

# Helping doctors and patients make sense of health statistics article review examp...

[Sociology](#), [Communication](#)



The literature is based on the widespread health statistics illiteracy and the team of psychologist's suggestions growth towards evidence-based society. Understanding health risks is an essential prerequisite for making health decisions. Physicians, patients and politicians implied relationships tend to make statistical literacy a non issue. The wanted to fight for transparent communication of medical risks as a basis for informed decisions. There is an urgent need to introduce statistical literacy in all educational institutions as opposed to the

Analysis of prostate cancer test results is carried out with prostate-specific antigen (PSA) tests. The psychologists conducted public awareness interviews in different country level on benefits of PSA tests. Russian Men came out highest on the lower level of misinformation at 23 %.

The psychologists tested the physicians on their understanding of benefits and chance of occurrence of a disease given a positive test (positive predictive value). The test was about interpreting breast cancer results. The physician gave varied (wrong) statistical percentages on prevalence, sensitivity and false-positive rate. The psychologists viewed this as a problem of statistical interpretation skills (such as conditional probabilities). Risk estimation information becomes a major problem. For example in the prostate cancer screening, where ten percent of the women have cancer, a European press presented the data as a twenty percent 20% relative risk reduction. They did not state the fact that this was equal to absolute risk reduction from 3. 7 to 3. 0 in 1, 000 which translated to non transparent risk communication.

A summary of these results confirmed that interventions towards statistical

literacy should be taken. The psychologists concluded that medical schools should clearly teach statistical thinking rather than statistical rituals. Children should be introduced to probability and statistical literacy early enough in their life. The society should advocate for transparent risk communication. The psychologists further recommended replacing single-event probabilities with frequency statements, relative risks with absolute risks, survival rates with mortality rates, and conditional probabilities with natural frequencies. These measures will help shape the attitude and effectiveness of the medical world.

## **Reference**

Gigerenzer, G. (2008). *Helping doctors and patients make sense of health statistics*. Malden: Wiley Blackwell.