



Evaluation of vending guidance in Health and Social Care settings across Northern Ireland

Report prepared by Ipsos and commissioned by the Food Standards Agency on behalf of the Nutritional Standards Steering Group

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Executive summary

Executive summary

- The overall aim of the [Nutritional Standards](#) is to improve the health and wellbeing of Health and Social Care (HSC) staff and visitors. The standards apply to all facilities that serve food and/or beverages to staff and visitors operating within HSC settings including catering facilities, vending machines and private retail outlets.
- This project evaluates the nutritional guidance for vending machines across the five Health and Social Care trusts (HSCTs) in Northern Ireland (NI).
 - 121 vending machines were audited across 18 hospitals and included in the analysis.
 - 788 surveys were completed by HSC staff (666) and visitors (122) across 19 hospitals.
- Only 23 of the 121 vending machines were fully compliant with the vending guidance.
 - 97% of slots containing drinks had products below the recommended calorie caps.
 - 95% of slots containing savoury snacks had products below the recommended calorie caps.
 - 55% of slots containing chocolate and biscuits had products below the recommended calorie caps.
 - 33% of slots containing confectionery and packet sweets had products below the recommended calorie caps.
- Between 2019 and 2023 there was an 11% increase in unit sales in NI's HSCT vending machines.
- Between 2019 to 2023 the unit sales of drinks with added sugar decreased by 90%, the unit sales of all water products increased by 26%, and the average calorie content of products sold in vending machines decreased across all categories.

Executive summary continued

- Only 26% of survey respondents were aware of the nutritional standards for HSC.
 - Staff were significantly more aware (28%) than visitors (14%) of the nutritional standards. Significantly more visitors (73%) than staff (53%) say they have not noticed a change in the vending machine items since 2022.
- Of those who had visited or worked in a HSC setting prior to the introduction of the guidance, the majority (64%) were supportive of the changes made to vending machines.
- Two in five (42%) use vending machines in HSCTs once a week. However, two in five (42%) also said what is offered in the vending machines is not satisfactory.
- Despite low compliance, a large percentage of slots had products below the recommended calorie caps, most notably for drinks and savoury products. Results indicate that the vending guidance may have positively impacted nutritional purchasing with no negative impact on vending sales.
- The next review of the vending guidance should consider further engagement with procurement and contract suppliers to determine barriers to implementation and identify any additional support required, regular monitoring of the implementation of the vending guidance at Trust level, and additional communications to raise awareness of the vending guidance and support further implementation.



Introduction

Introduction and background

- [Revised Nutritional Standards](#) in HSC settings for staff and visitor catering were launched in 2022 by the Food Standards Agency (FSA), the Public Health Agency (PHA), *safefood* and the Department of Health in partnership with HSC colleagues.
- The overall aim of the Nutritional Standards is to improve the health and wellbeing of HSC staff and visitors. These are food-based standards, modelled on the [Eatwell Guide](#).
- The standards apply to all facilities that serve food and/or beverages to staff and visitors operating within HSC settings including catering facilities, vending machines and private retail outlets.
- One of the new additions within the 2022 revised standards was to include vending guidance, which sets out nutritional guidelines in relation to vending machines selling confectionery, savoury snacks, and cold drinks.
- In 2024, the FSA-commissioned Ipsos to conduct an evaluation to review the implementation of the vending guidance across different hospitals in NI to inform the next revision of the nutritional standards in 2025.

Vending Guidance

The new guidance for vending machines stipulates:

- All savoury snacks must not exceed 200 kcals per packet.
- Confectionery, packet sweets and biscuit snacks must be offered in the smallest, single serve portion size commercially available. This must not exceed:
 - 125 kcals per packet for confectionery and packet sweets.
 - 200 kcals per packet for chocolate and biscuit snacks.
- All cold beverages available must be low calorie i.e. not containing more than 20kcals (80 kilojoules, or kJ) per 100 ml. Therefore, no beverages with added sugar are to be offered.
- Cold beverage vending machines will have a split of 30% still or sparking unfavoured water; and 70% low calorie carbonated or still beverages.
- Fruit juice, vegetable juice and smoothies must be in single-serve packs (pack size 150 to 200 ml).
- Branding/information on vending machines will support health promoting messages.

Aims of the evaluation

The four key research questions of the evaluation:

1. Are vending machines in HSC compliant with vending nutritional guidance by adhering to the guidelines for product selection, water to low-calorie drink ratio, calorie caps and branding?
2. Has there been a change in vending sales of each category listed in the vending guidance (e.g. savoury snacks, drinks etc.) pre- and post- implementation?
3. Has there been a change in the nutritional content of vending machine products post-implementation of the vending guidance?
4. What are the current attitudes, knowledge and behaviours of staff and visitors with regards to the vending guidance and the products available in vending machines post implementation of the guidance?

Key points relating to the structure and content of the report:

- The report is structured to address each of the four evaluation questions.
- A number of caveats and exclusions have been made, detailed on the relevant slides.



Methodology

Methodology – Vending machine audits

For this evaluation, a three-stage approach was implemented.

- 1. Audits of vending machines in HSC settings to determine the level of compliance with the guidelines for product selection, water to low-calorie drink ratio and calorie restriction.**
 - The overall compliance with vending guidance was assessed through audits of 133 vending machines in NI hospitals. The vending machine audits were undertaken between 6th and 11th March 2024.
 - In total, 18 hospitals were included in the audits as Towerhill hospital (SHSCT) did not have any vending machines.
 - Vending machines in inaccessible locations, such as A&E Departments, Intensive Care Units, and Coroner Departments, were excluded from the audits.
 - The content of the vending machines was determined by examining the types of products available in the vending machines, rather than the stock levels.
 - An audit checklist was agreed with the FSA. Interviewers were instructed to answer checklist questions and take multiple photos to capture products available in the vending machines. The images were examined by the Ipsos research team, and products in each slot were coded based on the classification of products in the vending guidance.
 - At the analysis stage, 12 vending machines were excluded from the audit. It was agreed with the FSA to exclude food vending machines that were less than 80% stocked at the time of the audit, to ensure objectivity in determining compliance. Overall, 121 audited vending machines were included in the analyses.

Methodology – Sales analysis

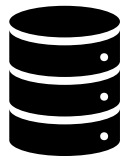
2. Secondary analysis of sales data provided by the vending machine contractor to assess changes in vending sales of each product category pre- and post- implementation. Secondary analysis also assessed changes in nutritional purchasing.



Analysis of two databases, containing wholesale data for products stocked in vending machines in HSCTs in 2019 and 2023, was conducted.



The databases included the overall sales, sales by product, and category (drinks, chocolate, snacks and sweets).



To analyse nutritional information, Ipsos compiled nutrition data for products listed in the sales dataset and products recorded in the vending machine audits into one database.

Methodology – Staff and visitor survey

3. A survey to assess the current attitudes, knowledge and behaviours of staff and visitors with regards to the vending guidance and the products available in vending machines post implementation of the guidance.

- Two data collection modes were offered to increase accessibility and to enable continuous data collection:
 - QR codes on posters, displayed on or in close proximity to vending machines; and,
 - Intercept interviews conducted by Ipsos interviewers during various shifts at designated hospitals.
- A total of 788 completed surveys were achieved across 19 hospitals between 6th March and 8th April 2024:
 - 666 surveys completed by hospital staff; and,
 - 122 surveys completed by visitors.
- Convenience sampling was adopted to survey people visiting hospital settings and hospital staff.
- The survey was designed to take no longer than 5 minutes to complete. Survey questions were agreed between Ipsos and the FSA. Survey questions related to vending machine usage were asked to both staff and visitors.
- Demographic characteristics (age, gender, whether a member of staff or a visitor) were captured at the start of the survey.
- The survey will be published separately as an appendix.

Adherence of vending machines to nutritional guidance

Audit overview



121

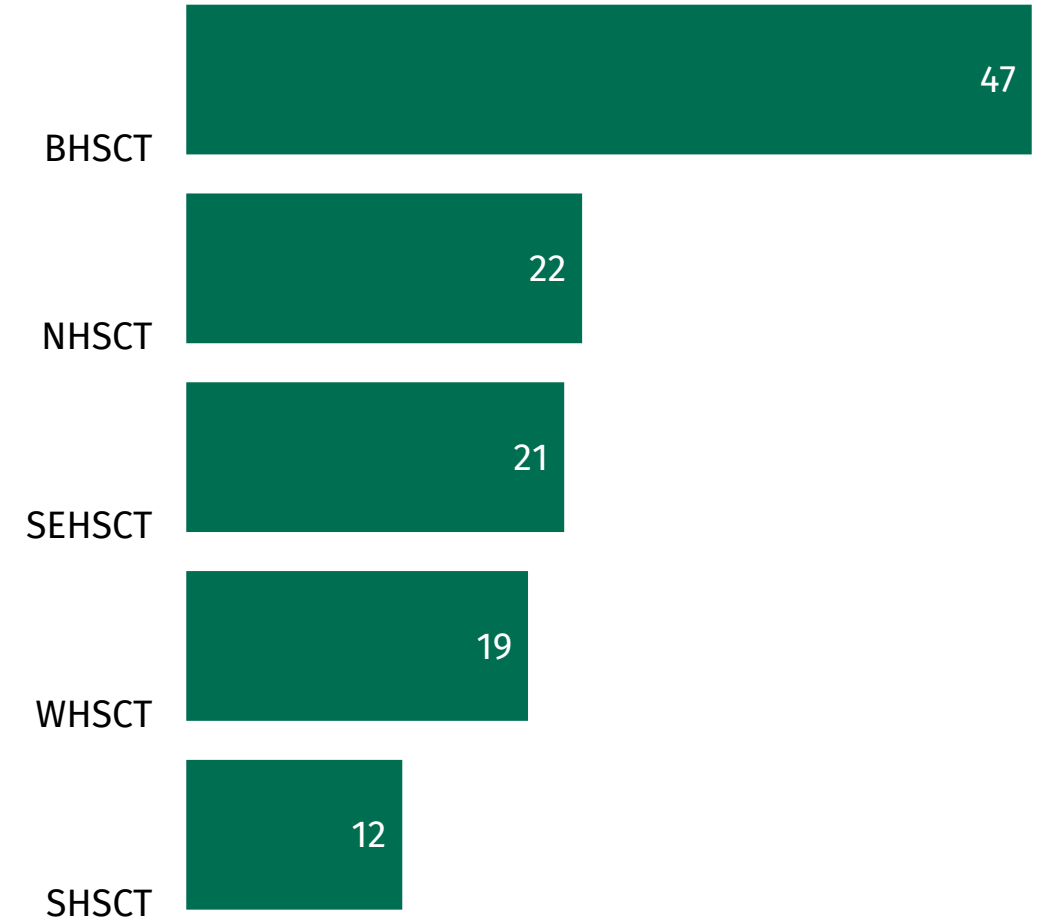
Vending machines audited in total



18

Hospitals audited in NI

Number of vending machines audited per HSCT



Audit overview (1)

