

**MEASURING  
THE IMPACT  
OF CHOOSING  
WISELY  
INTERVENTIONS**



# 1 INTRODUCTION

The effectiveness and sustainability of a campaign like Choosing Wisely will depend in a large part on the ability to demonstrate impact in the short term and long term.

In the short term, the goal of a Choosing Wisely campaign is to produce clear changes in awareness of health professionals and trainees about use of health system resources. However, to be effective in the longer term these campaigns must:

- change provider behaviour
- increase patient knowledge of overuse
- ultimately reduce unnecessary investigations and treatments.

There is also potential for unintended consequences. Some examples of unintended consequences include the underuse of necessary services, dissatisfied patients and negative provider experiences.

Therefore, it is important to have a process from the start of implementation, to measure the impact of Choosing Wisely and look for unintended consequences<sup>1</sup>.

In healthcare, Quality improvement (QI) is a systematic approach to making changes that lead to better patient outcomes and stronger health system performance. In this scenario, proposed changes will need to be underpinned by the collection of information/evidence about the inputs, activities and potential outcomes of a proposed initiative.

The key purpose of measurement is to determine the impact of what was done and if it is worth continuing to do.

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<sup>1</sup> *Measuring the effect of Choosing Wisely: an integrated framework to assess campaign impact on low-value care.* Bhatia R. BMJ Vol24 Issue8

## 2 DEVELOPING A CHOOSING WISELY INTERVENTION

Many New Zealand Medical Colleges, specialty societies and health professional groups have developed lists of Choosing Wisely recommendations and several more are in various stages of recommendation development.

These recommendations:

- are within the specialty's scope of practice
- are frequently used
- may expose patients to harm and stress
- are supported by evidence.

The recommendations have been developed with health professional input and consultation after review of the evidence. See [choosingwisely.org.nz](https://choosingwisely.org.nz).

In services it may also be possible to use data to identify areas of unwarranted variation in the use of tests, treatments and procedures. Such areas of overuse may be a good place to start.

## 3 GETTING THE BASICS RIGHT

In New Zealand, several DHBs have set up Choosing Wisely steering groups and appointed Choosing Wisely ‘champions’ to drive change within their hospitals.

It is important to:

- make sure you have chosen the right area to focus on
- do a baseline audit to confirm unwarranted variation
- identify action required
- identify metrics that can measure performance at baseline and after the intervention
- get health professional consensus
- engage with all those who will be affected by the intervention
- develop measures to ensure the sustainability of the change
- maintain success.

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## START THE PROCESS OF MEASURING CHANGE

- I. Decide upon the desired change starting with simple, easily definable, clinical interventions and set process-oriented goals and benchmarks early on.
- II. Collect data for analysis<sup>1</sup> and synthesis<sup>2</sup>. It is important to start measurement of the chosen health related outcome prior to commencing the intervention for two reasons;
  - to determine where to focus efforts
  - to obtain baseline data for comparison with post intervention data.
- III. Collecting, compiling and analysing measures should not require months of time-intensive activity. It should be an exercise completed in real time yielding just enough data to begin an improvement process. The framework below outlines sources of potential data.
- IV. Determine how well an intervention attains the desired effect, along with the presence and frequency of any unintended outcomes/side effects.

### EXAMPLES OF CHOOSING WISELY INTERVENTIONS ALREADY UNDERTAKEN IN NZ INCLUDE:

- Reduction in the taking of unnecessary blood for tests and reduction of insertion of unnecessary intravenous cannulae at Waikato Hospital's Emergency Department.
- Hutt Valley DHB has reduced the rate of unnecessary urine tests and associated antibiotic prescribing through staff education sessions.

In other countries Choosing Wisely interventions have included avoidance of transfusion of red blood cells for arbitrary haemoglobin or haematocrit thresholds in the absence of symptoms, and reducing unnecessary bladder catheterization. For further details of these Canadian initiatives go to [choosingwiselycanada.org](http://choosingwiselycanada.org)

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1. Analysis - is where you analyse, compile, assemble and order the evidence.

2. Synthesis - Is where the analysed evidence (What?), is combined with the evaluative criteria and the performance framework to reach judgements about quality, value and importance and answer the evaluation questions.



