

# **Victorian Cancer Performance Monitoring Framework (VCPMF)**

*Cancer Performance Indicator Results – 2014 and 2015 Data*

**Guide to use of information**

*August 2017*

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# Introduction

The Victorian Cancer Performance Monitoring Framework project is a joint undertaking between the Victorian Integrated Cancers Services (VICS) and Cancer Strategy and Development, Department of Health and Human Services (DHHS).

The purpose of phase II of the project is to pilot the ongoing development of cancer performance indicators and the **systematic collection, analysis and 'use'** of cancer performance and outcome information for quality improvement.

This **Guide to use of information (Guide)** provides for an overview of the project's framework for quality and performance improvement and charts the proposed flow of information, timelines and deliverables across organisations involved in the analysis of the cancer performance data.

## The 'use' of cancer information

The dissemination of the *VCPMF Phase II Pilot: Cancer Performance Indicator Results* for 2014 and 2015 to clinicians and other stakeholders is a further step in the development of systematic reporting, analysis and 'use' of cancer data on a state-wide basis.

The focus of this phase is on trialling a process for translating state-wide cancer performance data and information into practice-based knowledge at the local level.

The data are intended to be used by each of the Integrated Cancer Services (ICS) and their clinical networks for internal review and analysis in accordance with their own governance processes.

This is a **devolved model of analysis** with each of the ICS playing a central role in reviewing and analysing their respective data to identify aspects of cancer care in need of further analysis and quality improvement.

The localised clinical and organisational guidance acquired will inform the identification and implementation of strategies and initiatives for quality interventions both at the level of the ICS and individual health services, and at a state-level for the purposes of planning and cancer system management.

### *VCPMF 2014 and 2015 Results Workshop*

In response to feedback from the 2013 results about the need to establish a collaborative forum to discuss cancer performance information, a state-wide workshop is planned to review and discuss the 2014 and 2015 data (See: Attachment 3).

## What is in this document

The body of this document is broken into a number of small sections:

**A Framework for Quality Improvement** – introduces a schema of the project's overarching framework for quality improvement and its three key phases.

**Governance and Flow of Information** – charts basic governance and maps the flow of information and deliverables.

**Directions for Use of Information** – clarifies the layout, diagrams and format of the results, and provides a practical step-by-step explanation of the flow of information.

## How to use this guide

This **Guide** is a companion document to the *VCPMF Phase II Pilot: Cancer Performance Indicator Results* for 2014 and 2015.

It is intended to provide relevant supplementary information to help data recipients work through a review and analysis of the disseminated results.

The **Guide** provides general guidance only. It is not exhaustive, and is not a substitute for a systematic process of internal review, analysis and response.

It is up to each recipient organisation to manage their own internal governance and review processes to assist in the translation of the collected data into localised practice-based knowledge.

If you require further information or clarification about the VCPMF project, *VCPMF Phase II Pilot: Cancer Performance Indicator Results* or the **Guide**, please contact either:

- Luc te Marvelde (Biostatistician, DHHS) at [Luc.teMarvelde@dhhs.vic.gov.au](mailto:Luc.teMarvelde@dhhs.vic.gov.au) (for data queries)
- Marita Reed (Program Manager Quality and Cancer Outcomes, DHHS) for all other matters at [Marita.Reed@dhhs.vic.gov.au](mailto:Marita.Reed@dhhs.vic.gov.au)

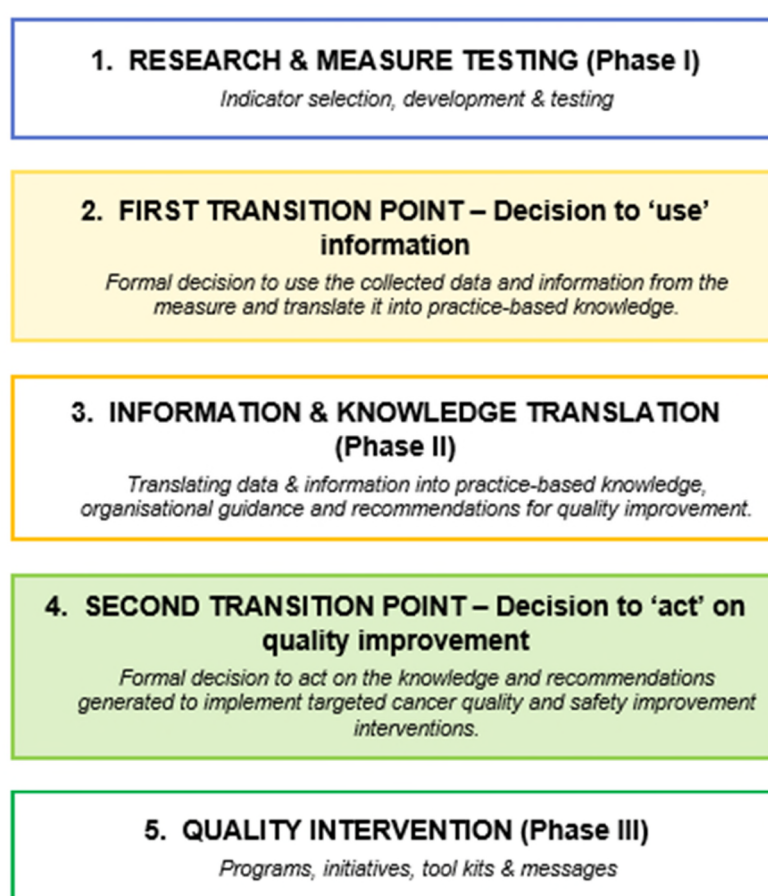
# A Framework for Quality Improvement

The *VCPMF Framework for Quality Improvement* (Attachment 1) is an overarching schema which outlines how the ‘supply’ and ‘use’ of cancer performance information will feed into decisions to ‘act’ on quality improvement.

