

**Hort
Innovation**
Strategic levy investment

**MUSHROOM
FUND**

Year 2 - Audience Sentiment Benchmark: Research Report - January 2021



Background:

Project Code: MU17002

Project Name: Educating health professionals about Australian mushrooms

Project Leader: Dr Flavia Fayet-Moore

Delivery Partner: Nutrition Research Australia Pty Ltd. (NRAUS)

Report Author: NRAUS, History Will be Kind (HWBK)

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- Objectives and Audience
- Approach
- Survey Results
- Learnings & Opportunities
- Key Performance Indicator Results
- Updating Key Performance Indicators
- Next Steps

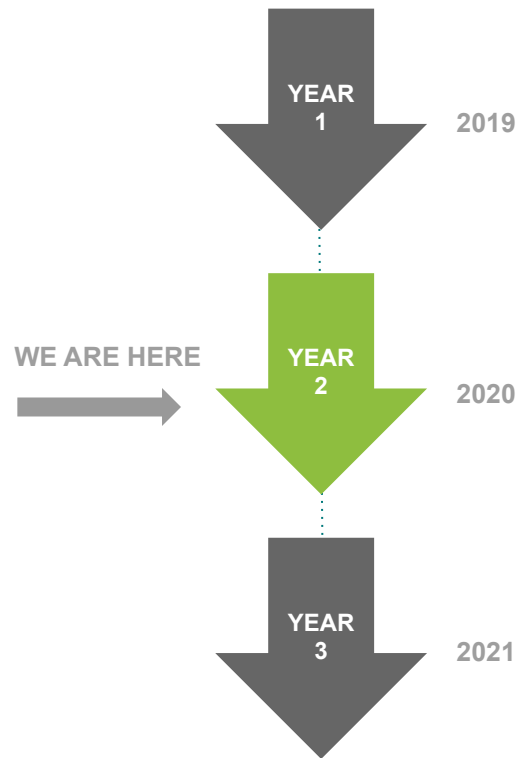
Objectives and audience



Overview:

This report describes the findings from the 2020 Audience Sentiment Research. It is the second of three Audience Sentiment Surveys to be conducted throughout the project. The purpose of this survey is to:

1. Help measure the success of the program and developments year-on-year, through comparison to baseline data (2019).
2. Continue to gather insights that will help to tailor the communications program over the remainder of the project, in order to more strategically improve awareness and understanding of the nutritional and health benefits of mushrooms among healthcare professionals (HCPs).



Objectives:

The aim of the survey is to measure awareness and attitudes across five areas:



Knowledge of the nutritional properties and health benefits of mushrooms.



Value placed on mushrooms for their properties.



Perception of mushrooms for health.



Behaviour around recommending mushrooms.

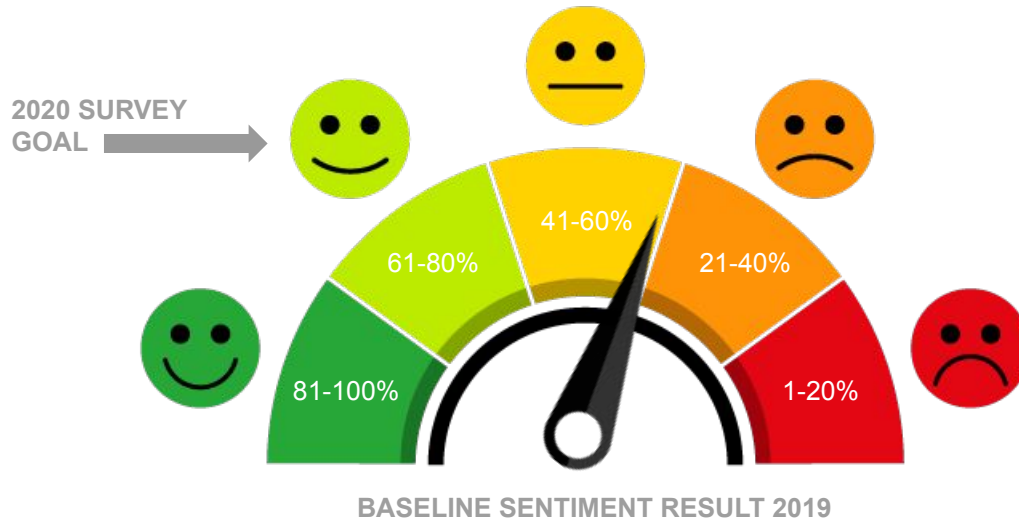


Frequency of recommendation or behaviour.

Objectives:

For 2020, our goal was to measure understanding of the campaign messages to date, and any shift in sentiment. Sentiment shift is measured by tracking the overall sentiment results for each of the 5 core areas (**knowledge, perception, value, behaviour, frequency**). More detail on the specific questions used is provided in Slide 39.

While the pandemic in 2020 meant that some key activity was changed or postponed until 2021, we were still able to fulfil the majority of milestones during this period. **Below shows the overall sentiment in 2019 was 41.0%. The goal for 2020 was to be $\geq 60\%$:**



Audiences:

Core 2020 campaign audiences:

1. Dietitians
2. General Practitioners (GPs)
3. Nutritionists
4. Naturopaths
5. Other healthcare professionals (HCPs) (eg: physiotherapist, nurse)



Approach



Approach:

STEP 1:

Continuously communicated to the database over the course of the program, using EDMs (Electronic Direct Mail/Newsletters) & paid social media. This highly targeted group was used as the basis for the response.

STEP 2:

Questions and learnings from 2019's survey were reviewed and, where needed, questions adapted to suit 2020. Some additional questions were added or current ones rephrased.

STEP 3:

Distributed our sentiment analysis questions to the NRAUS and Australian Mushrooms databases as a first stop.

STEP 4:

Developed a paid social campaign targeting HCP audiences to reach new professionals across Facebook and LinkedIn.

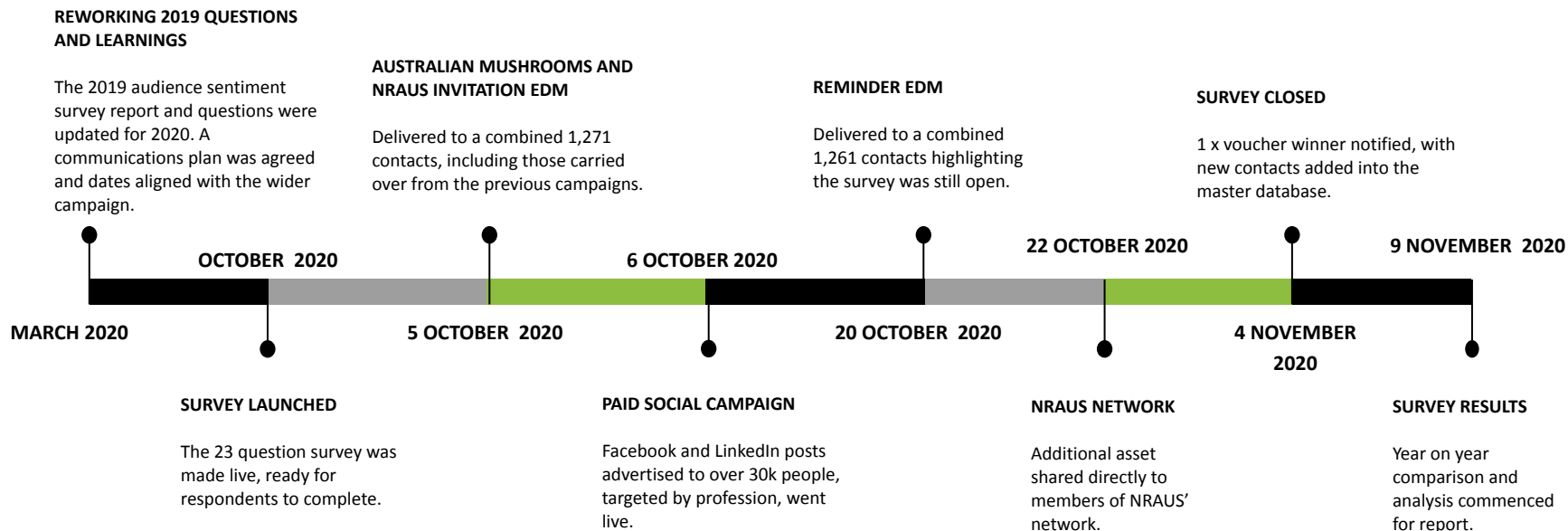
STEP 5:

Distributed a second follow up email to the database, to remind those who had not yet completed the survey.