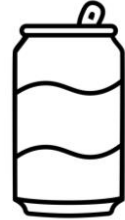


23

Vending machines fully compliant with guidance*

Base: 121 vending machines

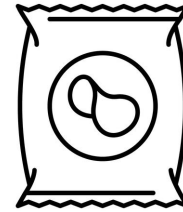
* All fully compliant machines were drinks-only machines



23

Fully compliant drinks machines

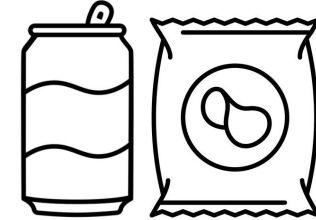
Base: 60 drinks only vending machines



0

Fully compliant food machines

Base: 31 food only vending machines

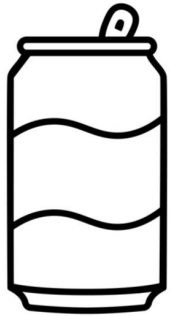


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Fully compliant food and drinks machines

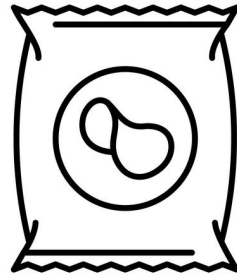
Base: 30 food and drink vending machines

Audit overview (2)



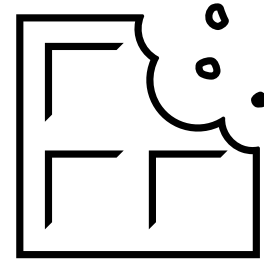
Of all the slots in vending machines containing drinks, **97%** of slots had products below the recommended calorie cap

Base: 90 vending machines



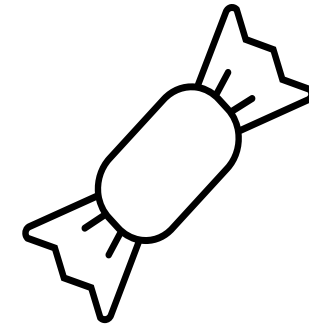
Of all the slots in vending machines containing savoury snacks, **95%** of slots had products below the recommended calorie caps

Base: 61 vending machines



Of all the slots in vending machines containing chocolate and biscuits, **55%** of slots had products below the recommended calorie caps

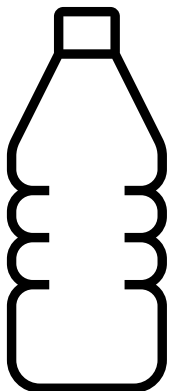
Base: 60 vending machines



Of all the slots in vending machines containing confectionery and packet sweets, **33%** of slots had products below the recommended calorie caps

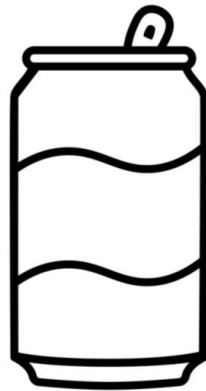
Base: 26 vending machines

Vending compliance - drinks



Of the vending machines including drinks, **74%** of machines contained at least 30% water products

Base: 90 vending machines



Of the vending machines including drinks, **68%** only stocked low calorie* drinks with no added sugar**

Base: 90 vending machines

*Low calorie ≤ 20 kcal per 100ml

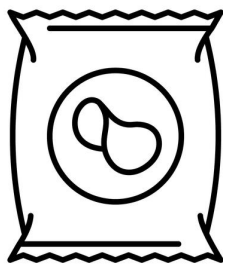
** This includes water



No vending machines that contained fruit juice, vegetable juice and/or smoothies stocked single serve packs (150ml to 200ml), with all offering larger portions

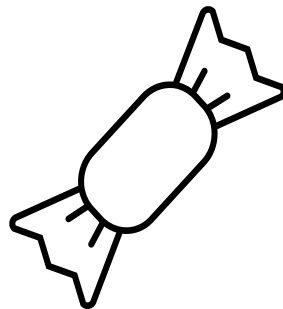
Base: 14 vending machines

Vending compliance - snacks



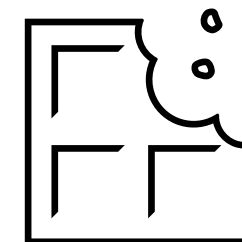
Of the vending machines including any savoury products, **59%** contained only savoury products with 200 kcals or less per packet

Base: 61 vending machines



Of the vending machines including any confectionery or packet sweets, **31%** contained only confectionery or packet sweets at 125 kcals or less per packet and in the smallest pack size commercially available

Base: 26 vending machines



No vending machines including chocolate and biscuits contained only chocolate and biscuits at 200 kcals or less per pack and in the smallest pack size commercially available

Base: 60 vending machines

Healthier branding visibility

The healthier vending branding was visible at **62%** of audited vending machines

Base: 121 vending machines



Helping you make a healthier choice.



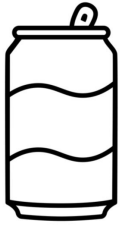
All chocolate and snacks are now less than **200kcal**



All drinks are less than **20kcal** per 100ml

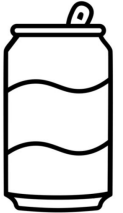
Vending sales pre- and post-guidance implementation

Impact of vending guidance on drinks sales

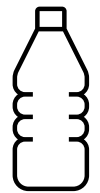


Unit sales of cold drinks decreased slightly (**-1%**) between 2019 and 2023

Within the cold drinks category:



Unit sales of drinks with added sugar declined (**-90%**) between 2019 and 2023, while unit sales of low calorie drinks increased (**26%**) between 2019 and 2023

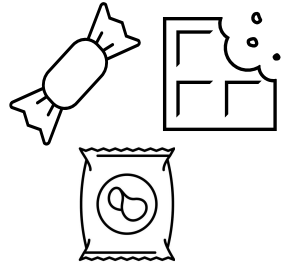


The largest percentage increase was seen in sales of sparkling water (**+104%**) and flavoured water (**+1,678%**) between 2019 and 2023



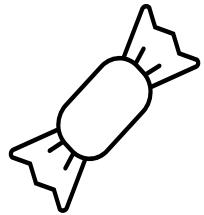
Sales of fruit juices decreased (**-7%**) between 2019 and 2023

Impact of vending guidance on snack sales



Unit sales of all snacks have increased (+**21%**) between 2019 and 2023

Category specific sales trends



Confectionery and packet sweets unit sales decreased (-**70%**) between 2019 and 2023



Chocolate and biscuit product unit sales increased (+**31%**) between 2019 and 2023



Savoury products unit sales increased (+**27%**) between 2019 and 2023

Pre- and post-implementation changes in average nutritional content of products

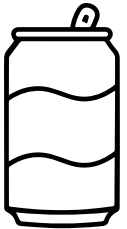
Product group	Nutrient (per pack)	2019 average value	2023 average value	Change
Drinks	Energy (kcal)	59kcal	23kcal	-36kcal
	Sugar (g)	14.14g	4.99g	-9.15g
	Salt (g)	0.04g	0.07g	+0.03g
	Saturated fat (g)	0g	0.02g	+0.02g
Savoury products	Energy (kcal)	206kcal	161kcal	-45kcal
	Sugar (g)	0.90g	0.91g	+0.01g
	Salt (g)	0.80g	0.55g	-0.25g
	Saturated fat (g)	1.33g	0.88g	-0.45g
Confectionery and packet sweets	Energy (kcal)	266kcal	128kcal	-138kcal
	Sugar (g)	39.17g	21.88g	-17.29g
	Salt (g)	0.03g	0.03g	0g
	Saturated fat (g)	0.19g	0.56g	+0.37g
Chocolate/biscuits	Energy (kcal)	237kcal	205kcal	-32kcal
	Sugar (g)	24.10g	20.23g	-3.87g
	Salt (g)	0.18g	0.16g	-0.02g
	Saturated fat (g)	6.53g	6.11g	-0.42g

Water has been excluded from nutritional analysis

Nutritional improvements

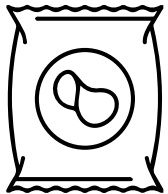


Across all categories, the average calorie content of products sold in vending machines decreased between 2019 and 2023.

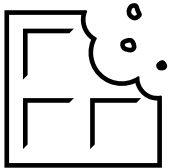


The average calories of cold drinks sold fell from 59kcal to 23kcal per product.

- There was a large decrease in average sugar content per product, falling from 14 grams in 2019 to 5 grams in 2023.



Average calorie content of savoury products has also reduced, falling from 206kcal to 161kcal per product. There was a decrease in both average saturated fat (-0.45g) and average salt (-0.25g) content per product.



Average calorie content of chocolate and biscuit products reduced from 237kcal to 205kcal per product, as well as reductions across average sugar (-3.87g) and saturated fat (0.42g) content per product.



Average calorie content of confectionery and packet sweets products reduced from 266kcal to 128kcal and average sugar content per product also reduced (-17.29g).

