



**Health Issues Centre**  
Consumer voices for better healthcare

**Report**

# **Rapid Antigen Testing**

*Online forum - 13 December 2021*



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## Executive Summary

The eighth of Health Issues Centre's (HIC) COVID-19 community forums was held on December 13<sup>th</sup> 2021. HIC convened this online forum as a component of the Optimise Study which is seeking to better understand how the community is managing and responding to COVID-19 and the measures introduced to stop its spread. The aim of the forum was to investigate the motivations and drivers regarding Rapid Antigen Tests (RATs) for consumers.

RATs were approved for public use in Australia on 1<sup>st</sup> November 2021 by the Therapeutic Goods Administration (TGA). While not providing endorsement of one type or brand of test over another, the TGA does provide information about the clinical sensitivity of the performance of each test on its website.

There are fifteen different approved tests, with two different types of tests available to the public for purchase. Each test requires the user to take either a nasal swab or saliva sample.

RATs are not covered by Medicare and the cost of the test is borne by the user. The cost of the test ranges from \$10.00-15.00 per test and the tests are available in Victoria for purchase from some supermarkets, pharmacies or online from selected suppliers.

For forum participants, the cost of a RAT was a key theme, representing a significant barrier particularly for those in lower socioeconomic groups.

Not unsurprisingly for the public, given RATs are new, consumers are still learning about RATs and how best to use them. Navigating the RAT-Polymerase Chain Reaction (PCR) test relationship and comprehending the efficacy of RATs, in addition to understanding when to choose this test and why, were additional strong forum themes.

The forum was an opportunity to understand the community's needs and attitudes in using the tests and provides an understanding of the barriers the community may encounter in using the tests.

The body of this report summarises the questions, comments, and conversation under the key themes of Cost, the RAT-PCR Relationship, Efficacy and When to Use RATs.

## Introduction

On Monday 13<sup>th</sup> December 2021, Health Issues Centre hosted the eighth in a series of COVID-19 forums, titled *Rapid Antigen Tests – are they accurate, how do they work and how to use them*. The Burnet Institute (auspiced by the 'Optimise' research study) commissioned the Health Issues Centre (HIC) to investigate the attitudes and beliefs held by the general public regarding RATs.

The aims of the forum were threefold:

- to enable consumers to hear from and directly question leading health authorities and researchers
- to understand the current COVID testing choices and to 'demystify' the information available on RATs
- to understand the public's motivations and drivers and barriers in the use of RATs

Forum participants engaged with the speakers via the question and answer and chat functions in Zoom.

The following report provides a thematic summary of participants' questions, comments, and sentiments.

### Forum

HIC advertised the Forum – *Rapid Antigen Testing: how do they work, how accurate are they, and what are their uses?* – through a range of mediums. These included social media, paid Facebook advertising, inclusion in HIC newsletters, invitations to community-based organisations, special interest groups and individuals on the HIC database and through the marketing channels of like-minded organisations such as Primary Health Networks and hospital networks.

As a result, 291 people registered, with 130 attending the online forum on the night.

Forum participants represented a broad cross section of the public as illustrated in the following table. For analytic details of all forum registrants see Appendix 3.

State	Numbers	Percent
VIC	88	78.60%
SA	1	0.90%
WA	3	2.70%
NSW	16	14.30%
QLD	1	0.90%
TAS	1	0.90%
International	2	1.80%
Total	112	100.00%

Position	Numbers	Percent
Consumer Representative	13	12.60%
Medical Professional	28	27.20%
Member of Public	16	15.50%
Community group, Charity, non-government	5	4.90%
Local Government	2	1.90%
State Government	7	6.80%
Federal Government	7	6.80%
Health System in non-medical position	14	13.60%
Researchers	6	5.80%
Other:	5	4.90%
<b>Total</b>	<b>103</b>	<b>100%</b>

The difference in total number of participants in the above tables and compared to actual attendees may be due to registrants logging into the session on a shared email account and/or other people being sent the link by another in the same organisation.

