APPENDICES

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6 Appendix 1: The Six Rules of Improvement

The "six rules of improvement" provide a helpful guide to undertaking QI work.

1. Think in systems

   Build processes and systems that support health care workers to provide reliable care. If you want a different result than you are currently achieving, then you need to adapt your system.

2. Explicitly state your aim and anticipated benefits

   Often, change is attempted without a clear discussion about what is trying to be achieved. Meaningful and measurable aims are important. The team will be more engaged and motivated to participate in change if they are involved in planning for the improvement effort.

3. Continually make small incremental changes

   Large scale change is difficult to achieve and has potential for unintended consequences. Progress can be made in small steps, checking the outcomes at every step. Large scale change is achieved from the culmination of continual small steps.

   To plan and undertake improvement activities, use the Model for Improvement framework to help set aims and track progress against small changes that you think will help you reach your goal of improving cancer screening rates.

4. Keep score - measure your progress

   All improvement requires change, but not all change is an improvement. Only measurement will tell you if a change is leading to a desired improvement. A set of measures to track your progress has been developed for you to use.

5. Steal shamelessly

   It's important to look outside your own Health Service, or even the health system, to learn from the experience of others. You and your peers will improve faster by learning from each other. When we are all willing to share our success stories generously, everyone benefits.

6. Inspire a culture of "falling forward"

   Sometimes in the busy environment of health care, we tend to do things a certain way because that's how we have always done them. By giving ourselves and our team(s) permission to change, we can do better.

   Constant change can be exhausting but continuous improvement can be invigorating. This is why we should cultivate a culture of always doing things a little bit better; of falling forward.

Appendix 2:
Sample Bowel Cancer Screening Letter

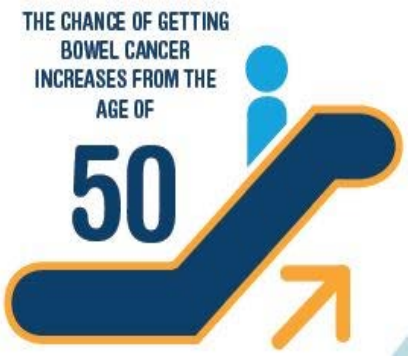
The following letter template is available at:
http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/gp-template-letter

[Practice Letter Head]

National Bowel Cancer Screening Program - please do your free test

Dear [*Patients Name*],

We are {*or* I am} writing to encourage you to do a test which looks for the early signs of bowel cancer.



You will get your first National Bowel Cancer Screening Program test kit in the mail around your 50th birthday. The test is free and easy to do in your own home.

Bowel cancer is one of the most common cancers in Australia, especially for people aged over 50. If found early, bowel cancer can be successfully treated 90% of the time.

We {*or* I} strongly recommend you do the test - even if you don't have any symptoms or family history.

You should talk to your GP {*or* me} before doing the test if you have:

- a significant family history of bowel cancer,
- had a bowel condition in the last year which is under treatment, or
- had a colonoscopy in the last 5 years or have one scheduled.

Symptoms of bowel cancer can include:

- blood in your bowel motion,
- persistent diarrhoea or constipation,
- unexplained tiredness or weight loss, or
- abdominal pain.

Symptoms do not mean that you have bowel cancer, but if you have any please talk to your GP {*or* me} -don't wait to get a test in the post.

For more information call the Program Information Line on 1800 118 868 or go to www.cancerscreening.gov.au/bowel. And of course, you can also always visit your GP {*or* me} to discuss.

Remember, the test could save your life. Please do it when you get it.

Yours sincerely

DRAFT

Appendix 3: Sample GP Reminder Letter for Mammography

Date of letter

GP of Health Service logo/ address header

GP NAME

Dear [name]

Our records show that it's time for your next mammogram. A mammogram every 2 years is the best way to find breast cancer early when treatment is most likely to be successful.

What you need to do:

Phone 13 20 50 to make an appointment with your nearest BreastScreen Victoria location.

ADD A MAP HERE OF THE NEAREST LOCATION

Visit https://www.breastscreen.org.au/locations/ and enter your postcode to check if there is a closer location or mobile bus.

If you have noticed any changes in your breasts such as lumps, nipple discharge or persistent new breast pain, please make an appointment with your GP immediately

Cost: Free

BreastScreen Victoria is a free breast screening program. All women over 40 are eligible for free breast screening with BreastScreen Victoria.

For an interpreter's assistance: Phone 13 14 50 (TTY 13 36 77)

Yours sincerely

SIGNATURE

Appendix 4: Sample GP Reminder Letter for Cervical Cancer Screening

Date of letter

GP of Health Service logo/ address header

GP NAME

Dear [name]

Our records show that it's time for your next cervical screening test.
[OR Our records show that your cervical screening test is overdue.**]**

Cervical screening is a way of preventing cancer by finding and treating early changes in the neck of the womb, the cervix. These changes could lead to cancer if left untreated. The test only takes five minutes and is the best way to reduce your risk of cervical cancer.

We encourage you to consider booking an appointment to come in for the test.

Please call us on [insert your Health Service's number] to make an appointment with the GP or the nurse at a time to suit you. If you want more information or if you have any concerns, the doctor or Practice Nurse is here to help.

You can also contact us if you would like to talk about the test or for more information.

Yours sincerely

SIGNATURE

Appendix 5: Useful Resources

Breast Cancer Screening

Australian Government Department of Health

Breast Cancer Screening - Resources for Aboriginal and Torres Strait Islander peoples:
http://cancerscreening.gov.au/internet/screening/publishing.nsf/Content/resources-menu-breast?OpenDocument&CATEGORY=Indigenous-resources-2&SUBMIT=Search

Breast Cancer Screening - Resources in other languages:
http://cancerscreening.gov.au/internet/screening/publishing.nsf/Content/resources-menu-breast?OpenDocument&CATEGORY=resources-in-other-languages-2&SUBMIT=Search

BreastScreen Victoria

Screening with a disability:
https://www.breastscreen.org.au/get-involved/in-your-community/disability/

Bowel Cancer Screening

Australian Government Department of Health

Bowel Cancer Screening - Resources for Aboriginal and Torres Strait Islander peoples:
http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/resources-menu-bowel?OpenDocument&CATEGORY=indigenous-resources-1&SUBMIT=Submit

Bowel Cancer Screening - Translated consumer resources:
http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/resources-menu-bowel?OpenDocument&CATEGORY=Translated+Consumer+Resources-1&SUBMIT=Submit

Cervical Cancer Screening

Australian Government Department of Health

Cervical Cancer Screening - Self collection fact sheet:
http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/74386777BD0BEC64CA2581C30010BFFD/$File/CAN176%20-%20Self%20Collection%20and%20the%20Cervical%20Screening%20Test%20V2.pdf

Cervical Cancer Screening - Resources for Aboriginal and Torres Strait Islander peoples:
http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/resources-menu?OpenDocument&CATEGORY=7Indigenous+Resources-3&SUBMIT=Search

Cervical Cancer Screening - Resources in other languages:
http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/resources-menu?OpenDocument&CATEGORY=6Resources+in+Other+Languages-3&SUBMIT=Search

Cervical Cancer Screening - Video resources:
http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/resources-menu?OpenDocument&CATEGORY=8Video+Resources-3&SUBMIT=Search

Cervical Cancer Screening - Vision impaired resources:
http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/resources-menu?OpenDocument&CATEGORY=4Vision+Impaired+Resources-3&SUBMIT=Search

Victorian Cervical Cytology Registry

Information for health professionals:
https://www.vccr.org/health-professionals

VCS Pathology

Cervical screening self-collection resources:
http://www.vcspathology.org.au/practitioners/self-collection-resources

General Screening

Australian Institute of Health and Welfare

Analysis of cancer outcomes and screening behaviour for national cancer screening programs in Australia:
https://www.aihw.gov.au/reports/cancer-screening/cancer-outcomes-screening-behaviour-programs/contents/summary

Care Pathways

Cancer Council Victoria

Optimal care pathway for women with breast cancer:
https://www.cancervic.org.au/downloads/health-professionals/optimal-care-pathways/Optimal_care_pathway_for_women_with_breast_cancer.pdf

Optimal care pathway for people with colorectal cancer:
https://www.cancervic.org.au/downloads/health-professionals/optimal-care-pathways/Optimal_care_pathway_for_people_with_colorectal_cancer.pdf

General

Australian Indigenous Doctors' Association

Cultural safety factsheet:
https://www.aida.org.au/wp-content/uploads/2018/07/Cultural-Safety-Factsheet_08092015.docx.pdf

Royal Australia College of General Practitioners

Standards for general practices, 5th edition:
https://www.racgp.org.au/download/Documents/Standards/RACGP-Standards-for-general-practices-5th-edition.pdf

Health Literacy

Australian Commission on Safety and Quality in Health Care

Health Literacy Fact Sheet 1 - An introduction to improving health literacy in your organisation:
https://www.safetyandquality.gov.au/wp-content/uploads/2017/07/Health-Literacy-Fact-Sheet-1-Introduction-to-improving-health-literacy.pdf

Health Literacy Fact Sheet 2 - Making health literacy part of your policies and processes:
https://www.safetyandquality.gov.au/wp-content/uploads/2017/07/Health-Literacy-Fact-Sheet-2-Making-health-literacy-part-of-policies-and-processes.pdf

Health Literacy Fact Sheet 4 - Writing health information for consumers:
https://www.safetyandquality.gov.au/wp-content/uploads/2017/07/Health-Literacy-Fact-Sheet-4-Writing-health-information-for-consumers.pdf

HealthPathways

Murray PHN

HealthPathways Murray:
https://murray.healthpathways.org.au/LoginFiles/Logon.aspx?ReturnUrl=%2f

North Western Melbourne PHN

HealthPathways Melbourne
https://melbourne.healthpathways.org.au/LoginFiles/Logon.aspx?ReturnUrl=%2f

Western Victoria PHN

HealthPathways Western Victoria:
https://westvic.healthpathways.org.au/LoginFiles/Logon.aspx?ReturnUrl=%2f

Patient Feedback

Royal Australia College of General Practitioners

Standards for general practices, 5th edition: Patient feedback guide:
https://www.racgp.org.au/download/Documents/Standards/5th%20Edition/patient-feedback-guide-racgp-standards-for-general-practices-5th-ed.pdf

NSW Agency for Clinical Innovation

Patient Reported Measures - Outcomes that matter to patients:
https://www.aci.health.nsw.gov.au/make-it-happen/prms

Quality Improvement

Australian Commission on Safety and Quality in Health Care

Australian Safety and Quality Framework for Health Care - Putting the Framework into action: Getting started:
https://www.safetyandquality.gov.au/wp-content/uploads/2011/01/ASQFHC-Guide-Healthcare-team.pdf

Clinical Excellence Commission

Cheat sheet for quality tools:
http://www.cec.health.nsw.gov.au/__data/assets/pdf_file/0008/258398/cheat-sheet-for-quality-tools-sessions-for-team-leaders.pdf

Workforce Development - Motivational Interviewing

Australian Government Department of Health

Topic 4: Motivational Interviewing:
http://www.health.gov.au/internet/publications/publishing.nsf/Content/drugtreat-pubs-front9-wk-toc~drugtreat-pubs-front9-wk-secb~drugtreat-pubs-front9-wk-secb-4

Royal Australia College of General Practitioners

Motivational Interviewing Techniques:
https://www.racgp.org.au/afp/2012/september/motivational-interviewing-techniques/

Translating and Interpreting Services

Australian Government Department of Health

Frequently asked questions for agencies:
https://www.tisnational.gov.au/Agencies/Frequently-Asked-Questions-for-agencies.aspx

Appendix 6:
MBS Item Number Guide for Cervical Cancer Screening

MBS Item numbers for cervical cancer screening in general practice

These item numbers should be used instead of the usual attendance item where the consultation includes the collection of a sample for cervical screening from a person between the ages of 24 years, 9 months and 74 years (inclusive) who has not had a cervical smear in the past **four** years.

