

1st edition of the International Microbiota Observatory

**Microbiota: essential to health, but limited global awareness.
The Portuguese are relatively knowledgeable about the role of microbiota,
but know little about probiotics; most do little to ensure a good intestinal
flora balance.**

*The microbiota is made up of billions of microorganisms (bacteria, viruses, fungi, etc.) that live in symbiosis with our body. Not only do we have an intestinal microbiota, but we also have a skin microbiota, a mouth and lung microbiota, a urinary and vaginal microbiota, etc., all of which make an essential contribution to our health. But is everyone currently aware of the role of microbiota? Do we know how to look after microbiota? Are we suffering from health problems that we associate with microbiota? Should healthcare professionals be informing patients about how to preserve their microbiota balance? To answer these questions, **the Biocodex Microbiota Institute commissioned Ipsos to conduct a major international survey of 6,500 people in 7 countries** (France, Spain, Portugal, USA, Brazil, Mexico and China), called the International Microbiota Observatory. **Over and above geographical disparities in behaviors, this exclusive survey has revealed a general lack of understanding of the microbiota's contribution to health, and underlines the essential role of healthcare professionals in imparting knowledge.** The results were presented on June 27, 2023, on the occasion of World Microbiome Day.*

We know little about the role of microbiota in health...

- **Only 1 in 5 people claimed to know the exact meaning of the term microbiota (21%).** Intestinal microbiota remains the best known, with 53% of respondents saying they were familiar with the term, although only 24% claimed to know exactly what it was. The other microbiota are much less well known, with respondents citing, in order of importance, vaginal microbiota (45% of interviewees knew the term, but only 18% knew exactly what it was), oral microbiota (43% knew it by name, but only 17% knew

what it was) and skin microbiota (40% knew the term, but only 15% knew what it was).

- 3 out of 4 interviewees were aware of the risk of microbiota imbalance having significant health consequences (75%). 74% of those interviewed thought that our diet had a significant impact on our microbiota balance, 72% said microbiota played a significant role in immune defense mechanisms.
- **However, more than 1 in 3 (34%) are unaware that antibiotics have an impact on our microbiota.** The vast majority of those surveyed are unaware that certain non-digestive diseases, such as Parkinson's, Alzheimer's, or autism, may be linked to the microbiota (75%).

...with a timid awareness of “right” behaviors for looking after microbiota

- They know that a balanced diet (84%), physical activity (76%) and not smoking (72%) are essential for good health, and that these behaviors will therefore have a positive impact on microbiota.
- **Yet when it comes to more specific behaviors, their knowledge plummets:** only 1 in 3 people knew that it was better not to wash twice a day to preserve their skin's microbiota (35%). Less than 1 in 2 women knew that douching was bad for their vaginal microbiota (42%).
- More than 1 in 2 people said that they had adopted everyday behaviors to preserve their microbiota balance (57%).
- **We can only applaud this raised awareness, but must put it into perspective.** First, because only 1 in 7 people said they did this “a lot” (15%), and most of the others said they did it “a little” (42%). Second, 43% of those questioned said they had not adopted any specific behavior. The results of this International Microbiota Observatory show that much remains to be done in this area.

Microbiota explained by healthcare professionals: the key to adopting good practices!

- **Only 1 in 3 people said their doctor had already explained what microbiota was and its purpose (37%).** Fewer than 1 in 2 patients said their doctor had already explained how to maintain a balanced microbiota (44%, but only 19% had had this explained to them more than once).

- How doctors inform patients when prescribing antibiotics is a good illustration of how far we still have to go. Fewer than 1 in 2 patients said their doctor had informed them of the risks of digestive problems associated with antibiotics (41%). Only 1 in 3 said their healthcare professional had provided them with recommendations on how to minimize the negative consequences of taking antibiotics on their microbiota (34%), or had informed them that taking antibiotics could upset their microbiota balance (33%).
- **Yet patients who had been informed repeatedly of the risks had dramatically changed their behavior with regard to their microbiota.** More than 9 out of 10 people (95%) who had received information from their healthcare professional had subsequently adopted practices to maintain a balanced microbiota, compared with 57% of those who were not informed.

Seniors are poorly informed, despite being more vulnerable!