## Guest speakers

Participants at the forum heard from two expert speakers:

**Professor Deborah Williamson**, Director of the Victorian Infectious Diseases Reference Laboratory at the Doherty Institute and Professor of Public Health Microbiology at the University of Melbourne. Provided a brief overview and update on RATs. Presented information on RATs – ‘What they are, what they measure and how they are used.’

**Dr Jennifer Audsley**, a Clinical Research Fellow at the Peter Doherty Institute for Infection and Immunity, University of Melbourne, with a PhD in virology. Presented the preliminary results of a research study investigating the user experience of health professionals, secondary and primary school age children in the frequent use of RATs at home.

## Panellist

**Professor Margaret Hellard**, Deputy Director (Programs) Burnet Institute; Adjunct Professor, Monash University, Department of Epidemiology and Preventative Medicine participated in the forum as part of a panel with the other two speakers answering participants’ questions after the speakers’ presentations.

## Poll

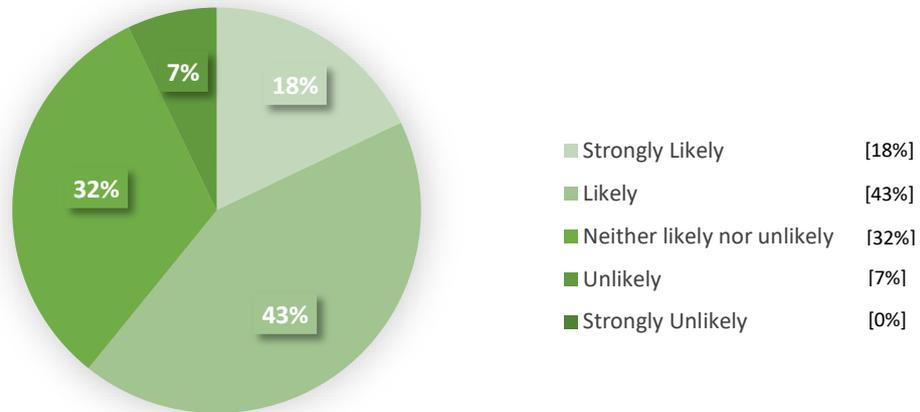
Prior to the Q & A session, a poll was presented to forum participants that asked participants’ occupational status and the likelihood they would use a RAT. The key question posed was:

- “Based on your knowledge how likely are you to use a Rapid Antigen Test?”

The purpose of the poll was to measure changes in participants’ understanding of and intention to use RATs after hearing from the experts and participating in the forum. The pre survey poll results

for consumers showed that 61% of forum attendees were likely or strongly likely to use RATs, with 32% undecided.

## Pre-Survey Consumer/ Member of public



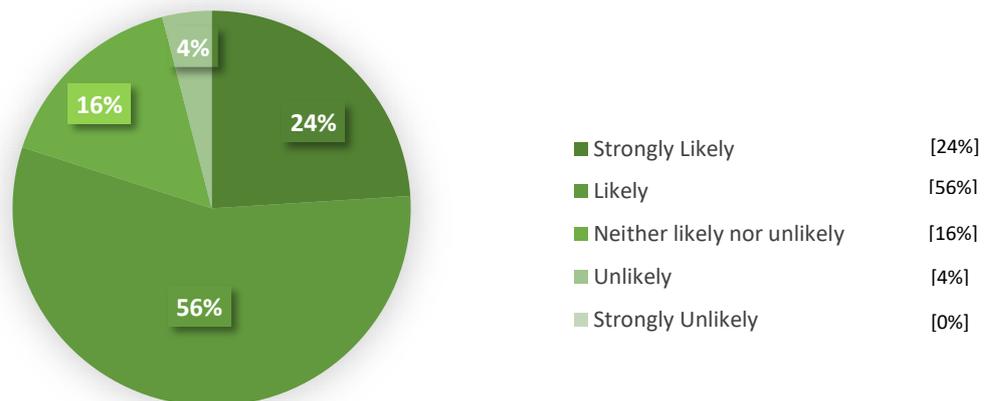
The key points presented by the speakers included:

- Positive antigen tests detect people who have a high viral load
- The TGA website contains information about the use of the antigen tests
- RATs are there to complement the PCR testing that we have in place in Australia
- Most participants in a study of RATs that used them regularly are very/extremely interested in using them on an ongoing basis
- The introduction of RATs into Australia has been a journey.

