



International Microbiota Observatory

L'Observatoire International
des Microbiotes

Study results by country



— **Brazil**

China

Mexico

Portugal

Spain

United States

France

A large, light gray illustration of a diverse microbiome, featuring various shapes of bacteria, fungi, and other microorganisms, set against a white background. The illustration is positioned on the left side of the slide, partially overlapping a dark blue background.

Methods

Methods

This international survey was conducted online in **7 countries** from March 21st - April 7th 2023. **6,500 people** were interviewed in the 7 countries, among representative samples of the population aged 18 y.o. and more in each country :

-  United States of America (n=1000)
-  Brazil (n=1000)
-  Mexico (n=1000)
-  France (n=1000)
-  Portugal (n=500)
-  Spain (n=1000)
-  China (n=1000)

An automated selection from the Ipsos Panel ensured representative samples in each country (gender, age, employment status and country region) based on quota method.

Comments



ALL COUNTRIES

(n=6500)

= Average response for all 7 countries.

Significant differences have been calculated vs All countries



= Focus on detailed results according to different criteria such as gender or age.

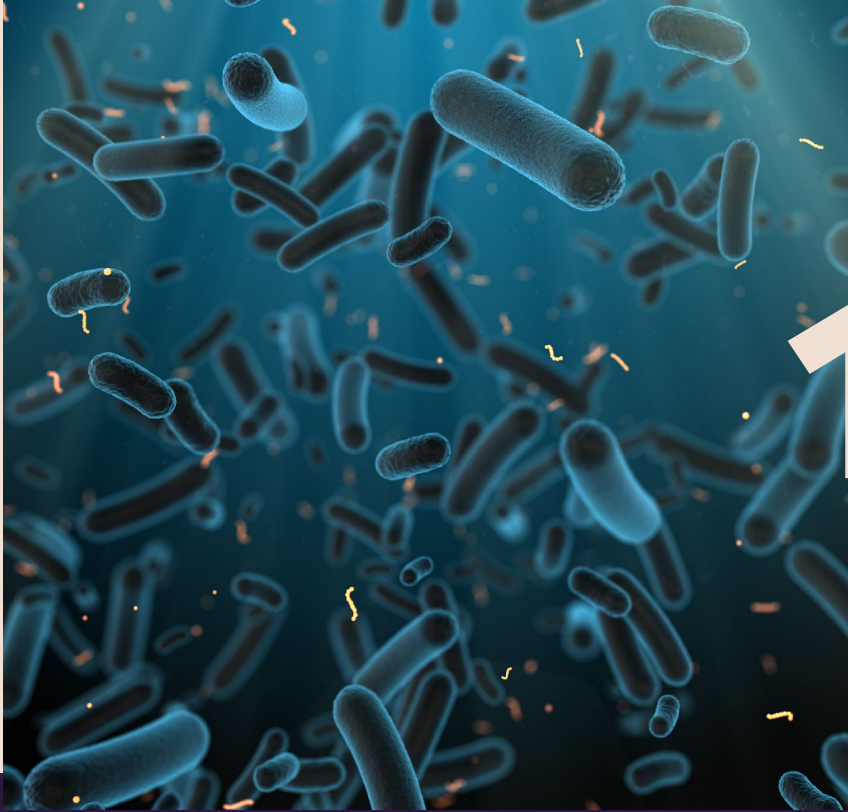
Significant differences vs country average - superior

Significant differences vs country average - inferior

= These indications show results that are statistically different (above or below) the average for all respondents.



All results are presented in %.



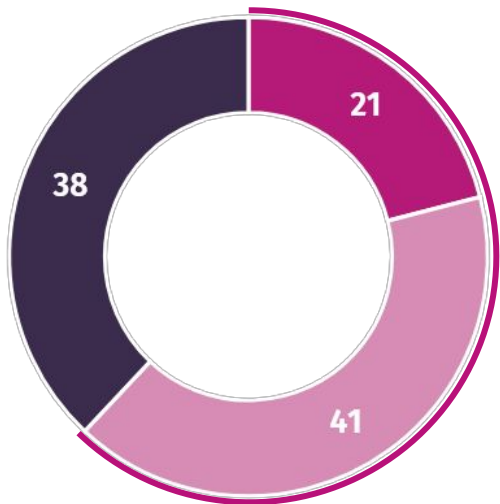
A matter of "words": a very poor understanding of the terms used to talk about the microbiota.



Although almost 2/3 of people have already heard about microbiome, only 1/5 know precisely what it is.



Question 2. Have you ever heard of the "microbiome"?
Base: All respondents

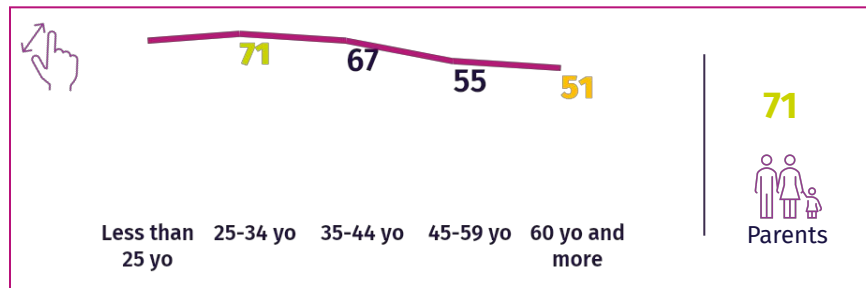


- Yes, and I know exactly what it is
- Yes, but I don't know exactly what it is
- No, I never heard about it

62% have already heard about the term microbiome



64%



● Significant differences vs total - superior

● Significant differences vs total - inferior



Those who know the word "microbiome", associate spontaneously the term with microbes, organism and intestinal flora.



Question 1. When you hear the word "microbiome", what information, words and feelings come to mind?
Base: People who have heard of the "microbiome" (n=636)



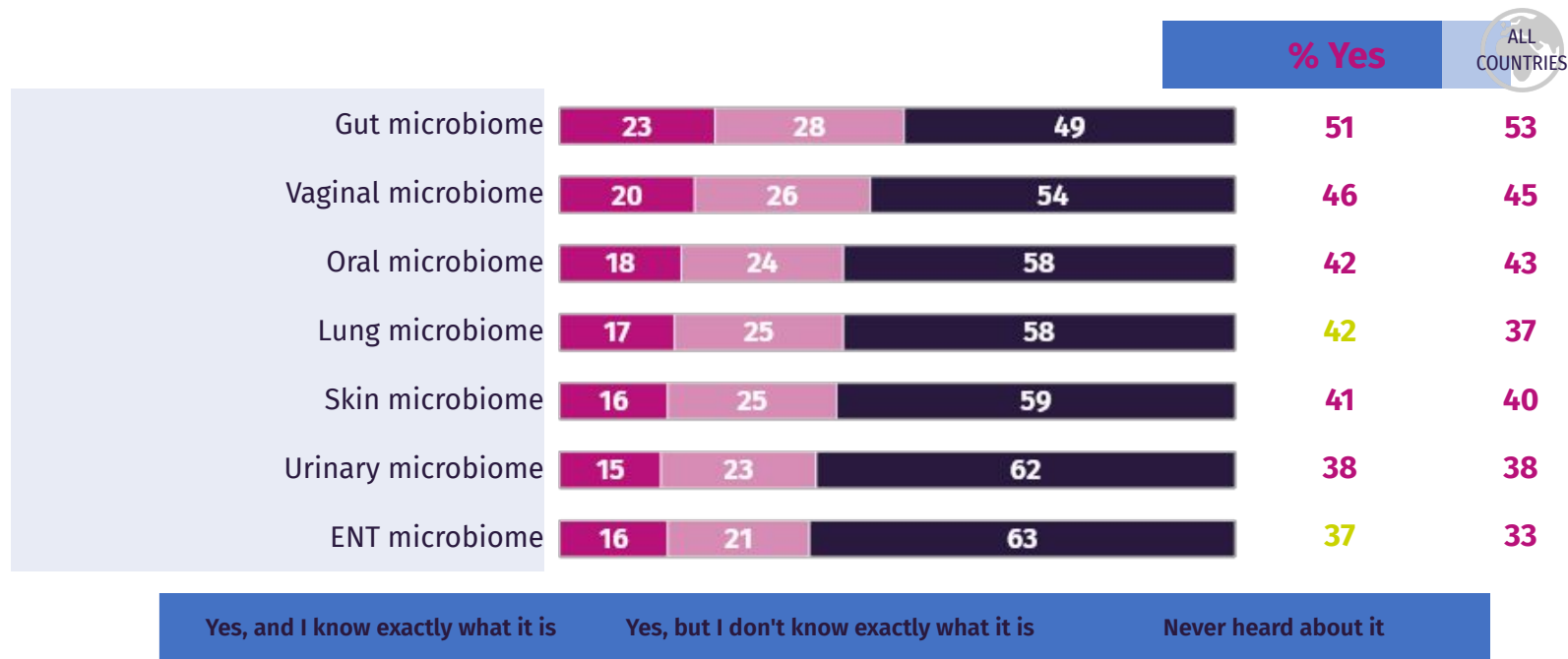
Precision: The keyword cloud is a visual representation of the most used keywords by respondents to this open question. The more words are displayed, the more the term was cited.



Little is known precisely about the different types of microbiomes. Less than 2/5 know about urinary and ENT microbiome.



Question 3. And more specifically, have you ever heard of the following terms?
Base: All respondents



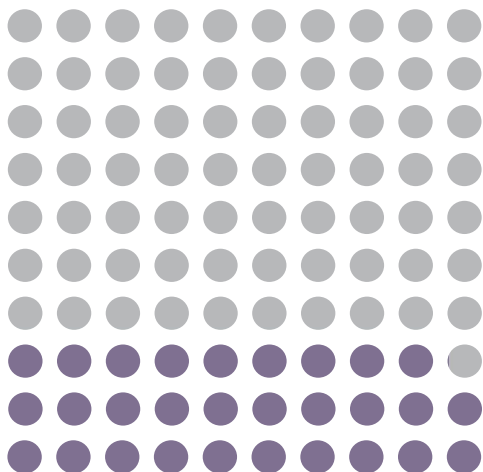


Brazilians seem to know slightly more about the diversity of the microbiome than the other countries. It is less the case for respondents over 60 yo.



Question 3. And more specifically, have you ever heard of the following terms?

