



# WHAT'S ON THE MENU?

How menu design influences the decision of meat-eating consumers to choose plant-based foods.





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# EXECUTIVE SUMMARY

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There are different ways that menus can be designed to encourage consumers to choose plant-based options. Some studies have suggested that menus should avoid segregating options into a 'vegetarian section', while other approaches suggest leaving out 'v' labelling entirely.

The survey explored how four different menu designs impact the likelihood of meat eaters choosing vegetarian options. The results show that mixed menus are more effective than segregated menus in encouraging consumers to choose vegetarian options – presenting meat-based and vegetarian options together led to an 86% increase in the selection of vegetarian options.

Vegetarian labelling, used by itself, had a relatively small impact, with only a 3% increase in vegetarian options being chosen from a mixed-menu design that did not contain vegetarian labelling, compared to one that did.

The best-performing menu design was the 'segregated and doubled' menu, which presented the vegetarian options twice – both mixed into the main menu, and in a segregated vegetarian section. Compared to a completely segregated menu design, displaying vegetarian items in this way led to a 102% increase in the selection of vegetarian options.

These results show that segregating plant-based menu items reduces the likelihood of meat eaters selecting vegetarian items. Segregation can reinforce the perception that plant-based meals are different, which mixed eaters interpret as meaning 'not for me'. As such, it's likely that they won't even read the separate veggie section. In order to optimally encourage the adoption of plant-based options by meat eaters, it's important to design menus in a way that integrates them into the main menu design.

# INTRODUCTION

The last few years have seen a significant rise in plant-based diets in the UK and across Europe, with at least **30% of European consumers reducing their animal-based meat and dairy consumption.**<sup>1</sup> While plant-based options are becoming ever more appealing to consumers,<sup>2</sup> social norms are also beginning to shift, with the number of vegans more than doubling between 2019 and 2022.<sup>3</sup>

At the same time, there have been impressive advances in the social sciences around food choice. Social psychologists, sociologists, and behavioural economists have been busy designing ways to encourage more people to choose healthy and sustainable plant-based options.<sup>4</sup> This includes **'nudges'** – designing choice environments in ways that encourage better decisions without restricting choice.

One promising intervention that can 'nudge' people towards better food choices is **varying the design of restaurant menus.**<sup>5</sup>



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In order to take advantage of the rising consumer demand, food-service businesses should embrace plant-based options and use such nudging techniques to proactively normalise the consumption of plant-based alternatives and create a favourable choice architecture, through optimal menu design.<sup>6</sup>

This report offers new insights into menu design that are effective in nudging meat-eating consumers towards choosing plant-based options.

## Read on to find out more...



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# ABOUT THE SURVEY

## Respondents

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This online survey was conducted in the UK in October 2022. It was completed by 1000 respondents who were recruited via the Attest online platform.

We collected data in relation to several demographic categories, including age, gender, and educational background, setting quotas for age, gender, and dietary habits in order to ensure that the sample was representative of the general population and equally distributed with respect to these variables.

We discounted the choices of pescetarian, vegetarian, and vegan participants since we were only interested in how the design impacted the choices of people who eat meat, i.e. those who describe themselves as 'flexitarian' or 'omnivore'.

**For a full breakdown of the demographic data of our respondents, please email [corporate@proveg.com](mailto:corporate@proveg.com)**

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## Experimental-conditions design

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The participants were randomly allocated four different experimental conditions corresponding to four different menu designs. In each of the four conditions, the exact same options were presented to the participants, including nine meat and nine vegetarian options.

