phn PERTH NORTH, PERTH SOUTH, COUNTRY WA
An Australian Government Initiative

WAPHA
Better Health Together

Primary Health Care for People with Mental Health Conditions in Western Australia

AIHW–WAPHA GP Data Demonstration Project

Date: 30 October 2026

Report produced through a collaboration between Australian Institute of Health and Welfare (AIHW) and Western Australia Primary Health Alliance (WAPHA). The project was co-designed by AIHW and WAPHA. Analyses were led by AIHW, in collaboration with WAPHA.

Contents

Executive summary 4
Purpose 4
Key Findings 4
Why this matters 4
1. About the Study 5
Background 5
Study design and objectives 5
Study data 6
Limitations 6
2. Study Population 7
3. What We Found 8
Finding 1: Demographics 8
Finding 2: Physical Health Burden 9
Finding 3: Risk Factors 11
Finding 4: Use of General Practice Services 13
Finding 5: Chronic Condition Management and Health Assessments 14
Finding 6: Data Quality 16
4. Implications for WAPHA 17
5. Future Opportunities 19

Executive summary

Purpose

The project was a partnership between the Australian Institute of Health and Welfare (AIHW) and the WA Primary Health Alliance (WAPHA) exploring Western Australian general practice data, to describe primary care activity and physical health outcomes among general practice patients with a recorded mental illness.

Key Findings

- People with recorded mental health conditions also had higher physical health burden and more associated risk factors.
- People with mental health conditions attended general practice more often than those with no recorded mental health condition, and attendance increased with the number of physical comorbidities.
- People with mental health conditions and one physical comorbidity receive more chronic condition management through general practice, but this difference diminishes as the number of physical comorbidities increased.
- De-identified, unit-record general practice data can help address critical information gaps in mental health service delivery.

Why this matters

This project:

- Highlights the central role of general practice in identifying and responding to combined mental and physical health needs of patients.
- Supports WAPHA's focus on integrated care that strengthens links between general practice, mental health services and other providers, with commissioning approaches recognising the physical and preventive health needs of people presenting with complex mental health conditions.
- Demonstrates the value of continued collaboration between WAPHA, AIHW, general practices and relevant clinical and sector experts, supported by sufficiently detailed, high-quality general practice data, to strengthen population health intelligence and inform service planning and commissioning.

1. About the Study

Background

This project was a partnership between the Australian Institute of Health and Welfare (AIHW) and WA Primary Health Alliance (WAPHA). The project was approved by the AIHW Ethics Committee, Primary Sense Clinical Advisory Group and enabled through the existing strong data governance arrangements between WAPHA and WA general practices.

The project used seven years (2017 to 2024) of de-identified patient-level (unit record) data extracted from general practices in Western Australia (WA). In accordance with WAPHA's data sharing licence and agreement, general practices were provided the opportunity to opt out of the study. The final study cohort included data from 430 general practices.

WAPHA shared a subset of their Primary Sense data with AIHW inside a secure analytical environment within the Primary Health Insights (PHI) platform. AIHW manages access and permissions to the data held within AIHW's secure lockbox in PHI (acting as data custodian for the data residing in that environment). The collection, storage, access, use and disclosure of the shared data were governed by a formal data collaboration agreement between WAPHA and AIHW.

AIHW led analyses, in collaboration with WAPHA, to explore whether general practice data can provide information about primary care and physical health outcomes for people living with mental health conditions.

Study design and objectives

We undertook a cross-sectional study for the 12-month period of the 2023-24 financial year (1 July 2023 to 30 June 2024).

All findings are descriptive in nature as no weighting or consideration of causal assumptions were undertaken due to project scope and time limitations.

The study aimed to describe: Demographics (age and gender), rates and types of risk factors (medical and lifestyle), comorbidities, care (chronic condition management, multidisciplinary care, and health assessment proxies), and attendance patterns for each cohort. Cohorts were defined as follows:

- High prevalence mental health conditions: Include anxiety, depression, phobias and compulsive disorders (such as obsessive-compulsive traits).
- Low prevalence mental health conditions: Include schizophrenia and affective psychosis, such as bipolar affective disorder.
- People who have a 'mixed' presentation with a recorded diagnosis of at least one high prevalence and at least one low prevalence disorder.

- People with no recorded mental health condition.

This terminology was developed during project co-design with subject matter experts and adopted to align with current nationally accepted standards and to avoid uncertain cohort definitions. The study is limited to people aged 18 years and over.

Study data

A subset of WAPHA Primary Sense data was shared with AIHW for the project. The data subset contained seven years of data from 1 July 2017 to 30 June 2024 inclusive and select data tables and items collaboratively designed with WAPHA and subject matter experts to address project objectives. No free-text, or practice-identifying information was included. Indigenous identifiers were redacted by WAPHA before sharing with AIHW.

Limitations

- Due to project specifications and existing coverage issues, project data do not provide suitable estimates of remote and very remote WA or First Nations people.
- The restricted look back period of the study dataset (diagnostic information for this study commences 1 July 2017), leads to probable underestimates of condition counts and cohort outcomes in earlier years. Due to these limitations, the study presents a recent cross-sectional view of outcomes, rather than examining changes over time. It is recommended that future projects involve all historical data.
- Due to issues in mapping diagnostic codes found in the data, there is a small proportion of the 'No mental health conditions' cohort (<5%) who may have recorded diagnoses of other mental health signs and symptoms that do not clearly align with either the high or low prevalence cohorts.
- Evaluation of co-morbid physical health conditions (see Finding 2) and risk factors (see Finding 3) does not account for all chronic health conditions or medical and other risk factors. The study limited these analyses to a select group of high prevalence conditions and risk factors commonly managed in primary care. Further studies should build on this proof-of-concept work to evaluate a wider range of health conditions and risk factors.
- Counts of certain risk factors may be slightly inflated because a patient was classified as having a risk factor if a value above the specified thresholds was recorded at any time. This approach assumes that a positive recording remains current unless superseded by a more recent result. It reflects uncertainty about the timeliness and completeness in clinical observations like blood pressure. It may slightly overestimate the prevalence of modifiable risk factors such as hypertension, high cholesterol, and being overweight, however the impact on overall risk factor counts is likely to be small. Further validation of threshold values and counting rules would be valuable for the sector but was outside the scope for this project.