When providing this service, the GP must be satisfied that the person has not had a cervical screening test in the last four years by:

- asking the person if they can remember having a cervical screening test in the last four years
- checking the individual's medical record
- checking the National Cancer Screening Register.

ITEM NO.	DURATION OF CONSULTATION	SCREENING BY WHOM	NOTES
2497 A		GP	Short patient history and, if required, limited examination and management; and a cervical screening sample is collected from the patient
2501 B	< 20 minutes	GP	Can include any of the following: taking a patient history; performing a clinical examination; arranging any necessary investigation; implementing a management plan; providing appropriate preventive health care; for one or more health-related issues.
2504 C	> 20 minutes	GP	Including any of the following that are clinically relevant: taking a detailed patient history; performing a clinical examination; arranging any necessary investigation; implementing a management plan; providing appropriate preventive health care; in relation to one or more health-related issues, with appropriate documentation
2507 D	< 40 minutes	GP	Including any of the following that are clinically relevant: taking an extensive patient history; performing a clinical examination; arranging any necessary investigation; implementing a management plan; providing appropriate preventive health care; for one or more health-related issues
2598	<5 minutes	Non-GP	When providing this service, the GP must be satisfied that the person has not had a cervical screening test in the last four years
2600	>5 minutes, <25 minutes	Non-GP	
2603	>25 minutes, >45 minutes	Non-GP	
2606	>45 minutes	Non-GP	

NOTE: Where a PN has collected the cervical screening sample, the GP cannot bill any of the above items. The GP can claim an attendance item, however, any of the PN's time is not to be included in the "timed" attendance item.

Cervical cancer screening performed by a non-GP in an eligible area

These item numbers relate to professionals who are not medical practitioners, specialists or consultant physicians, for example nurse practitioners. These item numbers should be used instead of the usual attendance item

ITEM NO.	DURATION OF CONSULTATION	NOTES
251	<5 minutes	Professional attendance at consulting rooms by a practitioner in an eligible area at which a specimen for a cervical screening service is collected from the patient, if the patient is at least 24 years, 9 months of age but is less than 75 years of age and has not been provided with a cervical screening service or a cervical smear service in the last four years
252	>5 minutes, <25 minutes	
254	>25 minutes, >45 minutes	
256	>45 minutes	
253	>5 minutes, <25 minutes	Professional attendance at a place other than consulting by a practitioner in an eligible area, at which a specimen for a cervical screening service is collected from the patient, if the patient is at least 24 years, 9 months of age but is less than 75 years of age and has not been provided with a cervical screening service or a cervical smear service in the last four years
255	>25 minutes, >45 minutes	
257	>45 minutes	

Appendix 7: Information Payment Guide for Bowel Cancer Screening

Standard GP attendance items apply to consultations with program participants.

The following information payments will be made for each correctly completed form that provides information to the National Bowel Cancer Screening Register about the progress of a Program participant through the screening pathway following a positive FOBT result:

- $14.30 (GST inclusive) for each Colonoscopy Report or Histopathology Report
- $7.70 (GST inclusive) for each GP Assessment Form or Adverse Outcomes Report.

SOURCE:
http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/information-on-provision-payments

Appendix 8:
Guide to Data, Data Cleaning and Measurement

In this section we'll discuss how to ensure that your data are collected and stored correctly in the clinical software and how to use Pen CAT to support work outlined in this toolkit.

If you have not already done so, please contact your pathology providers and ensure that they are sending results to you electronically and in the correct format (HL7). Some pathology providers will have preferences set for your Health Service and it's essential that these are set correctly. If you are receiving pathology results electronically in the right format your software will process these results into the collect location and no human intervention is needed.

For Pen CAT to extract, report and visualise cancer screening data, data must be recorded in the clinical information software properly. Pen CAT will only recognise cancer screening data when it is entered in the correct format and in the expected location. The location(s) and format(s) vary slightly across clinical information software (and sometimes between software versions). In some cases, you may need to enter data manually, before doing this please check they meet Pen CAT requirements (location and terminology). Pen CAT has a detailed user guide available online that shows how to manually record cancer screening data for clinical information software (in the mapping sections). The following pages provide links to the inclusions and test names that Pen CAT will extract for bowel, breast and cervical cancer screening for the common clinical software programs.

The Pen CAT user guide can be access via the following link:
http://help.pencs.com.au/display/CG

Clinical software recording of cancer screening data

Best Practice

Bowel Cancer Screening

Pathology Data Mapping
http://help.pencs.com.au/display/ADM/General+Data+Category+Mappings+BP

General Data Category Mappings
http://help.pencs.com.au/display/ADM/General+Data+Category+Mappings+BP

Exclusions
http://help.pencs.com.au/display/ADM/Conditions+Data+Category+Mappings+BP

Breast Cancer Screening

Pathology Data Mapping
http://help.pencs.com.au/display/ADM/General+Data+Category+Mappings+BP

General Data Category Mappings
http://help.pencs.com.au/display/ADM/General+Data+Category+Mappings+BP

Exclusions
http://help.pencs.com.au/display/ADM/Conditions+Data+Category+Mappings+BP

Cervical Cancer Screening

Pathology Data Mapping
http://help.pencs.com.au/display/ADM/Pathology+Data+Mapping+BP

General Data Category Mappings
http://help.pencs.com.au/display/ADM/General+Data+Category+Mappings+BP

Exclusions
http://help.pencs.com.au/display/ADM/General+Data+Category+Mappings+BP
http://help.pencs.com.au/display/ADM/Conditions+Data+Category+Mappings+BP

Medical Director

Bowel Cancer Screening

Pathology Data Mapping
http://help.pencs.com.au/display/ADM/General+Data+Category+Mappings+MD3

General Data Category Mappings
http://help.pencs.com.au/display/ADM/General+Data+Category+Mappings+MD3

Exclusions
http://help.pencs.com.au/display/ADM/Conditions+Data+Category+Mapping+MD3

Breast Cancer Screening

Pathology Data Mapping
http://help.pencs.com.au/display/ADM/General+Data+Category+Mappings+MD3

General Data Category Mappings
http://help.pencs.com.au/display/ADM/General+Data+Category+Mappings+MD3

Cervical Cancer Screening

Pathology Data Mapping
http://help.pencs.com.au/display/ADM/Pathology+Data+Mappings+All+Systems

General Data Category Mappings
http://help.pencs.com.au/display/ADM/General+Data+Category+Mappings+MD3

Exclusions
http://help.pencs.com.au/display/ADM/Conditions+Data+Category+Mapping+MD3

MedTech

Bowel Cancer Screening

Pathology Data Mapping
http://help.pencs.com.au/display/ADM/Mapping+Medtech+Appendix+-+Details

General Data Category Mappings
http://help.pencs.com.au/display/ADM/Mapping+Medtech+Appendix+-+Details

Breast Cancer Screening

Pathology Data Mapping
http://help.pencs.com.au/display/ADM/Medtech+Data+Mapping?preview=/1477037/5636107/CAT4%20Data%20Mapping%20Medtech.pdf

General Data Category Mappings
http://help.pencs.com.au/display/ADM/Mapping+Medtech+Appendix+-+Details

Exclusions
None

Cervical Cancer Screening

Pathology Data Mapping
http://help.pencs.com.au/display/ADM/Medtech+Data+Mapping?preview=/1477037/5636107/CAT4%20Data%20Mapping%20Medtech.pdf

General Data Category Mappings
http://help.pencs.com.au/display/ADM/Mapping+Medtech+Appendix+-+Details

ZedMed

Bowel Cancer Screening

Pathology Data Mapping
http://help.pencs.com.au/display/ADM/General+Data+Mapping+Zedmed

General Data Category Mappings
http://help.pencs.com.au/display/ADM/General+Data+Mapping+Zedmed

Exclusions
http://help.pencs.com.au/display/ADM/Conditions+Data+Category+Mappings+ZEDMED

Breast Cancer Screening

Pathology Data Mapping
http://help.pencs.com.au/display/ADM/General+Data+Mapping+Zedmed

General Data Category Mappings
http://help.pencs.com.au/display/ADM/General+Data+Mapping+Zedmed

Exclusions
http://help.pencs.com.au/display/ADM/Conditions+Data+Category+Mappings+ZEDMED

Cervical Cancer Screening

Pathology Data Mapping
http://help.pencs.com.au/display/ADM/Pathology+Data+Mapping+Zedmed

General Data Category Mappings
http://help.pencs.com.au/display/ADM/General+Data+Mapping+Zedmed

Exclusions
http://help.pencs.com.au/display/ADM/Conditions+Data+Category+Mappings+ZEDMED

Pen CAT Cancer Screening Reports

Pen CAT provides bowel, breast and cervical screening reports and these can be found under the "Screening" tab.

In the first instance, please set and save each report for your Health Service Population as discussed in the "Measuring Your Progress Through Data". Make sure you "Clear Filters" in the top right and then set filters as appropriate, such as post codes you may want to include or exclude. Once you have set the appropriate filter(s), click on "Recalculate" in the top left and then save your search by clicking on "Saved Filters" On the top menu bar and then "Save New Filter". Enter a name for your search and click "OK".