The schema ties together **three phases** on the path from indicator development and data collection through the creation of locally situated, practice-based knowledge to quality improvement intervention.

Two key decision points bridge the transitions between the phases.

**Figure 1:** A summary of the framework phases and transition points



There are a number of interactions and supporting structures, capabilities and resources within the various phases which facilitate the translation of cancer performance information into knowledge and quality improvement interventions.

An evaluative process underpins and traverses the entire cancer quality and safety improvement process.

This **Guide** refers exclusively to **Information & knowledge translation (Phase II)** which relates to the ‘use’ of cancer performance indicator results.

## Information and knowledge translation (Phase II)

Reviewing and analysing the data from the *VCPMF Phase II Pilot: Cancer Performance Indicator Results* is a key step on the way to 'closing the loop' and implementing targeted improvement programs.

This phase requires the recipients of the data to translate it into clinically informed, practice-based knowledge in their local contexts.

The cancer performance information collected at a state-wide level in this approach is disseminated to the most appropriate organisational level for interpretation.

It is a devolved model of analysis utilising the local networks, relationships, governance groups and expertise of the Integrated Cancer Services (ICS).

### Localised analysis and the role of the ICS

Each of the Integrated Cancer Services (ICS) will play a central role in this process of review and analysis.

The responsibility for the bulk of analysis, clinical engagement, practice-based learning and guidance at the local level will fall to the ICS.

This means that the results will be reviewed in the context of local structures, models of care, service capabilities, optimal care and existing referral pathways, and other cultural and practice-based conditions.

It will also ensure the input of those local clinicians, health services, consumers, managers and decision makers best situated to bring a context-specific understanding of both the data and the aspects of cancer care under examination.

### Generating clinical and organisational guidance

As well as analysing the data, key clinical and other stakeholders and experts within each ICS will be tasked with providing clear, practically-based advice and organisational guidance for cancer quality and safety improvement.

The analysis, clinical advice and guidance acquired during this process will inform the identification and implementation of strategies and quality improvement programs for each respective ICS and their health services.

It will also be reported back to the Victorian Cancer Performance Monitoring Framework to inform state-wide level planning and cancer system management.

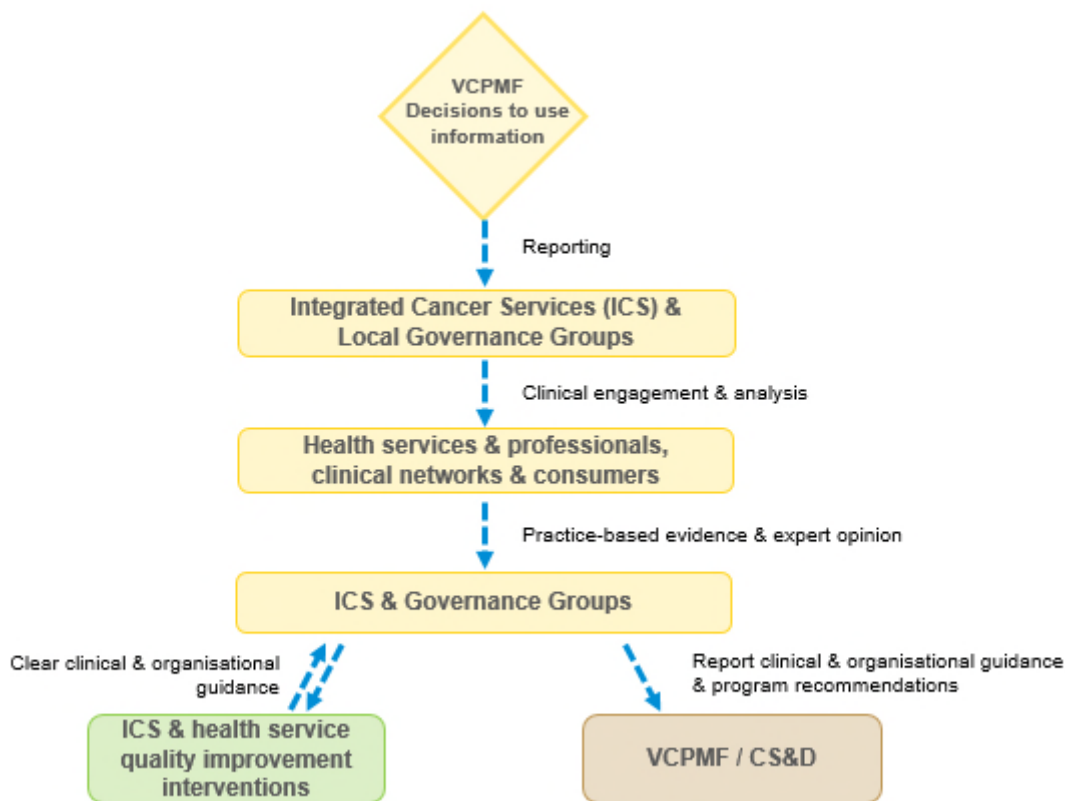
# Governance and Flow of Information

To accompany the quality improvement framework, a *Governance and flow of information* chart (Attachment 2) has been prepared to outline the information pathways for the 'use' of the collected cancer performance data.

This chart forms the basis of the VCPMF Phase II piloting process, and guides the various stages of the information and knowledge translation process.

It traces the proposed flow of information, tasks and deliverables across the organisations involved in the data review and analysis.

**Figure 2:** Summary of information translation stages from flow of information chart



The localised review and analysis process for each of the ICS will be specific to their internal governance arrangements.

It is expected that the analysis, findings and guidance produced by each of the ICS will reflect their particular local circumstances.