## MAKING THE CHANGE PART OF EVERYDAY WORK

You may be able to incorporate a Choosing Wisely recommendation into an already existing database or guidelines; for example, creating an alert if an ordered investigation does not align with a Choosing Wisely recommendation.

### WHAT TYPE OF MEASUREMENT IS MOST USEFUL?

The framework below outlines a number of measurement tools that may be used for assessing Choosing Wisely initiatives. The most appropriate choice will depend on the initiative you choose. The tools vary in the perspective taken (health professional or patient), timeframe, and inherent advantages and disadvantages.

A mix of methods will result in a stronger, more complete view than only using one method. Factors to consider are time, budget, accessibility, and the expertise of the team to design, collect and analyse the data.

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# A FRAMEWORK FOR ASSESSMENT OF CHOOSING WISELY INITIATIVES

MEASUREMENT TOOLS	TIMEFRAME FOR IMPACT	ADVANTAGES OF APPROACH	DISADVANTAGES OF APPROACH
<b>PROVIDER ATTITUDES AND AWARENESS</b>			
<b>Health professional surveys</b>	Short Term	<ul style="list-style-type: none"> <li>• May be less costly</li> <li>• Can reach large number of health professionals</li> <li>• Can re-sample over time to assess change</li> <li>• May compare health professionals across various health systems</li> </ul>	<ul style="list-style-type: none"> <li>• Potentially low response rates</li> <li>• May lack detailed responses</li> <li>• Requires database and analytical skills</li> </ul>
<b>Structured Interview</b>	Short Term	<ul style="list-style-type: none"> <li>• More detailed information about attitudes</li> <li>• May expose factors that can be used to improve campaign</li> </ul>	<ul style="list-style-type: none"> <li>• May be resource expensive and time consuming</li> </ul>
<b>PROVIDER ORDERING BEHAVIOUR: OVERUSE OF LOW-VALUE SERVICES</b>			
<b>Administrative databases</b>	Medium to long term	<ul style="list-style-type: none"> <li>• Direct measurement of overuse at the individual patient level</li> <li>• Population-level data on utilisation</li> <li>• As well as measuring the “index” low-value care event, enables measurement of downstream effects (eg harms and side effects).</li> <li>• Can provide regional variation on overuse.</li> <li>• Can reassess over time to assess change. Can monitor for unintended consequences such as underuse</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of clinical details in records (eg treatment indications) may limit specificity of measures and preclude measuring more complex recommendations</li> <li>• Measures not always tailored for evaluation</li> <li>• Extracting data for evaluation can sometimes require specialist analytics expertise</li> </ul>
<b>Electronic health record/chart data</b>	Medium to long term	<ul style="list-style-type: none"> <li>• More clinical details (past medical history, previous testing) to assess appropriateness</li> <li>• Can assess a greater variety of recommendations than with administrative data, as well as measuring the “index” low-value care event.</li> <li>• Enables measurement of downstream effects (eg harms and side effects). Can reassess over time to assess change. Can monitor unintended consequences such as underuse.</li> </ul>	<ul style="list-style-type: none"> <li>• Some information gaps</li> <li>• Currently can be time-consuming and resource-intensive; often limited to single centres because of lack of interoperability</li> </ul>

MEASUREMENT TOOLS	TIMEFRAME FOR IMPACT	ADVANTAGES OF APPROACH	DISADVANTAGES OF APPROACH
<b>PATIENT PERCEPTIONS AND OUTCOMES</b>			
<b>Patient reported experience measures (PREMs; survey tools)</b>	Short to medium term	<ul style="list-style-type: none"> <li>Standardised data collection</li> <li>Patient perceptions/ drivers could help design interventions to reduce low-value care</li> <li>Impact of interventions on patient perceptions could monitor for unintended consequences</li> <li>Comparable across jurisdictions</li> </ul>	<ul style="list-style-type: none"> <li>No questions specifically on low-value care</li> <li>Not all recommendations directly influenced by patient preference/ experience</li> <li>Mediating role of cognitive biases eg placebo and nocebo effects; cognitive dissonance</li> </ul>
<b>Patient reported outcome measures (PROMs; validated survey tools)</b>	Medium Term	<ul style="list-style-type: none"> <li>Validated patient tools assist providers in developing care plans; including tests and treatments</li> <li>Results can monitor for unintended consequences of interventions</li> </ul>	<ul style="list-style-type: none"> <li>No questions specifically on low-value care</li> <li>Results may be inappropriately used to ration care</li> </ul>

## 7 REPORTING ON PERFORMANCE

Measurement of the impact of a Choosing Wisely initiative should be summarised in a performance report. This may be a task of the steering group set up to implement Choosing Wisely<sup>1</sup>. It is important to celebrate and feed back positive outcomes that are a result of “Choosing Wisely.” This helps to maintain momentum and the motivation of those people involved in its implementation.