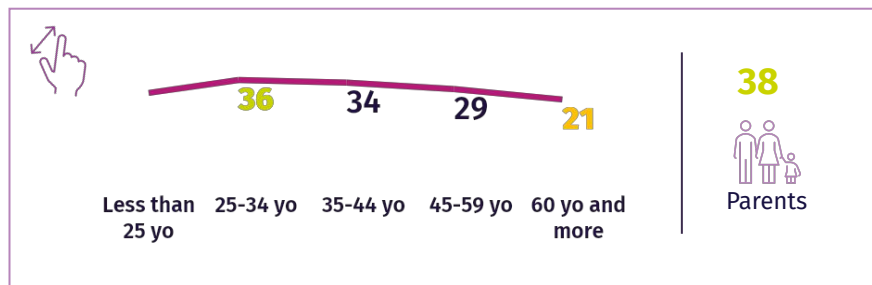
Base: All respondents



29% have already heard of each microbiome:
Gut, vaginal, skin, lung, urinary, Oral and ENT microbiome



26%



But only **9%** know precisely all of them



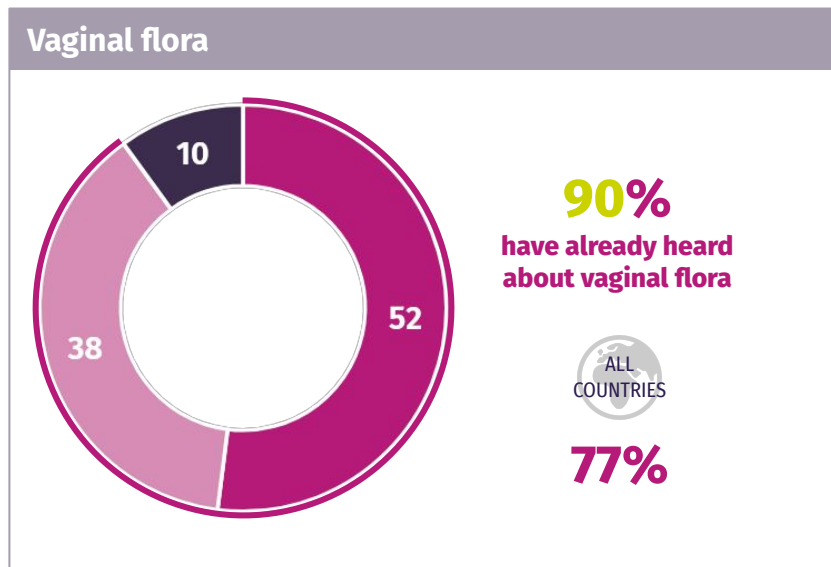
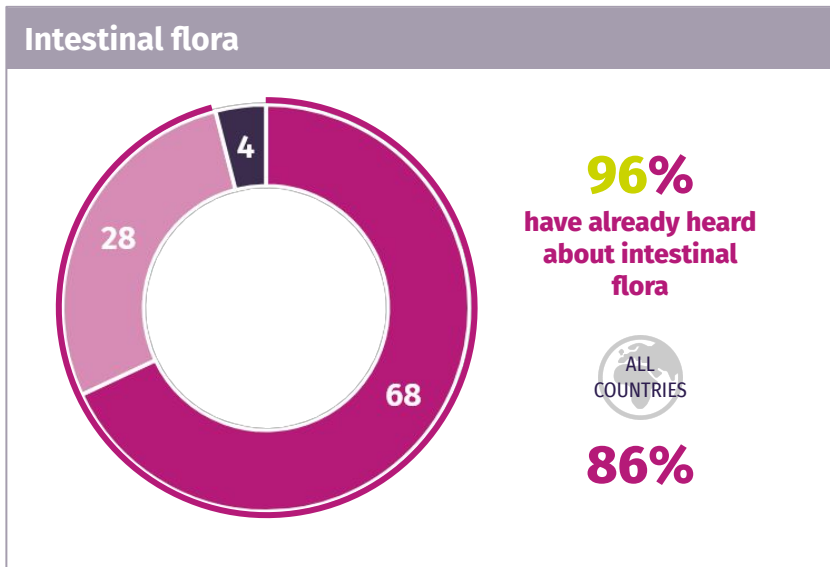
5%



People seem more aware of the term “flora” instead of microbiome, although about one third of them do not exactly know what it is.



Question 2bis. And have you ever heard of these terms?
Base: All respondents



● Yes, and I know exactly what it is
 ● Yes, but I don't know exactly what it is
 ● No, I never heard about it



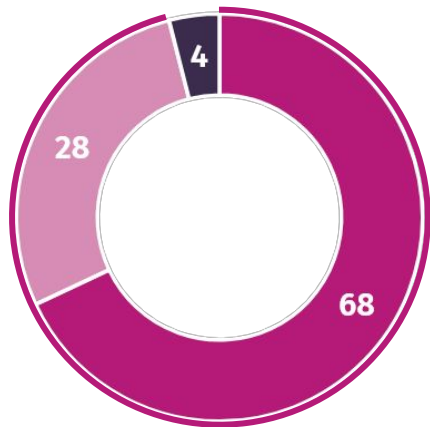
The term 'intestinal flora' is known by a majority of people in all age groups.



Question 2bis. And have you ever heard of these terms?

Base: All respondents

Intestinal flora



96% have already heard about intestinal flora

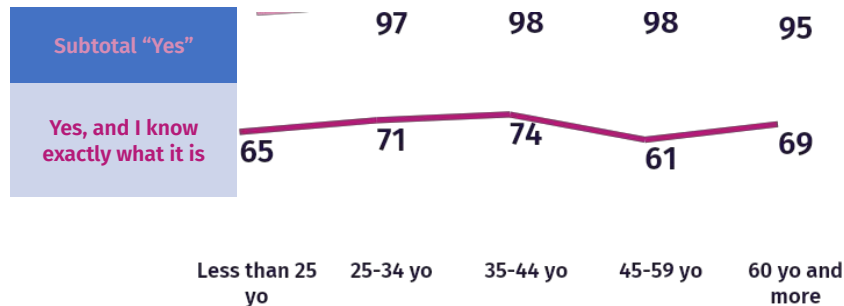


86%

- Yes, and I know exactly what it is
- Yes, but I don't know exactly what it is
- No, I never heard about it



| | | |
|------------------------------------|-----|-------|
| Subtotal "Yes" | 95 | 97 |
| Yes, and I know exactly what it is | 65 | 70 |
| | | |
| | Men | Women |



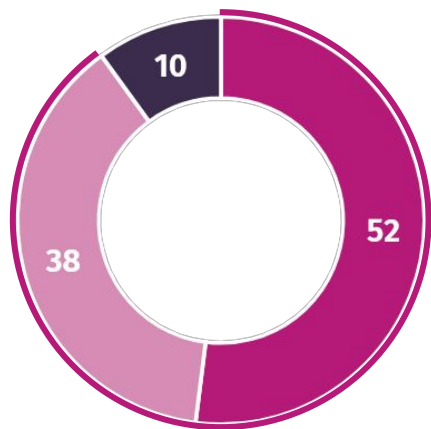
The 25-34 age group and women seem more aware of the vaginal flora.



Question 2bis. And have you ever heard of these terms?

Base: All respondents

Vaginal flora



90%
have already heard
about vaginal flora

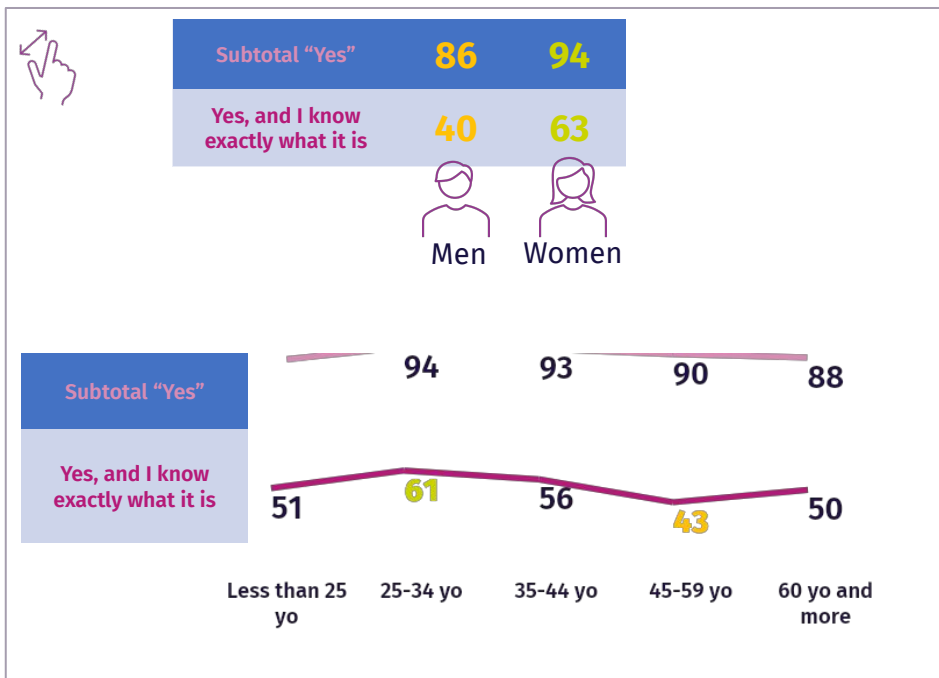


77%

- Yes, and I know exactly what it is
- Yes, but I don't know exactly what it is
- No, I never heard about it

● Significant differences vs All countries - superior

● Significant differences vs All countries - inferior





2

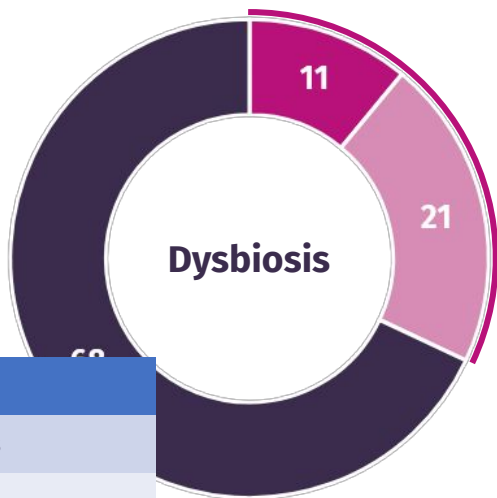
Although knowledge about the causes and consequences of an imbalanced microbiome is poor, some essential information are known by most people



Dysbiosis is far from being a common term for people, although it seems to be more widespread in Brazil than in the other countries.



Question 3. And more specifically, have you ever heard of the following terms?
Base: All respondents

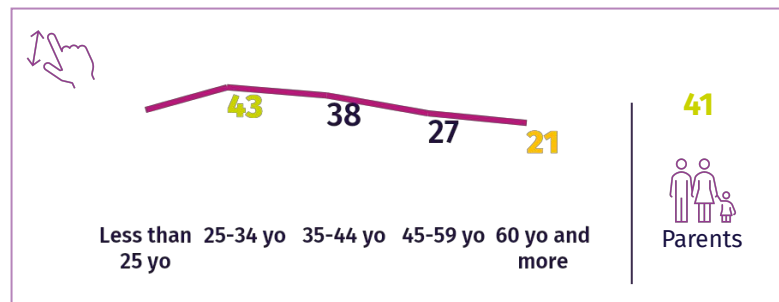


- Yes, and I know exactly what it is
- Yes, but I don't know exactly what it is
- Never heard about it

32% have already heard about the term 'dysbiosis'



28%



● Significant differences vs total - superior

● Significant differences vs total - inferior



Information about the microbiome is poor, but most people know that its imbalance is dangerous for health and that our diet significantly influence its balance.



Question 4. For each of the following statements, tell us if you think it is TRUE or FALSE. If you are unsure about your answer, answer I do not really know.

Base: All respondents



Good answer

Wrong answers/
don't know

In some cases, **an imbalance** in the microbiome **may have significant health consequences**



24

Our diet has **significant consequences** on **the balance** of our microbiome



28

The microbiome plays **an important role** in **immune defense mechanisms**



30

Antibiotics have an impact on our microbiome



32

In the field of **vaginal health**, the microbiome plays **an important role in women's health**



32

The microbiome enables the gut **to deliver essential information to the brain** for our health



43

The microbiome is **made up of bacteria, fungi and viruses**



46

When our microbiome **is unbalanced or does not work well**, there is **little that can be done**



50

Your microbiome is **located exclusively in the gut**



63

Many diseases such as Parkinson's disease, Alzheimer's disease and autism **could be linked to the microbiome**



80





Brazilians are more aware about the role played by the microbiome to deliver information to the brain. In contrast, they know less about its localization and its link to other diseases.

Question 4. For each of the following statements, tell us if you think it is TRUE or FALSE. If you are unsure about your answer, answer I do not really know. / Base: All respondents

| % good answer | Total | |
|---|-------|----|
| In some cases, an imbalance in the microbiome may have significant health consequences | 76 | 75 |
| Our diet has significant consequences on the balance of our microbiome | 72 | 74 |
| The microbiome plays an important role in immune defense mechanisms | 70 | 72 |
| Antibiotics have an impact on our microbiome | 68 | 66 |
| In the field of vaginal health , the microbiome plays an important role in women's health | 68 | 66 |
| The microbiome enables the gut to deliver essential information to the brain for our health | 57 | 53 |
| The microbiome is made up of bacteria, fungi and viruses | 54 | 54 |
| When our microbiome is unbalanced or does not work well , there is little that can be done | 50 | 53 |
| Your microbiome is located exclusively in the gut | 37 | 45 |
| Many diseases such as Parkinson's disease, Alzheimer's disease and autism could be linked to the microbiome | 20 | 25 |

● Significant differences vs total - superior ● Significant differences vs total - inferior



Parents have better knowledge about the microbiome, unlike people under 25 yo.