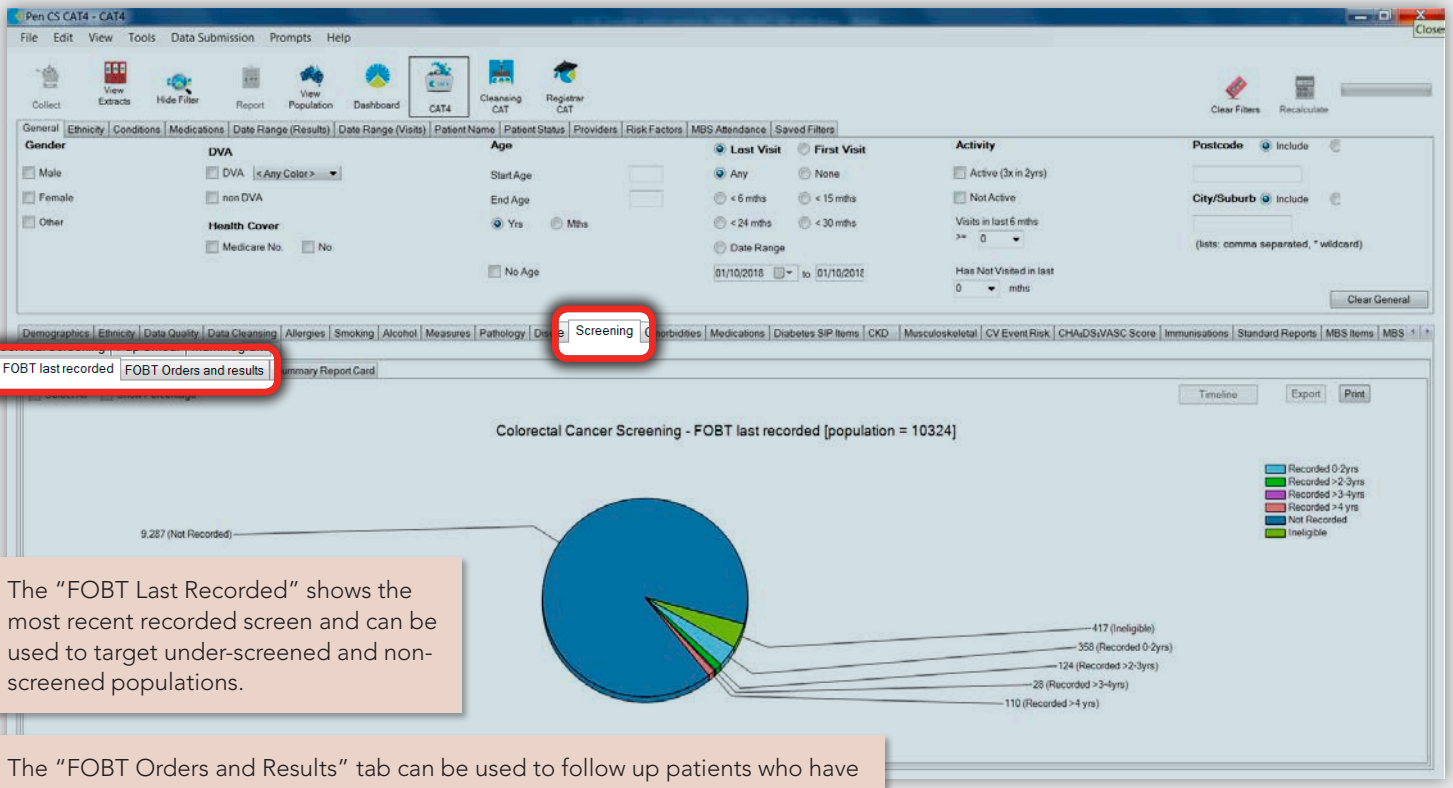
Once you've saved a search for bowel, breast and cervical cancer screening, you will be able to use these searches over time to monitor your progress in each area.

Data can be further filtered, if required, to target specific patient groups to support measurement you may want to use in MFI and/or PDSA work.

The general data for each of the screening types are shown next.

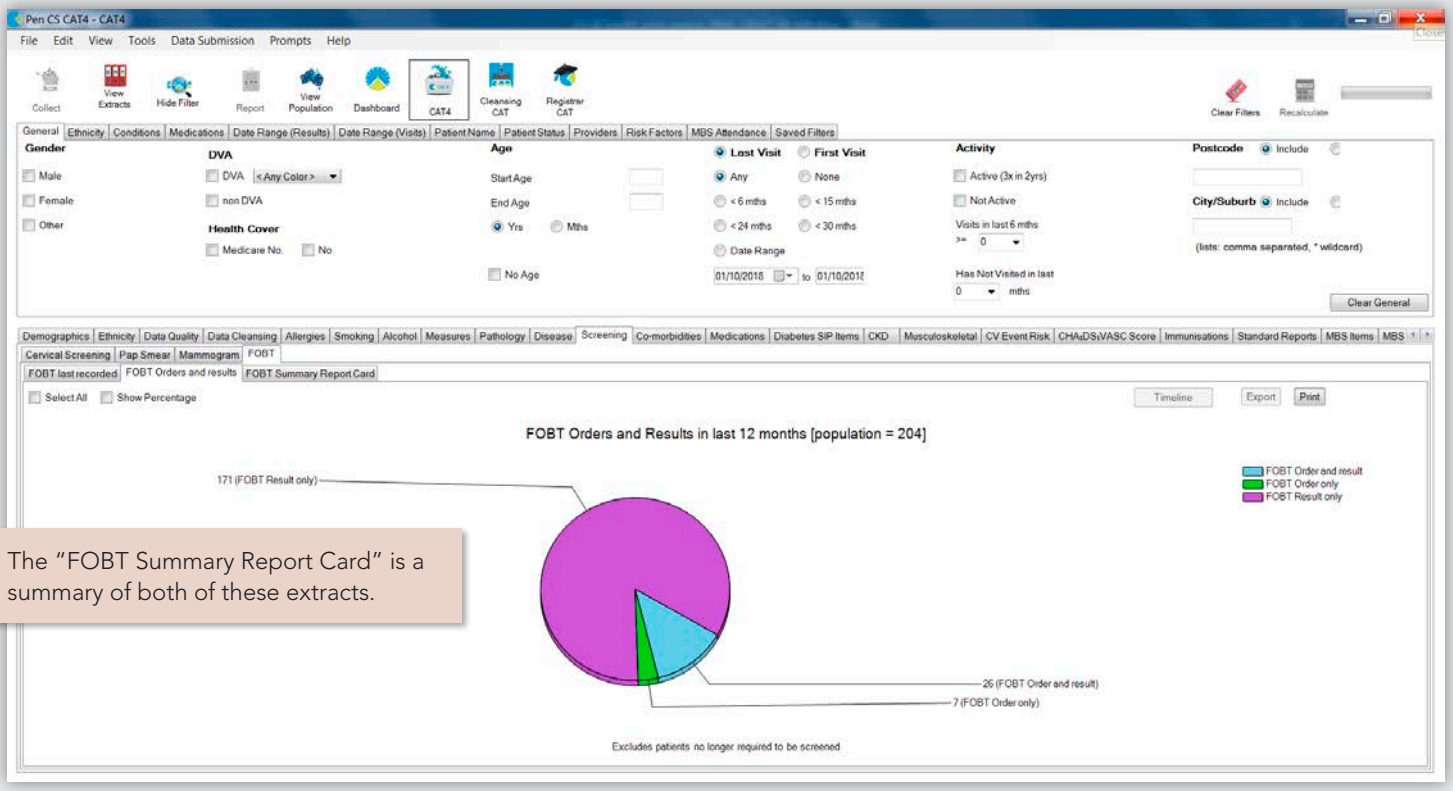
Bowel Cancer

Three different extracts are available for bowel screening.



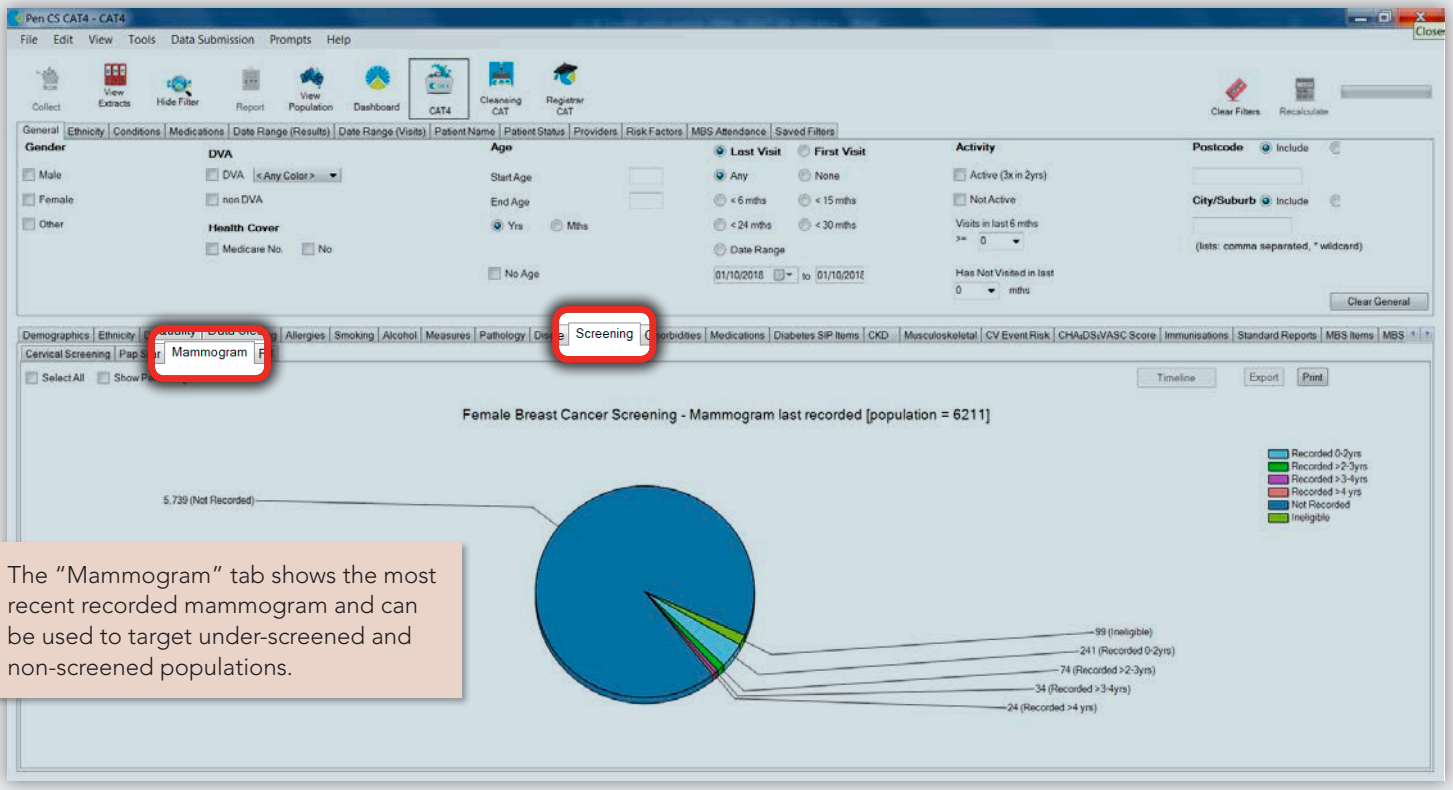
The "FOBT Last Recorded" shows the most recent recorded screen and can be used to target under-screened and non-screened populations.

