BfR
German Federal Institute for Risk Assessment

Raw Food, PFAS and BPA

Key Country Issues in Germany

27.04.2023, Online

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Department Risk Communication

Raw Food

Risk perception

BfR Consumer Monitor SPECIAL Raw food

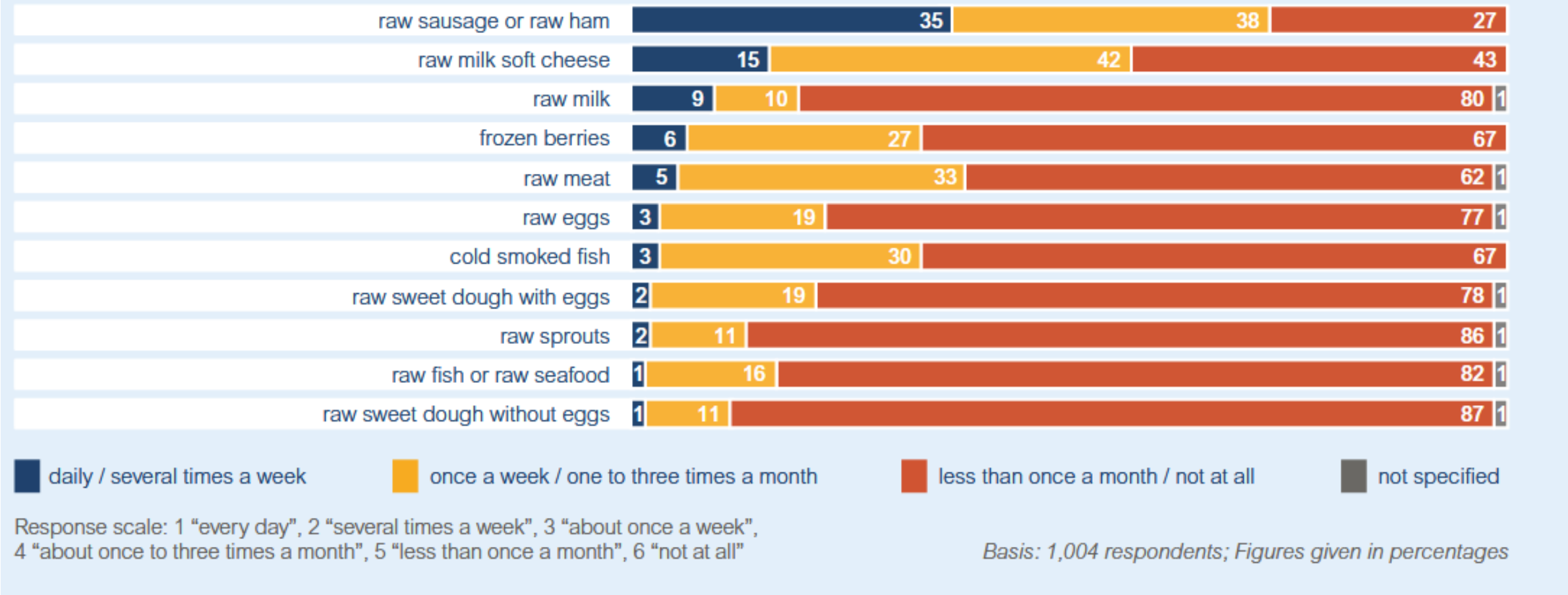
BfR
German Federal Institute for Risk Assessment

