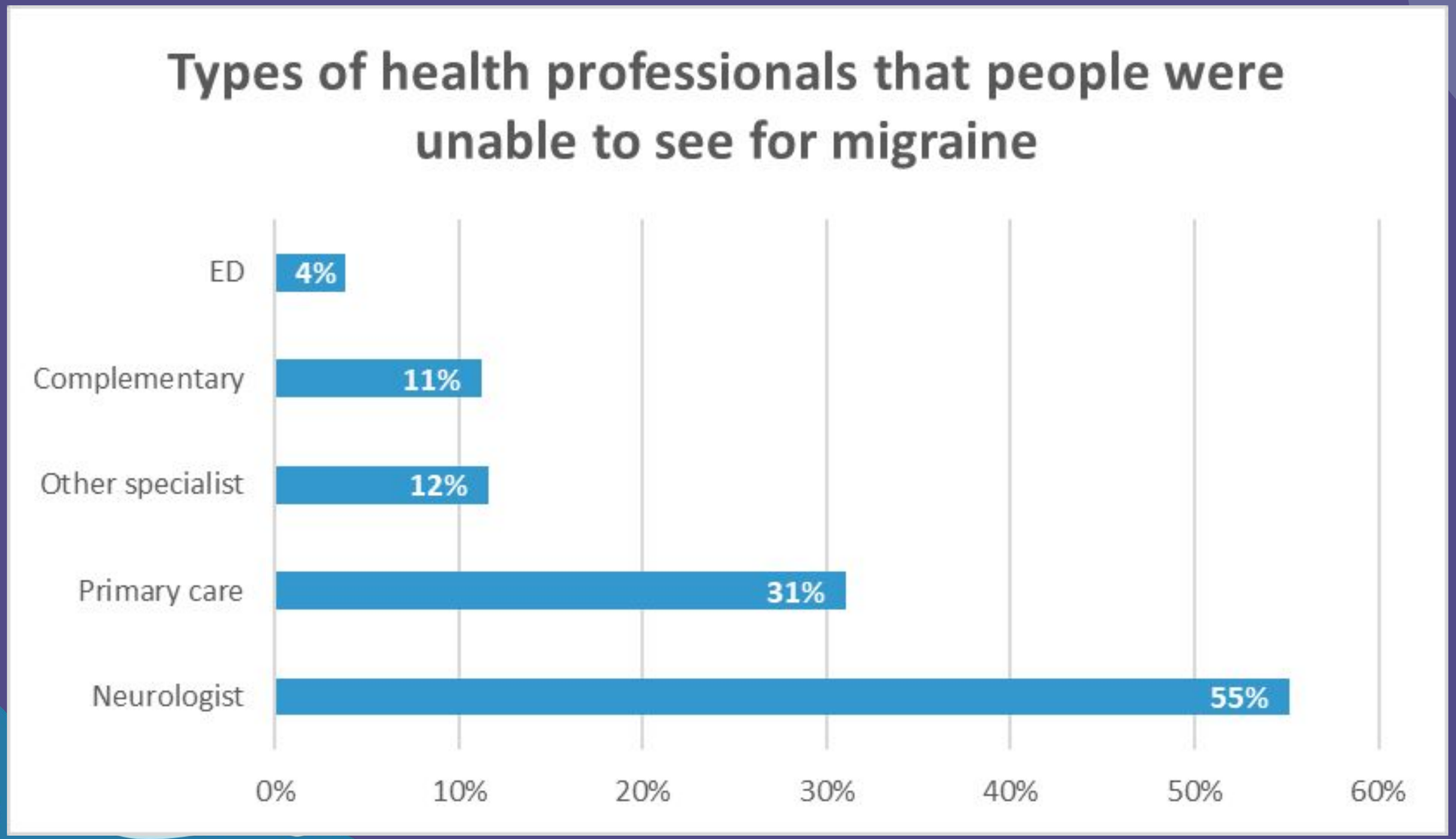
- Reduced pain and disability and improved well-being
- Increased ability to work and be more productive at work
- Increased ability to engage with family and friends
- Reduced use of other medications
- Increased ability to exercise, be active and undertake other health-promoting activities

Health benefit: Health system

- More options for effectively managing migraine in primary care will:
  - decrease demand for over-burdened neurology services
  - reduce visits to hospital, ED and reduce use of radiology services (unnecessary brain scans)

