



International Microbiota Observatory

Second wave

BMI-24.25

A large, light-colored rectangular area on the left side of the slide, containing a dense, overlapping pattern of stylized, light purple bacterial shapes. These shapes include various forms such as rods, spheres, and branching structures, resembling a microscopic view of a microbial community.

Methods












Methods

This international survey was conducted online in **11 countries** from January 26th – February 26th, 2024. **7,500 people** were interviewed in the 11 countries, among representative samples of the population aged 18 y.o. and more in each country.

*7 countries had already been surveyed in 2023. When possible, we will indicate the changes for **constant scope** :*



4 countries have been added to the scope this year :

 United States of America (n=1,000)	 Morocco (n=500)
 Brazil (n=500)	 Poland (n=500)
 Mexico (n=1,000)	 Finland (n=500)
 France (n=1,000)	 Vietnam (n=500)
 Portugal (n=500)	
 Spain (n=500)	
 China (n=1,000)	

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=7,500)



= Average response for all 11 countries.

= Focus on detailed results according to different criteria such as gender, age, presence of children under 3yo, individuals with health conditions.



Significant differences vs total - superior



Significant differences vs total - inferior



Significant changes since the first survey

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



All results are presented in %.

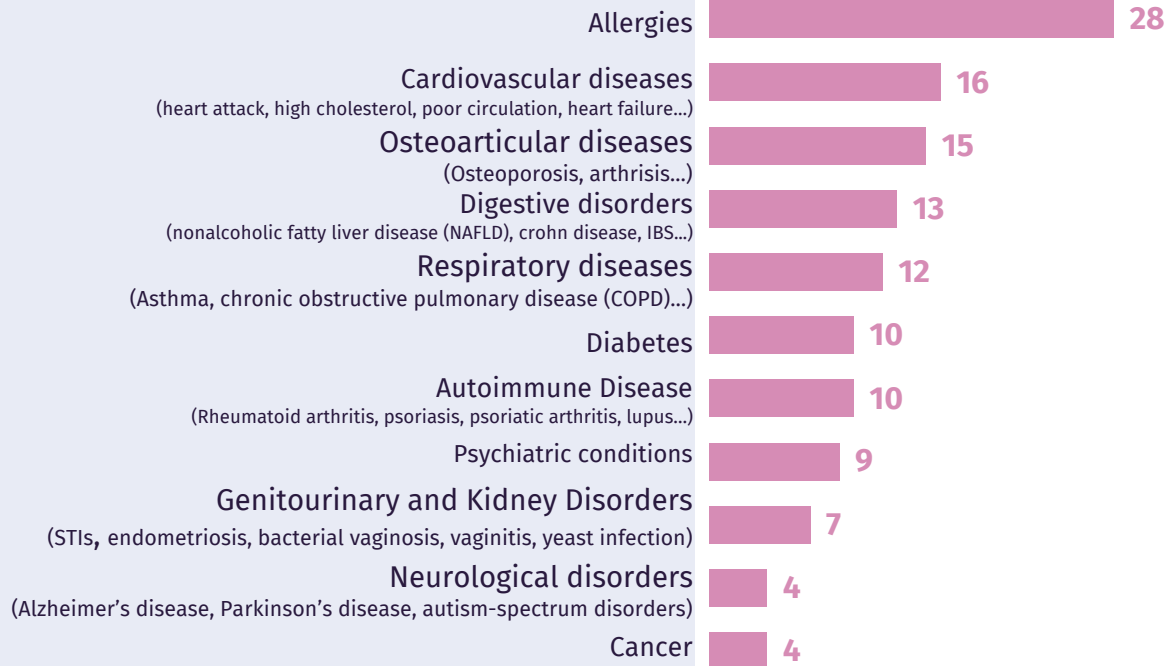


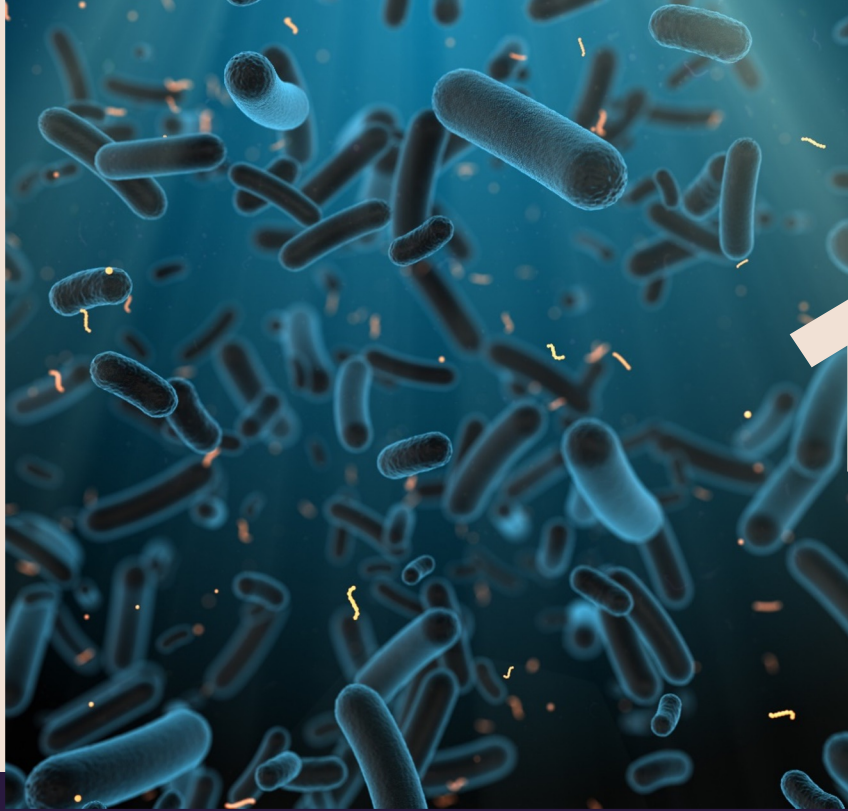
People with current conditions A focus detailed throughout the report



RS10. Among the following health problems, indicate those you suffer from.

Base: All respondents





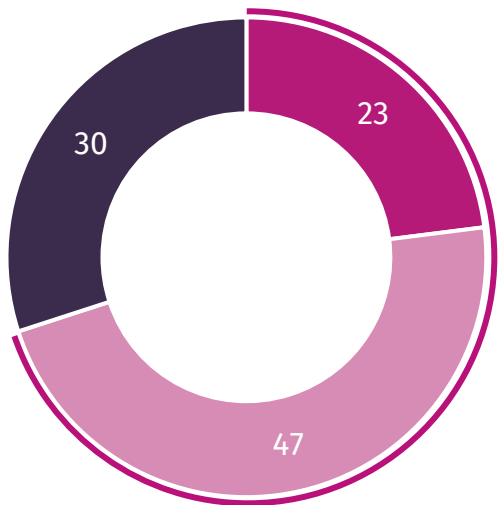
**Awareness of the
microbiome is increasing,
although accurate
knowledge remains low**

Awareness of the microbiome is significantly better this year: more than 2/3 have already heard of it, but still 1 out of 5 know exactly what it is.



Question 2. Have you ever heard of the "microbiome"?

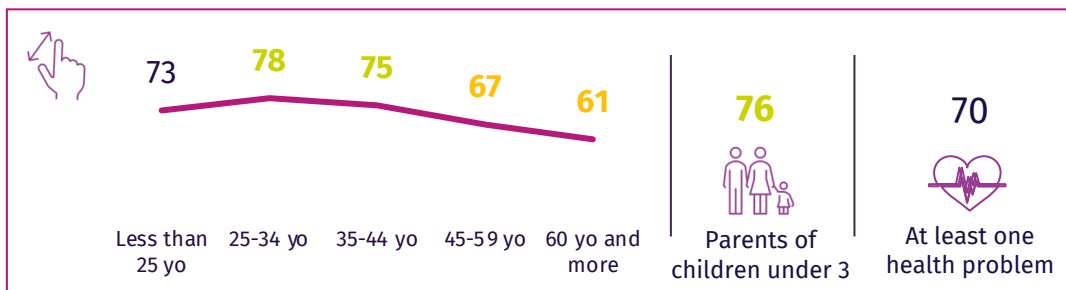
Base: All respondents



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

70% have already heard about the term microbiome

Constant scope : **71%, +7pts** ↗



Significant differences vs total - superior

Significant differences vs total - inferior

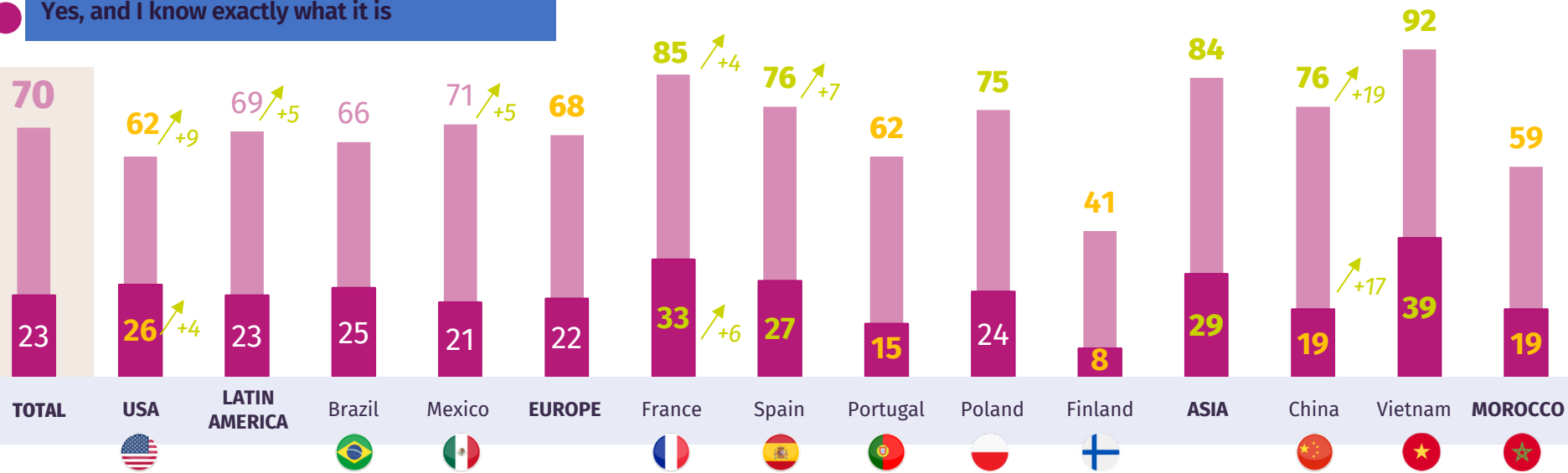
Among countries, the awareness of the microbiome is heterogenous. Precise awareness remains low in most of the countries, but is higher in Vietnam, France and Spain.

Question 2. Have you ever heard of the "microbiome"?

Base: All respondents

% Yes

Yes, and I know exactly what it is





Awareness of the microbiome is quite similar among people with health disease. But people with digestive, genitourinary, neurological conditions have a better awareness.

Question 2. Have you ever heard of the "microbiome"?

Base: All respondents

% Yes

Yes, and I know exactly what it is

70

70

23

24

TOTAL

AT LEAST ONE
HEALTH
PROBLEM

n=4509

75

Respiratory
diseases

n=888

68

Cardiovascular
diseases

n=1177

65

Diabetes

n=745

79

Digestive
disorders

n=1036

79

Genitourinary
and kidney
disorders

n=529

82

Neurological
disorders

n=315

75

Autoimmune
disease

n=716

70

Osteoarticular
diseases

n=1040

71

Psychiatric
conditions

n=652

69

Cancer

n=270

73

Allergies

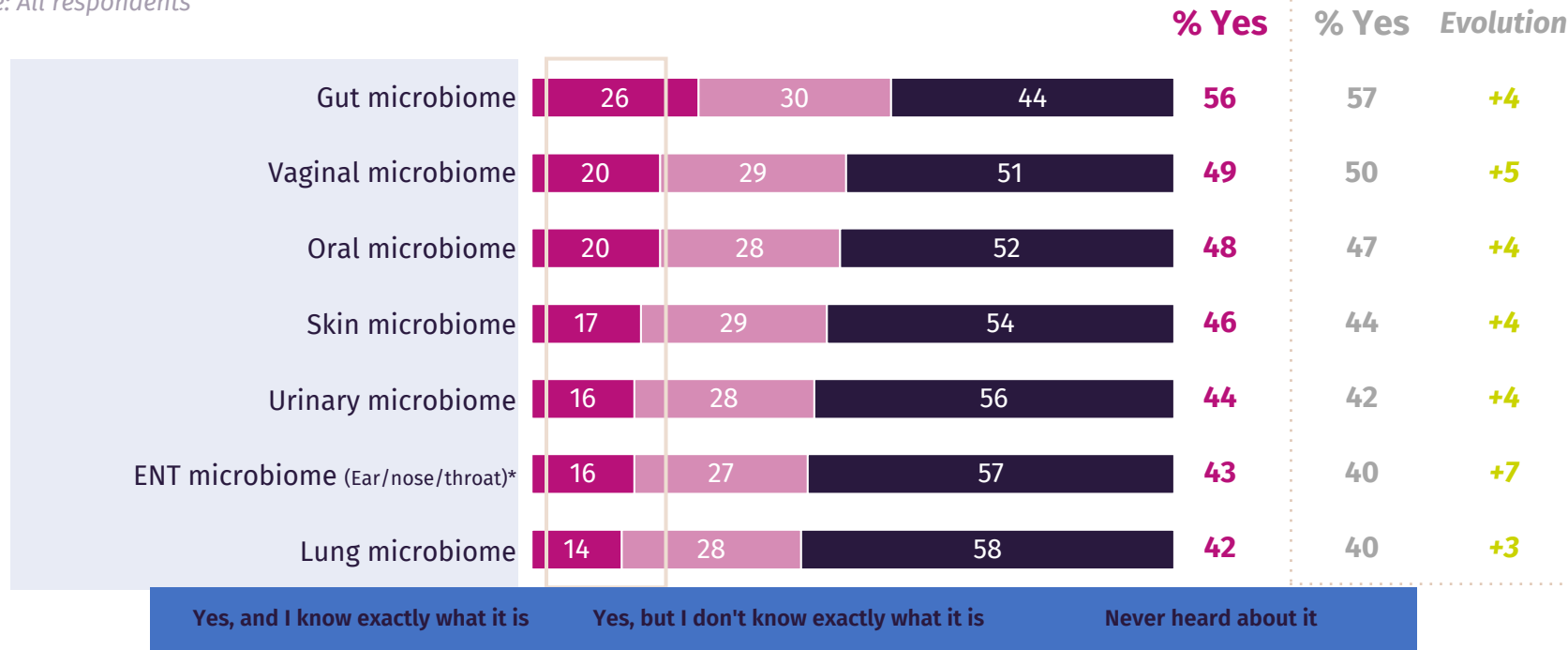
n=2097

Although they are more likely to have heard of each microbiome, few know exactly what they are.



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



In details, Asians know better each microbiome, while Americans and Europeans lag behind.

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

Base: All respondents

% Yes	Total	USA	LATIN AMERICA	Brazil	Mexico	EUROPE	France	Spain	Portugal	Poland	Finland	ASIA	China	Vietnam	MOROCCO
Gut microbiome	56	49	58	54	62	51	70	61	42	45	33	76	65	87	47
Vaginal microbiome	49	42	52	52	52	43	58	52	38	41	28	65	53	76	46
Oral microbiome	48	42	48	46	50	40	50	40	36	44	30	73	64	82	44
Skin microbiome	46	43	45	44	46	38	43	39	35	43	31	69	58	80	45
Urinary microbiome	44	41	44	41	47	38	44	41	36	43	26	62	46	78	44
ENT microbiome (Ear/nose/throat)	43	39	43	43	42	35	42	33	32	40	27	63	48	78	45
Lung microbiome	42	38	44	43	44	34	38	36	33	40	26	62	50	75	42





Parents of young children and 25-44 yo have a better awareness about each microbiome.

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

Base: All respondents

% Yes

	Total	Less than 25 yo <i>n</i> =888	25-34 yo <i>n</i> =1409	35-44 yo <i>n</i> =1402	45-59 yo <i>n</i> =1979	60 yo and more <i>n</i> =1822	Men <i>n</i> =3615	Women <i>n</i> =3885	Parents of children under 3 <i>n</i> =591
Gut microbiome	56	56	67	63	53	46	55	57	65
Vaginal microbiome	49	50	60	57	46	38	46	52	60
Oral microbiome	48	50	60	55	44	37	49	47	60
Skin microbiome	46	50	58	54	43	34	47	46	58
Urinary microbiome	44	47	56	52	41	33	43	45	54
ENT microbiome (Ear/nose/throat)	43	45	56	51	39	31	43	42	58
Lung microbiome	42	44	53	50	39	32	43	42	55





People with health problems seem to know better each microbiome especially those with digestive, genitourinary, neurological conditions.

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

Base: All respondents

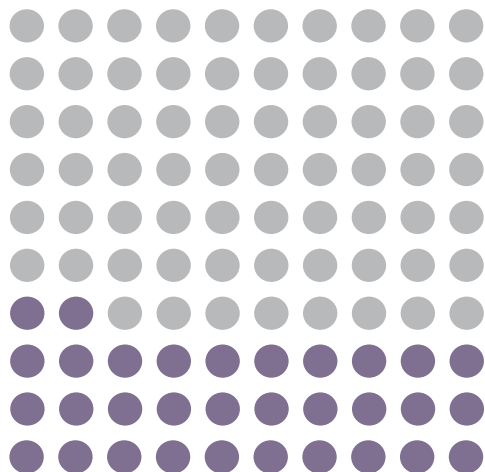
% Yes

	Total	AT LEAST ONE HEALTH PROBLEM n=4509	Respiratory diseases n=888	Cardiovascular diseases n=1177	Diabetes n=745	Digestive disorders n=1036	Genitourinary and kidney disorders n=529	Neurological disorders n=315	Autoimmune disease n=716	Osteoarticular diseases n=1040	Psychiatric conditions n=652	Cancer n=270	Allergies n=2097
Gut microbiome	56	57	64	53	51	66	64	68	63	59	56	56	60
Vaginal microbiome	49	50	56	45	44	60	63	65	56	52	53	53	54
Oral microbiome	48	49	57	44	45	59	60	65	55	52	49	54	53
Skin microbiome	46	47	57	43	45	57	58	67	55	50	50	54	51
Urinary microbiome	44	46	53	41	43	55	56	59	51	48	45	48	50
ENT microbiome (Ear/nose/throat)	43	44	52	40	41	54	56	59	51	45	44	49	48
Lung microbiome	42	43	53	40	39	53	54	64	50	46	43	51	47

As a whole, almost a third of the population have already heard of each microbiome, an increasing proportion compared with last year.

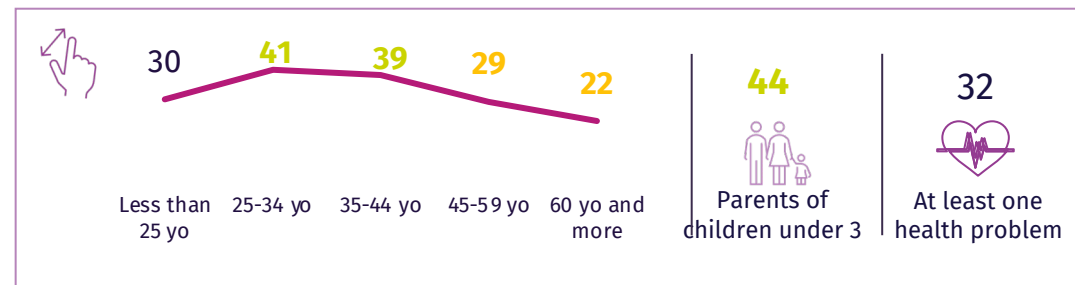
Question 3. And more specifically, have you ever heard of the following terms?

Base: All respondents



32% have already heard of each microbiome:
Gut, vaginal, skin, lung, urinary, Oral and ENT microbiome

Constant scope : 29%, +3pts ↗



But only 8% know precisely all of them

Constant scope : 8%, +3pts ↗

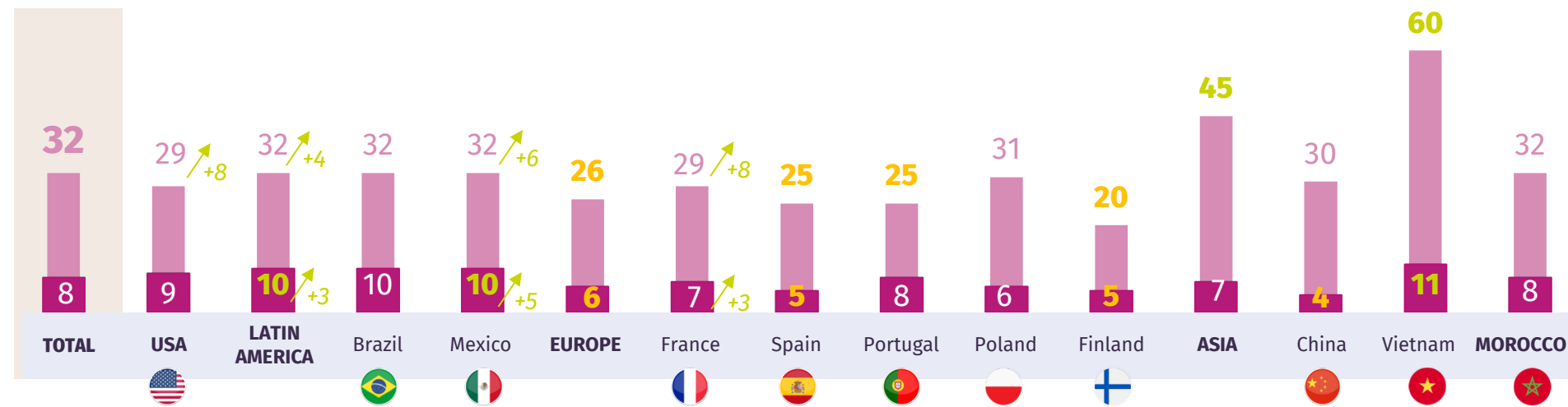
 In almost all the country, a minority have heard of each microbiome. The only exception is Vietnam, where 6 out of 10 have heard of them.

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

Base: All respondents

% have already heard of each microbiome

% know precisely all microbiomes



● Significant differences vs total - superior

● Significant differences vs total - inferior

Copyright Biocodex Microbiota
Institute and Ipsos - June 2024

International
Microbiota
Observatory

Ipsos



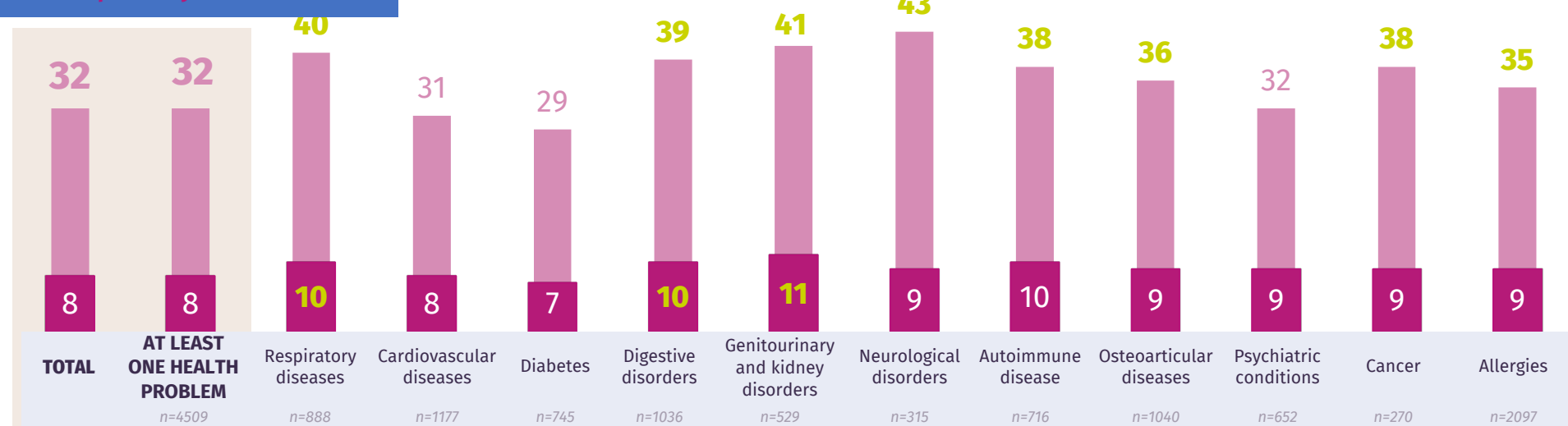
The level of awareness is not better among people with health problems, but according to the conditions they suffer from, the awareness is higher.