## A step-by-step summary of key tasks, timelines and deliverables

For an itemised summary of the key tasks, timelines and deliverables for all involved organisations, see: Attachment 3.

# Directions for use of information

## A note on the presentation of results

The *VCPMF Phase II Pilot: Cancer Performance Indicator Results* for the 2014 and 2015 data are predominantly presented by:

- 1) **Victoria (snapshot state-wide)** – an initial overview of the Victorian results for each of the cancer performance indicators by tumour stream or cancer type.
- 2) **Integrated Cancer Service** – a more detailed look at the data for each of the cancer performance indicators by ICS for each of the selected tumour streams or cancer types.
- 3) **Health service** – for each ICS by health service (campus) as an addendum to the main results.

Where there is no overall Victorian result because the indicator relates to a single tumour stream (e.g. PI-4b, PI-16 & PI-17), the data is presented firstly by ICS of residence.

For the 2014 and 2015 results, the data is available for each ICS health service by campus for:

- **PI-13** for breast, colon, lung, head and neck, and rectal cancer
- **PI-17** for colon cancer by the number of nodes (in the ranges 0-6, 7-11 & 12 and more)

## Data presentation format for each indicator

A similar format has been developed for the presentation of the data for each of the nine cancer performance indicators.

It comprises a **table of summary specifications** which details: OCP step(s); description/definition; rationale; denominator; numerator; and tumour streams / cancer types and stratifications.

A **data collection statement** outlines any important information about the data collection process for each indicator, including key assumptions, exclusions and any relevant qualifications or limitations of the data. The data sources are listed.

The data are displayed in a **graphical or diagrammatic** format. An accompanying statement highlights potential limitations of the diagram format utilised (e.g., 'What the chart does not tell us').

### *Tumour streams and cancer types*

Each of the cancer performance indicators is specified for particular tumour streams and cancer types where possible. Where a specific cancer type has been selected, this is stated. The feasibility of data collection is a consideration in the selection of tumour streams or cancer types for each of the indicators.

### *Data synthesis and stratification*

The stratification variables are chosen in the context of each of the cancer performance indicator specifications as well as the targeted audience (who will get the results) and the potential use of the information.

These may include, but are not limited to, strata such as:

- targeted population subgroups
- public and private
- regional and metropolitan



- Integrated Cancer Service
- health service/campus
- Socio-Economic Indexes for Areas (SEIFA)
- Local Government Areas (LGAs)
- Statistical Local Areas (SLAs)
- age

Stratification considerations commence prior to data collection and remain in consideration to inform the preparation and reporting of results. Further stratification may be required in order to separate different data sources or subgroups during the data analysis process.

### Graphs, diagrams, charts & tables

The data is presented in a variety of formats. The aim to display the information accurately, efficiently and in a user-friendly manner.

Each diagram is considered by the Performance Monitoring Working Group in accordance with the intent of illustration, indicator specifications, data volume and stratifications, time parameters, adjustments, accuracy requirements, potential data use, and other relevant factors.

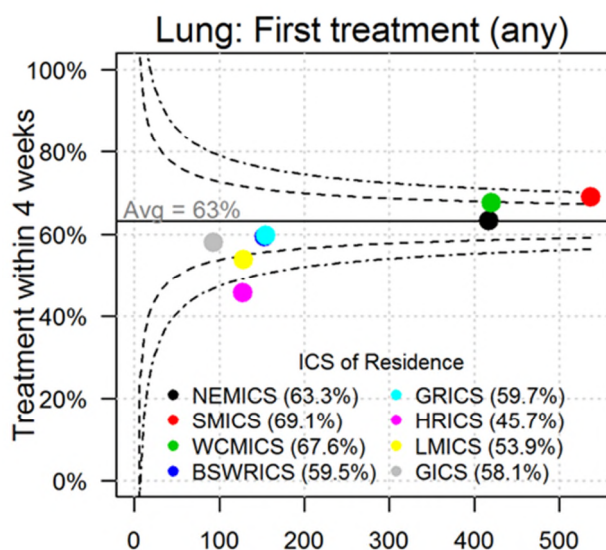
Some examples of common diagrams considered for use include line graphs, funnel plots, box plots, histograms, scatter plots, bar graphs (grouped and stacked) and Variable-Adjusted Life Displays (VLADs).

There are limitations in the scope of presenting data results in a hard copy format. Tables are used where they can be presented in a manageable format. Supplementary data are available upon request where noted in the data collection statements.

### How to read a funnel plot

Funnel plots are commonly used in health service monitoring. They are a useful tool to visualise both variation and its statistical assessment in a way that is easily and quickly understood.

**Figure 3:** A sample funnel plot



The sample funnel plot (Figure 3.) is for the proportion of lung cancer patients who started treatment within 4 weeks of their diagnosis date according to ICS of residence (PI – 13).

The vertical axis shows the proportion of patients treated within 4 weeks. The horizontal axis displays the volume or number of cases. The horizontal line depicts the overall Victorian average (63% of all Victorian lung cancer patients diagnosed in 2014 received treatment within 4 weeks of their diagnosis).

In this example, each dot represents patients living in each of the ICS at the time of their lung cancer diagnosis (e.g. of the 500+ lung cancer patients living in SMICS at the time of diagnosis, 69% received treatment within 4 weeks).

The curved dashed and dash-dot (funnel) lines depict the volume adjusted 95% and 99.8% confidence intervals associated with the overall average. They can be interpreted as control limits or a gauge of how similar to the overall proportion is the proportion for a particular cohort given its number of cases.

Points falling within the dashed lines are considered to be 'within the Victorian average'. Points falling outside the dashed line represent statistically significant deviations from the Victorian average. The further away from the dashed lines, the more evidence of a difference with the Victorian average.

