

Quality Improvement Toolkit for General Practice

Prevention

Pneumococcal Vaccination

Version 4 - 2025





Contents

Introduction	3
Aim of this toolkit	4
Background	5
Patient data management cycle	7
Activity 1 - Linking the Australian Immunisation Register	8
Activity 2 - Eligibility – Your adult patient population	12
Activity 3 - Eligibility – Your child patient population	21
Activity 4 - Maintaining your vaccination register	24
Activity 5 - Recalls and reminders	28
Online resources	30
Model for Improvement and Plan, Do, Study, Act example	32

Introduction

Purpose

This Quality Improvement (QI) toolkit is designed to support your practice by helping you complete quality improvement activities that will assist with making measurable and sustainable improvements to better care for your patients.

Our [Introduction](#) toolkit provides more detailed information on the quality improvement process.

The Model for Improvement

The QI activities in this toolkit are based on the [Model for Improvement \(MFI\)](#) framework.

The MFI uses the Plan-Do-Study-Act (PDSA) cycle, which is an evidence-based approach to achieving successful changes in your practice.

It offers the following benefits:

- Provides a simple approach that anyone can apply.
- Supports the planning and development of goals for effective changes to be implemented.
- Reduces risk, cost, and time by testing small changes.
- Makes it easier to measure results.

QI team approach

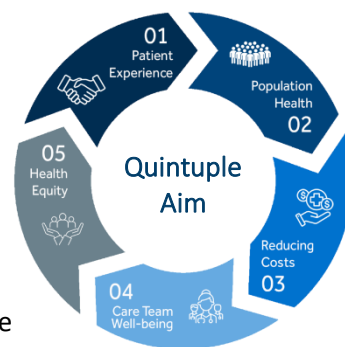
QI is a team process as diverse perspectives, knowledge, and skills of different staff members can provide effective ideas for change.

A team effort will allow for gaps and inefficiencies in the practice to be easily identified. It also helps to maintain motivation and promote lasting changes and encourages continuous quality improvement (CQI) efforts.

Quintuple aim

The goal of the quintuple aim is to enhance patient experience, improve population health, reduce costs, improve work life balance of health care providers including clinicians and staff.

Awareness of the quintuple aim with CQI will assist with enhancing patient care to improve health equity at your practice.



Goal

The toolkit activities will guide you to explore your data to understand your patient population and the care pathways that are being provided in your practice. This will assist with the development of S.M.A.R.T goals to improve your practice's data management processes to ensure your policies and procedures are up to date.



Aim of this toolkit

To support continuous quality improvement by helping identify patients who are at risk of pneumococcal disease and who are eligible under State or National Immunisation Programs to receive the vaccination.

Key questions for you to consider

Who will you select in your team to be responsible for contacting patients about their influenza vaccinations?



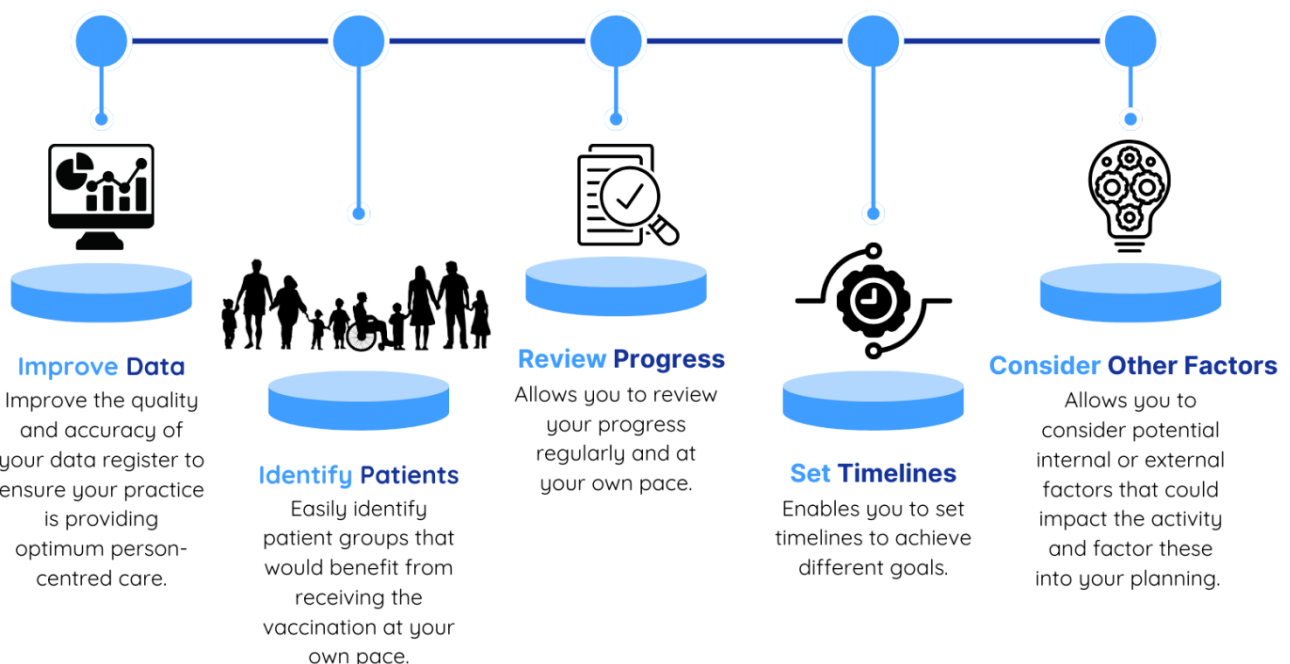
Who will you assign in your team to make sure the patient population is well cared for?



Who will you select in your team to complete data cleansing activities?



To achieve the aim, you will need to extract patient data and establish a valid patient list or register. The toolkit activities will assist and guide you along the journey to:



Background

What is pneumococcal disease?



Pneumococcal disease is a common acute infection caused by the *Streptococcus pneumoniae* bacteria (also referred to as *pneumococcus*). Most people carry the pneumococcus bacteria in their upper respiratory tract but show no symptoms and remain healthy. However, when the bacteria grows and spreads to other parts of the body, infections can occur.¹ The most severe infections are categorised as invasive pneumococcal disease (IPD). This is when the bacteria enters the bloodstream (septicaemia) or invades the lining of the brain (bacterial meningitis). The World Health Organization (WHO) declares that pneumococcal disease as the world's number one vaccine preventable cause of death among infants and children under 5 years of age.²

Who is at risk of pneumococcal disease?

Population groups at a higher risk are:



People with existing chronic conditions, such as diabetes or cancer.



Older adults ≥ 70 years and especially among the elderly with comorbidities.



Aboriginal and Torres Strait Islander people aged ≥ 50 years.



Infants aged ≤ 12 months, children, adolescents, and adults with risk conditions for pneumococcal disease.



Tobacco/e-cigarette smokers.

Incidence of pneumococcal disease



Incidence of IPD among older adults

The incidence of IPD for Australians older than 65 years of age has been declining over time. From 2017 to 2021 the annual crude incidence rate dropped from at 21.8 to 10.8 per 100,000 population. The rates for Indigenous Australian adults have also reduced during this time period, but the rate for this population group is at 27.3 per 100,000, which is much higher than non-Indigenous Australians.²

Incidence of IPD among children

Young children under 5 years of age are at an increased risk of contracting IPD and children under 2 years old are at even higher risk of pneumococcal disease. The crude incidence rate in 2021 for children aged between 2-4 years old was at 13.3, but children under 2 years of age were at a higher rate at 23.3 per 100,000 population. For Indigenous Australian children, the incidence rate is similar.²

The rates for all population groups have been reducing and this is largely due to the implementation of a national vaccination schedule and increasing herd immunity.³ Australia has a high 96% childhood immunisation rate for

¹ [Immunisation Coalition - Pneumococcal Disease](#)

² [The Lancet - Comparison of the epidemiology of invasive pneumococcal disease between Australia and New Zealand in 2017–2021](#)