Following the speakers' presentations, a Q&A session was held for forum participants.

The poll questions were then repeated, with the results indicating that after participating in the forum, 80% of consumers were likely or strongly likely to use a RAT, with the proportion of consumers who were undecided halving to 16% of respondents. For the full survey results of all forum participants, see Appendix 1.

## Post-Survey Consumer/ Member of public



## Discussion of the findings

### Major Themes

#### Cost of RATs

One of the major themes to emerge for participants was the cost of the RATs. Currently in Australia, RATs are not covered by Medicare and the cost of the test is borne by the user. The cost of the test ranges from \$10.00-15.00 per test, with the tests available for purchase from some supermarkets, pharmacies or online from selected suppliers.

Consumers noted the personal financial cost they must bear to undertake RATs, particularly when compared to the free (for them) PCRs.

*“Why are the RATs so expensive here in Australia, compared to other countries (like the UK)?” – Consumer*

*“Is there a possibility that the government will do subsidised/free tests like in other countries?” – Consumer*

*“Can staff claim costs of RATs on tax for disability workers?” – Consumer Representative*

*“Some aged care facilities are testing on entry of families and friends but also charging them. Is this acceptable?” – Medical professional*

Access to RATs for consumers living in more rural and remote areas with variable internet access and options to purchase the test was an additional issue raised by a consumer representative.

Cost will present a major barrier for members of the community who have a low income. Further, responsibility for test costs in workplace settings is unclear. A medical professional participant noted that some aged care facilities require RATs on entry for visitors, with the cost of the test borne by the visitor.

The panel noted the validity of these concerns and observed that other countries offer RATs free-of-charge to the general population. In Australia these tests are relatively new, and the cost of the tests may be a product of supply and demand.

Nonetheless, the panel also noted that it is not necessarily uncommon for Australia to pay more for tests than in other countries given the relatively small size of our market.

These tests do provide broader options for accessing tests to the public and help democratise testing for the community and are not meant as a replacement for PCR testing, the panel emphasized. However, the panel noted we need to preserve PCR testing for where it will have the highest impact, that being in our hospital settings, aged care homes and other settings, and the ability to use RATs at home gives us all agency to manage our own health.

## The RAT-PCR relationship

Consumers questioned the need for another type of test given PCRs had become more readily available. This included querying the merits of RATs versus PCRs.

*“Is it worth getting these tests when PCR tests are easy to get, and results come back quite quickly?” – Consumer*

*“What's the point of making these more available if not a replacement for the more accurate test?” – Consumer*

## The RAT-vaccine relationship

Another theme (from consumers) was whether RATs have any impact on the need for vaccines and public health restrictions. In particular, questions were raised about whether vaccines needed to be compulsory if RATs were widely adopted.

*“Can and should RATs be used as an alternative to vaccine mandates (e.g. in work places)? If so, how would you suggest they be practically managed?” – Consumer*

The panel reaffirmed that the availability of RATs does not mean the importance of getting vaccinated has lessened. Vaccinations remain a critical tool in the pandemic response. One panellist observed that RATs are an important ‘tool in the toolkit’ in dealing with what is a global pandemic that has killed millions.

Whilst RATs might be of limited use in some situations and do not diminish the importance of vaccines, on balance they still provide an additional useful mechanism for helping Australia manage the COVID pandemic.

## Efficacy

Consumers questioned the efficacy of RATs. They also questioned RATs’ efficacy relative to PCRs, for new variants (including Omicron), and of different RAT brands’ efficacy relative to each other.