STEP 6:

Once the survey had closed, results were reviewed, analysed and compared to 2019 for tracking. Suggestions for 2021's survey and communications have been given within this report.

Timeline:



Distribution channels:



Australian
Mushrooms
database:
1,033 contacts



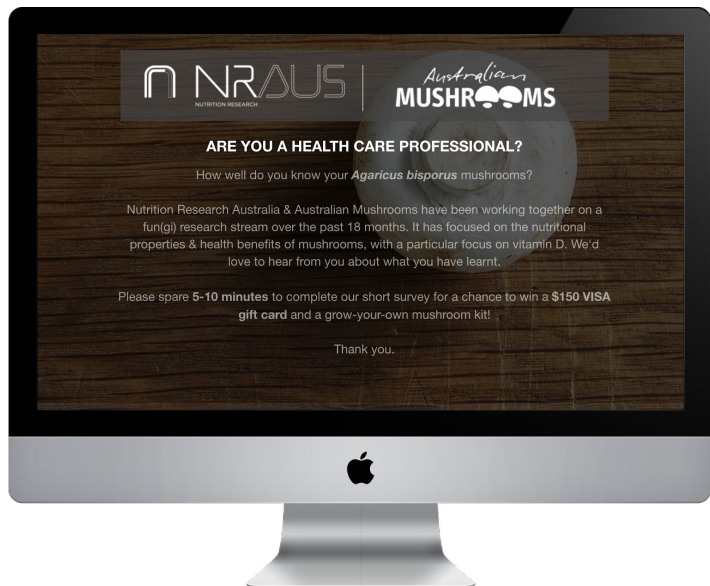
NRAUS Database:
238 contacts



Social Campaign:
31,767 reach

TOTAL COMBINED REACH OF: 33,038 PEOPLE

Assets:



The survey used a state-of-the-art platform with a bespoke interface designed to maximise engagement and personalisation for owned branding.



ARE YOU A
HEALTHCARE PROFESSIONAL?
YOU'RE INVITED TO COMPLETE THE MUSHROOM SURVEY!

As a valued member of the Australian Mushrooms' healthcare professional network, you're invited to participate in our mushroom survey for healthcare professionals.

This survey is anonymous and takes 5-10 minutes to complete, and your responses will help us to understand what you think about our favourite fungi.

START SURVEY



WIN
\$150 VISA GIFT CARD
& HOME MUSHROOM KIT

As a thank you for participating, you'll go into the draw to win a Visa gift card as well as a mushroom kit to grow your own at home!

Thank you so much! for all of your help!

Nutrition Research Australia & Australian Mushrooms

DR FLAV'S FUN FACTS

Double agent

Mushrooms are one of the few non-grain foods that also contain polyphenols.

Keep your cool

Cooking mushrooms at a lower heat helps to protect their antioxidant content.

A fun-gi therapy

Mushroom extract has shown promise in helping to manage prostate cancer in preliminary experimental trials.

1. Tawfik et al. Cancer 2015;121(17):2942-50.

CONTACT US

MEDIA ENQUIRIES

WEBSITE

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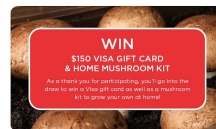
This project has been funded by Hort Innovation using the Mushroom research and development levy and contributions from the Australian Government. For more information on Hort Innovation and its levy, visit hortinnovation.com.au



ARE YOU A HEALTHCARE PROFESSIONAL?
DON'T MISS YOUR LAST CHANCE TO
COMPLETE THE MUSHROOM SURVEY!

START SURVEY

Have you completed the mushroom survey for healthcare professionals yet? If not, only 3 days remain to do so - that is not much room left! This survey is anonymous and takes 5-10 minutes to complete, and your responses will help us to understand what you think about our favourite fungi.



WIN
\$150 VISA GIFT CARD
& HOME MUSHROOM KIT

As a thank you for participating, you'll go into the draw to win a Visa gift card as well as a mushroom kit to grow your own at home!

Thank you so much! for all of your help!

Nutrition Research Australia & Australian Mushrooms

DR FLAV'S FUN FACTS

Go for 1, 3 or 5

One serving (1 cup) of mushrooms is considered to be just 1 carbohydrate. A cup of sliced mushrooms is 12g.

Know your ABCs

Windows block UV-B light, so be sure to wear your window if you are looking at mushrooms on the internet all day!

A 5-star food

Mushrooms contain 5 different carbohydrates that may assist in healthy metabolism, cardiovascular and immune system!

1. Davis et al. Trends in Food Science and Technology 2019;20:1-10

CONTACT US

MEDIA ENQUIRIES

WEBSITE

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This project has been funded by Hort Innovation using the Mushroom research and development levy and contributions from the Australian Government. For more information on Hort Innovation and its levy, visit hortinnovation.com.au

A series of informative and engaging EDMs were designed to be consistent with project branding.

Sponsored

How much do you know about mushrooms? Complete our short survey for a chance to win a \$150 VISA gift card and a grow-your-own mushroom kit!



HOW WELL DO
YOU KNOW
MUSHROOMS?

NRAUS.TYPERFORM.COM

Are you a Healthcare Professional?
Complete the mushroom survey to win!

Learn More



ARE YOU A
HEALTHCARE PROFESSIONAL?

COMPLETE OUR SURVEY

WIN
\$150 VISA GIFT CARD
& HOME MUSHROOM KIT

Additional social ads and campaign visuals were created for online audiences.

EDM performance to existing databases

OBJECTIVE: To distribute the EDMs to the master HCP database created over the course of the campaign.

EDM	Database Size	Unique Opens	Open Rate	Clicked a Link	Unsubscribe Rate	Not Opened	Clicked the survey link
Survey invitation EDM	1,271	423	33.0%	22%	0.4% (6 people)	835	138
Survey reminder EDM	1,261	390	30.5%	12%	0.1% (2 people)	858	71
TOTAL / AVERAGE	2,532 EDMs delivered	813 unique opens	31.8% open rate	17.0% clicked a link	0.2% opting out	1,693 unopened EDMs	209

31.8%

average open rate
(industry avg. 20-25%)

76

surveys
completed via
EDM link


Paid social media

OBJECTIVE: To use targeted social ads to generate additional survey respondents, based on last year's learnings, whilst also growing the master HCP database.

Platform	Clicks to Site	Reach	Cost Per Click	Spend	Click Through Rate	Video Percentage Watched
Facebook	924	24,585	\$0.54	\$500	4.05%	30%
LinkedIn	200	7,182	\$5.00	\$1,000	2.78%	38.6%
TOTAL / AVERAGE	1,124	31,767	\$2.77	\$1,500	3.41%	34.3%


RESULTS:

- Campaign ran for 15 days, drove 1,124 new visitors to the survey, and converted an additional **119 survey responses**.
- Click Through Rate was very high at an average of 3.41%, well above the industry average of 1%.
- **Over 100 additional HCP contacts** from the social strategy were added to the master database.
- In 2019, the Facebook only social campaign spent \$500 and drove 329 website visits, so all metrics have improved for 2020 when compared for investment.



Nutrition Research Australia
276 followers
Promoted


How much do you know about mushrooms? Complete our short survey for a chance to win a \$150 VISA gift card and a grow-your-own mushroom kit!