BfR Consumer MONITOR 2023

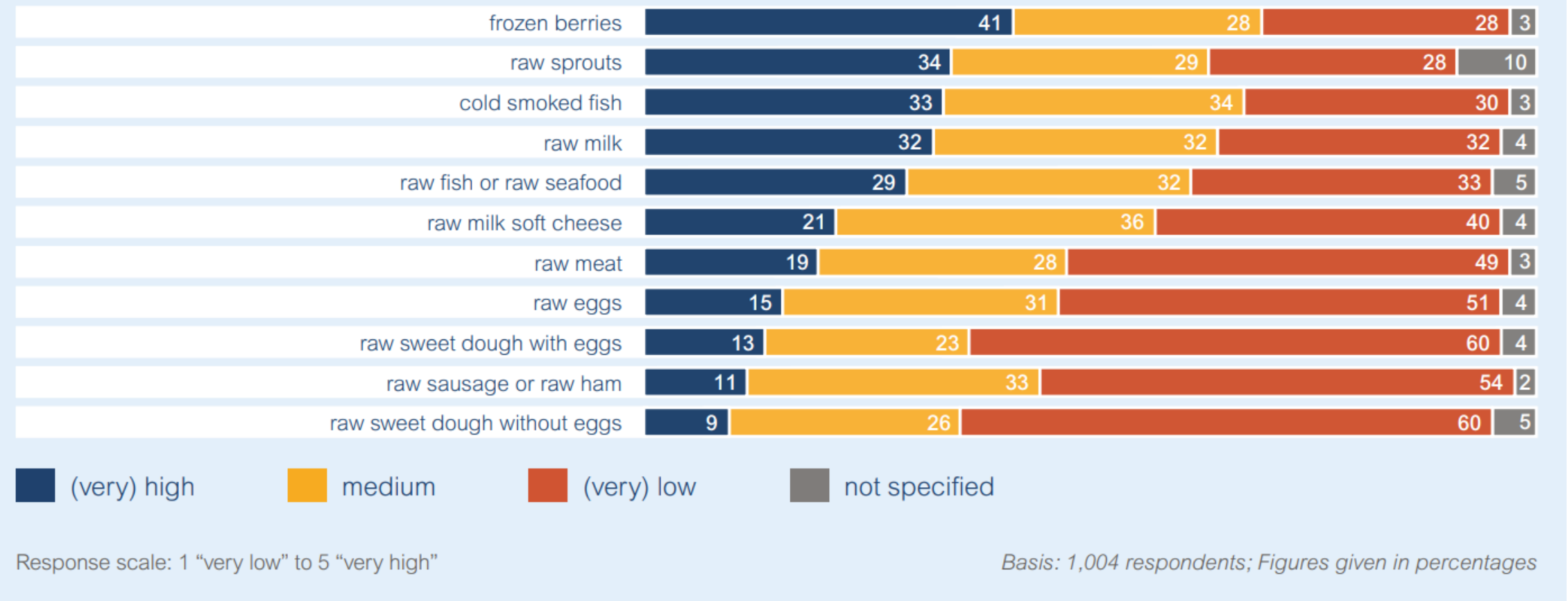
- Participants from an online access panel in Germany aged 16 years and over
- Random sample of panel participants with representative quota control according to gender, age, education, and region
- Online survey (CAWI)

https://www.bfr.bund.de/cm/364/bfr-consumer-monitor-2023-special-raw-food.pdf

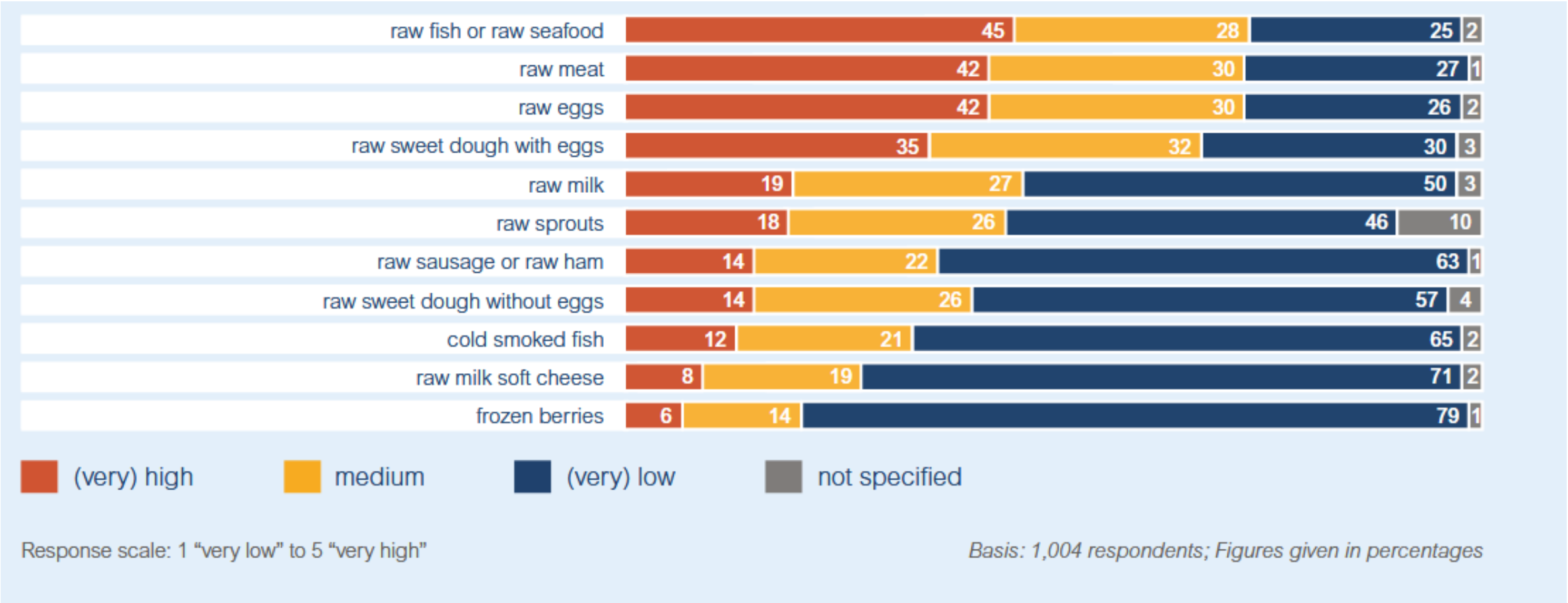
How often do you typically eat the following raw or uncooked foods?