The dashed line represents the 95% confidence interval while the dash-dotted line represents the 99.8% confidence interval. In this example, patients living in SMICS were more likely to receive treatment within 4 weeks compared to the Victorian average.

Funnel plot confidence intervals become wider when volume decreases. This is to take into account the greater variability with lower sample sizes.

For an illustrative example, consider tossing a fair coin. Given the number of tosses, one can calculate the probability of the resulting proportion of tosses being heads when, on average, half of the tosses would be expected to result in heads.

After ten tosses a result of 6 heads, a proportion of 0.6, would not be very unusual (probability = 21%) so this result would not be outside the 95% control limits. However, after 100 tosses, the result of 60 heads, also a proportion of 0.6, has a probability of 1%. This would be outside the 95% control lines and just under the 99.9% control lines

### What is a Variable Life Adjusted Display (VLAD)?

A Variable Adjusted Life Display (VLAD) is a type of statistical control graph or chart which helps to focus people's attention on where to look to improve quality of care.

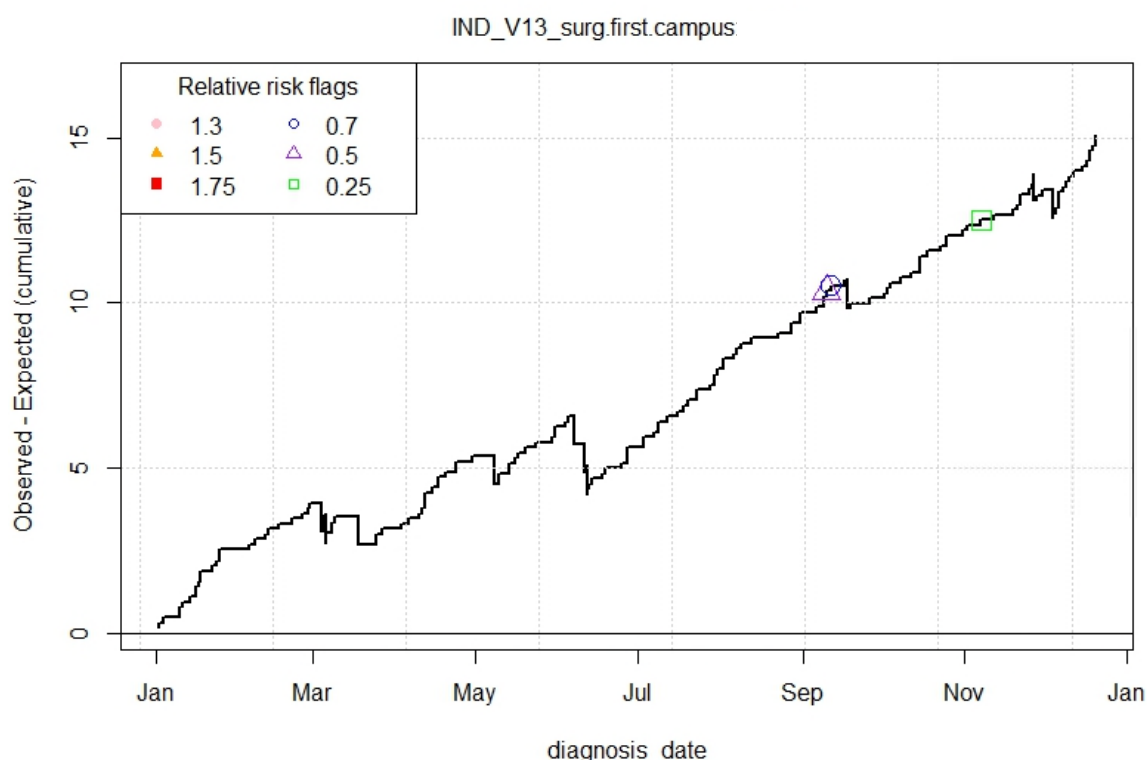
It allows the actual outcomes on a given measure to be compared with the expected outcomes over a set period.

A VLAD is a tool for spotlighting extraordinary trends and occurrences at or near the time they occur so that they can be further investigated. It works best when it is part of an approach to monitor performance and treatment outcomes and linked to a process of quality intervention.

#### *Key elements of a VLAD chart*

- The **x axis** represents a sequence of individual patient outcomes plotted over time.
- The **y axis** is the difference in predicted and observed outcomes.
- The **plotted line** shows the cumulative difference between the expected and actual outcomes.
- The line is enclosed by the **upper and lower control limit** lines.
- A **marked flag** on a VLAD indicates that the cumulative difference line has touched one of the control lines.

**Figure 4:** A sample Variable Life Adjusted Display (VLAD)



### Sample VLAD

The VLAD (Figure 4) plots patients diagnosed in 2013 that were treated with surgery (as first treatment) for a particular campus (PI-13 for CRC).

It represents outcomes of timeliness of a single campus for patients that had surgery as their first treatment for colorectal cancer (PI-13). In this example, 159 patients had surgery for this indication at this campus.

The proportion of patients that had surgery within 4 weeks on a state-wide level was 84%. The VLAD line goes up when a patient is treated within 4 weeks. It goes down when a patient is treated outside this time window.

If the timeliness of treatment would reflect the state average, 84% of 159 patients (=134 pts) would be treated within the 4 week time window and 16% (25) outside the time window. If this were the case for this campus, the VLAD line would be at  $y=0$  at the end of the graph.

However, the VLAD line ends at +15, meaning that compared to the expectation, 15 additional patients were treated within 4 weeks. Indeed, only 10 patients had their surgery after 4 weeks of diagnosis.

Please note that the upper and lower control limits have been removed from this chart for visual clarity.