Nutritional contents of vending machines

Post-implementation average nutritional content of vending machines by product category - NI level

Product group	Nutrient	Average value (per pack)	Average value (per 100g/ml)
Drinks* <i>Low calorie drinks ≤ 20 Energy (kcal) per 100ml</i>	Energy (kcal)	25kcal	5.7kcal
	Sugar (g)	5.2g	1.1g
	Salt (g)	0.1g	0.0g
	Saturated fat (g)	0.0g	0.0g
Savoury products <i>Calorie limit ≤ 200 Energy (kcal) per packet</i>	Energy (kcal)	161kcal	492kcal
	Sugar (g)	1.0g	3.3g
	Salt (g)	0.5g	1.6g
	Saturated fat (g)	0.8g	10.1g
Confectionery and packet sweets <i>Calorie limit ≤ 125 Energy (kcal) per packet</i>	Energy (kcal)	137kcal	384kcal
	Sugar (g)	22.4g	61.4g
	Salt (g)	0.0g	0.1g
	Saturated fat (g)	0.6g	1.8g
Chocolate/biscuits <i>Calorie limit ≤ 200 Energy (kcal) per packet</i>	Energy (kcal)	204kcal	502kcal
	Sugar (g)	19.6g	48.2g
	Salt (g)	0.2g	0.4g
	Saturated fat (g)	5.7g	15.1g

Base: 121 vending machines

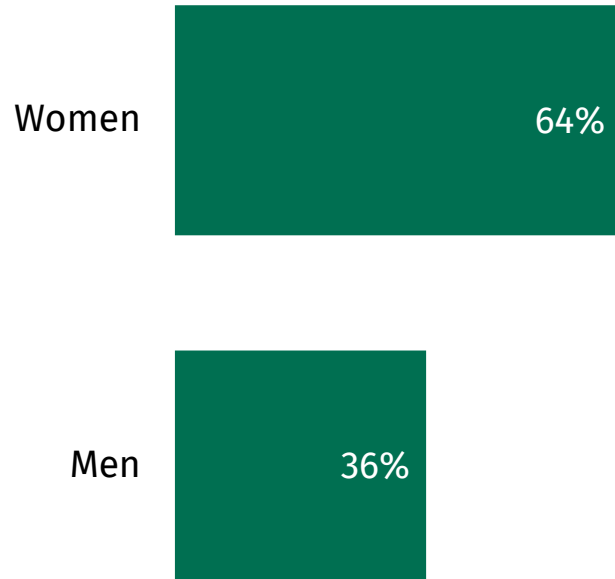
*Average nutritional information for cold drinks excludes water



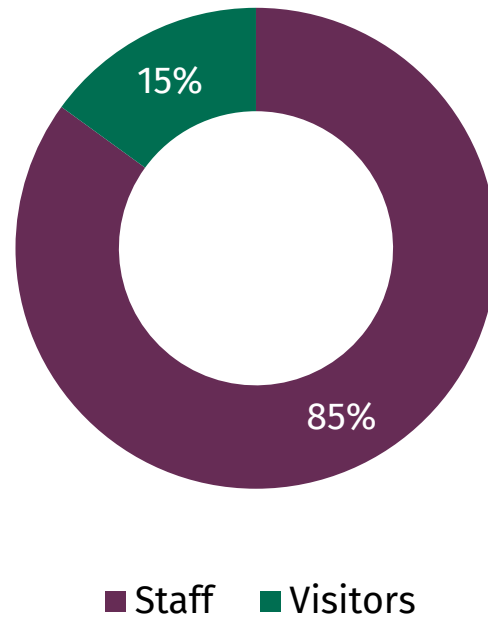
Survey findings

Sample overview

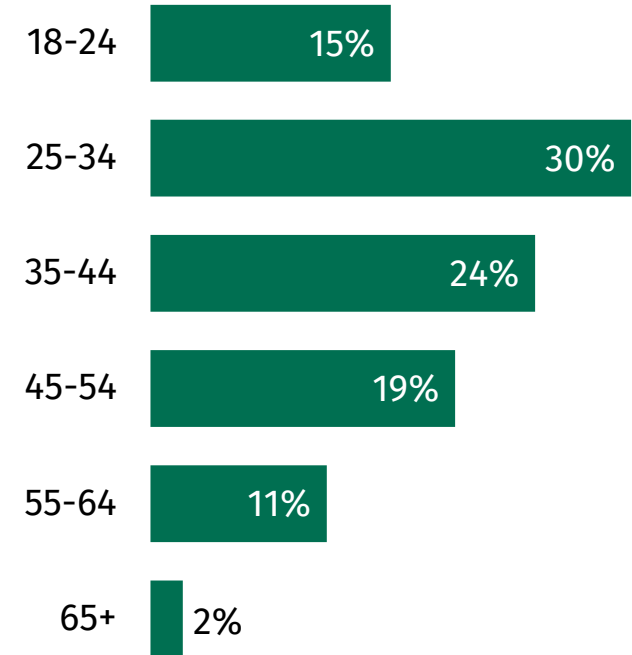
Gender



Respondent type



Age



Base: 788 hospital staff and visitors aged 18+

Employment in / visiting HSCTs prior to 2022



Base: 666 hospital staff aged 18+



Base: 122 hospital visitors aged 18+

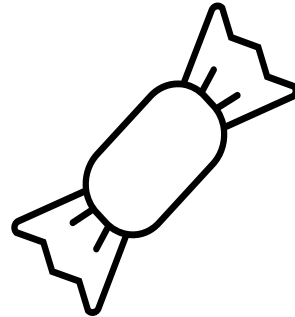
Survey overview



41%

of respondents use hospital vending machines to purchase drinks at least once a week

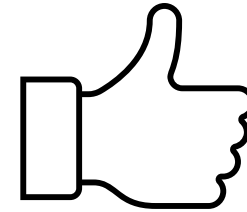
Base: 788 hospital staff and visitors aged 18+



27%

of respondents use hospital vending machines to purchase snacks or confectionery at least once a week

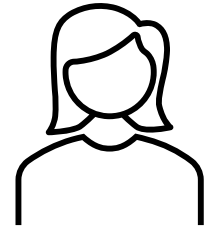
Base: 788 hospital staff and visitors aged 18+



58%

agreed that the variety of products on offer in hospital vending machines was satisfactory

Base: 788 hospital staff and visitors aged 18+

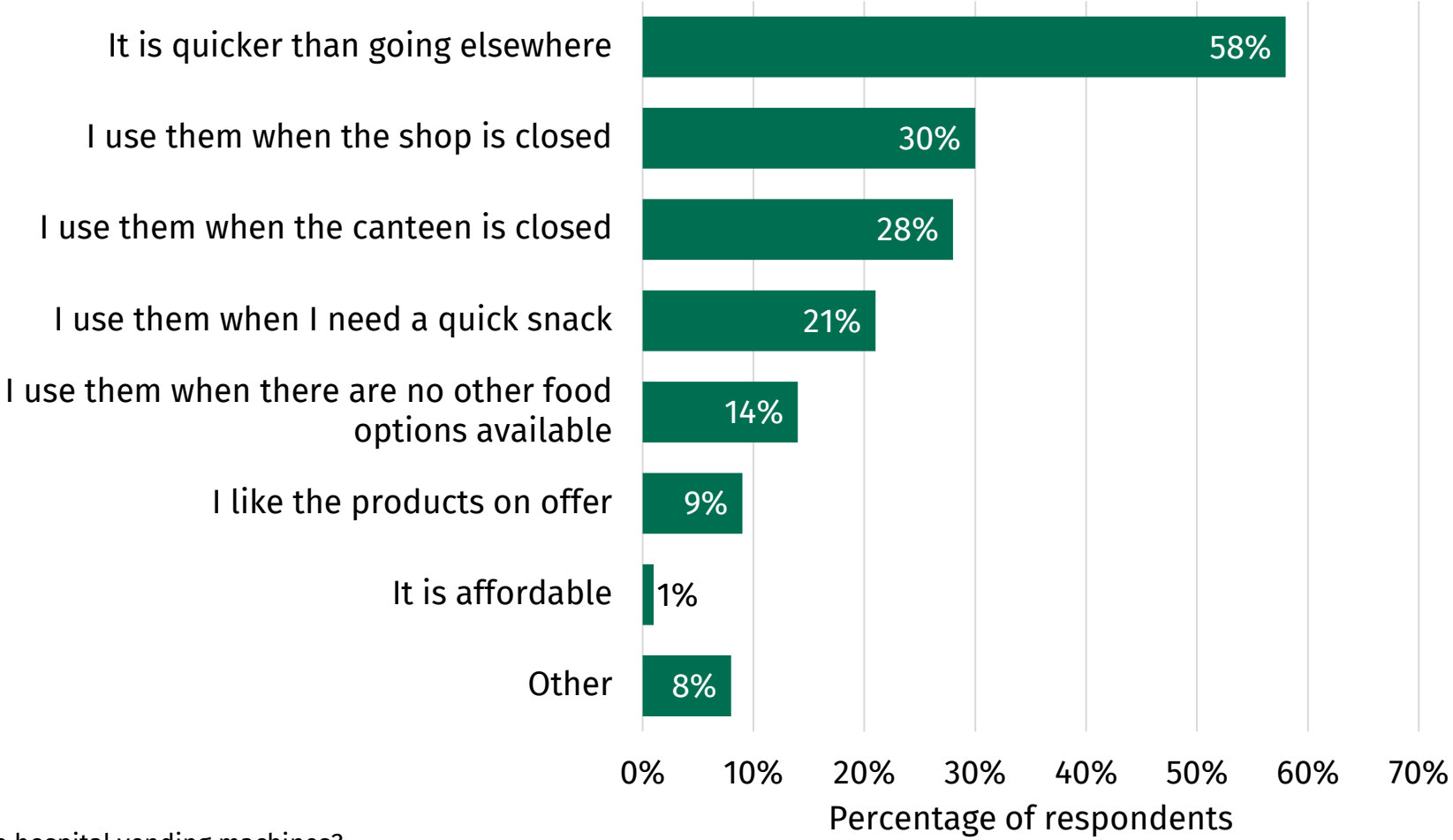


80%

of respondents reported that their use of vending machines has not changed since the introduction of the healthier vending guidance

Base: 633 hospital staff or visitors aged 18+ who worked in or visited a HSCT prior to 2022

