

People aged 65 years and over who received the triple whammy, percent

Te Tāhū Hauora
Health Quality & Safety
Commission



Source: [/measure/people-aged-65-years-and-over-who-received-triple-whammy-percent](#)

Description

This measure details the percentage of people aged 65 years and over who received the 'triple whammy' during the same 90-day period. The term "triple whammy" refers to the concurrent use of an angiotensin converting enzyme (ACE) inhibitor or an angiotensin-II receptor blocker (ARB), with a diuretic and a non-steroidal anti-inflammatory drug (NSAID), including cyclo-oxygenase-2 (COX-2) inhibitors.

Rationale

Triple whammy is the combination of an angiotensin converting enzyme inhibitor (ACEI)/ angiotensin receptor blocker (ARB), a diuretic and a non-steroidal anti-inflammatory (NSAID). Medsafe notes an increased risk of acute kidney injury with this combination, especially in those with risk factors for renal failure and in older adults. It is recommended this combination should be avoided if possible.

Measure set

[Polypharmacy domain](#)

Health areas and conditions

[Medications](#)

Measure type

Count
Percent

Numerator

PHO enrolled population aged 65 years or over who have received 'triple whammy' (ACE inhibitor/ ARB, diuretic and an NSAID) during the calendar year. Dispensing of all three medicines to be within the same 90-day period (not necessarily within the same quarter).

Numerator detail

Medicines included:

- ACEI: cilazapril 2770, enalapril maleate 2711, lisinopril 2797, perindopril 2806, quinapril 2772, trandolapril 1031, captopril 2841,
- ARB: candesartan cilexetil 1254, losartan potassium 1061
- Angiotensin II Antagonists with Neprilysin Inhibitors: Sacubitril with valsartan 4105
ACEI/ARB with diuretics
- ACEI with diuretics: cilazapril with hydrochlorothiazide 1127, quinapril with hydrochlorothiazide 3749, enalapril maleate with hydrochlorothiazide 2708 • ARB with diuretic: losartan potassium with hydrochlorothiazide 1068, losartan with hydrochlorothiazide 3788, Candesartan cilexetil with hydrochlorothiazide 4178
- Diuretics: bumetanide 1171, furosemide 1544, amiloride hydrochloride 1050, metolazone 4006, spironolactone 2176, amiloride hydrochloride with furosemide 1051, amiloride hydrochloride with hydrochlorothiazide 1053, bendrofluazide 1116, chlorothiazide 1282, chlortalidone 1290, indapamide 1643, eplerenone 4100
- NSAIDs: diclofenac sodium 1401, ibuprofen 2798, ketoprofen 1697, mefenamic acid 1769, naproxen 2782, naproxen sodium 2783, sulindac 2193, tenoxicam 2536, celecoxib 1271 and 4081, meloxicam 3912

Numerator exclusions

Aspirin was not included in this measure due to the difficulties of differentiating between high dose aspirin for pain relief and low dose use for primary prevention of heart problems.

Denominator

PHO-enrolled population aged ≥ 65 years (on 30 June of each calendar year).

Data sources

Pharmaceutical Collection (PHARMS)

Primary Health Organisation (PHO) Enrolment Collection

Disaggregation detail

District analysis: By year (2019 –2023), age group (65–74 years; 75–84 years; 85 years and over), gender (female, male), ethnic group (Māori, Pacific peoples, Asian and European/other) and Health New Zealand district of domicile.

PHO analysis: By year (2023), age group, gender, ethnic group, Primary Health Organisation (PHO) most recently enrolled with (for the relevant year), PHO group (small, medium, medium-large and large).

Notes

Data is not presented where the number of people in the numerator was less than 10. This is to preserve confidentiality.

People were assigned to their Health New Zealand Te Whatu Ora district (previously referred to as Health New Zealand District Health Board; DHB) of domicile where more than one domicile was recorded in the calendar year, the most recent value was selected.

Age group is assigned using 30 June of each calendar year as the cutoff point. For example, a person turning 65 years old on 30 June 2023 will be assigned to the 65– 79 years age group for 2023, while a person turning 65 on 1 July 2023 will be assigned the 25–64 group for the same year.

Ethnic group data presented is prioritised ethnic group (Māori, Pacific peoples, Asian and European/Other).

Unlike other atlases, the Polypharmacy Atlas includes individuals who died during the calendar year in all indicators. This is because polypharmacy is higher among older adults and those in the final stages of life, due to chronic conditions, pain management, and palliative care needs.

For PHO analyses, we analysed indicator #1 to determine number of people who were dispensed a 5 or more medicines in two consecutive quarters among each PHO. Then we categorised them into small (<3,500 people), medium (between 3,500 and 7,000), medium-large (between 7,000 and 10,500) and large (>10,500 people).

People who were excluded from the analysis were:

- individuals with missing demographics— that is, those with no recorded value for one or more of the National Health Index (NHI) fields used to derive the demographic variables of interest (age, gender, ethnicity and district of domicile). For instance, a person with no recorded ethnicity in 2023 is excluded from all indicators for that calendar year. This approach ensures a consistent denominator throughout the analyses.
- those who weren't enrolled in a PHO in the calendar year.

See technical document for details.

Responsible organisation(s)

Health Quality & Safety Commission | Te Tahi Hauora

Measure methodology last updated

December 2025

Reference period

2019-2023