### How do they work?

A VLAD plots the difference between predicted and actual outcome. It uses the 'cumulative sum' technique to add up and record patient outcomes over time. In addition, VLADs can be risk-adjusted for variation in relevant risk factors to take potential differences in case mix between campuses into account.

This means the outcomes of an indicator in a particular region or health service can be plotted and compared against the state averages.

Control limits are used to highlight when the cumulative outcome varies significantly from the state average. When this happens a 'visual flag' is raised on the VLAD chart.

### *What does a flag mean?*

When a **visual flag** appears on the chart, it is time to take a closer look. There are lots of things that can cause a flag, including chance, omissions, coding errors, records and other confounding factors.

The appearance of a flag should not be taken to mean good or bad performance. VLADs confirm neither the occurrence of error nor outstanding results. VLADs show trends, and in doing so hint at how a system is performing.

A 'flagged' VLAD simply indicates the need for a review into the potential causes for measured variation in performance. Some sort of analysis will always need to be performed before any assessment about a flag can be made.

This analysis requires investigators look at the cases prior to the flag to determine why it has occurred.

### *Looking for patterns & trends*

VLADs are a highly visual display, and they depict variations from the state average. The plotted VLAD lines demonstrate high points (positive outcomes) and low points (adverse outcomes or potential problems).

The upper control line indicates a greater number of positive outcomes than expected. The **lower line** indicates a greater number of adverse or negative outcomes than expected.

To make sense of how the system is performing and better discern patterns that lead to flagging, it is helpful to look for trends. These can be seen in the ascending and descending lines prior to a flag.

Ascending lines prior to a flag mark an upward or positive trend in outcomes. Descending lines hint at a downward trend in patient outcomes.

### *Upward and downward trends*

It is important to note that trends point to the cumulative experience of patient outcomes.

This means an upward trend indicates a better 'run' of positive outcomes up until the flagged patient. A downward trend hints at a cumulative experience (or a 'run') of poorer outcomes prior to the flagged patient.

For example, a downward trend could point to a period of poor performance or repeated sub-optimal practice, depending upon the particular indicator, for this cohort of patients.

Make sure you watch for ascending lines and descending lines as they both have the potential to reveal processes and practices that impact on quality care.

When utilised well, VLADs can enable significant opportunities for exploring ways to improve quality care and patient outcomes.

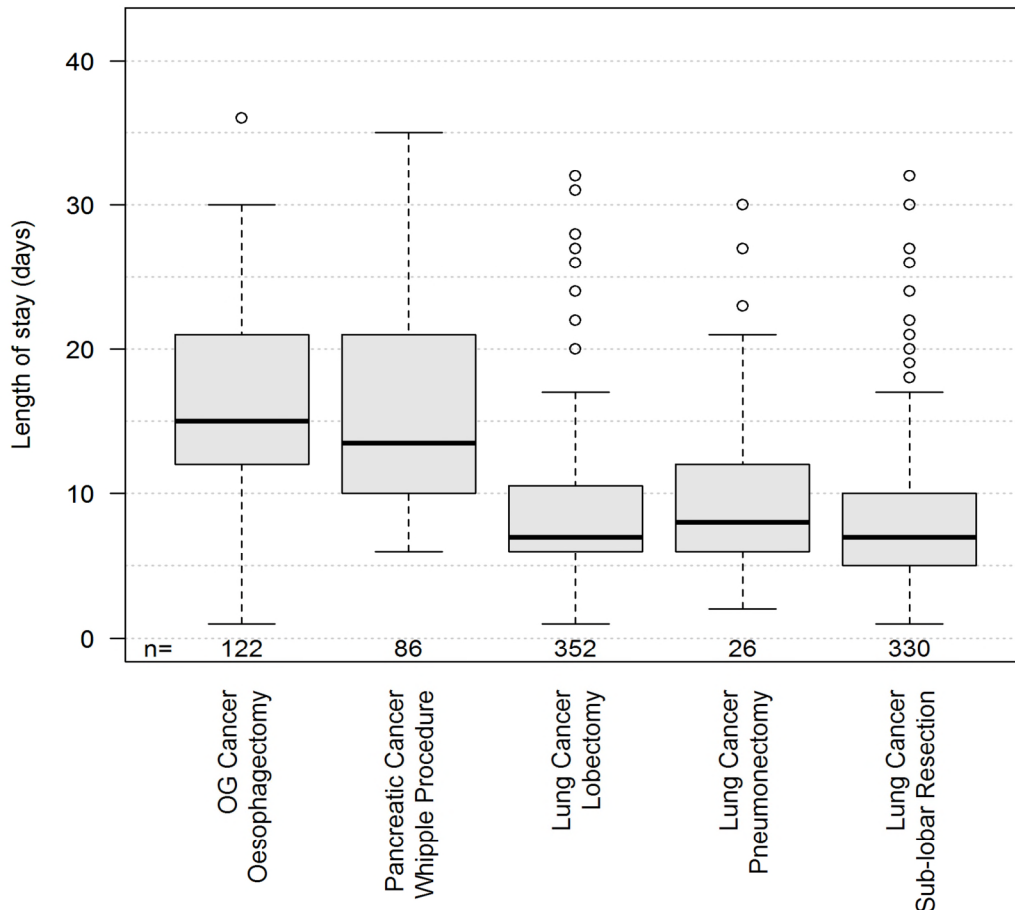
### *Reading box and whisker plots*

A box and whisker plot seeks to explain data by showing a spread of all of the data points in a sample. It also shows the median, and where most of the data sit. It is especially useful for indicating whether a distribution is skewed, and whether there are outliers in a data set.

The sample box plot (Figure 5) is for length of stay for oesophagogastric, pancreatic and lung cancer patients who undergo cancer surgery in 2014.