**In Menu A, participants saw all of the 18 options listed together, with vegetarian and meat options mixed, and vegetarian options labelled with a (v).**

**In Menu B, participants saw the same mix of 18 vegetarian and meat options, but with the vegetarian options unlabelled.**

**In Menu C, participants saw the nine meat options and the nine vegetarian options presented in different sections of the menu, with the vegetarian options labelled with a (v).**

**In Menu D, participants saw all 18 meat and vegetarian options presented together without any labels and additionally saw the vegetarian options repeated in a separate vegetarian section, labelled with (v)s.**

### MENU-A CONDITION: MIXED, LABELLED MENU

Beef burger	Mushroom pizza (v)
Cheese burger	Spinach & onion pizza (v)
Chicken burger	Vegetable pizza (v)
Falafel burger (v)	Pork stir fry
Mushroom burger (v)	Beef in black bean
Vegetable burger (v)	Chicken chow mein
Pepperoni pizza	Mushroom stir fry (v)
Ham & pineapple pizza	Tofu in black bean (v)
BBQ chicken pizza	Vegetable chow mein (v)

### MENU-B CONDITION: MIXED, UNLABELLED MENU

Beef burger	Mushroom pizza
Cheese burger	Spinach & onion pizza
Chicken burger	Vegetable pizza
Falafel burger	Pork stir fry
Mushroom burger	Beef in black bean
Vegetable burger	Chicken chow mein
Pepperoni pizza	Mushroom stir fry
Ham & pineapple pizza	Tofu in black bean
BBQ chicken pizza	Vegetable chow mein

### MENU-C CONDITION: SEGREGATED MENU

Beef burger	Falafel burger
Cheese burger	Mushroom burger
Chicken burger	Vegetable burger
Pepperoni pizza	Mushroom pizza
Ham & pineapple pizza	Spinach & onion pizza
BBQ chicken pizza	Vegetable pizza
Pork stir fry	Mushroom stir fry
Beef in black bean	Tofu in black bean
Chicken chow mein	Vegetable chow mein

### MENU-D CONDITION: SEGREGATED & DOUBLED MENU

Beef burger	Chicken chow mein
Cheese burger	Mushroom stir fry
Chicken burger	Tofu in black bean
Falafel burger	Vegetable chow mein
Mushroom burger	
Vegetable burger	Falafel burger (v)
Pepperoni pizza	Mushroom burger (v)
Ham and pineapple pizza	Vegetable burger (v)
BBQ chicken pizza	Mushroom pizza (v)
Mushroom pizza	Spinach & onion pizza (v)
Spinach & onion pizza	Vegetable pizza (v)
Vegetable pizza	Mushroom stir fry (v)
Pork stir fry	Tofu in black bean (v)
Beef in black bean	Vegetable chow mein (v)