2. Study Population

More people have a recorded diagnosis of depression than any other mental health condition

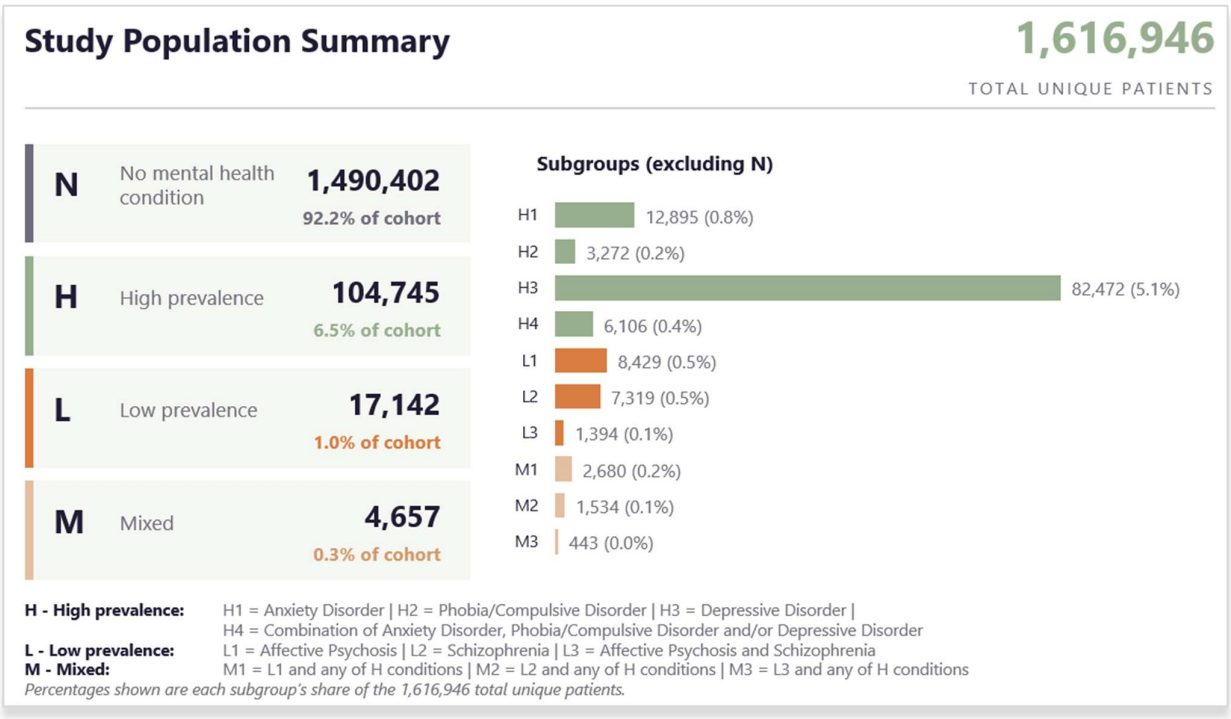


Figure 1: Study cohorts summary

In this study, 6.5% (105,000 people) of the entire study population (~1.6 million people) had a recorded diagnosis of high prevalence mental health conditions, the majority of this group were people who have been diagnosed with depression (5%).

The number of people living with low prevalence mental health conditions is comparatively much lower (1%, 17,000 people), while people who live with a mixture of high and low prevalence conditions is small (0.3%).

The proportions presented here reflect mental health conditions recorded in general practice data under the study definitions and counting rules and should not be interpreted as population prevalence estimates. Recorded diagnosis rates may differ from other prevalence estimates due to differences in definitions, counting rules, and recording behaviour. However, they do not limit the purpose of this study, which is to describe and compare characteristics, health outcomes and general practice care across the defined study cohorts.