Are you a Healthcare Professional? Complete the survey to win! [Learn more](#)

3

Reactions



Like Comment

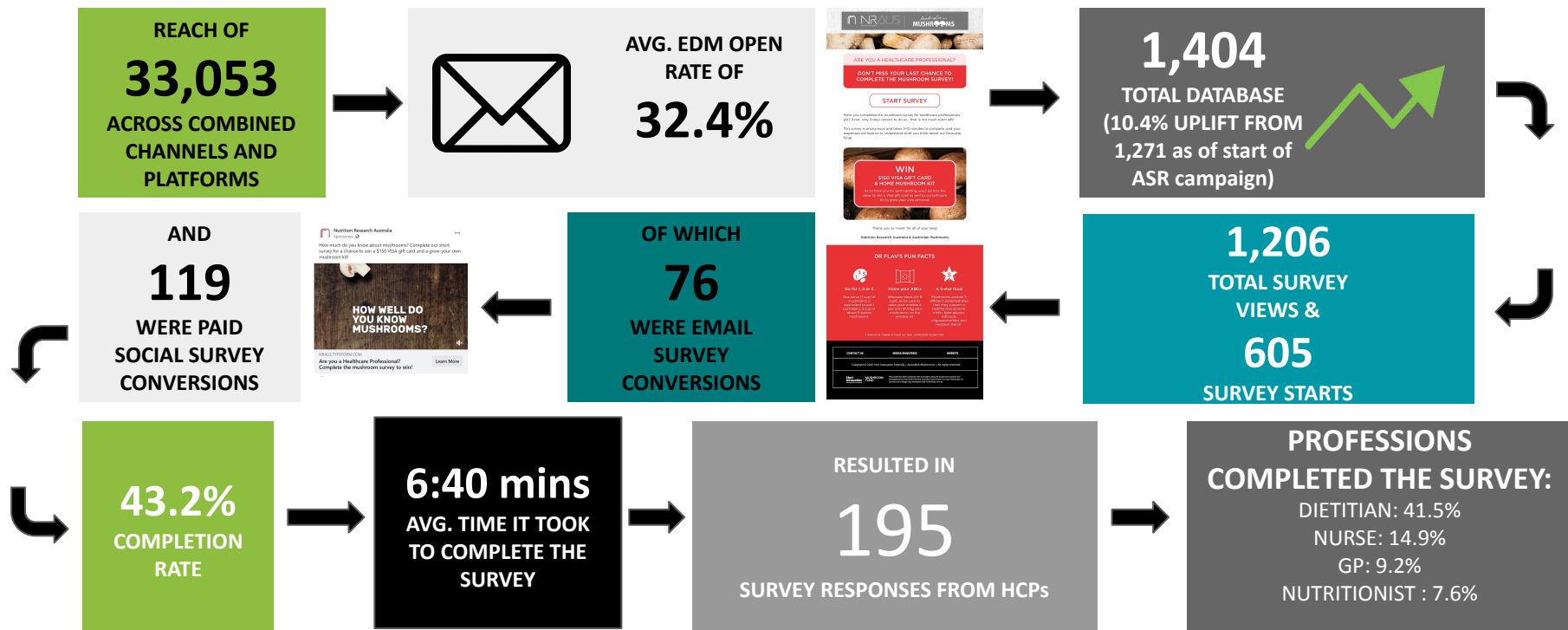
119

surveys completed from paid activity

Survey Results



The approach in a snapshot:



Survey Stats:

605

Survey starts of
1,206 total
visits to the
survey from all
sources (email
activity + paid)

42.6%

Completion
rate of those
that started the
survey
(n = 258)

75.5%

Health or food
professionals.
It is only these
who are
represented in
the results
(n = 195)

61%

Of our target
audience took
part from paid
media activities
(n = 119)

While there were **258 TOTAL SURVEY COMPLETIONS**, this included ineligible responses from non-HCPs who were removed from the survey results in this report.
Leaving **195 eligible HCPs** who completed the survey.

Survey structure:

The results have been set out in accordance with the overall survey structure:

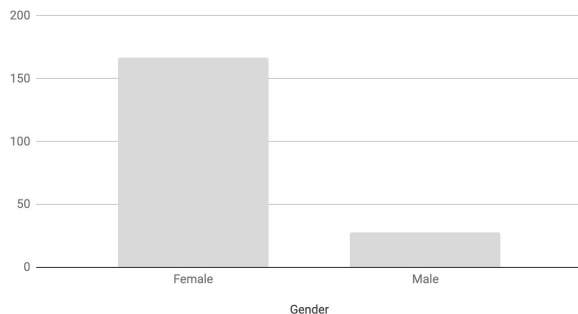
- **Part 1** - Audience segmentation
- **Part 2** - Knowledge of the health and nutritional properties of mushrooms
- **Part 3** - Value of mushrooms to HCPs
- **Part 4** - Knowledge of vitamin D properties (New for 2020)
- **Part 5** - Existing resources
- **Part 6** - Personal consumption habits and rationale
- **Part 7** - Mushroom recommendation to clients and rationale
- **Part 8** - Australian Mushrooms Website and additional comments

Part 1: Audience Segmentation

GENDER

85.6% of respondents were female

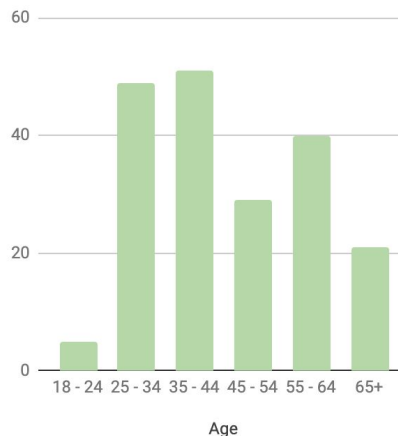
Gender Breakdown



AGE

The age sample size were mostly evenly split

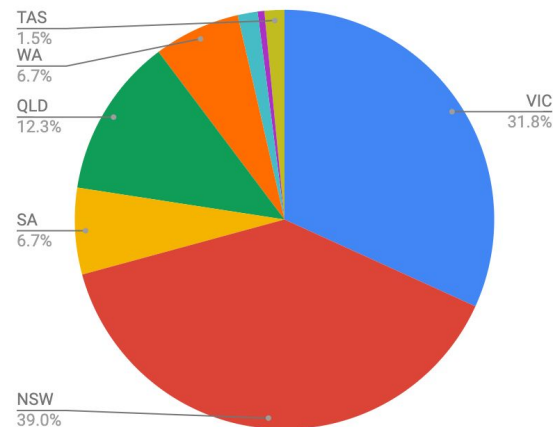
Age Breakdown



LOCATION

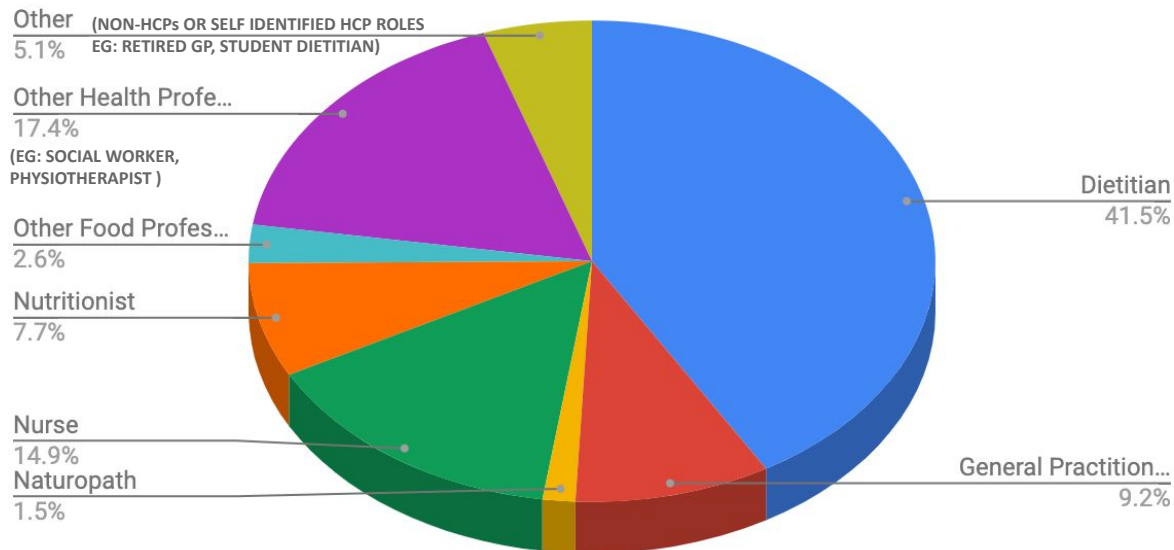
NSW and VIC were the most represented states

Location Breakdown



195/195 ANSWERED
MANDATORY

Part 1: Audience Segmentation



49.2%

OF RESPONDENTS WERE
DIETITIANS OR NUTRITIONISTS

5.1%

'OTHER' INCLUDED A RETIRED GP,
A RESEARCHER AND AN
ACADEMIC IN NUTRITIONAL
BIOCHEMISTRY

195/195 ANSWERED
MANDATORY

Part 2: Knowledge of the health and nutritional properties of mushrooms

Q1. How familiar are you with the health benefits of mushrooms (e.g. satiety, gut, heart health)?