*“Were there any results where a positive outcome in one particular day during the 14-day cycle was positive but negated the following day? And if so, how do you test for reliability?”- Other category*

*“Is there any difference in RAT brands and between saliva and swab tests”- Consumer Representative*

*“If RAT is not a substitute and the kits were produced at an earlier time frame how does that measure for Omicron for instance?”- Consumer Representative*

*“What's the likelihood of a new variant emerging that would evade detection by currently approved RATs?”- Consumer Representative*

*“Are some RATs more accurate than others?” – Consumer*

*How does the everyday consumer know which tests can be "trusted"- they appear to be available to buy at strange places of business? - Consumer*

The panel reinforced that the tests should be conducted according to the instructions on the individual packaging and consumers should not seek out non-TGA approved RATs that are available online from overseas markets.

Research is currently being conducted on reviewing the ability of RATs to detect new and emerging variants such as Omicron, the panellists confirmed. At the time of the forum, it was too early to provide guarantees to participants, but emerging evidence suggests that the RATs will detect new COVID variants.

The creation of some uncertainty for the research study participants in their use of RATs and in the questions received during the forum does highlight the need for clear and concise information to be available to the public. This information needs to be made easily available to the community in a format that will enable individuals to make their own decisions based on accurate and unbiased information. Most concerns for participants in the research findings presented were about not knowing the rate of false positives/negatives and lack of knowledge about test sensitivity and specificity.

### How and when to use RATs

Panel members emphasised that we have a major pandemic occurring and as a community we need to use all the tools in our tool kit to manage it. This includes public health restrictions to manage outbreaks and the spread of the virus, to have a vaccinated public to protect us all, proper ventilation in buildings and utilizing testing. Testing is one component in the approach to prevention and management that is to be used as required, and we all need to understand why we are using a RAT.

An example of use was provided by the panel of a young person with an active social calendar going to clubs and pubs and then wanting to visit a grandparent, and in this situation a RAT is useful. The introduction of RATs is a harm reduction approach to reduce risk of disease transmission and to bring the level of disease down as much as possible in the community. The panel explained that these tests give individuals agency to manage their health and is the next step in the COVID response to giving all of us agency to manage our health.

Participants wanted to understand how and when RATs are used.

*“Is it correct that the test cannot be read after 15 minutes?”- Medical professional*

*“Some antigen testing kits provide 2 sets of instructions on swabbing: 1) nose swab and 2) naso/oro pharynx swab. Can you please explain where the swab should be taken for best results - is there a difference?”- Medical professional*

*“Could I please ask on reliability post exposure. For example, if undertaking a RAT is it more likely to be positive > 48 hours post exposure for example.”- Health care professional*

*“Are RATs more likely to produce a false negative than a false positive? due to people not doing them perfectly well” – Consumer*

*“Do you see RATs as an alternative to keeping children off school if they have any respiratory symptoms etc? In VIC parents have been complaining about having to keep keeping children home. In UK I think they have been doing this - useful for children and adults with allergic rhinitis etc.” – Consumer*

*“Are we able to use RATs practically to help keep our family safe with Christmas celebrations coming and many of us with potentially waning immunity with booster shots due soon. How can we use RATs in this way?” – Consumer*

*“Will these RATs pick up other respiratory infections - not just COVID?” – Consumer*

The panel noted a key benefit of RATs is that they make testing much more accessible. RATs open-up and ‘democratise’ testing. They are not a replacement for PCR testing, and we should preserve PCR testing for the highest-need settings.

Importantly, the panellists noted consumers need to understand why they are using a RAT and be able to easily access information on RATs in a format appropriate to them.

## Summary

The forum highlights several key themes government and researchers should be cognisant of when engaging with consumers and the public regarding RATs.

Cost appears to be a barrier to uptake. There may be some reticence among consumers to pay for RATs, especially when PCRs remain readily available.

This relationship with PCRs needs to be clearly articulated when discussing RATs. Consumers have possibly begun feeling comfortable with PCRs and there is uncertainty regarding RATs and why they might now be considered preferable to other tests.

It is evident from participants during this forum and to date in the life of the pandemic, that as the panellists explained, one of the major challenges for the COVID response so far in Victoria, Australia and globally has been effective community engagement, which is why this type of forum is essential. There has been and currently there is a lack of clear and simple information that is being provided to people appropriately in a language that is developed by communities with government and academics so that this information is accessible in a format that the public can understand.

