Press Release

Everyday risks at a glance – Promoting risk-literate decisions with transparent visualisations

Research cooperation between the BfR and Harding Center for Risk Literacy

Berlin, November 2, 2017 – A two-year cooperation agreement with the goal of visualising the results of health risk assessment in a generally understandable manner has been in force between the German Federal Institute for Risk Assessment (BfR) and the Harding Center for Risk Literacy at the Max Planck Institute for Human Development since August 2017.

“Graphic elements have the advantage that they visualise important factors of a decision at a glance, thus making them indispensable in risk communication,” explains BfR President Professor Dr. Dr. Andreas Hensel. “We have established in our research on risk understanding that we can reduce false estimations and promote risk-literate decisions with a combination of verbal and graphic risk communication,” adds Professor Dr. Gerd Gigerenzer, Director of the Harding Center for Risk Literacy in Berlin.

Ever since the beginning of the scientific debate about risks, they have often been defined for the sake of simplified communication in terms of their likelihood of occurrence and extent of damage. The risk matrix is regarded here as a standard form of risk portrayal which illustrates the ratio between the likelihood of occurrence and extent of damage in colour increments. Because it is restricted to a two-dimensional level, however, the information value is too low to illustrate the full extent of the risk and the assessment uncertainties. The visualisation models that currently exist in particular only partially help consumers with no advance specialised knowledge of the subject to make individual decisions on health risks on the basis of the best available scientific facts. For this reason, the BfR and Harding Center for Risk Literacy decided in summer to jointly develop informative, transparent, evidence-based and generally understandable risk visualisation concepts.

A graphically supported method for communicating the results of risk assessment – the “BfR Risk Profile” – was developed at the BfR in 2013. It makes it easier for the recipient to estimate the potential risks by summarising essential aspects of the risk assessment, such as the affected target groups, degree of severity and likelihood of a health impairment, quality of the data and available courses of action. The inclusion of the BfR Risk Profile in scientific opinions has been well received internationally and positively appraised by international partners and interest groups. Visualisations of risk information are always a compressed illustration of complex results, however, which can lead to misunderstandings, especially among the general public. In this way, unambiguousness which does not exist can be generated under certain circumstances. To counteract false interpretations, the BfR Risk Profile is now to be further developed.
When doing so, scientific expertise in the field of cognitive psychology and decision-making is to be tied into the process. The Harding Center for Risk Literacy at the Max Planck Institute for Human Development is complementing the BfR's scientific expertise in order to convert the best available evidence of the potential benefits and drawbacks of various medical measures and health topics in a graphically appealing and generally understandable form. In the joint project which goes by the name of “VisRisk” for short, a research team made up of psychologists, health scientists and natural scientists will scientifically examine over a period of two years how the statements from the risk assessment can be presented in a generally understandable form both verbally and visually. Findings and methods from cognitive psychology and decision-making are supposed to facilitate the further development of the BfR risk profile as a fast and simple means of portraying the risk potential of foods, consumer goods and products that can be easily understood by laypersons.

Harding Center for Risk Literacy
The center envisions a society of informed citizens who are competent enough to deal with the risks of a modern technological world. Established through a gift from the London-based global investment manager David Harding, the Center is affiliated with the Max Planck Institute for Human Development and funds research conducted by Prof. Dr. Gerd Gigerenzer and his team.

https://www.harding-center.mpg.de/en

German Federal Institute for Risk Assessment (BfR)
The German Federal Institute for Risk Assessment (BfR) is a scientifically independent institution within the portfolio of the Federal Ministry of Food and Agriculture (BMEL) in Germany. It advises the Federal Government and Federal Länder on questions of food, chemical and product safety. The BfR conducts its own research on topics that are closely linked to its assessment tasks.

The BfR is celebrating its 15th anniversary this year. To mark the occasion, the institute has published a jubilee brochure (in German) which can be downloaded or ordered free of charge at http://www.bfr.bund.de/de/publikation/broschueren-660.html.