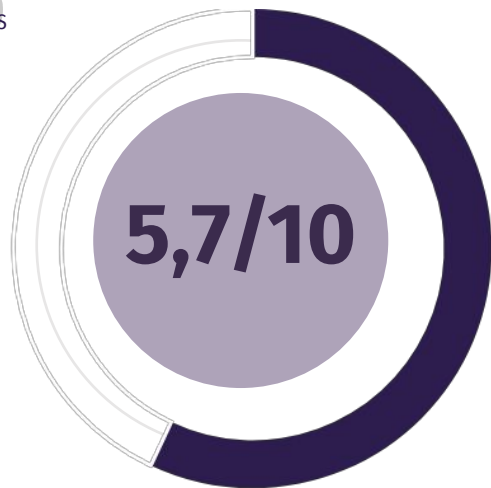


Question 4. For each of the following statements, tell us if you think it is TRUE or FALSE. If you are unsure about your answer, answer I do not really know.

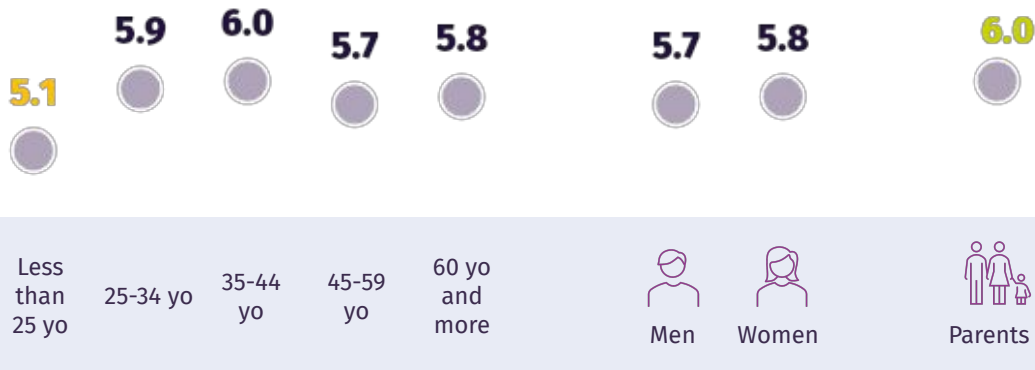
Base: All respondents



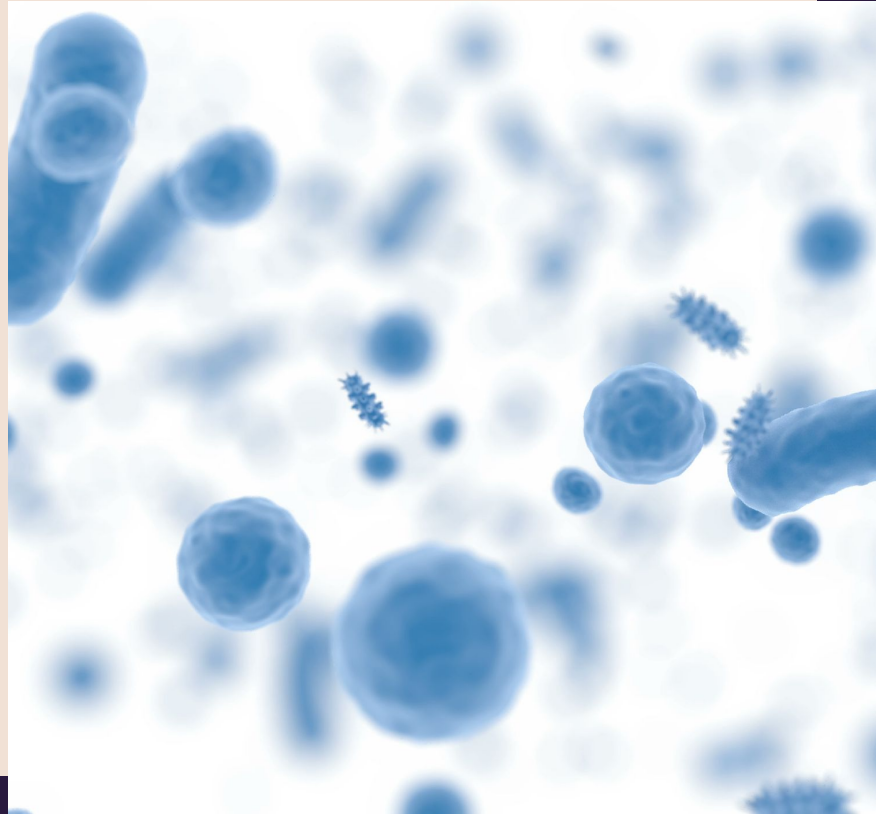
5,8



Number of good responses on average



● Significant differences vs total - superior
 ● Significant differences vs total - inferior



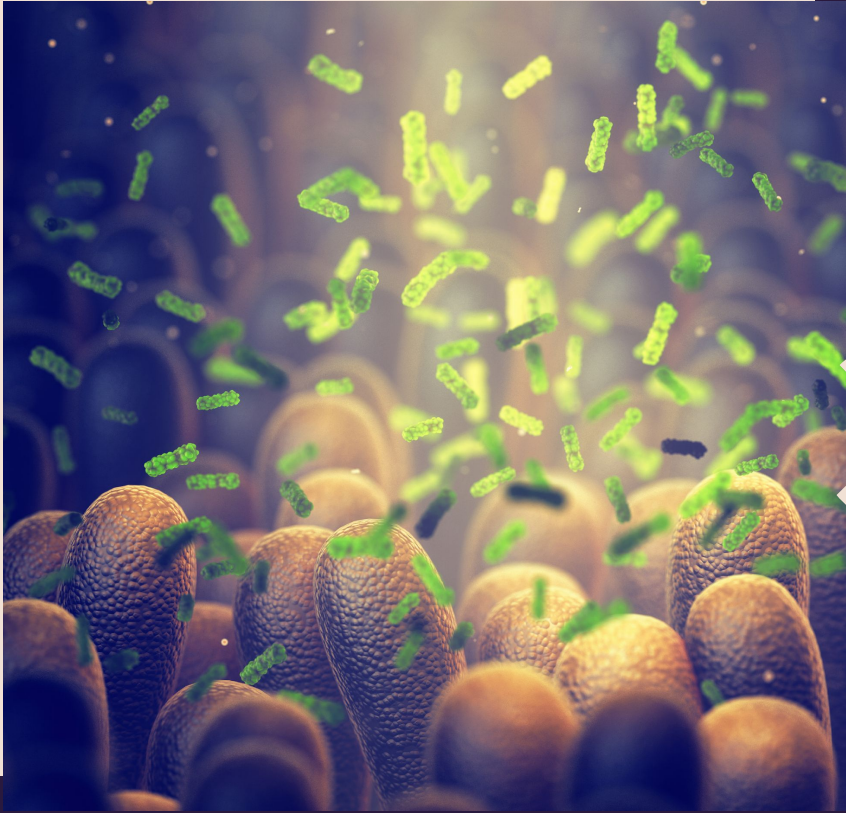
Text displayed to respondents:

The microbiome (or microbial flora) is a group of microorganisms such as bacteria, viruses, fungi and archaea, which live in symbiosis in our body, mainly in our digestive tract but also on the skin, in the lungs, ears, mouth and vagina.

The microbiome has many consequences for our health because it fulfils essential functions such as digesting foods, synthesis of vitamins and stimulating our immune system.

A balanced microbiome is also important in preventing certain diseases such as allergies, obesity and chronic inflammatory bowel diseases.

Recent studies also suggest that the microbiome can have an impact on our mental health and behavior, influencing our mood, cognition and motivation.



3

A strong lack of awareness of the behaviors and the solutions to be implemented for maintaining a balanced microbiome

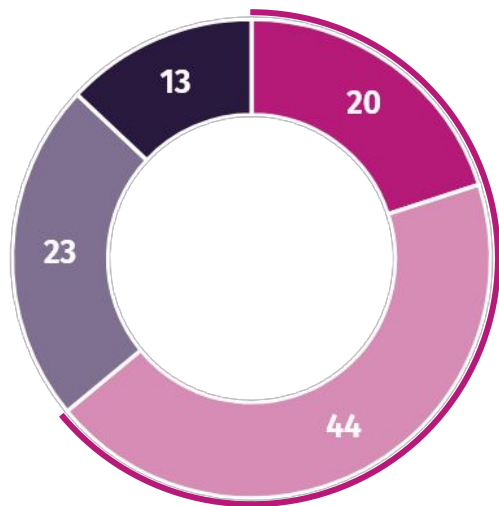


Almost 2 respondents in 3 have adopted specific behaviors to keep their microbiome balanced and functioning as smoothly as possible.



Question 10. And in your daily life, have you adopted specific behaviors to keep your microbiome as balanced and functioning as smoothly as possible?

Base: All respondents

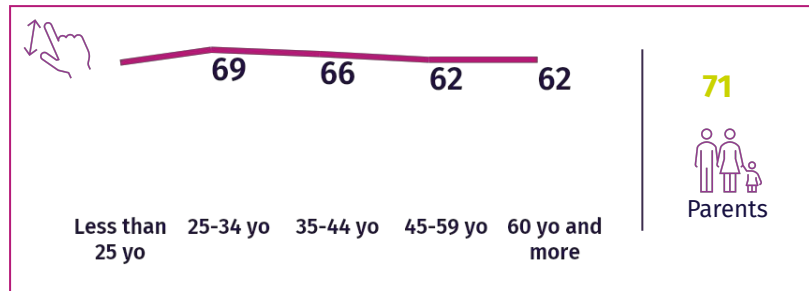


64% have already adopted specific behaviors



57%

- Yes, a lot
- Yes, a little
- No, not really
- No, not at all



● Significant differences vs total - superior

● Significant differences vs total - inferior



Behaviors related to daily washing and vaginal douches are the least identified.

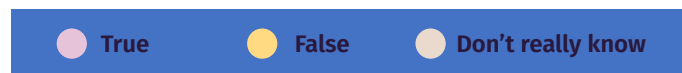
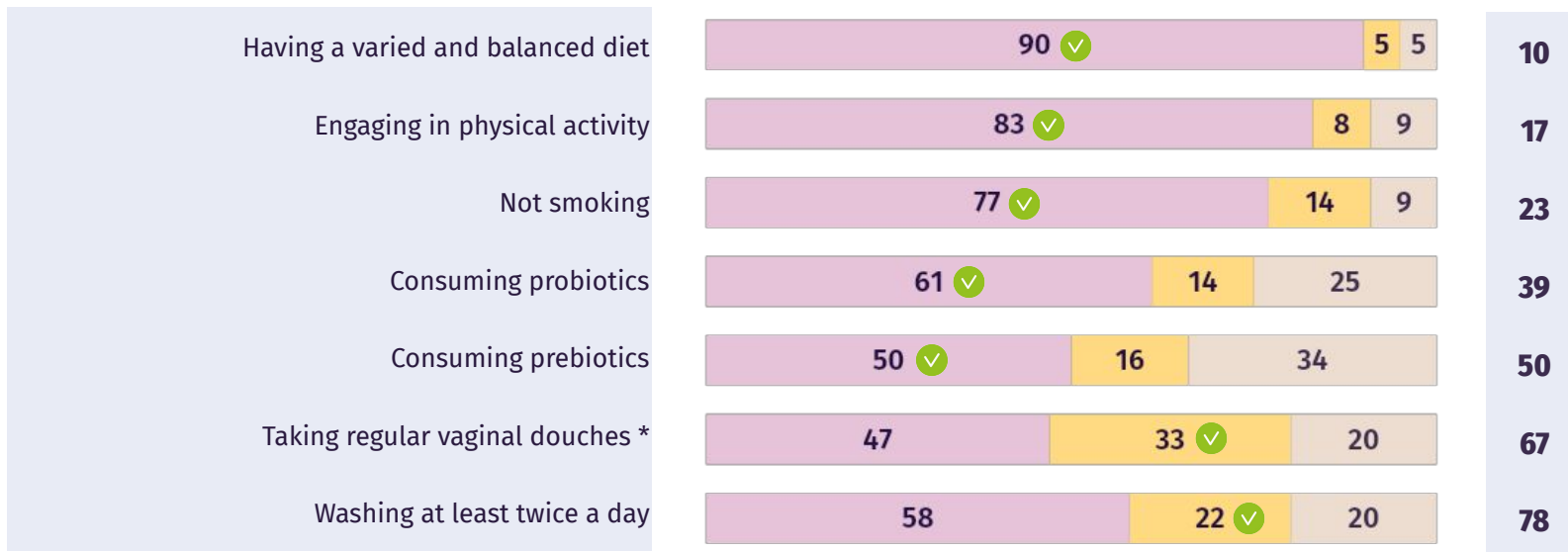


Question 11. Based on what you know, among the following behaviors, which ones have a positive effect on the balance and proper functioning of your microbiome?