Examples of successful Choosing Wisely interventions used elsewhere, with guidance for implementing similar projects in your service, are available under the Toolkit tab at [choosingwiselycanada.org/perspectives/how-tos/](http://choosingwiselycanada.org/perspectives/how-tos/)

The NZ “Choose Wisely” campaign hopes to develop a similar database of example toolkits with a New Zealand context.

Do contact Choosing Wisely at [enquiries@cmc.org.nz](mailto:enquiries@cmc.org.nz) to share your successes with implementing a Choosing Wisely initiative. Sharing of these stories is powerful and may provide the motivation and knowledge for other health care providers to undertake similar projects.

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1. See Guide on Implementing Choosing Wisely recommendations

## 8 REFERENCES

1. Bhatia R. BMJ Measuring the effect of Choosing Wisely: an integrated framework to assess campaign impact on low-value care. BMJ Vol24 Issue8
2. Choosing Wisely Action Manual. Integrating Choosing Wisely Recommendations in Practice. Developed by Washington State Choosing Wisely Task Force, October 2015
3. Quality Improvement Science. Health Quality Ontario, 2013.
4. McKegg K. Principles to help you evaluate your work. Evaluation keynote presentation, Choosing Wisely Symposium, Wellington, March 2017.  
[www.knowledgeinstitute.co.nz](http://www.knowledgeinstitute.co.nz)
5. [www.improvementmethodology.govt.nz](http://www.improvementmethodology.govt.nz)

## OTHER RESOURCES

<http://improvementmethodology.govt.nz/>

Raleigh V, Foot C. Getting the Measure of Quality. Opportunities and Challenges. Published by The King's Fund 2010 ([www.kingsfund.org.uk/publications](http://www.kingsfund.org.uk/publications)).



## CONTACTS AND RESOURCES

### CMC CONTACTS

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### CHOOSE WISELY GUIDES AND RESOURCES

**Starter Kit for your Choose Wisely campaign**

This is an introduction to the Choosing Wisely concepts.

**Developing recommendations for a Choosing Wisely campaign**

This guide is aimed at assisting Colleges, societies and other organisations to develop a list of recommendations for the Choosing Wisely campaign.

**Implementing Choosing Wisely principles in a service**

This guide is aimed at service delivery organisations including CMOs, SMOs, and Departments in DHBs and services in primary care.

**A synopsis of Choosing Wisely literature**

A synopsis of Choosing Wisely peer reviewed international literature, arranged by year & alphabetically by author.

## INFORMATION & IDEAS FROM OVERSEAS WEBSITES

Australia - [choosingwisely.org.au](http://choosingwisely.org.au)  
Canada - [choosingwiselycanada.org](http://choosingwiselycanada.org)  
USA - [choosingwisely.org](http://choosingwisely.org)  
UK - [choosingwisely.co.uk/i-am-a-patient-carer](http://choosingwisely.co.uk/i-am-a-patient-carer)

## CHOOSING WISELY STEERING GROUP

In New Zealand a Steering Group has been formed to monitor the development of the campaign and provide advice and links to other health professional groups. To find out more about the membership or to join this group - email [enquiries@cmc.org.nz](mailto:enquiries@cmc.org.nz)

## SPEAKERS' GROUP

CMC has a list of leading professionals who can talk to groups about Choosing Wisely – contact the Choosing Wisely team if you need a speaker for your meeting or if you are willing to join our group.

## ACKNOWLEDGMENTS

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- ABIM and the USA Choosing Wisely - [choosingwisely.org](http://choosingwisely.org)
- Choosing Wisely Canada - [choosingwiselycanada.org](http://choosingwiselycanada.org)
- Choosing Wisely Australia - [choosingwisely.org.au](http://choosingwisely.org.au)

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