3. What We Found

Finding 1: Demographics

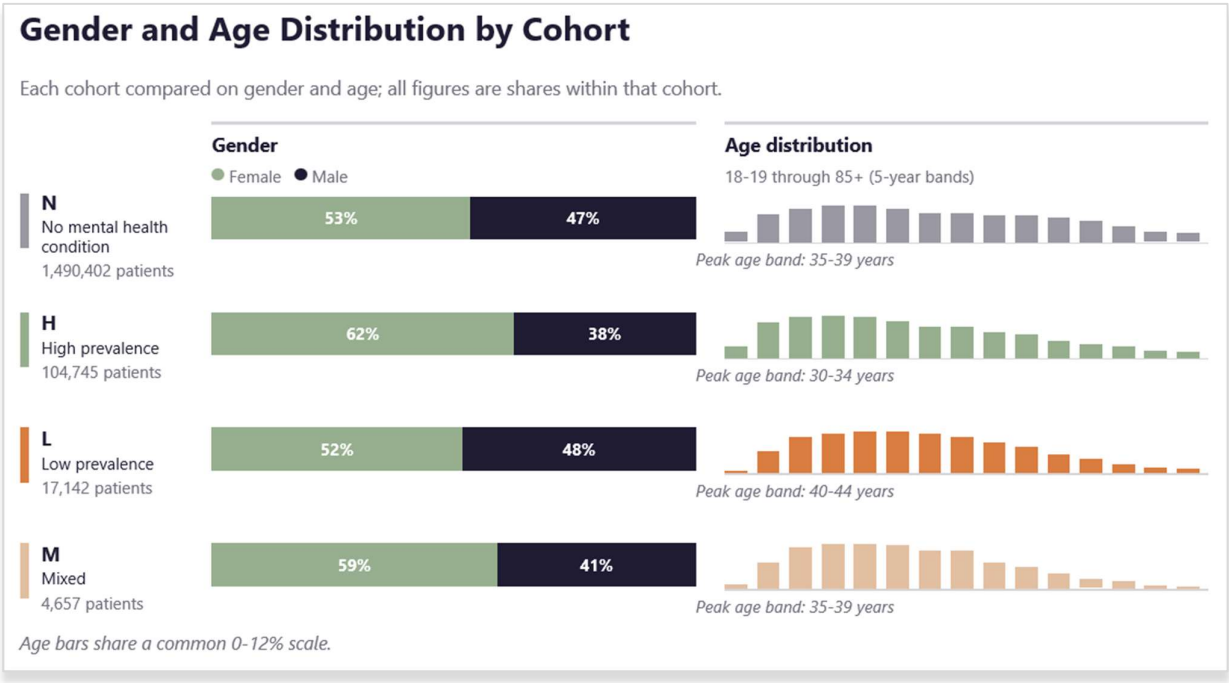


Figure 2: Study cohorts age and gender

Gender differences are most evident in the high prevalence mental health condition cohort

The high prevalence mental health cohort contains a greater proportion of females (62% female, 38% male), whereas the low prevalence and no mental health condition cohorts have a broadly similar gender distribution.

Diagnoses like anxiety and depression are recorded more in younger age groups

High prevalence mental health conditions are recorded more frequently in younger age groups. The peak age group for high prevalence mental health conditions is 30-34 years old, whereas the peak age group for low prevalence mental health conditions is 40-44 years old. This report uses the term 'young people' to refer to people aged 18–24 years. A higher proportion of young people aged 18-24 have a high prevalence mental health condition (3%) in comparison to the proportion of young people with a low prevalence mental health condition (1%).

Finding 2: Physical Health Burden

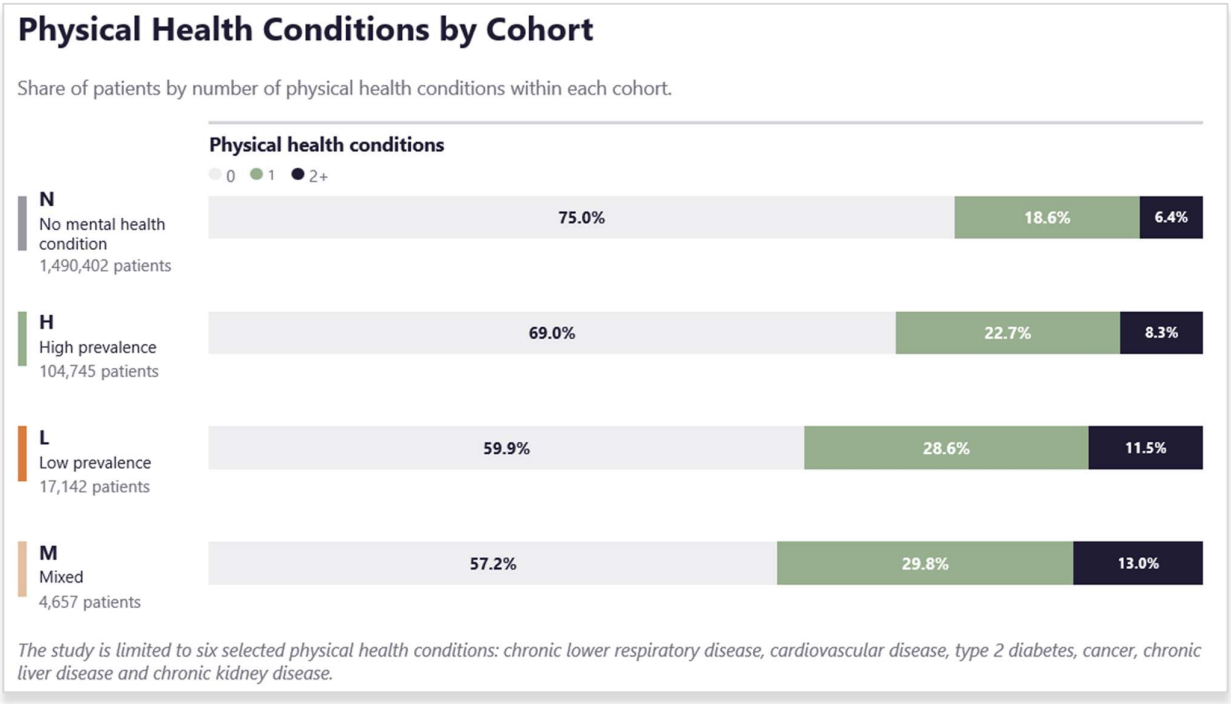


Figure 3: Physical health conditions among study cohorts

People with mental health conditions live with more comorbidities

For people with low prevalence mental health conditions, 40% of people live with at least one co-occurring physical health condition (in comparison to 31% of people with a high prevalence mental health condition and 25% of people who have no recorded mental health condition).

Physical condition multimorbidity rates are also higher in the low prevalence cohort. The proportion of people with 2 or more co-occurring physical health conditions is 11.5% in low prevalence cohort versus 8.3% in high prevalence cohort (versus 6.4% of people with no mental health conditions). However, for people with co-occurring high and low prevalence mental health conditions, 13% had 2 or more physical comorbidities in 2023-24.

Comorbidity refers to an additional long-term health condition occurring alongside a condition of interest. Multimorbidity refers to the presence of two or more long-term health conditions in the same person, without necessarily identifying one condition as primary.