How do you rate the health benefits of eating the following foods?



How do you rate the health risks of eating the following foods?

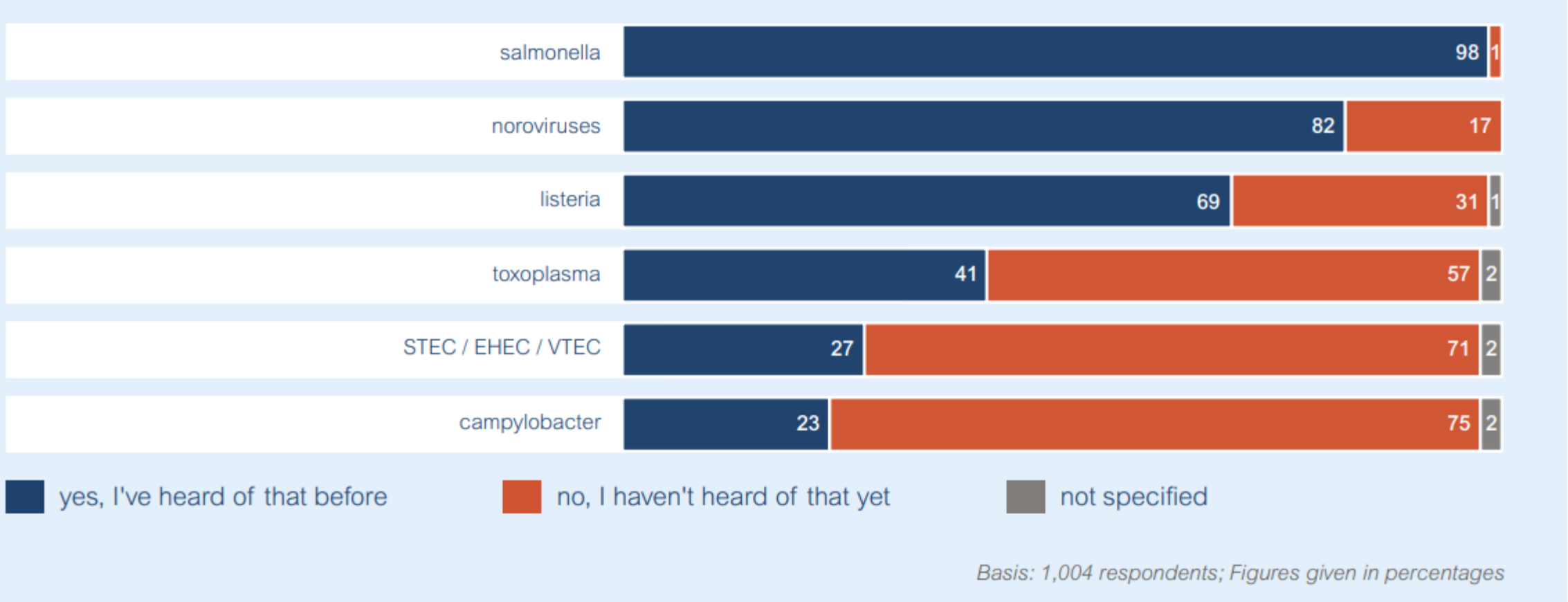


Norovirus Outbreak 2012

- A total of almost 11,000 cases of illness were reported
- Largest food-borne outbreak of gastroenteritis in Germany
- According to the finding of the investigations deep-frozen strawberries of a specific batch contaminated with norovirus caused the outbreak

General BfR advice:
If you want to protect yourself from diseases, you should only consume raw sprouts and frozen berries if they have been intensively and completely heated before consumption.