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

Base: All respondents

% have already heard of each microbiome

% know precisely all microbiomes



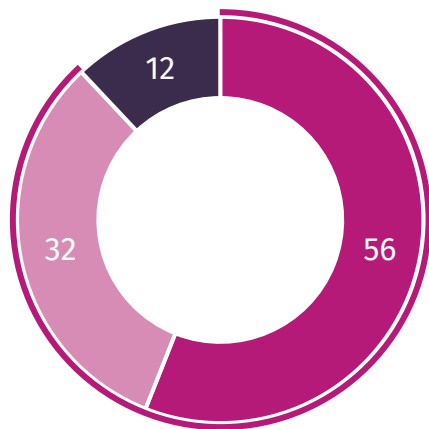
As last year, the term “flora” is more popular than microbiome.



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

Base: All respondents

Gut flora*



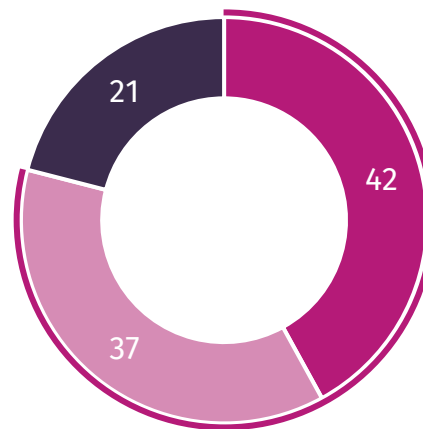
88%

have already heard
about gut flora

Constant scope : 92%, +6pts



Vaginal flora



79%

have already heard
about vaginal flora

Constant scope : 84%, +7pts



Yes, and I know exactly what it is



Yes, but I don't know exactly what it is



No, I never heard about it

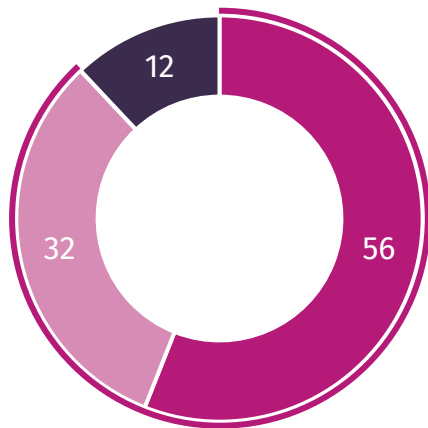
Men and the youngest are the one less aware of the gut flora.



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

Base: All respondents

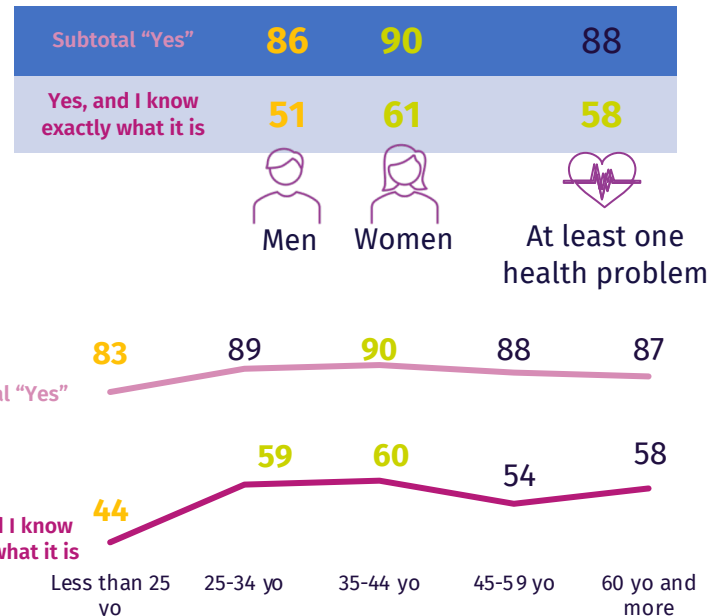
Gut flora*



88%
have already heard
about gut flora

Constant scope : 92%, +6pts

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



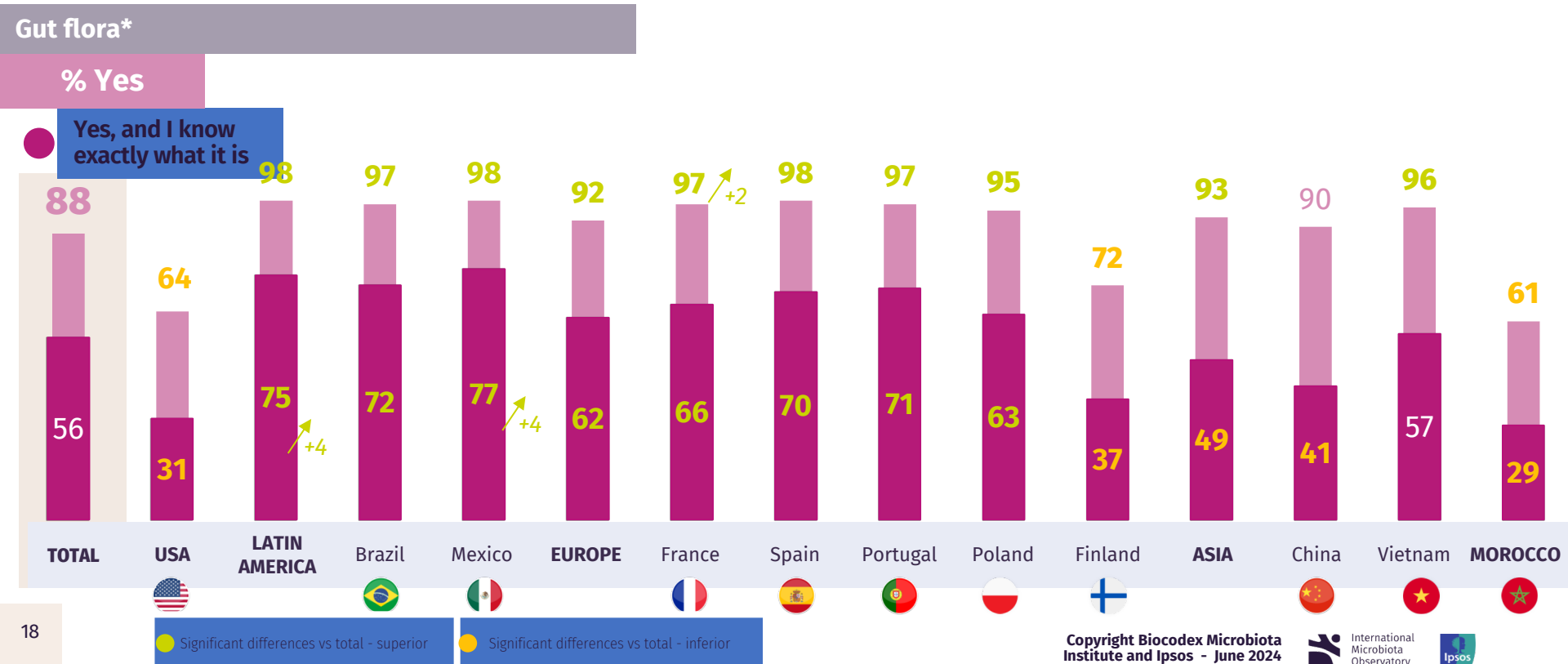
*The wording of this item was changed compared to last year



Americans, Finnish and Moroccans know less about gut flora.

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

Base: All respondents



*The wording of this item was changed compared to last year

Copyright Biocodex Microbiota
Institute and Ipsos - June 2024

International
Microbiota
Observatory

Ipsos



Knowledge of the gut flora is quite similar among sufferers compared to the average.



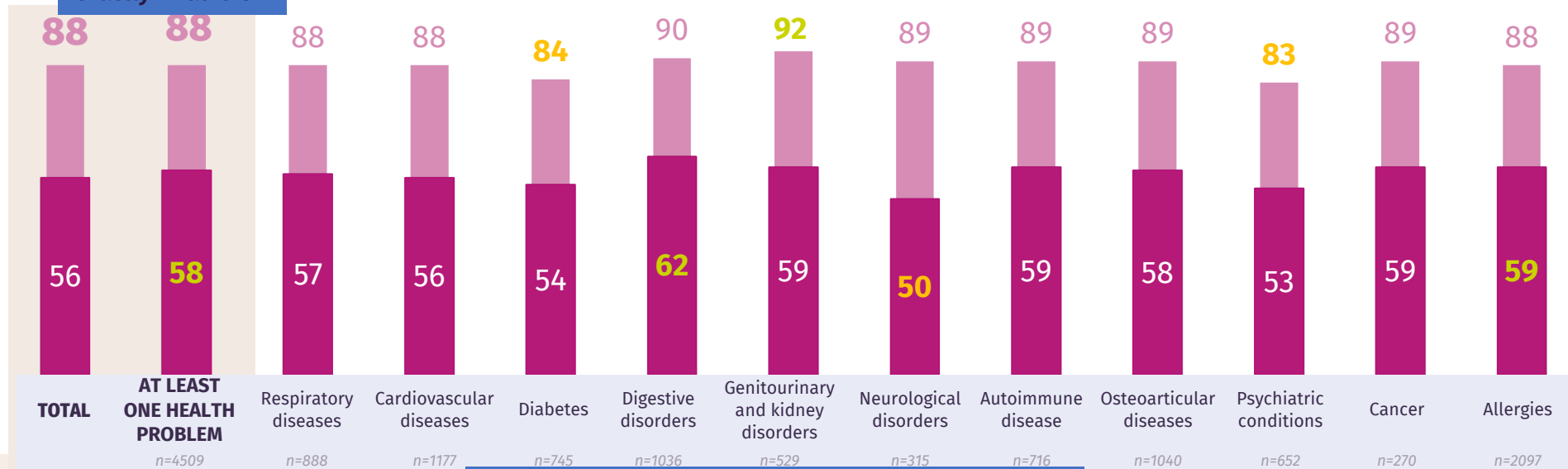
Question 2bis. And have you ever heard of these terms?

Base: All respondents

Gut flora*

% Yes

Yes, and I know exactly what it is



Significant differences vs total - superior

Significant differences vs total - inferior

Copyright Biocodex Microbiota Institute and Ipsos - June 2024

International Microbiota Observatory

Ipsos

*The wording of this item was changed compared to last year

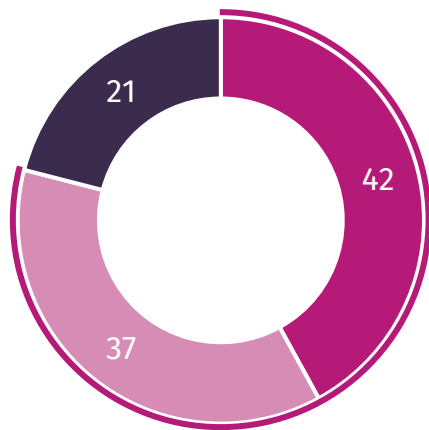
Once again, men and the youngest appear less aware of vaginal flora.



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

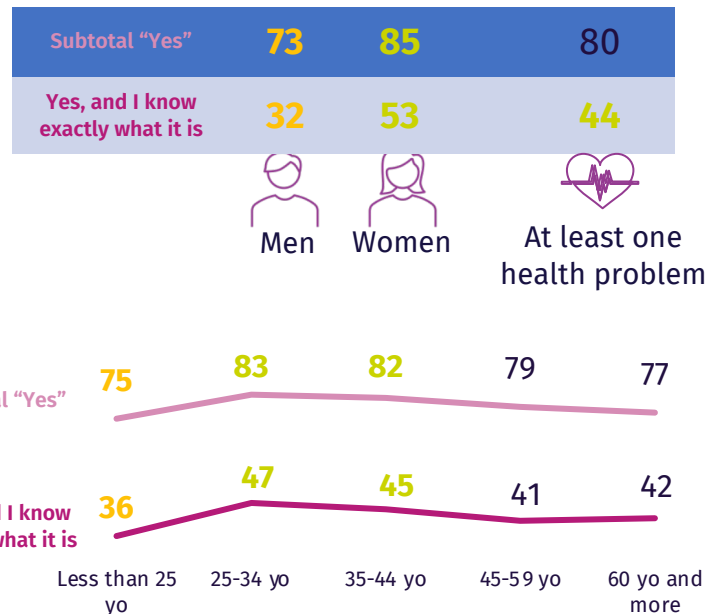
Base: All respondents

Vaginal flora



79%
have already heard
about vaginal flora
Constant scope : 84%, +7pts

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





Awareness of vaginal flora is lower in the USA, Finland, China and Morocco.

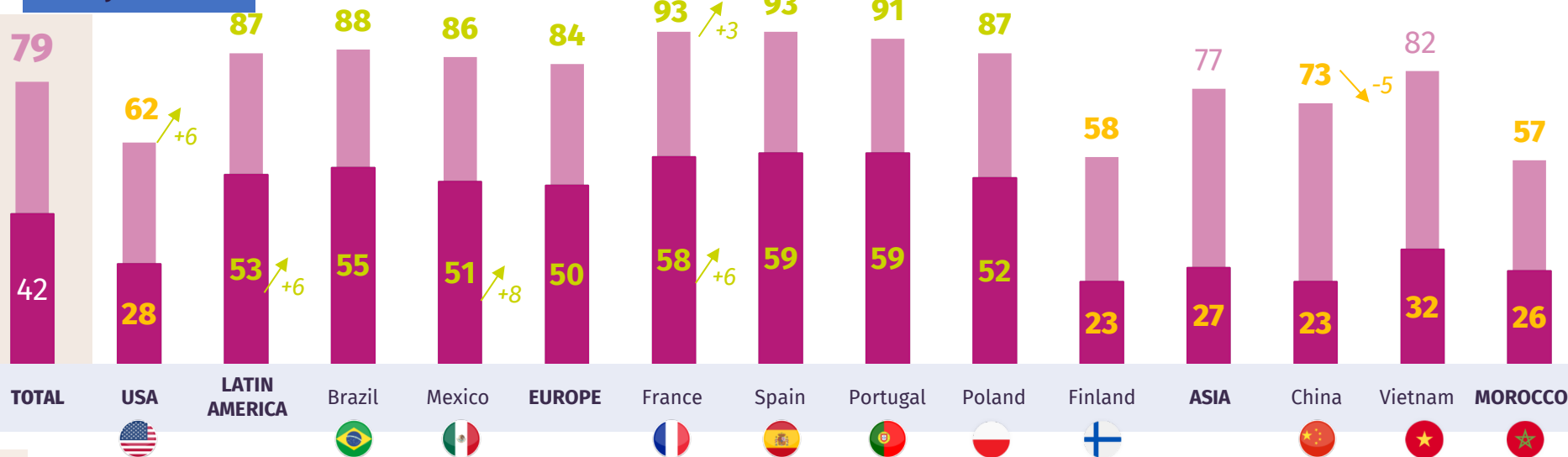
Question 2bis. And have you ever heard of these terms?

Base: All respondents

Vaginal flora

% Yes

Yes, and I know exactly what it is



Significant differences vs total - superior

Significant differences vs total - inferior

Copyright Biocodex Microbiota Institute and Ipsos - June 2024

International Microbiota Observatory

Ipsos



People suffering from health problems seems to have a more precise knowledge of vaginal flora.



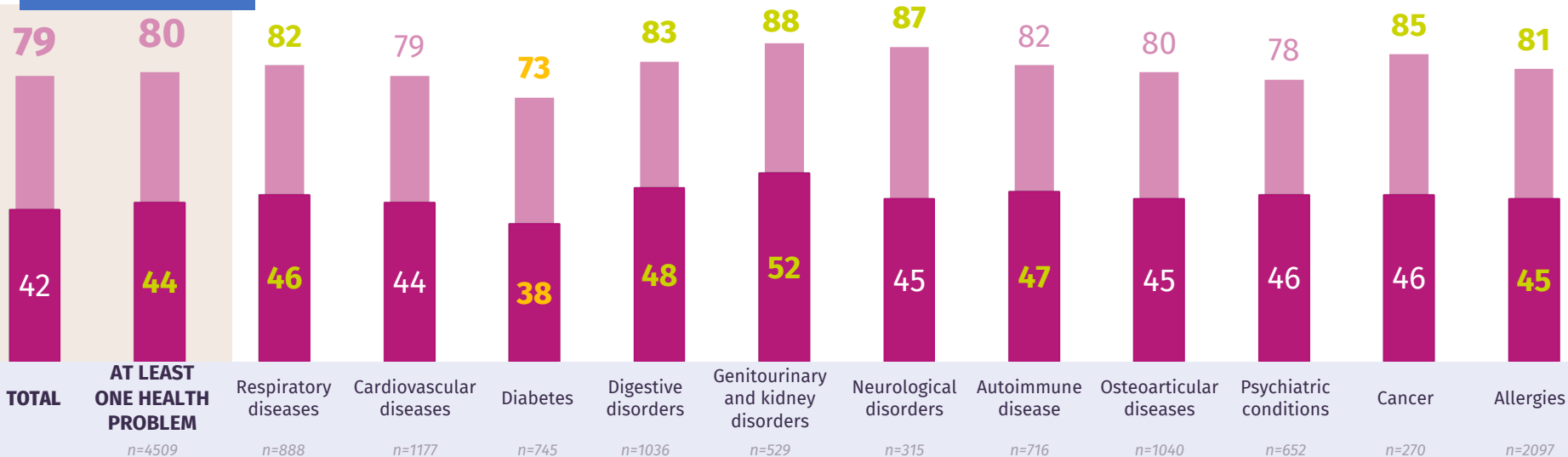
Question 2bis. And have you ever heard of these terms?

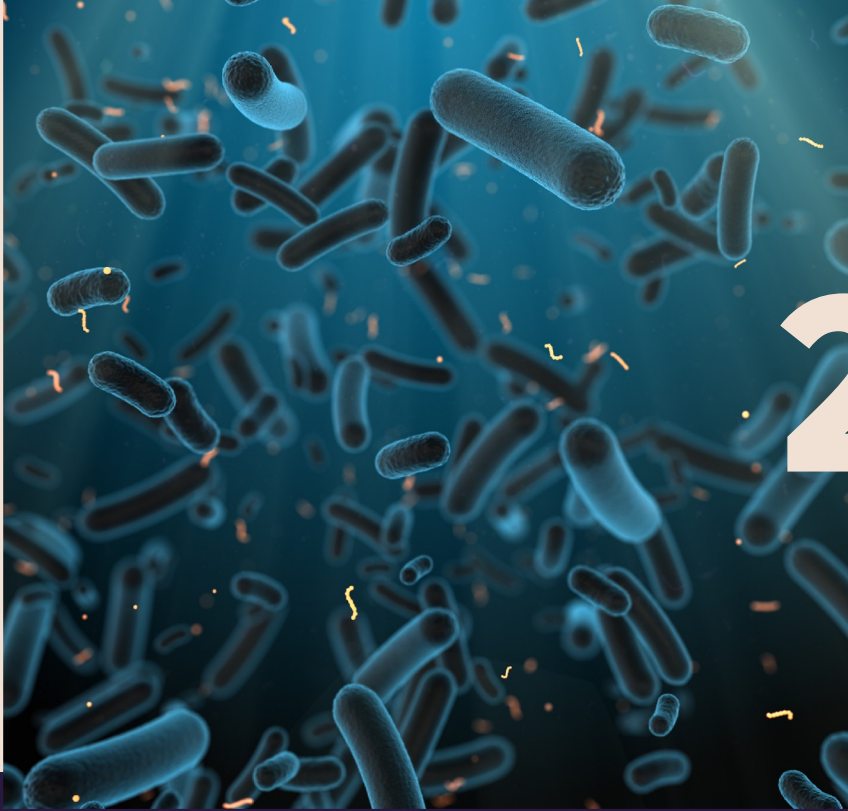
Base: All respondents

Vaginal flora

% Yes

Yes, and I know exactly what it is





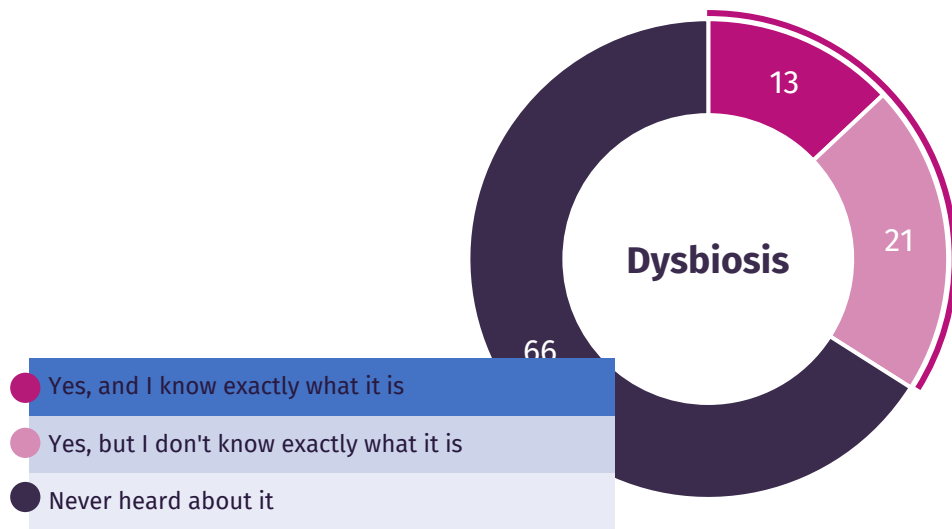
Knowledge of the role and functions of the microbiome is increasing, although there is still much room for improvement.

Dysbiosis is not a popular term among people, despite an improvement since last year.



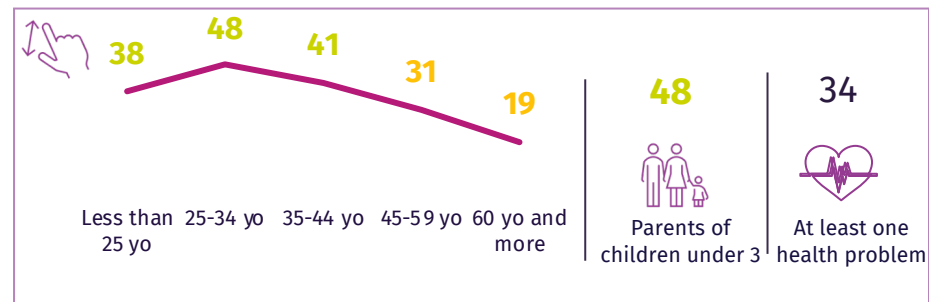
Question 3. And more specifically, have you ever heard of the following terms?

Base: All respondents



34% have already heard about the term 'dysbiosis'

Constant scope : 31%, +3pts ↗



● Significant differences vs total - superior

● Significant differences vs total - inferior



Dysbiosis awareness is low in all countries, except in Asia where the term is much better known.