Base: All respondents

✓ Good answer

Wrong answers/ don't know



* Item asked only to women (n=572)



Compared to the other countries, Brazilians seem more aware of the impact of diet, physical activity and smoking on the microbiome.

Question 11. Based on what you know, among the following behaviors, which ones have a positive effect on the balance and proper functioning of your microbiome ? Base: All respondents

% good answer

| | Total | |
|-----------------------------------|-------|----|
| Having a varied and balanced diet | 90 | 84 |
| Engaging in physical activity | 83 | 76 |
| Not smoking | 77 | 72 |
| Consuming probiotics | 61 | 62 |
| Consuming prebiotics | 50 | 51 |
| Taking regular vaginal douches * | 33 | 42 |
| Washing at least twice a day | 22 | 35 |

* Item asked only to women (n=572)



Significant differences vs total - superior



Significant differences vs total - inferior



Some profiles stand out positively: 35-44yo, women and parents.



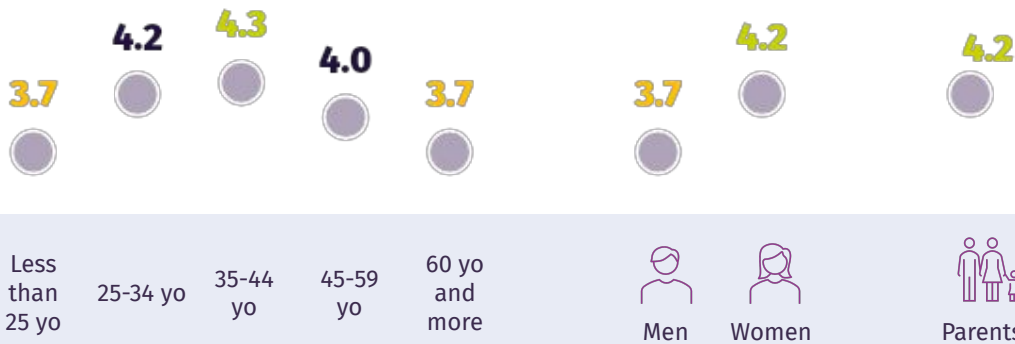
Question 11. Based on what you know, among the following behaviors, which ones have a positive effect on the balance and proper functioning of your microbiome ? Base: All respondents



4,0



Number of good responses on average



● Significant differences vs total - superior

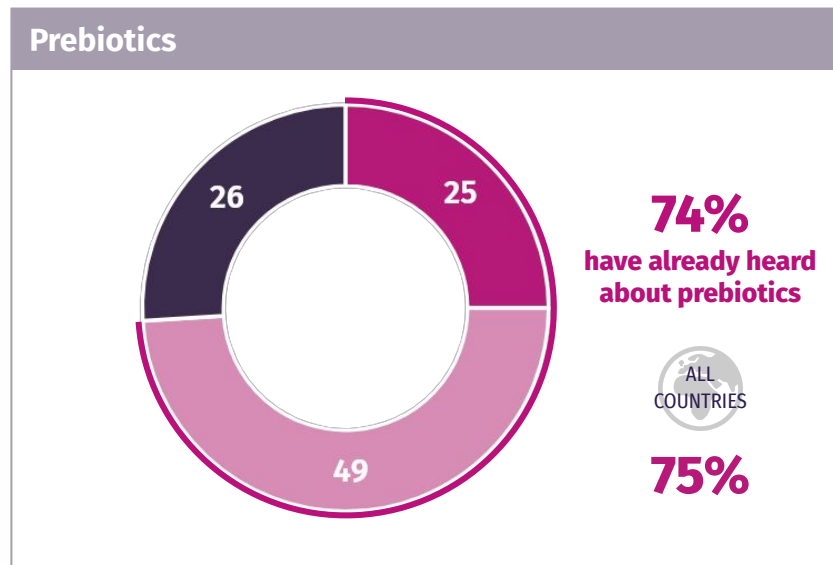
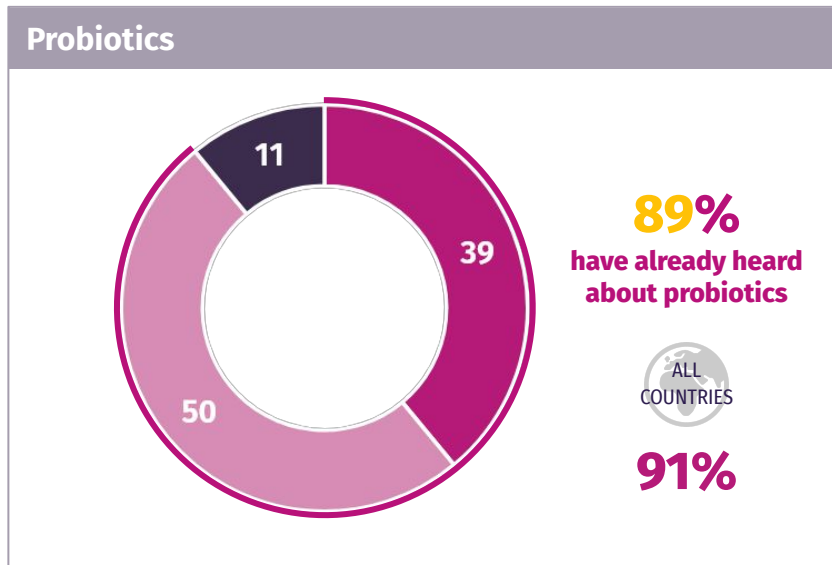
● Significant differences vs total - inferior



Probiotics seem more familiar to people compared to prebiotics, but the half have little or no idea what probiotics and prebiotics are precisely.



Question 2bis. And have you ever heard of these terms?
Base: All respondents



Yes, and I know exactly what it is Yes, but I don't know exactly what it is No, I never heard about it

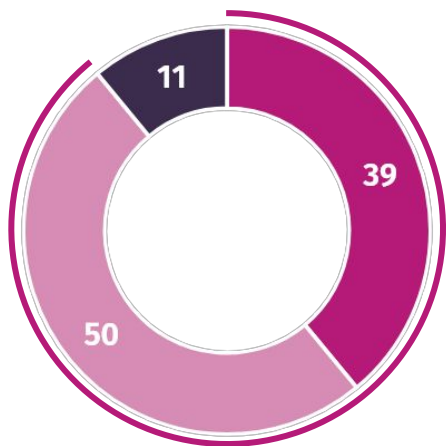


Women and people aged 25-44 yo are more aware of probiotics.



Question 2bis. And have you ever heard of these terms?
Base: All respondents

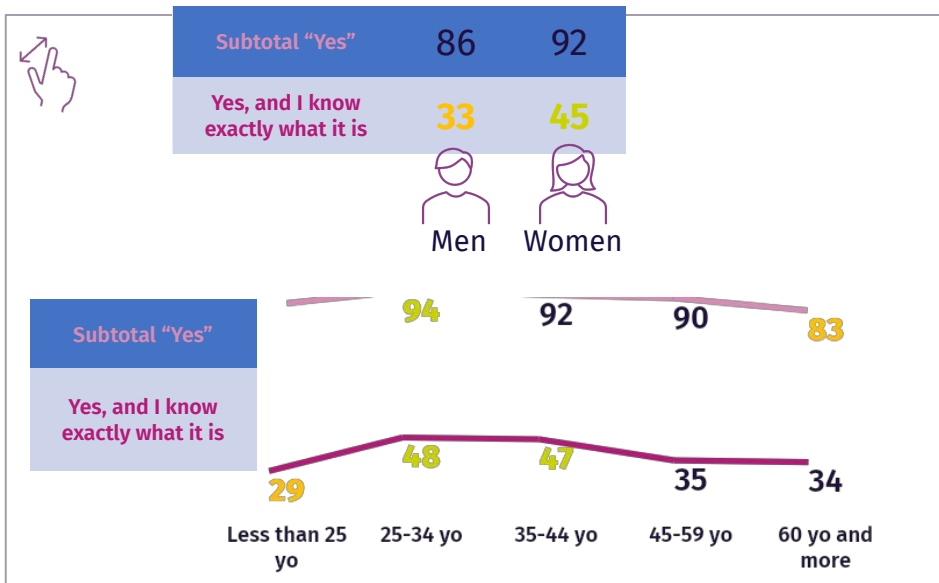
Probiotics



89%
have already heard
about probiotics



91%

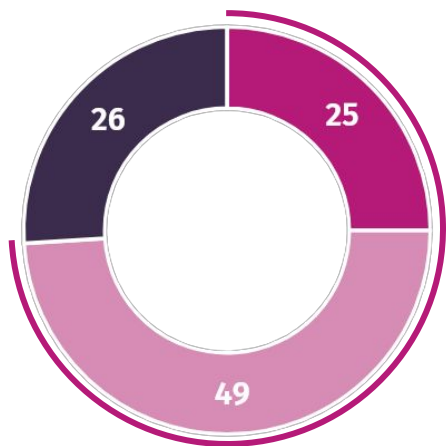


● Yes, and I know exactly what it is
 ● Yes, but I don't know exactly what it is
 ● No, I never heard about it

Women and 25-44 yo appear also more aware of prebiotics.

Question 2bis. And have you ever heard of these terms?
Base: All respondents

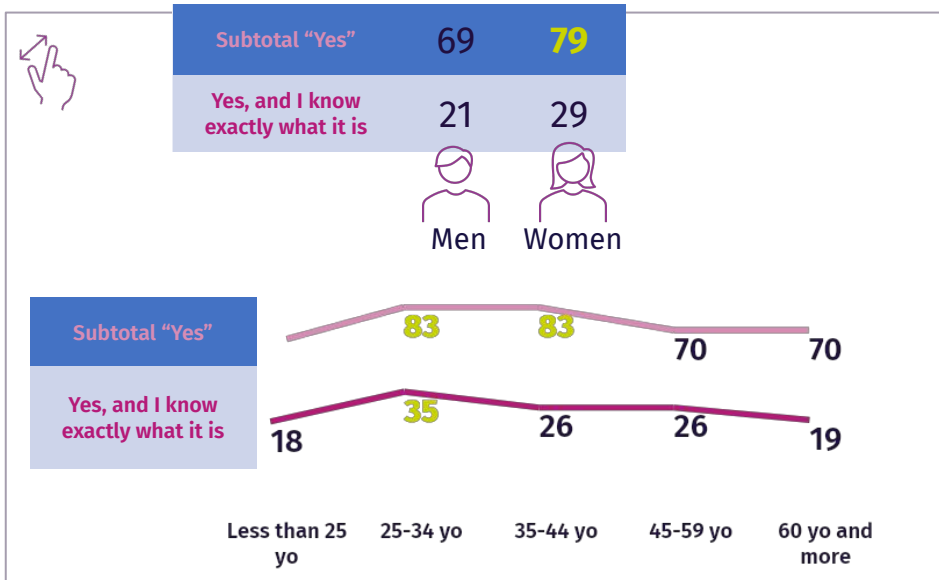
Prebiotics



74%
have already heard
about prebiotics



75%



● Yes, and I know exactly what it is
 ● Yes, but I don't know exactly what it is
 ● No, I never heard about it