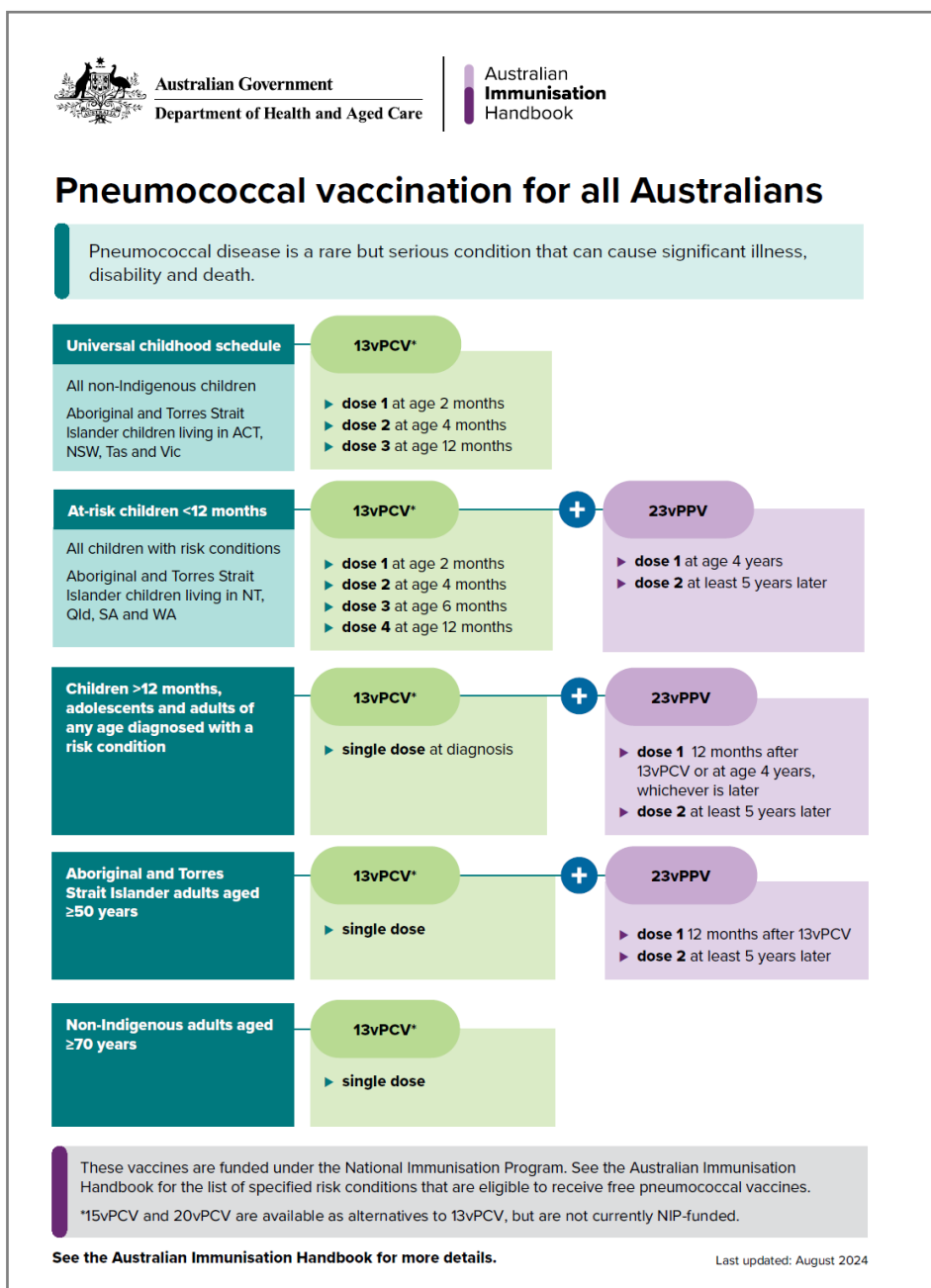
pneumococcal, but the recorded coverage for adult vaccinations is only at 20%. Greater emphasis on immunisations, especially for older adults, can help lessen the burden of this vaccine preventable disease among the most vulnerable in Australia.³

Pneumococcal vaccines under the National Immunisation Program (NIP)

There are 2 types of pneumococcal vaccines:

- [Conjugate vaccine](#) - PCV types: 13vPCV (Prevenar 13), 15vPCV (Vaxneuvance) or 20vPCV (Prevenar 20)
- [Polysaccharide vaccine](#) - PPV type: 23vPPV (Pneumovax 23).
- For up-to-date information on dosage, eligibility, and administration, please refer to the NIP links listed in the [online resources page](#).

Clinical Decision Tree for Pneumococcal Vaccination⁴



³ [NCIRS - Annual Immunisation Coverage Report](#)

⁴ [Immunisation Handbook Resources](#)

Patient data management cycle



Engaging in quality improvement is more effective with your team!

List who is in your team and who will be responsible for making sure the toolkit activities are completed.

YOUR TEAM

--



ACTIVITY 1

Linking the Australian Immunisation Register

[The Australian Immunisation Register \(AIR\)](#) is a national register that keeps a record of all vaccinations given to people in Australia. Best Practice and MedicalDirector now have a function available to directly link each patient to AIR.

The aim of this activity is to link AIR to your clinical software and to ensure relevant team members know how to register, access, use AIR, which will help optimise your practice's vaccination processes. Also, the Australian Government requires all vaccinations to be appropriately reported in AIR.

Please note that completion of this activity can be added as evidence of your practice's CQI, which is a requirement for the Practice Incentives Program (PIP) Quality Improvement (QI) and accreditation. Performing CQI encourages a culture of learning, innovation, and proactive identification of issues. This leads to better patient health care outcomes, system processes, and overall practice development.⁵

Access the AIR with your clinical software

Linking AIR to PRODA

Link AIR to PRODA if your practice needs to register as a vaccination provider. Access to the AIR ensures that all vaccinations for people are recorded in a national register. It is important for all general practices to register to the AIR, as data are used to assess entitlements for government family assistance payments.⁶

Find out how to [link AIR to PRODA for your practice](#).



- **Step 1:** Apply to become a vaccination provider.
- **Step 2:** Register an organisation PRODA account.
- **Step 3:** Link your organisation PRODA account to the AIR.
- **Step 4:** Add members to your organisation PRODA account.

PRODA/HPOS AIR account number

Already have a location AIR provider number



1800 653 809

If you already have a location AIR provider number, but you are unsure of what the number is, contact the AIR.



Alternatively, log into [PRODA](#) > Select **Services** from the links in the top-right of the screen > Select **Medicare** > Select your organisation. The location AIR provider number will be listed in the identifier table under HPOS - AIR Provider Number.

⁵ [A scoping review of continuous quality improvement in healthcare system](#)

⁶ [About the Australian Immunisation Register - Health professionals - Services Australia](#)

Linking the AIR to Best Practice or MedicalDirector

For [MedicalDirector](#) and for [Best Practice](#) these links will show how to access AIR information, the Immunisations tab, and update patient profiles, relevant to your clinical software.

The benefits of linking AIR:



- ✓ Ability to download immunisation history.
- ✓ Helps with identifying people who are overdue for a vaccination
- ✓ Have accurate/up to date immunisation lists.
- ✓ Improves recall/reminder opportunities.
- ✓ Ability to record and update First Nations ethnicity status.
- ✓ Catch-up schedules that can be viewed by any provider.

Important functions to know

For [MedicalDirector](#) and for [Best Practice](#) these links will show how to access AIR information, the Immunisations tab, and update patient profiles, relevant to your clinical software.



- Ability to download and save immunisation records from AIR to clinical software.
- View alerts and update patient information.
- View patient's Immunisation History from AIR.
- Record medical exemptions.
- Examine childhood and outstanding immunisations.
- Medical exemptions/contraindications.

For Best Practice, please visit [record and send immunisations to the AIR](#).

For MedicalDirector, please see how to [update encounters with AIR](#).

If your practice does not have access to the AIR, please follow the information below or alternatively reach out to your GPQI coordinator for assistance on:



07 3864 7540



support@bsphn.org.au

AIR Reports



- AIR has several [reports](#) that can help your practice identify due/overdue patients and provides other additional information that assists with patient data management.
- AIR eLearning modules are also available to help with requesting reports:
 - [AIR Reports](#).
 - [How to request an AIR010A Due/Overdue report – by Immunisation Practice](#).

1.1

QUESTION 1

Has the practice set up access to AIR?

YES



Move on to Question 2

NO



Please see instructions on how to link AIR to [your clinical software](#).

1.2

QUESTION 2

Do staff members know how to check which AIR services the practice has access to using a patient's record?