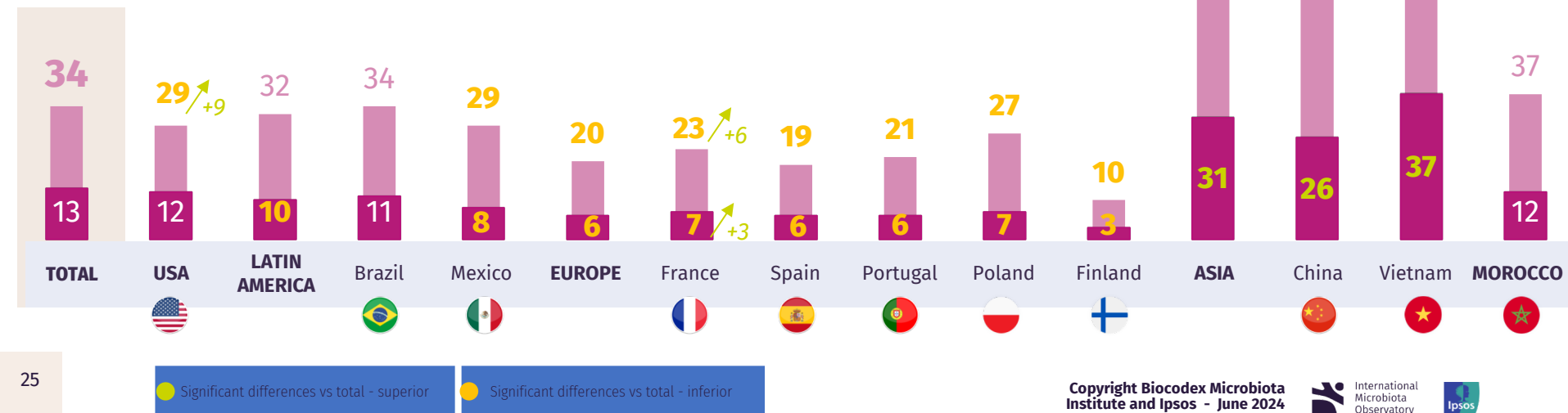
Question 3. And more specifically, have you ever heard of the following terms?

Base: All respondents

Dysbiosis awareness

% Yes

Yes, and I know exactly what it is





Dysbiosis awareness is quite similar among people with health problem with some exception among people with digestive, genitourinary, neurological conditions who have a better awareness.

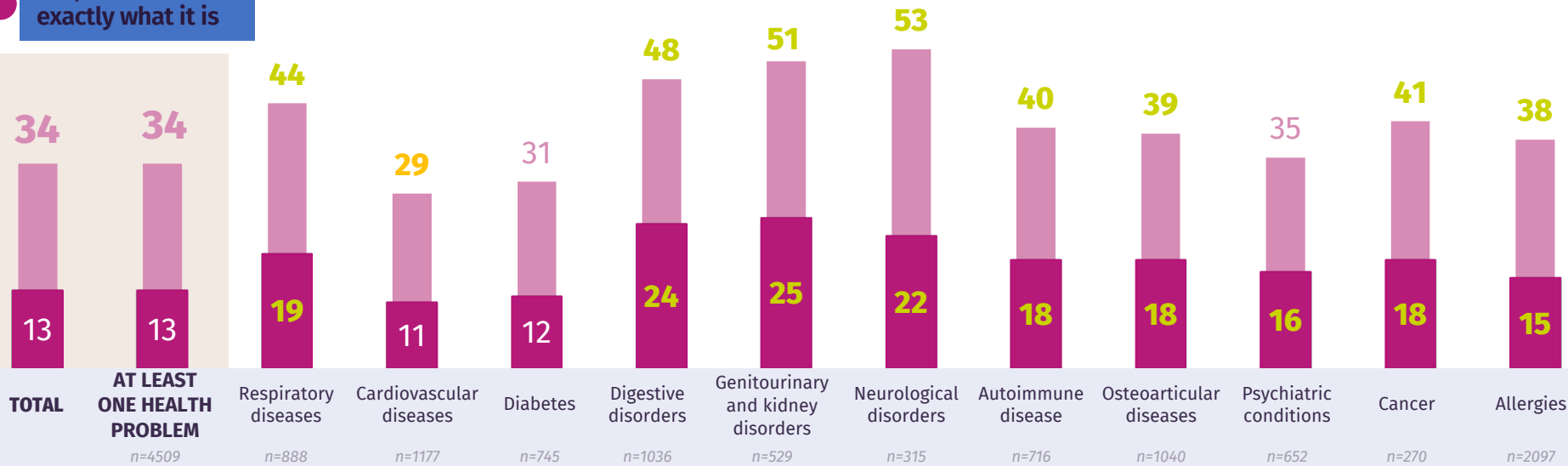
Question 3. And more specifically, have you ever heard of the following terms?

Base: All respondents

Dysbiosis awareness

% Yes

Yes, and I know exactly what it is



People knowledge about the microbiome shows some progress but remain limited, especially about its diversity and composition.



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

Constant scope

% Good
answer

Evolution

Our diet has significant consequences on the balance of our microbiome

78 ✓

5

17

22

76

+2

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

77 ✓

5

18

23

77

+2

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

74 ✓

5

21

26

73

+1

Antibiotics have an impact on our microbiome

70 ✓

6

24

30

67

+1

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

68 ✓

6

26

32

68

+2

Many **diseases** such as irritable bowel syndrome (IBS), obesity, vaginose could be **linked to the microbiome**

64 ✓

7

29

36

New item

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

53 ✓

9

38

47

53

=

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

22

46 ✓

32

54

46

+1

The microbiome is only **made up of bacteria**

27

28 ✓

45

72

New item

True

False

Don't really know

Definition displayed to respondents before this question: In the past, the term most commonly used was "flora" or "microflora", this term has now been renamed "microbiome".

Copyright Biocodex Microbiota
Institute and Ipsos - June 2024



International
Microbiota
Observatory



Ipsos

The knowledge about the microbiome is very moderate everywhere, especially in the USA, France and Morocco.

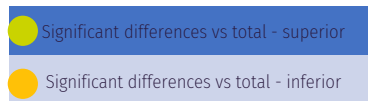
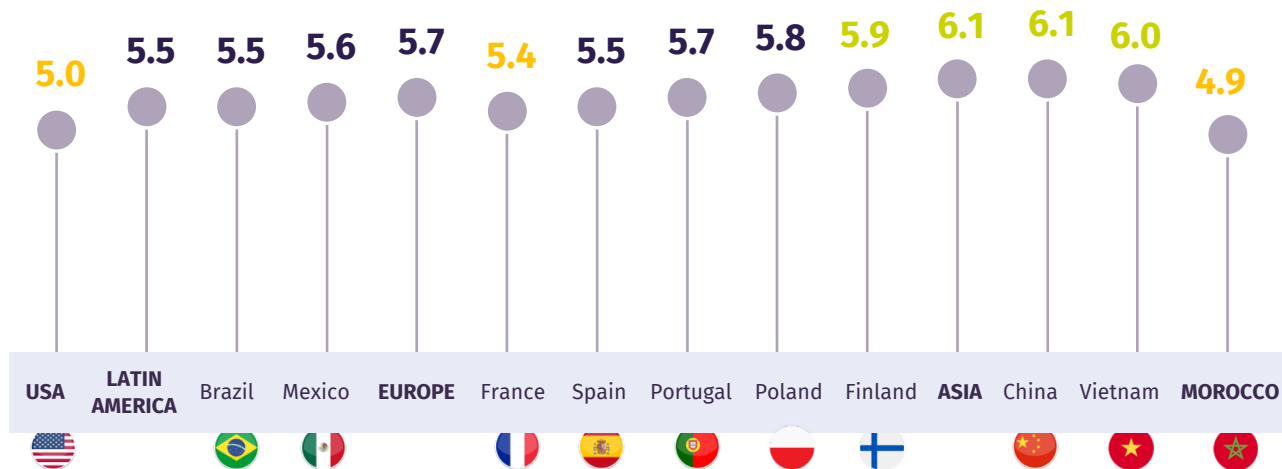


Question 4. For each of the following statements, tell us if you think it is TRUE or FALSE. If you are unsure about your answer, answer I do not really know.

Base: All respondents



Number of good responses on average





The youngest people and men have a more limited knowledge.

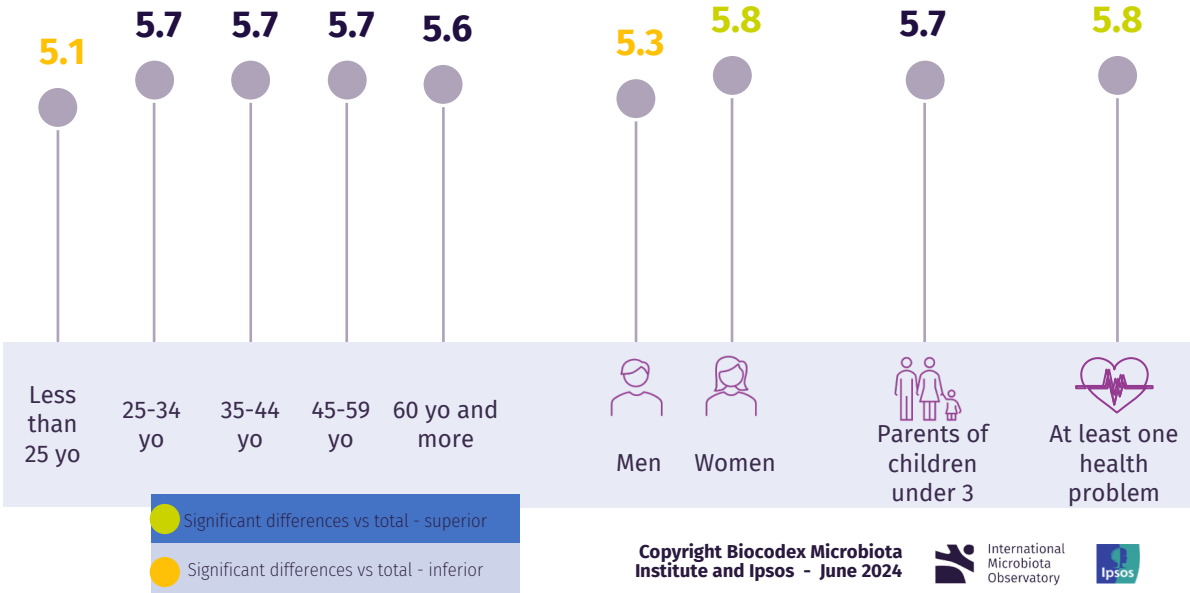


Question 4. For each of the following statements, tell us if you think it is TRUE or FALSE. If you are unsure about your answer, answer I do not really know.

Base: All respondents



Number of good responses on average





Knowledge about the microbiome is diverse among countries: higher in Asia, lower in the USA, France and Morocco.

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	USA	LATIN AMERICA	Brazil	Mexico	EUROPE	France	Spain	Portugal	Poland	Finland	ASIA	China	Vietnam	MOROCCO
Our diet has significant consequences on the balance of our microbiome	78	67	79 ↗	75	82	80	77	78	82	82	83	78	74	83	73
In some cases, an imbalance in the microbiome may have significant health consequences	77	67	79	79	79	78	76	77	81	76	80	80	77 ↗	82	76
The microbiome plays an important role in immune defense mechanisms	74	65	76	73	78	75	72	75	76	76	76	77	74 ↗	80	62
Antibiotics have an impact on our microbiome	70	64	64	68	60	73	65	69	73	80	77	72	70 ↗	75	66
In the field of vaginal health , the microbiome plays an important role in women's health	68	61	69	68	70	69	65	67	69	75	68	72	73 ↗	71	61
Many diseases such as irritable bowel syndrome (IBS), obesity, vaginose could be linked to the microbiome	64	59	68	64	73	65	55	63	63	70	72	71	71	70	49
The microbiome enables the gut to deliver essential information to the brain for our health	53	49	54	58	50	51	55	47	53	47	55	63	62	63	45
Your microbiome is located exclusively in the gut	46	34 ↗	38	35	41	48	48	51	47	50	47	58	62 ↗	55	33
The microbiome is only made up of bacteria	28	29	28	29	27	26	24	24	26	24	35	37	50	23	25



Knowledge about the microbiome is better among people with health problem.

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	AT LEAST ONE HEALTH PROBLEM	Respiratory diseases	Cardiovascular diseases	Diabetes	Digestive disorders	Genitourinary and kidney disorders	Neurological disorders	Autoimmune disease	Osteoarticular diseases	Psychiatric conditions	Cancer	Allergies
	n=4509		n=888	n=1177	n=745	n=1036	n=529	n=315	n=716	n=1040	n=652	n=270	n=2097
Our diet has significant consequences on the balance of our microbiome	78	79	78	82	78	83	79	69	82	82	77	78	80
In some cases, an imbalance in the microbiome may have significant health consequences	77	80	79	80	77	84	78	77	85	83	79	76	82
The microbiome plays an important role in immune defense mechanisms	74	76	77	78	71	80	79	71	79	79	73	75	77
Antibiotics have an impact on our microbiome	70	72	73	74	71	76	74	69	77	74	73	73	73
In the field of vaginal health , the microbiome plays an important role in women's health	68	70	72	71	66	75	76	73	73	73	72	72	72
Many diseases such as irritable bowel syndrome (IBS), obesity, vaginose could be linked to the microbiome	64	67	67	68	64	75	69	67	73	71	68	66	68
The microbiome enables the gut to deliver essential information to the brain for our health	53	55	59	55	53	64	62	58	62	60	58	56	56
Your microbiome is located exclusively in the gut	46	48	47	46	39	49	47	46	47	48	48	43	47
The microbiome is only made up of bacteria	28	29	30	28	26	32	30	34	26	27	33	24	32

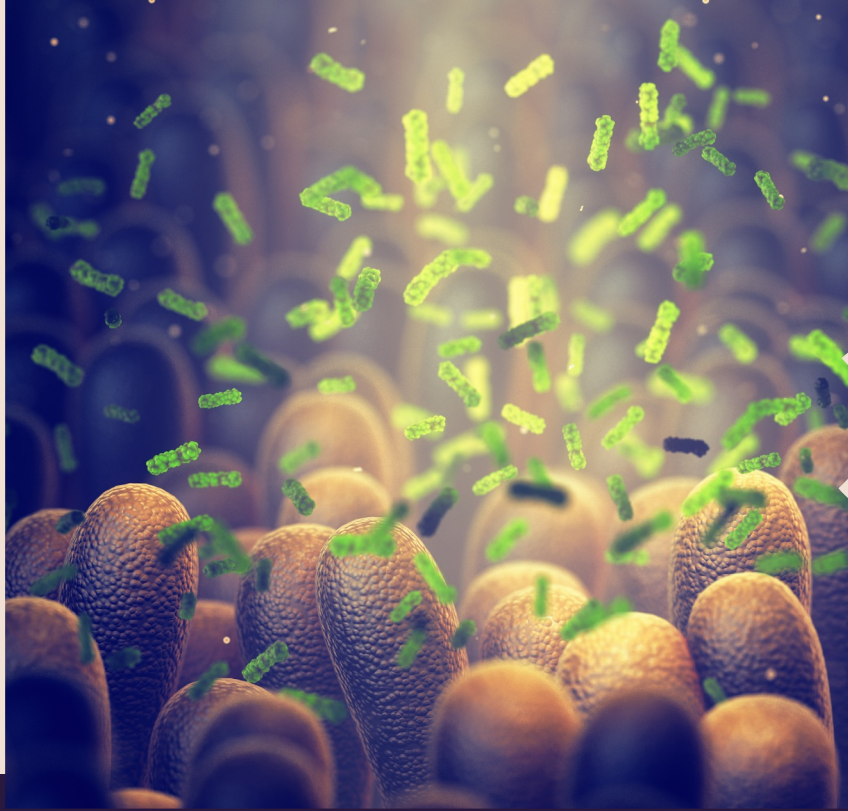


Significant differences vs total - superior



Significant differences vs total - inferior





3

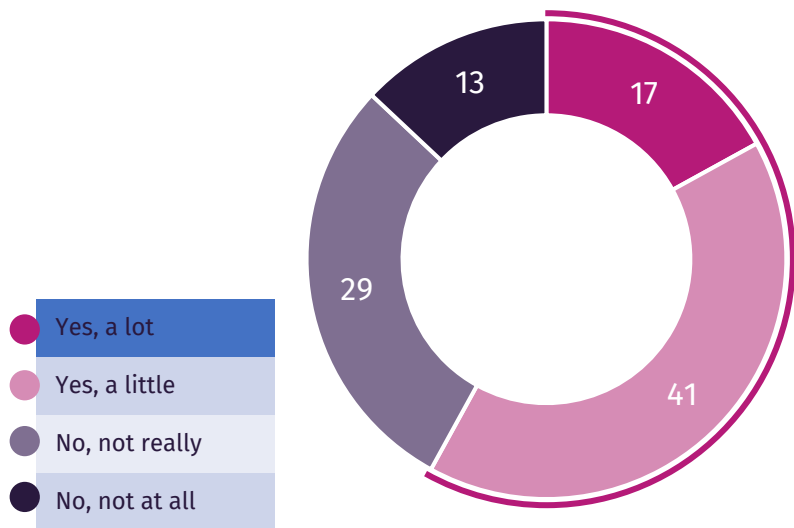
To maintain a balanced microbiome, people are likely to change their behaviours...

More than half of people have changed their behaviors to keep their microbiome balanced and functioning as smoothly as possible.

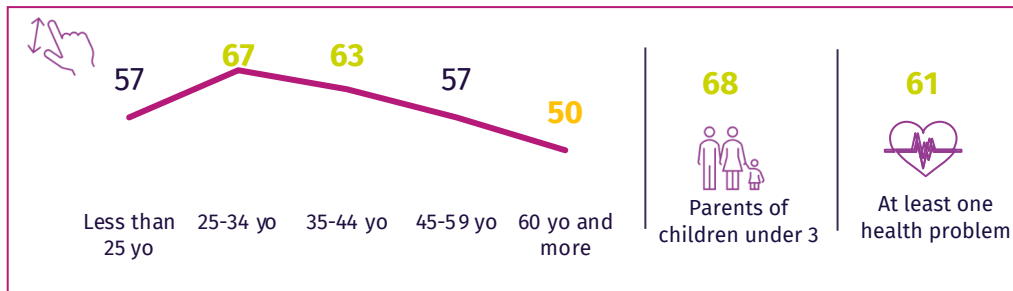


Question 10. And in your daily life, have you changed your behaviors to keep your microbiome as balanced and functioning as smoothly as possible?

Base: All respondents



58% have changed their behaviors



● Significant differences vs total - superior

● Significant differences vs total - inferior

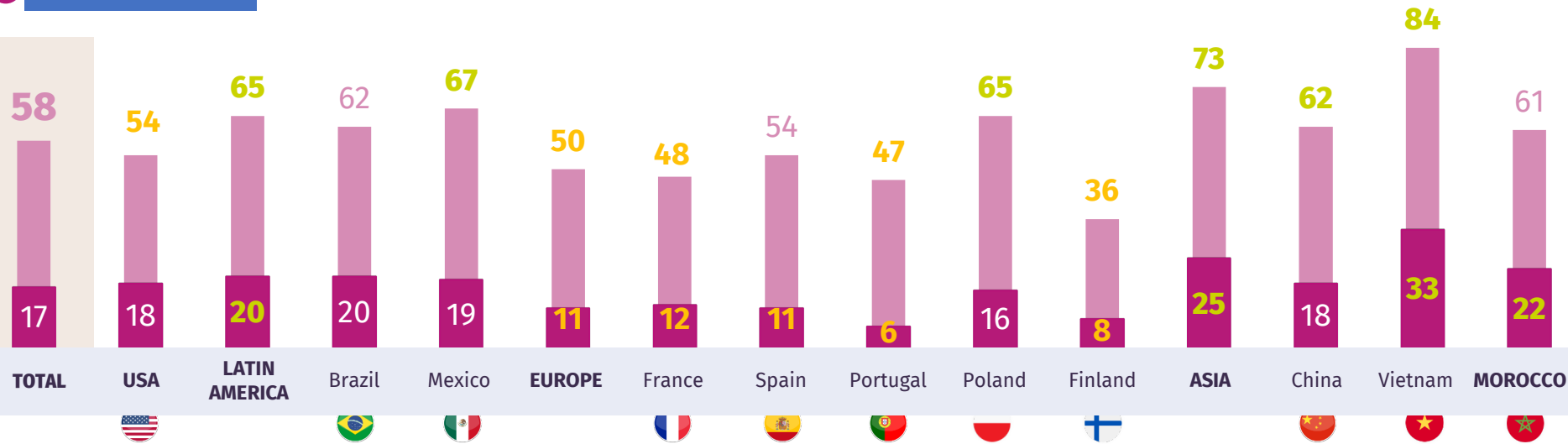
Mexicans, Polish and Asians are more likely to have changed their behaviors to keep their microbiome balanced and functioning as smoothly as possible.

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

Base: All respondents

% Yes

Yes, a lot



● Significant differences vs total - superior

● Significant differences vs total - inferior

People with health problems are also more likely to have changed their behaviors

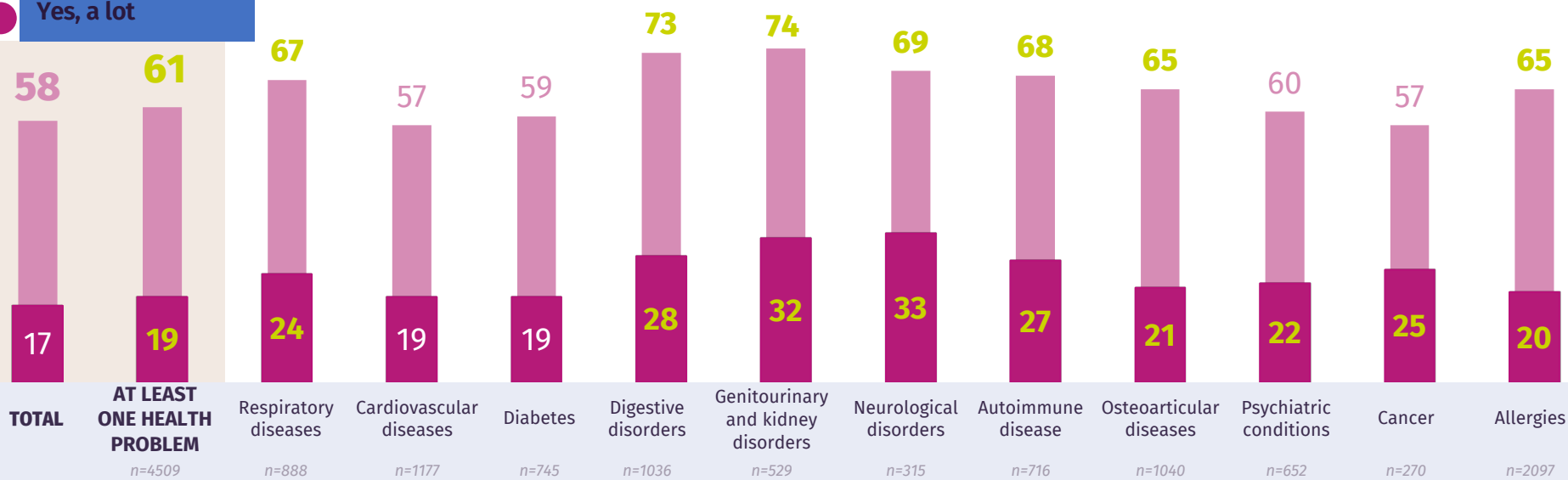


Question 10. And in your daily life, have you changed your behaviors to keep your microbiome as balanced and functioning as smoothly as possible?