While many people report experiencing wellness problems that may be linked to microbiota imbalances

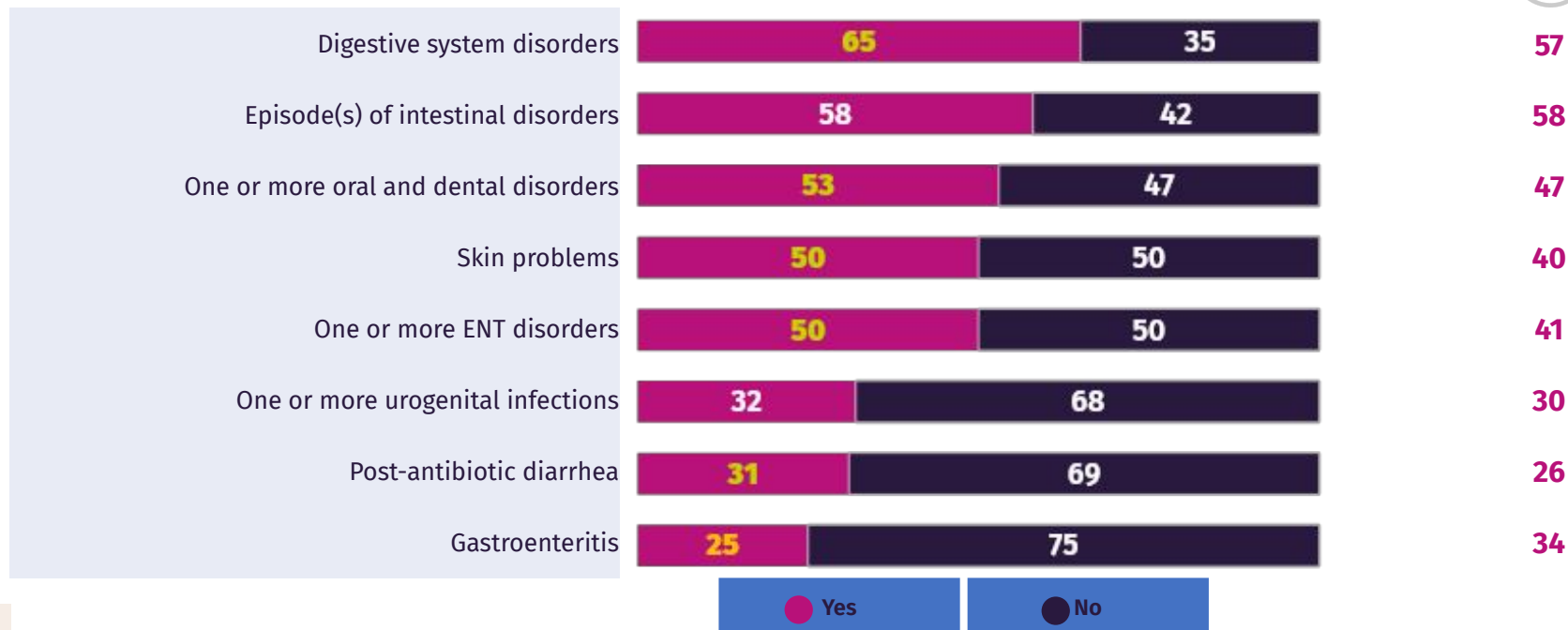


In the last 5 years, 2/3 have experienced digestive disorders, and almost 3 in 5 episodes of intestinal disorders. The other problems also concern a high proportion of respondents.



Question 11a. Over the past 5 years, have you ever experienced the following problems?

Base: All respondents



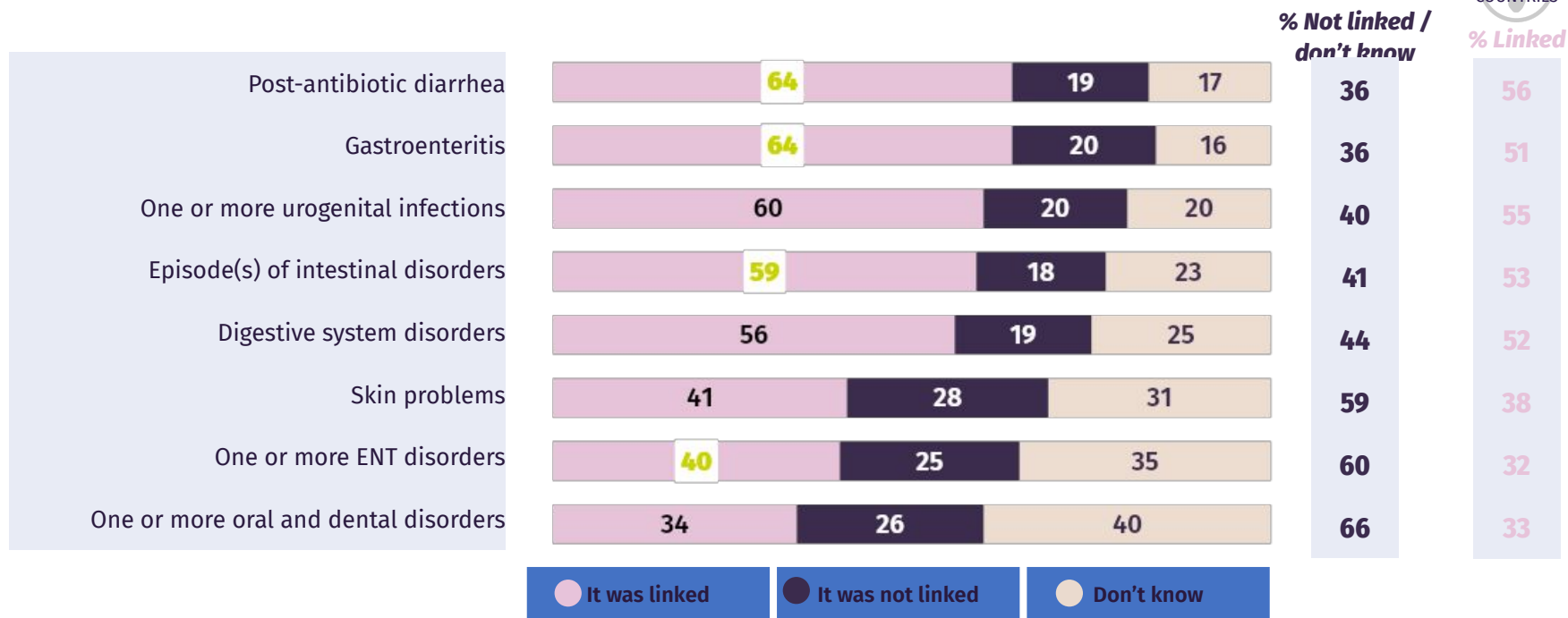


Brazilians are more numerous to associate the problems they have experimented with their microbiome.



Question 11b. And do you think this or these problems are linked to your microbiome?

Base: People who have experienced these problems





**Health professionals
are essential in
teaching patients to
become actors of their
own microbiota health**



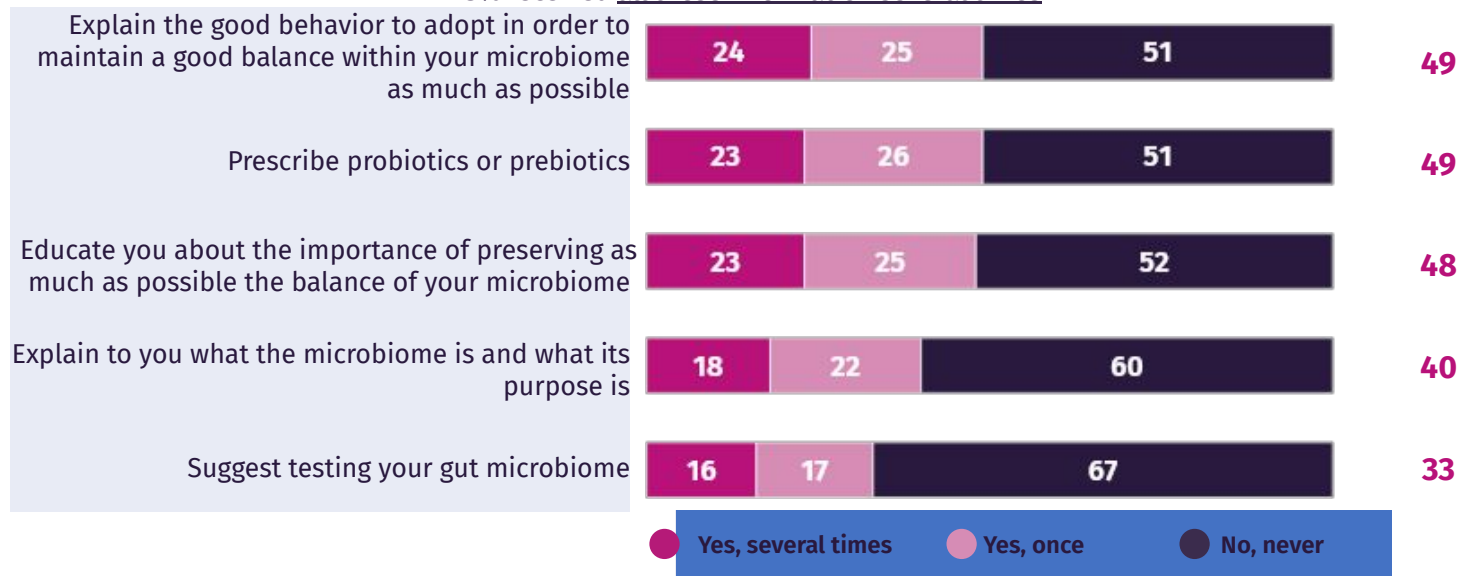
Almost half of the HCPs explain to their patients the good behavior to adopt to maintain a healthy microbiome, prescribe probiotics and prebiotics but also educate them about the importance of preserving its balance.



Question 5. Have any of the healthcare professionals you have seen ever done any of the following?
Base: All respondents

Only **23%** received **ALL THESE INFORMATION**, at least one time
8% received **all these information several times**

% Yes



A full definition explaining the microbiome has been displayed to respondents before this question



Brazilians seem to receive more information about the microbiome from their HCPs than the other countries.

Question 5. Have any of the healthcare professionals you have seen ever done any of the following?

Base: All respondents

| % Yes | Total | |
|--|-------|----|
| | 23 | 19 |
| % Received ALL THESE INFORMATION, at least one time | | |
| | 8 | 4 |
| % Received ALL THESE INFORMATION, several times | | |
| Explain the good behavior to adopt in order to maintain | | |
| a good balance within your microbiome as much as possible | 49 | 44 |
| | | |
| Prescribe probiotics or prebiotics | 49 | 46 |
| | | |
| Educate you about the importance of preserving as | | |
| much as possible the balance of your microbiome | 48 | 42 |
| | | |
| Explain to you what the microbiome is and what its | | |
| purpose is | 40 | 37 |
| | | |
| Suggest testing your gut microbiome | 33 | 30 |

● Significant differences vs total - superior

● Significant differences vs total - inferior



People aged from 25-34 yo and parents have the most received information from their HCPs. The elderly receive fewer prescriptions and advice than others.