The "FOBT Orders and Results" tab can be used to follow up patients who have an ordered FOBT tests but have no results. The number of results is likely to be much greater than the number of tests ordered due to the various ways FOBT tests can be undertaken (for example, GP-ordered or government-issued tests).



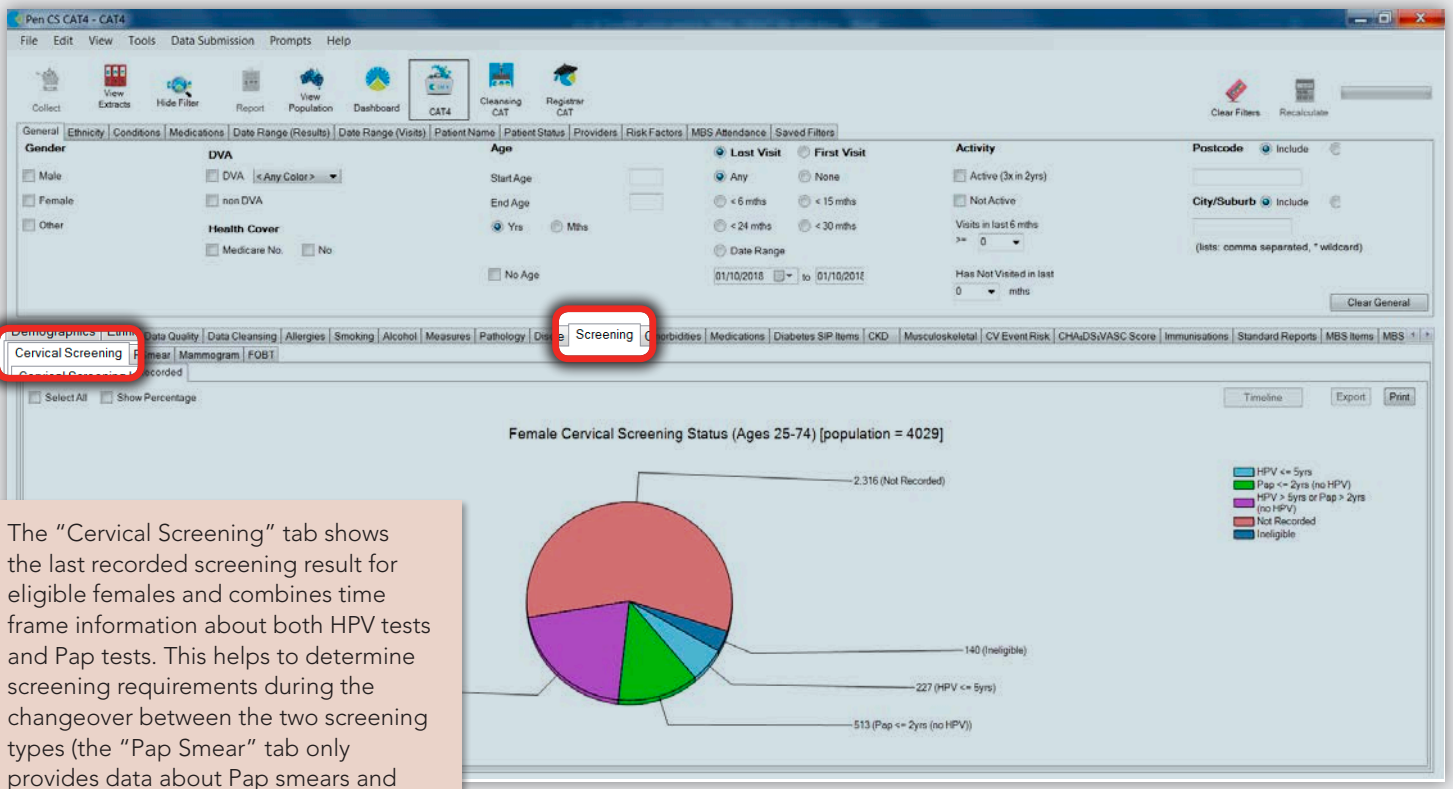
The "FOBT Summary Report Card" is a summary of both of these extracts.

Breast Cancer



The "Mammogram" tab shows the most recent recorded mammogram and can be used to target under-screened and non-screened populations.

Cervical Cancer



The "Cervical Screening" tab shows the last recorded screening result for eligible females and combines time frame information about both HPV tests and Pap tests. This helps to determine screening requirements during the changeover between the two screening types (the "Pap Smear" tab only provides data about Pap smears and therefore will miss anyone screened under the new protocol).

Pen CAT Cancer Screening Searches

Pen CAT provides detailed instructions on how to identify patients who are eligible for cancer screening but have no results recorded. Please use the links below to access these instructions.

Bowel Cancer
http://help.pencs.com.au/display/CR/Find+patients+who+do+not+have+an+FOBT+recorded

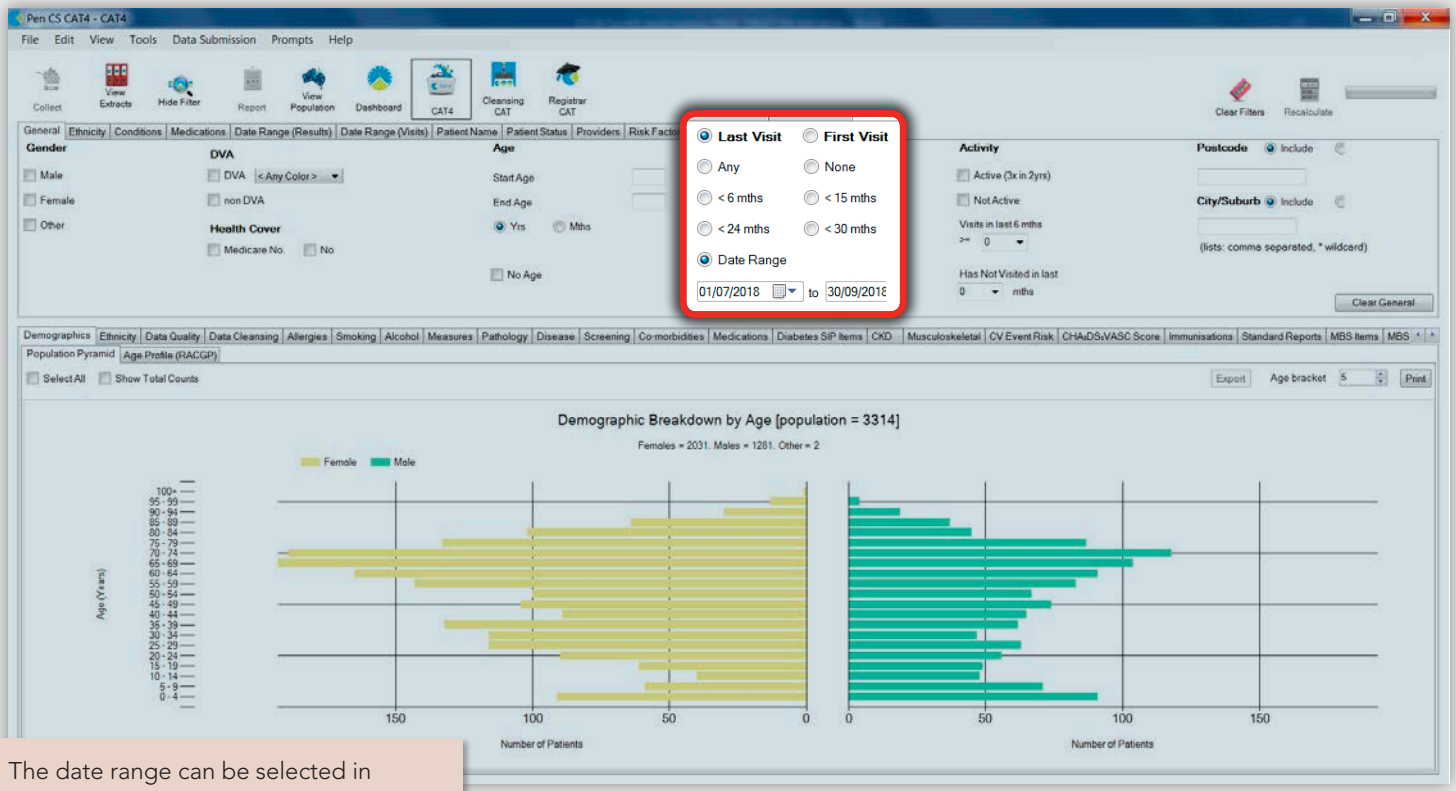
Breast Cancer
http://help.pencs.com.au/display/CR/Find+patients+who+have+not+had+a+mammogram+recorded

Cervical Cancer
http://help.pencs.com.au/display/CR/Find+patients+eligible+for+cervical+screening