Base: All respondents

% Yes

Yes, a lot

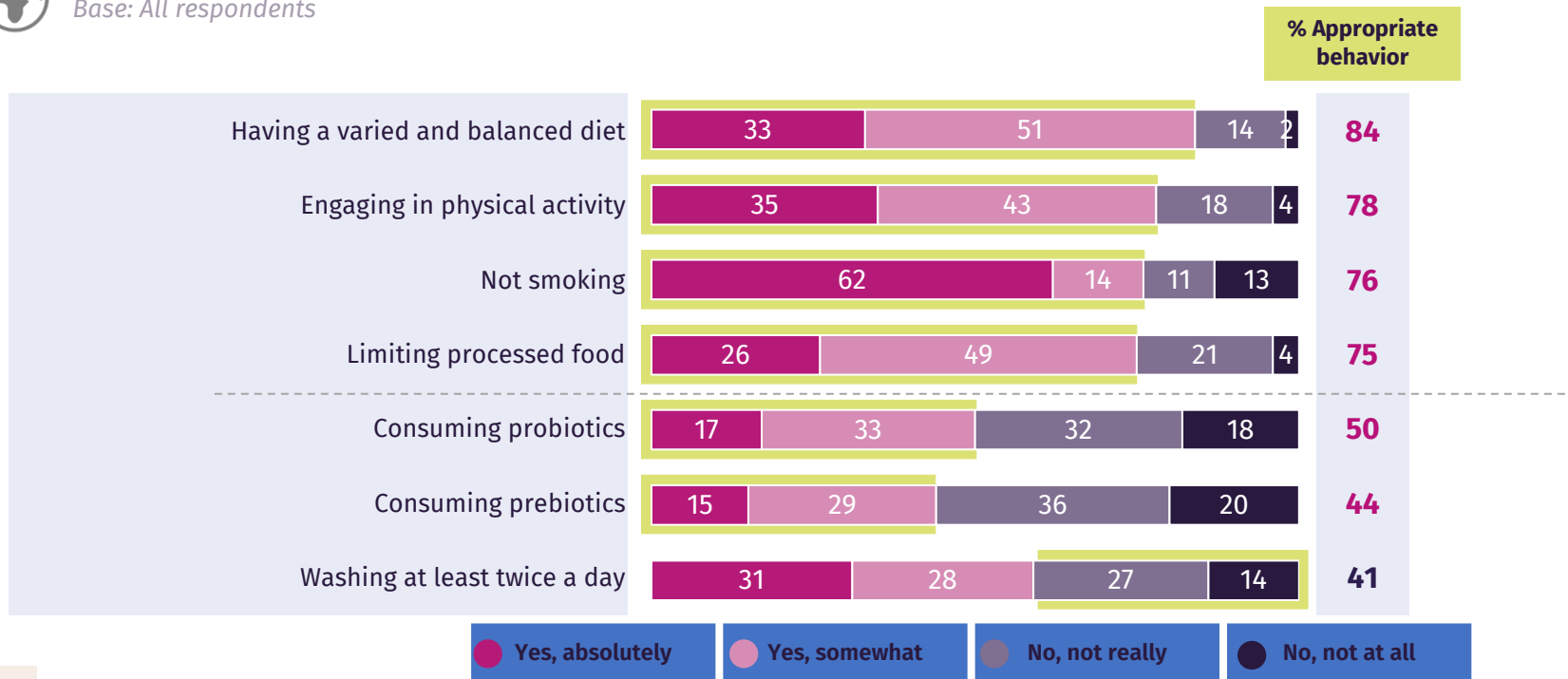


"Standard" healthy behaviors are mostly adapted by people. However, behaviors related to probiotics, prebiotics and hygiene are not properly adopted.



Question 11. In your daily life, do you regularly adopt the following behaviors?

Base: All respondents





Asian respondents are more likely to have adopted appropriate behaviors for their microbiome than in other countries.

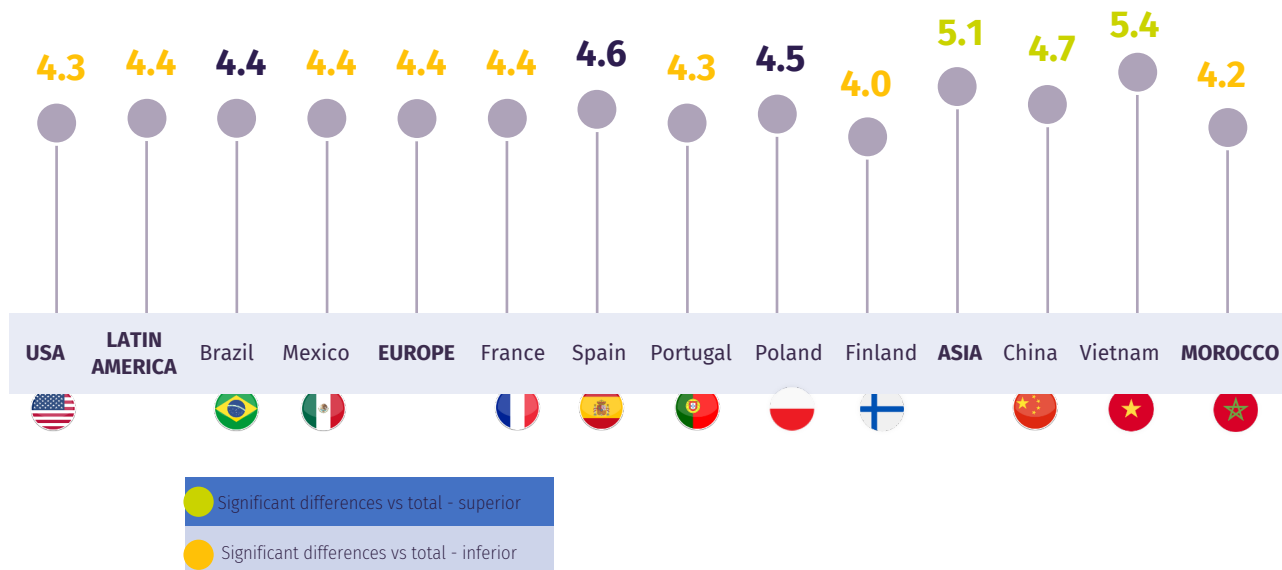


Question 11. In your daily life, do you regularly adopt the following behaviors?

Base: All respondents



Number of appropriate behaviors on average





In detail, Americans, Latinos, Polish and Asians are more to adopt the behavior of washing multiple times a day.

Question 11. In your daily life, do you regularly adopt the following behaviors?

Base: All respondents

% Appropriate behaviors	Total	USA	LATIN AMERICA	Brazil	Mexico	EUROPE	France	Spain	Portugal	Poland	Finland	ASIA	China	Vietnam	MOROCCO
Having a varied and balanced diet	84	80	81	83	79	85	87	88	82	81	87	86	85	87	84
Engaging in physical activity	78	81	78	73	83	75	70	78	69	77	79	84	78	90	76
Not smoking	76	73	79	81	78	73	77	75	73	70	69	81	76	85	81
Limiting processed food	75	70	78	77	79	73	78	76	75	79	60	77	68	85	81
Consuming probiotics	50	54	61	56	66	40	33	44	36	60	25	74	68	79	30
Consuming prebiotics	44	45	53	50	56	31	25	35	24	51	19	74	62	87	27
Washing at least twice a day	41 *	26	10	15	4	59	74	68	69	30	57	30	36	23	46

* Reading note: 41% of respondents don't wash twice a day or more, an appropriate behavior for their microbiome.

● Significant differences vs total - superior

● Significant differences vs total - inferior



People aged 25-44yo have adopted more positive behaviors for their microbiome than the average.

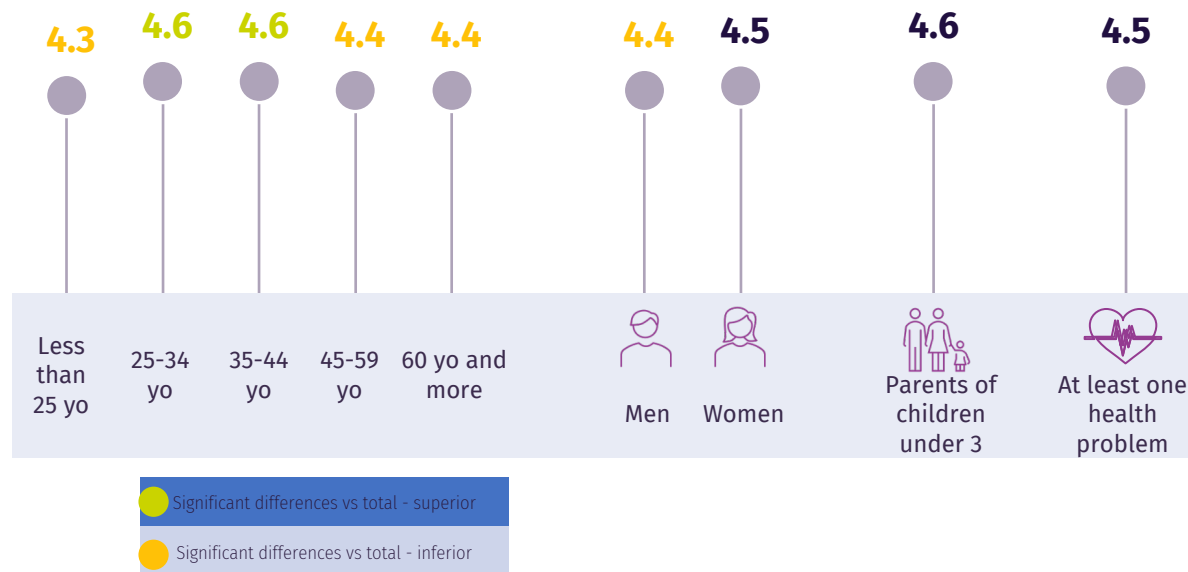


Question 11. In your daily life, do you regularly adopt the following behaviors?

Base: All respondents



Number of appropriate behaviors on average





People with health problems are more numerous to consume probiotics and prebiotics, but also more to declare washing several times a day.

Question 11. In your daily life, do you regularly adopt the following behaviors?

Base: All respondents

% Appropriate behaviors	Total	AT LEAST ONE HEALTH PROBLEM	Respiratory diseases	Cardiovascular diseases	Diabetes	Digestive disorders	Genitourinary and kidney disorders	Neurological disorders	Autoimmune disease	Osteoarticular diseases	Psychiatric conditions	Cancer	Allergies
	n=4509		n=888	n=1177	n=745	n=1036	n=529	n=315	n=716	n=1040	n=652	n=270	n=2097
Having a varied and balanced diet	84	84	86	86	85	86	86	77	88	86	79	83	85
Engaging in physical activity	78	77	78	75	73	78	79	74	78	78	69	75	81
Not smoking	76	77	76	76	78	80	76	74	81	82	73	75	78
Limiting processed food	75	76	78	74	77	80	78	70	79	79	70	73	77
Consuming probiotics	50	52	58	48	51	67	65	62	58	58	50	52	55
Consuming prebiotics	44	46	54	43	42	60	61	58	53	52	43	45	49
Washing at least twice a day	41	39	36	41	39 *	33	33	34	38	36	46	37	35

*Reading note: Among people with diabetes, 39% don't wash twice a day or more, an appropriate behavior for their microbiome.

Significant differences vs total - superior

Significant differences vs total - inferior

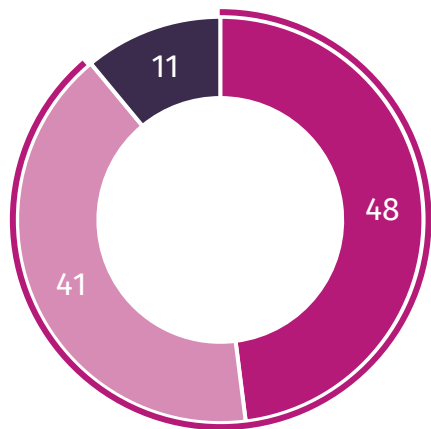
This year, knowledge of probiotics and prebiotics is progressing, but an important part still don't know exactly what they are, especially when it deals with prebiotics.



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

Base: All respondents

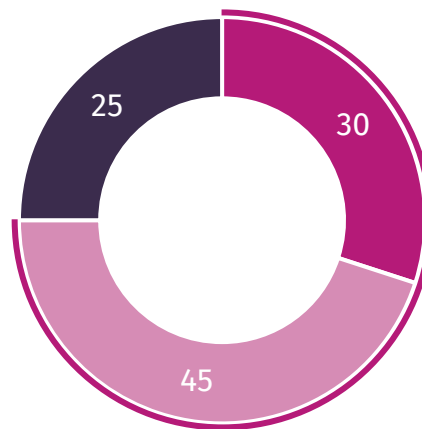
Probiotics



89%
have already heard
about probiotics

Constant scope : 93%, +2pts ↗

Prebiotics



75%
have already heard
about prebiotics

Constant scope : 78%, +3pts ↗

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

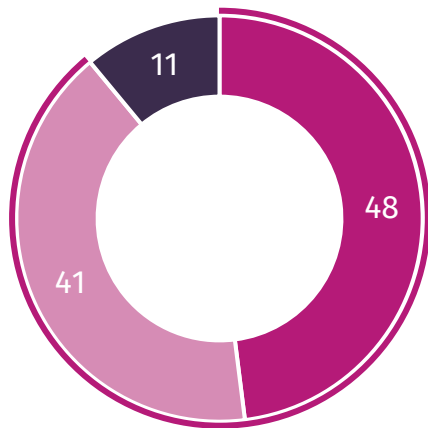
Once again, women, people aged 25 to 44 yo and those with a health problem are the most aware of probiotics.



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

Base: All respondents

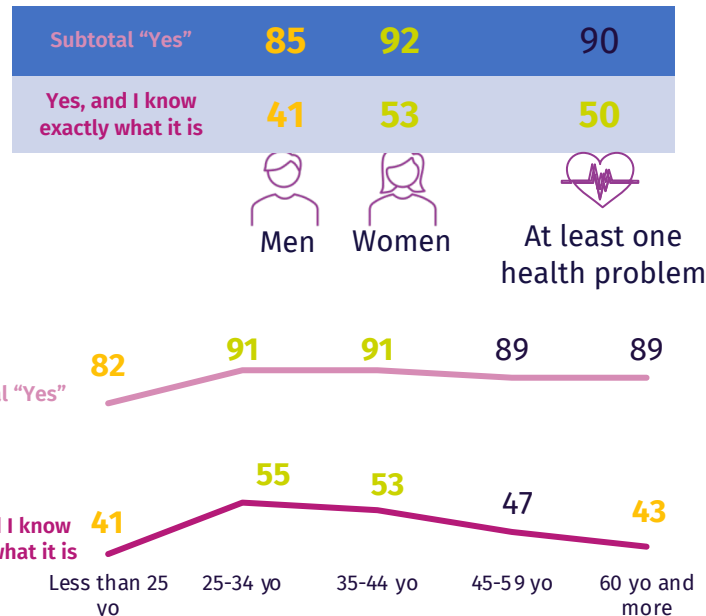
Probiotics



89%
have already heard
about probiotics

Constant scope : 93%, +2pts ↗

- 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 knowledge of probiotics is high among all countries, except in Finland and Morocco.

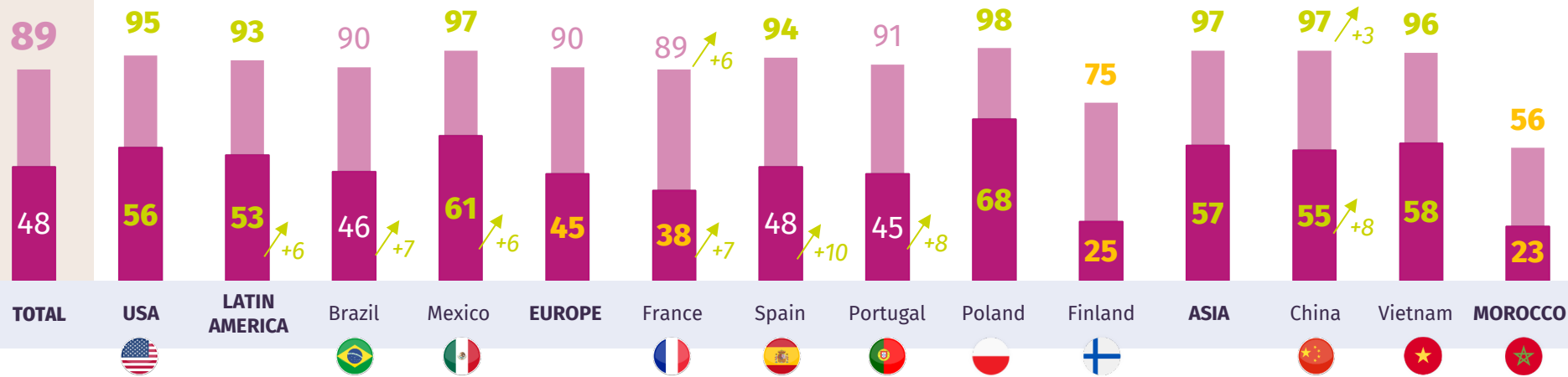
Question 2bis. And have you ever heard of these terms?

Base: All respondents

Probiotics

% Yes

Yes, and I know exactly what it is





Knowledge of probiotics is quite higher among people suffering from a health problem.

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

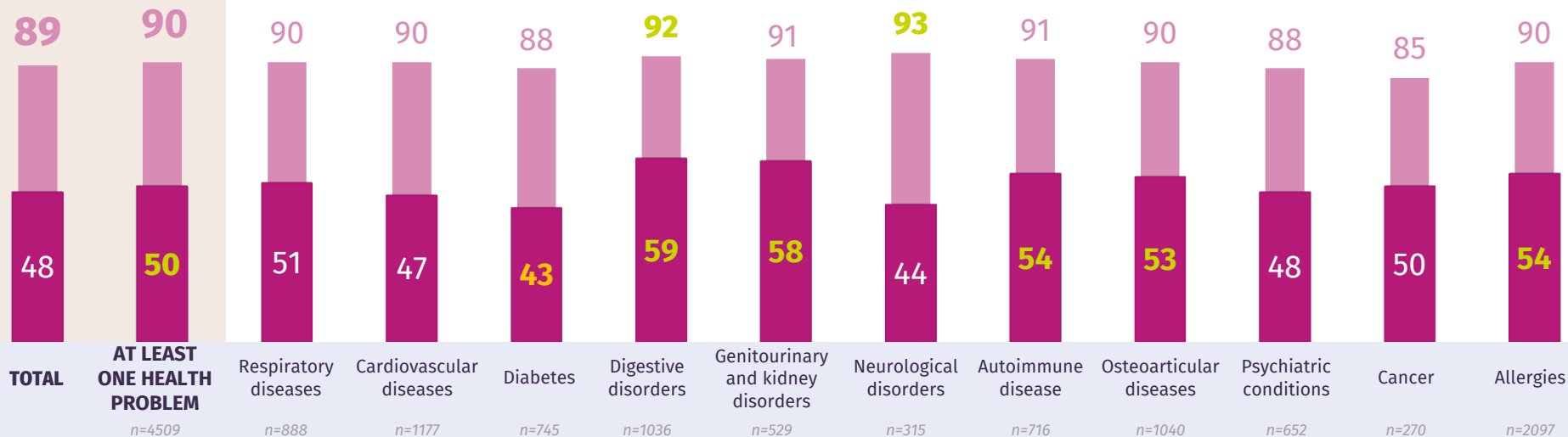
Base: All respondents



Probiotics

% Yes

Yes, and I know exactly what it is



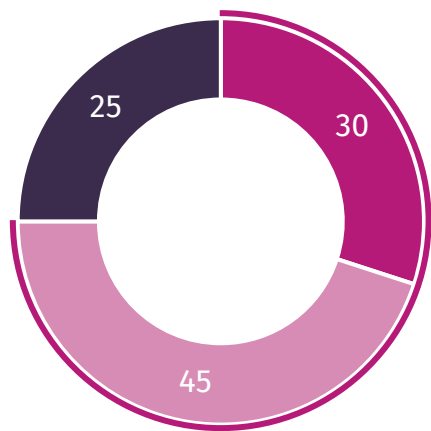
Women, people aged 25 to 44 yo and those suffering from a health problem are also more aware of prebiotics.



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

Base: All respondents

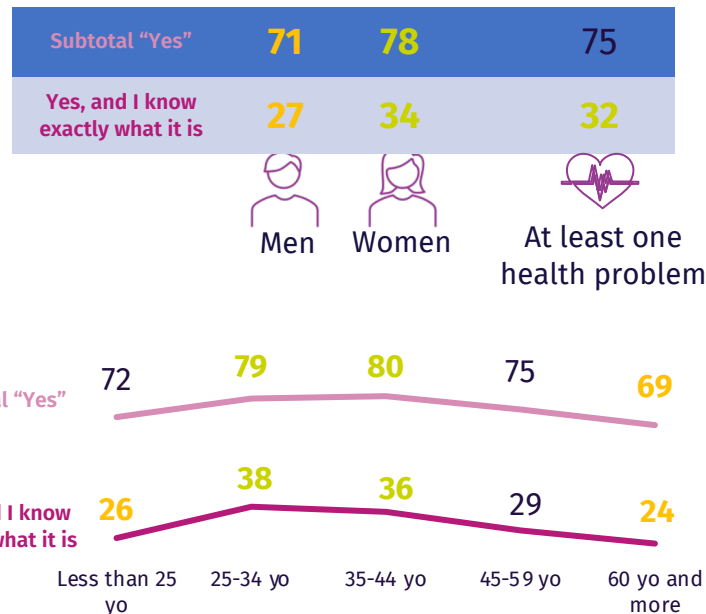
Prebiotics



75%
have already heard
about prebiotics

Constant scope : 78%, +3pts ↗

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





Knowledge of prebiotics is contrasted between countries. French, Portuguese, Finnish and Moroccans have a limited knowledge of it.

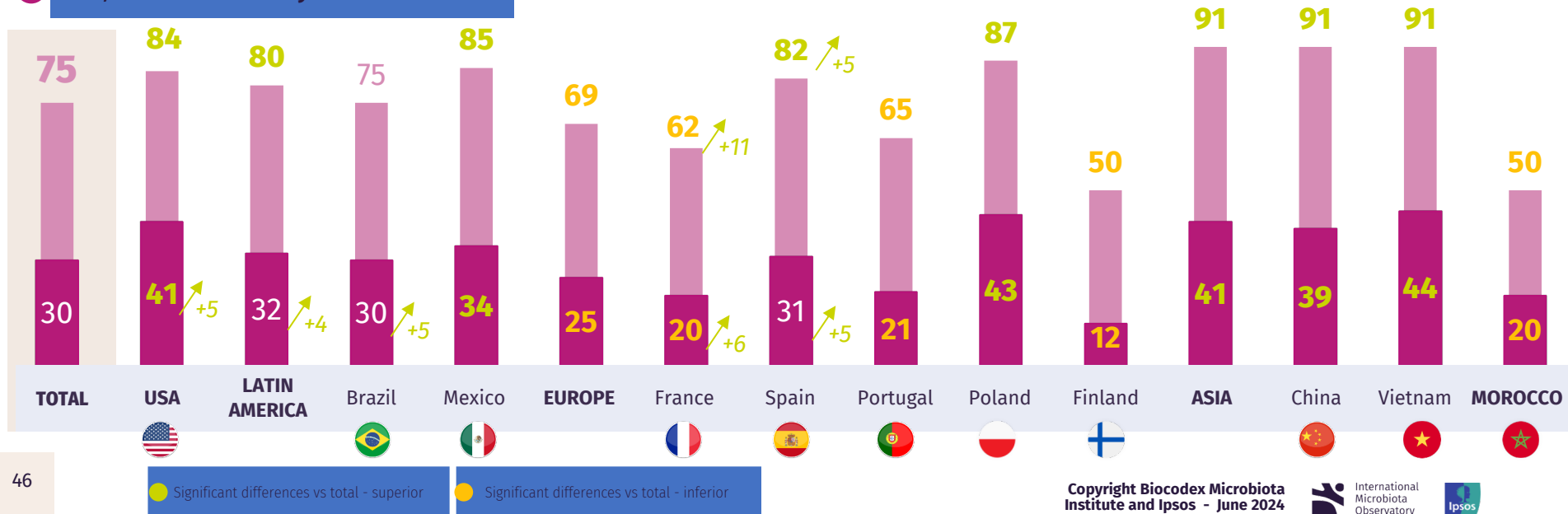
Question 2bis. And have you ever heard of these terms?

Base: All respondents

Prebiotics

% Yes

Yes, and I know exactly what it is





Prebiotics awareness is quite better for people with health problems.