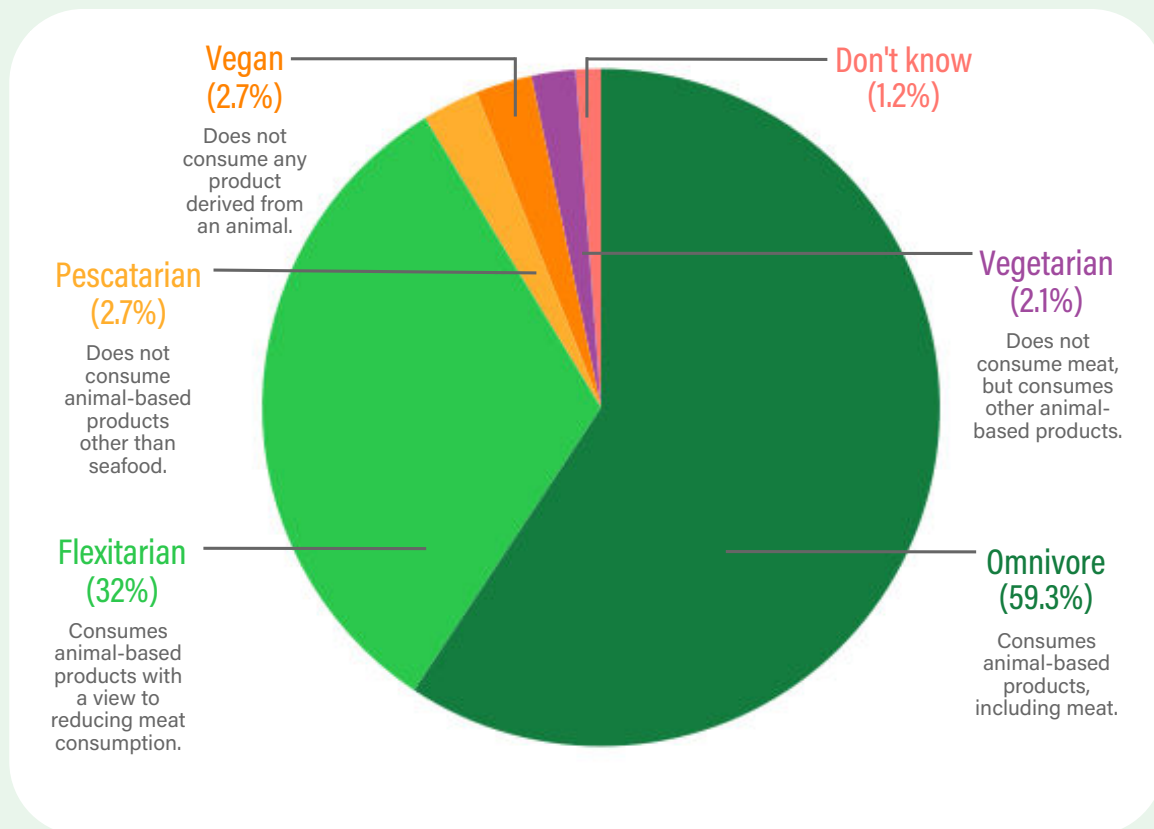
# RESULTS

## Eating habits

32% of UK consumers described themselves as 'flexitarian', meaning they are reducing their meat consumption, while 59.3% follow an omnivorous diet.

### CONSUMER IDENTIFICATION WITH DIFFERENT DIET TYPES

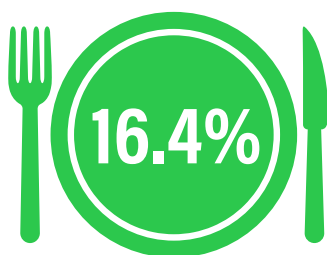
*"How would you define your current eating habits?"*



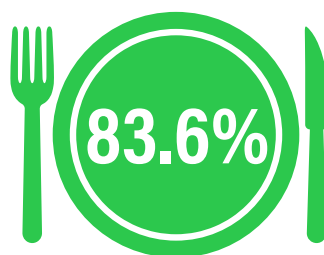
## Menu design:

### MENU-A CONDITION: MIXED, LABELLED MENU

Menu A presented the 18 options listed together, with the vegetarian and meat options mixed and vegetarian options labelled with a (v).



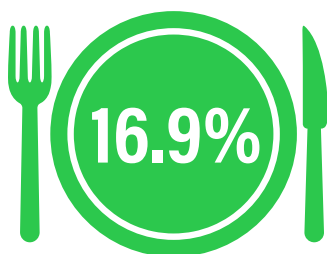
of meat-eating  
respondents chose  
vegetarian options



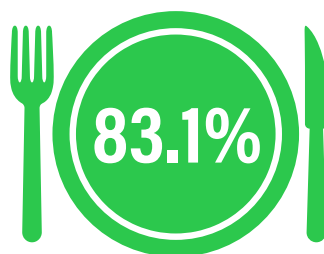
of meat-eating  
respondents chose  
meat-based options

### MENU-B CONDITION: MIXED, UNLABELLED MENU

Menu B presented the same mix of 18 vegetarian and meat options, but with the vegetarian options unlabelled.



of meat-eating  
respondents chose  
vegetarian options



of meat-eating  
respondents chose  
meat-based options

## MENU-C CONDITION: SEGREGATED MENU

Menu C presented the nine meat options and the nine vegetarian options in different sections of the menu, with the vegetarian section labelled with (v)s.