- Improved management of migraine in the community will:
  - reduce repeated visits to primary care

Health benefit: Healthcare access



https://www.migrainefoundation.org.nz/access-to-health-professionals-for-migraine/

Health benefit: Regional inequities

Region	Proportion of all referrals from primary care to outpatient neurology clinics in public hospitals for headache or migraine (n)	Proportion of referrals for headache or migraine accepted to be seen in neurology outpatient clinics
Northland	12% (188)	4%
Auckland	Missing	Missing
Waikato	Missing	0%
Bay of Plenty	11% (136)	17%
Hawkes Bay	12% (146)	65%
Mid Central	19% (196)	71%
Wairarapa	20% (3)	66%
Capital Coast and Hutt Valley	11% (238)	73%
Nelson Marlborough	12% (87)	79%
Waitaha Canterbury	12% (266)	94%
Southern	20% (462)	76%

OIA results from Te Whatu Ora for 12 months from 2022-2023

Costs and savings: Individual

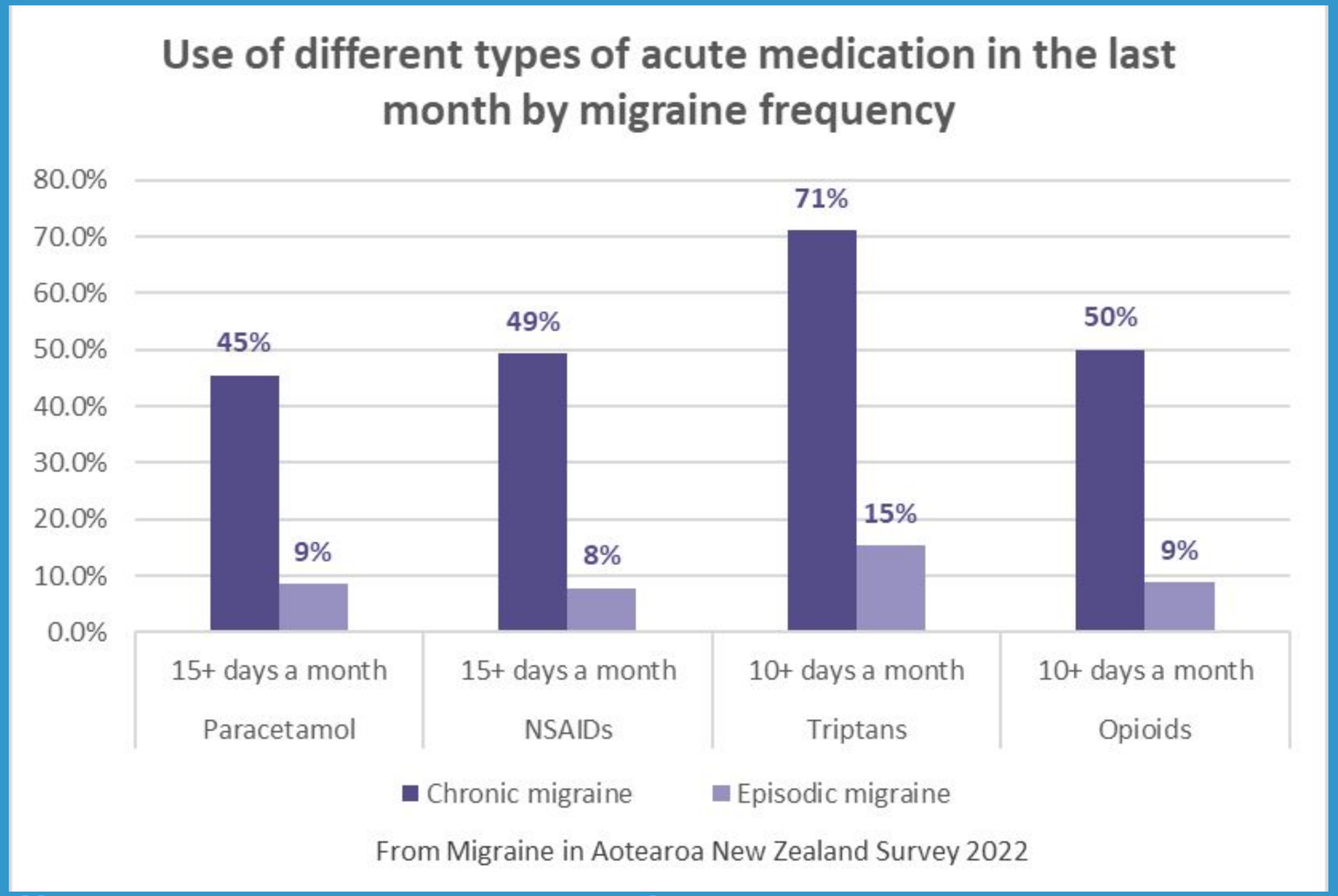
From: Migraine in Aotearoa New Zealand Survey 2022 (n=481, missing responses excluded)