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

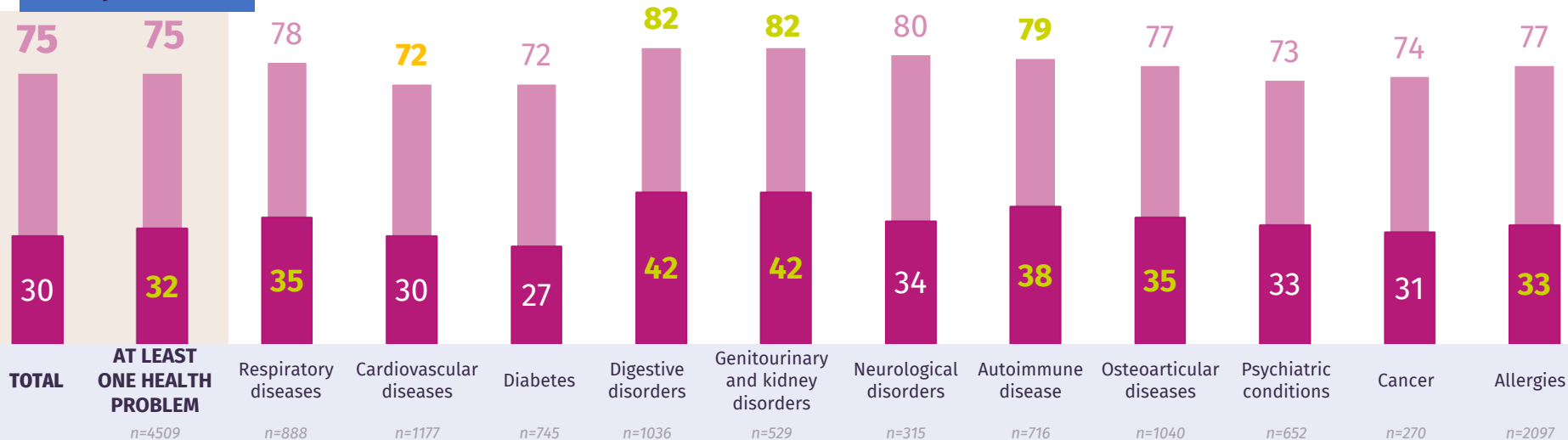
Base: All respondents



Prebiotics

% Yes

Yes, and I know exactly what it is





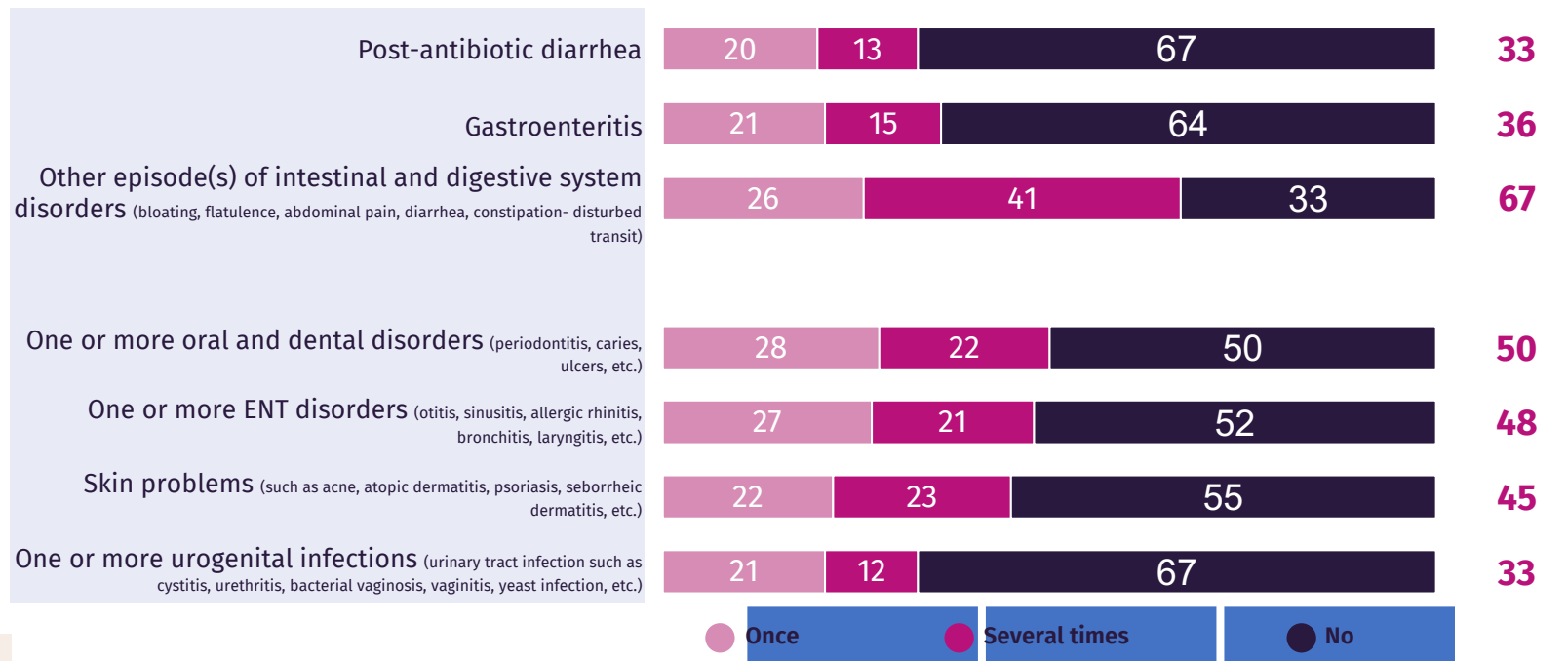
When faced with a microbiome-related health problem, some people actually link it to their microbiome

In the last 12 months, 1 in 3 people have experienced post-antibiotic diarrhea or gastroenteritis, while 2 out of 3 had other episodes of intestinal and digestive system disorders.



Question 11a. Over the past 12 months, have you ever experienced the following problems?

Base: All respondents



Countries experience problems heterogeneously.

Question 11a. Over the past 12 months, have you ever experienced the following problems?

Base: All respondents

% Yes	Total	USA	LATIN AMERICA	Brazil	Mexico	EUROPE	France	Spain	Portugal	Poland	Finland	ASIA	China	Vietnam	MOROCCO
Post-antibiotic diarrhea	33	30	38	38	38	21	21	25	22	25	12	48	39	55	55
Gastroenteritis	36	31	36	31	41	28	29	39	22	41	8	52	55	48	54
Other episode(s) of intestinal and digestive system disorders (bloating, flatulence, abdominal pain, diarrhea, constipation- disturbed transit)	67	57	72	69	75	64	62	64	63	65	64	71	64	77	74
One or more oral and dental disorders (periodontitis, caries, ulcers, etc.)	50	36	51	48	54	42	42	44	37	45	43	66	61	72	71
One or more ENT disorders (otitis, sinusitis, allergic rhinitis, bronchitis, laryngitis, etc.)	48	39	50	53	47	43	38	39	42	51	44	57	50	64	62
Skin problems (such as acne, atopic dermatitis, psoriasis, seborrheic dermatitis, etc.)	45	42	48	51	45	38	34	43	31	42	38	60	51	69	52
One or more urogenital infections (urinary tract infection such as cystitis, urethritis, bacterial vaginosis, vaginitis, yeast infection, etc.)	33	32	36	33	39	26	25	29	24	35	17	45	45	45	34



And naturally, people with health problems declare more problems than the average.

Question 11a. Over the past 12 months, have you ever experienced the following problems?

Base: All respondents

% Yes	Total n=4509	At least one health problem n=888	Respiratory diseases n=1177	Cardiovascular diseases n=745	Diabetes n=1036	Digestive disorders n=529	Genitourinary and kidney disorders n=315	Neurological disorders n=716	Autoimmune disease n=1040	Osteoarticular diseases n=652	Psychiatric conditions n=270	Cancer n=2097	Allergies n=2097
Post-antibiotic diarrhea	33	38	51	35	40	55	56	56	47	43	44	46	41
Gastroenteritis	36	42	51	42	39	64	59	62	51	48	48	46	44
Other episode(s) of intestinal and digestive system disorders (bloating, flatulence, abdominal pain, diarrhea, constipation- disturbed transit)	67	74	79	75	68	91	85	81	80	77	84	75	77
One or more oral and dental disorders (periodontitis, caries, ulcers, etc.)	50	56	63	57	55	69	72	70	64	62	62	59	58
One or more ENT disorders (otitis, sinusitis, allergic rhinitis, bronchitis, laryngitis, etc.)	48	57	74	53	52	69	71	65	67	60	61	62	66
Skin problems (such as acne, atopic dermatitis, psoriasis, seborrheic dermatitis, etc.)	45	52	61	46	47	65	71	76	67	53	65	52	60
One or more urogenital infections (urinary tract infection such as cystitis, urethritis, bacterial vaginosis, vaginitis, yeast infection, etc.)	33	38	46	38	40	52	78	60	47	44	46	45	41

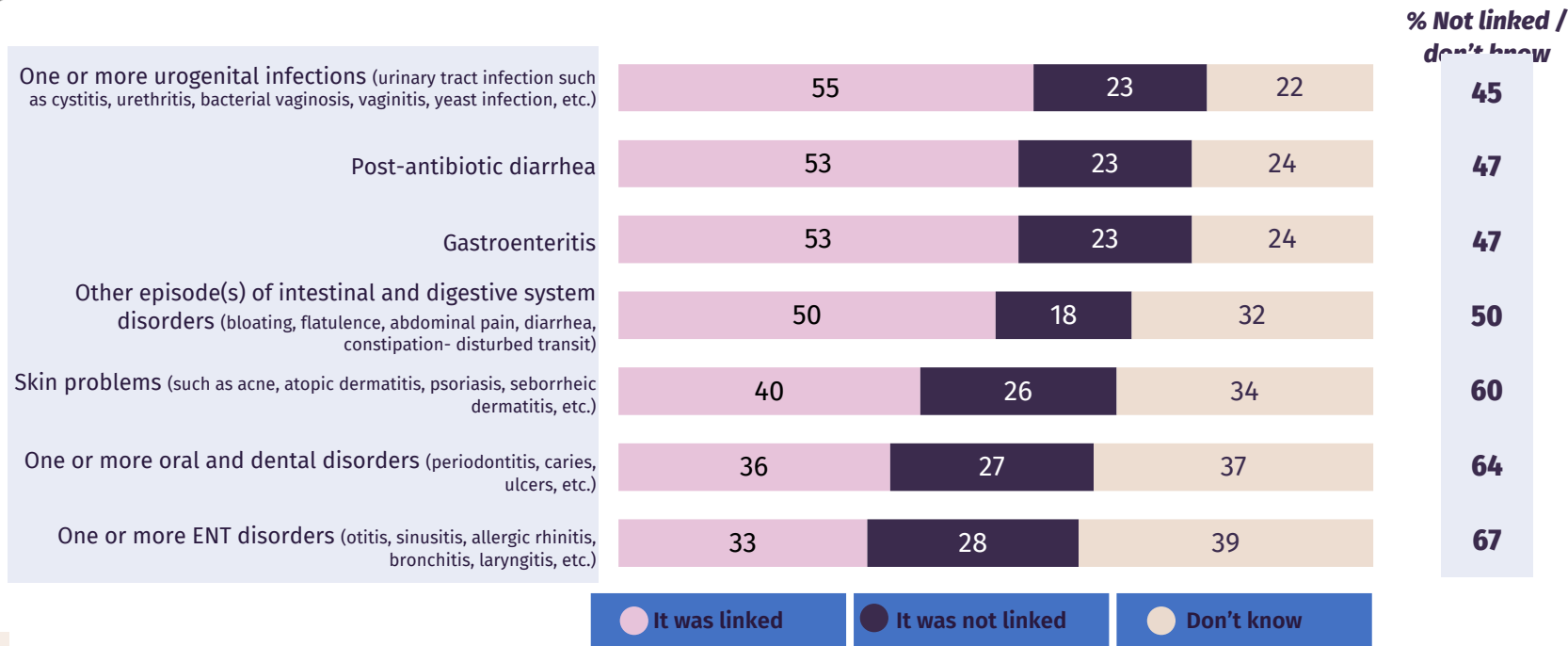


Among people affected by these conditions, a majority think it was linked to their microbiome, specially the case when the conditions were digestive problems.



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

Base: People who have experienced these problems



Europeans seem less likely to associate their problems with their microbiome than other countries such as Mexico, China and Vietnam where the link is more identified.

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

Base: People who have experienced these problems

	Total	USA	LATIN AMERICA	Brazil	Mexico	EUROPE	France	Spain	Portugal	Poland	Finland	ASIA	China	Vietnam	MOROCCO
One or more urogenital infections (urinary tract infection such as cystitis, urethritis, bacterial vaginosis, vaginitis, yeast infection, etc.)	55	53	61	56	66	47	42	39	51	55	45	66	64	68	49
Post-antibiotic diarrhea	53	55	60	57	63	47	42	40	45	58	55	61	61	60	42
Gastroenteritis	53	49	63	51	72	40	28	40	40	44	57	70	72	68	42
Other episode(s) of intestinal and digestive system disorders (bloating, flatulence, abdominal pain, diarrhea, constipation- disturbed transit)	50	44	61	51	71	40	36	40	38	43	41	71	74	68	40
Skin problems (such as acne, atopic dermatitis, psoriasis, seborrheic dermatitis, etc.)	40	38	45	36	56	27	24	25	31	34	19	58	55	60	35
One or more oral and dental disorders (periodontitis, caries, ulcers, etc.)	36	40	40	35	45	23	21	23	21	32	20	57	56	57	27
One or more ENT disorders (otitis, sinusitis, allergic rhinitis, bronchitis, laryngitis, etc.)	33	36	40	34	48	20	21	19	12	32	14	54	50	56	26



Significant differences vs total - superior



Significant differences vs total - inferior



The 25-44 age group is more likely to link their problems 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

% linked	Total	Less than 25yo	25 - 34 yo	35 - 44 yo	45 - 59 yo	60 yo and more
One or more urogenital infections (urinary tract infection such as cystitis, urethritis, bacterial vaginosis, vaginitis, yeast infection, etc.)	55	50	60	60	57	45
Post-antibiotic diarrhea	53	40	56	56	56	52
Gastroenteritis	53	48	52	56	56	49
Other episode(s) of intestinal and digestive system disorders (bloating, flatulence, abdominal pain, diarrhea, constipation-disturbed transit)	50	45	55	54	51	45
Skin problems (such as acne, atopic dermatitis, psoriasis, seborrheic dermatitis, etc.)	40	35	43	45	42	28
One or more oral and dental disorders (periodontitis, caries, ulcers, etc.)	36	35	42	38	35	30
One or more ENT disorders (otitis, sinusitis, allergic rhinitis, bronchitis, laryngitis, etc.)	33	35	37	38	32	24



Significant differences vs total - superior



Significant differences vs total - inferior



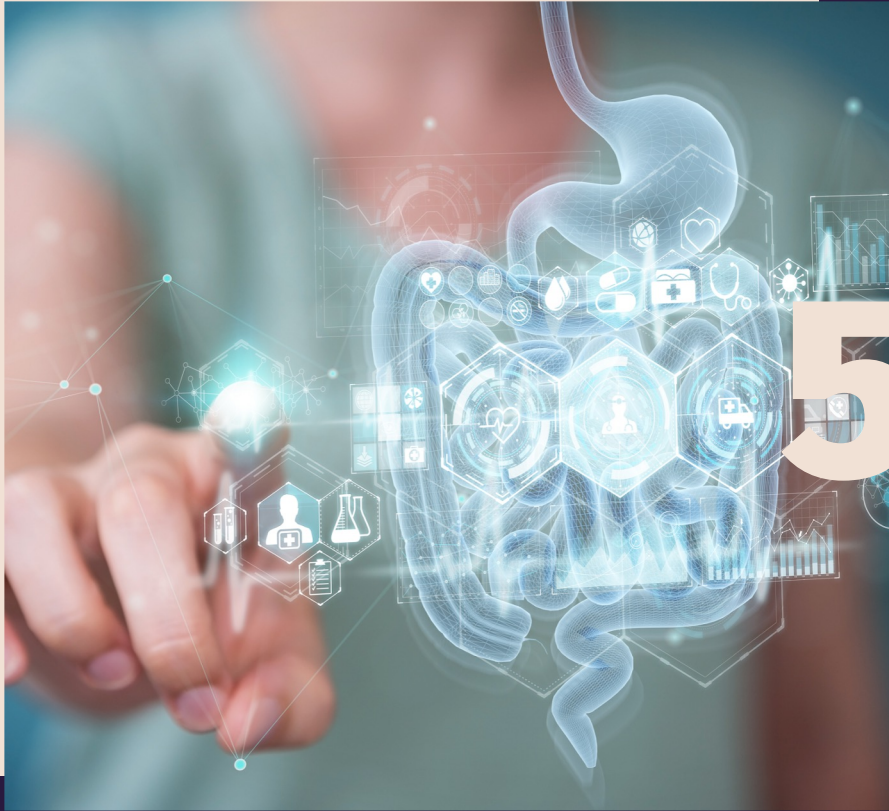
People with health problems are also more likely to link these problems with their microbiome.

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

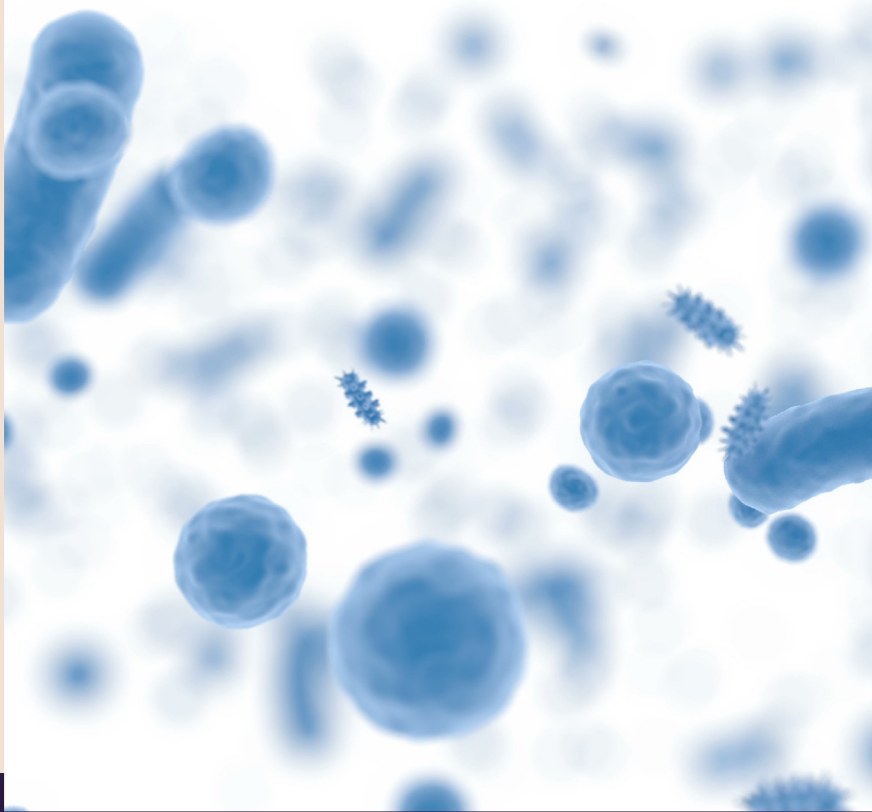
Base: People who have experienced these problems

% linked	Total	At least one health problem	Respiratory diseases	Cardiovascular diseases	Diabetes	Digestive disorders	Genitourinary and kidney disorders	Neurological disorders	Autoimmune disease	Osteoarticular diseases	Psychiatric conditions	Cancer	Allergies
One or more urogenital infections (urinary tract infection such as cystitis, urethritis, bacterial vaginosis, vaginitis, yeast infection, etc.)	55	57	62	59	54	65	64	67	62	63	61	56	61
Post-antibiotic diarrhea	53	55	59	57	54	64	59	52	59	59	52	52	57
Gastroenteritis	53	56	58	56	55	65	56	51	61	58	50	56	58
Other episode(s) of intestinal and digestive system disorders (bloating, flatulence, abdominal pain, diarrhea, constipation- disturbed transit)	50	53	53	49	48	64	60	52	59	57	50	45	55
Skin problems (such as acne, atopic dermatitis, psoriasis, seborrheic dermatitis, etc.)	40	42	46	42	43	51	51	41	45	46	40	42	44
One or more oral and dental disorders (periodontitis, caries, ulcers, etc.)	36	38	42	36	36	45	50	46	47	46	40	39	40
One or more ENT disorders (otitis, sinusitis, allergic rhinitis, bronchitis, laryngitis, etc.)	33	35	40	35	37	43	49	51	41	41	37	41	36





A larger role to play for the HCPs since they are the main and trustworthy source of information about microbiome.



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.

An unbalanced microbiome could be involved in 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.

1 in 5 people discover the microbiome answering the survey. Otherwise, the main sources are healthcare professionals, schools and health-related programs on TV.



Question 1V2. The microbiome, you first heard about it...

Base: All respondents



Subtotals :

(*) Medical media: **22%**

(*) Healthcare context: **20%**

(*) Professional context : **7%**

(**) ST Television : **23%**

(**) ST Online: **14%**

(**) ST Press: **8%**

In France and China, people first heard about the microbiome through TV health programs, while for Vietnam it was in schools.

Question 1V2. The microbiome, you first heard about it...

Base: All respondents

	Total	USA	LATIN AMERICA	Brazil	Mexico	EUROPE	France	Spain	Portugal	Poland	Finland	ASIA	China	Vietnam	MOROCCO
While answering this questionnaire	21	22	22	23	21	24	9	13	31	26	42	8	11	5	30
By a healthcare professional	11	12	16	15	17	10	14	12	11	8	5	8	9	8	5
School/studies	11	7	14	17	10	10	5	8	12	10	14	12	6	17	10
On television, in health-related programs	9	7	9	10	7	9	18	9	7	5	5	11	14	10	6
Your family, friends, acquaintances	5	5	5	4	5	6	8	9	7	5	2	5	6	4	3
On social media (influencers...)	5	4	5	5	5	3	3	4	2	5	3	8	10	5	11
On television during the news	4	2	3	4	3	4	8	5	2	2	0	8	9	7	2
Occupational doctor / workplace nurse	4	4	3	2	4	3	2	7	2	4	1	8	6	10	5
On a blog, an online article	4	5	4	3	5	3	3	3	2	6	2	4	4	3	5
Advertisements (TV, press, street ads...)	4	4	3	2	4	4	4	7	3	5	1	5	4	5	2
In specialized press (wellness, health magazines)	4	3	3	3	3	3	4	3	3	5	3	6	5	7	3
In a booklet/brochure at your healthcare professional's office	2	3	2	1	4	2	2	2	2	3	1	4	5	3	1
Scientific podcast	2	3	2	1	3	1	1	2	1	2	1	2	3	2	1
In national press (general, mainstream media)	2	2	1	2	1	2	2	2	2	2	3	3	2	4	1
On the radio	2	1	1	0	1	2	5	2	1	1	0	2	2	2	3
From your colleagues	1	2	1	1	1	2	2	1	2	1	1	2	1	2	2
In regional daily press	1	1	0	0	0	1	1	1	0	1	0	1	1	2	0
During a sports activity	0	0	0	0	1	0	0	0	0	0	1	1	1	1	1
Other	8	13	6	7	5	11	9	10	10	9	15	2	1	3	9

● Significant differences vs total - superior

● Significant differences vs total - inferior

● First source by country

Respondents aged less than 25 yo first heard about the microbiome through school or studies.

NEW



Question 1V2. The microbiome, you first heard about it...

Base: All respondents

	Total	Less than 25 yo <small>n=888</small>	25-34 yo <small>n=1409</small>	35-44 yo <small>n=1402</small>	45-59 yo <small>n=1979</small>	60 yo and more <small>n=1822</small>	Men <small>n=3615</small>	Women <small>n=3885</small>	Parents of children under 3 <small>n=591</small>
While answering this questionnaire	21	15	14	17	22	30	22	20	17
By a healthcare professional	11	7	11	11	12	11	9	12	13
School/studies	11	25	14	10	8	4	9	12	12
On television, in health-related programs	9	5	8	9	10	10	10	8	7
Your family, friends, acquaintances	5	6	4	5	6	5	5	6	5
On social media (influencers...)	5	7	9	6	4	2	5	6	9
On television during the news	4	3	4	4	4	4	5	3	2
Occupational doctor / workplace nurse	4	4	4	4	5	3	4	4	5
On a blog, an online article	4	4	4	5	4	3	4	4	4
Advertisements (TV, press, street ads...)	4	5	5	3	4	3	4	4	4
In specialized press (wellness, health magazines)	4	2	2	4	5	4	4	3	4
In a booklet/brochure at your healthcare professional's office	2	2	3	3	2	3	2	3	2
Scientific podcast	2	1	4	2	1	1	2	2	3
In national press (general, mainstream media)	2	1	2	2	2	3	2	2	1
On the radio	2	1	2	2	1	2	2	1	1
From your colleagues	1	2	2	3	1	1	1	1	2
In regional daily press	1	1	1	1	0	1	1	1	1
During a sports activity	0	1	1	1	0	0	1	0	1
Other	8	8	6	8	9	10	8	8	7



Significant differences vs total - superior



Significant differences vs total - inferior

First source by profile

Institute and Ipsos - June 2024



microbiota
Observatory



Ipsos

And people with health problems first heard about the microbiome through the survey.