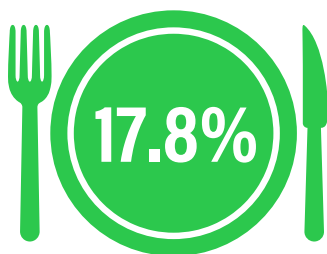
of meat-eating  
respondents chose  
vegetarian options



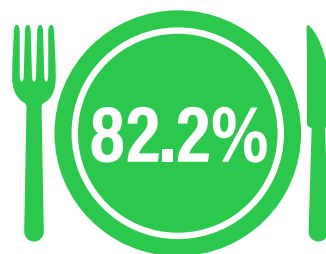
of meat-eating  
respondents chose  
meat-based options

## MENU-D CONDITION: SEGREGATED & DOUBLED MENU

Menu D presented all 18 meat and vegetarian options together, without any labels, and additionally repeated the vegetarian options in a separate vegetarian section, labelled with (v)s.

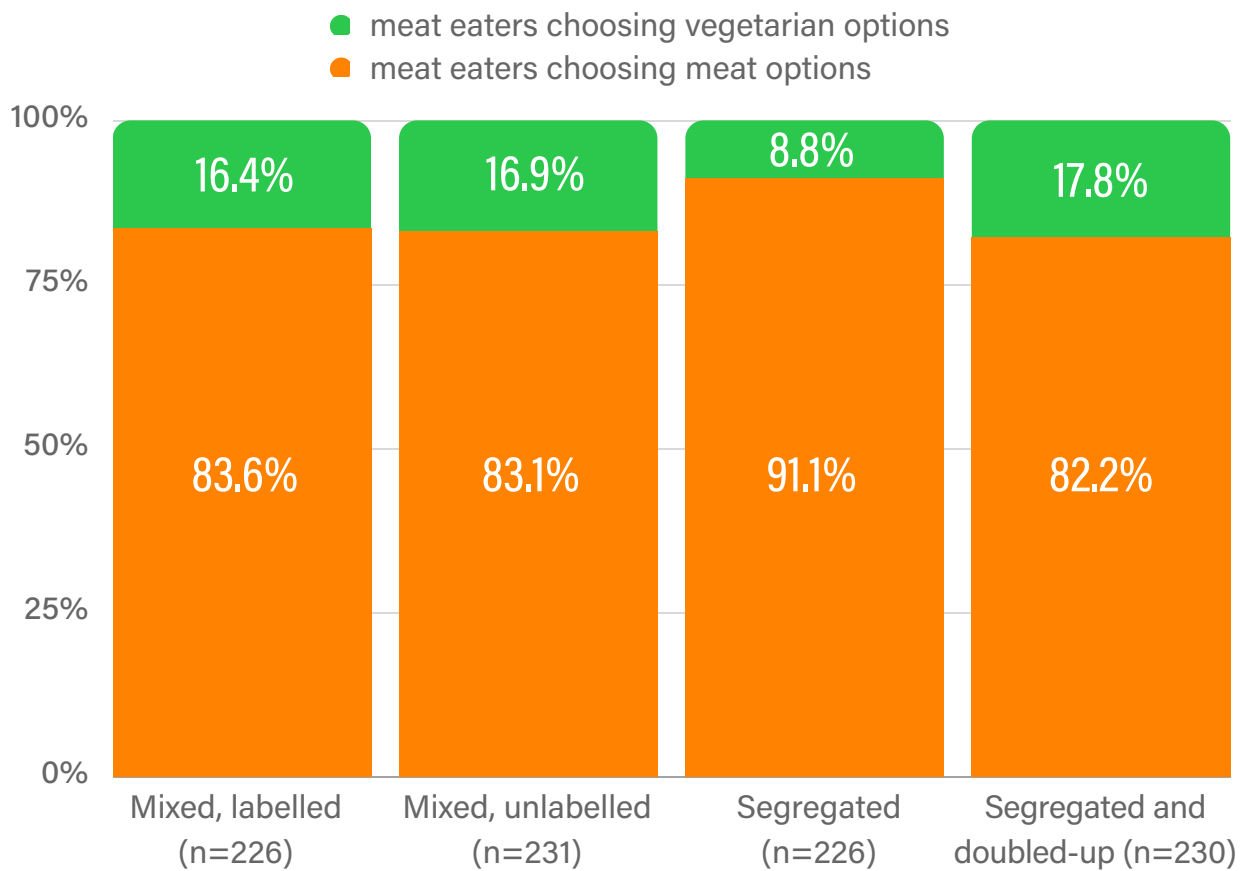


of meat-eating  
respondents chose  
vegetarian options



of meat-eating  
respondents chose  
meat-based options

# SELECTION OF MEAT OR VEGETARIAN OPTIONS BASED ON FOUR MENU DESIGNS



 **NEW FOOD HUB**

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## The impact of menu design

The results showed significant differences between the different menu designs in terms of whether meat or vegetarian options were chosen.

Concurrent with previous research, we found that moving from a vegetarian-segregated menu design to one where meat and vegetarian options are presented together significantly increased the choice of vegetarian options.<sup>7</sup> In fact, leaving out the vegetarian section entirely led to an **86% increase in the selection of plant-based options!**

The effect of vegetarian labelling was less important. Compared to Menu A, which contained (v) labels, Menu B, which did not, resulted in just a 3% increase in the selection of vegetarian options.

However, the best results were obtained when vegetarian options were included twice – both alongside the meat options and in a separate vegetarian section.

Compared to Menu C, where vegetarian options appeared only in the segregated section, Menu D, where they appeared twice, led to a **102% increase in people choosing the vegetarian option!** With this menu design, almost **one in five meat eaters chose the vegetarian option**, more than double that of the poorest-performing menu.



1 in 5 meat eaters chose the vegetarian option with Menu D.

# KEY TAKEAWAYS

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## Menu integration is critical

Segregating plant-based menu items minimises the likelihood of mainstream meat eaters choosing vegetarian items.

Segregation reinforces the perception that plant-based meals are different, which mixed eaters interpret as meaning 'not for me'.