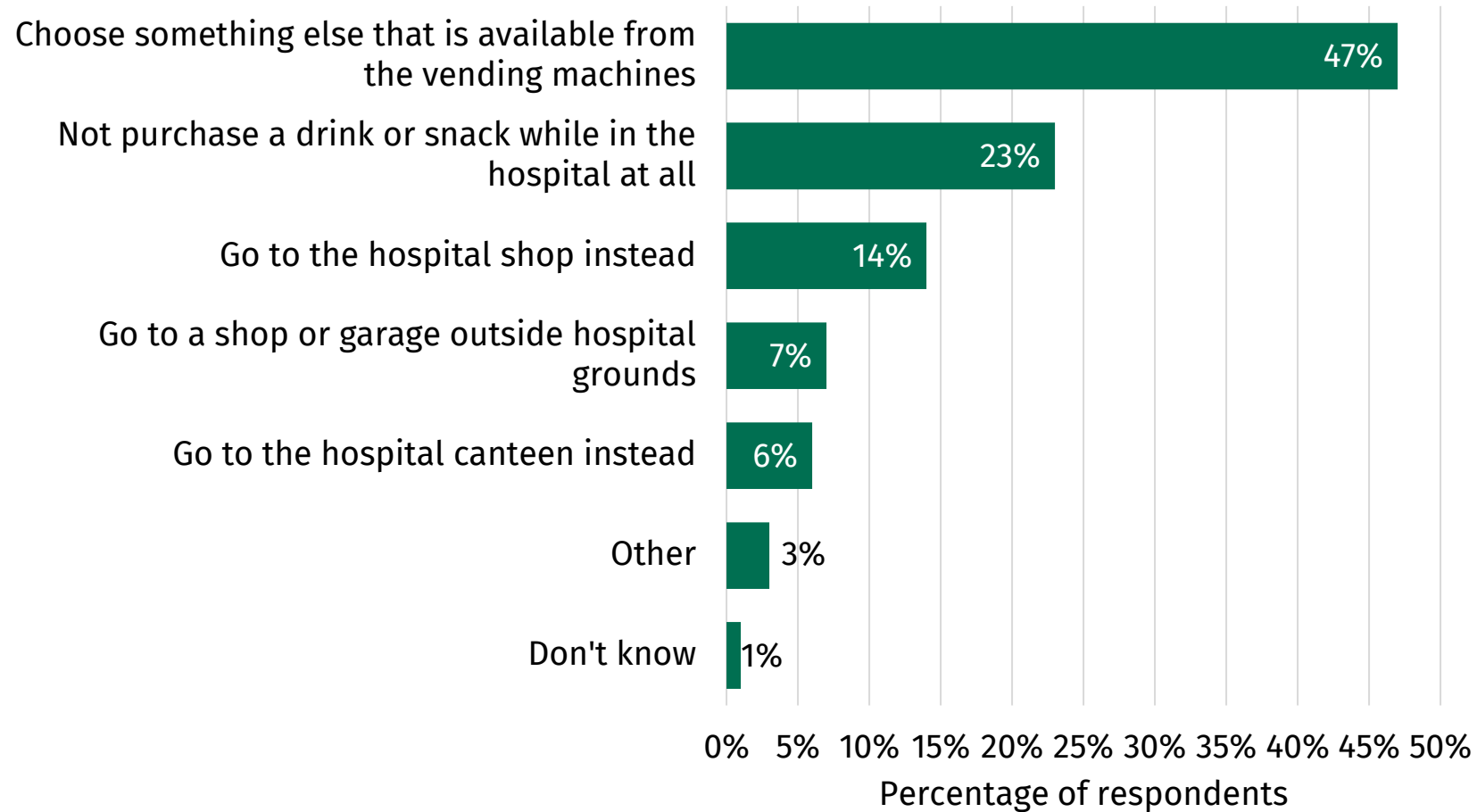
Reasons for using hospital vending machines



Q5. Why do you use hospital vending machines?

Base: 788 hospital staff and visitors aged 18+

Options if product unavailable in vending machine



Q6. If your preferred snack or drink was not available in the hospital vending machine, what would you be most likely to do?

Base: 788 hospital staff and visitors aged 18+

Changes respondents have noticed

Of those who had worked or visited HSCTs prior to 2022, **38%** noticed a change in the vending machines items

55% think that the vending machines only have sugar free/low calorie soft drinks

5% think machines now only have sugar sweetened drinks

28% think snacks and confectionery are now offered in smaller sizes

27% think snacks and confectionery are now lower in calories

25% think there is more still and sparkling water offered

3% think there is less still and sparkling water

Base: 633 hospital staff or visitors aged 18+ who worked in or visited a HSCT prior to 2022

Awareness and support for vending guidance

26% of staff and visitors were aware of the nutritional standards

49% noticed the healthier vending branding on vending machines

21% would be more likely to purchase products from hospital vending machines if they saw the healthier vending branding

5% said they would be less likely to purchase from hospital vending machines if they saw the branding

Base: 788 hospital staff and visitors aged 18+

64% of the hospital staff who have worked in HSC prior to 2022 are supportive of the healthier vending guidance

Base: 559 hospital staff aged 18+ who worked in or visited a HSCT prior to 2022



Discussion

Discussion (1)

Of the 121 vending machines that were audited, only 23 machines were fully compliant with the vending guidance, these 23 machines were all drinks-only machines with no machines containing food being fully compliant.

The greatest progress is seen with changes to the stock of water and low calorie drinks within vending machines, as 38% of vending machines only selling drinks audited were compliant with the guidelines. Three quarters (74%) of vending machines in HSCT hospitals ensure at least 30% of the drinks available for purchase are water.

Both of these audit findings are reflected in the analysis of sales data. Across the four years between 2019 and 2023 sales of all types of water (still, sparkling and flavoured) increased by 26% while unit sales of drinks with added sugar decreased by 90%.

Overall, per product (in 2023). Likewise, following implementation average sugar content has there was a small 1% reduction in unit sales of cold drinks. However, the modified drink offering within the new guidance may have contributed to large changes in nutritional content of drinks bought. After the implementation of the new guidance, the average calorie content of drinks sales has decreased from 59 calories (in 2019) to 23 calories also dropped from 14g in 2019 to 5g in 2023.

Discussion (2)

Shifts in sales are also evident within the snack product categories. While the unit sales of savoury snacks and chocolate or biscuits increased considerably (+27% and +31% respectively), the sales of confectionery and packet sweets has decreased (-70%) following implementation of the new vending guidance.

Following implementation of the new vending guidance, average calorie, saturated fat and salt content of savoury food products sold has decreased (-45kcal, -0.45g and -0.25g respectively).

Despite low numbers of fully compliant vending machines, the majority of slots within vending machines contained products below each category's calorie caps. Data suggests that implementation of the vending guidance has improved nutritional purchasing without negatively impacting sales, as unit sales increased by 11% between 2019 and 2023.

Two fifths (42%) of survey participants say they use vending machines in HSCTs once a week. The frequent use of vending machines highlights the importance of this evaluation to help inform implementation of the vending guidance to further improve food and drink offerings in health and social care settings.

Recommendations (1)

Based on the findings of this evaluation, any further review of the vending guidance should consider:

1. Further engagement with procurement and contract suppliers to determine barriers to implementation and identify any additional support required.
 - Engagement with procurement and supplier teams will be crucial to understand their barriers and to put steps in place to mitigate against these.
2. Regular monitoring of the implementation of the vending guidance at Trust level to highlight areas of non-compliance.
 - Despite awareness of the new standards and accompanying signage having little apparent impact on staff behaviours, there is a strong sense of support for the new guidance overall. Almost two thirds of staff (64%) support the changes, with only 13% opposed.
 - Given the positive support for implementation, improved nutritional purchasing and increased unit sales, there is opportunity to promote for greater adherence to the vending guidelines.

Recommendations (2)

Based on the findings of this evaluation, any further review of the vending guidance should consider:

3. Additional communications that are designed and implemented to raise awareness and support further implementation of the guidance. Other ways to strengthen the message should be explored, particularly amongst HSCT staff who frequently use vending machines for both drinks and snacks.
 - One in five (21%) survey respondents said they would be more likely to purchase something from a vending machine if they saw the branding in the hospital. However, this does not allow us to estimate changes in unit sales by increasing awareness.
4. Enhanced communications to ensure alignment between the brand messaging, the vending guidance and products stocked within the machines to provide a cohesive narrative to vending machine users.

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- Michelle Young
- Thomas Mills
- Charlotte Parnell
- The HSC Nutritional Standards Steering Group
- Professor Fiona Gillison from the FSA's Advisory Committee for Social Science

Ipsos Standards & Accreditations

Ipsos's standards & accreditations provide our clients with the peace of mind that they can always depend on us to deliver reliable, sustainable findings. Moreover, our focus on quality and continuous improvement means we have embedded a 'right first time' approach throughout our organisation.



ISO 20252 – is the international specific standard for market, opinion and social research, including insights and data analytics. Ipsos in the UK was the first company in the world to gain this accreditation.



MRS Company Partnership – By being an MRS Company Partner, Ipsos UK endorse and support the core MRS brand values of professionalism, research excellence and business effectiveness, and commit to comply with the MRS Code of Conduct throughout the organisation & we were the first company to sign our organisation up to the requirements & self-regulation of the MRS Code; more than 350 companies have followed our lead.



ISO 9001 – International general company standard with a focus on continual improvement through quality management systems. In 1994 we became one of the early adopters of the ISO 9001 business standard.



ISO 27001 – International standard for information security designed to ensure the selection of adequate and proportionate security controls. Ipsos UK was the first research company in the UK to be awarded this in August 2008.



The UK General Data Protection Regulation (UK GDPR) & the UK Data Protection Act 2018 (DPA) – Ipsos UK is required to comply with the UK General Data Protection Regulation and the UK Data Protection Act; it covers the processing of personal data and the protection of privacy.



HMG Cyber Essentials – A government backed and key deliverable of the UK's National Cyber Security Programme. Ipsos UK was assessment validated for certification in 2016. Cyber Essentials defines a set of controls which, when properly implemented, provide organisations with basic protection from the most prevalent forms of threat coming from the internet.



Fair Data – Ipsos UK is signed up as a 'Fair Data' Company by agreeing to adhere to twelve core principles. The principles support and complement other standards such as ISOs, and the requirements of Data Protection legislation.

This work was carried out in accordance with the requirements of the international quality standard for market research, ISO 20252 and with the client contract.

Appendix A- methodology

Methodology (1)

To meet the objectives of the evaluation, a three-stage programme of research was implemented.

- A phase of secondary data analysis exploring sales data from Coca Cola Hellenic for vending machines placed across HSC hospitals in Northern Ireland.
- Audits of vending machines across HSC hospitals in Northern Ireland to determine compliance to the 2022 vending guidance; and,
- A survey of both HSC staff and visitors to hospitals was carried out in Northern Ireland.
- Ethics approval was sought from Ipsos Ethics Committee and permission to conduct research on hospital premises was obtained from Northern Ireland's Chief Medical Officer.
- All stages of the project followed Ipsos' internal Quality Assurance (QA) processes, FSA review and QA stages and peer reviewed by ACSS and FSA steering group.