The **solid black line** represents the median (or sample value at mid-position) length of stay. So 50% of the results will be less than the median, and 50% of the results will be more than the median.

**Figure 5:** A sample box and whisker plot



The **grey box** (or inter-quartile range) includes the middle 50% of LOS values. The **lower line** of the grey box represents the lower quartile, and upper line of the box depicts the upper quartile. A quartile represents approximately 25% of the data.

The **dashed lines** extending from the grey box (the whiskers) represent LOS values outside the middle 50%.

The dashed line extending from the lower line of the box to the bottom line (or minimum value, excluding outliers) represents the first quartile. The dashed line extending from the upper line of the box to the top line (or maximum value, excluding outliers) is the fourth quartile.

The **unfilled circles** outside of the box and whiskers represent extreme values (outliers).

In this plot, the **median length of stay** (days) is greatest for patients who underwent an oesophagectomy.

The median length of stay was lowest for those patients who underwent a lobectomy. The total number of patients who underwent surgery is displayed below the box and whisker plot.

## Template to guide ICS data analysis & report on findings

A new template, *Report on findings: data analysis, clinical insight and organisational guidance for quality improvement* (Report on Findings), has been created in response to feedback from the ICS reviews of the 2013 results (Attachment 4).

The template has been developed to help guide and focus the ICS internal process of analysis for the results. It also seeks to standardise the format of the reports for each of the ICS and each of the indicators.

Each of the ICS will complete and submit a separate report on findings for:

1. Each of **the indicators** (PI-1, PI-4b, PI-6, PI-8, PI-13, PI-16, PI-17, PI-19 & PI-26)
2. For each **year of data** (i.e., 2014 as well as 2015)

The reports are part of an approach to systematising the use of cancer performance information for quality improvement, and will be used to help synthesise the findings and assist in state-wide cancer system management.

Please return the completed report forms to Marita Reed (Program Manager Quality and Cancer Outcomes, DHHS) at [Marita.Reed@dhhs.vic.gov.au](mailto:Marita.Reed@dhhs.vic.gov.au)

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# Glossary

**Bar graph** – a diagram in which the numerical values of variables are represented by the height or length of rectangles or lines (bars) of equal width. In a grouped bar chart, there are two or more bars for each category type. A stacked bar chart stacks the bars (in the same sequence for each bar) that represent the different groups on top of each other.

**Box and whisker plot** – a plot that orders the data (i.e., puts the values) in numerical order, in which the second and third quartiles are represented by a rectangle. The median value is usually displayed as a vertical or horizontal line inside the box. The lower and upper quartiles are shown as lines extending either side of the rectangle.

**Funnel plot** – is a simple type of scatter plot designed for checking the existence of publication bias. The effect estimates are commonly plotted on the horizontal scale, and the measure of the size of the study on the vertical axis. It assumes that data with high precision will be plotted near the average and those with low precision will be spread evenly on both sides of the average creating a funnel-shaped distribution. It is used primarily as a visual aid for detecting bias.

**Histogram** – a type of bar chart that shows a numerical value on each axis and highlights the frequency of a variable and the class interval.

**Local Government Area (LGA)** – is a Local Government Council and the geographical area it administers. An LGA may form two or more SLAs under certain conditions.

**Line graph** – a graph that shows the relationship between data over time.

**Scatter plots** – a graph that shows how much one variable is affected by another, with the pattern of the points revealing any correlation present.

**Socio-Economic Indexes for Areas (SEIFA)** – is an Australian Bureau of Statistics classification that ranks areas in Australia according to relative socio-economic advantage and disadvantage. The indexes are based on information from the five-yearly Census.

**Statistical Local Area (SLA)** – is a general purpose spatial unit used to collect and disseminate statistics. It is based on the boundaries of incorporated bodies of local government (LGAs) where they exist. The SLA is the smallest unit defined in the Australian Standard Geographical Classification (ASGC).

**Table** – a way of showing detailed pieces of information, especially facts or numbers, by arranging them in rows and columns

**Variable Adjusted Life Display (VLAD)** – is a type of statistical control graph or chart. A VLAD allows the actual outcomes on a given measure to be compared with the expected outcomes over a set period. It is a tool for spotlighting extraordinary trends and occurrences at, or near, the time they occur so that they can be further investigated.



# Appendices

Attachment 1 – A Framework for Quality Improvement Schema (overleaf: A Framework Summary)