Segregation makes it harder for consumers to choose the plant-based option that they might, in fact, prefer, simply because those options aren't available in the places where they're used to looking.

Consumers often find choice overwhelming, so they tend to adopt rapid and simple choice-elimination strategies with menus. A segregated menu area for vegan or vegetarian meals subconsciously invites consumers to ignore these items, because they will often disregard an entire menu section in order to make choosing easier.

**ProVeg recommends integrating plant-based options into your main menu in order to encourage consumer adoption.**



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## Labelling is less important in terms of influencing meat-eating consumers

Dietary symbols are important for consumers who are seeking a guarantee that a product is vegan or vegetarian. However, these consumers typically make up less than 10% of the total market.

In recent years, food-service companies have begun experimenting with alternatives. For instance, replacing 'V' or 'Ve' with 'PB', a leaf, or other symbols, the logic being that vegans will always figure out what these symbols mean, whereas mainstream consumers will gloss over them and focus on the item description without being put off by the category.

**ProVeg recommends putting less focus on menu labelling and more focus on menu integration.**



*Shutterstock / Ground Picture*



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## Price parity is key

The influence of price was not directly explored in this study, since the menus did not present the prices of items. This allowed consumers to choose items based on personal preference as opposed to price.

However, the [Pan-EU Smart Protein study](#), led by ProVeg, found that price was a key barrier to the mainstream adoption of plant-based alternatives.<sup>8</sup>

**ProVeg recommends pricing plant-based options at levels that are directly comparable to meat-based options (or even cheaper).**

This will ensure that price is not a barrier to adoption.

*For more information on how best to achieve price parity, check out our report, [‘3 ways to achieve price parity and drive plant-based sales’](#).*



# KEY TAKEAWAYS

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ProVeg recommends integrating plant-based options into your main menu in order to encourage consumer adoption.