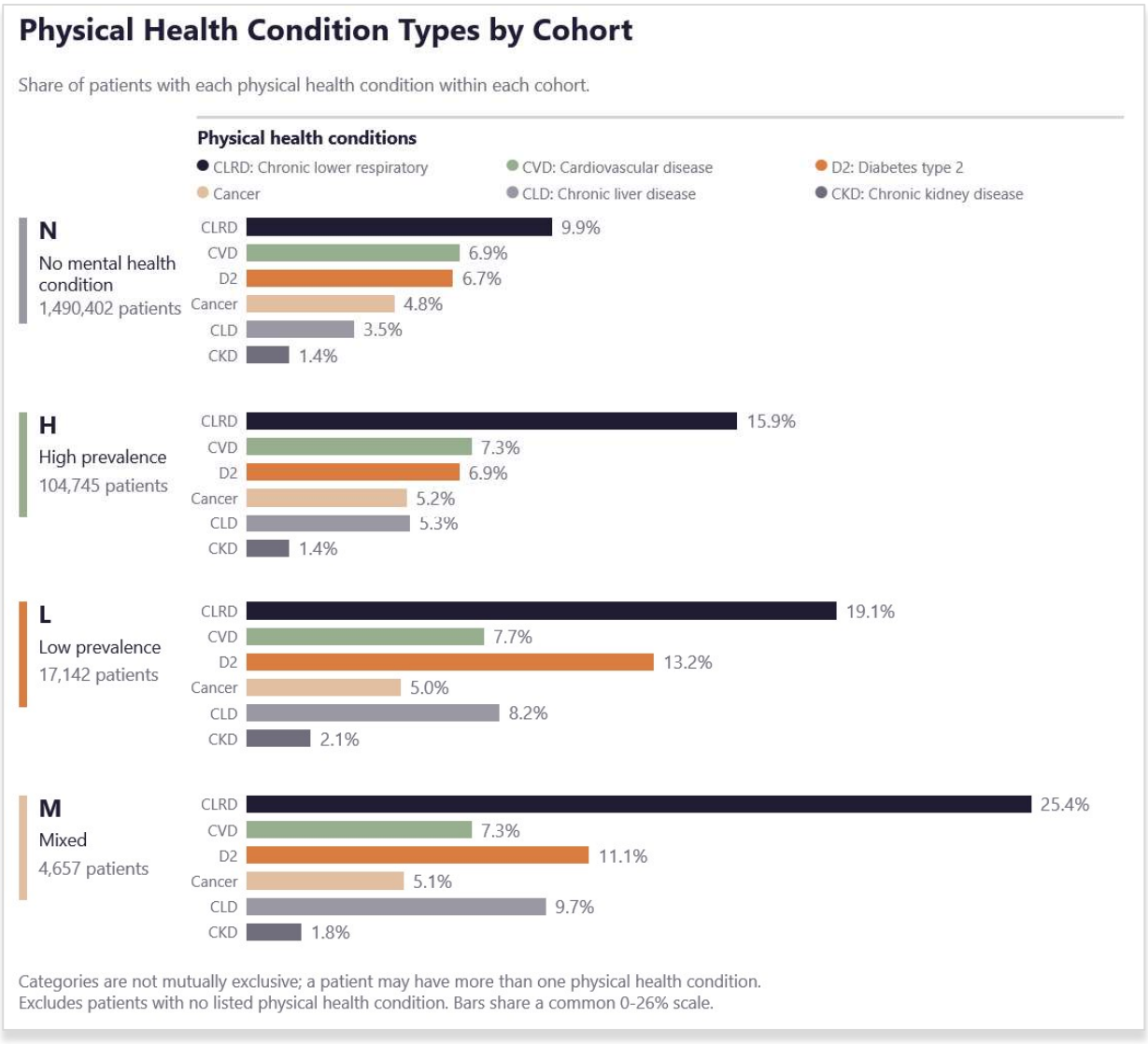


Figure 4: Types of physical health conditions among study cohorts

The most common physical health comorbidity across mental health condition groups is chronic lower respiratory disease across all groups (low prevalence cohort 19.1%; high prevalence cohort 15.9%; no mental health condition 9.9%).

The next most common physical health comorbidity was type II diabetes, with rates almost twice as high among the low prevalence cohort (13.2%) compared with those with high prevalence conditions (6.9%).

The rate of chronic liver disease is meaningfully higher in the low prevalence cohort, 8.2% in comparison to high prevalence cohort, 5.3%.