Secondary analysis

- Databases were provided to enable Ipsos to conduct an analysis of sales pre- and post-guidance implementation. The two databases provided to Ipsos included wholesale sales data for products stocked in vending machines in HSCTs in 2019 and 2023.
- To conduct the necessary nutrition analysis, Ipsos compiled the nutritional information of the products listed in the sales database and those recorded in the vending machine audits into one dataset.

Details on vending machine audits (1)

In total, 133 vending machines were audited in 19 hospitals across Northern Ireland. In total, 18 hospitals were included in the audits as Towerhill hospital (SHSCT) did not have any vending machines.

Vending machines in inaccessible locations, such as A&E Departments, Intensive Care Units, and Coroner Departments, were excluded from the audits.

In-depth data collection was conducted on the vending machines to determine the contents of each machine. However, as Ipsos fieldworkers did not have access to the machines, contents were only assessed by recording the first product in a slot.

To record vending machine contents, interviewers completed checklist questions and captured several photos for researchers to examine. Details from audit pictures were used to categorise items to develop a database of vending machine contents.

Vending machine audits took place between 6th and 11th March 2024.

At the analysis stage, 12 vending machines were excluded from the audit. To ensure an accurate degree of compliance, it was agreed to exclude vending machines with less than 80% stocked at the time of audit. Overall, 121 vending machines were included in the final analysis from the audit.

Details on vending machine audits (2)

Trust	Hospital	Completed audits
Northern Health and Social Care Trust	Antrim Area Hospital	11
	Causeway Hospital	6
	Mid Ulster Hospital	1
	Whiteabbey Hospital	4
Belfast Health and Social Care Trust	Royal Victoria Hospital	24
	Mater Hospital	5
	Belfast City Hospital	8
	Musgrave Park Hospital	10
South Eastern Health and Social Care Trust	Downe Hospital	4
	Lagan Valley Hospital	5
	Ulster Hospital	12
Southern Health and Social Care Trust	Daisy Hill Hospital	3
	Craigavon Area Hospital	7
	Lurgan Hospital	1
	South Tyrone	1
Western Health and Social Care Trust	Altnagelvin Hospital	9
	Omagh Hospital	2
	South West Acute Hospital	8

Details on staff and visitor survey (1)

A survey of HSC staff and visitors to hospitals in Northern Ireland was conducted across March and early April 2024.

Two data collection modes were offered to ensure maximum accessibility and to enable surveys to be undertaken at any time of the day. The two data collection methods were as follows:

1. QR codes on posters, placed on or close to vending machines; and,
2. Intercept interviews conducted by Ipsos interviewers during various shifts at designated hospitals.

A total of 788 completed surveys were achieved across 19 hospitals selected for the research and this breaks down as follows:

- 666 surveys completed by hospital staff; and,
- 122 surveys completed by visitors.

Convenience sampling, a type of non-probability sampling approach was adopted where the sample was drawn from a section of the population that was close at hand, readily available, or convenient. This included capturing views of people visiting a hospital setting and hospital staff. No boost samples were used to boost survey sample.

Details on staff and visitor survey (2)

Questionnaires were developed in conjunction with the FSA and were programmed by Ipsos in-house programmers for both the QR codes and interviewer-administered survey.

The survey was designed to take no longer than 5 minutes to complete. Survey questions were agreed between Ipsos and the FSA.

Survey questions related to vending machine usage were asked to both staff and visitors. Demographic characteristics (age, gender, whether a member of staff or a visitor) were captured at the start of the survey.

Posters containing QR codes for the survey were displayed from 6th March to 8th April and the survey was live during this time.

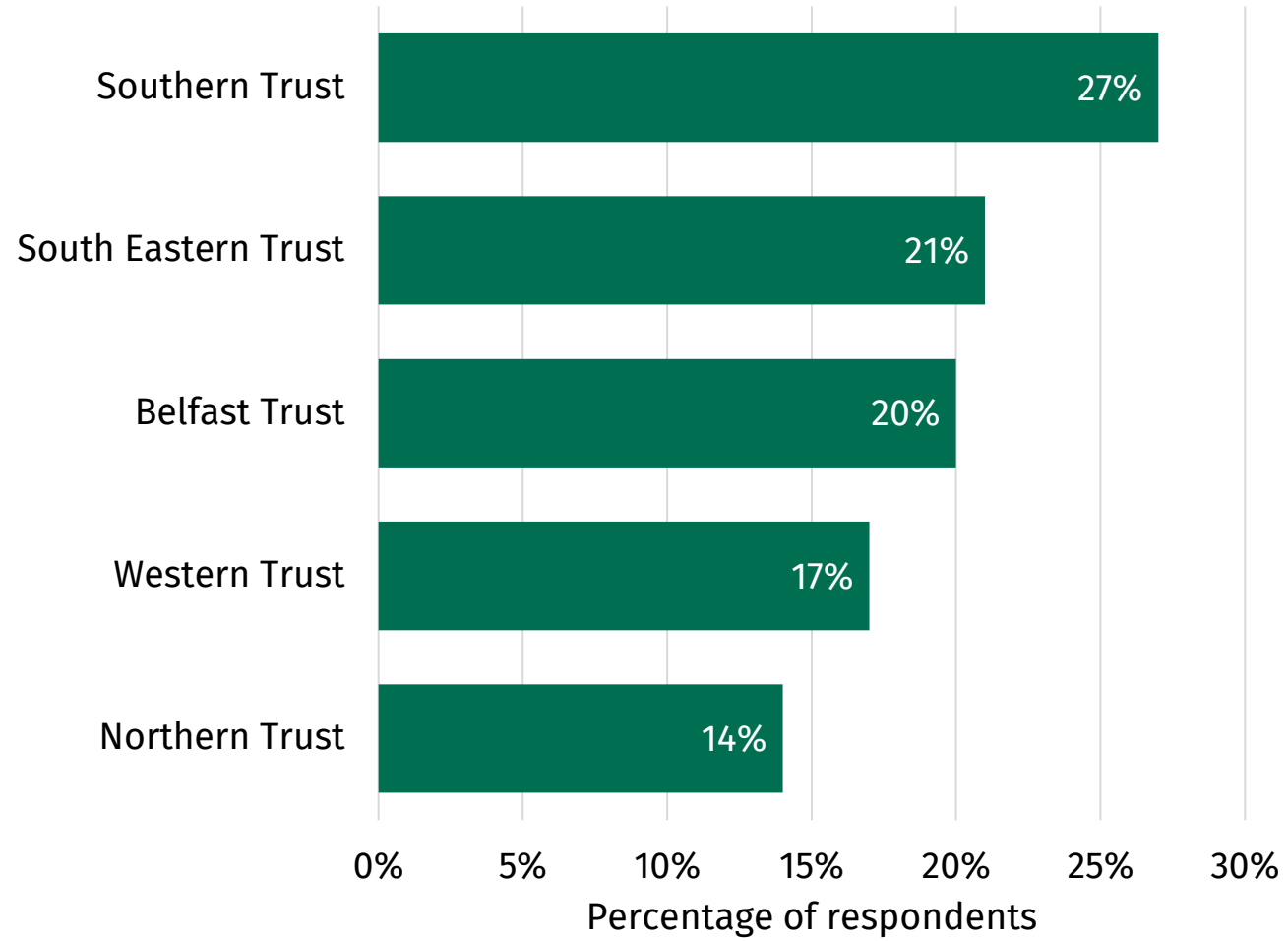
No weighting was applied to any data.

Breakdown of survey responses

Trust	Hospital	Completed surveys	Percentage
Northern Health and Social Care Trust	Antrim Area Hospital	48	6%
	Causeway Hospital	33	4%
	Mid Ulster Hospital	14	2%
	Whiteabbey Hospital	18	2%
Belfast Health and Social Care Trust	Royal Victoria Hospital	91	12%
	Mater Hospital	1	0%
	Belfast City Hospital	43	5%
	Musgrave Park Hospital	20	3%
South Eastern Health and Social Care Trust	Downe Hospital	58	7%
	Lagan Valley Hospital	33	4%
	Ulster Hospital	78	10%
Southern Health and Social Care Trust	Towerhill Hospital	10	1%
	Daisy Hill Hospital	26	3%
	Craigavon Area Hospital	135	17%
	Lurgan Hospital	31	4%
	South Tyrone	13	2%
Western Health and Social Care Trust	Altnagelvin Hospital	78	10%
	Omagh Hospital	19	2%
	South West Acute Hospital	39	5%