Data Filtering

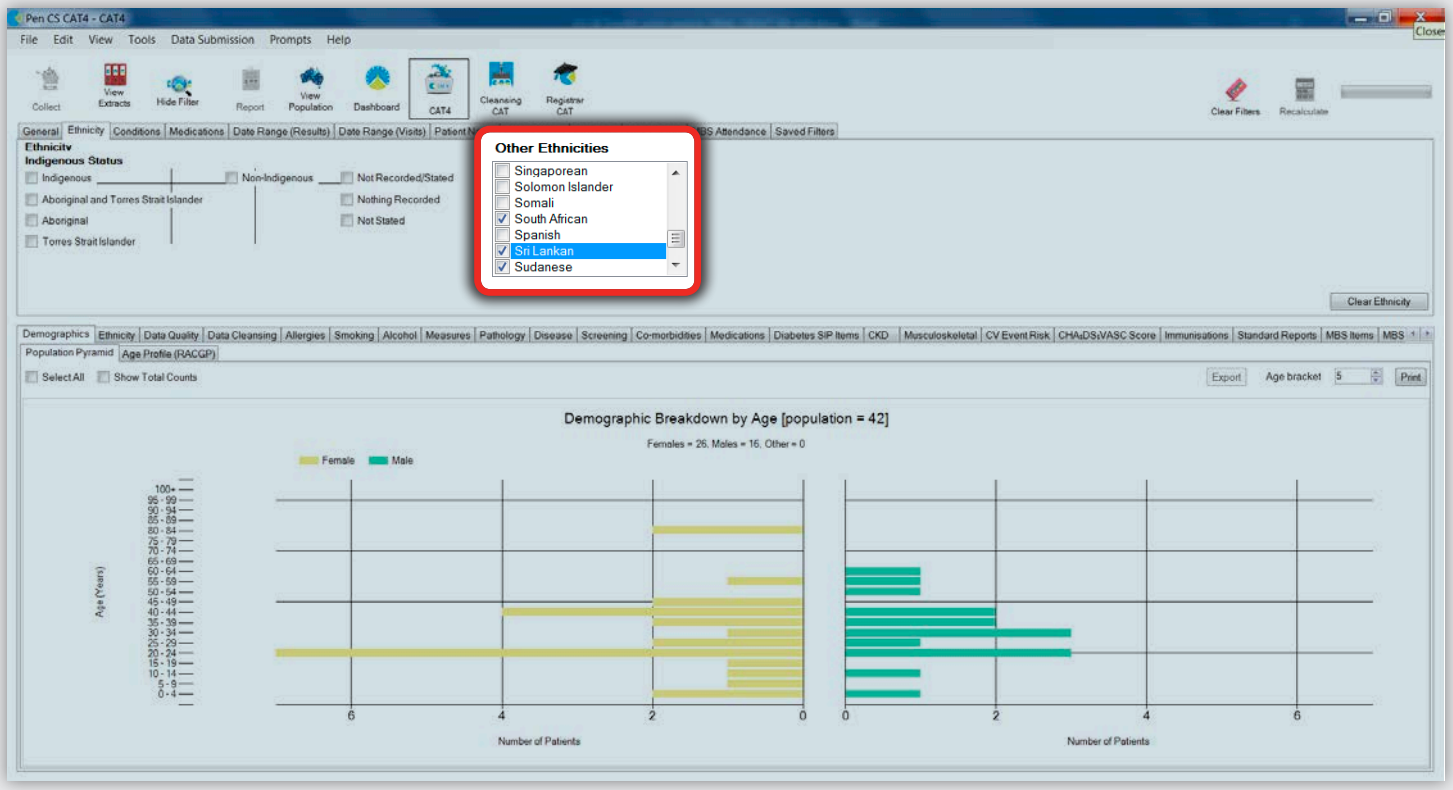
Pen CAT reports can be filtered by the timing of the patient's visit (first or most recent visit). Filtering can also target high-risk or under-screened populations based on variables such as ethnicity or age.

Date Range



The date range can be selected in several ways, either via last visit or first visit. Default "Last Visit" options are either <6 months or <12 months, or a specific date range. The date range can also be selected when filtering for the first visit.

Ethnicity



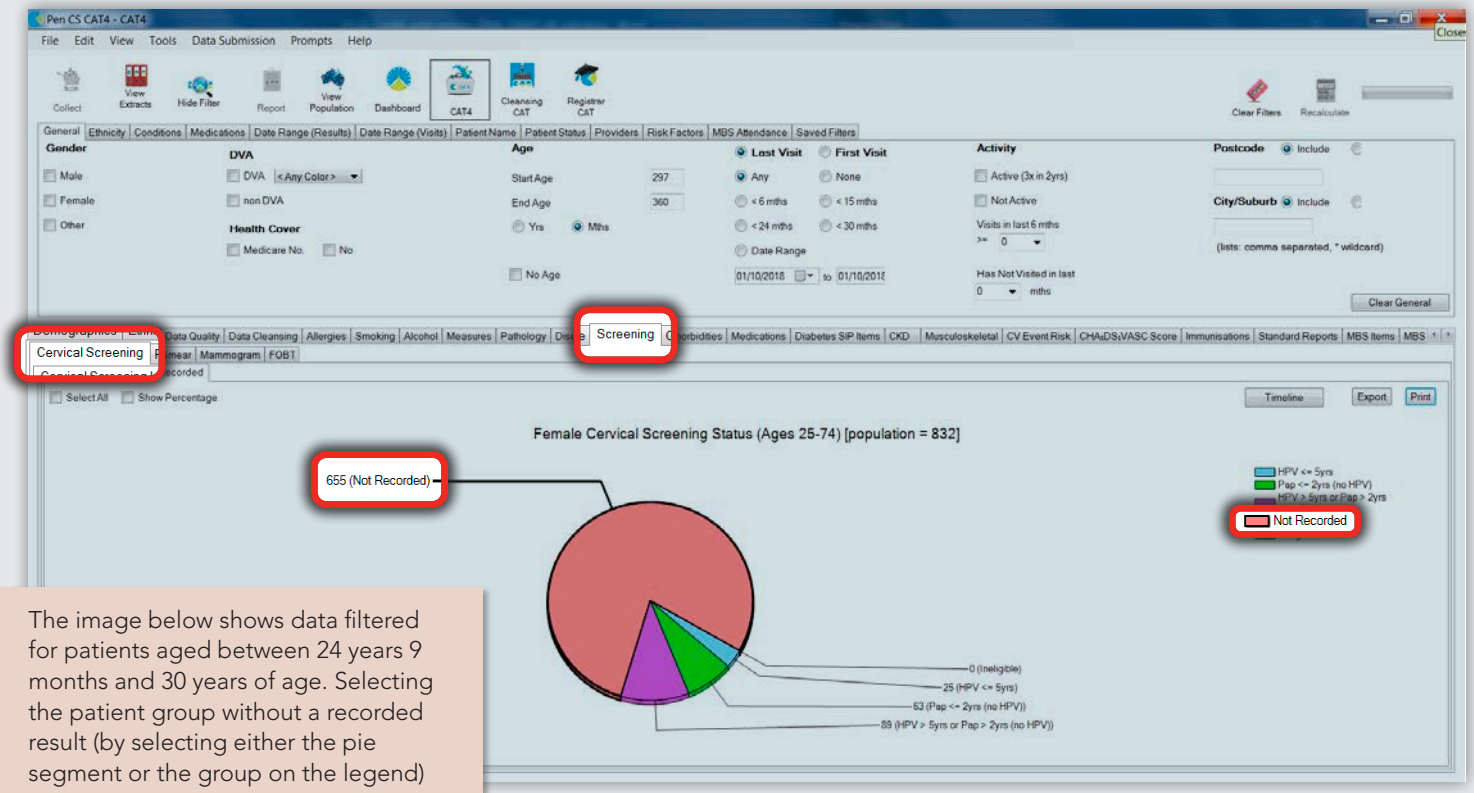
Apart from the standardised four ethnicity options (Non-Indigenous, Aboriginal, Torres Strait Islander, Aboriginal and Torres Strait Islander), other ethnicity options will be available depending on the clinical information software used. Multiple selections are possible, if needed.

The ethnicity filtering is limited by the list of ethnicities used in your clinical information software system and the data quality. There may also be mis-matching of data when converting from one clinical information software system to another.

Where available, you will be able to use this filter to identify vulnerable populations.

Age

Filtering via age can also be used to target specific populations. Entering the age in months rather than years can help when allowing for a lead time prior to the patient reaching the target age (for example, using 297 months allows an alert to be sent to a patient for an HPV test 3 months before their 25th birthday).



The image below shows data filtered for patients aged between 24 years 9 months and 30 years of age. Selecting the patient group without a recorded result (by selecting either the pie segment or the group on the legend) allows for these patients to be targeted.

Data Cleaning

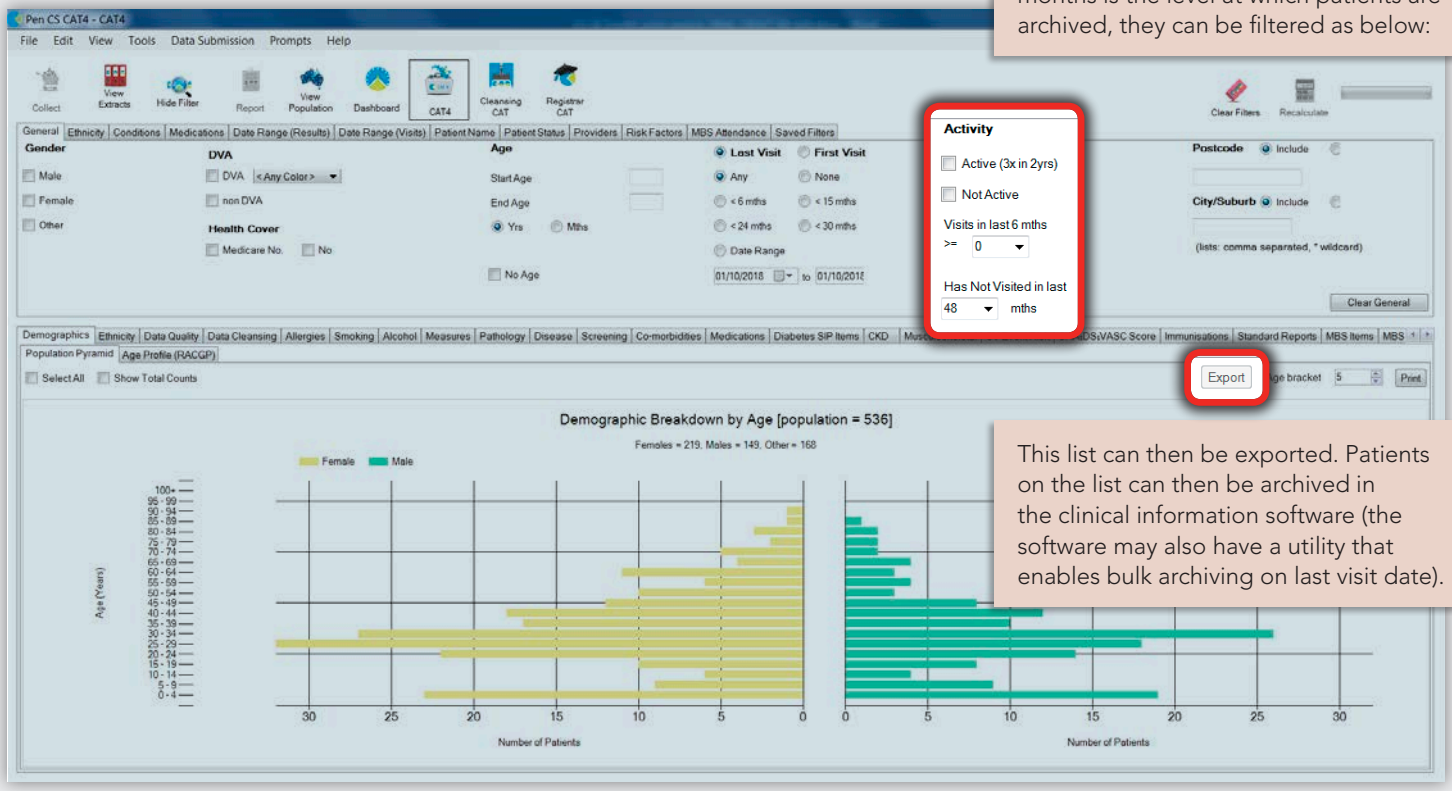
Prior to undertaking any data cleansing procedures, it is important to have processes and procedures in place to prevent the same data issues from reoccurring. All staff need to be made aware of any changes to procedures, and regular monitoring of the data can help address issues early.