Finding 3: Risk Factors

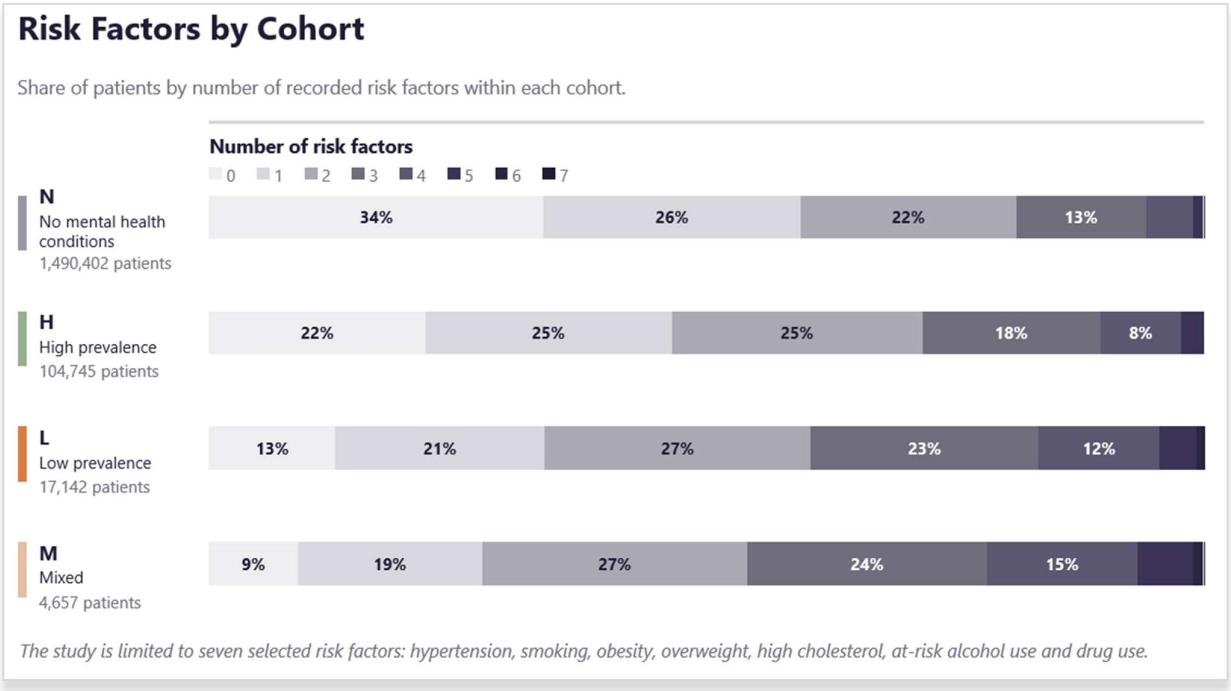


Figure 5: Number of risk factors among study cohorts

People with mental health conditions have higher rates of risk factors

For people with a mental health condition, 8 in 10 have one or more risk factors. The rates of risk factors are higher in people with a mental health condition in comparison to people without a mental health condition (high prevalence: 78%; low prevalence: 87%; mixed: 91%; no mental health condition: 66%).

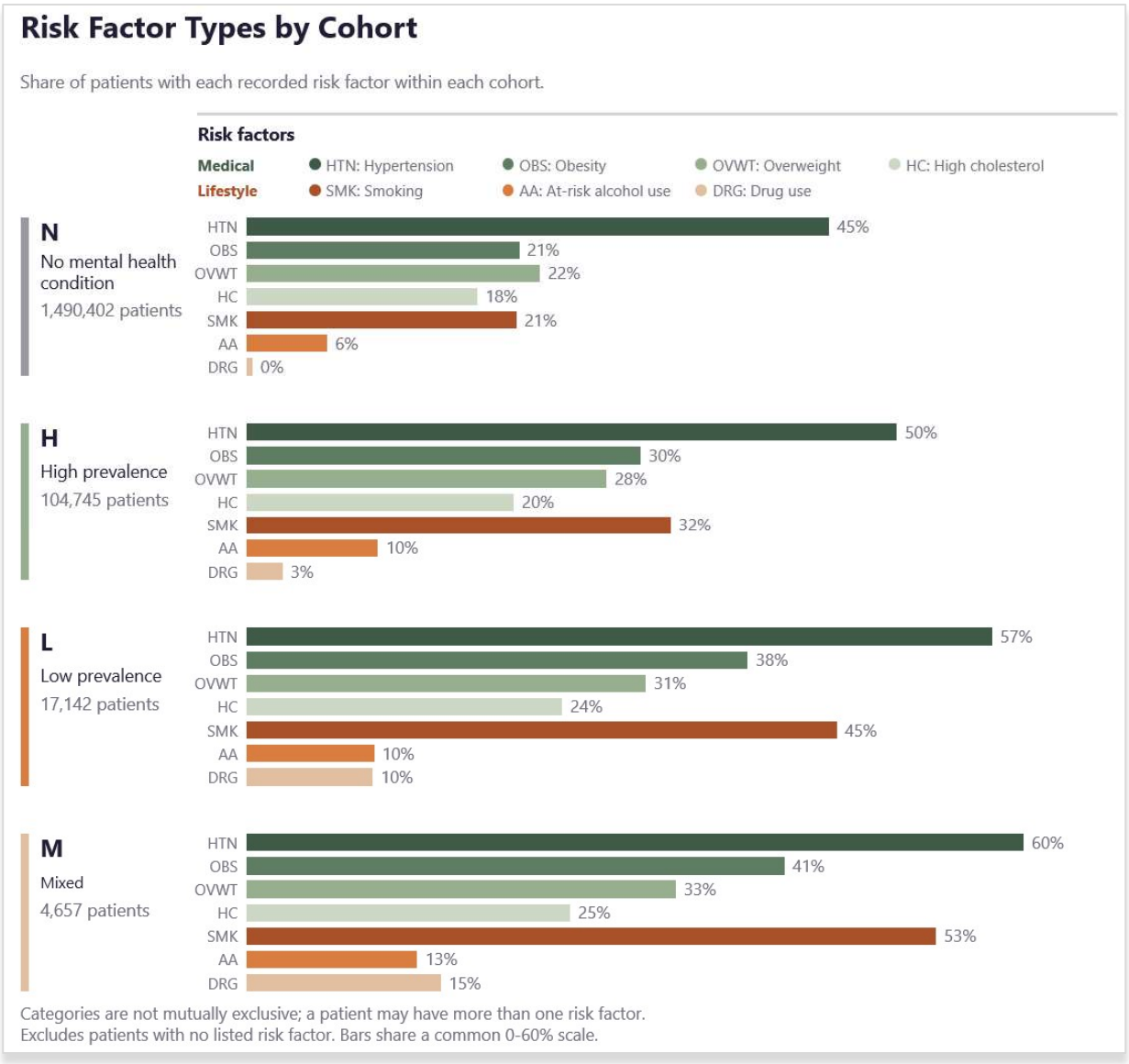


Figure 6: Types of risk factors among study cohorts

Medical risk factors

Hypertension was the most common risk factor (high prevalence: 50%; low prevalence: 57%; mixed: 60%; no mental health condition: 45%); however, this proof-of-concept project likely overestimated the rates of hypertension. This was followed by obesity (high prevalence: 30%; low prevalence: 38%; mixed: 41%; no mental health condition: 21%).