Have you ever heard of the following pathogens?



EHEC/E. coli Outbreak 2011

- Biggest bacterial outbreak of *Escherichia coli* in Germany since 1945
- More than 50 deaths and nearly 4000 illnesses
- May 2011: Increase in the number HUS (Hemolytic–uremic syndrome) cases
- Fenugreek seeds used for sprout production were with a high probability the cause

General BfR advice:
If you want to protect yourself from diseases, you should only consume raw sprouts and frozen berries if they have been intensively and completely heated before consumption.

Raw food: health risks are often underestimated

BfR Press Release 03/2023

Every year around 100,000 cases of illness are reported in Germany that may have been caused by bacteria, viruses or parasites in food. The number of unreported cases is likely to be much higher.

Raw animal and vegetable products should be consumed with caution.

"The health risks of raw foods are often underestimated," says BfR President Professor Dr. Dr. Andreas Hensel.

"Heating protects the consumer. Diseases can be avoided with simple kitchen hygiene rules. At-risk-groups of people in particular should only eat raw animal food that has been heated sufficiently."

Media attention - example

A call to the microbiologist…

Head of Unit Food Microbiology,
Host-Pathogen-Interactions
Dr. Matthias Fischer

SPIEGEL (24.02.2023)

Why the danger of raw food is underestimated.

Many people are not aware of the risk of food infection.

A microbiologist from the Federal Institute for Risk Assessment explains what to look out for during preparation and consumption - and where germs are particularly common.

Translation: BfR

Article about raw food in our Science magazine BfR2GO - planned

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PFAS

‘Forever’-Chemicals

BfR

PFAS - Selected BfR communication activities

Communication No 011/2020 from the BfR

Perfluoroalkyl and polyfluoroalkyl substances (PFAS): European Food Safety Authority draft opinion opens for public consultation

Communication No 016/2020 from the BfR

New study shows: One-year-old children demonstrate lower concentration of vaccine antibodies with high PFOA concentration in the blood

Communication No 042/2020 from the BfR

Per- and polyfluoroalkyl substances (PFAS): New opinion from the European Food Safety Authority

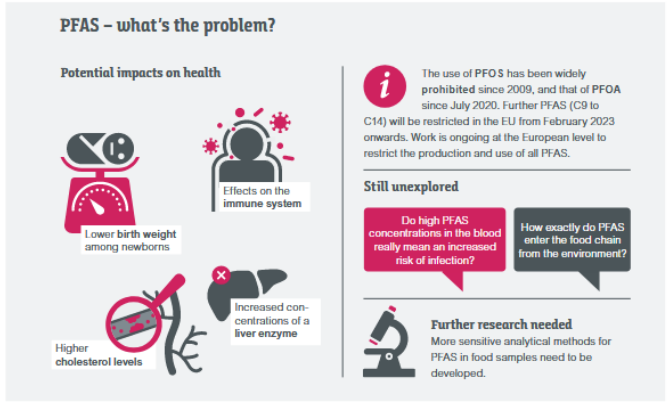
BfR2GO Science Magazine 01/2021

Constant companions

The chemicals known as PFAS are found in numerous everyday products, and are in the spotlight as a major problem for the environment and humans. New findings are available concerning the health risks, and a broad ban is coming closer.

They are exceptionally stable, and are widely used in numerous everyday products, including non-stick pans, waterproofing agents, fire extinguishing foam, cleaning products, outdoor clothing, fast food packaging, drinks to-go containers, refrigerants and even cosmetics. They make them water, grease and dirt repellent. We are talking about so-called per- and polyfluoroalkyl substances – in short: PFAS. But their blessing is also their curse: The molecular structure of the chemicals is so stable that they are difficult to break down in the environment. PFAS spread around the world via air and water, are found in groundwater and soils, and accumulate in plants and animals. Humans mostly ingest them via drinking water and food. Research teams are detecting PFAS all over the world and everywhere – even in human blood and breast milk.