https://www.migrainefoundation.org.nz/migraine-and-work/

Costs and savings: Wider society

- No economic analysis of burden of migraine in NZ
- Report from Australia in 2018 found:
  - annual cost of chronic migraine per person was AU$21,706
  - annual cost of episodic migraine per person was AU$6,137
- This included health system costs and productivity costs (reduced ability to work/time off work)
- If these estimates are similar for New Zealand, that would equate to around NZ$5 billion a year

Costs and savings: Medication overuse



https://www.migrainefoundation.org.nz/risk-of-medication-adaptation-overuse-headache/

Costs and savings: Secondary care

- 3481 hospital discharges for migraine in 2019/2020
  - Higher in women and peaking in those aged 20-50 years
  - Of these hospitalisations, 17% were Māori and 8% were Pacific, but these are crude proportions unadjusted for age

https://tewhatuora.shinyapps.io/hospitals-web-tool/

- NZ-specific data on migraine in ED not available but headache accounts for 1-4% of ED visits (25-30% of these are for migraine)
  - Applied to NZ, 4-15,000 ED visits a year due to migraine
  - Only 13% of people with a diagnosis of migraine at

Wijeratne, et al. on behalf HEAD study group; Migraine in the Emergency Department: A Prospective Multinational Study of Patient Characteristics, Management, and Outcomes. Neuroepidemiology 2022; 56 (1): 32–40.

Costs and savings: Health system

- Acute medications
- Other preventive medications
- Primary and secondary care visits
- Managing and investigating side effects of (and damage from) acute and preventive medications
- Visits to other health professionals (e.g. neurologist, pain specialist, allied health professionals)
- People with well-controlled migraine disease more able to engage in health promoting behaviours

Tepper SJ, et al. Healthcare costs and resource utilization in patients with migraine treated with erenumab: A retrospective, non-interventional study using claims data from the United States. Headache. 2023 Sep 1. doi: 10.1111/head.14612

Suitability

- In our NZ experience so far, GPs are able to safely prescribe CGRP monoclonal antibody injections
  - Confirm migraine diagnosis (ICHD-3)
  - Advice and support from neurology services can be via correspondence if needed
  - Second or third-line treatment for people who have not had success with 2-3 oral preventives (ineffective or not tolerated after 2–3 months*)
  - Reassess after 6-12 months
  - Do not mandate a drug holiday

* Eigenbrodt, A.K., Ashina, H., Khan, S. et al. Diagnosis and management of migraine in ten steps. Nat Rev Neurol 17, 501–514 (2021).

Summary

- **Health need:**
  - Migraine disease has major impacts on work, family, relationships and well-being and causes significant disability
  - Current preventive options are not always effective or tolerable
  - Better treatment options could decrease ethnic, gender and regional inequities
- **Health benefit:**
  - Improved quality of life and work productivity, reduced disability
- **Cost and savings:**
  - Reduced health care resource utilisation (primary and secondary care services, acute and preventive medications, other health services)
  - Potential to treat and decrease medication overuse headache
- **Suitability:**

Acknowledgments

- Sarah Cahill (Migraine Foundation co-founder)
- Clinical advisory group (Dr Desiree Fernandez, Dr Rosamund Hill, Dr Ray Bose, Dr Paul Vroegop)
- Survey respondents
- Members and supporters

Questions?

Get in touch

fiona@migrainefoundation.org.nz

migrainefoundation.org.nz

migrainefoundation.org.nz/migraine-in-new-Zealand-survey-2022-insights/

www.facebook.com/migrainefoundationaotearoanewzealand

MIGRAINE FOUNDATION
Aotearoa New Zealand