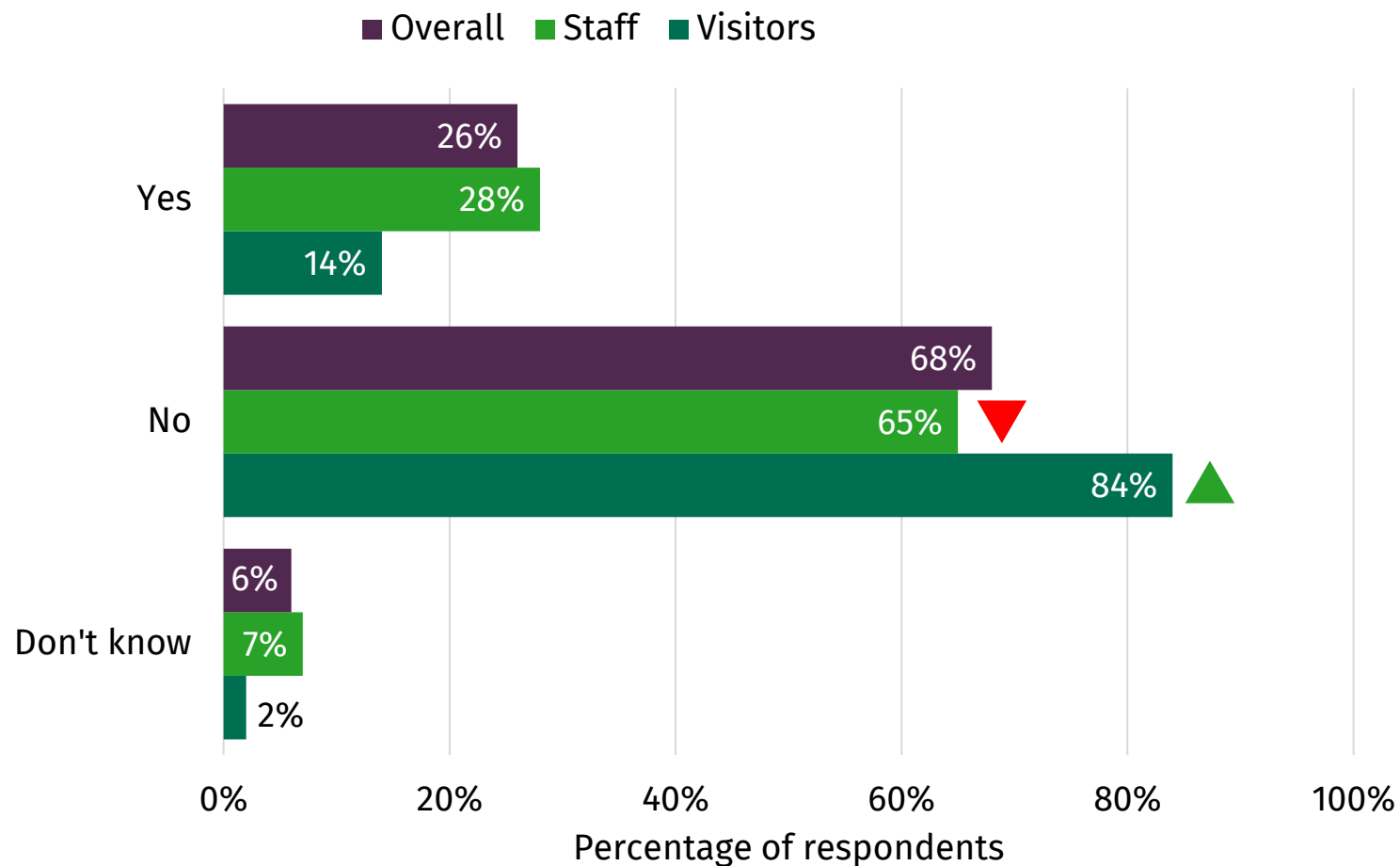
Appendix B- Detailed survey findings

Survey response rate by HSCT



Base: 788 hospital staff and visitors aged 18+

Awareness of the nutritional standards for vending machines in HSCT settings

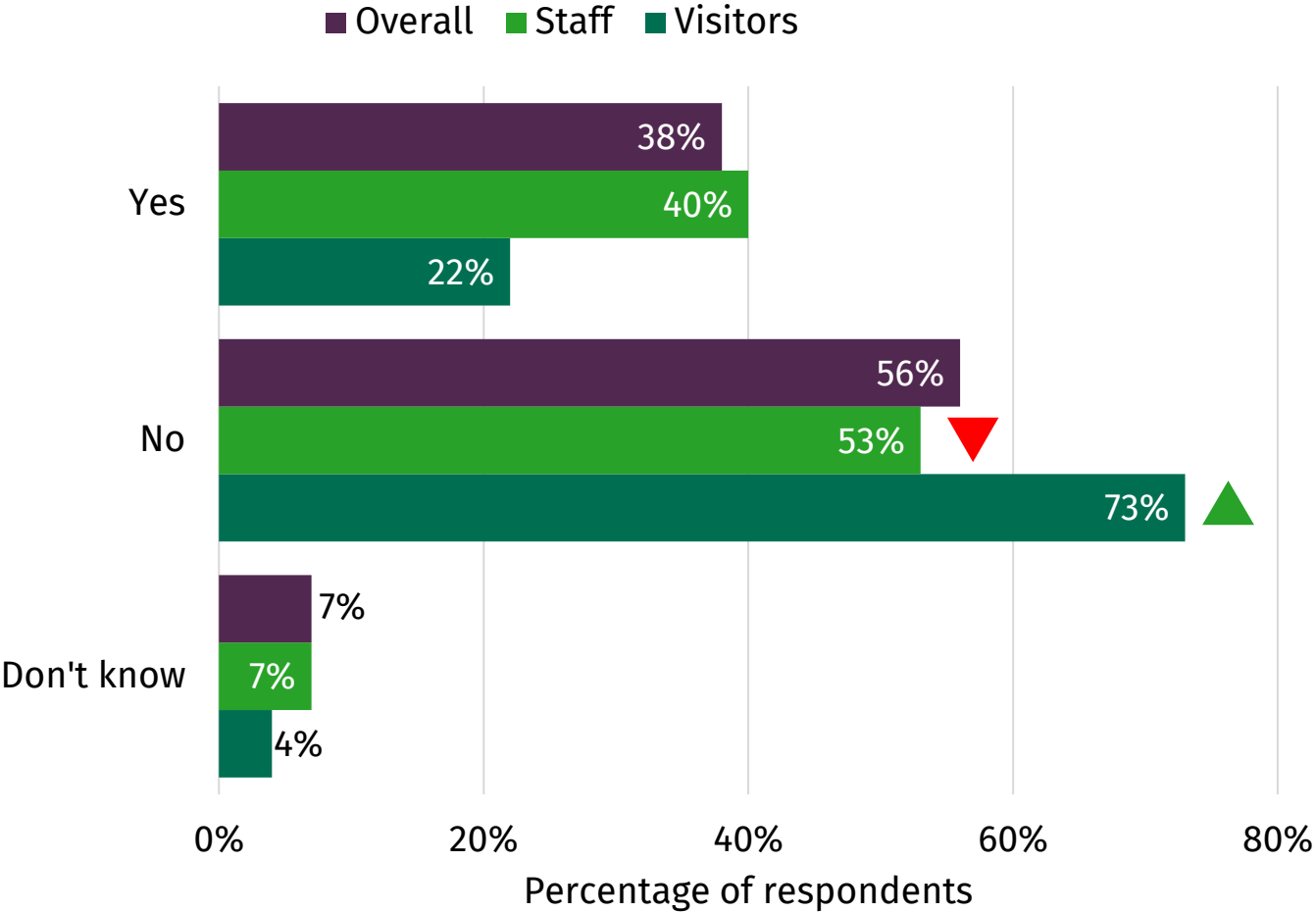


Q7. Are you aware of the nutritional standards for vending machines in Health and Social Care settings?

Base: 788 hospital staff and visitors aged 18+

▲ Statistically significantly higher than other subgroup
▼ Statistically significantly lower than other subgroup

Awareness of changes to vending machines post-implementation of nutritional standards

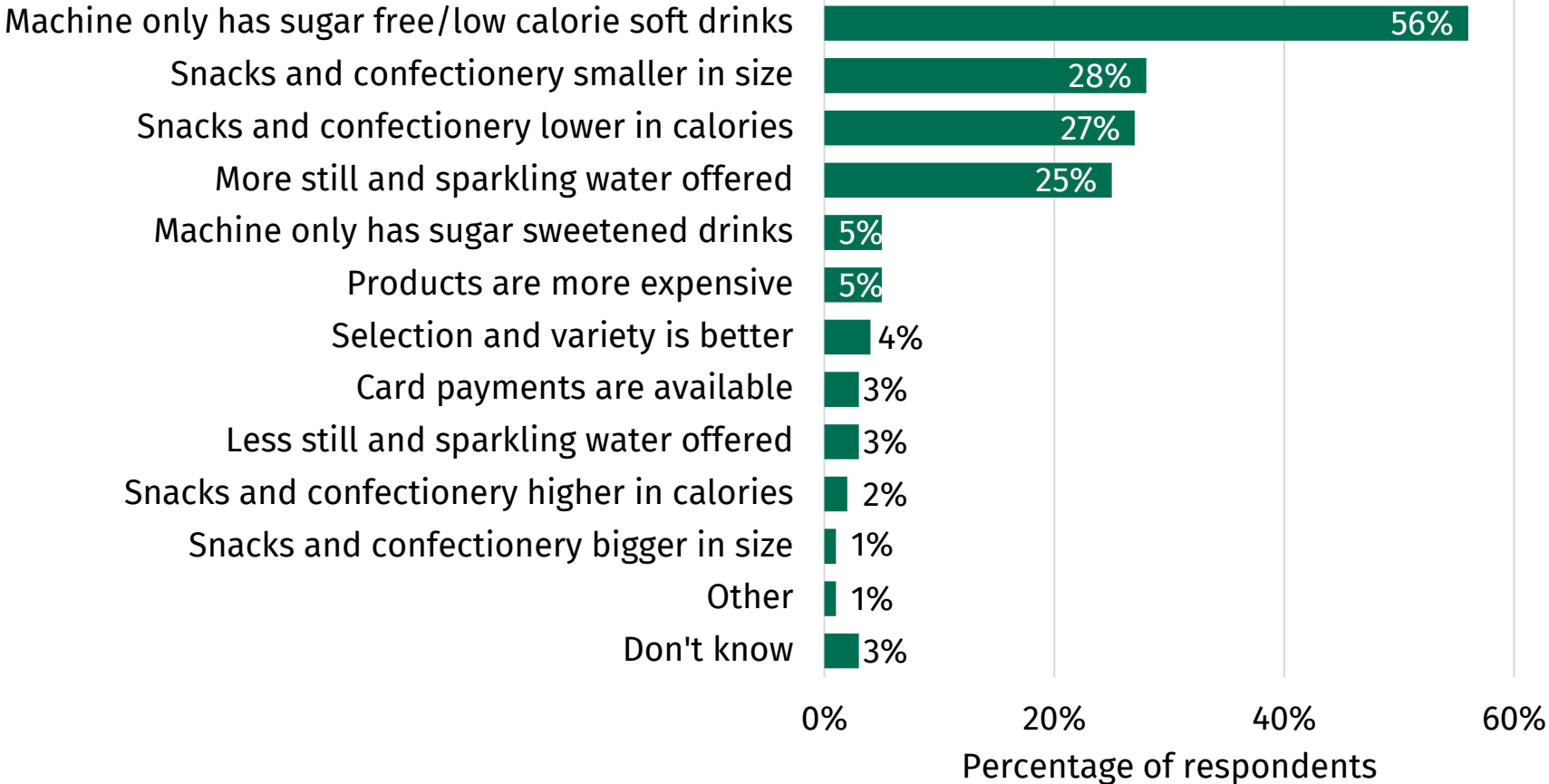


Q9. Have you noticed a change in the vending machine items since 2022?