YES



Move on to Question 3

NO



Refer to the online page for your clinical software: [Best Practice MedicalDirector](#)

1.3

QUESTION 3

Do relevant staff members know how to access, view, and update an immunisation history and medical exemptions on AIR using the clinical software?

YES



Move on to Question 4

NO



Refer to the links: [Best Practice MedicalDirector](#)

1.4

QUESTION 4

Do relevant staff know how to record, send and update immunisations to the AIR using the clinical software?

YES



Move on to the reflection question

NO



Refer to the instructions: [Best Practice MedicalDirector](#)

REFLECTION: Are there any changes your practice would like to implement with how it uses AIR?

Use the MFI template to assist you with implementing any changes in the practice.

Pneumococcal MFI Example

MFI Template

*Congratulations! You have now finished this activity.
Next, let's find adults eligible for vaccination.*

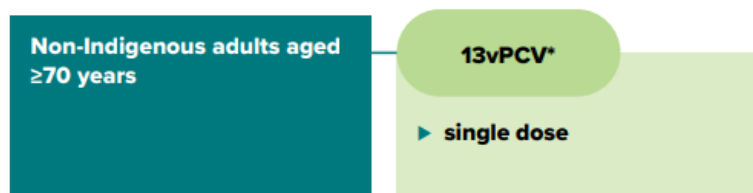




ACTIVITY 2

Eligibility - Your adult patient population

The aim of this activity is to collect data on Best Practice or MedicalDirector and Primary Sense to determine the number of adult patients aged 70 years and over who are eligible for a single dose of the Prevenar 13 vaccine. This activity will effectively help you understand your patient vaccination records and assist with keeping your clinical data up to date.



Completion of this activity can be added as evidence of your practice's CQI, which is a requirement for the Practice Incentives Program (PIP) Quality Improvement (QI) and accreditation. Performing CQI encourages a culture of learning, innovation, and proactive identification of issues. This leads to better patient health care outcomes, system processes and overall practice development.⁷

Please remember to check that you have linked the AIR to your clinical software: Check patient notes to ensure they have not already received their pneumococcal vaccination at another provider.



QUESTION 1

List the total number of patients vaccinated with Prevenar 13 using the Practice Reports software (see details below).

This will become your baseline measure to help with tracking vaccination rates.

Number of patients vaccinated



Finding your patient population

Practice Reports

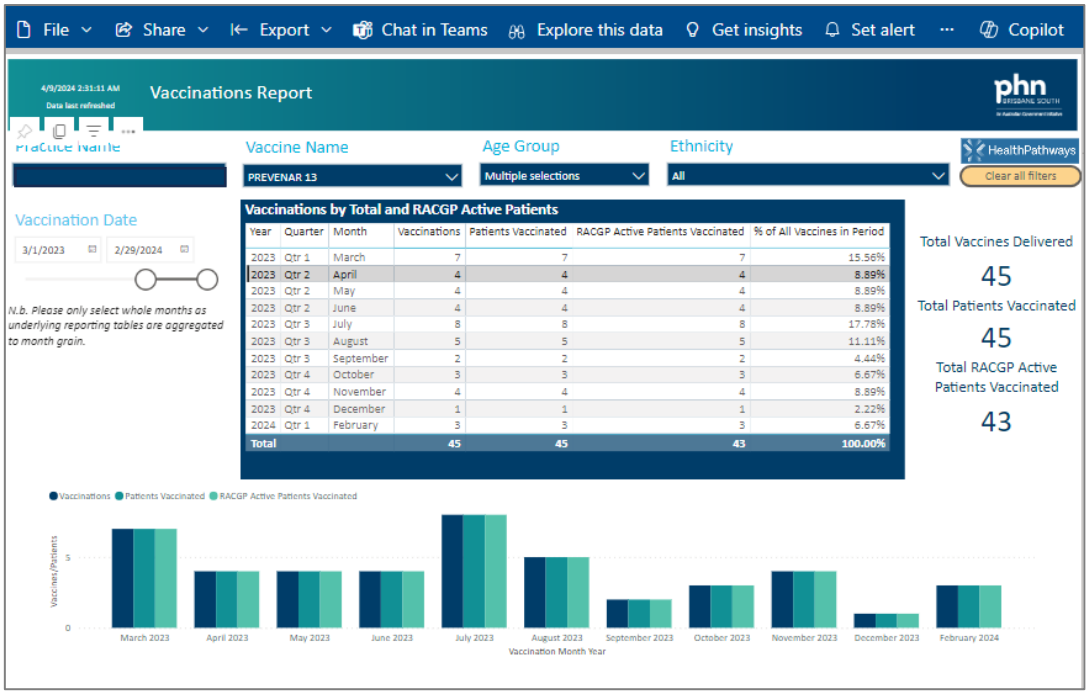
Brisbane South PHN have practice reports software program available that allows you to check your practice's vaccination rates.

⁷ [A scoping review of continuous quality improvement in healthcare system](#)
Brisbane South PHN - Quality Improvement Toolkit

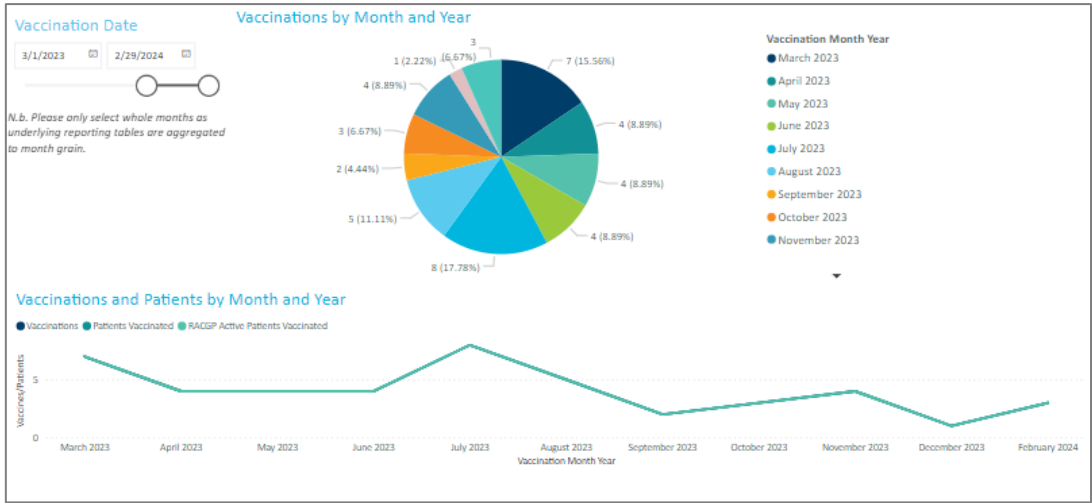
The reports provide quarterly data on the number of vaccinations, for example pneumococcal, flu, or shingles, administered at your practice.

Use the fields to filter the information you need to assist you with implementing your QI change processes to boost your immunisation rates.