NEW

Question 1V2. The microbiome, you first heard about it...

Base: All respondents

	Total	At least one health problem	Respiratory diseases	Cardiovascular diseases	Diabetes	Digestive disorders	Genitourinary and kidney disorders	Neurological disorders	Autoimmune disease	Osteoarticular diseases	Psychiatric conditions	Cancer	Allergies
		n=4509	n=888	n=1177	n=745	n=1036	n=529	n=315	n=716	n=1040	n=652	n=270	n=2097
While answering this questionnaire	21	22	17	27	25	17	17	15	21	24	23	20	20
By a healthcare professional	11	11	12	10	13	15	12	7	10	11	11	15	11
School/studies	11	11	11	7	6	11	7	9	11	8	12	6	13
On television, in health-related programs	9	8	8	9	9	7	7	5	9	9	5	10	7
Your family, friends, acquaintances	5	5	5	4	6	5	8	8	4	6	5	6	6
On social media (influencers...)	5	5	4	4	3	8	7	9	5	5	6	3	5
On television during the news	4	4	6	3	4	4	4	5	5	3	5	4	4
Occupational doctor / workplace nurse	4	5	6	4	4	6	6	5	5	6	4	6	5
On a blog, an online article	4	3	3	4	2	3	2	4	4	3	2	3	4
Advertisements (TV, press, street ads...)	4	3	4	4	3	4	5	3	3	3	4	3	3
In specialized press (wellness, health magazines)	4	4	5	4	5	3	4	3	5	4	2	5	4
In a booklet/brochure at your healthcare professional's office	2	3	5	3	3	3	4	4	3	2	3	2	3
Scientific podcast	2	2	3	2	2	2	2	5	2	2	2	2	2
In national press (general, mainstream media)	2	2	1	2	2	2	2	2	3	2	2	3	1
On the radio	2	1	1	1	2	1	2	2	1	1	2	2	2
From your colleagues	1	1	1	2	2	1	3	4	1	1	2	2	1
In regional daily press	1	1	1	1	0	1	1	2	1	1	0	1	1
During a sports activity	0	1	0	0	0	1	2	1	0	1	1	1	0
Other	8	8	7	9	9	6	5	7	7	8	9	6	8



Significant differences vs total - superior



Significant differences vs total - inferior



First source by health problem

Copyright Biocodex Microbiota Institute and Ipsos - June 2024



International
Microbiota
Observatory



Ipsos

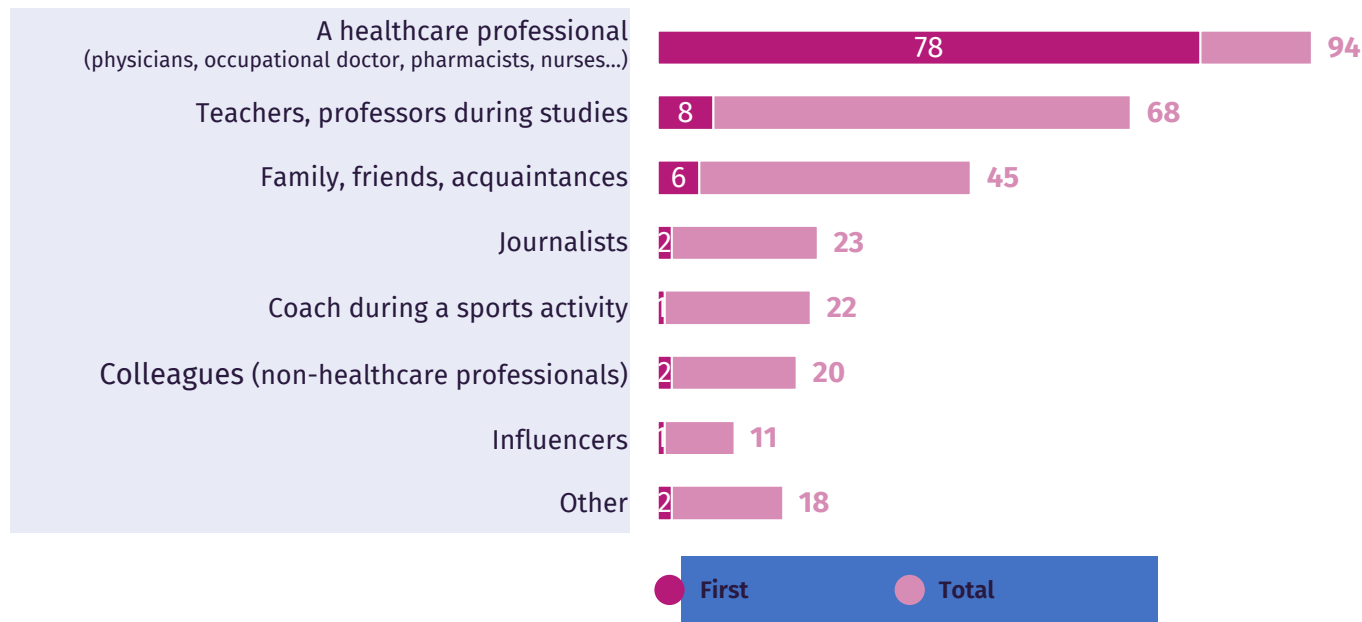
Healthcare professionals stand out as the most trustworthy source of information about the microbiome.



Question 2V2. For relevant and trustworthy information about microbiome, who would you trust the most?

Select the sources you would trust the most: 1st, 2nd, 3rd

Base: All respondents



Healthcare professionals are the most trusted source of information in all countries.

Question 2V2. For relevant and trustworthy information about microbiome, who would you trust the most?

Select the sources you would trust the most: 1st, 2nd, 3rd

Base: All respondents

	Total	USA	LATIN AMERICA	Brazil	Mexico	EUROPE	France	Spain	Portugal	Poland	Finland	ASIA	China	Vietnam	MOROCCO
A healthcare professional (physicians, occupational doctor, pharmacists, nurses...)	94	92	95	94	95	95	92	95	98	92	97	90	90	90	95
Teachers, professors during studies	68	64	73	71	75	65	57	70	67	65	65	69	74	65	74
Family, friends, acquaintances	45	51	40	36	44	48	53	46	51	57	32	49	50	47	32
Journalists	23	23	28	36	20	23	33	23	24	15	20	16	20	13	25
Coach during a sports activity	22	12	22	23	21	23	17	32	29	24	12	20	19	21	30
Colleagues (non-healthcare professionals)	20	21	21	14	27	18	17	14	11	29	18	26	22	29	12
Influencers	11	15	8	9	6	6	7	4	6	6	9	22	19	26	15
Other	18	22	14	16	11	23	24	17	15	12	46	8	7	10	17

And among all age categories, healthcare professionals remain as the most reliable source of information.

Question 2V2. For relevant and trustworthy information about microbiome, who would you trust the most?

Select the sources you would trust the most: 1st, 2nd, 3rd

Base: All respondents

	Total	Less than 25 yo <i>n</i> =888	25-34 yo <i>n</i> =1409	35-44 yo <i>n</i> =1402	45-59 yo <i>n</i> =1979	60 yo and more <i>n</i> =1822	Men <i>n</i> =3615	Women <i>n</i> =3885	Parents of children under 3 <i>n</i> =591
A healthcare professional (physicians, occupational doctor, pharmacists, nurses...)	94	88	90	92	96	97	92	95	92
Teachers, professors during studies	68	78	70	68	66	64	69	67	70
Family, friends, acquaintances	45	39	43	43	46	51	44	46	44
Journalists	23	27	22	25	24	20	24	22	23
Coach during a sports activity	22	27	26	23	19	19	22	22	25
Colleagues (non-healthcare professionals)	20	14	20	22	20	19	20	19	20
Influencers	11	14	16	12	10	6	12	10	15
Other	18	14	13	15	18	25	17	19	12



Healthcare professionals are also the main source of information for people with health problems.



Question 2V2. For relevant and trustworthy information about microbiome, who would you trust the most?

Select the sources you would trust the most: 1st, 2nd, 3rd

Base: All respondents

	Total	At least one health problem	Respiratory diseases	Cardiovascular diseases	Diabetes	Digestive disorders	Genitourinary and kidney disorders	Neurological disorders	Autoimmune disease	Osteoarticular diseases	Psychiatric conditions	Cancer	Allergies
	n=4509		n=888	n=1177	n=745	n=1036	n=529	n=315	n=716	n=1040	n=652	n=270	n=2097
A healthcare professional (physicians, occupational doctor, pharmacists, nurses...)	94	94	92	94	93	92	86	83	92	94	92	90	94
Teachers, professors during studies	68	68	66	65	61	68	66	65	67	66	69	63	69
Family, friends, acquaintances	45	45	44	48	52	44	44	39	43	47	38	48	43
Journalists	23	23	24	22	23	23	24	27	23	21	27	22	23
Coach during a sports activity	22	21	22	21	21	23	24	24	22	18	25	24	21
Colleagues (non-healthcare professionals)	20	20	23	21	21	21	26	28	24	22	17	28	21
Influencers	11	12	11	10	10	15	20	21	11	14	13	9	11
Other	18	18	18	20	21	15	11	13	19	18	19	16	17

This year, people received more information from healthcare professionals. However, less than a third have received all these information.



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

Base: All respondents

Only **30%** received **ALL THESE INFORMATION**, at least one time

9% received all these information several times

Constant scope : **30%, +6pts** ↗
8%, +2pts ↗

% Yes

Constant scope

% Yes

Evolution

Prescribe probiotics or prebiotics

25

25

50

50

49

+3

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

24

24

52

48

49

+5

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

24

24

52

48

48

+6

Explain to you what the microbiome is and what its role and function are*

20

25

55

45

43

+6



Yes, several times



Yes, once



No, never



Zoom on the most informed individuals: among them microbiome awareness and knowledge as well as appropriate behaviors are much higher compared to the average.



Individuals who have had all information, several times from HCPs (n=680)

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

Awareness of the microbiome & its diversity	
Know exactly what is « microbiome »	53% vs 23% *
Subtotal « Aware »	83% vs 70%
Subtotal Aware of the gut microbiome	77% vs 56%
Subtotal Aware of all microbiome	64% vs 32%
Level of knowledge around the microbiota	
Mean of good answers	7,0/9 vs 5,6/9
Level of knowledge around the solutions which can maintain the microbiota balanced	
Know exactly what are probiotics	79% vs 48%
Know exactly what are prebiotics	65% vs 30%
Have changed their behaviors to maintain a balanced microbiota	
Have changed their behaviors	95% vs 58%

* Reading note: Among individuals who have received all the information on microbiome several times from HCPs, 53% know exactly what is microbiome, versus 23% among all respondents.



Europeans have received less information on microbiome from healthcare professionals than in other countries.

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

% Yes	Total	USA	LATIN AMERICA	Brazil	Mexico	EUROPE	France	Spain	Portugal	Poland	Finland	ASIA	China	Vietnam	MOROCCO
Prescribe probiotics or prebiotics	50	44↗	63	54	72	39↗	36	40	31	68	18	71	62↘	80	42
Explain the good behavior to adopt in order to maintain a good balance within your microbiome as much as possible	48	45↗	61↗	54↗	67↗	36↗	39	40↗	38	42	20	64	54↘	75	55
Educate you about the importance of preserving as much as possible the balance of your microbiome	48	43↗	59↗	55↗	64↗	36↗	39	40↗	37	43	22	66	58↘	73	56
Explain to you what the microbiome is and what its role and function are	45	43↗	54↗	51	57	32↗	36	35↗	31	39	19	64	51↘	77	52



People under 45 yo and parents of children under 3 yo have received more information from healthcare professionals.



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 of children under 3
	base n=7500	n=888	n=1409	n=1402	n=1979	n=1822	n=3615	n=3885	n=591
Prescribe probiotics or prebiotics	50	54	61	57	48	37	47	53	65
Explain the good behavior to adopt in order to maintain a good balance within your microbiome as much as possible	48	54	60	52	46	37	48	49	62
Educate you about the importance of preserving as much as possible the balance of your microbiome	48	53	60	51	46	37	47	49	61
Explain to you what the microbiome is and what its role and function are	45	49	55	47	43	34	44	45	58





People with health problems have received more information from healthcare professionals than the average.

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

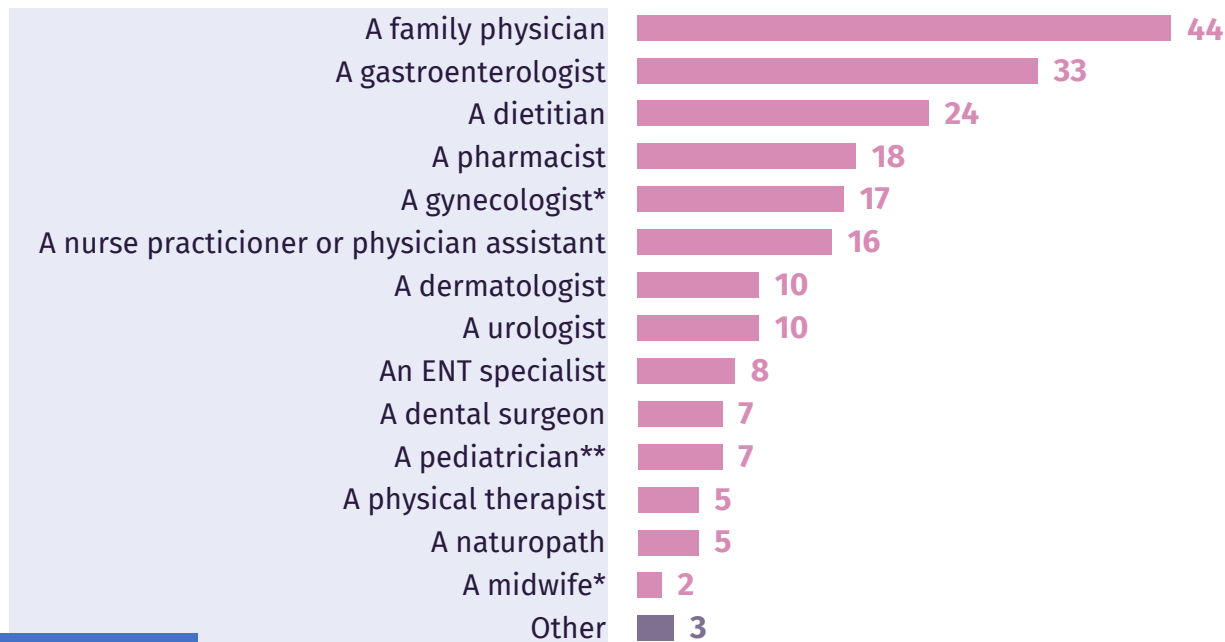
	Total	At least one health problem	Respiratory diseases	Cardiovascular diseases	Diabetes	Digestive disorders	Genitourinary and kidney disorders	Neurological disorders	Autoimmune disease	Osteoarticular diseases	Psychiatric conditions	Cancer	Allergies
	n=4509		n=888	n=1177	n=745	n=1036	n=529	n=315	n=716	n=1040	n=652	n=270	n=2097
Prescribe probiotics or prebiotics	50	53	59	48	47	70	71	63	59	57	52	52	57
Explain the good behavior to adopt in order to maintain a good balance within your microbiome as much as possible	48	51	58	46	49	65	67	67	59	54	49	58	55
Educate you about the importance of preserving as much as possible the balance of your microbiome	48	51	59	46	50	66	70	67	59	53	50	59	55
Explain to you what the microbiome is and what its role and function are	45	48	55	43	46	61	64	61	55	50	48	54	52

Family physicians, gastroenterologists and dietitians are the top 3 sources of information about microbiome.



Question 6. And which healthcare professionals provided you with these explanations?

Base: People who've received information from HCP's (n=4904)



*Only displayed to women
 ** Only displayed to Parents

In Asia and Morocco, the gastroenterologist is the main provider of information about the microbiome. In Finland, it's the nurse practitioner.

Question 6. And which healthcare professionals provided you with these explanations?

Base: People who've received some information from HCPs (n=4904)

	Total	USA	LATIN AMERICA	Brazil	Mexico	EUROPE	France	Spain	Portugal	Poland	Finland	ASIA	China	Vietnam	MOROCCO
base	n=4904	n=554	n=1199	n=352	n=847	n=1559	n=512	n=265	n=254	n=372	n=156	n=1238	n=777	n=461	n=354
A family physician	44	49	58	49	65	58	60	59	59	74	11	15	10	18	26
A gastroenterologist	33	29	37	36	39	17	22	15	25	9	13	54	60	50	43
A dietitian	24	18	32	36	29	13	9	18	18	8	15	32	26	37	35
A pharmacist	18	20	13	19	7	19	25	22	19	17	14	17	15	19	29
A gynecologist	17	15	20	28	14	15	14	14	21	13	17	15	16	13	19
A nurse practitioner or physician assistant	16	24	14	19	10	15	7	14	22	9	35	18	16	19	12
A dermatologist	10	12	9	12	6	7	6	5	4	8	9	16	18	14	15
An urologist	10	11	8	11	5	7	8	7	7	7	6	16	16	16	13
An ENT specialist	8	11	6	8	5	5	4	5	3	3	8	13	8	17	11
A dental surgeon	7	8	5	7	4	5	5	4	6	5	8	10	11	8	12
A pediatrician	7	8	10	11	9	5	2	5	4	8	5	9	8	10	6
A physical therapist	5	11	4	6	3	3	4	4	4	4	1	6	7	5	4
A naturopath	5	7	3	4	2	4	5	4	7	3	3	5	12	0*	9
A midwife	2	2	1	1	1	2	5	3	0	2	1	2	1	2	2
Other	3	4	4	5	3	5	3	3	4	5	14	1	1	1	3

Significant differences vs total - superior

Significant differences vs total - inferior

First source by country

* This item was not shown in Vietnam

Copyright Biocodex Microbiota Institute and Ipsos - June 2024

International Microbiota Observatory

Ipsos

For parents, they have received information from many sources, but the top 1 is the gastroenterologist.

Question 6. And which healthcare professionals provided you with these explanations?

Base: People who've received some information from HCPs (n=4904)

	Total	Less than 25 yo	25-34 yo	35-44 yo	45-59 yo	60 yo and more	Men	Women	Parents of children under 3
base	n=4904	n=675	n=1085	n=985	n=1249	n=910	n=2293	n=2611	n=474
A family physician	44	36	38	44	44	55	45	43	39
A gastroenterologist	33	26	35	34	38	31	37	31	41
A dietitian	24	27	24	24	25	22	28	21	26
A pharmacist	18	20	21	18	17	17	21	17	22
A gynecologist	17	17	22	18	14	13	0*	31	23
A nurse practitioner or physician assistant	16	17	17	14	14	17	17	15	16
A dermatologist	10	12	13	10	10	7	12	9	11
An urologist	10	10	11	9	11	10	13	8	9
An ENT specialist	8	10	10	9	8	4	10	7	14
A dental surgeon	7	7	9	6	6	8	10	5	9
A pediatrician	7	6	11	12	7	1	6	9	19
A physical therapist	5	5	7	6	4	3	6	4	7
A naturopath	5	6	6	5	5	3	6	4	5
A midwife	2	3	2	2	2	1	0*	3	2
Other	3	2	2	4	5	4	3	4	2

Significant differences vs total - superior

Significant differences vs total - inferior

First source by profile

* These items were not shown to men

Copyright Biocodex Microbiota Institute and Ipsos - June 2024

International Microbiota Observatory

Ipsos

People with health problems are more likely to receive information on microbiome from specialists, especially gastroenterologist.

Question 6. And which healthcare professionals provided you with these explanations?

Base: People who've received some information (n=4904)



	Total	At least one health problem	Respiratory diseases	Cardiovascular diseases	Diabetes	Digestive disorders	Genitourinary and kidney disorders	Neurological disorders	Autoimmune disease	Osteoarticular diseases	Psychiatric conditions	Cancer	Allergies
		n=3132	n=643	n=734	n=469	n=868	n=456	n=255	n=539	n=741	n=444	n=191	n=1553
A family physician	44	42	38	47	46	37	35	33	39	36	41	42	41
A gastroenterologist	33	36	39	34	33	47	35	33	39	42	34	31	35
A dietitian	24	25	26	24	26	29	23	21	27	27	26	22	27
A pharmacist	18	19	18	19	22	18	18	20	20	19	23	23	19
A gynecologist	17	17	18	14	14	17	25	13	15	19	18	14	19
A nurse practitioner or physician assistant	16	17	20	20	19	16	18	22	19	21	18	23	17
A dermatologist	10	12	16	14	15	14	16	14	16	14	14	17	13
An urologist	10	11	11	12	15	13	17	11	14	13	11	16	12
An ENT specialist	8	9	14	10	8	9	11	15	11	10	12	12	9
A dental surgeon	7	8	10	9	9	7	8	8	11	8	9	12	8
A pediatrician	7	8	8	6	7	8	12	8	8	7	6	10	9
A physical therapist	5	5	7	6	8	6	9	9	5	5	6	9	5
A naturopath	5	5	7	6	6	6	10	9	6	6	8	10	5
A midwife	2	2	2	2	2	2	3	4	2	2	2	3	1
Other	3	4	4	4	3	4	3	3	3	4	4	3	4

Significant differences vs total - superior

Significant differences vs total - inferior

First source by health problem

Copyright Biocodex Microbiota Institute and Ipsos - June 2024



This year again, only a minority of people have received information about microbiome after being prescribed antibiotics, although there is a slight improvement compared to last year.



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

Base: All respondents

Only **27%** received ALL THESE INFORMATION from their HCPs

Constant scope : 24%, +4pts ↗

Tell you about any digestive disorders associated with taking antibiotics



Give you advice on limiting the negative consequences of taking antibiotics on your microbiome as much as possible



Tell you that taking antibiotics could have negative consequences on the balance of your microbiome



Constant scope

% Yes Evolution

43 +2

37 +3

36 +3

This lack of information is even greater in Europe and in the USA.

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

Base: All respondents

% Yes	Total	USA	LATIN AMERICA	Brazil	Mexico	EUROPE	France	Spain	Portugal	Poland	Finland	ASIA	China	Vietnam	MOROCCO
% HAVE RECEIVED ALL THESE INFORMATION FROM THEIR HCPS	27	22 ↗	27 ↗	23	32 ↗	22	21 ↗	21 ↗	19	32	18	39	29	49	25
Tell you about any digestive disorders associated with taking antibiotics	46	38 ↗	48 ↗	43	52 ↗	42	45 ↗	40	39	45	44	57	47 ↘	67	51
Give you advice on limiting the negative consequences of taking antibiotics on your microbiome as much as possible	39	35 ↗	42 ↗	36	48 ↗	32	31	33 ↗	30	43	25	56	48 ↘	63	42
Tell you that taking antibiotics could have negative consequences on the balance of your microbiome	39	34 ↗	39 ↗	33	45 ↗	34	31 ↗	32 ↗	30	47	30	55	45	65	39



Significant differences vs total - superior



Significant differences vs total - inferior



People aged 25-34 yo and parents of young children have 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=7500	Less than 25 yo n=888	25-34 yo n=1409	35-44 yo n=1402	45-59 yo n=1979	60 yo and more n=1822	Parents of children under 3 n=591
% HAVE RECEIVED ALL THESE INFORMATION FROM THEIR HCPS	27	21	30	29	27	24	32
Tell you about any digestive disorders associated with taking antibiotics	46	43	51	47	47	44	50
Give you advice on limiting the negative consequences of taking antibiotics on your microbiome as much as possible	39	40	46	42	38	35	48
Tell you that taking antibiotics could have negative consequences on the balance of your microbiome	39	37	48	42	38	34	48



Significant differences vs total - superior



Significant differences vs total - inferior

Copyright Biocodex Microbiota
Institute and Ipsos - June 2024



International
Microbiota
Observatory



Ipsos

People with health problems received more information and advice when prescribed antibiotics.