Question 5. Have any of the healthcare professionals you have seen ever done any of the following? Base: All respondents

| % Yes | Total | Less than 25 yo | 25-34 yo | 35-44 yo | 45-59 yo | 60 yo and more | Men | Women | Parents |
|---|-------------|-----------------|----------|----------|----------|----------------|-------|-------|---------|
| | base n=1000 | n=165 | n=237 | n=199 | n=196 | n=203 | n=428 | n=572 | n=487 |
| Explain the good behavior to adopt in order to maintain a good balance within your microbiome as much as possible | 49 | 47 | 60 | 52 | 47 | 39 | 48 | 50 | 60 |
| Prescribe probiotics or prebiotics | 49 | 51 | 63 | 54 | 42 | 34 | 43 | 54 | 58 |
| Educate you about the importance of preserving as much as possible the balance of your microbiome | 48 | 45 | 60 | 49 | 46 | 40 | 48 | 48 | 60 |
| Explain to you what the microbiome is and what its purpose is | 40 | 40 | 50 | 41 | 40 | 28 | 40 | 40 | 50 |
| Suggest testing your gut microbiome | 33 | 31 | 43 | 30 | 32 | 26 | 35 | 30 | 42 |

● Significant differences vs total - superior

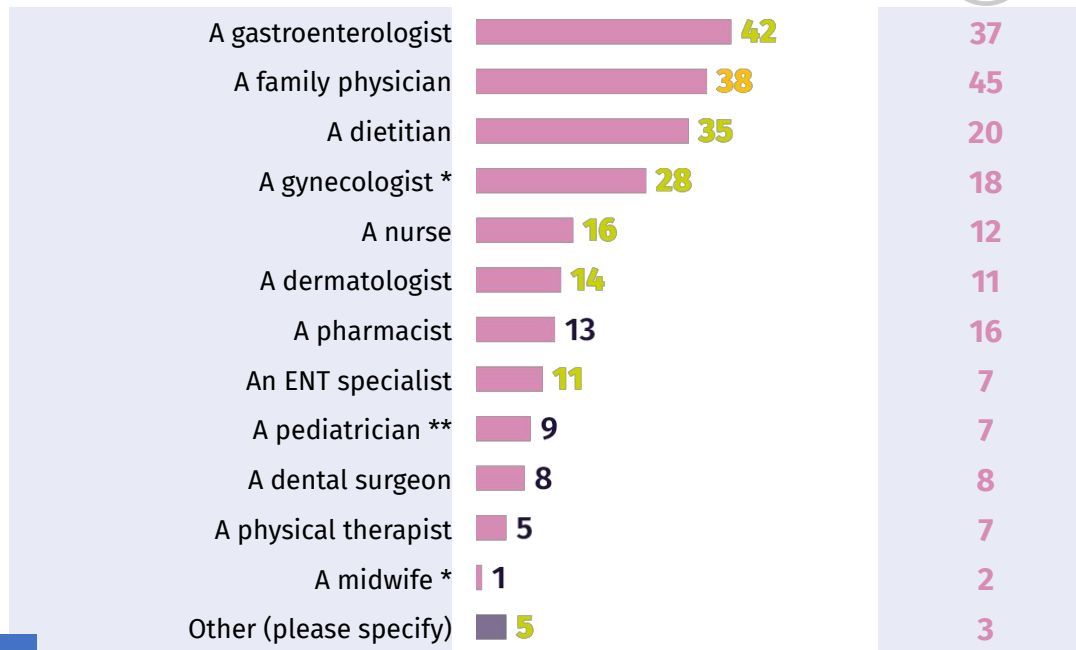
● Significant differences vs total - inferior



Gastroenterologists, family physicians and Dietitians are the main HCPs who provided information about microbiome.



Question 6. And which healthcare professionals provided you with these explanations?
Base: People who have had an explanation from healthcare professionals (n=668)



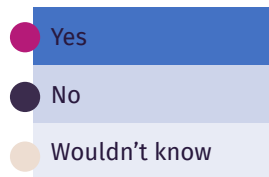
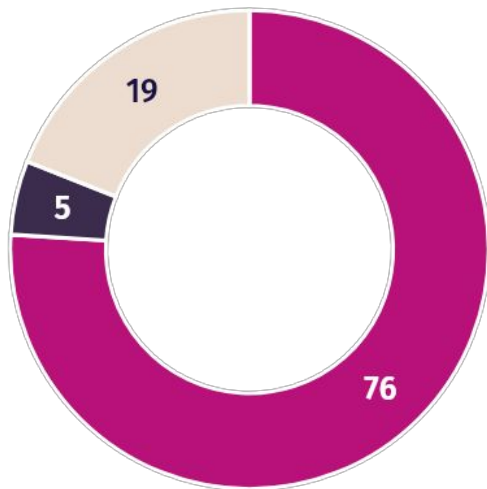
* Item displayed to women
** Item displayed to parents



3/4 of respondents think that it would be useful to test their gut microbiome, a significantly higher proportion than in the other countries.



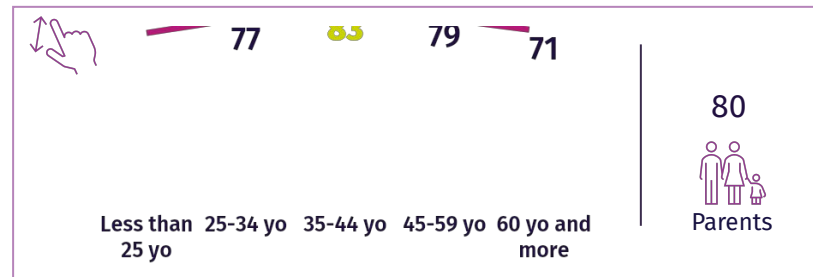
Question 5bis. In your case, do you think it is useful to test your gut microbiome?
Base: All respondents



76% think it is useful to test their gut microbiome



63%



● Significant differences vs total - superior
● Significant differences vs total - inferior



While treated with antibiotics, few has received advice and information to protect their microbiome.



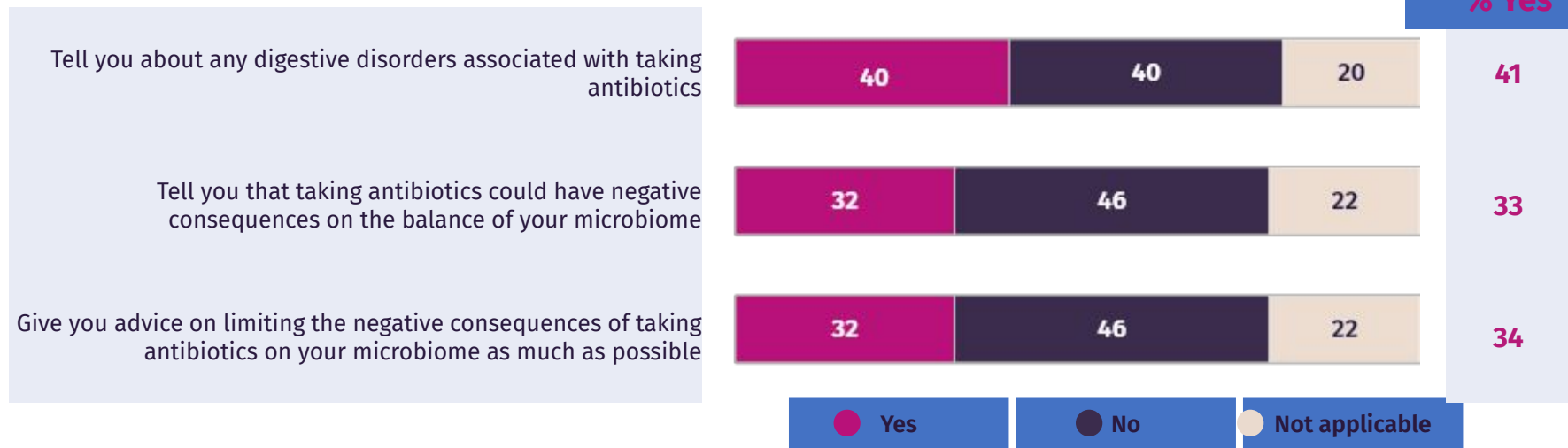
Question 7. The last time a doctor prescribed antibiotics, did they do the following?

Base: All respondents

Only **21%** received **ALL THESE INFORMATION** from their HCPs



% Yes





Parents received more information and advice when prescribed antibiotics.

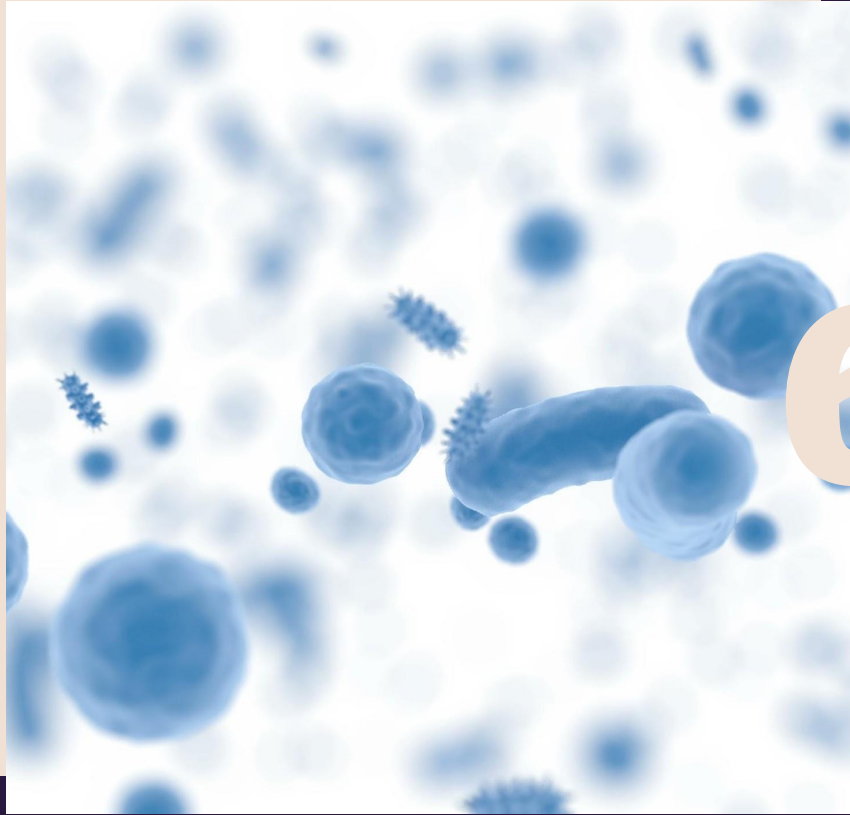
Question 7. The last time a doctor prescribed antibiotics, did they do the following? / Base: All respondents

% Yes

| | Total base n=1000 | Less than 25 yo n=165 | 25-34 yo n=237 | 35-44 yo n=199 | 45-59 yo n=196 | 60 yo and more n=203 | Parents n=487 |
|--|----------------------|--------------------------|-------------------|-------------------|-------------------|-------------------------|------------------|
| % HAVE RECEIVED ALL THESE INFORMATION FROM THEIR HCPS | 21 | 19 | 24 | 21 | 23 | 16 | 26 |
| Tell you about any digestive disorders associated with taking antibiotics | 40 | 36 | 42 | 42 | 41 | 36 | 45 |
| Tell you that taking antibiotics could have negative consequences on the balance of your microbiome | 32 | 31 | 38 | 30 | 34 | 28 | 40 |
| Give you advice on limiting the negative consequences of taking antibiotics on your microbiome as much as possible | 32 | 33 | 37 | 31 | 35 | 25 | 41 |

Significant differences vs total - superior

Significant differences vs total - inferior



Focus on the vulvo-vaginal microbiome

In the next questions, we will discuss the vulvovaginal microbiome, also known as vaginal flora or vaginal microbiome.



When focusing on the vulvo-vaginal microbiome, knowledge appears limited.