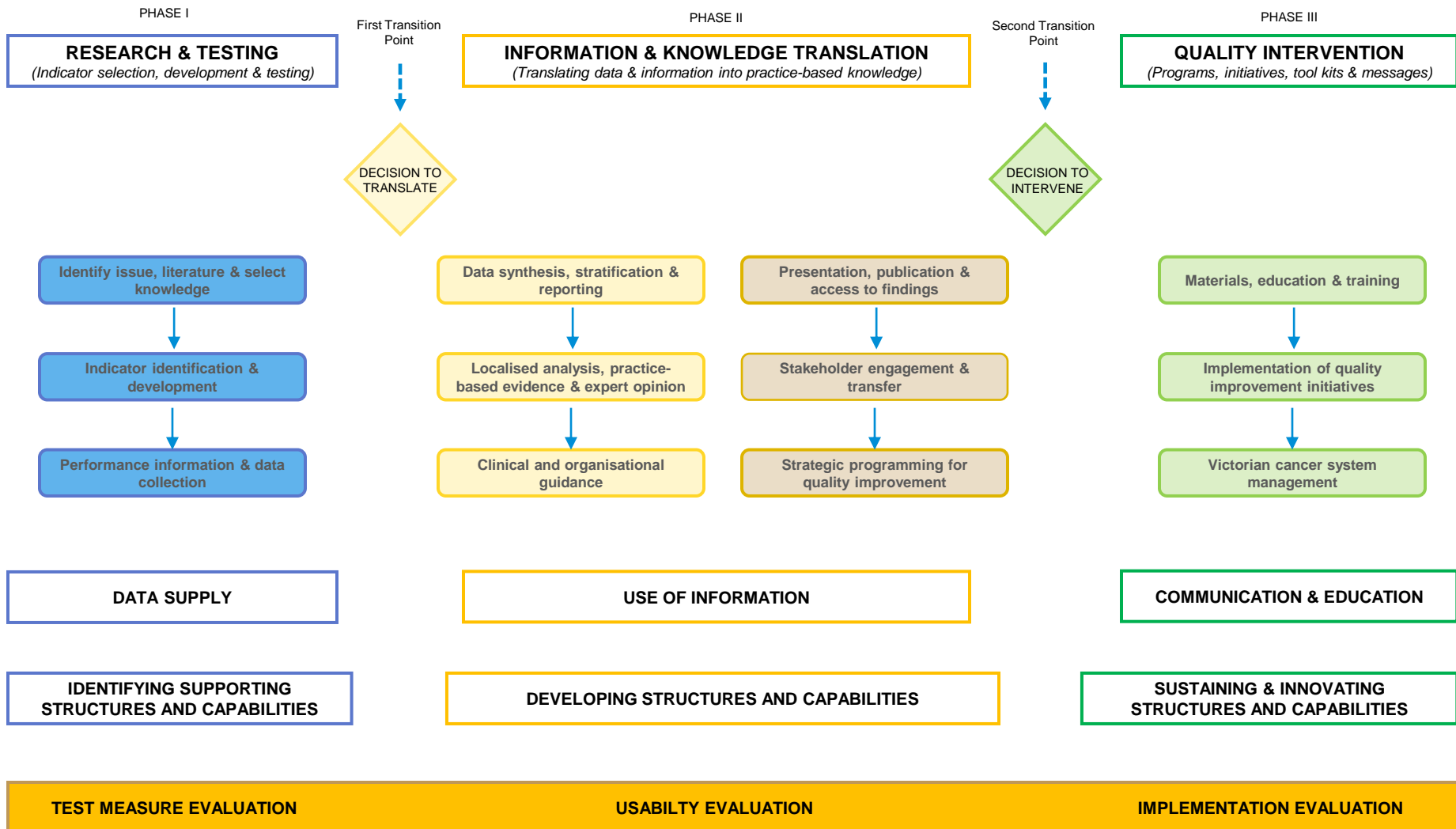
Attachment 2 – Governance and Flow of Information Chart

Attachment 3 – A step-by-step summary of key tasks, timelines and deliverables

Attachment 4 – Report on Findings: data analysis, clinical insight and organisational guidance for quality improvement (template)

# VCPMF – A Framework for Quality Improvement

*A Framework for Translating Cancer Performance Monitoring into Quality Improvement* <sup>1,2,3,4</sup>



# VCPMF – A Framework Summary

## 1. RESEARCH & MEASURE TESTING (Phase I)

*Indicator selection, development & testing*

- **Issue identification, literature & knowledge:** Identifying potential issues, reviewing literature and current evidence base, and selecting knowledge starting points.<sup>1</sup>
- **Indicator identification, selection & development:** Identify potential indicators for selection, priority development and testing.
- **Performance information and data collection:** Data collection from available sources in accordance with developed indicator specifications.

## 2. FIRST TRANSITION POINT – Decision to ‘use’ information

*Formal decision to use the collected data and information from the measure and translate it into practice-based knowledge.<sup>2</sup>*

## 3. INFORMATION & KNOWLEDGE TRANSLATION (Phase II)

*Translating data & information into practice-based knowledge, organisational guidance and recommendations for quality improvement.<sup>3</sup>*

- **Data synthesis, stratification & reporting:** Stratifying, de-identifying, aggregating and reporting results to relevant organisational levels.
- **Localised analysis, practice-based evidence and expert opinion:** A systematic process of internal review and analysis to translate information into practice-based knowledge.
- **Clinical and organisational guidance:** Generating organisational guidance, expert advice and practice-based recommendations for cancer quality improvement.
- **Presentation, publication & access to findings:** Processing state-wide findings and making available for wider access, reporting and publication.
- **Clinical & stakeholder engagement & transfer:** Socialising and pressure testing state-wide cancer performance findings and quality improvement ideas across wider cancer network.
- **Strategic programming for quality and safety improvement:** Strategic programming to turn acquired knowledge into developed programs for targeted quality improvement.

## 4. SECOND TRANSITION POINT – Decision to ‘act’ with quality improvement programs

*Formal decision to act on the knowledge and recommendations generated to implement targeted cancer quality and safety improvement interventions.<sup>4</sup>*

## 5. QUALITY INTERVENTION (Phase III)

*Programs, initiatives, tool kits & messages*

- **Materials, education & training:** Developing material support and mobilising active participants to implement quality programs.
- **Implementation of quality improvement initiatives:** Planning and implementation including aligning performance metrics to effectively monitor and evaluate quality efforts.
- **Cancer system management:** Effective governance of the flow of performance monitoring information and the oversight and management of the Victorian cancer system.<sup>5</sup>