The rates of obesity are almost double for people with low prevalence mental health conditions in comparison to people with no mental health condition.

Lifestyle risk factors

The presence of lifestyle risk factors is higher in people with mental health conditions in comparison to people with no mental health condition. This trend is more pronounced for people with low and 'mixed' (co-existing low and high prevalence mental health conditions) for smoking and drug use.

People with low prevalence mental health conditions have over double the rate of smoking in comparison to people with no mental health condition: (high prevalence: 32%, low prevalence: 45%; mixed: 53%; no mental health condition: 21%).

People with mental health conditions have higher rates of risky alcohol use in comparison to people with no mental health condition, however there is no meaningful difference in risky alcohol intake between people with high and low prevalence mental health conditions (high prevalence: 10%; low prevalence: 10%; mixed prevalence: 13%; no mental health condition: 6%).

The rate of drug use is much higher among people with mental health conditions in comparison to people with no mental health condition. This trend is more pronounced in people with low prevalence and co-existing low and high prevalence mental health conditions (high prevalence: 3%; low prevalence: 10%; mixed prevalence: 15%; no mental health condition: 0.54%).

Finding 4: Use of General Practice Services

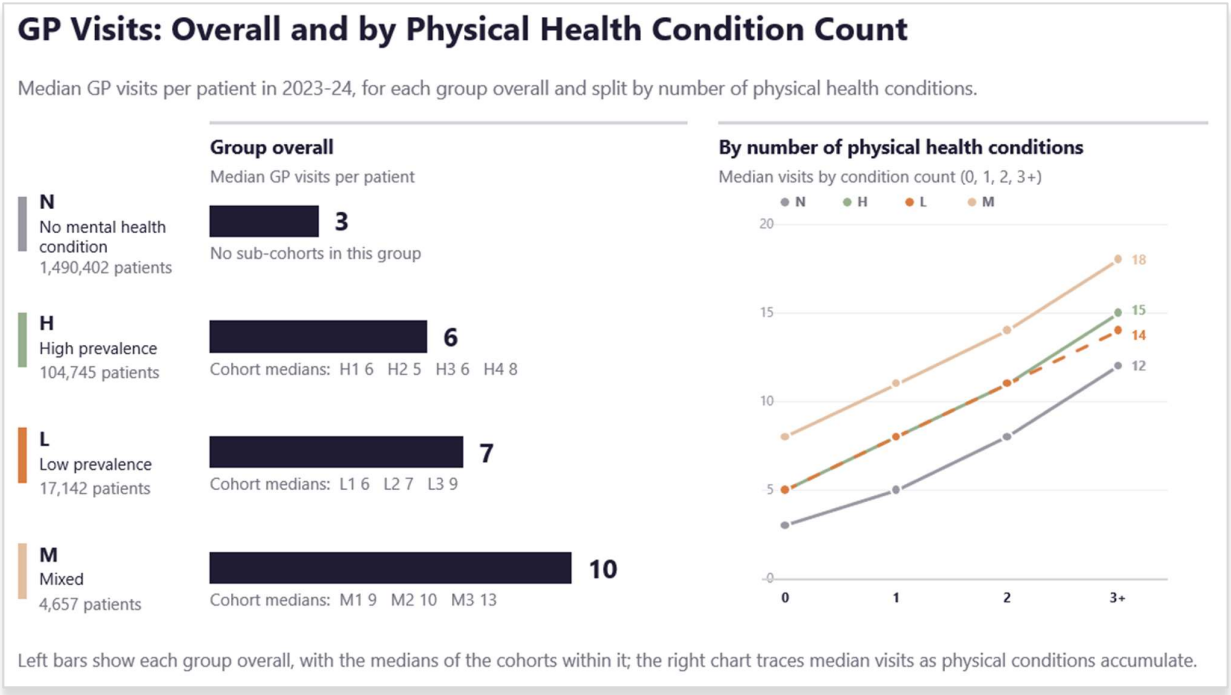


Figure 7: General practice visits among study cohorts

People with mental health conditions have higher rates of attendance than people without mental health conditions

The median number of GP attendances was slightly higher among people with low prevalence mental health conditions (medians of each cohort subgroup range from 6-9) in comparison to people with high prevalence mental health conditions (medians range from 5-8). People with co-occurring and mixed high and low prevalence mental health conditions have the highest rate of GP attendances.

People with higher number of co-morbid physical health conditions have higher number of GP attendances across all cohorts.