Response	2020	Dif. to 2019
Familiar with some health benefits but cannot specify them	48.2%	-14.8
Familiar and can specify their health benefits	27.7%	+7.7
Not familiar at all	11.8%	+3.8
Very familiar as I have attended events / webinars / read resources	8.2%	+4.2
Academic knowledge and actively seek more information	4.1%	+3.1

195/195 ANSWERED
MANDATORY

Q2. How familiar are you with the key nutritional properties of mushrooms (e.g. nutrient content, bioactive components)?

Response	2020	Dif. to 2019
Familiar with some nutritional benefits but cannot specify them	51.3%	-8.7
Familiar and can specify their nutritional benefits	24.1%	+7.1
Not familiar at all	12.8%	-3.2
Academic knowledge and actively seek more information	6.2%	+4.2
Very familiar as I have attended events / webinars / read resources	5.6%	+1.6

195/195 ANSWERED
MANDATORY

FINDINGS:

- Overall familiarity of both the health and nutritional properties increased, in some cases increase could be attributed to events/webinars that have been attended (e.g. 'When it comes to Vitamin D, two sources are best' webinar).
- An increase (3.8%) in the number of respondents not familiar with health benefits points to an area to focus, however a decrease (3.2%) in unfamiliarity on nutritional properties is promising.
- Comparing year on year, we saw an increase in respondents who **both familiar and able to specify health benefits (27.7% in 2020 vs. 20.0% in 2019) and nutritional benefits (24.1% in 2020 vs. 17.0% in 2019).**

Part 2: Knowledge of the health and nutritional properties of mushrooms

Q3. In your opinion, what are the key nutritional properties of mushrooms (e.g. nutrient content, bioactive components)?

FINDINGS:

- **91.2%** of the respondents were **able to specify at least one nutritional property**, an increase **from 72% in 2019**.
- **9.7% could not select** a nutritional property.
- **Dietary fibre, vitamin D, cholesterol free** and **antioxidants** were the **most common** nutritional properties selected, respectively.
- **Vitamin D** saw the biggest increase in awareness, more than three times any others, showcasing the impact of the campaign focus.
- Four new options added for 2020, all which had 18.4% awareness or more.

Response	2020	Difference
Dietary fibre	74.3%	+2.0
Vitamin D	66.1%	+15.7
Cholesterol free	58.9%	-1.8
Antioxidants	58.4%	NEW
Potassium	32.8%	-2.5
Prebiotics	32.8%	+0.2
Folate	26.6%	-2.0
Selenium	25.6%	-4.6
Beta-glucans	22.5%	NEW
Chitin	18.4%	NEW
Ergosterol	18.4%	NEW
Ergothioneine	16.4%	+1.7
Don't Know	9.7%	+0.3
Vitamin E	7.6%	-2.7
Omega-3	7.1%	-0.5
Other	0%	-2.7

Part 2: Knowledge of the health and nutritional properties of mushrooms

Response	2020
Increases and maintains vitamin D levels	65.1%
Improves gut health	62.5%
Increases fullness and reduces hunger	46.1%
Improves cardiometabolic markers (e.g. cholesterol, glucose, triglycerides)	44.6%
Strengthens the immune system	36.9%
Lowers the risk of some cancers	33.8%
Reduces inflammation	30.2%
Improves brain health and cognition	26.6%
Maintains strong bones	22.0%
Supports the nervous system	17.4%
Anti-aging	17.4%
Enhances physical performance (e.g. energy, muscle mass)	11.7%
Don't know	10.2%
Other	0.5%

Q4. In your opinion, what are the key health benefits of mushrooms? (New question).

FINDINGS:

- This was a new question for 2020 so no comparisons are available.
- 10.2% **could not select** a health benefit.
- **Vitamin D levels**, as with the previous question, came out high, with about two-thirds being aware of its impact.
- Other health benefits that were well known included **gut health, satiety, and improvement of cardiometabolic markers**.
- Only one respondent submitted an 'other' response, and highlighted the low calorie properties of mushrooms.

Part 3: Value of mushrooms to HCPs

Q5. How important do you think mushrooms are in supporting overall health?

Response	2020	Dif. to 2019
Very important	43.1%	+9.2
Somewhat important	49.7%	-7.4
Not important	3.1%	-1.4
Don't know	4.1%	-0.4

195/195 ANSWERED
MANDATORY

Q6. State your opinion: "Mushrooms have unique health benefits and nutritional properties" (New question).

Response	2020
Strongly Agree	41.5%
Agree	42.6%
Neutral	15.9%
Disagree	0%
Strongly Disagree	0%

195/195 ANSWERED
MANDATORY

FINDINGS:

- A total of **92.8%** of respondents regarded mushrooms as 'Important' or 'Very Important' for health.
- Mushrooms being seen as '**Very Important**' increased from 2019 (33.9%) to 2020 (43.1%) for Q5, showing that **importance has increased**.
- **More than 84%** of respondents agreed that mushrooms have unique health benefits and nutritional properties. Not a single respondent disagreed with this statement.

Part 3: Value of mushrooms to HCPs

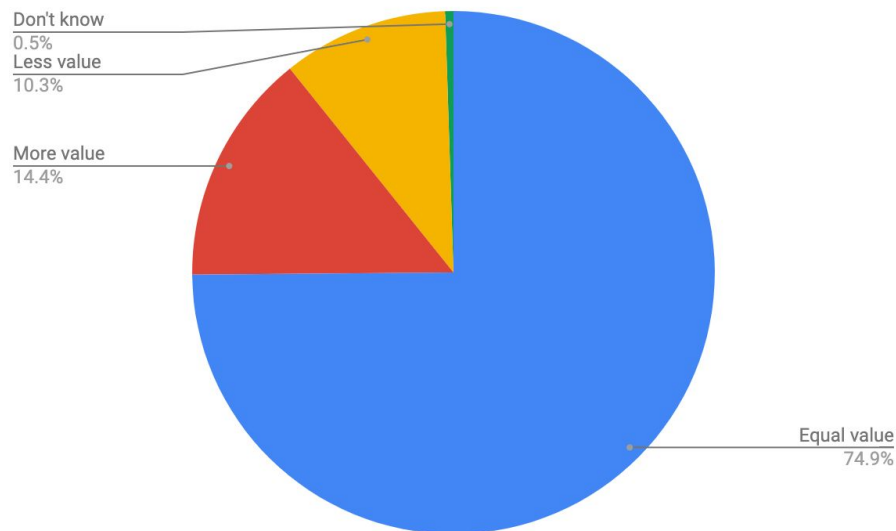
Q7. How much value do you place on mushrooms compared to vegetables?

FINDINGS:

- The results for **2020** were **very similar when compared to 2019**, with a slight drop in those who place more, equal and unknown value on mushrooms over vegetables.
- **89.3% of respondents**, over four fifths of those surveyed, still felt that mushrooms were either more or of equal value to vegetables.