Base: 633 adults who worked in or visited a HSCT prior to 2022

▲ Statistically significantly higher than other subgroup
▼ Statistically significantly lower than other subgroup

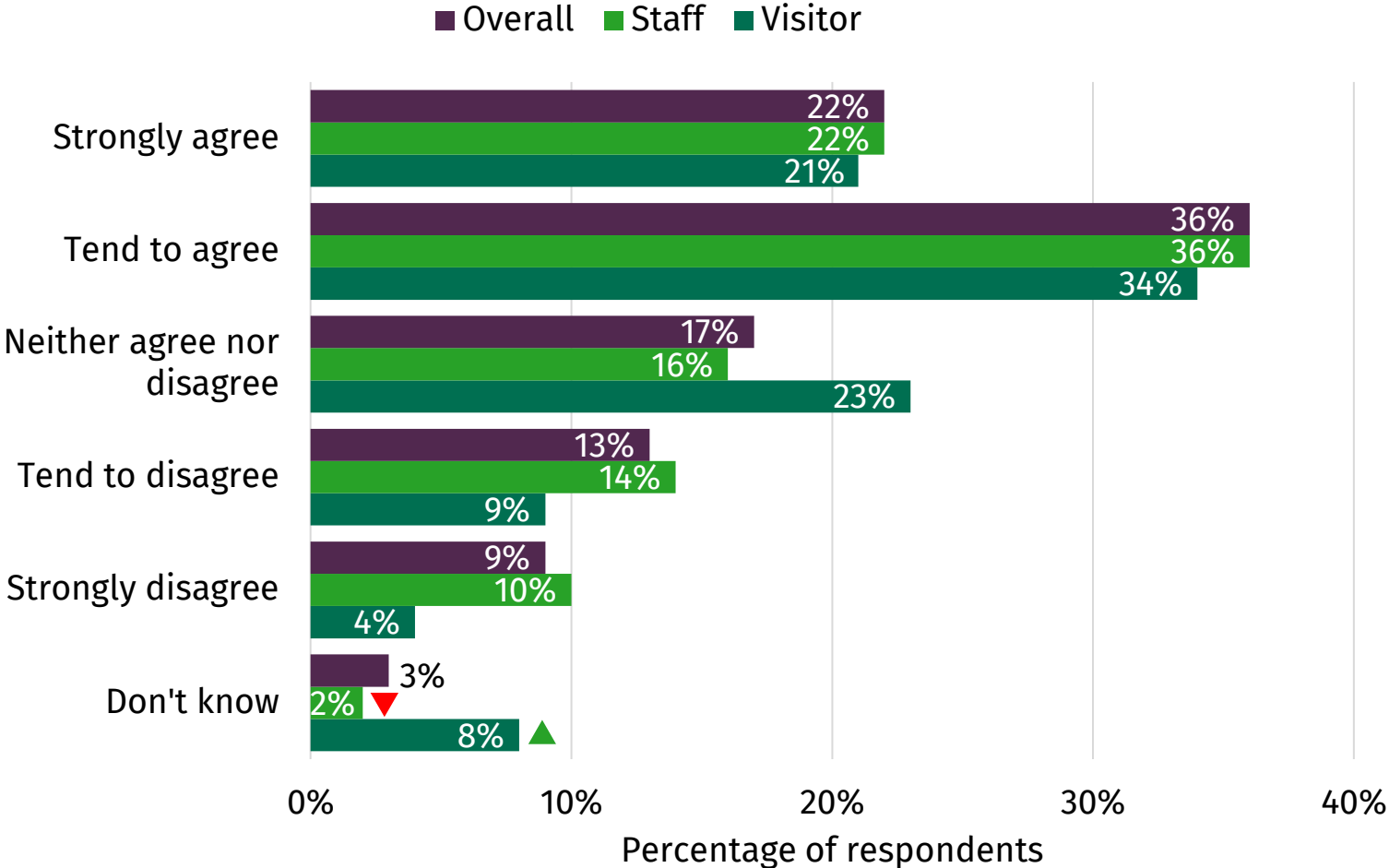
Observed changes to vending machines post-implementation of nutritional standards



Q10. What changes have you noticed to the vending machine items?

Base: 238 adults who noticed changes to the vending machine items since 2022

Satisfaction with the variety of products in vending machines

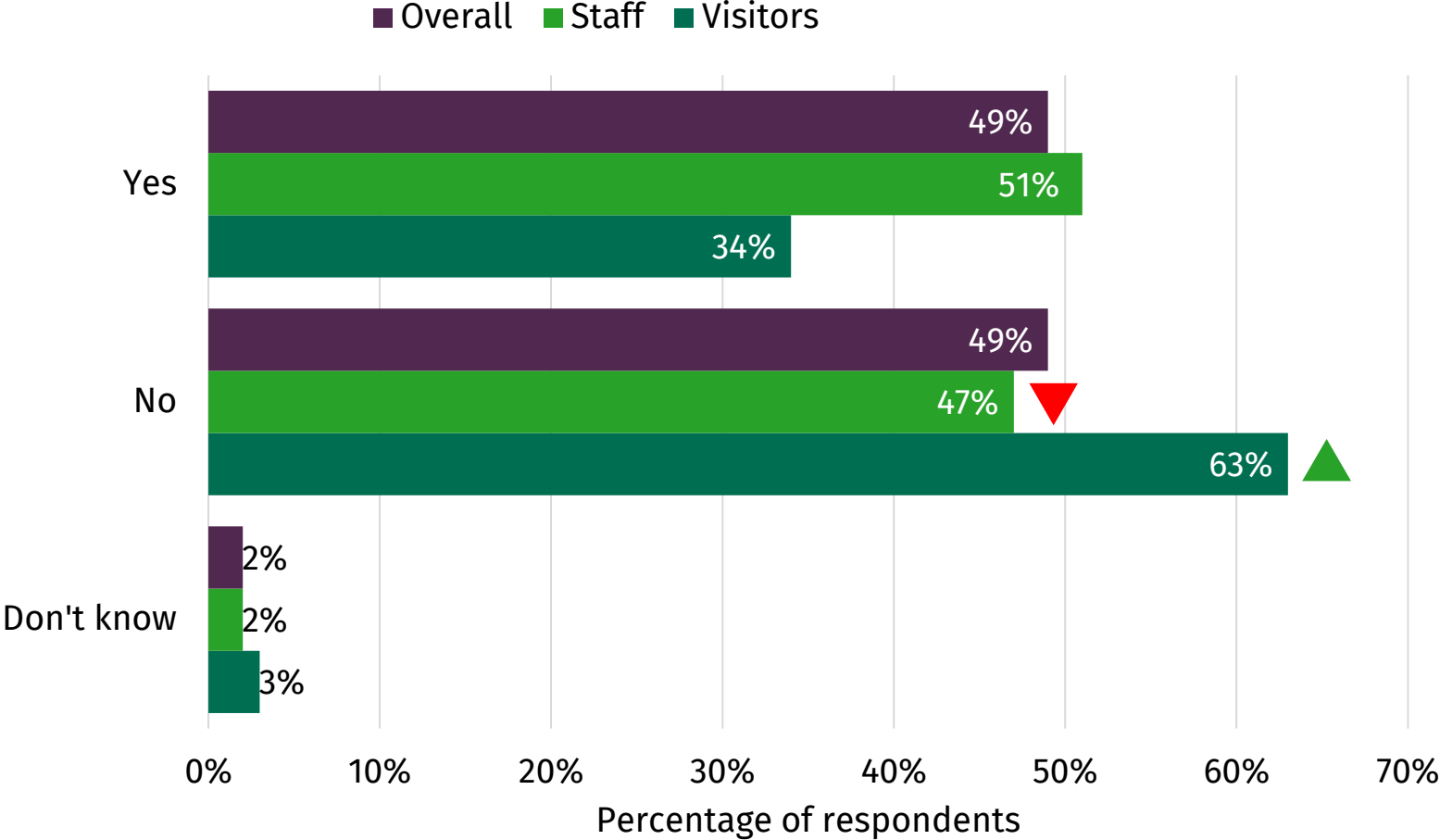


Q11. To what extent do you agree or disagree that the variety of products on offer in hospital vending machines is satisfactory?

Base: 788 hospital staff and visitors aged 18+

▲ Statistically significantly higher than other subgroup
▼ Statistically significantly lower than other subgroup

Awareness of nutritional standards guidance branding

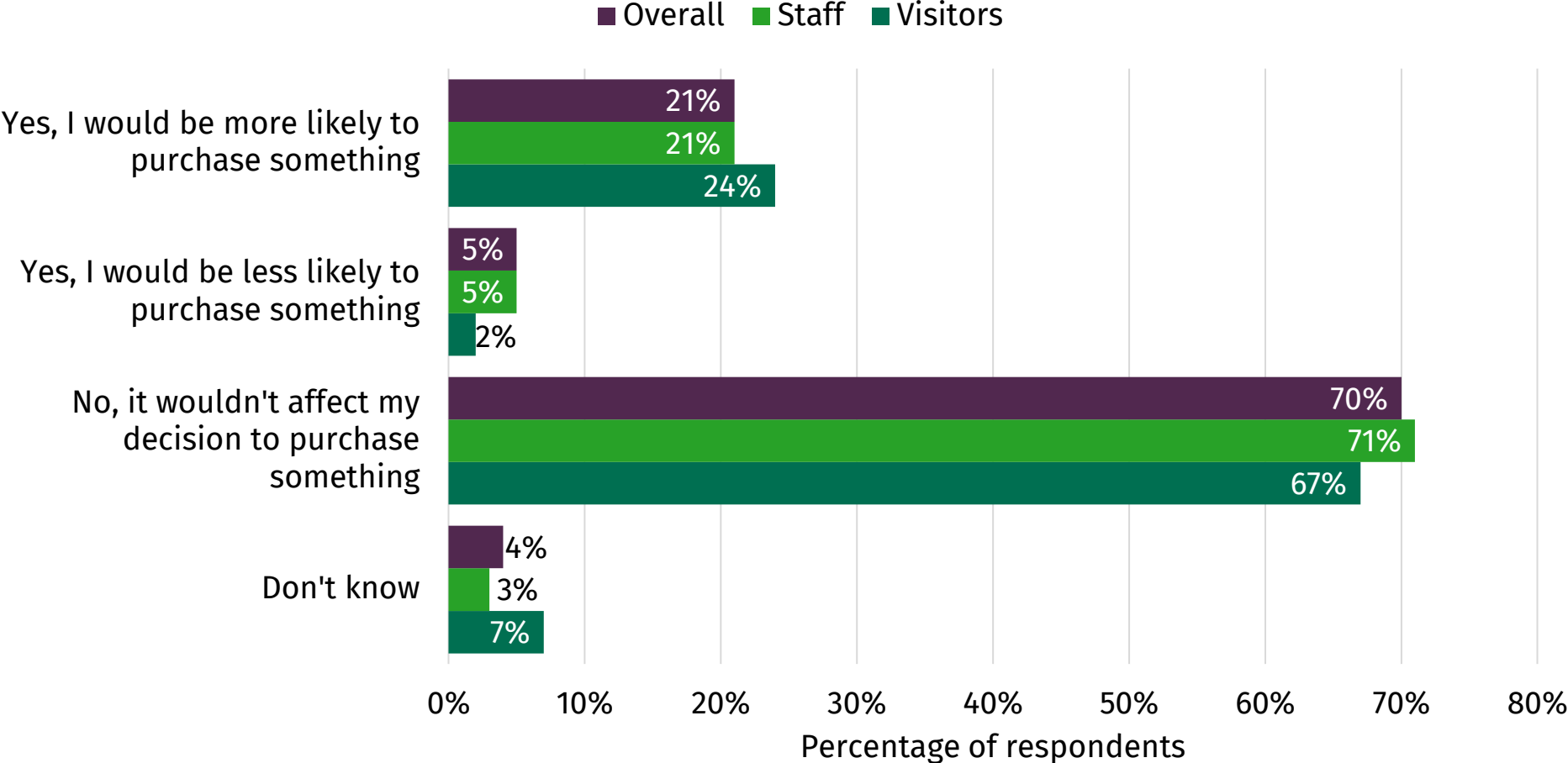


Q12. Have you noticed this signage on any vending machines in the hospital recently?