Finding 5: Chronic Condition Management and Health Assessments

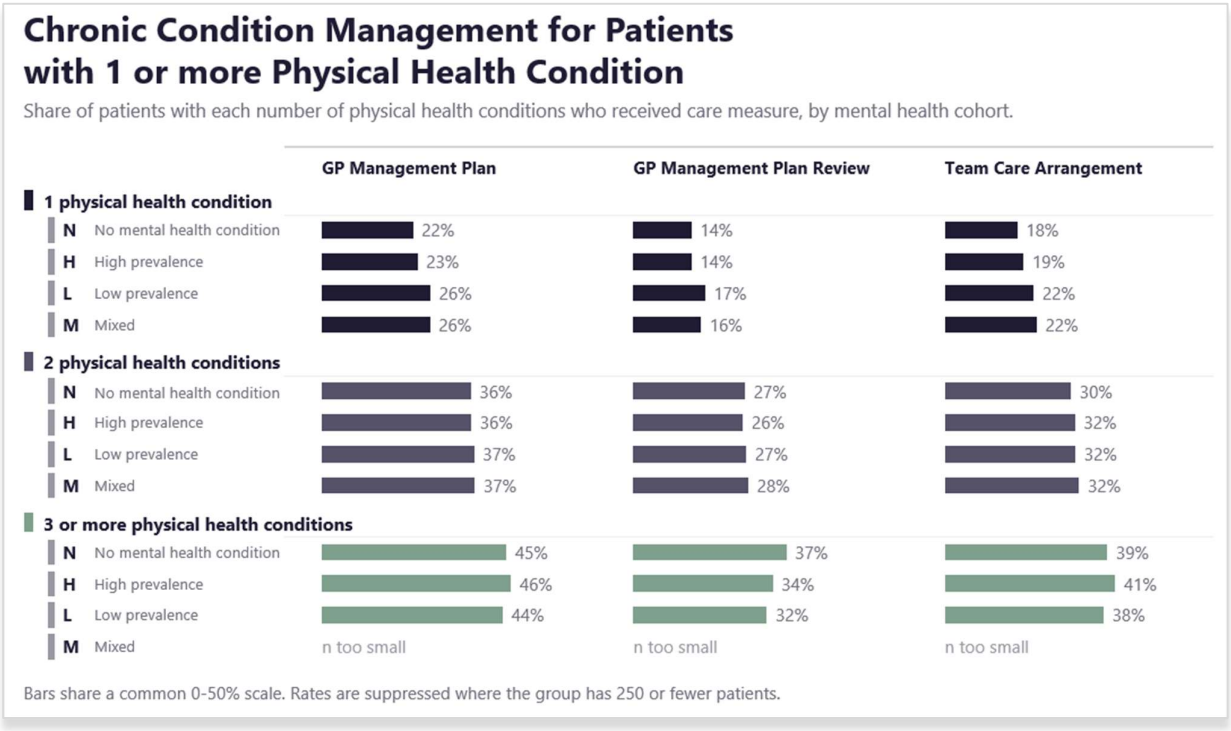


Figure 8: Chronic condition management among study cohorts with co-existing physical health conditions

People with mental health conditions and one physical comorbidity receive more chronic condition management through general practice

For people with 1 physical comorbidity, those who have a low prevalence mental health condition received a higher rate of chronic disease care items than people with high prevalence mental health conditions and people with no mental health condition.

This trend is also seen for multidisciplinary care (we measured people who received Team Care Arrangements (TCA) in 2023/24); when people live with a physical comorbidity, those with low prevalence mental health conditions received a higher rate of multidisciplinary care.

Differences in chronic condition management between mental health cohorts diminish as physical health complexity increases

As the number of physical health comorbidities increases, this trend diminishes. People with low prevalence mental health conditions receive slightly lower rates of chronic condition management and multidisciplinary care than people with high prevalence mental health conditions. However, this difference is small and would benefit from further investigation in future studies.

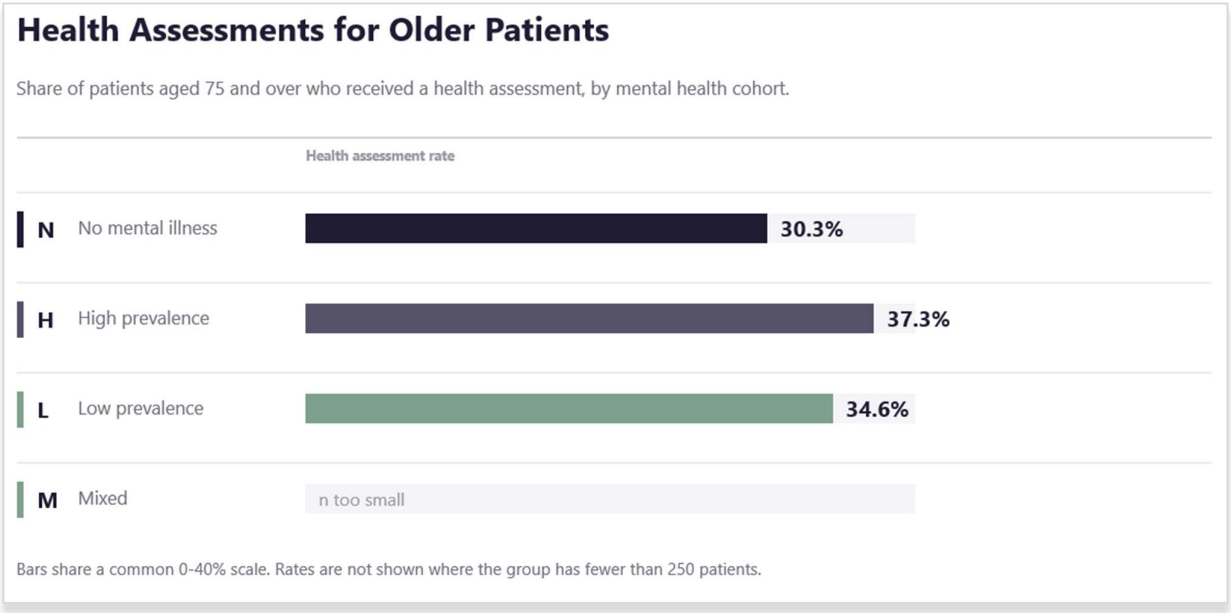


Figure 9: Health Assessments for older patients among study cohorts

Health Assessment rates were higher among older people with mental health conditions

Among patients aged 75 years and over, health assessment rates were higher for those with high prevalence (37.3%) and low prevalence (34.6%) mental health conditions than for patients with no mental health condition (30.3%).

Finding 6: Data Quality

Data quality is generally high and suitable for population-level analyses

Overall, the project demonstrated that WAPHA's general practice dataset is of sufficient quality to support study objectives. The project provides promising information for general practice data to be valuable for other use cases, such as population health monitoring, service planning and applied research. While opportunities exist to improve completeness of selected fields and standardise recording practices, these issues do not materially affect the main findings of this study.

Representativeness of the dataset

The study included data from 430 general practices across Western Australia, representing a substantial collection of general practice data available in the state. However, participating practices are not randomly selected, and the dataset is not intended to provide statistically representative estimates for all Western Australians.