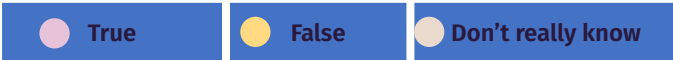
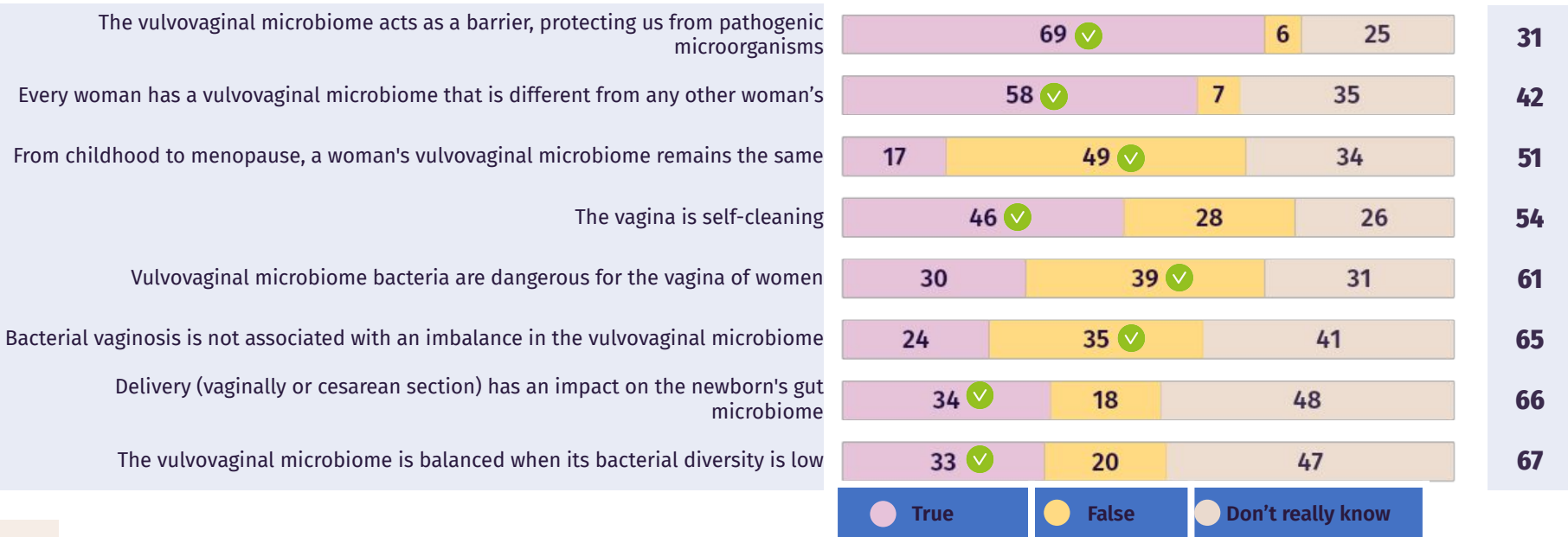


Question 13. For each of the following statements, tell us if you think it is TRUE or FALSE. If you are unsure about your answer, answer I do not really know.

Base: Women

✓ Good answer

Wrong answers/
don't know





Brazilian women's knowledge about vulvo-vaginal microbiome is close to the other countries, although they are less aware that the vagina is self-cleaning and more aware that this microbiome is balanced when bacterial diversity is low.

Question 13. For each of the following statements, tell us if you think it is TRUE or FALSE. If you are unsure about your answer, answer I do not really know.

Base: Women

| % good answer | Total | |
|---|-----------|----|
| The vulvovaginal microbiome acts as a barrier, protecting us from pathogenic microorganisms | 69 | 67 |
| Every woman has a vulvovaginal microbiome that is different from any other woman's | 58 | 60 |
| From childhood to menopause, a woman's vulvovaginal microbiome remains the same | 49 | 52 |
| The vagina is self-cleaning | 46 | 52 |
| Vulvovaginal microbiome bacteria are dangerous for the vagina of women | 39 | 37 |
| Bacterial vaginosis is not associated with an imbalance in the vulvovaginal microbiome | 35 | 35 |
| Delivery (vaginally or cesarean section) has an impact on the newborn's gut microbiome | 34 | 30 |
| The vulvovaginal microbiome is balanced when its bacterial diversity is low | 33 | 27 |



Significant differences vs total - superior



Significant differences vs total - inferior



Women aged 25-34yo know better the vulvo-vaginal microbiome but their level of knowledge remains relatively low, particularly for the 60yo and more.



Question 13. For each of the following statements, tell us if you think it is TRUE or FALSE. If you are unsure about your answer, answer I do not really know.

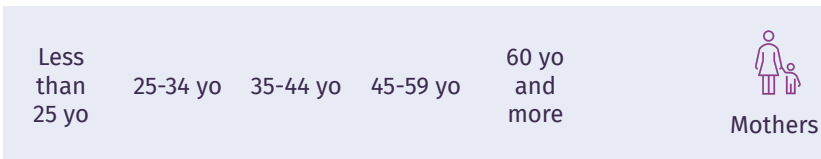
Base: Women



3,6



Number of good responses on average



- Significant differences vs total - superior
- Significant differences vs total - inferior



Globally, women over 60 yo seem to know the least about vulvo-vaginal microbiome.

Question 13. For each of the following statements, tell us if you think it is TRUE or FALSE. If you are unsure about your answer, answer I do not really know.

Base: Women

| % good answer | Total | Less than 25 yo | 25-34 yo | 35-44 yo | 45-59 yo | 60 yo and more |
|---|---------------|-----------------|-----------|----------|-----------|----------------|
| | base n=572 | n=114 | n=171 | n=125 | n=96 | n=66 |
| The vulvovaginal microbiome acts as a barrier, protecting us from pathogenic microorganisms | 69 | 58 | 71 | 75 | 68 | 71 |
| Every woman has a vulvovaginal microbiome that is different from any other woman's | 58 | 55 | 62 | 56 | 68 | 44 |
| From childhood to menopause, a woman's vulvovaginal microbiome remains the same | 49 | 43 | 53 | 49 | 51 | 48 |
| The vagina is self-cleaning | 46 | 44 | 58 | 44 | 41 | 32 |
| Vulvovaginal microbiome bacteria are dangerous for the vagina of women | 39 | 35 | 39 | 43 | 35 | 42 |
| Bacterial vaginosis is not associated with an imbalance in the vulvovaginal microbiome | 35 | 33 | 39 | 37 | 34 | 27 |
| Delivery (vaginally or cesarean section) has an impact on the newborn's gut microbiome | 34 | 25 | 44 | 29 | 44 | 16 |
| The vulvovaginal microbiome is balanced when its bacterial diversity is low | 33 | 24 | 37 | 33 | 44 | 20 |

● Significant differences vs total - superior

● Significant differences vs total - inferior



1/4 have received all the information and advice from their HCPs about the vulvo-vaginal microbiome.



Question 14. Has the healthcare professional following your gynecological health talked to you about the following?
Base: Women

25% received ALL THESE INFORMATION, at least one time
10% received all these information several times

% Yes

Explain the good behaviors to adopt in order to maintain a good balance within your vulvovaginal microbiome as much as possible



51

Educate you on the importance of preserving as much as possible the balance of your vulvovaginal microbiome



50

Explain to you what the vulvovaginal microbiome is and what its purpose is



40

Suggest testing your vulvovaginal microbiome



31

● Yes, several times ● Yes, once ● No, never



However, the proportion of women who have received information about their vulvo-vaginal microbiome from their HCPs is much higher than in other countries.

Question 14. Has the healthcare professional following your gynecological health talked to you about the following?
Base: Women

% Yes

| | Total | |
|---|-----------|----|
| % Have received ALL THESE INFORMATION, at least one time | 25 | 22 |
| Explain the good behaviors to adopt in order to maintain a good balance within your vulvovaginal microbiome as much as possible | 51 | 42 |
| Educate you on the importance of preserving as much as possible the balance of your vulvovaginal microbiome | 50 | 40 |
| Explain to you what the vulvovaginal microbiome is and what its purpose is | 40 | 35 |
| Suggest testing your vulvovaginal microbiome | 31 | 31 |



Significant differences vs total - superior



Significant differences vs total - inferior



Women seem to have received the same amount of information about their vulvo-vaginal microbiome, whatever their age.



Question 14. Has the healthcare professional following your gynecological health talked to you about the following?

Base: Women

| % Yes | base | | | | | | |
|---|----------------|-----------------------------|-------------------|-------------------|------------------|---------------------------|--|
| | Total n=572 | Less than 25 yo n=114 | 25-34 yo n=171 | 35-44 yo n=125 | 45-59 yo n=96 | 60 yo and more n=66 | |
| % Have received ALL THE INFORMATION, at least one time | 25 | 23 | 30 | 20 | 28 | 18 | |
| Explain the good behaviors to adopt in order to maintain a good balance within your vulvovaginal microbiome as much as possible | 51 | 52 | 56 | 55 | 44 | 38 | |
| Educate you on the importance of preserving as much as possible the balance of your vulvovaginal microbiome | 50 | 51 | 55 | 51 | 48 | 41 | |
| Explain to you what the vulvovaginal microbiome is and what its purpose is | 40 | 40 | 45 | 35 | 43 | 35 | |
| Suggest testing your vulvovaginal microbiome | 31 | 37 | 33 | 29 | 29 | 21 | |

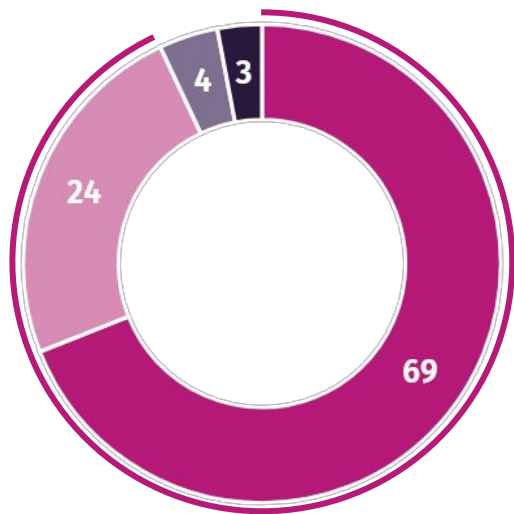


Almost all women would like to have more information about the importance of the vulvo-vaginal microbiome and its impact on health.



Question 15. And would you like the healthcare professional monitoring your gynecological health to tell you more about the importance of your vulvovaginal microbiome and its impact on your health?

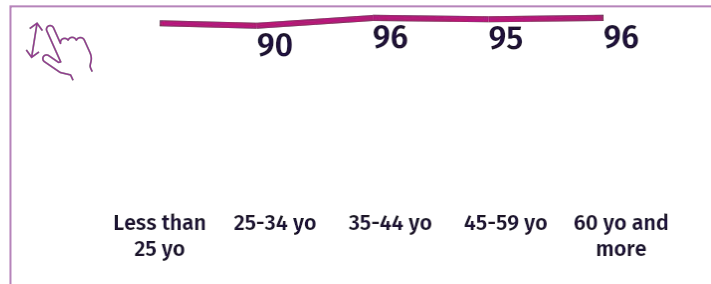
Base: Women



93% would like to have more information about the importance of the vulvovaginal microbiome and its impact on health



86%



● Significant differences vs total - superior

● Significant differences vs total - inferior

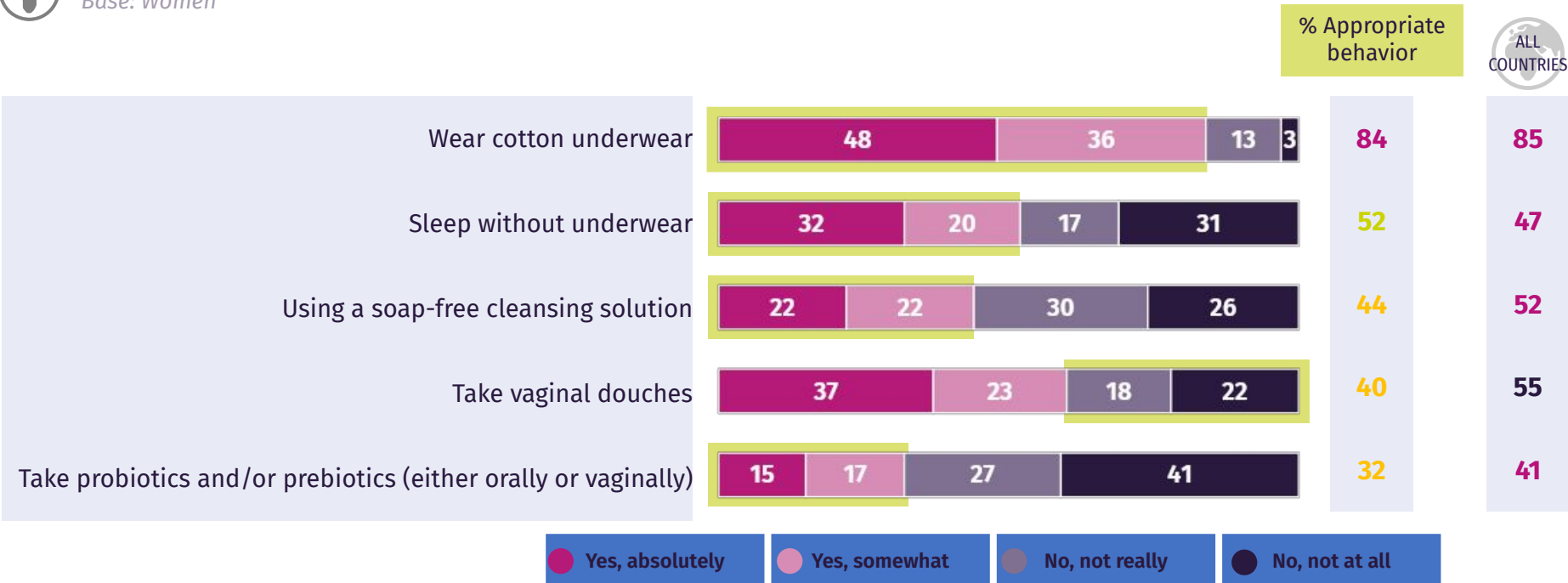


Except wearing cotton underwear and sleeping without underwear, a moderate proportion of Brazilian women adopted specific behaviors to protect the health of their vulvovaginal microbiome.