Base: 788 hospital staff and visitors aged 18+

▲ Statistically significantly higher than other subgroup
▼ Statistically significantly lower than other subgroup

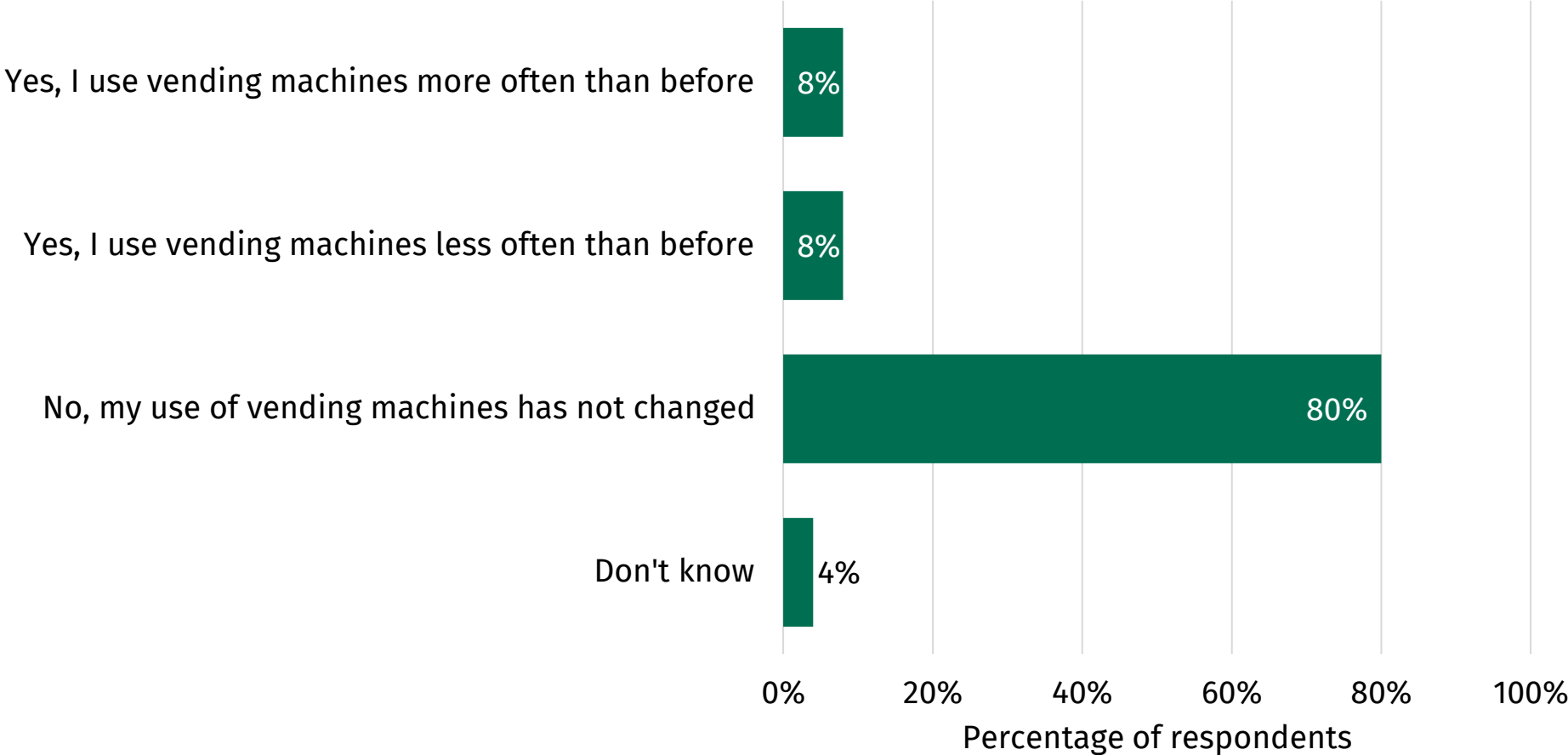
Extent of branding influence on purchasing behaviours



Q13. If you saw this signage on a vending machine in the hospital, do you think it would influence your decision to purchase something from the machine?

Base: 788 hospital staff and visitors aged 18+

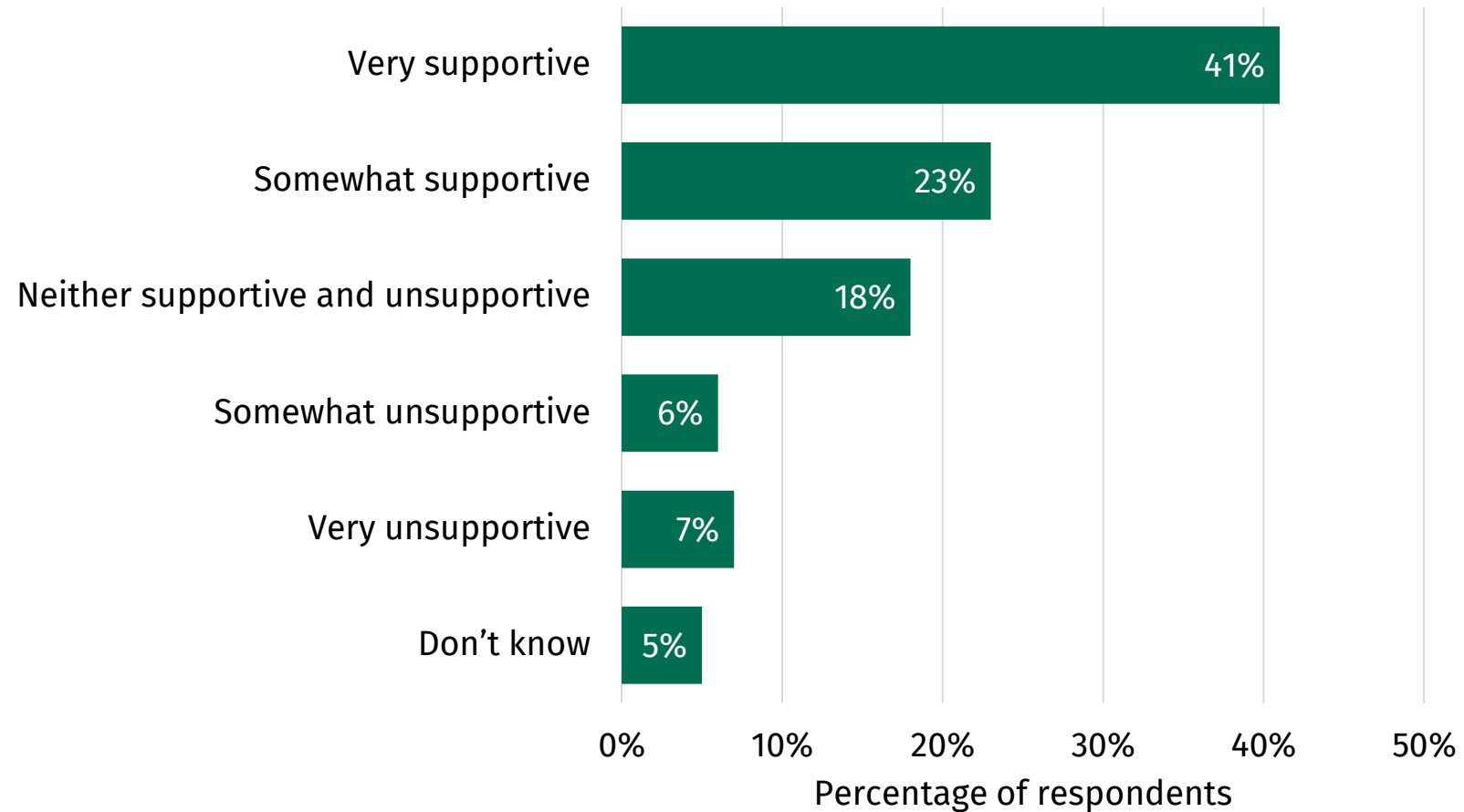
Behavioural changes in the use of vending machines post-implementation of guidance



Q14. Has your use of vending machines in the hospital changed since the healthier vending guidance was introduced in 2022?

Base: 633 adults who worked in or visited a HSCT prior to 2022

Support of healthier vending machine guidance



Q15. To what extent are you supportive of the changes made to vending machines in hospitals since 2022?

Base: 633 adults who worked in or visited a HSCT prior to 2022

Appendix C - Detailed sales data analysis findings

Pre- and post-implementation percentage changes in drinks unit sales

Flavoured water	1,648%
Sparkling water	104%
Low-calorie drinks*	26%
All water	26%
Still water	-1%
All cold drinks	-1%
Fruit juice, vegetable juice and smoothies*	-40%
Drinks with added sugar*	-90%

**Products with no available nutritional information were excluded from totals as there was no way of establishing their calorie or sugar contents (2019 – 5 drink products; 2023 – 2 drink products)*

Pre- and post-implementation percentage changes in food unit sales

Percentage change in food sales between 2019 and 2023