The results also illustrate key principles that, if adopted, may facilitate uptake and acceptance:

- Further information is required so that the public better understand RATs, when to use them, and how to use them. Importantly, this should be framed in the context of other tests, for example when to use RATs and when to use PCRs.
- Similarly, consumers require clear information on how RATs relate and fit in with other health measures, including restrictions, vaccine requirements, and other tests.
- The TGA's stringent regulatory approach gives consumers confidence about the efficacy and usefulness of TGA-approved tests
- The convenience of RATs may be a key selling point
- A consideration of the cost barrier for some members of the community.

Moreover, the poll survey result reflects a compelling rationale for future consumer engagement opportunities such as this to better understand community needs and attitudes to infectious disease planning and responses. Giving consumers a voice in an interactive platform such as this forum may uncover future perceived barriers for them to public health directions in the future.

## Appendix 1 – Poll Survey Results

### Pre-Survey Poll

Category	N	%	Rounded
Academic	7	7.692307692	7.7
Consumer/ Member of the public	28	30.76923077	30.8
Gov	14	15.38461538	15.4
Health System	42	46.15384615	46.2
<b>TOTAL</b>	<b>91</b>	<b>100</b>	<b>100.1</b>

Responses	N	%	Rounded
Strongly Likely	19	20.87912088	20.9
Likely	39	42.85714286	42.9
Neither likely nor unlikely	27	29.67032967	29.7
Unlikely	5	5.494505495	5.5
Strongly Unlikely	1	1.098901099	1.1
<b>TOTAL</b>	<b>91</b>	<b>100</b>	<b>100.1</b>

### Responses per category - Number of participants (N)

	Academic Number	Consumer/ Member of public Number	Gov Number	Health System Number
Strongly Likely	3	5	2	9
Likely	4	12	7	16
Neither likely nor unlikely		9	4	14
Unlikely		2	1	2
Strongly Unlikely	0			1
<b>TOTAL</b>	<b>7</b>	<b>28</b>	<b>14</b>	<b>42</b>

Responses per category % of participants	Academic	Consumer/ Member of public	Gov	Health System
Strongly Likely	42.9	17.9	14.3	21.4
Likely	57.1	42.9	50	38.1
Neither likely nor unlikely		32.1	28.6	33.3
Unlikely		7.1	7.1	4.8
Strongly Unlikely				2.4
<b>TOTAL</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

## Post Survey Poll

Category	N	%	Rounded
Academic	6	7.692307692	7.7
Consumer/ Member of the public	25	32.05128205	32.1
Gov	12	15.38461538	15.4
Health System	35	44.87179487	44.9
<b>TOTAL</b>	<b>78</b>	<b>100</b>	<b>100.1</b>

Responses	N	%	Rounded
Strongly Likely	19	24.35897436	24.4
Likely	47	60.25641026	60.3
Neither likely nor unlikely	10	12.82051282	12.8
Unlikely	1	1.282051282	1.3
Strongly Unlikely	1	1.282051282	1.3
<b>TOTAL</b>	<b>78</b>	<b>100</b>	<b>100.1</b>

## Responses per category Number of participants (N)

	Academic Number	Consumer/ Member of public Number	Gov Number	Health System Number
Strongly Likely	3	6	1	10
Likely	3	14	7	23
Neither likely nor unlikely		4	4	2
Unlikely		1		
Strongly Unlikely				
<b>TOTAL</b>	<b>6</b>	<b>25</b>	<b>12</b>	<b>35</b>

Responses per category percentage of participants (%)	Academic	Consumer/ Member of public	Gov	Health System
Strongly Likely	50	24	8.3	28.6
Likely	50	56	58.3	65.7
Neither likely nor unlikely		16	33.3	5.7
Unlikely		4		
Strongly Unlikely				
<b>TOTAL</b>	<b>100</b>	<b>100</b>	<b>99.9</b>	<b>100</b>

## Appendix 2 - Q & A – Responses to additional questions received

**1) Do you see RATs as an alternative to keeping children off school if they have any respiratory symptoms etc? In VIC parents have been complaining about having to keep keeping children home. In UK I think they have been doing this - useful for children and adults with allergic rhinitis etc.**

I think RAT can be helpful in keeping children at school. Modelling we did as part of the nation road map suggested it can be helpful. Doing a regular test (twice weekly) helped detect outbreaks early which helps stop larger outbreaks occurring and doing daily testing on children with close exposure to a case helped them stay at school.