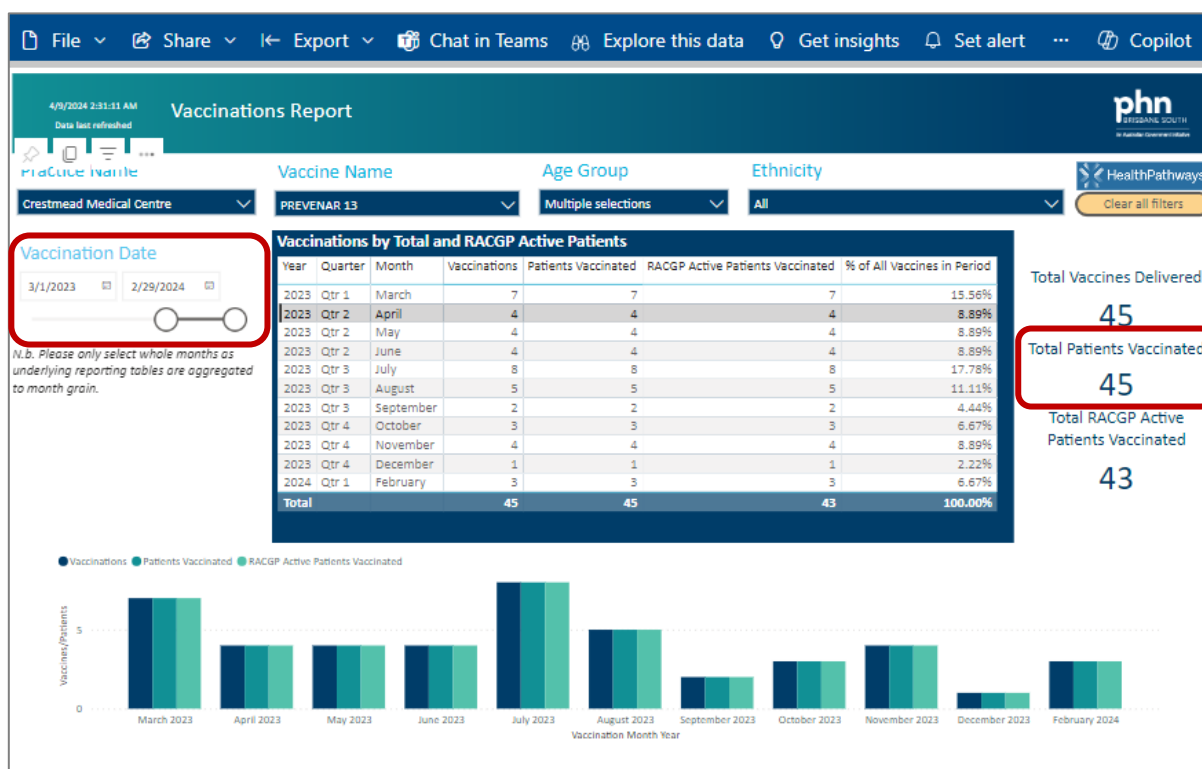
If you do not have access to the practice reports, please get in contact the Brisbane South PHN Digital Health team at support@bsphn.org.au.



A pie chart and trend line data are also available for you to analyse your progress.



Enter in the **Vaccination date** range or select the **Quarterly data information** in the table. For multiple quarters - hold down the *Shift* key and select the quarters. This will bring up the total number of patients vaccinated.



Patients 70 years old and older

2.2

QUESTION 2

List the number of due/overdue patients aged ≥ 70 years old.

Number
due/overdue

The following questions require **Primary Sense** or your clinical software **Best Practice** or **MedicalDirector** to create patient population reports. Please note - Primary Sense can generate a report that can show you the number of patients that do not have a pneumococcal vaccination recorded.

Primary Sense: Reports > Winter Wellness > Sort by Age > look at the Last Pneumococcal Vaccination date for patients aged 70 years and over. Please note, the screenshot shows *Pneumovax*, which has recently been updated on the desktop version in practices to *Pneumococcal* for greater clarity.

Primary Sense™ Reports

GPs - Important clinical information about your patients are in most of these reports.

Select a report

Clinical Audit Queries

Keyword filter:

Clear

Patient Lists

Pregnant and Vaccinations
Due influenza and/or pertussis

Patients with Moderate Complexity (level 3)
Eligible or due care planning items

Chronic Lung Disease and Asthma
Associated modifiable risk factors

Patients with High Complexity (5 and 4)
Eligible or due care planning items

Diabetes Mellitus
Diagnosed and undiagnosed

Winter Wellness
High risk patients at risk of seasonal respiratory infect...

Hypertension Management
Hypertension, no active ACR reading in last 12 months

Cardiovascular Disease Management
CVD, missing interventions and risk factors

Health Assessments
Eligible or due

Benzodiazepine in substance misuse
High risk patients

Haemochromatosis
Associated risk indicators

Cardiovascular Disease Risk Factors
Modifiable risk factors

Frailty Care Management
Patients with Frailty risk factors

Bowel and Breast Cancer Screening
Patients eligible

Child Immunisations
Report of immunisations that can be given for childre...

Voluntary Patient Registration
Report of patients who are likely to meet the criteria f...

Practice/PHN Reports

Characteristics of the Practice Patient Population
For comparison to the PHN version

Accreditation
% compliance

Summary Report of Practice Improvements
Monitors changes

Your Practice Data Quality
Compared to PHN average

DEMO

Reports

Prompts

Alerts

Patients

COI

Settings

Patient Name	Patient Phone	Last Visit	Existing Appt	GP Name	Age	ATSI	Frail	Indicated By Dx/Rx	Last EDS	Last Fluvax Vaccination	Last Pneumovax Vaccination
Thomas, F	0401 234 567	2022-07-24	Nil	Dr S Martin	65	Y		metformin, tacrolimus	Nil	Nil	Nil
Jones, H	0401 234 567	2022-09-24	Nil	Dr S Martin	64	Y		Affective Psychosis, Diabetes, insulin degludec and insulin aspart, metoprolol	Nil	Nil	Nil

Primary Sense reports can show you a count of the number of people without a pneumococcal vaccination recorded. Select **Export to Excel**. This will download an excel spreadsheet.

Information about this table

Show

25

patients per page

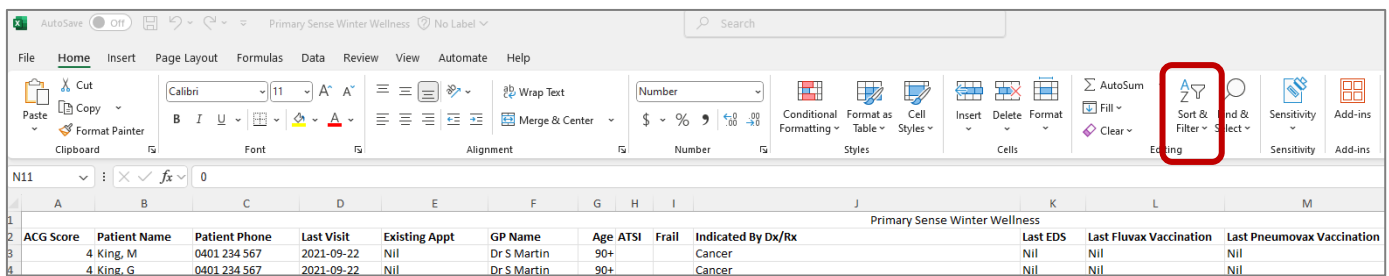
Export To Excel

Export To CSV

Export To CSV (SMS)

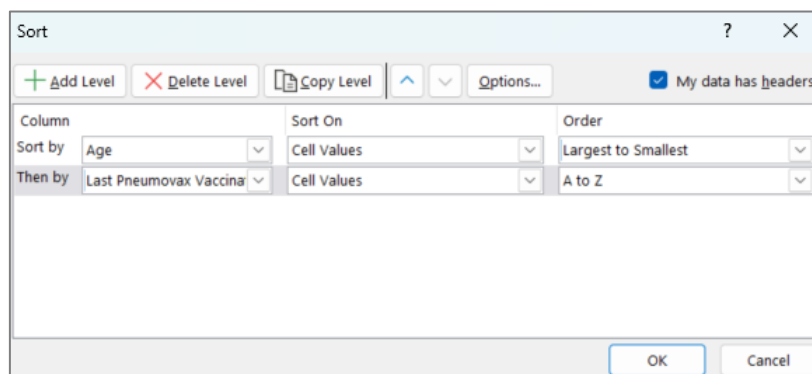
Remove	ACG Score	Patient Name	Patient Phone	Last Visit	Existing Appt	GP Name	Age	ATSI	Frail	Indicated By Dx/Rx	Last EDS	Last Fluvax Vaccination	Last Pneumovax Vaccination
Remove	4	King, M	0401 234 567	2021-09-22	Nil	Dr S Martin	90+			Cancer	Nil	Nil	Nil

Open the document and make these selections:



Sort & Filter > Custom Sort > Sort by > Age > Order: change to Largest to Smallest > Select: Add level > Last Pneumococcal Vaccination > OK

**To sort your First Nations population – add another level: ATSI and change sort order to: A to Z*

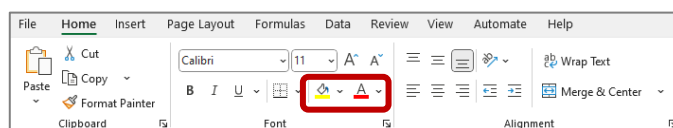


The **Age** column will show the highest age number at the top. Select the first entry and drag your mouse down until you have selected all your patients aged 70+ (or 50+ for First Nations people). At the bottom of the screen, you will see the count number. This is the number of people due/overdue for a vaccination.