195/195 ANSWERED
MANDATORY

Response	2020	Dif. to 2019
More Value	14.4%	-0.3
Equal Value	74.9%	-1.0
Less Value	10.3%	+3.6
Don't know	0.5%	-2.2



Part 4: Knowledge of vitamin D properties

Q8. What are the modifiable risk factors that increase a person's risk of vitamin D deficiency? (New question).

Response	2020
Limited sun exposure	96.4%
Clothing that covers entire body	86.1%
Low dietary vitamin D	80.5%
Where you live	65.1%
Wearing sunscreen	55.3%
Alcoholism	43.5%
Lack of physical activity	41.0%
Smoking	35.3%
Overweight or obesity	33.8%
High caffeine consumption	29.2%
Strict vegetarian diet	23.0%

FINDINGS:

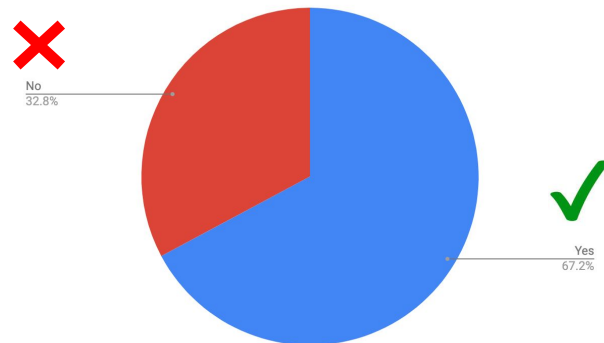
- This was a new question for 2020 so there is no comparative data to 2019.
- The top scoring known risk factors were **limited sun exposure, clothing that covers entire body, and low dietary vitamin D**, all scoring 80% or more.

Part 4: Knowledge of vitamin D properties

Q9. Which of the following has the highest vitamin D content per serve? (New question).

Response	2020
2 eggs	13.8%
100g oily fish	25.0%
40g fortified breakfast cereal	11.2%
1 tablespoon margarine	3.0%
100g mushrooms	25.0%
100g UV-exposed mushrooms	62.5%
Other	0.5%

Q10. Can placing mushrooms in the sun increase their vitamin D content to 100% of your daily vitamin D needs? (New question).



FINDINGS:

- Both were new questions for 2020 and therefore no comparative data to 2019.
- **62.5% said that UV-exposed mushrooms were the highest source of vitamin D**, which could show that the focus of the past activity is resonating.
- More than **two thirds of respondents** (67.2%) knew that placing mushrooms in the sun can increase their vitamin D content to 100% of daily needs.

Part 5: Existing resources

Q11. Which statement best describes your opinion on the availability of resources to healthcare professionals on the health benefits and nutritional properties of mushrooms?

Response	2020	Dif. to 2019
I don't know of any resources	58.5%	-4.9
I have resources and they are useful	28.2%	+6.3
I have seen resources but they didn't interest me	9.7%	-2.8
I have resources and they are not very useful to me	3.6%	+1.4

195/195 ANSWERED
MANDATORY

- FINDINGS:**
 - Across the board there has been a **slight increase in awareness of resources.**
 - **58.5%** of respondents still claim to not know of any resources, compared to 63.4% in 2019.
 - The usefulness of resources has seen a small positive increase (6.3%).
 - Increasing awareness and access to mushroom resources remains a priority and opportunity.

Part 6: Personal consumption habits and rationale

Q12. How often do you personally consume mushrooms?

Response	2020	Dif. to 2019
Daily	3.6%	+0.9
A few times a week	34.4%	-3.5
Once per week	32.3%	-7.9
Once a month	21%	+7.2
Once every few months	5.6%	+2.0
Never	3.1%	+1.3

195/195 ANSWERED
MANDATORY

Q12a. Why don't you regularly consume mushrooms?

While six respondents picked 'Never' in Question 12, we received no responses for this question and therefore a comparison to 2019 is invalid.

0/195 ANSWERED
NON-MANDATORY

FINDINGS:

- Almost all (96.9%) HCPs eat mushrooms, with the majority (70.3%) doing so **at least once a week**. This is a slight decrease (-10.5) from 2019 where 80.8% of HCPs reported eating mushrooms at least once per week.
- Consumption frequency is generally down since 2019.
- There is a small increase in the number consuming mushrooms **daily (+0.9%)**.

Part 6: Mushroom recommendation to clients and rationale

Q13. How often do you specifically recommend mushrooms to your clients?

Response	2020	Dif. to 2019
Often/Always	21%	+7.7
Sometimes	25.6%	+7.3
Rarely	15.9%	+7.0
Never, as I don't see clients	22.6%	-11.3
Never, but I do see clients	7.7%	-10.6

195/195 ANSWERED
MANDATORY

Q13a. Help us to understand why you do not recommend mushrooms to your clients.

Response (n=14 respondents)	2020	Dif. to 2019
I do not think about mushrooms specifically	28.5%	-21.5
I'm not familiar with their health benefits	42.8%	-1.6
I do not have time to discuss mushrooms specifically	21.4%	-11.9
I'm not familiar with their nutritional properties	21.4%	-11.9
My clients do not have cooking skills	7.1%	+1.5
I do not believe mushrooms are important to recommend	7.1%	NEW
My clients do not like mushrooms	7.1%	+4.3
Other	42.8%	+37.2

14/195 ANSWERED
NON-MANDATORY

FINDINGS:

- Overall there has been **an increase in the number of recommendations** taking place, with only 7.7% of those who see clients not recommending in 2020, a positive decrease on 2019 (18.3%).
- There was low responses to Q13a with only 14 responses, as this question was only mandatory for those who answered 'never, but I do see clients' to Q13. The majority who did not recommend mushrooms said that this is because they aren't familiar with the health benefits.

Part 6: Mushroom recommendations to clients

Q13b. Help us to understand why you recommend mushrooms to your clients.

Response	2020	Dif. to 2019
For their nutritional properties (e.g. low in kJ)	75.0%	+9.9
Vegetarian meal option	66.9%	+8.8
For their health benefits (e.g. heart health, gut health)	61.7%	+12.9
They are easy to cook	58.0%	+4.5
They add extra flavour to meals	57.3%	-10.1
To help increase vitamin D intake	49.2%	NEW
They make meals healthier	47.7%	-1.1
To add texture to meals	44.8%	NEW
To increase satiety	37.5%	NEW
Mushrooms are unique	19.8%	-8.1
Majority of my clients or patients like mushrooms	11.0%	+1.7
Other	0%	-4.7

FINDINGS:

- The biggest change for 2020 was an **increase in recommending mushrooms** for their health benefits (+12.9) and nutritional properties (+9.9).
- **In 2019** the most popular reason for recommending mushrooms was that **they add extra flavour to meals**, however in **2020 four reasons overtook** it to become the most popular:
 - Nutritional properties (75%)
 - Vegetarian meal option (66.9%)
 - For their health benefits (61.7%)
 - They are easy to cook (58%)
- There were no responses to 'other' in 2020, while in 2019 4.7% (2 people) responded to 'other' with a manual input (eg: "Depends on the circumstances").
- The results for this question for 2020 include some additional answer options compared to 2019 to allow for more detailed responses.

Part 8: Australian Mushrooms Website & Additional Comments

Q14. Have you visited the Australian Mushrooms website:
www.australianmushrooms.com.au for health or nutritional
information?

Response	2020	Dif. to 2019
Yes	27.6%	+1.6
No	72.4%	-1.6

195/195 ANSWERED
MANDATORY

FINDINGS:

- **Knowledge of the Australian Mushrooms website is still low** (72.4% have never visited the website).
- Whilst a slight increase from 2019 was seen, more can be done to drive the network to the website.

Part 8: Australian Mushrooms Website & Additional Comments

Q15. Please provide any additional thoughts you have on the information that we are providing on mushrooms
(New question for 2020, open ended response) - Refer to appendix for all responses.