Time can be saved during data cleansing when processes are completed in an efficient order. This reduces the time spent on cleaning, or trying to clean, records that are then archived. For this reason, archiving inactive records should be the first activity undertaken.

Archiving

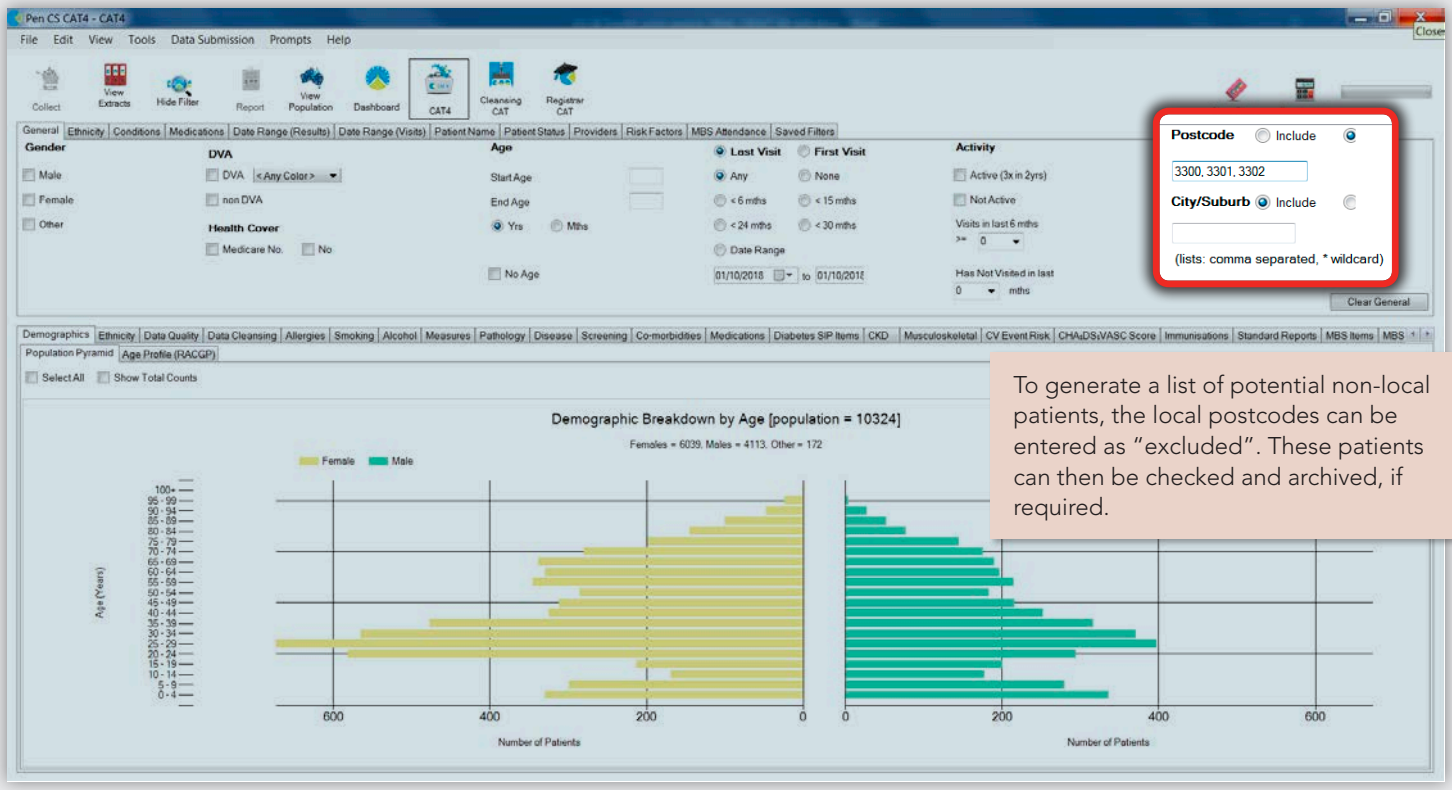
The approach used to archive will be decided by your Health Service and is generally based on the time lapsed since the patient has last visited the Health Service. You can then use Pen CAT to find patients that need to be archived.

For example, if no visit in the past 48 months is the level at which patients are archived, they can be filtered as below:



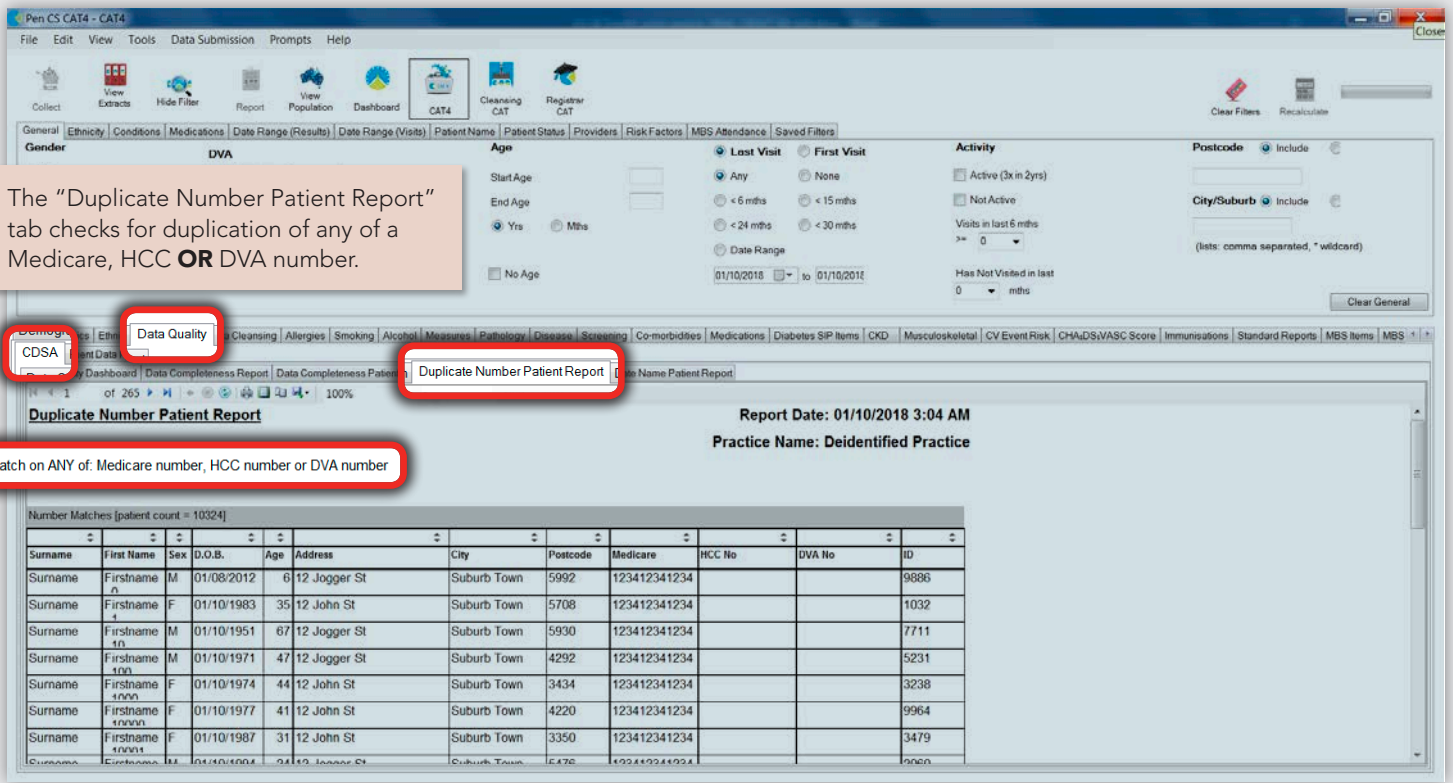
This list can then be exported. Patients on the list can then be archived in the clinical information software (the software may also have a utility that enables bulk archiving on last visit date).

Depending on need, patients may also be excluded and archived due to postcode. This is most likely in areas with high levels of tourism, for example coastal towns. Patients may only have a single visit and, therefore, are more likely to have missing information. These patients can also skew rates of conditions and management and should be removed to improve data quality.



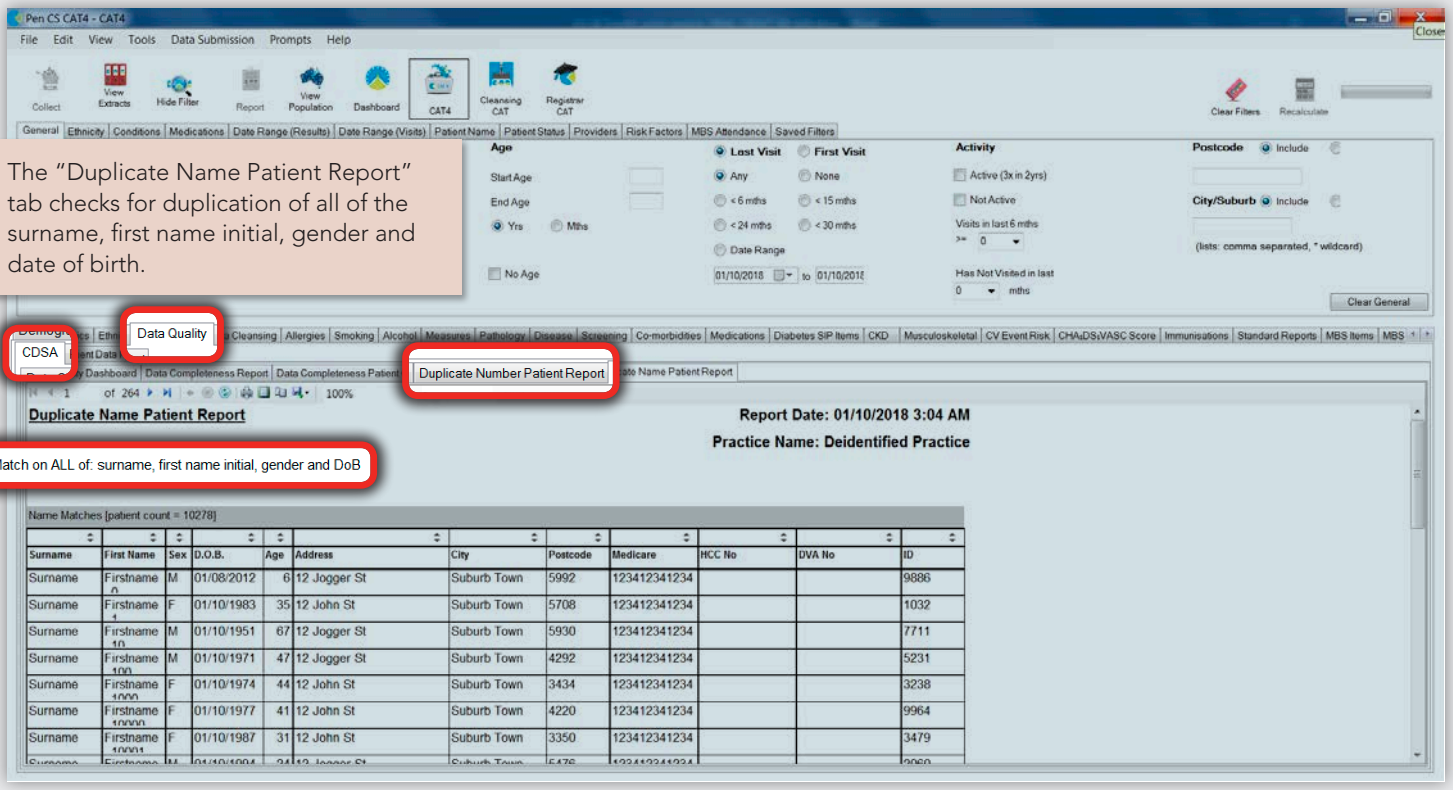
To generate a list of potential non-local patients, the local postcodes can be entered as "excluded". These patients can then be checked and archived, if required.