Please double check your clinical software patient notes to ensure a patient has not already received the vaccination elsewhere.

Primary Sense Winter Wellness											
Patient Name	Patient Phone	Last Visit	Existing Appt	GP Name	Age	ATSI	Frail	Indicated By Dx/Rx	Last EDS	Last Fluvax Vaccination	Last Pneumovax Vaccination
King, M	0401 234 567	2021-09-22	Nil	Dr S Martin	90+			Cancer	Nil	Nil	Nil
King, G	0401 234 567	2021-09-22	Nil	Dr S Martin	90+			Cancer	Nil	Nil	Nil
Brown, P	0401 234 567	2021-08-27	Nil	Dr S Martin	90+			Diabetes, metformin	Nil	Nil	Nil
Kelly, F	0401 234 567	2022-07-24	Nil	Dr S Martin	88			bleomycin, fluorouracil, Cancer	Nil	Nil	Nil
Campbell, Y	0401 234 567	2021-09-27	Nil	Dr S Martin	86			prednisolone	Nil	Nil	Nil
Martin, B	0401 234 567	2021-08-28	Nil	Dr S Martin	85			Cancer, cytarabine	Nil	Nil	Nil
Campbell, D	0401 234 567	2022-07-24	Nil	Dr S Martin	85			CKD low eGFR, pioglitazone	Nil	Nil	Nil
Walker, T	0401 234 567	2021-09-22	Nil	Dr S Martin	85			bleomycin, Cancer	Nil	Nil	Nil
Brown, A	0401 234 567	2022-07-24	Nil	Dr S Martin	85			betamethasone	Nil	Nil	Nil
Jones, C	0401 234 567	2022-07-24	Nil	Dr S Martin	84			Diabetes, metformin	Nil	2022-10-06	Nil
Thompson, G	0401 234 567	2021-09-22	Nil	Dr S Martin	84			bisoprolol, idarubicin, Cancer, Cardiovascular Disease, Diabe	Nil	Nil	Nil
King, G	0401 234 567	2022-09-24	Nil	Dr S Martin	84	Y		Cardiovascular Disease, Diabetes	Nil	2022-09-05	Nil
Taylor, A	0401 234 567	2021-08-27	Nil	Dr S Martin	84			Diabetes	Nil	Nil	Nil
Ryan, B	0401 234 567	2022-07-24	Nil	Dr S Martin	81	Y		bisoprolol, bleomycin, Cancer, Cardiovascular Disease, Diabe	Nil	Nil	Nil
Kelly, P	0401 234 567	2021-09-22	Nil	Dr S Martin	81			Diabetes, insulin (human)	Nil	Nil	Nil
Walker, G	0401 234 567	2022-07-24	Nil	Dr S Martin	78	Y		adalimumab, methylprednisolone, Diabetes	Nil	Nil	Nil
Thomas, U	0401 234 567	2022-07-24	Nil	Dr S Martin	78			atenolol, fluorouracil, trastuzumab, Cancer, Diabetes	Nil	Nil	Nil
Campbell, F	0401 234 567	2022-07-24	Nil	Dr S Martin	78			Cancer, cytarabine, idarubicin, methylprednisolone, procarb	Nil	Nil	Nil
Lee, X	0401 234 567	2021-09-22	Nil	Dr S Martin	77			methylprednisolone, tacrolimus	Nil	Nil	Nil
Jones, L	0401 234 567	2022-07-24	Nil	Dr S Martin	76			Cancer, carvedilol	Nil	Nil	Nil
Williams, A	0401 234 567	2022-07-24	Nil	Dr S Martin	76			guar gum, insulin (human), pioglitazone, Severe Obesity	Nil	Nil	Nil
Williams, K	0401 234 567	2021-10-02	Nil	Dr S Martin	75			Cardiovascular Disease, Diabetes, metformin, prednisolone	Nil	2022-10-06	Nil
Brown, L	0401 234 567	2021-08-27	Nil	Dr S Martin	75			CKD low eGFR	Nil	Nil	Nil
Walker, U	0401 234 567	2022-07-24	Nil	Dr S Martin	75			adalimumab, Chronic Liver Disease	Nil	Nil	Nil
Ryan, I	0401 234 567	2021-08-27	Nil	Dr S Martin	75			bisoprolol, glimepiride, insulin glargine, metformin and sitagli	Nil	Nil	Nil
Anderson, Y	0401 234 567	2022-07-24	Nil	Dr S Martin	75	Y		Diabetes, tacrolimus	Nil	Nil	Nil
Smith, R	0401 234 567	2021-09-30	Nil	Dr S Martin	74			ciclosporin, CKD low eGFR	Nil	Nil	Nil
Anderson, P	0401 234 567	2022-07-24	Nil	Dr S Martin	73			Diabetes, metformin and empagliflozin	Nil	Nil	Nil
Brown, E	0401 234 567	2022-06-24	Nil	Dr S Martin	73			Cardiovascular Disease, dactizumab	Nil	Nil	Nil
Ryan, U	0401 234 567	2021-09-22	Nil	Dr S Martin	72			Affective Psychosis, Cancer, docetaxel	Nil	Nil	Nil
Thomas, U	0401 234 567	2021-09-22	Nil	Dr S Martin	72			bisoprolol, glimepiride, metformin, Cancer, Cardiovascular Dis	Nil	2022-10-06	Nil
Taylor, U	0401 234 567	2021-09-27	Nil	Dr S Martin	72			Diabetes	Nil	Nil	Nil
Anderson, S	0401 234 567	2021-10-02	Nil	Dr S Martin	72			Cancer, insulin (human)	Nil	Nil	Nil
King, T	0401 234 567	2021-10-02	Nil	Dr S Martin	71			Cardiovascular Disease, Diabetes, exenatide, insulin aspart,	Nil	Nil	Nil
Martin, L	0401 234 567	2022-07-24	Nil	Dr S Martin	71	Y		Diabetes	Nil	Nil	Nil
King, V	0401 234 567	2022-09-24	Nil	Dr S Martin	71	Y		bisoprolol, dulaglutide, Cardiovascular Disease, Diabetes, Se	Nil	Nil	Nil
Campbell, E	0401 234 567	2022-07-24	Nil	Dr S Martin	70			Cancer, CKD low eGFR, Diabetes, Severe Obesity, idarubicin, Nil	Nil	Nil	Nil

You can make your data selection stand out by changing the font colour or the cell colours, if you wish.



Clinical software instructions

Best Practice

[Search for Immunisations](#) will help you run a database search query to retrieve patient records that show which patients have not received a pneumococcal vaccination. Please remember to select NOT and select the vaccine name > Add.

The following links may also help.

[Searching the database](#) – This is useful for an SQL (Structured Query Language) search.

[Search past visits](#) – To look up conditions and items in a patient's past visit.

MedicalDirector

The SQL below has been specifically written to bring up all active patients with **no Prevenar 13 vaccination on record** and can be pasted directly into the Advanced Search field. Please see the [Patient Search](#) link to find out how to access the Advance Search tab. Highlight and delete the existing information in the search box and paste the following code:

```
left join MD_PATIENT_CLINICAL as clinical (nolock) on clinical.PATIENT_ID = patient.PATIENT_ID left join  
CM_OCCUPATION as occ (nolock) on occ.OCCUPATION_ID = patient.OCCUPATION_ID left join  
MD_USER_DEFINED_FIELD as udf (nolock) on udf.PATIENT_ID = patient.PATIENT_ID left join MD_PROGRESS as
```

progress (nolock) on progress.PATIENT_ID = patient.PATIENT_ID left join MD_IMMUNISATION as imms (nolock) on patient.PATIENT_ID = imms.PATIENT_ID

Where patient.STAMP_ACTION_CODE != 'D' and patient.STATUS_CODE = 'A'

and (0 + Convert(Char(8),GETDATE(),112) - Convert(Char(8),DOB,112)) / 10000 >= 70

and not exists(select * from MD_IMMUNISATION i where type in('PREVENAR 13', 'PNEUMOCOCCAL 13') and STAMP_ACTION_CODE != 'd' and i.patient_id = patient.PATIENT_ID)

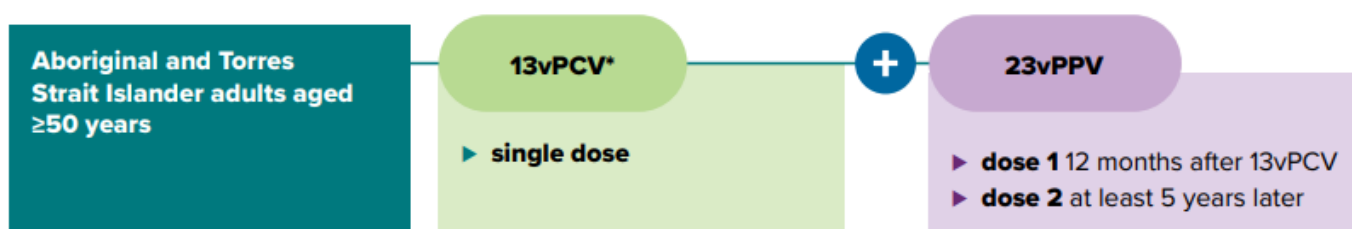
Need assistance with completing a patient search?