The list of possible health effects as the result of increased PFAS levels in the body is long: these include higher cholesterol levels, lower birth weight among



newborns, increased concentrations of a liver enzyme, and effects on the immune system. The latter was confirmed by the 'Risks of Subpopulations and Human Studies' unit at the German Federal Institute for Risk Assessment (BfR) with a study on PFAS in children, which was published in 2020. It shows that the post-vaccination concentration of antibodies in children is lower if they have a high level of PFAS in the blood. To determine this, private lecturer Dr. Klaus Abraham's team examined retained blood samples taken from infants at the Charité hospital in Berlin at the end of the 1990s.

Guidance value is partially exceeded

The European Food Safety Authority (EFSA) used this work as a key study for a new assessment of the health risk from PFAS, and derived a new lower tolerable weekly intake of 4.4 nanograms per kilogram per week. The BfR based its own health assessment on this guidance value, and published it in summer 2021. The result: The long-term intake via food exceeds the health-based guidance value for certain PFAS in around 50 per cent of adults and adolescents in Germany. If mothers are affected, their infants may have a reduced concentration of vaccine antibodies in their blood during their first years of life in case they have been breastfed for a long time.

Soon a widespread ban?

The good news: for the past 30 years or so, the levels of some PFAS frequently found in the blood of the population have been decreasing significantly. Nevertheless, the latest figures from the BfR show that even the current levels are still too high. The institute is thus supporting the EU's intention to severely restrict the manufacture and use of all PFAS compounds. Five EU member states, including Germany, have published an announcement to this effect. In July 2022, the proposal for the restriction will then be submitted to the European Chemicals Agency. In concrete terms that means: any use of PFAS that is not considered socially indispensable, or for which equivalent alternatives are available, is to be banned in future.

Better analytical methods, more research

Important questions are still unanswered. For example, it is not clear whether high PFAS concentrations in the blood are actually associated with an increased risk of infection. In addition, analytical techniques are in many cases not sensitive enough to measure the levels in many food samples, so improved methods need to be developed. Knowledge gaps also exist on the transfer of PFAS from the environment into the food chain. In this regard, the BfR is participating in research projects such as 'PROSPeCT'. The aim is to find out how PFAS get from the soil into plants in order to derive guidance values for soils in the future and ensure food safety in contaminated areas. ◘

More information:
www.bfr.bund.de/en > FAQ: per- and polyfluoroalkyl substances (PFAS)
BfR Opinion No. 020/2021 of 28 June 2021

Promoted via newsletter and scoial media

BfR2GO Science Magazine 02/2021

BUZZ TALK

Here to stay

PFAS make some products functional. However, they accumulate in the environment and in the body.

They actually aim to make our lives easier. They protect outdoor clothing from water, oil and dirt. They make frying in coated pans easier. And they prevent fast-food packaging from becoming weak and falling apart. They are per- and polyfluoroalkyl substances (PFAS), industrially-produced substances that are not found in nature. Professor Dr. Tanja Schwerdtle, Vice President of the BfR, on the challenges posed by PFAS risk assessments.

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Professor Dr. Tanja Schwerdtle,,
Vice President of the BfR, knows all about the challenges posed by PFAS risk assessments: she was chair of the PFAS working group at the European Food Safety Authority (EFSA) for several years.

Promoted via newsletter and scoial media

PFAS - Selected BfR communication activities

BfR Opinion no. 020/2021
PFAS in food: BfR confirms critical exposure to industrial chemicals

BfR Opinion no. 037/2021
PFAS maximum levels in feedstuffs: BfR recommends improved analytical methods

Communication No 023/2021 from the BfR
PFAS industrial chemicals: BfR is participating in the EU-wide restriction proposal

Communication No. 008/2023
Per- and polyfluoroalkyl substances (PFASs): Proposal for restriction under the REACH Regulation submitted to the European Chemicals Agency

BPA

New health-based guidance values

Bisphenol A

Bisphenol A: BfR proposes health based guidance value,
current exposure data are needed for a full risk assessment BfR
Opinion No 018/2023 issued 19 April 2023

Bisphenol A in everyday products:
Answers to frequently asked questions
Updated FAQ of the BfR from 21 April 2023

Foodwatch (NGO): Hormone toxin: Put an end to BPA in canned food!
(5 May 2023)

Thank you

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BfR | Identifying Risks – Protecting Health

Consumer health protection to go

BfR2GO – the BfR Science Magazine

bfr.bund.de/en/science_magazine_bfr2go.html

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