105/195 ANSWERED
NON-MANDATORY

Mushrooms are a powerhouse of nutritional benefits. They cannot be underestimated

Additional education material would be useful

We need an infographic

I personally can't stand mushrooms but I recommend and should learn more about them

There is very little clear health benefits campaign out there about mushrooms

I have never found UV mushrooms to buy

My clients and social media followers get very surprised when learn that sunbathing mushrooms increases their nutritional value!

I think a lot of health professionals just try and increase vegetable intake in general, but something as tangible as helping rectify the vitamin D issues can separate mushrooms as an individual recommendation

Quality, engaging communications, thank you

If Urea or other toxic poisons are used in the production process, the health benefits are negated

Love how you present your information. You're helping to make mushrooms more attractive to people

Is there mushroom juice?

Would love to learn more and have more consumer resources to provide to clients

Findings summarised & recommendations

SLIDE	SUMMARY FINDINGS	RECOMMENDATIONS
EDM and Paid social media Slide 14/15	<ul style="list-style-type: none"> • Taking the learnings from 2019, paid social was upweighted. • No partner activity was implemented due to learnings from 2019 and budget restrictions which yielded little results for a high expense. • Majority of survey responses came from social media. • Facebook was more cost effective than LinkedIn, but LinkedIn has tighter targeting capabilities. • Social also allowed us to extend our EDM database through competition mechanic submission. 	<ul style="list-style-type: none"> • Increase social media further. • Keep the prize as something more generic to appeal to a wider HCP audience, the 'grow your own mushrooms' kit is more niche to the project than a solely cash prize.
Part 1 Demographics and location Slide 20/21	<ul style="list-style-type: none"> • As with 2019, low proportion of males to females. • High proportion of respondents from NSW and VIC. • 63 submissions dismissed who selected 'Not a healthcare professional'. • Lower number of GPs vs. 2019. 	<ul style="list-style-type: none"> • Have the 'not a healthcare professional' as a qualifying question before progressing to the rest of the survey, so that these are automatically excluded in Q4 and all results can be included without manual deletion. • Upweight GP social paid targeting further or investigate another cost effective way such as website banners, social groups or other newsletters.
Part 2: Health benefits and nutritional properties Slide 23	<ul style="list-style-type: none"> • Both of these saw double digit percentage increases in familiarity. • Health benefits and nutritional properties both saw an increase in confidence on knowledge of these benefits. • There was a slight increase in those who weren't familiar with the health benefits, showing still room to improve. 	<ul style="list-style-type: none"> • Continue to build on the educational program and resource distribution.

Findings summarised & recommendations

SLIDE	FINDINGS	RECOMMENDATIONS
Part 2: Health benefits and nutritional properties Slide 24	<ul style="list-style-type: none"> Majority of the 195 respondents could name one nutritional property (91.2%). Vitamin D responses increased the most significantly, with +15.7 increase to 66.1%. All nutritional properties highlighted consistently in the resources (ABCDE messaging) saw an increase from 2019. 	<ul style="list-style-type: none"> The reinforced repetition of the vitamin D message throughout 2019/2020 is paying off, suggest continuing to expand on this in refreshed ways in 2021 to tailor to both new and current audience.
Part 2: Health benefits and nutritional properties Slide 25	<ul style="list-style-type: none"> Only around 8% of respondents couldn't select a health benefit. Increase in vitamin D levels came out as the top response, similar to the above question. Nearly all respondents picked more than one health benefit. 	<ul style="list-style-type: none"> Keep this question for 2021 to provide direct comparison. Similar to the above, vitamin D is dominating the sentiment, so maintain this with the consistent resource and education strategy currently employed.
Part 3: How valuable are mushrooms to HCPs? Slide 26/27	<ul style="list-style-type: none"> Respondents view of mushrooms value and importance is very high. An increase by over 9% to them being very important. New question for 2020 showed that 84% believe mushrooms have unique properties. 	<ul style="list-style-type: none"> Focusing on the specific benefits and properties is paying off and ensuring that the audience are seeing the value of mushrooms. Look at new ways of highlighting the unique benefits and importance of mushrooms to avoid repetition and provide new knowledge for owned audiences eg: EDM database.

Findings summarised & recommendations

SLIDE	FINDINGS	RECOMMENDATIONS
Part 4: Knowledge of vitamin D properties Slide 28/29	<ul style="list-style-type: none">• The top scoring known risk factors were the obvious choices like clothing that covers entire body and limited sun exposure, alongside the lesser known low dietary vitamin D all scoring 80% or more.• 67.2% knew that placing mushrooms in the sun increased vitamin D.	<ul style="list-style-type: none">• Reinforced repetition of placing mushrooms in the sun for vitamin D message were well known, and the focus within the campaign shows the resonance of this.• To avoid audience fatigue of repeated Vitamin D messaging, increase awareness of other key benefits in a similar approach alongside successful vitamin D messaging/hooks.
Part 5: What are the resources like? Slide 30	<ul style="list-style-type: none">• Resources are still not well known.• A slight increase in respondents having the resources.	<ul style="list-style-type: none">• Continue to streamline the resources available.• Keep pointing towards the newly created mushrooms hub, housing all historic and current assets, while also supporting with a consumer-facing resource that HCPs can share with their clients.
Part 6: Personal consumption habits and rationale Slide 31	<ul style="list-style-type: none">• Personal consumption of mushrooms was down slightly.• Daily consumption, however, was up by a small amount.• No one said why they didn't consume mushrooms.	<ul style="list-style-type: none">• Provide unique, easy and interesting ways to consume mushrooms.• Whilst it would be good to see this improve, it is more valuable for long-term impact to focus on the recommendations to others to help spread awareness and wider consumption of mushrooms (which saw an increase, next slide).

Findings summarised & recommendations

SLIDE	FINDINGS	RECOMMENDATIONS
Part 7: Mushroom recommendations to clients and rationale Slide 32/33	<ul style="list-style-type: none">• Overall there was an increase in mushroom recommendations to their clients.• Main reason for not recommending is the unfamiliarity with health benefits.• Being a strong vegetarian option was highlighted as one of the most popular reasons to recommend.	<ul style="list-style-type: none">• Provide ways to consume mushrooms that are easy to achieve.• The fun facts provide an opportunity to do this in an appealing way.• Focus further on the health benefits to increase the awareness.• Keep the questions the same for 2021 for consistency and ease of comparison.
Part 8: Online resources? Slide 34	<ul style="list-style-type: none">• Only marginal gains on visits to the Australian Mushrooms website.• Still 72.4% haven't visited.	<ul style="list-style-type: none">• Most of the time we are not driving to the Australian Mushrooms website in communications, as the content is for HCPs and the website is consumer facing only.• Consider removing this question in future as the activity doesn't drive to this site due to it being consumer facing and our assets not being able to sit there, or adding a consideration that HCPs send their clients to the Australian Mushrooms website for recipes and resources, noting that there will not be previous 2019/2020 data to compare.

Sentiment results against objectives



Knowledge of the nutritional properties and health benefits of mushrooms.



Knowledge and confidence in importance **increased** across the board
+12.9%
(59% in 2019)



Perception of mushrooms for health.



Place importance on mushrooms **increased** **+9.1%**
(33% in 2019)



Value placed on mushrooms for their properties.



Mushrooms still viewed as **more of or equal** value to vegetables
(57% in 2019)



Behaviour around recommending mushrooms.



Recommendations **increased** from 2019, with **10.6%** less who see clients but didn't recommend
(24% in 2019)



Frequency of recommendation or behaviour.