Please contact your dedicated QI Coordinator at Brisbane South PHN on 07 3864 7540 or at support@bsphn.org.au.



Aboriginal and Torres Strait Islander patients age ≥ 50 years old

ADDITIONAL DOSES: Please be aware Aboriginal and Torres Strait Islander patients require **3 doses** in total:



NOTE: Please be aware that adults 18+ years old with certain [medical conditions](#) are at increased risk of pneumococcal disease and vaccination is highly recommended. Please check the [Australian Immunisation Handbook](#) to find out if your patient is eligible for funded doses of the vaccine.

2.3

QUESTION 3

List the number of due/overdue Aboriginal and Torres Strait Islander patients ≥ 50 years old.

Number
due/overdue



Finding your patient population

Primary Sense

Follow the [Primary Sense instructions](#) previously explained for Question 2 to count your patient population.



Clinical software instructions

Best Practice: To find your Aboriginal and Torres Strait Islander patient population select: Demographics > ATSI and choose a selection from the dropdown box > Add

The screenshot shows the 'Database search' window with the 'Demographics' tab selected. The 'Search for patients' dialog box is open, displaying a list of column names. 'ATSI' is selected in the list. A dropdown menu is open next to the 'ATSI' selection, showing options: 'Aboriginal', 'Torres Strait Islander', and 'Aboriginal/Torres Strait Islander'. The 'Add' button is highlighted.

The [Search for Immunisations](#) instructions will help you run a database search query to retrieve patient records that show a pneumococcal vaccination is required.

MedicalDirector

This SQL has been specifically written to bring up all active patients with no Prevenar 13 vaccination on record and can be pasted directly into the Advanced Search field. Please see the [Patient Search](#) link to find out how to access the Advance Search tab. Highlight and delete the existing information in the search box and paste the following code:

```
left join MD_PATIENT_CLINICAL as clinical (nolock) on clinical.PATIENT_ID = patient.PATIENT_ID left join
CM_OCCUPATION as occ (nolock) on occ.OCCUPATION_ID = patient.OCCUPATION_ID left join
MD_USER_DEFINED_FIELD as udf (nolock) on udf.PATIENT_ID = patient.PATIENT_ID left join MD_PROGRESS as
progress (nolock) on progress.PATIENT_ID = patient.PATIENT_ID Where 1=1 AND ( ATSI = 1 OR ATSI = 2 OR ATSI =
3 ) and patient.STAMP_ACTION_CODE != 'D' and patient.STATUS_CODE = 'A' and (0 +
Convert(Char(8),GETDATE(),112) - Convert(Char(8),DOB,112)) / 10000 >=50 and not exists(select * from
MD_IMMUNISATION i where type in('PREVENAR 13', 'PNEUMOCOCCAL 13') and STAMP_ACTION_CODE != 'd' and
i.patient_id = patient.PATIENT_ID )
```

Need assistance with completing a patient search?



Please contact your dedicated QI Coordinator at Brisbane South PHN on 07 3864 7540 or at support@bsphn.org.au.

REVIEW

Complete the questions below to provide a better understanding of your patient list data to improve immunisation rates.

How many eligible patients are overdue or have no vaccination recorded?

Total number of patients

What do you plan to do with patients who are due or overdue for their vaccine?

How often will the due/overdue records on AIR be checked and clinical data be updated?

Frequency

Who in the practice will perform this task and how will the number of due/overdue patients be communicated to the team?

Use the MFI template to assist you with implementing any changes in the practice.

Pneumococcal MFI Example

MFI Template

*Congratulations! You have now finished this activity.
Next, let's find children eligible for vaccination.*





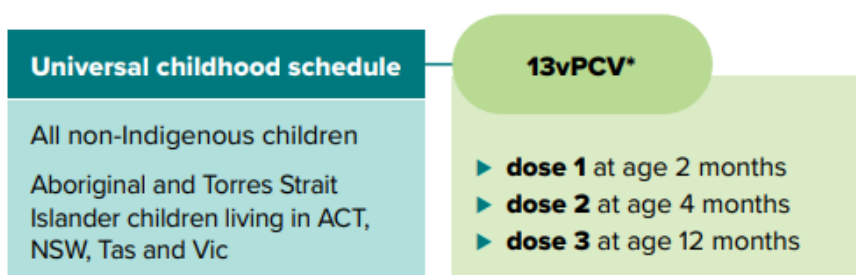
ACTIVITY 3

Eligibility - Your child patient population

The aim of this activity is to collect data from Best Practice or MedicalDirector to determine the number of infants and child patients eligible for a pneumococcal vaccine or who may not be fully immunised. This activity will effectively help you understand your patient vaccination records and assist with keeping your clinical data up to date.

Also, please note that completion of this activity can be added as evidence of your practice's CQI, which is a requirement for the Practice Incentives Program (PIP) Quality Improvement (QI) and accreditation. Performing CQI encourages a culture of learning, innovation, and proactive identification of issues. This leads to better patient health care outcomes, system processes and overall practice development.⁸

Please remember to check AIR records first to ensure patients have not already received their pneumococcal vaccination or had it administered at another provider.



This activity requires the use of **Primary Sense** to find your child patient population that require a pneumococcal vaccination.



Finding your patient population

Primary Sense

Primary Sense > Reports > Child Immunisations > The report will show your patients aged 2 to 6 months, patients 6 months + Influenza vaccination, 12 months vaccination, 18 months vaccination, 4 years vaccinations. Use the fields: Pneumococcal Due Date or Pneumococcal Last Dose.

⁸ [A scoping review of continuous quality improvement in healthcare system](#)
Brisbane South PHN - Quality Improvement Toolkit

Primary Sense™ Reports

GPs - Important clinical information about your patients are in most of these reports.

Select a report

Clinical Audit Queries

Keyword filter:

Clear

Patient Lists

- | | |
|--|---|
| Pregnant and Vaccinations
Due influenza and/or pertussis | Health Assessments
Eligible or due |
| Patients with Moderate Complexity (level 3)
Eligible or due care planning items | Benzodiazepine in substance misuse
High risk patients |
| Chronic Lung Disease and Asthma
Associated modifiable risk factors | Haemochromatosis
Associated risk indicators |
| Patients with High Complexity (5 and 4)
Eligible or due care planning items | Cardiovascular Disease Risk Factors
Modifiable risk factors |
| Diabetes Mellitus
Diagnosed and undiagnosed | Frailty Care Management
Patients with Frailty risk factors |
| Winter Wellness
High risk patients at risk of seasonal respiratory infect... | Bowel and Breast Cancer Screening
Patients eligible |
| Hypertension Management
Hypertension, no active ACR reading in last 12 months | Child Immunisations
Report of immunisations that can be given for childre... |
| Cardiovascular Disease Management
CVD, missing interventions and risk factors | Voluntary Patient Registration
Report of patients who are likely to meet the criteria f... |

Practice/PHN Reports

- | | |
|---|---|
| Characteristics of the Practice Patient Population
For comparison to the PHN version | Summary Report of Practice Improvements
Monitors changes |
| Accreditation
% compliance | Your Practice Data Quality
Compared to PHN average |

DEMO



Reports



Prompts



Alerts



Patients



CQI



Settings

Patients 2 - 6 months vaccinations

Show

25

patients per page

Export To Excel

Export To CSV

Export To CSV (SMS)