Critical to help with schools and outbreaks occurring in schools and then transmitting to families and communities is for children to be vaccinated.

**2) Will these RATs pick up other respiratory infections - not just COVID?**

RATs are specific for SARS-CoV-2 (the virus that causes COVID-19) which means that they are accurate in detecting only COVID-19 and not for other respiratory infections.

**3) Did you say the participants choose their result and upload that to the app (Roche) and if so, what stops someone entering whatever they choose. Sorry if I miss understood what you were saying**

Answer: Yes, you're correct. Participants select whether the result was positive, negative, or indeterminate so there is nothing to stop someone entering whatever they choose. In our study there was also saliva swab PCR testing which would pick up incorrect results/mistakes.

**4) I like the idea of consumers taking own agency and liked the comments made. Curious to know what makes participants "unsure" and how will that be addressed? I would have like to have a better understanding about how those variables are measured?**

The uncertainty of some participants highlights a need for clear and concise information that can be made easily available to the community so that individuals can make their own decisions based on accurate and unbiased information. We used a 5-point scale – very confident/somewhat confident/unsure/unconfident/not at all confident. None of the responses were unconfident/not at all confident. There was also a free text response that participants could use to add comments regarding their response on the scale, if they wished. Most concerns were about not knowing the rate of false positives/negatives and lack of knowledge about test sensitivity and specificity.

**5) How effective is the RAT if performed in saliva towards back of my throat but not fully all the way? if I manage to get to back of throat without vomiting, is this as effective as doing it up my nose for 15 seconds in each nostril? (Consumer has conditions preventing accessibility for swabbing)**

There are a variety of RAT approved for use in Australia including ones for self-testing that involve spitting in a tube or sucking on a swab avoiding the need to swab the back of your throat.

**6) Is there a possibility that the government will do subsidized/free tests like in other countries?**

- can staff claim costs of RATs on tax? for disability workers

- **RATs are a fantastic tool; however I'm concerned the price point may exclude our most vulnerable population. Do you think workplaces should supply these at their own cost?**
- **Some aged care facilities are testing on entry of families and friend but also charging them. Is this acceptable?**

In Victoria, if you are required to get a standard (PCR) test because you are a workplace or education contact, you can also get five free RAT self-test kits from a state testing centre to monitor for COVID-19 at home.

**7) Could I please ask on reliability post exposure. For example, if undertaking a RAT is it more likely to be positive > 48 hours post exposure for example. I understand individual variations but in general. This is in regard to screening in healthcare setting and not about Tier 1 exposure testing (PCR required).**

Positive RAT results correlate best with PCR in symptomatic people with high viral loads, PCR testing is more sensitive and is more likely to detect COVID both pre and post infection compared with RATs. Current Victorian Department of Health surveillance testing requirements for hospitals/health services are weekly: either 1 x PCR (throat-nose or saliva) OR at least 3 RATs with <72-hour interval between tests.

## Appendix 3 - RAT forum registrant analytics

Position	Numbers	%
Consumer Representative	30	10.4
Medical Professional	84	29.1
Member of Public	48	16.6
Community group, Charity, non-government	24	8.3
Local Government	8	2.8
State Government	12	4.2
Federal Government	15	5.2
Health System in non-medical position	42	14.5
Researchers	15	5.2
OTHER:	11	3.8
Consumer Advisor		
Disability Sector Consultant		
Industry		
Complex care disability worker		
Work in a charity		
Health & Human services		
NDIS service provider		
Allied Health Professional		
TOTAL	289	100