ProVeg recommends putting less focus on menu labelling and more focus on menu integration.

ProVeg recommends pricing plant-based options at levels that are directly comparable to meat-based options.



If you're looking to learn how to attract more customers and grow your plant-based sales, ProVeg can help. Get in touch with us at [corporate@proveg.com](mailto:corporate@proveg.com) to talk about developing your plant-based strategy.

*Unsplash/Ralph Ravi Kayden*

# ABOUT PROVEG

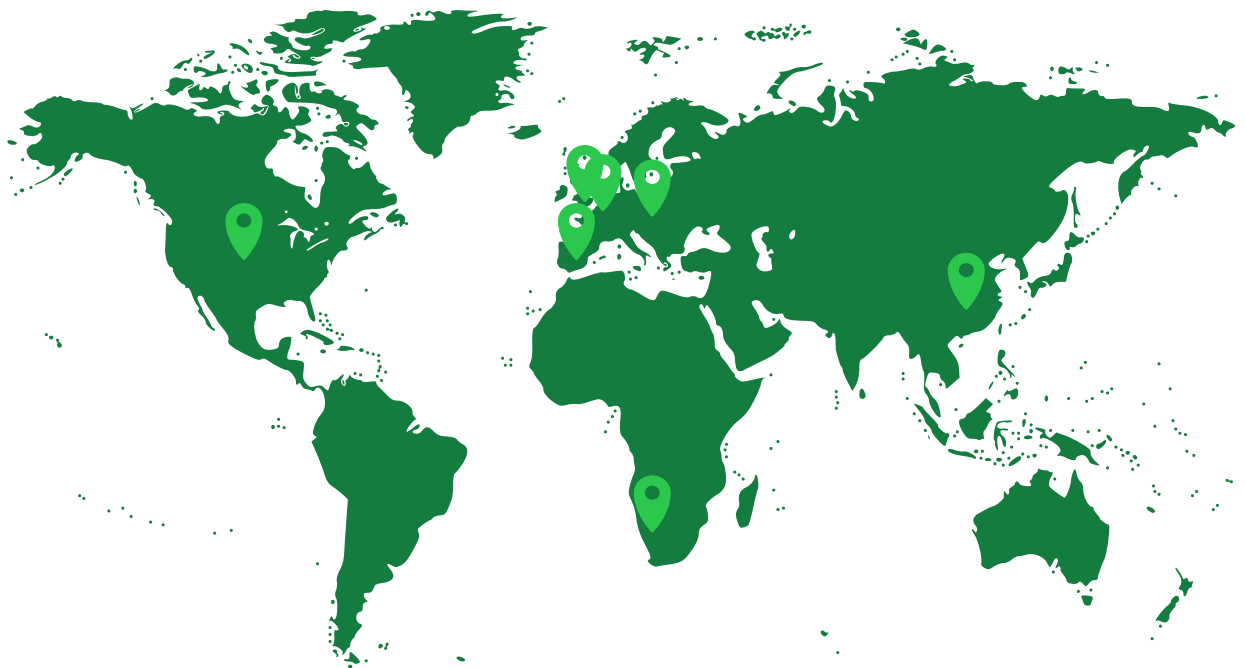
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ProVeg is an international food awareness organisation working to transform the global food system by replacing conventional animal-based products with plant-based and alternatives.

ProVeg works with international decision-making bodies, governments, food producers, retailers, investors, the media, and the general public to help the world transition to a society and economy that are less dependent on animal agriculture and more sustainable for humans, animals, and planet.

As a leading NGO in the alternative-protein space, we have no commercial agenda. This allows us to provide objective expert advice and help support you successfully and effectively by harnessing the power and profitability of the shift to plant-based eating, in the most appropriate way for your business.

We work with companies along the entire value chain, which gives us unique insights into the key challenges, hurdles, and opportunities at every stage of the journey as you take your product to market.



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