Archiving can create problems with the creation of duplicate patients if staff are not aware to check archived patients when a patient isn't initially found in the system. This is one of the most common causes of ongoing data issues. Potential duplicate patients can be identified using Pen CAT under the "Data Quality" tab. As these lists are generated using an algorithm, many may not be duplicates (for example, twins will have multiple duplicate demographics and therefore will appear on the list), however they are a very useful place to start when undertaking initial data cleaning activities.



The "Duplicate Number Patient Report" tab checks for duplication of any of a Medicare, HCC **OR** DVA number.

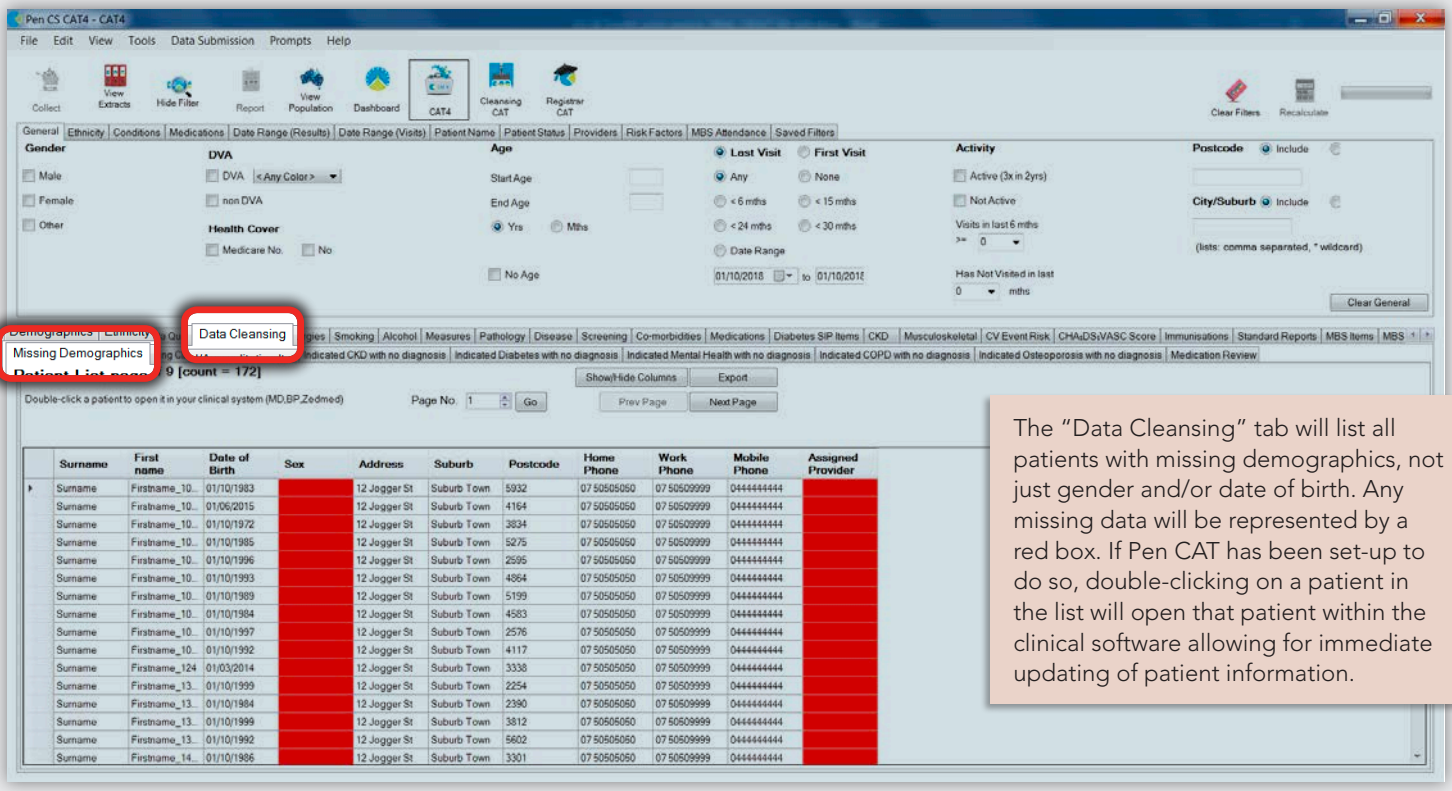
Surname	First Name	Sex	D.O.B.	Age	Address	City	Postcode	Medicare	HCC No	DVA No	ID
Surname	Firstname 0	M	01/08/2012	6	12 Jogger St	Suburb Town	5992	123412341234			9886
Surname	Firstname 1	F	01/10/1983	35	12 John St	Suburb Town	5708	123412341234			1032
Surname	Firstname 10	M	01/10/1951	67	12 Jogger St	Suburb Town	5930	123412341234			7711
Surname	Firstname 100	M	01/10/1971	47	12 Jogger St	Suburb Town	4292	123412341234			5231
Surname	Firstname 1000	F	01/10/1974	44	12 John St	Suburb Town	3434	123412341234			3238
Surname	Firstname 10000	F	01/10/1977	41	12 John St	Suburb Town	4220	123412341234			9964
Surname	Firstname 10001	F	01/10/1987	31	12 John St	Suburb Town	3350	123412341234			3479



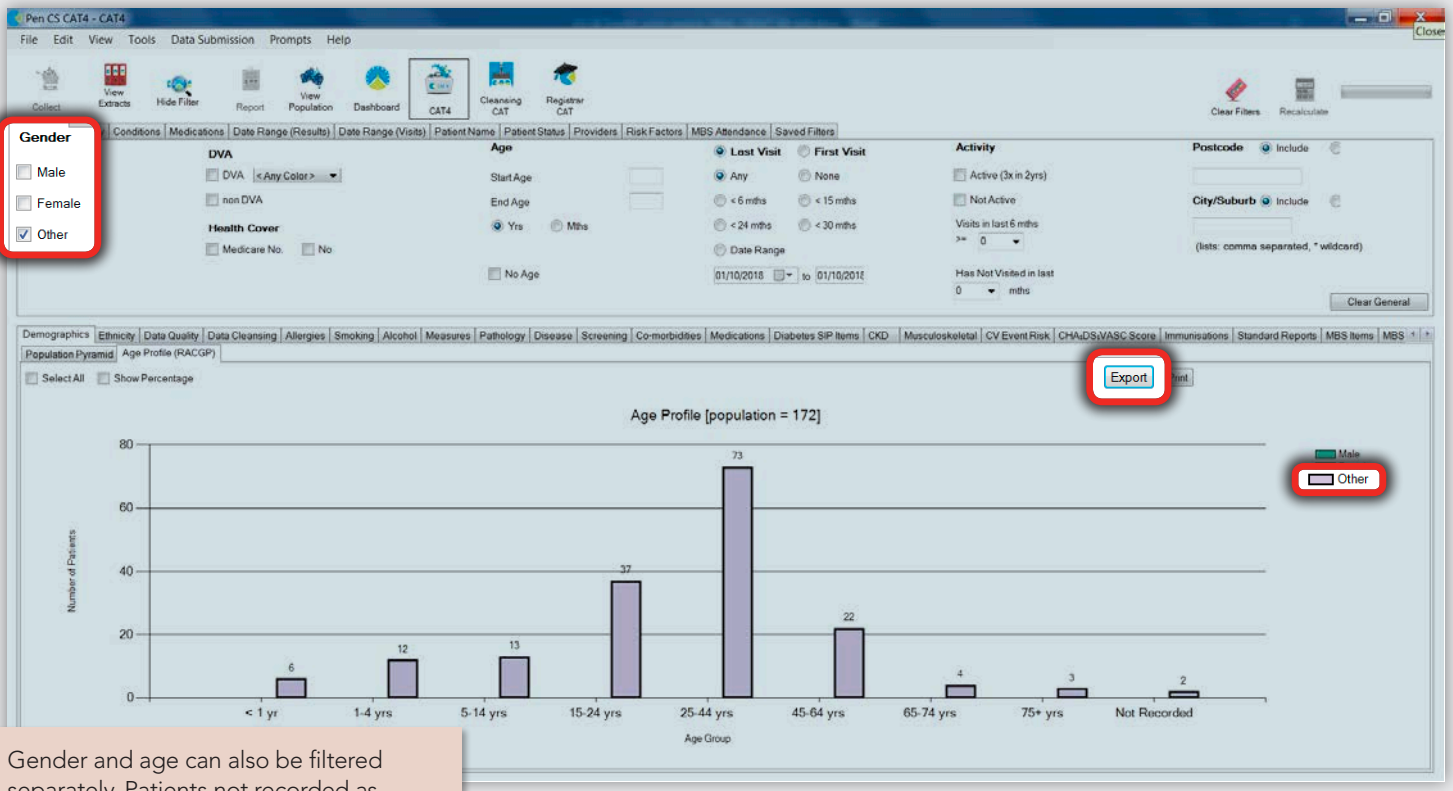
The "Duplicate Name Patient Report" tab checks for duplication of all of the surname, first name initial, gender and date of birth.