Remove	Patient Name	Patient Phone	Last Visit	Existing Appt	GP Name	Age	ATSI	Hexavalent Last Dose	Hexavalent Due Date	Rotavirus Last Dose	Rotavirus Due Date	Pneumococcal Last Dose	Pneumococcal Due Date
Remove	Vaccine, Prompt		2023-06-07	Nil	Doctor Doctor	0	N	2023-10-27	2023-12-27		N/A		2023-09-24

Showing 1 to 1 of 1 entries

Previous

1

3.1

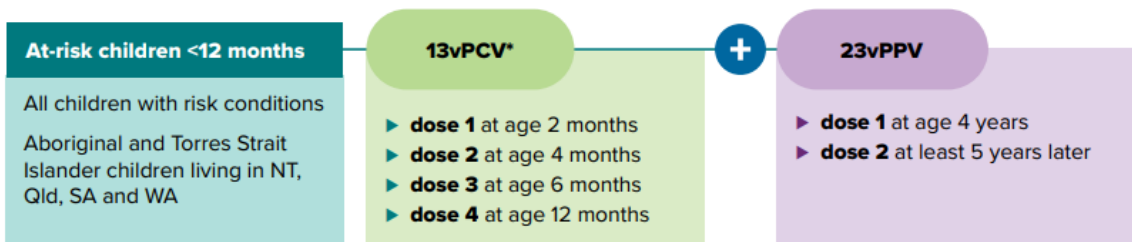
QUESTION 1

List the number of active child patients aged ≤ 12 months of age who are due/overdue for a pneumococcal vaccination.

Number
due/overdue

ADDITIONAL DOSES: Some children with certain [medical conditions](#) are at higher risk and require additional doses of the vaccine. Refer to the [Australian Immunisation Handbook](#) to ensure your patient receives adequate pneumococcal vaccinations.

Aboriginal and Torres Strait Islander children require additional doses – a total of 6 doses are required:



REVIEW

Complete the questions below to provide a better understanding of your patient list data to improve immunisation rates.

How many children were found to be overdue with their pneumococcal vaccination?

Total number of patients

How will you communicate this information to the practice team?

Are there any unexpected results - eg. influx of patients, data entry etc.

Reason

How will you communicate this information to the practice team?

Use the MFI template to assist you with implementing any changes in the practice.

Pneumococcal MFI Example

MFI Template

*Congratulations! You have now finished this activity.
Next, let's manage the immunisation register*



ACTIVITY 4

Managing your immunisation register

When managing your immunisation register, it is important to use the correct fields to input immunisation records. Please refrain from using free text because it is not easily searchable in any database by the clinical software or third-party software (e.g. extraction tools). Therefore, this is not the preferred process).

Also, it is advisable to use the correct vaccine codes when inputting immunisations into your clinical software for the information sent to the AIR to be accurate. This will ensure patient records are correct and ensures that the right information is also available in a patient's My Health Record.⁹

The aim of this activity is to assist that the practice to have a vaccination register that is up to date and accurate. Completion of this activity can be added as evidence of your practice's CQI, which is a requirement for the Practice Incentives Program (PIP) Quality Improvement (QI) and accreditation.¹⁰

Recommendation: Use the immunisation section in the clinical software for a clinical entry to be recognised as a coded immunisation.

Benefits of this process:

- ✓ Searching for patient immunisation information becomes simpler.
- ✓ Immunisation registers will be accurate as this process updates information directly to AIR if the practice software is linked.
- ✓ Makes it easier to generate recall and reminder lists.
- ✓ Allows for the identification of uncoded vaccinations in your clinical software to be updated to coded immunisations, which improves overall patient data quality.
- ✓ Performing CQI encourages a culture of learning, innovation, and proactive identification of issues. This leads to better patient health care outcomes, system processes and overall practice development.¹¹



QUESTION 1

Are relevant practice team members aware of the importance of quality immunisation data (avoiding free text)?

YES



Move on to Question 2

NO



Modules are available to assist you. Click below to access.

Quality Improvement Using Clinical Software

Quality Improvement Activity Navigator

⁹ [Digital Health | My Health Record](#)

¹⁰ [Consumers and accreditation | Australian Commission on Safety and Quality in Health Care](#)

¹¹ [A scoping review of continuous quality improvement in healthcare system](#)

4.2

QUESTION 2

Do relevant team members know the importance of checking to see if a patient already has an existing immunisation record in the clinical software to avoid creating duplicate records?

YES

Move on to
Question 3

NO

Find out how to easily identify duplicate records:
[Best Practice MedicalDirector](#)

4.3

QUESTION 3

Do the relevant staff know how to merge duplicate immunisation records for patient data to reflect greater accuracy of immunisation status?

YES

Move on to
Question 4

NO

Duplicate records can lead to vaccination errors. Find out how to merge files to increase patient safety:
[Best Practice Medical Director](#)

4.4

QUESTION 4

Do relevant team members know to record specific immunisation codes and batch numbers correctly into the clinical software to prevent uncoded immunisation data?

YES

Move on to
Question 5

NO

Please refer to [AIR vaccine code formats](#) that should be used to send immunisations to AIR. For entering batch numbers, please see: [Best Practice MedicalDirector](#)

4.5

QUESTION 5

How many uncoded immunisations do you currently have in your clinical software? To find out how many are uncoded, please see the following links:

[Best Practice MedicalDirector](#)

NONE

Go to Q7

1-10**11-30****31-50****51+**

Move on to Question 6

4.6

QUESTION 6

Is there someone in the practice responsible for checking the uncoded immunisations? *Coding vaccine events is important for patient records to be properly matched in the AIR.

YES

Fill in the info below and go to Question 7

NO

Please refer to the links on how to fix uncoded entries:
[Best Practice MedicalDirector](#)
 See action to be taken below.

Who is responsible:

How often is this checked:

Delegate responsibility to a team member and include in their position description.

Name:

Position:

Agree on frequency of checking for un-coded immunisations e.g. weekly, monthly.

Frequency:

4.7

QUESTION 7

Are relevant staff members aware that preventative health notifications for patients can be used for pneumococcal vaccinations?

YES

Move on to Question 8.

NO

Please refer to Best Practice: [Enabling preventative health notifications.](#)

MedicalDirector: [Pneumococcal Disease 'At Risk' searches and prompts.](#)

4.8

QUESTION 8

Does the practice conduct a comprehensive vaccination pre-screening and ensure that the correct equipment and procedures are in place before vaccination.

YES

You are done.

NO

Please see [Preparing for vaccination.](#)

Use the MFI template to assist you with implementing any changes in the practice.

Pneumococcal MFI Example

MFI Template

*Congratulations! You have now finished this activity.
Next, let's look at recalls and reminders.*





ACTIVITY 5

Recalls and reminders

As part of the RACGP accreditation standards, it is a requirement that practices provide health promotion, preventive care and a reminder system based on patient need and best available evidence.

Please see fact sheets and FAQs for your clinical software: [Best Practice](#) or [MedicalDirector](#).

Brisbane South PHN have a [Recall and Reminder toolkit](#) to assist practices by ensuring your patients are followed up with an appropriate recall/reminder/prompt. Having an effective recall and reminder process will help improve immunisation rates for your practice and protect patient health.

Please remember to check AIR records first to ensure patients have not received their influenza vaccination at another provider. If so, update practice records accordingly.



QUESTION 1

Do relevant staff know how to add recently eligible vaccination patients into the reminder system? (e.g. patient turning 70).

YES



Move on to Question 2

NO



Please see **Best Practice:** [Add a clinical reminder](#) OR [Recall appointments](#)

MedicalDirector: [Adding recalls](#) OR [Creating effective recall and reminder reasons](#)



QUESTION 2

Does the practice have a system in place to follow up sent reminders?

YES



Move on to Question 3

NO



Consider creating a plan on how often sent reminders are followed up.

Best Practice: [Follow up sent reminders](#)

MedicalDirector: [Following-up](#)

5.3

QUESTION 3

Does the practice have a process in place if a patient DOES NOT wish to be sent reminder appointments or removing outstanding reminders, e.g. patients fail to attend.

YES

You are done.

NO

Great opportunity to improve processes.

*GP education on removing reminders.

*Develop practice process on removing reminders.