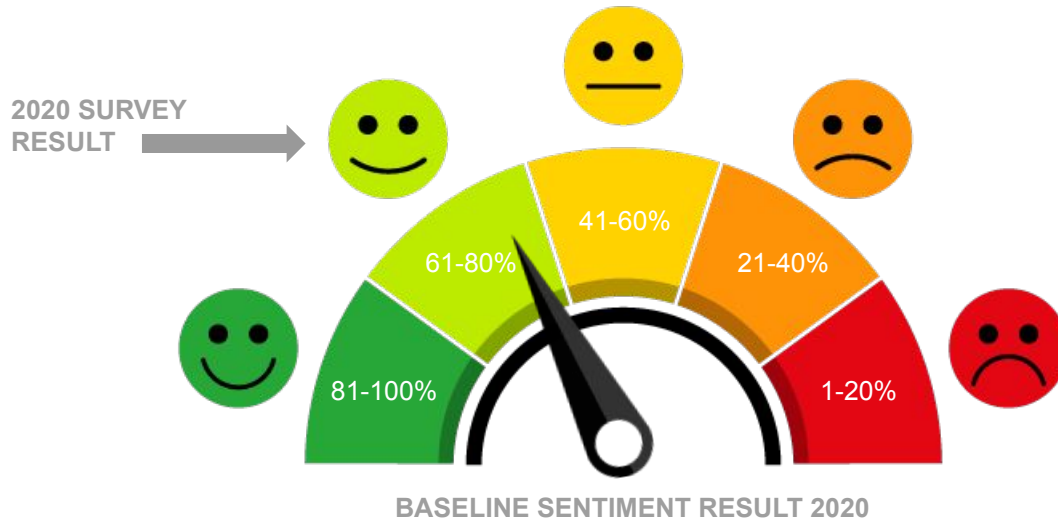


Always or often recommending mushrooms to their clients **decreased** to 27.1%
(39% in 2019)

Average sentiment KPI

Year on year (2019 to 2020) comparison on sentiment is very encouraging, with increases across the board in understanding, knowledge, recommendations and value of mushrooms.

The below scale indicates where current knowledge levels and attitudes are currently sitting (62.0%), with the aim to retain or improve this for 2021. **This has improved from 2019 which sat at 41.0% vs. the 2020 result of 62.0%:**



* Calculated as an average value of the percentages captured in slide 39.

Learnings & Opportunities



Strategy & Planning: What worked well

FORWARD PLANNING

With a long planning lead time from beginning of 2020 to now, we were able to map out timings to ensure all activity was considered ahead of time.

TEST & LEARN

Remaining nimble which allowed us to pivot based on initial results, such as adding a paid social element where needed to bolster the responses.

TAILORED EDMS

Templates created to make each campaign streamlined while also keeping it fresh and exciting, and ability to track performance over time.

STANDOUT DESIGN

Maintained a consistent look and feel in terms of tone of voice and design principles, which helps to create a sense of familiarity and trust towards our marketing material.

Strategy & Planning: Even better if we...

AFFORDABLE THIRD PARTY EDMS

Investigate other industry newsletters ahead of time for possible placements that are targeted to HCPs, particularly GPs.

SOCIAL RETARGETING

Using the audience results from all past social campaigns, retarget these previously engaged audiences with future spend for better uptake.

ALTERNATE MEDIA

Research other advertising placements that are cost effective to reach other professionals beyond social ads or newsletters, such as display ads or industry networking groups on social.

Research Questions: What worked well

SENTIMENT INCREASE

Across the board positive sentiment among HCPs towards mushrooms has risen.

PAID SOCIAL

This year paid social brought us the majority of our participants, whilst also adding over 100 emails to our database.

PARTICIPATION PRIZE

This was a cost effective way of incentivising the survey, while giving us a friendly reason to send the reminder email.

Research Questions: Even better if we...

REDUCE AMOUNT OF QUESTIONS

Completion time increased by nearly two mins to 6 mins 40 secs, this could have lead to a 57% dropout rate. Under 5 mins is optimal.

SIMPLIFY SOME LANGUAGE

Completion time could also be reduced by simplifying the wording of some of the questions.

QUALIFYING QUESTION

Start survey with qualifying question about HCP status, and remove those who are not professionals automatically.

Takeaways:

TAKEAWAY

FINDING

THE WIDER CAMPAIGN IS WORKING

The sentiment amongst those who completed the 2020 survey have a solid understanding of mushrooms and their properties.

DISCUSS WHICH WEBSITE SHOULD BE THE FOCUS

The website question may well be invalid if nothing continues to be driving to it for HCPs. Consider adding a specific HCP page to the website that we can drive traffic to, alternatively, HCPs can encourage their clients to visit it.

KEEP SURVEY CONCISE AND TO THE POINT

We added several new questions this year, as well as more options to some questions, but as a consequence increasing the completion time and dropouts (6:40 average time and 43% completion rate in 2020, compared to 4:43 time and 51% completion rate in 2019).

Limitations:

Key limitations to consider when interpreting the data:

- The data from year 1 and 2 of the survey are cross-sectional, not longitudinal, with some participants differing from year to year.
- As a result, the tracked sentiment changes over time could be a result of a different set of people being surveyed, rather than a change in the knowledge base of the same group of people.
- In addition, some new survey questions were added or wordings updated from 2019 to 2020 in order to improve the readability or breadth of possible responses.
- Responses could have been influenced by the survey topic, preceding questions, and overall heavy mushrooms messaging. For example, in question 9, 62.5% said that UV-exposed mushrooms were the highest source of vitamin D, and in question 10, more than two thirds of respondents said they knew that placing mushrooms in the sun increases their vitamin D content.

Key Performance Indicator Results



Setting KPIs

ITEM Year on Year	2019 SURVEY	KPI 2020 SURVEY			2020 RESULT	PERFORMANCE
		MEETING	EXCEEDING	SMASHING		
Survey Respondents	225	250	350	450	195	MEETING
Database Growth YoY	1,292	1500	1700	2000	1,405	NOT MEETING
Increase GP subscribers (of the pool)	22%	100	150	200	129	MEETING
SURVEY KPIs						
Q1. Can specify health benefits of mushrooms	20%	23%	26%	30%	40%	SMASHING
Q2. Can specify nutritional benefits of mushrooms	17%	20%	25%	30%	35.9%	SMASHING
Q3. Knowledge of Vitamin D as a nutritional property increases	50%	55%	60%	65%	66.1%	SMASHING
Q4&5. Importance of mushrooms - Very Important	33%	38%	42%	46%	43.1%	EXCEEDING
Q6. Using resources and place value on them (now Q11)	22%	25%	26%	28%	28.2%	SMASHING

Setting campaign goals

SURVEY KPIs	BENCHMARK SURVEY	KPI 2020 SURVEY			2020 RESULTS	PERFORMANCE
		MEETING	EXCEEDING	SMASHING		
Q7. Increase in 'Once per week' personal mushroom consumption	40%	43%	45%	50%	32.3%	DECREASING
Q9. Decrease in 'not recommending mushrooms'	18%	16%	14%	12%	7.7%	SMASHING
Q10. Decrease in 'I don't think about mushrooms'	50%	48%	46%	44%	28.5%	SMASHING
Q11. Increase in recommending 'mushrooms for their nutritional properties'	65%	68%	70%	75%	75%	SMASHING
Q12. Increase in respondents who have visited the Australia Mushrooms website	26%	30%	32%	34%	27.6%	NOT MEETING

Updating Key Performance Indicators (KPIs)



Setting KPIs for 2021

ITEM year on year (YoY)	BENCHMARK SURVEY	KPI 2020 SURVEY			KPI 2021 SURVEY		
		MEETING	EXCEEDING	SMASHING	MEETING	EXCEEDING	SMASHING
Survey Respondents	225	250	350	450	300	400	500
Database Growth (2020 to 2021)	1,292	1500	1700	2000	1500	1700	2000
SURVEY KPIs							
Q1. Can specify health benefits of mushrooms	20%	23%	26%	30%	25%	28%	32%
Q2. Can specify nutritional benefits of mushrooms	17%	20%	25%	30%	23%	28%	32%
Q3. Knowledge of Vitamin D as a nutritional property increases	50%	55%	60%	65%	60%	65%	70%
Q4&5. Importance of mushrooms - Very Important	33%	38%	42%	46%	40%	44%	48%
Q6. Using resources and place value on them	22%	25%	26%	28%	28%	30%	34%

Setting campaign goals for 2021

SURVEY KPIs	BENCHMARK SURVEY	KPI 2020 SURVEY			KPI 2021 SURVEY		
		MEETING	EXCEEDING	SMASHING	MEETING	EXCEEDING	SMASHING
Q7. Increase in 'Once per week' personal mushroom consumption	40%	43%	45%	50%	46%	50%	55%
Q9. Decrease in 'not recommending mushrooms'	18%	16%	14%	12%	14%	12%	10%
Q10. Decrease in 'I don't think about mushrooms'	50%	48%	46%	44%	45%	43%	40%
Q11. Increase in recommending 'mushrooms for their nutritional properties	65%	68%	70%	75%	70%	75%	80%
Q12. Increase in respondents who have visited website	26%	30%	32%	34%	32%	34%	36%

Footnotes:

- These KPIs have been kept reasonably conservative and would be seen as 'Meeting Expectations'. We have also supplied a set of numbers for 'Exceeding Expectations' and '**Smashing** Expectations' for stretch goals and inspiration.
- Q10: To note, as it's a non mandatory question, the respondent numbers will fluctuate much more than the rest of the survey.