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

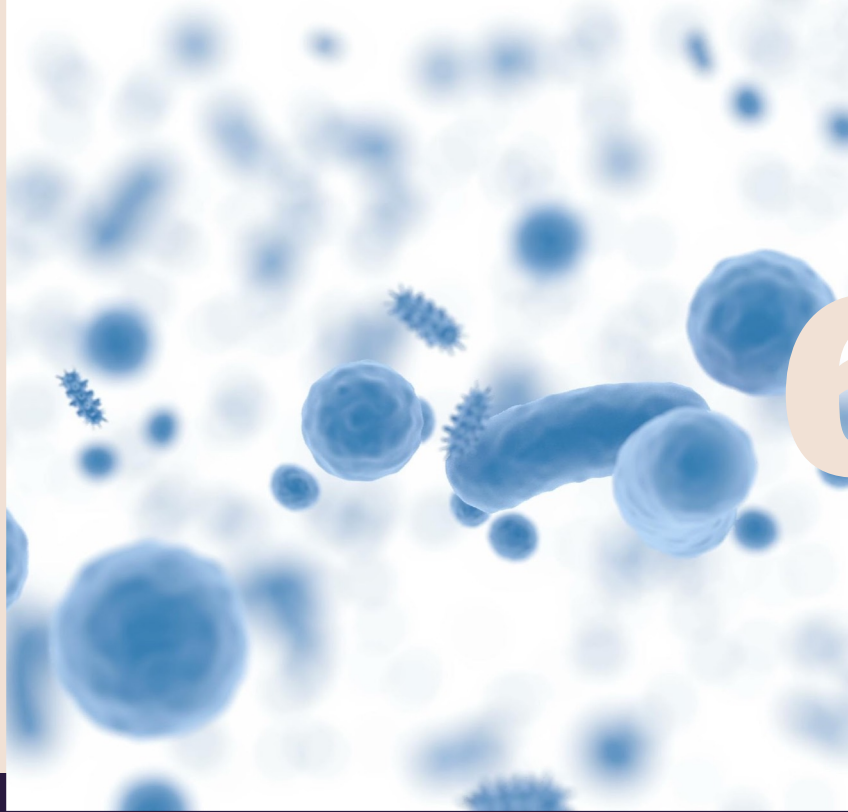
Base: All respondents

% Yes

	Total	At least one health problem	Respiratory diseases	Cardiovascular diseases	Diabetes	Digestive disorders	Genitourinary and kidney disorders	Neurological disorders	Autoimmune disease	Osteoarticular diseases	Psychiatric conditions	Cancer	Allergies
	n=4509		n=888	n=1177	n=745	n=1036	n=529	n=315	n=716	n=1040	n=652	n=270	n=2097
% HAVE RECEIVED ALL THESE INFORMATION FROM THEIR HCPS	27	28	34	27	30	38	41	30	36	32	26	32	30
Tell you about any digestive disorders associated with taking antibiotics	46	50	58	50	50	59	63	52	57	52	48	60	53
Give you advice on limiting the negative consequences of taking antibiotics on your microbiome as much as possible	39	41	49	41	43	52	56	53	47	46	41	47	45
Tell you that taking antibiotics could have negative consequences on the balance of your microbiome	39	41	49	41	42	51	58	47	50	45	38	47	44

● Significant differences vs total - superior

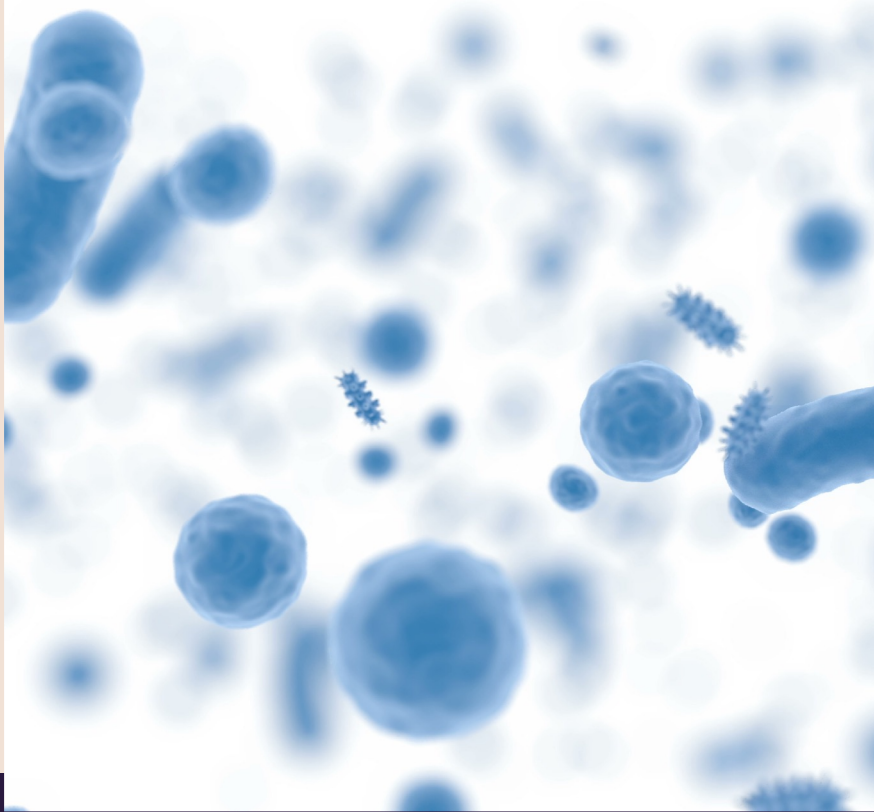
● Significant differences vs total - inferior



6

Focus on the vaginal microbiome

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



Text displayed to respondents:

In the next questions, we will discuss the vaginal microbiome, also known as vaginal flora. Please read before answering the next questions.

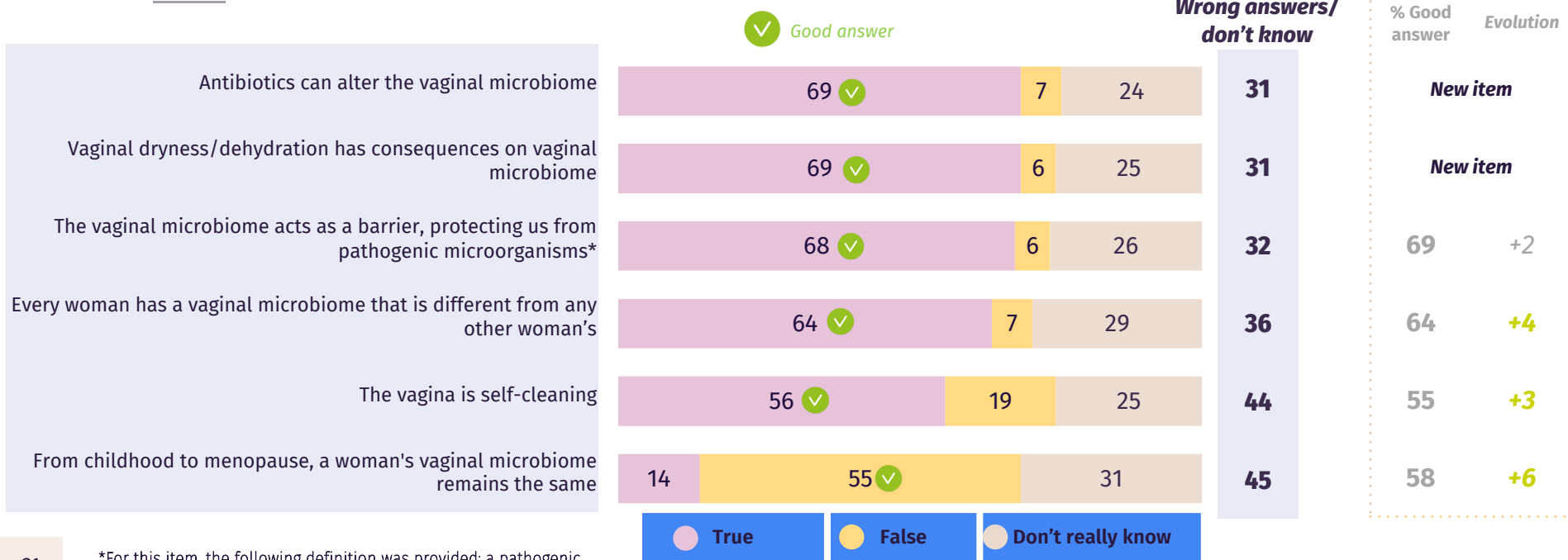
Many people say “vagina” whereas they usually refer to the vulva. The vulva is the outside, visible part of your genitals — your labia (lips), clitoris, vaginal opening, and the opening to your urethra (the hole you pee out of). The vagina is the inside - the stretchy tube that connects your vulva to your cervix and uterus. The vagina allows for sexual intercourse and birth. It also channels menstrual flow.

The knowledge of women on vaginal microbiome is getting better compared to last year.



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



*For this item, the following definition was provided: a pathogenic organism is an organism which is capable of causing diseases in a host (person).

However, some aspects of vaginal microbiome are still unknown by a majority of women.



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

Constant scope

% Good
answer

Evolution

Smoking has no consequences on the vaginal microbiome

13

55 ✓

32

45

New item

Bacterial vaginosis is not associated with an imbalance in the vaginal microbiome

18

44 ✓

38

56

43

+8

Gut microbiome influences vaginal microbiome

43 ✓

11

46

57

New item

Mode of delivery (vaginally or cesarean section) could have an impact on the newborn's gut microbiome

40 ✓

12

48

60

New item

The vaginal microbiome is balanced when its bacterial diversity is low

30 ✓

19

51

70

29

+2

Oestro-progestative pills could protect the vaginal microbiome

22 ✓

18

60

78

New item

True

False

Don't really know



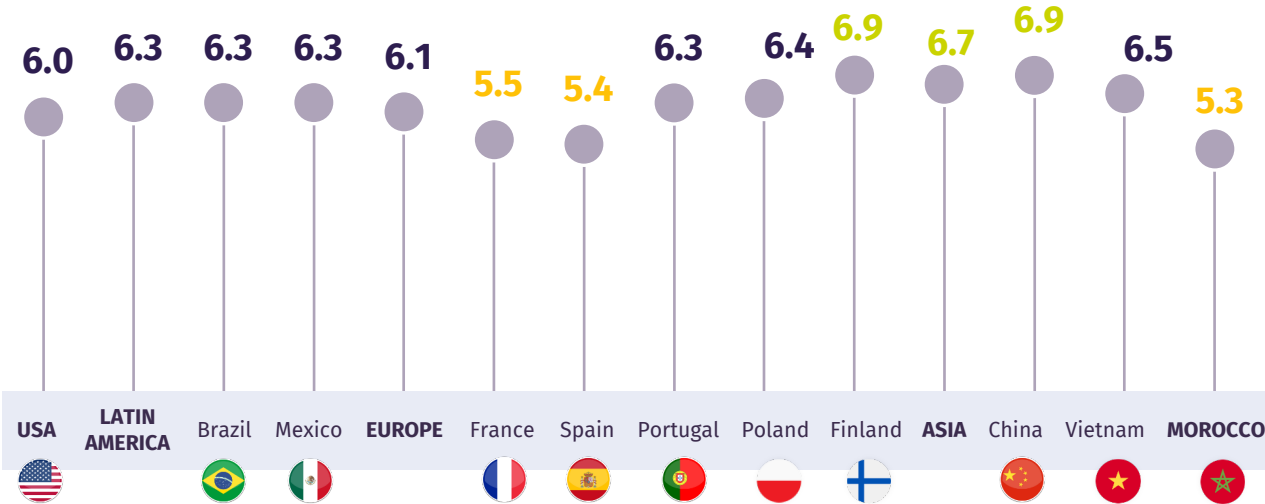
Finnish and Chinese women have a better knowledge about vaginal microbiome.



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



Number of good responses on average



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



Knowledge about vaginal microbiome is contrasted between countries. (1/2)

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	USA	LATIN AMERICA	Brazil	Mexico	EUROPE	France	Spain	Portugal	Poland	Finland	ASIA	China	Vietnam	MOROCCO
	base n=3885	n=517	n=837	n=274	n=563	n=1586	n=534	n=266	n=268	n=264	n=254	n=723	n=497	n=226	n=222
Antibiotics can alter the vaginal microbiome	69	71 ↗	68	70	66	75	64	71	76	78	87	65	62	67	53
Vaginal dryness/dehydration has consequences on vaginal microbiome	69	59	67	66	69	71	60	62	75	79	79	71	65	76	67
The vaginal microbiome acts as a barrier, protecting us from pathogenic microorganisms*	68	60 ↗	72	69	75	66	62	70	72	74	49	76	76	76	64
Every woman has a vaginal microbiome that is different from any other woman's	64	66	68	64	72	65	63	61	71	62	70	59	52	66	52
The vagina is self-cleaning	56	61	49	51	49	53	63	35	57	49	61	60	71	51	71
From childhood to menopause, a woman's vaginal microbiome remains the same	55	54	55 ↗	60 ↗	51	59	56	52	71	52	66	55	65 ↗	46	37

Significant differences vs total - superior

Significant differences vs total - inferior



Knowledge about vaginal microbiome is contrasted between countries. (2/2)

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	USA	LATIN AMERICA	Brazil	Mexico	EUROPE	France	Spain	Portugal	Poland	Finland	ASIA	China	Vietnam	MOROCCO
	base n=3885	n=517	n=837	n=274	n=563	n=1586	n=534	n=266	n=268	n=264	n=254	n=723	n=497	n=226	n=222
Smoking has no consequences on the vaginal microbiome	55	51	54	58	51	56	54	53	59	53	62	54	62	47	55
Bacterial vaginosis is not associated with an imbalance in the vaginal microbiome	44	43 ↗	44 ↗	50 ↗	39 ↗	43	26	35	48 ↗	48	60	50	60 ↗	40	40
Gut microbiome influences vaginal microbiome	43	45	47	48	46	41	36	34	36	51	52	47	52	43	29
Mode of delivery (vaginally or cesarean section) could have an impact on the newborn's gut microbiome	40	41	41	41	41	38	29	31	31	43	56	51	51	52	30
The vaginal microbiome is balanced when its bacterial diversity is low	30	24	36	34	37	20	21 ↗	20	15 ↘	25	16	57	53	61	20
Oestro-progestative pills could protect the vaginal microbiome	22	24	27	21	33	22	17	14	21	30	27	24	26	23	14

Significant differences vs total - superior

Significant differences vs total - inferior



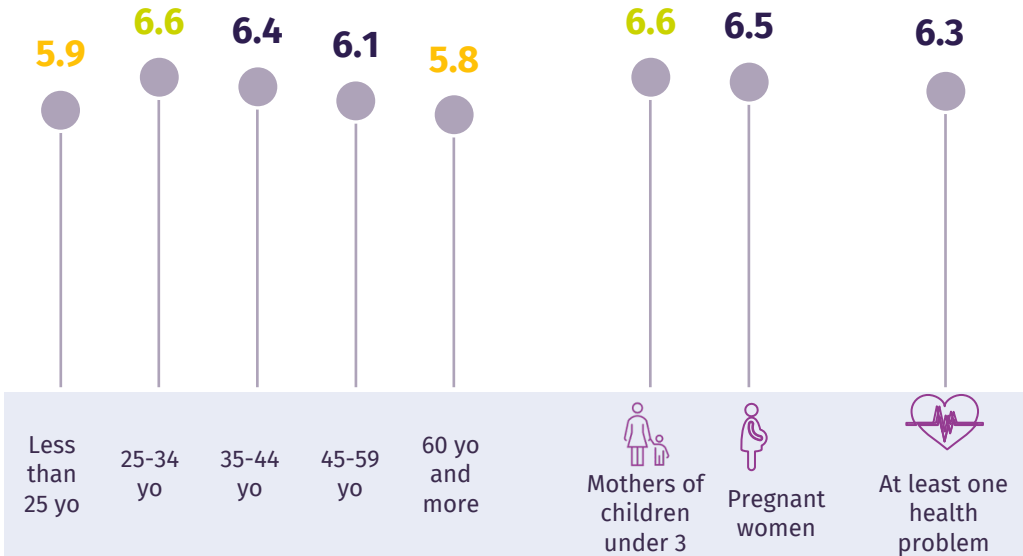
Women aged 25-34 yo and mothers of children under 3 know more about vaginal microbiome.



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



Number of good responses on average



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



The youngest and oldest women appear to know less about vaginal microbiome. (1/2)

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	Mothers of children under 3	Pregnant women
	base	n=3885	n=494	n=825	n=738	n=1013	n=815	n=377	n=75
	Antibiotics can alter the vaginal microbiome	69	57	68	74	73	71	70	65
	Vaginal dryness/dehydration has consequences on vaginal microbiome	69	65	71	68	70	68	68	64
	The vaginal microbiome acts as a barrier, protecting us from pathogenic microorganisms*	68	65	69	68	70	67	71	57
	Every woman has a vaginal microbiome that is different from any other woman's	64	61	69	67	63	58	67	67
	The vagina is self-cleaning	56	59	61	59	53	49	60	58
	From childhood to menopause, a woman's vaginal microbiome remains the same	55	53	55	55	56	57	55	45



Significant differences vs total - superior



Significant differences vs total - inferior





The youngest and oldest women appear to know less about vaginal microbiome. (2/2)

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	Mothers of children under 3	Pregnant women
	base	n=3885	n=494	n=825	n=738	n=1013	n=815	n=377	n=75
	Smoking has no consequences on the vaginal microbiome	55	58	60	57	50	52	54	57
	Bacterial vaginosis is not associated with an imbalance in the vaginal microbiome	44	47	48	46	44	39	47	46
	Gut microbiome influences vaginal microbiome	43	38	47	46	42	40	47	58
	Mode of delivery (vaginally or cesarean section) could have an impact on the newborn's gut microbiome	40	32	49	45	39	34	52	58
	The vaginal microbiome is balanced when its bacterial diversity is low	30	29	37	30	28	25	38	48
	Oestro-progestative pills could protect the vaginal microbiome	22	22	25	23	21	21	28	27



Significant differences vs total - superior



Significant differences vs total - inferior





Women with health problem have a better knowledge of the 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 n=3885	At least one health problem n=2355	Respiratory diseases n=453	Cardiovascular diseases n=530	Diabetes n=300	Digestive disorders n=555	Genitourinary and kidney disorders n=310	Neurological disorders n=143	Autoimmune disease n=360	Osteoarticular diseases n=587	Psychiatric conditions n=376	Cancer n=114	Allergies n=1182
Antibiotics can alter the vaginal microbiome	69	71	70	73	66	75	77	66	73	72	74	65	73
Vaginal dryness/dehydration has consequences on vaginal microbiome	69	71	73	71	67	76	74	63	75	70	71	61	73
The vaginal microbiome acts as a barrier, protecting us from pathogenic microorganisms*	68	69	68	71	66	74	78	67	70	74	69	67	71
Every woman has a vaginal microbiome that is different from any other woman's	64	65	68	64	59	67	65	64	70	65	72	58	67
The vagina is self-cleaning	56	56	52	50	48	61	60	50	59	56	60	47	57
From childhood to menopause, a woman's vaginal microbiome remains the same	55	57	54	59	47	56	61	52	60	54	60	50	57



Even if there are lack of knowledge on several topics.

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 n=3885	At least one health problem n=2355	Respiratory diseases n=453	Cardiovascular diseases n=530	Diabetes n=300	Digestive disorders n=555	Genitourinary and kidney disorders n=310	Neurological disorders n=143	Autoimmune disease n=360	Osteoarticular diseases n=587	Psychiatric conditions n=376	Cancer n=114	Allergies n=1182
Smoking has no consequences on the vaginal microbiome	55	56	53	56	48	56	60	56	56	53	61	51	58
Bacterial vaginosis is not associated with an imbalance in the vaginal microbiome	44	46	40	43	41	50	58	43	43	45	49	29	48
Gut microbiome influences vaginal microbiome	43	43	44	42	41	46	50	53	48	46	45	42	44
Mode of delivery (vaginally or cesarean section) could have an impact on the newborn's gut microbiome	40	41	40	40	40	49	48	46	44	39	42	41	42
The vaginal microbiome is balanced when its bacterial diversity is low	30	29	36	27	33	35	40	37	29	33	25	33	30
Oestro-progestative pills could protect the vaginal microbiome	22	23	22	24	27	29	26	29	24	21	21	23	24



Significant differences vs total - superior



Significant differences vs total - inferior

Women have received more advice and information about vaginal microbiome from their HCPs than last year, but it still represents a minority.



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

Base: Women

37% received **ALL THESE INFORMATION**, at least one time

14% received **all these information several times**

Constant scope : 37%, +8pts
13%, +5pts

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



% Yes

% Yes

Evolution

Constant scope

49 +7

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



48

48 +8

Explain to you what the vaginal microbiome is and what its role and function are*



43

42 +7

Yes, several times Yes, once No, never



In Latin America and Asia, more women have received information or advice from their HCPs about the vaginal microbiome.

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

Base: Women

% Yes

	Total	USA	LATIN AMERICA	Brazil	Mexico	EUROPE	France	Spain	Portugal	Poland	Finland	ASIA	China	Vietnam	MOROCCO
	Base n=3885	n=517	n=837	n=274	n=563	n=1586	n=534	n=266	n=268	n=264	n=254	n=723	n=497	n=226	n=222
% Have received ALL THESE INFORMATION, at least one time	37	33	47	50	44	27	22	28	36	29	18	55	47	62	38
Explain the good behaviors to adopt in order to maintain a good balance within your vaginal microbiome as much as possible	48	39	63	68	58	36	32	37	48	36	28	66	62	70	54
Educate you on the importance of preserving as much as possible the balance of your vaginal microbiome	48	39	60	64	56	36	32	36	49	36	29	66	61	71	53
Explain to you what the vaginal microbiome is and what its role and function are	43	37	51	54	49	31	28	32	39	35	22	65	56	73	45



Significant differences vs total - superior



Significant differences vs total - inferior

Copyright Biocodex Microbiota Institute and Ipsos - June 2024



International
Microbiota
Observatory



Ipsos



Women over 45 yo received less information from their healthcare professional about vaginal microbiome.



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

Base: Women

% Yes		Total	Less than 25 yo	25-34 yo	35-44 yo	45-59 yo	60 yo and more	Pregnant women
	base	n=3885	n=494	n=825	n=738	n=1013	n=815	n=75
% Have received ALL THESE INFORMATION, at least one time		37	36	47	41	35	27	61
Explain the good behaviors to adopt in order to maintain a good balance within your vaginal microbiome as much as possible		48	48	62	53	45	35	77
Educate you on the importance of preserving as much as possible the balance of your vaginal microbiome		48	49	60	52	44	35	77
Explain to you what the vaginal microbiome is and what its role and function is		43	45	54	45	39	32	67



Significant differences vs total - superior



Significant differences vs total - inferior



Women with health problems have received more information from their healthcare professional about vaginal microbiome.