Refer to **Best Practice:** [Edit a patient reminder](#) OR

MedicalDirector: [Deleting recalls.](#)

Need further assistance with managing your recall and reminder register?

?

Please contact your dedicated QI Coordinator at Brisbane South PHN on 07 3864 7540 or at support@bsphn.org.au

Use the MFI template to assist you with implementing any changes in the practice.

Pneumococcal MFI Example

MFI Template

*Congratulations! You have now finished this activity.
Next, let's look at the pneumococcal online resources.*



Online resources



Online resources that will assist with your pneumococcal vaccination rates and patient management register.

Websites	Links
Australian Immunisation Handbook	Pneumococcal Disease Catch-up Calculator
NCIRS: National Centre for Immunisation Research and Surveillance	Pneumococcal Fact Sheet & FAQs
NIP: National Immunisation Program	National Immunisation Schedule Clinical Decision Tree for Vaccination Providers Clinical Advice for Vaccination Providers Following Vaccination – What to Expect and What to Do
RACGP: Royal Australian College of General Practitioners	Guidelines for preventative activities in general practice
Immunisation Coalition	About Pneumococcal Disease Pneumococcal Guide for Health Professionals PneumoSmart Vaccination Tool
Diabetes Australia	Pneumococcal Disease and Diabetes
SKAI: Sharing Knowledge about Immunisation	eLearning Module - Conversations to parents about vaccination
Department of Health and Aged Care	Resources: Publications, Infographics, Tables and Figures National Vaccine Storage Guidelines
AIR: Australian Immunisation Register	Accessing the AIR, Submitting to the AIR and AIR Reports AIR Reports information slides
HPOS: Health Professional Online Services	Access reports, patient information and more
Queensland Health	Queensland Immunisation Schedule Notification Guidelines and Resources for Public Health Units Immunisation Resources Vaccine Order Form Reporting a Cold Chain Breach

Brisbane South PHN Toolkits

After completing this toolkit, other Brisbane South PHN toolkits can help with identifying the additional healthcare needs your pneumococcal patients may require, such as other vaccinations or screening tests. Completing the following toolkits can assist your practice with delivering a better holistic approach to patient care and these are:

Older People: Key topics, such as health assessments (75+ and Aboriginal and Torres Strait Islander), chronic condition management plans, vaccinations including influenza and shingles.

Cancer Screening: Review patients eligible for cancer screening (breast, bowel, cervical, and lung) and ensure you have systems in place to manage these patients.

Influenza and Shingles toolkits are available to help you review patients at your practice eligible for vaccinations.

All of [Brisbane South PHN's toolkits](#) are available on our website, why not complete more to improve processes and patient health outcomes for your practice.



Model for Improvement and Plan-Do-Study-Act (PDSA) example

Please visit Brisbane South PHN [QI Tools and Resources](#) page to view the MFI diagram and the PDSA data recording template.

Quality Improvement Record

Model for Improvement and Plan-Do-Study-Act (PDSA) template.
For more information on the Model for Improvement and PDSA method, visit the Brisbane South PHN [Quality Improvement website](#).

Our General Practice Quality Improvement (GPQI) Team can work with you to provide practical advice and resources to help implement your QI activities.
For support call 3864 7540 or email support@bsphn.org.au.



Practice name:

Date:

Team members:

Goal: What are you trying to accomplish?

Create a S.M.A.R.T. goal (Specific, Measurable, Achievable, Relevant, Time-bound)

Example: We aim to increase the BMI recording rates from 35% to 40% between 1st July and 31st December.

Our S.M.A.R.T. goal is to increase the proportion of our patients aged 70 years and older that have a pneumococcal vaccination by 20% by 25 June.

Measure: How will you measure and track your improvement?

Outline how you will collect the data, including how often and where from.

We will measure the percentage of active patients aged 70 years and older who have a pneumococcal vaccination recorded.

To do this we will:

A) Identify the number of active patients over 70 years old and older.

B) Identify the number of active patients over 70 years who have a pneumococcal vaccination recorded.

B divided by A x 100 produces the percentage of patients over 70 years who have pneumococcal vaccination recorded.

BASELINE MEASUREMENT: 43% of active patients over 70 years old have had a pneumococcal vaccination.

Ideas: What changes could you make that will lead to an improvement?

Brainstorm with your team ideas to help reach your goal. Test the ideas using the Plan-Do-Study-Act (PDSA) method.

Four blank PDSA templates are provided on the following pages to record the testing of different ideas.

Ideas	Date completed
Idea 1: Increase the number of patients over 70 and older to have to have a pneumococcal (Prevenar 13v) vaccination recorded.	
Idea 2: Identify Aboriginal and Torres Strait islander patients aged 50 and older.	
Idea 3: Ensure all patients aged 75 years and over are up to date with their pneumococcal vaccination when completing 75-year-old health assessment.	
Idea 4: Ensure practice nurses attend at least one immunisation education session per year.	

Plan-Do-Study-Act (PDSA) Cycle

Idea:

Increase the number of patients over 70 years who have pneumococcal vaccination recorded by 20% by 25 June.

PLAN *Plan the test including how to collect data.*

Include what, who, when, where, predicted outcome and data to be collected.

WHAT: Practice team meeting to be organised to discuss how patients can be offered pneumococcal vaccination opportunistically. The practice manager will conduct a search on our clinical software to identify eligible patients and bring individual GP reports to the practice meeting.

WHO/WHEN/WHERE: Who: Practice team. When: 12 April. Where: Practice staff room.

DATA TO BE COLLECTED: Number of active patients aged 70 years and the status of their pneumococcal vaccination.
PREDICTIONS: The practice team believe they can achieve this goal with a collaborative approach.

DO *Run the test on a small scale.*

Was the plan carried out? What was done? Document any unexpected events or problems. Record any observations and data collected.

Completed 12 April. Practice meeting was held and some GPs wished to have a small post it note on their computer monitor that said, "Pneumococcal vaccination," to remind them to have the discussion with their patients. At the meeting it was identified that the receptionists needed training using the clinical software, so a training session was organised.

STUDY *Analyse and study the outcome.*

Review and reflect on the results. Compare what happened to your predictions.

At the end of the focus on improving pneumococcal immunisation rates for patients aged 70 years and older, only 52% of patients have had a pneumococcal vaccination completed.

Whilst there was a 9% increase, the practice did not meet the 20% increase. This was due to unexpected leave by one of the GPs. The practice agreed to continue this project to try and increase the % completed.

ACT *Record the next steps.*

Does your idea work? Does it need any changes? Will you test a new idea?

The practice will adopt this change as business as usual. Pneumococcal vaccination rates will be reviewed on a quarterly basis to ensure rates are increasing.



Now that you have finished all the activities...

- **Log** your CPD hours.
- **Celebrate** your achievements.
- **Keep** this as evidence of improvements for accreditation.
- **Complete** more toolkits and become a high performing practice!



An Australian Government Initiative

Brisbane South Primary Health Network (BSPHN)

ABN 53 151 707 765



www.bsphn.org.au



support@bsphn.org.au



07 3864 7540



First floor, Building 20 Garden City Office Park, 2404 Logan Road,
Eight Mile Plains, QLD 4113



PO Box 6435, Upper Mt Gravatt, QLD 4122

Disclaimer

We would like to acknowledge that some material contained in this toolkit has been extracted from organisations such as Australian Government Department of Health and Aged Care and the National Centre for Immunisation Research and Surveillance and Services Australia. These organisations retain copyright over their original work, and we have abided by licence terms. Referencing of material is provided throughout.

While the Australian Government Department of Health and Aged Care has contributed to the funding of this material, the information should not be considered advice or information that is endorsed by the Australian Government.

The Australian Government is not responsible for negligence or otherwise for any injury, loss or damage arising from the use of the information that has been provided in this toolkit. Brisbane South PHN accepts no responsibility for the way in which information in this document is interpreted or used.

Unless a reference is indicated, material in this booklet is owned by Brisbane South PHN. You are free to copy and communicate the work in its current form, as long as Brisbane South PHN is referenced as the source of the copyright material.

© BSPHN 2025 All Rights Reserved

Acknowledgements

Brisbane South PHN acknowledges the Traditional Custodians of the land on which we live and work, and of the many different nations across the wider Brisbane South region. We pay our respects to the Elders, past present and emerging.

phn
BRISBANE SOUTH

An Australian Government Initiative