- **Although most seniors (aged 60 and over) become increasingly affected by age-related health problems, they were the age group who knew least about intestinal microbiota (20%, -4 points compared with overall).**
- They were also the least likely to have adopted behaviors to maintain their microbiota balance (only 50% vs. 57% overall).
- Here too, doctors have an essential role to play in encouraging seniors to change their habits. Yet these subjects are rarely discussed. Only 1 senior in 3 said that their doctor had already explained how to maintain a healthy microbiota balance (32% vs. 58% for the 25-34 group). And 1 senior in 4 said they had already received an explanation of what the microbiota is (26% vs. 50% for the 25-34 age group). This is an issue we must urgently address.

The Portuguese are relatively knowledgeable about the role of microbiota, but know little about probiotics; most still do little to ensure a good intestinal flora balance.

- **The Portuguese are more familiar with the term “flora” than “microbiota”.** In fact, they are among those least aware of the precise meaning of the term “microbiota” (17% vs. 21% overall), and, along with Americans, they are those who have heard least about “intestinal microbiota” (45% vs. 53% overall). On the other hand, they are more familiar with, and have very good knowledge of, the terms “intestinal

flora” (69% know exactly what it is, versus 53% overall) and “vaginal flora” (58% versus 40% overall).

- **The Portuguese are among the most knowledgeable about the role of microbiota...** The vast majority of them know that microbiota imbalance can have major consequences on health (85% vs. 75% overall), that our diet has a significant impact on microbiota balance (83% vs. 74% overall), that it plays an important role in immune defense mechanisms (76% vs. 72% overall), and even that taking antibiotics has an impact on microbiota (72% vs. 66% overall).
- **...but know little about probiotics and prebiotics:** they know little about them, with only 37% knowing precisely what probiotics are (compared to 43% overall), while less than 1 in 6 Portuguese (17%) claimed to know what prebiotics actually are (compared to 27% overall).
- **While the majority of Portuguese said they had adopted behaviors to preserve the balance of their microbiota (58%), most had done so “only a little” (45%, compared with only 13% who said “a lot”).** Yet they are among those most aware of the importance of a balanced diet (89%) and physical activity (81%). On the other hand, they are one of the populations least aware of the importance of consuming probiotics (51% vs. 62% overall) and prebiotics (36% vs. 51% overall).
- **At the same time, the Portuguese are among those who address the subject least with healthcare professionals.** Only 32% said they had ever been prescribed probiotics or prebiotics (versus 46% overall). Only a minority of them felt that they had been informed of the right behaviors to adopt (35% vs. 44% overall). Finally, only 1 in 4 Portuguese had ever been informed of the purpose of microbiota (26% vs. 37% overall). Only 22% had ever been advised to test their microbiota (versus 30% overall).
- **In Portugal, patient education has become a key issue, to teach them not only the role of microbiota, but also the behaviors they should adopt to most effectively preserve it. It is important that healthcare professionals contribute to this education.**

Murielle Escalmel, Director of the Biocodex Microbiota Institute:

“This observatory is the first of its kind and it provides us with a wealth of information on the knowledge, behavior and expectations of the world’s populations with regard to their microbiota. It also highlights the key role played by healthcare professionals in raising awareness about the right behaviors when it comes to taking care of the microbiota. The survey shows that from the moment patients receive information from their healthcare professionals, their relationship

with the microbiota changes. Better still, virtuous behaviors result. We should therefore step up our support for healthcare professionals, so that the microbiota becomes an integral part of patient care.”

Find out about the results of the International Microbiota Observatory at:

→ www.international-microbiota-observatory.com

About the Biocodex Microbiota Institute

The Biocodex Microbiota Institute is an international knowledge hub dedicated to promoting better health by communicating about the human microbiota. To this end, it targets healthcare professionals and the general public, raising awareness of the central role played by this little-known organ.

→ www.biocodexmicrobiotainstitute.com



Press contact Biocodex Microbiota Institute

Olivier Valcke, Public Relations and Editorial Manager

+33 6 43 61 32 58

→ o.valcke@biocodex.com

Press contact Ipsos

Etienne Mercier, Director of the Opinion and Healthcare division – Ipsos

+33 6 23 05 05 17

→ etienne.mercier@ipsos.com