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

Base: Women

% Yes

	Total n=3885	At least one health problem n=2355	Respiratory diseases n=453	Cardiovascular diseases n=530	Diabetes n=300	Digestive disorders n=555	Genitourinar y and kidney disorders n=310	Neurological disorders n=143	Autoimmune disease n=360	Osteoarticular diseases n=587	Psychiatric conditions n=376	Cancer n=114	Allergies n=1182
% Have received ALL THESE INFORMATION, at least one time	37	38	44	38	38	44	54	46	43	41	33	48	41
Explain the good behaviors to adopt in order to maintain a good balance within your vaginal microbiome as much as possible	48	50	55	47	50	55	66	61	52	52	46	54	53
Educate you on the importance of preserving as much as possible the balance of your vaginal microbiome	48	50	54	47	48	55	67	55	51	50	47	56	52
Explain to you what the vaginal microbiome is and what its role and function is	43	44	51	43	45	51	61	54	48	46	38	52	45

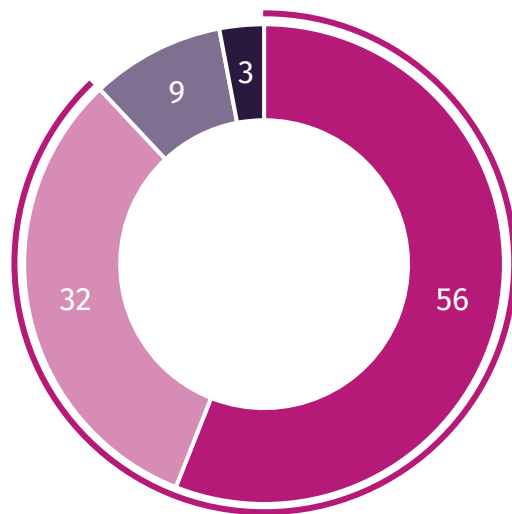
● Significant differences vs total - superior ● Significant differences vs total - inferior

The vast majority of women would like to have more information about the importance of the vaginal microbiome and its impact on health, even more than last year.



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

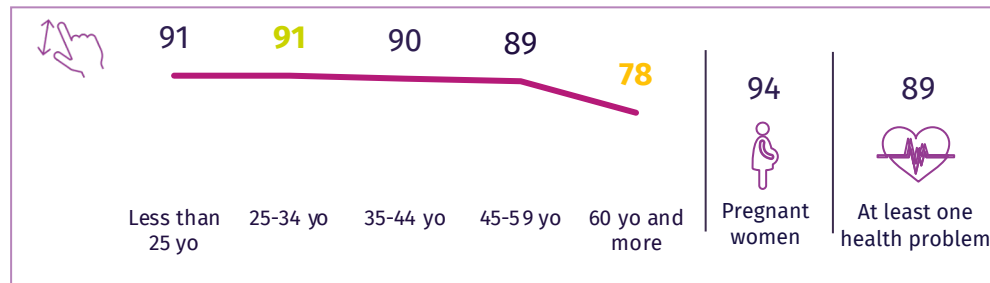
Base: Women



- Yes, absolutely
- Yes, somewhat
- No, not really
- No, not at all

88% would like to have more information about the importance of the vaginal microbiome and its impact on health

Constant scope : **88%, +2pts** ↗



● Significant differences vs total - superior

● Significant differences vs total - inferior

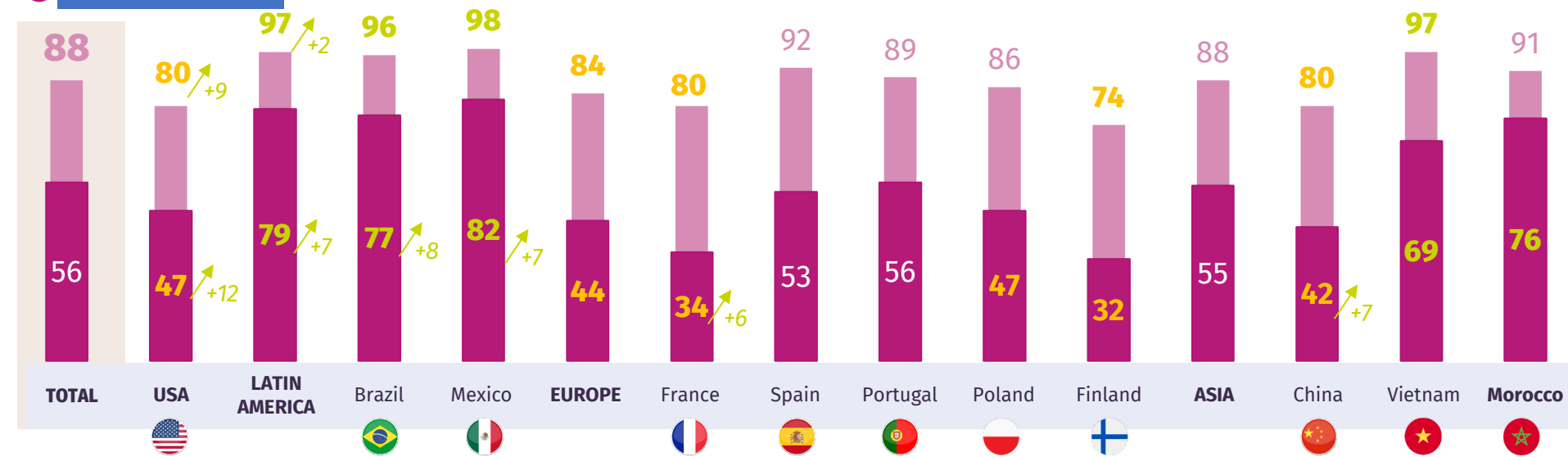
Latinas and Vietnamese women are more likely to ask for additional information about their vaginal microbiome.

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

Base: Women

% Yes

Yes, absolutely



Women with health problems would also like to have more information about their vaginal microbiome.

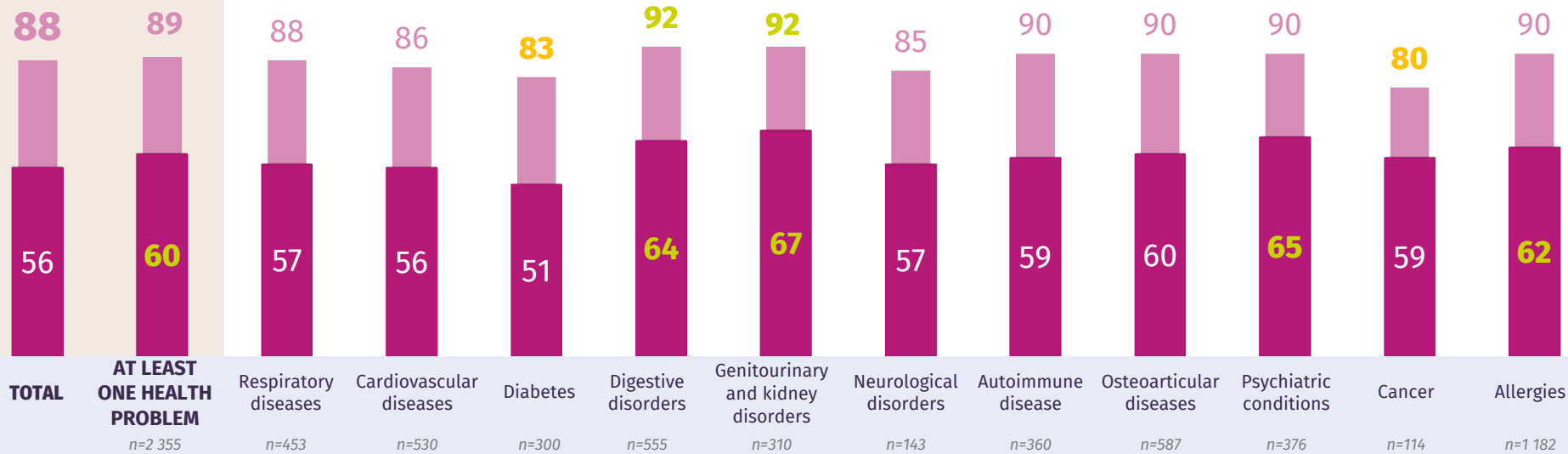


Question 15. And would you like the healthcare professional monitoring your gynecological health to tell you more about the importance of your vaginal microbiome and its impact on your health?

Base: Women

% Yes

Yes, absolutely

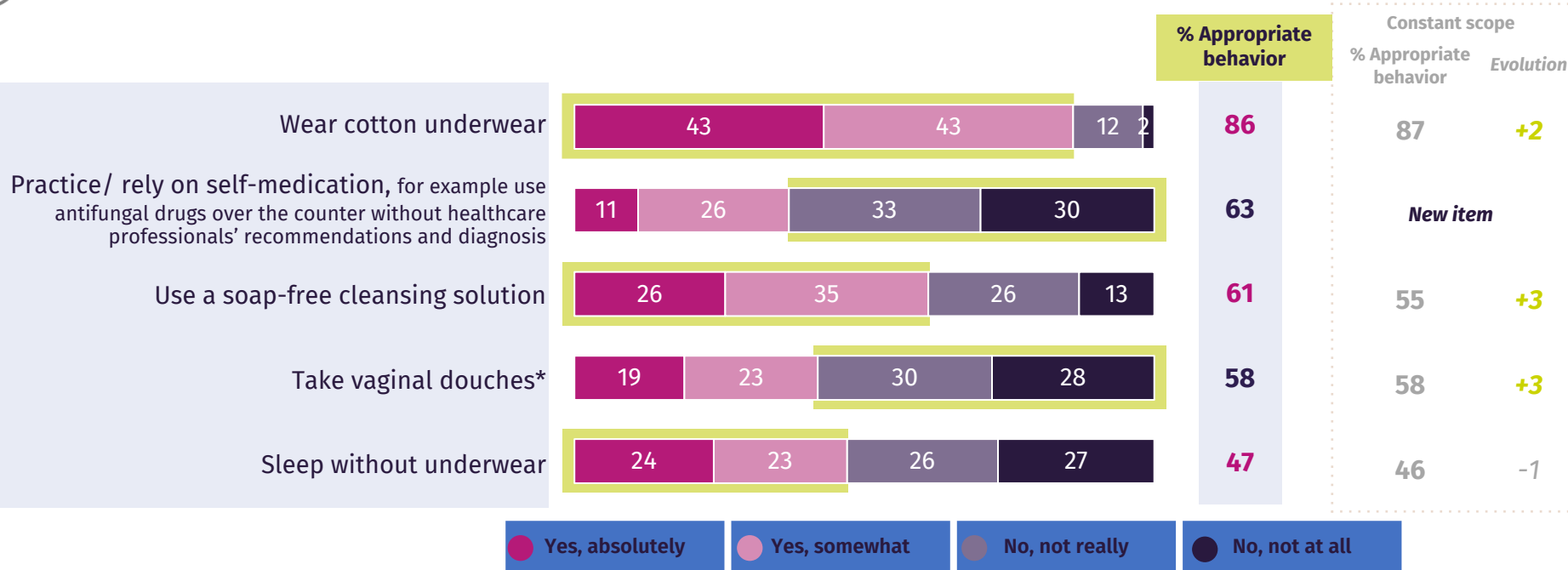


Women are more likely to adopt specific behaviors to protect their vaginal microbiome this year, even if a significant part of women still take vaginal douches.



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

Base: Women



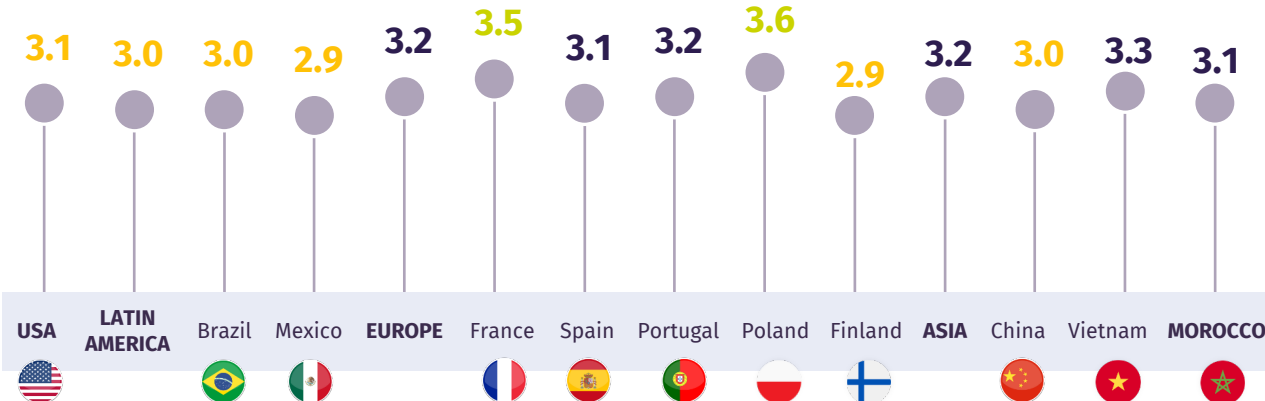
*For this item, the following definition was provided: Vaginal douching is washing or cleaning out the inside of the vagina with water or a mixture of fluids to eliminate odors and "clean" the vagina. Please do not confuse the vaginal douching (The vagina is the inside) with vulvar washing (The vulva is the outside)



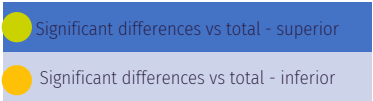
French and Polish women have adopted more appropriate behaviors than other countries.



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



Number of appropriate behaviors adopted on average





Vaginal douches are popular among women in China, Finland and Brazil.

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

Base: Women

% Appropriate behavior	Total	USA	LATIN AMERICA	Brazil	Mexico	EUROPE	France	Spain	Portugal	Poland	Finland	ASIA	China	Vietnam	MOROCCO
	base n=3885	n=517	n=837	n=274	n=563	n=1586	n=534	n=266	n=268	n=264	n=254	n=723	n=497	n=226	n=222
Wear cotton underwear	86	87 ↗	89	88	90	84	83	86	85	91	76	89	89	90	84
Practice/ rely on self-medication, for example use antifungal drugs over the counter without healthcare professionals' recommendations and diagnosis	63 *	60	58	57	58	71	71	76	75	62	73	50	59	42	56
Use a soap-free cleansing solution	61	44 ↗	51	51	52	61	62	51	59	74	58	73	67	78	71
Take vaginal douches	58	74 ↘	52	46	59	63	71	64	66 ↗	78	35	47	28 ↗	66	54
Sleep without underwear	47	47	47	58	36	45	60 ↗	31	32	51	51	58	60 ↘	57	40

*Reading note: 63% of women don't practice or rely on self-medication, an appropriate behavior for their vaginal microbiome.

Significant differences vs total - superior

Significant differences vs total - inferior

Copyright Biocodex Microbiota Institute and Ipsos - June 2024

International Microbiota Observatory

Ipsos



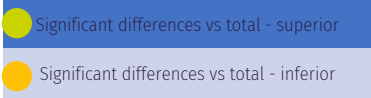
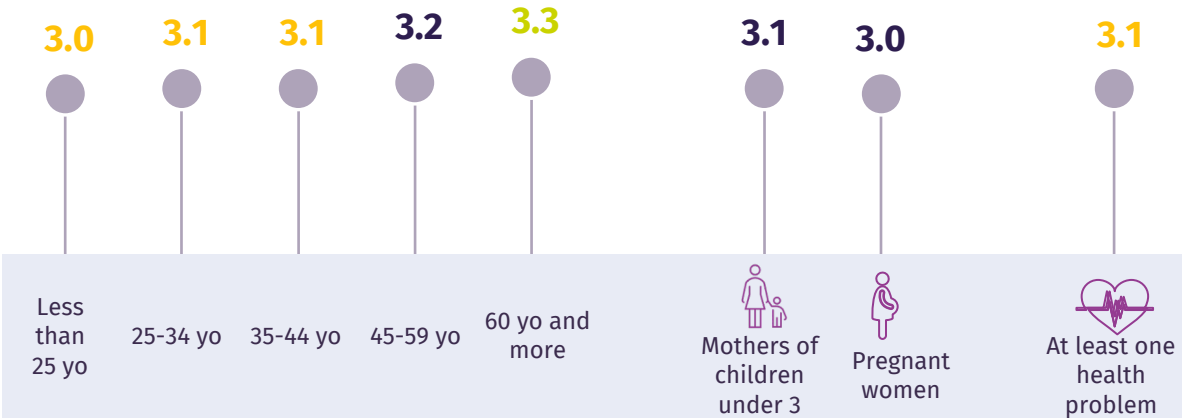
Older women seem more likely to adopt appropriate behaviors for their vaginal microbiome.



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



Number of appropriate behaviors adopted on average





But all depend on the behaviours: the oldest are less likely to rely on self-medication and to take vaginal douche compared to the 25-34 group.



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	Mothers of children under 3	Pregnant women
	base n=3885	n=494	n=825	n=738	n=1013	n=815	n=377	n=75
Wear cotton underwear	86	83	85	86	89	86	88	83
Practice/ rely on self-medication, for example use antifungal drugs over the counter without healthcare professionals' recommendations and diagnosis	63	61	56	56	64	76	49	45
Use a soap-free cleansing solution	61	58	67	61	59	56	71	75
Take vaginal douches	58 *	55	51	57	60	67	50	38
Sleep without underwear	47	46	54	47	47	43	54	62

*Reading note: 58% of women don't take vaginal douches, an appropriate behavior for their vaginal microbiome.

Significant differences vs total - superior

Significant differences vs total - inferior

Women with health problems seem to have similar behaviors than the average.



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

% Appropriate behavior

	Total n=3885	At least one health problem n=2355	Respiratory diseases n=453	Cardiovascular diseases n=530	Diabetes n=300	Digestive disorders n=555	Genitourinary and kidney disorders n=310	Neurological disorders n=143	Autoimmune disease n=360	Osteoarticular diseases n=587	Psychiatric conditions n=376	Cancer n=114	Allergies n=1182
Wear cotton underwear	86	86	89	89	88	87	86	71	89	88	81	91	85
Practice/ rely on self-medication, for example use antifungal drugs over the counter without healthcare professionals' recommendations and diagnosis	63 *	61	59	64	60	50 *	45	47	56	59	58	59	61
Use a soap-free cleansing solution	61	61	64	57	60	62	67	61	61	64	57	60	60
Take vaginal douches*	58	57	55	63	56	54	50	51	53	58	62	60	56
Sleep without underwear	47	47	49	46	53	48	60	53	47	47	48	51	45

*Reading note: 50% of women with digestive disorders don't practice or rely on self-medication, an appropriate behavior for their vaginal microbiome.

● Significant differences vs total - superior

● Significant differences vs total - inferior

A large, light purple illustration of various bacterial shapes, including rods, cocci, and branching structures, set against a white background. This illustration is positioned on the left side of the slide, partially overlapping a dark purple background.

Appendices



Differences between countries.

RS10. Among the following health problems, indicate those you suffer from.












Base: All respondents

	Total	USA	LATIN AMERICA	Brazil	Mexico	EUROPE	France	Spain	Portugal	Poland	Finland	ASIA	China	Vietnam	MOROCCO
Allergies	28	36	36	39	33	23	6	26	30	23	29	29	24	34	33
Cardiovascular diseases (heart attack, high cholesterol, poor circulation, heart failure...)	16	22	15	13	16	18	11	20	20	19	21	14	14	14	7
Osteoarticular diseases (Osteoporosis, arthritis...)	15	19	8	11	6	13	7	14	16	13	12	25	19	30	16
Digestive disorders (nonalcoholic fatty liver disease (NAFLD), Crohn disease, IBS...)	13	12	12	8	16	10	8	11	8	9	12	23	22	24	15
Respiratory diseases (Asthma, chronic obstructive pulmonary disease (COPD)...)	12	17	9	11	8	12	10	10	13	11	14	16	12	20	10
Diabetes	10	14	9	9	10	11	8	8	10	12	14	9	12	6	8
Autoimmune Disease (Rheumatoid arthritis, psoriasis, psoriatic arthritis, lupus...)	10	13	7	7	6	9	8	11	7	11	8	12	9	14	14
Psychiatric conditions	9	15	9	12	6	8	4	7	9	10	10	5	4	5	16
Genitourinary and Kidney Disorders (STIs, endometriosis, bacterial vaginosis, vaginitis, yeast infection)	7	9	5	5	5	5	5	5	4	7	4	11	11	11	9
Neurological disorders (Alzheimer's disease, Parkinson's disease, autism-spectrum disorders)	4	6	3	3	3	3	3	3	2	4	5	6	6	6	5
Cancer	4	5	2	2	2	5	4	6	5	4	3	4	4	4	1

A large, light purple illustration of various bacterial shapes, including rods, cocci, and branching structures, set against a white background. This illustration is positioned on the left side of the slide, partially overlapping a dark purple background.

Main results per country

Overview of the country results

	 USA	 Brazil	 Mexico	 France	 Spain	 Portugal	 Poland	 Finland	 China	 Vietnam	 Morocco
Awareness of the microbiome & its diversity											
Know exactly what is « microbiome »	26%↗	25%	21%	33%↗	27%	15%	24%	8%	19%	39%	19%
Subtotal « Aware »	62%↗	66%	71%↗	85%↗	76%↗	62%	75%	41%	76%↗	92%	59%
Subtotal Aware of the gut microbiome	49%↗	54%	62%	70%↗	61%	42%	45%	33%	65%↗	87%	47%
Subtotal Aware of all microbiome	29%↗	32%	32%↗	29%↗	25%	25%	31%	20%	30%	60%	32%
Level of knowledge around the microbiota											
Mean of good answers	5,0/9	5,5/9	5,6/9	5,4/9	5,5/9	5,7/9	5,8/9	5,9/9	6,1/9	6,0/9	4,9/9
Level of knowledge around the solutions which can maintain the microbiota balanced											
Know exactly what are probiotics	56%	46%↗	61%↗	38%↗	48%↗	45%↗	68%	25%	55%↗	58%	23%
Know exactly what are prebiotics	41%↗	30%↗	34%	20%↗	31%↗	21%	43%	12%	39%	44%	20%
Adoption and identification of appropriate behaviors to maintain a balanced microbiota											
Have changed their behaviors	54%	62%	67%	48%	54%	47%	65%	36%	62%	84%	61%
Level of information provided by healthcare professionals											
Have heard about the microbiome from healthcare professional	12%	15%	17%	14%	12%	11%	8%	5%	9%	8%	5%
Received at least one piece of information at least once	57%↗	68%	84%	51%↗	53%↗	50%	74%	32%	75%↘	92%	68%

A large, light purple illustration of a dense microbiome, featuring various shapes representing bacteria and fungi, set against a white background that is slightly offset to the left.

Ipsos Quality

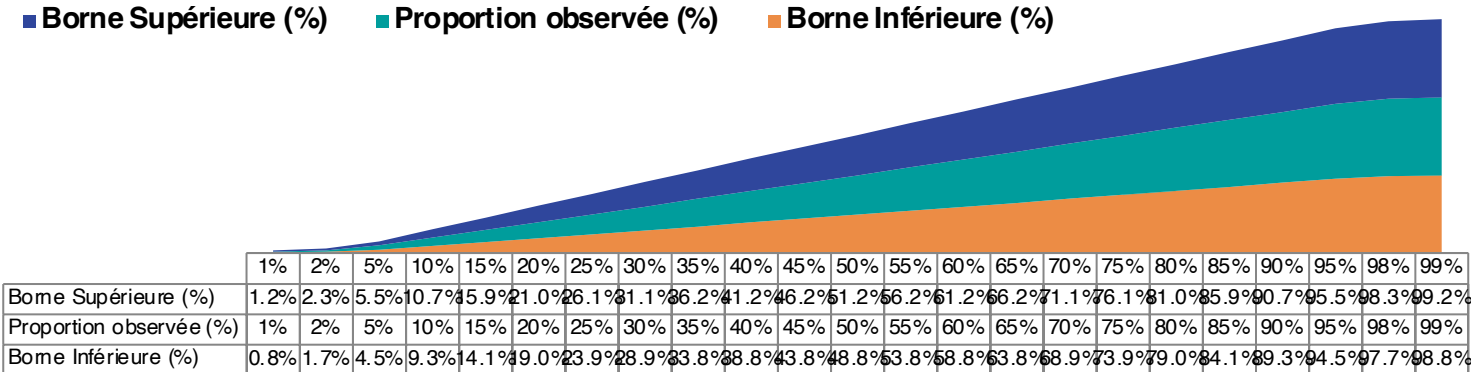
FIABILITÉ DES RÉSULTATS

Feuille de calcul

En l'occurrence s'agissant de cette étude :

- Intervalle de confiance : **95%**
- Taille d'échantillon : **7500**

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** : January 26th – February 26th, 2024
- **Sample achieved** : **7,500** interviews (1000 for France, Mexico, US and China, 500 in other countries)
- **Data collection** : online
- **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
- Oral presentation



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).

ISIN code FR0000073298, Reuters ISOS.PA, Bloomberg IPS:FP
www.ipsos.com

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.