Question 16. In your daily life, do you regularly adopt the following behaviors?

Base: Women





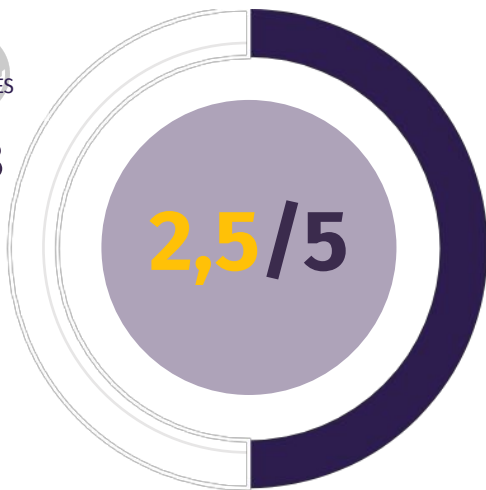
The number of appropriate behaviors adopted is lower than the average of all countries. However, mothers seem to pay more attention to adopt the right behaviors.



Question 16. In your daily life, do you regularly adopt the following behaviors?
Base: Women



2,8



2,5/5

2.3



2.6



2.7



2.6



2.2



2.7



Less than 25 yo

25-34 yo

35-44 yo

45-59 yo

60 yo and more



Mothers

Number of appropriate behaviors adopted on average



Significant differences vs total - superior



Significant differences vs total - inferior



Behaviors beneficial for the vulvo-vaginal microbiome show little contrast according to the age of women.



Question 16. In your daily life, do you regularly adopt the following behaviors?

Base: Women

| % Appropriate behavior | Total | Less than 25 yo | 25-34 yo | 35-44 yo | 45-59 yo | 60 yo and more |
|--|---------------|-----------------|----------|----------|----------|----------------|
| | base n=572 | n=114 | n=171 | n=125 | n=96 | n=66 |
| Wear cotton underwear | 84 | 78 | 83 | 89 | 86 | 84 |
| Sleep without underwear | 52 | 48 | 60 | 58 | 50 | 27 |
| Using a soap-free cleansing solution | 44 | 49 | 45 | 44 | 45 | 32 |
| Take vaginal douches | 40 | 33 | 40 | 39 | 44 | 48 |
| Take probiotics and/or prebiotics (either orally or vaginally) | 32 | 28 | 33 | 35 | 31 | 30 |

● Significant differences vs total - superior

● Significant differences vs total - inferior

A large, light gray illustration of a diverse microbiome, featuring various shapes of bacteria, fungi, and other microorganisms, set against a white background. The illustration is positioned on the left side of the slide, partially overlapping a dark blue background.

Main results



Learnings on Brazilian results



Brazil

| Awareness of the microbiome & its diversity | |
|---|-----|
| Know exactly what is « microbiome » | 21% |
| Subtotal « Aware » | 62% |
| Subtotal Aware of the gut microbiome | 51% |
| Subtotal Aware of all microbiome | 29% |

| Level of knowledge around the microbiota | |
|--|--------|
| Mean of good answers | 5,7/10 |

| Level of knowledge around the solutions which can maintain the microbiota balanced | |
|--|-----|
| Know exactly what are probiotics | 39% |
| Know exactly what are prebiotics | 25% |

| Adoption and identification of appropriate behaviors to maintain a balanced microbiota | |
|--|-------|
| Have adopted specific behaviors | 64% |
| Number of behaviors identified in order to maintain the microbiota | 4,0/7 |

| Level of information provided by healthcare professionals | |
|---|-----|
| Received at least one piece of information at least once | 64% |

Key learnings

Even though slightly more Brazilians have heard of several microbiota (29%), the word “microbiome” is not familiar at all for them, instead the word “flora” is much more commonly used.

However, even after defining the microbiome, the level of knowledge around the role and functioning of the microbiome remains rather moderate.

Moreover, Brazilians have a poor awareness of probiotics and prebiotics.

Although they declare that they have adopted behaviors to keep the microbiota balanced, they don't manage to identify properly the right behaviors to implement.

Information they've received from health professionals is not yet enough for them. This is essential to provide information for a better understanding about microbiome using the “good” wordings, and to help people know what to do in terms of behaviors.

A large, light gray illustration of a diverse microbiome, featuring various shapes of bacteria, fungi, and viruses, set against a white background that is slightly offset to the left and top of the dark blue page.

ANNEXES

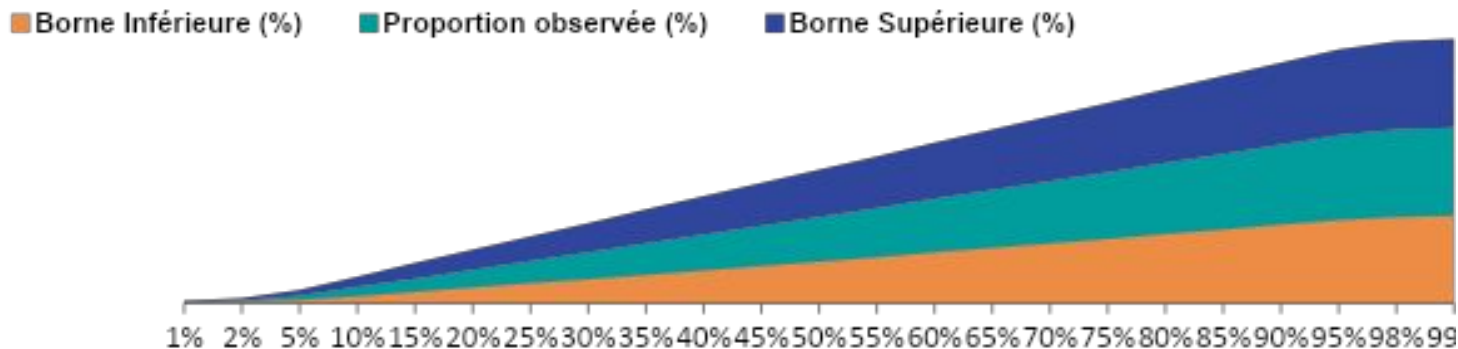
FIABILITÉ DES RÉSULTATS

Feuille de calcul

En l'occurrence s'agissant de cette étude :

- Intervalle de confiance : **95%**
- Taille d'échantillon : **1000**

Les proportions observées sont comprises entre :



SURVEY OVERVIEW

CAWI survey – Online panel



SAMPLE

- **Target** : Male/female 18 and more in each country
- **Selection of the respondent** : participant selection using quotas
- **Sample representativeness** : criteria and sources : gender, age, active/inactive status, regions



DATA COLLECTION

- **Fieldwork dates** : 21 march – 10 April 2023
- **Sample achieved** : 6500 interviews (100 for each country except in Portugal n=500)
- **Data collection** : on line
- **Loyalty program with points- based award system for panelists**
- **Response quality control methods**: monitoring of participants' response behavior (identification of responses that are too quick or careless, e.g. ticked in a straight or zigzag line)
- **Checking of IP and consistency of demographic data.**



DATA PROCESSING

- Weighted sample
- Method used: Rim Weighting Method
- Weighting criteria: criteria and sources : gender, age, active/inactive status, regions

SURVEY MATERIAL THE QUESTIONNAIRE



Questionnaire

RELIABILITY OF RESULTS : SELF COMPLETION ONLINE SURVEYS IIS

To ensure the overall reliability of a survey, all possible error components must be taken into account. That is why Ipsos imposes strict controls and procedures at each stage of the survey process.

UPSTREAM OF THE DATA COLLECTION

- **Sample** : structure and representativeness
- **Questionnaire** : the questionnaire is worded by following an editing process with 12 compulsory standards. It is proofread and approved at a senior level and then sent to the client for final validation. The programming (or questionnaire script) **is tested by at least 2 people and validated.**
- **Data collection** : the interviewers are trained in survey techniques through a dedicated training module prior to any participation in a survey. In addition, they receive or attend a detailed briefing at the start of each survey.

DURING THE DATA COLLECTION

- **Sampling** : Ipsos imposes very strict operating rules for its selection frame in order to maximize the random nature of the sample selection : random selection from telephone listings, quota method, etc.

- **Fieldwork monitoring** : collection is monitored and checked (exclusive link, IP validation, panelists' behavior monitoring penetration, interview length, consistency of responses, participation rate, number of reminders, etc.)

DOWNSTREAM OF THE DATA COLLECTION

- The results are analyzed in accordance with the statistical analysis methods (confidence interval versus sample size, significance tests). The first results are systematically checked against the raw results from the data collection. The consistency of results is also checked (particularly the results observed versus comparison sources in our possession).
- In cases where sample weighting is used (margin calibration method), this is checked by the processing teams (DP) and then validated by the survey teams.

SURVEY OVERVIEW

Organization (CAWI survey - Online panel)



ACTIVITIES CARRIED OUT OR COORDINATED BY IPSOS TEAMS IN FRANCE

- Design and methodology
- Validation of scripting
- Coordination and validation of translation
- Coordination of data collection
- Data processing
- Validation of the statistical analyses
- Creation of survey report
- Results presentation design
- Oral presentation Analyses



ACTIVITIES CARRIED OUT BY IPSOS EXPERT LOCAL TEAMS

- Translation
- Scripting
- Sampling (IIS panel)
- Emailing
- Data collection
- Data Map

ABOUT IPSOS

Ipsos is the third largest market research company in the world, present in 90 markets and employing more than 18,000 people.

Our research professionals, analysts and scientists have built unique multi-specialist capabilities that provide powerful insights into the actions, opinions and motivations of citizens, consumers, patients, customers or employees. Our 75 business solutions are based on primary data coming from our surveys, social media monitoring, and qualitative or observational techniques.

“Game Changers” – our tagline – summarises our ambition to help our 5,000 clients to navigate more easily our deeply changing world.

Founded in France in 1975, Ipsos is listed on the Euronext Paris since July 1st, 1999. The company is part of the SBF 120 and the Mid-60 index and is eligible for the Deferred Settlement Service (SRD).

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GAME CHANGERS

In our world of rapid change, the need for reliable information to make confident decisions has never been greater.

At Ipsos we believe our clients need more than a data supplier, they need a partner who can produce accurate and relevant information and turn it into actionable truth.

This is why our passionately curious experts not only provide the most precise measurement, but shape it to provide True Understanding of Society, Markets and People.

To do this we use the best of science, technology and know-how and apply the principles of security, simplicity, speed and substance to everything we do.

So that our clients can act faster, smarter and bolder. Ultimately, success comes down to a simple truth:

You act better when you are sure.