As outlined in the study limitations, coverage is lower for some population groups, including people living in remote and very remote areas. AIHW continues to work with stakeholders to explore how issues such as care seeking behaviour and care pathways can impact on general practice data's representativeness and generalisability.

Core demographic and diagnosis data support reliable cohort construction

Core demographic information, including age and sex, demonstrated high levels of completeness and supported reliable cohort construction and stratified analyses.

Recorded diagnoses were of sufficient quality to support cohort construction. WAPHA's previous data quality assessment found diagnosis data to have high accuracy and moderate completeness due to variation in recording of some diagnosis-related fields. Consistent with recommendations from the assessment, this study incorporated diagnosis information from both clinical history and visit reason records and applied agreed condition-specific business rules for condition identification.

Strength of general practice data compared with administrative data

General practice data provide information that is not routinely available in many other health datasets, including lifestyle risk factors, clinical observations, management plans, health assessments and diagnoses recorded in primary care settings.

Improved standardisation and recording practices would further enhance the value of the dataset for research and planning

- There are some instances of data missingness that match WAPHA's own assessments or may be already known to AIHW from PIPQI data submissions, such as:
    - 70% completeness in the Reason for Encounter Field. However, project insights and expert input highlighted the usefulness and importance of this data field.
    - 70-80% completeness of recording of certain risk factors (smoking, alcohol intake). This finding represents a low level of missingness, and an opportunity for improvement for the sector.
- There is low completeness in recording living status (lives alone or resides in Residential Aged Care Facility), which represents an opportunity for the sector to improve general practice data's ability to provide information about social context.
- The instances of errors such as mismatches in unique identifiers are very rare, impacting <1% of patient records.
- There could be some improvements to data structure for certain data items, which would enable more scalable processing and analytics, such as Primary Sense's table containing risk factor recording and clinical observation measurements.

4. Implications for WAPHA

Integrated mental and physical health care

The findings reinforce the need for integrated care that addresses mental and physical health together. People with recorded mental health conditions had higher physical health burden and risk factors, particularly those with low prevalence or mixed mental health conditions.

This supports WAPHA's commitment to the Equally Well principles and its focus on strengthening links between general practice, mental health services and other providers, with commissioning approaches recognising the physical health needs of people living with mental health conditions.

Proactive care planning and multidisciplinary care

People with mental health conditions attended general practice more often than those with no recorded mental health condition, and attendance increased with physical health complexity. This highlights the central role of general practice in identifying and responding to combined mental and physical health needs.

Receipt of chronic condition management and multidisciplinary care varied across cohorts, with differences reducing as physical health complexity increased. This presents an opportunity to

examine whether people with complex mental and physical health needs are consistently receiving appropriate care planning, review and multidisciplinary support.

Prevention and risk-factor management

Higher recorded medical and lifestyle risk factors among people with mental health conditions highlights the need for risk factor management. This presents an opportunity to strengthen a preventive-health focus, including physical health checks, risk factor identification, brief interventions and referral pathways within relevant services.

Population health intelligence

The project demonstrates the value of general practice data for understanding patient characteristics, conditions, risk factors, service use and care delivered in primary care - information not routinely available in many administrative datasets.

For WAPHA, this can support:

- Planning, commissioning, monitoring and evaluation of primary care programs.
- Targeted interventions and equitable resource allocation for priority populations.
- Identification of access gaps, outcome variation and emerging public health needs.
- Stronger partnerships with key stakeholders through primary care insights to broaden system planning.

General practice data quality improvement

Core demographic and diagnosis data supported cohort construction and analysis, but selected fields could be improved. WAPHA can use these findings to inform future practice-support and data quality improvement activities. Strengthening consistent recording of clinically meaningful information would improve its value for care, quality improvement, planning and future studies.

5. Future Opportunities

Beyond the findings presented in this report, the project highlights the potential of general practice data to support more granular analyses of specific patient populations and identify priority regions and practices for targeted health interventions, service planning and quality improvement. The breadth of information available through general practice data, including diagnoses, clinical observations, risk factors, service use and care-management activity, provides insights that are not routinely available in many administrative datasets.

Future work could extend the analysis to better understand variation in physical health outcomes, risk-factor burden and care received by people with mental health conditions. This could include examining differences by geography, population characteristics and models of care, and exploring whether care planning, multidisciplinary care and preventive health support are consistently reaching people with more complex mental and physical health needs. These analyses could help inform targeted commissioning, practice support and evaluation activities.

Future studies would also benefit from access to a longer historical data period, improved coverage of remote and very remote communities, and further validation of selected clinical definitions, thresholds and counting rules. These enhancements would strengthen the capacity to examine changes over time and improve the reliability and representativeness of future analyses.

Continued collaboration between WA Primary Health Alliance, Australian Institute of Health and Welfare, general practices and relevant clinical and sector experts will be important to refine analytical methods, interpret findings and translate insights into practical action.

WA Primary Health Alliance acknowledges and pays respect to the Traditional Owners of this Country

We honour Elders, past and present, and recognise the continuing connection of Aboriginal peoples to lands, waters, and culture. We recognise the diversity and strength of Aboriginal peoples, and the importance of self-determination and cultural knowledge in supporting the positive health and wellbeing of the whole community.

Disclaimer

WA Primary Health Alliance's publications and the material within them are intended for general information purposes only. Please read our full disclaimer. While the Australian Government contributed funding for this material, it has not reviewed the content and is not responsible for any injury, loss or damage however arising from the use of or reliance on the information provided herein.

Contact

P 08 6272 4900
E info@wapha.org.au

wapha.org.au

Level 2, 1 Hood Street
Subiaco WA 6008

PO Box 883
Subiaco 6904

phn PERTH NORTH, PERTH SOUTH, COUNTRY WA
An Australian Government Initiative

WAPHA
Better Health Together