## SUPPORTING STRUCTURES AND CAPABILITIES

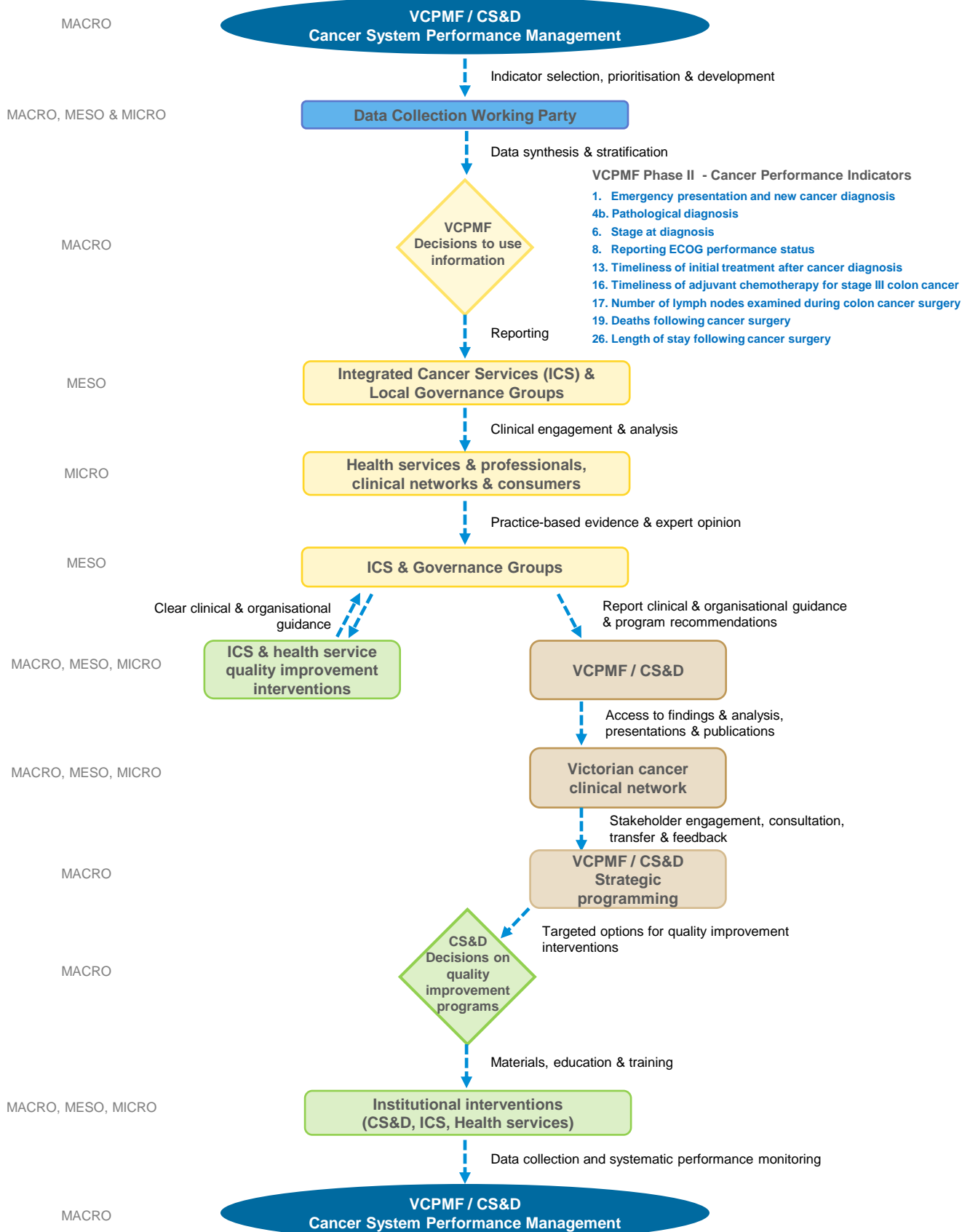
*The supporting structures that enhance the capacity of the cancer system, at all organisational levels, to plan, implement, evaluate and sustain the cancer performance monitoring system.*

## EVALUATION

*The inherent processes at every framework phase to systematically assess the outcomes and impact of the cancer performance monitoring system and quality improvement programs.*

# VCPMF – Governance and Flow of Information

*The use of cancer performance monitoring information for quality and safety improvement*



## A step-by-step summary of key ICS tasks, timelines and deliverables

Summary of key tasks, timelines and deliverables for the Integrated Cancer Services (ICS) participating in the review and analysis of data for the *VCPMF Phase II Pilot: Cancer Performance Indicator Results* for 2014 and 2015.

Action Item	Key dates	Organisational task, activity or deliverable	Responsible
1	5 September 2017	<b>Dissemination</b> of <i>VCPMF Pilot Phase II: Cancer Performance Indicator Results – 2014 Data</i> to ICS.	VCPMF / CS&D
2	11 September 2017	<b>Dissemination</b> of <i>VCPMF Pilot Phase II: Cancer Performance Indicator Results – 2015 Data</i> to ICS.	VCPMF / CS&D
3	September – October 2017	<b>Internal Review of results</b> by ICS & Local Governance Groups – Localised clinical engagement and practice-based analysis to draw on local cancer pathway knowledge, health services, administrators and professionals, tumour groups and clinical networks.	ICS
4	TBC	<b>VCPMF 2014 &amp; 2015 Results Workshop</b> – A collaborative state-wide forum to discuss and interpret the 2014 and 2015 results.	VICS / CS&D
5	27 October 2017	Each <b>ICS to submit reports on findings</b> for 2014 and 2015 CPI results to results to VCPMF/CS&D.	ICS

For all data queries, please contact Luc te Marvelde (Biostatistician, DHHS) at [Luc.teMarvelde@dhhs.vic.gov.au](mailto:Luc.teMarvelde@dhhs.vic.gov.au)

Please submit all reports on findings to Marita Reed, (Program Manager Quality and Cancer Outcomes, DHHS) at [marita.reed@dhhs.vic.gov.au](mailto:marita.reed@dhhs.vic.gov.au).