Next Steps



What's next?

- HORT Innovation to review and provide feedback or any additional requests.
- Implement learnings into upcoming communications activity for 2021.
- Refine questions based on insights for the next phase of the audience sentiment research in 2021.
- Agree on KPIs for the next roll-out.

Appendix



Appendix: Commentary from survey question 15

RESPONSES BELOW AS RECEIVED FROM RESPONDENTS - SEE PAGE 34 FOR OVERVIEW.

“Question: Please provide any additional thoughts you have on the information that we are providing on mushrooms”

- We need an infographic
- Additional education material would be helpful
- Better information on how to enrich with Vit D
- I plan to look at more information
- Consumer friendly visual posters and factsheets to handout to people, with the key information
- Thank you, great to have this info
- It's great to raise awareness, would be beneficial to provide some studies as well or table re: tables about benefits of mushrooms
- Mushroom are good and add add variety for vegetarians
- Where we can purchase UV exposed mushrooms for dietary vitamin D?
- Great
- I personally can't stand mushrooms but I recommend and should learn more about them
- Delicious
- Haven't seen the resources yet
- Great way to promote this food as specially because Vitamin D deficiency is increasing day by day and this could make a difference
- Good protein source

Appendix: Commentary from survey question 15

(CONTINUED:)

- I think a lot of health professionals just try and increase vegetable intake in general, but something as tangible as helping rectify the vitamin D issues can separate mushrooms as an individual recommendation
- Would love to receive more emails with health benefits
- Wider marketing campaign needed
- It would be good to get the message about vitamin D to the general public. Better still, have UV-exposed mushrooms available in supermarkets and fruit and veg stores
- The vitamin D info is new to me
- It's interesting and good to be reminded of the unique benefits
- Mushrooms are great in all diets and particularly for the vegan diet
- Quality, engaging communications, thank you
- Apart from health they are a great culinary "vegetable"
- It's important for us all to keep abreast of new research as it comes to light not just of fruits and vegetables but also fungi
- Would love to learn more and have more consumer resources to provide to clients
- Materials are good if they are externally validated
- More on how they enhance the flavour of meals and can help replace meat
- I feel some of the health relationships could be overstated - foods can't boost our health beyond simply supporting general wellbeing
- It seems that consuming mushrooms may actually be very beneficial
- Best use if don't like the taste

Appendix: Commentary from survey question 15

(CONTINUED:)

- Not sure - it has been awhile
- I have many patients with irritable bowel syndrome and many need to avoid mushrooms it would be great to have better information on the mannitol content of different mushroom varieties and how this varies with cooking technique
- No specific suggestions - please continue your efforts
- Resources would be good for clients
- Love the info that's being provided. Would love to see more info that's specifically unique to mushrooms (aside from vitamin D benefits). Also more info on different types of mushrooms as varieties like Lions Mane etc are growing in popularity and a lot of health claims around them but would love more evidence to support or otherwise. Keep up the great work!
- I'm very happy that you are shining the spotlight on mushrooms. They are a fascinating plant/food source
- If possible can you provide informative pamphlets?
- I find the updates helpful
- We need more educational resources about the natural benefits of mushrooms
- I am not aware of information being provided on mushrooms
- It's made me realise how little I know about the nutritional properties of mushrooms
- I would like to understand more about the nutritional properties of mushrooms
- It would be useful if you listed quantities of nutrients and related factors
- Educate consumers on how to place in sun / increase via D

Appendix: Commentary from survey question 15

(CONTINUED:)

- How to help children learn to like them. Many people don't realise you can eat them raw
- A fact sheet for clients on increasing vit D with sun exposure would be helpful
- Would like to know more
- Need more information on benefits of mushroom
- I have never found UV exposed mushrooms to buy
- Excellent
- Would like further information on mushrooms for patient education in future
- As a GP, I would have thought that we would have been this information but we haven't
- Serving sizes
- Vegan rather than vegetarian diets do need mushrooms. Aged skin is another reason for less vit D production. Have a family member with a rare mushroom allergy which is a nuisance!
- Not sure if all kind of mushrooms contain vitamin D
- I wish there were more types of mushrooms readily available at supermarkets (from a consumer point of view)
- I would love more information on mushrooms
- Would like more information on Vit. D content
- Currently mushrooms are mainly seen for their value as a meat alternative for vegetarians. Good Umami flavour
- I love mushrooms, would love to grow and learn about it

Appendix: Commentary from survey question 15

(CONTINUED:)

- I would like to know more
- I don't know about the nutritional benefits of mushrooms other than they are "good for you"
- Very useful. Thank you
- Need much more promotion
- Can be eaten raw in salads or cooked in meals or as a separate vegetable dish
- I love the taste
- Encouraging
- Informative
- They are very good for you
- Very surprising, underestimated but realized it has lots of health benefits
- Can you put them in the sun to increase vitamin D at home?
- Mushrooms can be purchased all year round no matter what season, beginning, middle or end. Mushrooms can be grown at home and there are many tasty varieties. They can be eaten either cooked or raw, made into a dip. They also make an attractive garnish to be eaten with a healthy dip.
- It would be good if you provided some answers to these questions that I could access straight away eg: cardiac benefits/reference to an article to support this
- Thank you for providing this information

Appendix: Commentary from survey question 15

(CONTINUED:)

- I am happy with the current level of info
- Needs more exposure
- I'd eat mushrooms more often except they have a moderate level of salicylates to which I am sensitive to, sadly (causes gut and sinus issues)
- I do suggest my patients eat them, though
- More fundamental studies on the health benefits of mushrooms for human nutrition are needed
- I would like to see updated research on B12 content and immune factors apart from vitamin D content, especially in Asian and wild varieties
- Perhaps the brown bags at shops can state some of these facts for consumers. By the way I love how you present your information. You're helping to make mushrooms more attractive to people
- I am now more fascinated how incredibly nutritious mushrooms are. I will definitely increase my consumption of them and will expose them to the sun beforehand
- Much needed
- Lots of practitioner info on medicinal mushrooms
- My clients and social media followers get very surprised when learn that sunbathing mushrooms increases their nutritional value!
- Mushrooms are a powerhouse of nutritional benefits. They cannot be underestimated

Appendix: Commentary from survey question 15

(CONTINUED:)

- Keep up the good work!
- All the information you have given me is very helpful
- Nutritional information on the different varieties of mushrooms
- I have always thought of mushrooms as under the vegetable umbrella and never thought of them separately
- Some information about the difference in vitamin D from mushrooms compared to that from the sun is helpful
- I'd like a copy of this survey with the correct answers
- I love them, so tasty and easy to cook. We have been growing and cooking them for students at my children's school
- There is very little clear health benefits campaign out there about mushrooms
- Thank you
- Easy to find and navigate the website. Content is clear and understandable. Well presented
- They taste ok
- Website is informative and interesting for all - well done
- It can also enhance brain regrowth or modify for the better
- Useful
- Covers valuable information
- Is there any mushroom juice available or is there any good benefit in the mushroom juice?
- Personal taste I don't like them
- If UREA or other toxic poisons are used in the production process, the health benefits are negated