Missing Demographics

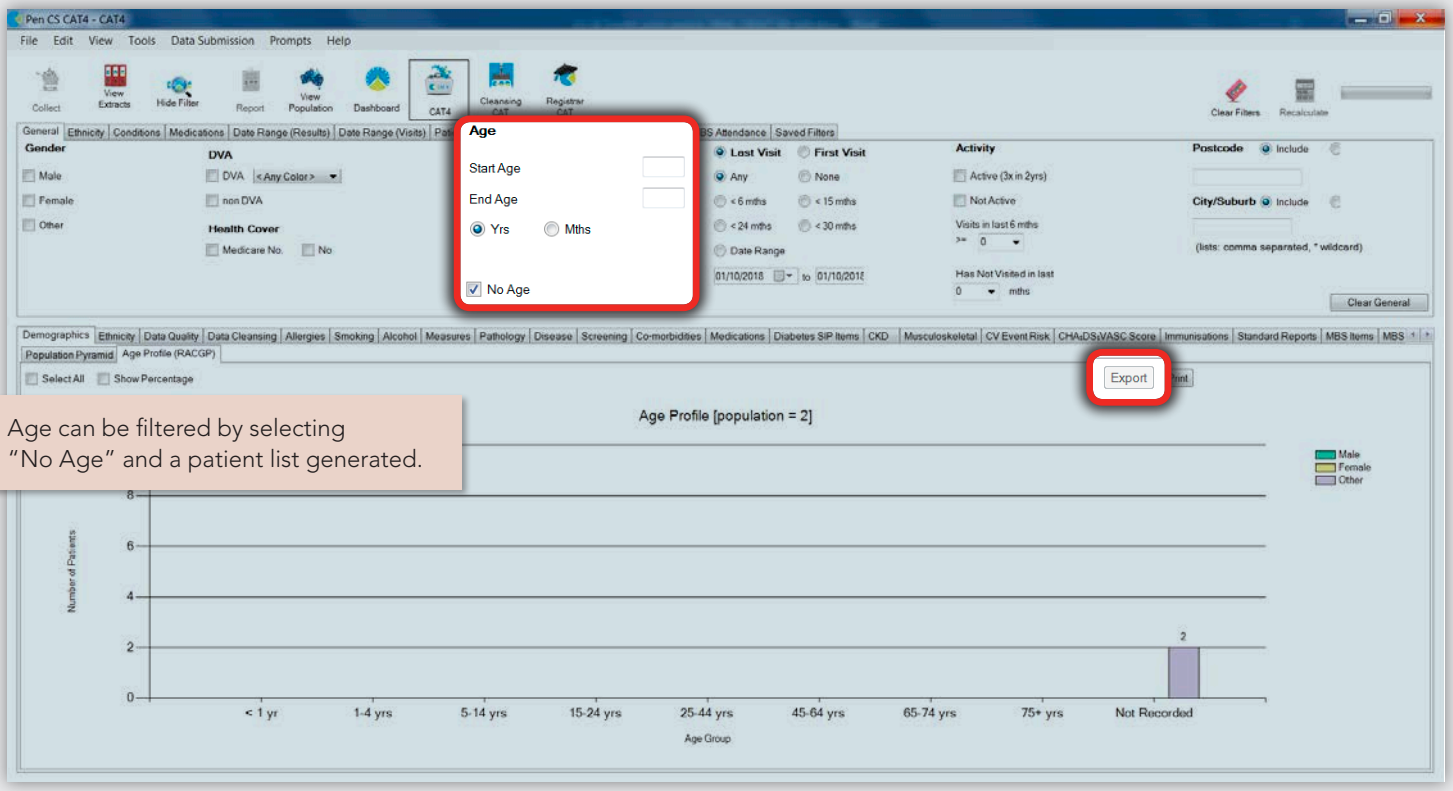
As cancer screening is dependent on age, and, for cervical and breast cancer, gender, it is important to complete this missing demographic data. This can be done either via the "Data Cleansing" tab or separately via gender and age.



The "Data Cleansing" tab will list all patients with missing demographics, not just gender and/or date of birth. Any missing data will be represented by a red box. If Pen CAT has been set-up to do so, double-clicking on a patient in the list will open that patient within the clinical software allowing for immediate updating of patient information.



Gender and age can also be filtered separately. Patients not recorded as either male or female can be filter by selecting the gender as "other". Depending on the clinical software used, this may also flag patients who have a non-male/female gender recorded.



Age can be filtered by selecting "No Age" and a patient list generated.

Diagnoses in free text form

Diagnoses that are not entered correctly, particularly due to free text entries, greatly reduce the functionality of your clinical information software and the ability for Pen CAT to report and visualise data accurately. Although there are methods for mapping these entries to specific diagnoses within the clinical information software, it is time-consuming and may be less accurate when mapped. This is one area where time spent cleaning the data can be wasted if a Health Service wide procedure is not implemented and recording diagnosis in free text is allowed to continue, as data will need frequent cleansing.

Pen CAT has recipes available for bulk cleaning of free text diagnoses for both Best Practice and Medical Director. Other clinical software may also have systems for bulk cleaning - check with your software provider.

Best Practice
http://help.pencs.com.au/display/CR/Bulk+clean+up+of+free+text+diagnosis+-+BP+users

Medical Director
http://help.pencs.com.au/display/CR/Bulk+clean+up+of+free+text+diagnosis+-+MD3+users

Zedmed
Diagnoses mapping from free text to ICPC coding is also available in Zedmed. It can be found in: Clinical Records > Utilities-Clinical > ICPC Problem Mapper

Tips for Clean Data

- Keep staff informed and involved
- Decide on changes to processes with input from those who perform the task (there may be unseen issues that can be picked up before a procedure is changed)
- Check your patient registration sheet and ensure it captures all the required information and matches the clinical software options
- Always check archived patients prior to creating a new patient
- Use data management tools, such as TopBar, for alerts for missing data at the time of patient presentation
- Decide on the coding to be used for diagnoses, screening, etc.
- Develop cheat sheets and make them easily accessible (for example, data entry/checking archived patients at the front desk, or coding in the consultation rooms)
- Set up regular archiving and data monitoring processes (check for duplicates, free text diagnoses, etc.)
- If recurring problems are noted, confirm processes with staff (does a procedure need to be changed?)

Appendix 9: Quality Improvement Plan Template

Overview and Scope

Define the scope of your QIP, which will include an explanation about your chosen priority topic(s).

In this section, please include information on all the points below:

- List your chosen cancer screening topic areas
- What you hope to achieve with regard to improving cancer screening rates
- The rationale for choosing your topic areas, including any data to support your choice
- The team members that will be leading the improvement work
- How you plan to involve other team members.

Overarching Aims for Priority Topic(s)

Describe the overarching aim(s) of your QIP.

Write a separate aim for each of your priority topics.

Remember that effective aims are SMART:

Simple - unambiguous and explicit
Measurable - progress can be assessed against easily extractible data
Achievable - attainable and not so aspirational that it will be impossible to reach
Realistic - suited to your setting and the necessary resources are available
Time-bound - a deadline has been set to maintain momentum

Aim 1:

Aim 2:

Overarching Measures

Outline the measures that you will utilise to measure progress towards achieving your overarching aims.

Identify at least one measure for each of your aims.

Measure(s) related to Aim 1:

Measure(s) related to Aim 2:

Change Area(s)

Change areas are the key areas of focus for your improvement work and lead you towards achieving your overarching aims. Defining the change area(s) will give you a clear direction when using the Model for Improvement to test and implement small scale changes.

When selecting your change areas (also referred to as "change principles"), refer to your responses to the Cancer Screening Quality Improvement Checklists.

Example change areas: develop a micro-team to lead this work; update register, recall and reminder systems for cancer screening; assess our health literacy capability.

Identify change areas for each of your aims:

Change Areas related to Aim 1:

Change Areas related to Aim 2:

Appendix 10:
The Model for Improvement Template

The Model for Improvement is a tool for developing, testing and implementing change.

The Model consists of two parts that are of equal importance:

1. The **'thinking part'** consists of The 3 Fundamental Questions that are essential for guiding your improvement work.
2. The **'doing'/'testing'** part is made up of Plan, Do, Study, Act (PDSA) cycles that will help you test and implement change.

This guide will take you through the following steps:

Step 1:	The 3 Fundamental Questions
Step 2:	PDSA Cycle

Step 1: The 3 Fundamental Questions

1. What are we trying accomplish?	By answering this question, you will develop your GOAL for improvement

2. How will we know that a change is an improvement?	By answering this question, you will develop your MEASURES to track the achievement of your goal

3. What changes can we make that will lead to an improvement? - list your small steps/ideas	By answering this question, you will develop the IDEAS that you can test to achieve your goal

Idea 1:

Idea 2:

Other Ideas:

Step 2: Plan-Do-Study-Act cycle

You will have noted your IDEAS for testing when you answered the third fundamental question in Step 1.
You will use this sheet to test an idea.

Idea	Describe the idea you are testing: refer to the 3rd Fundamental Question

PDSA cycle number: _____

Plan	What exactly will you do? Include what, who, when, where, predictions & data to be collected.

Do	Was the plan executed? Document any unexpected events or problems.

Study	Record, analyse and reflect on the results.

Act	What will you take forward from this cycle? (What is your next step/PDSA cycle?)

Repeat Step 2 for other ideas

PDSA Cycle Planning Sheet

This is only the **'Plan'** part of your PDSA cycle, you will need to implement the plan before completing the 'Do', 'Study' & 'Act' parts.

Describe the idea you are testing: refer to the third fundamental question 'What changes can you make that will result in an improvement?'

What exactly will you do?

Who will carry out the plan?

When will it take place? (specify a date)

Where will it take place? (please circle)

Health Service Other

Other (please specify):

What do you predict will happen?

What data/information will you collect to know whether there is an improvement?

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Appendix 12: Abbreviations

ACSQHC	Australian Commission on Safety and Quality in Health Care
AIHW	Australian Institute of Health and Welfare
AIR	Australian Immunisation Register
AMS	Aboriginal Medical Service
CALD	Culturally and Linguistically Diverse
CQI	Continuous Quality Improvement
CST	Cervical Screening Test
FOBT	Faecal Occult Blood Test
GP	General Practitioner
HPV	Human Papillomavirus
LGBTIQ	Lesbian, gay, bisexual, transgender, intersex, queer
MBS	Medicare Benefits Schedule
MFI	Model for Improvement
NBSCP	National Bowel Cancer Screening Program
NCSP	National Cervical Screening Program
PDSA	Plan, Do, Study, Act cycle
PHN	Primary Health Network
PN	Practice Nurse
QA	Quality Assurance
QI	Quality Improvement
QIP	Quality Improvement Plan
RACGP	Royal Australian College of General Practitioners
SES	Socioeconomic status
SMS	Secure Messaging Service

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