## Rumours that kill

Health care is not spared from rumours (which can be defined as "currently circulating stories or reports of uncertain or doubtful veracity"). On the contrary, health care is a field in which rumours flourish. As a result, in 2020, some persons still suspect that the measles-mumps-rubella (MMR) vaccine can cause autism, even though the study that proposed this link, published in 1998 in the journal *The Lancet*, was retracted in 2010 after it was shown to be fraudulent (see p. 126 of this issue). Ten years later, the perpetrator of this fraud continues to spread this rumour around

the world. This rumour kills, each time a child dies of measles because the parents refused to vaccinate their child out of fear of autism, an unfounded fear debunked by many reliable studies.

A different kind of rumour sustained the off-label use of the now-withdrawn drug, Mediator° (*benfluorex*). During the Mediator° trial, officials from the pharmaceutical company Servier and the French drug regulatory agency claimed that the drug was not an appetite suppressant, and that it was neither authorised nor promoted as such.

On what basis did doctors make a decision to prescribe Mediator° as a safe appetite suppressant? On what basis did patients make a decision to take and sometimes request Mediator° for this purpose? Not based on the drug's official indications or on the results of clinical trials, but rather on a rumour. Another rumour that killed. Who propagated this rumour?

It is not easy to tell true from false or rumour from robust evidence in the pharmaceutical field. So many factors complicate an individual's perception of the effects of a treatment: the natural course of the disease, the placebo effect, interindividual variability, coincidences, and statistical but non-causal associations. These methodological difficulties are compounded by information bias due to various causes, including: the financial interests of healthcare providers and health product manufacturers; the narrow or overestimated expertise of some experts; confusion on the part of health authorities between the interests of the healthcare industry and those of patients; and the general tendency to downplay adverse effects.

Health decisions are safest when based on data that have been extricated from the various forms of bias and influence that can distort information about health care.

Healthcare professionals and patients have every reason to insist upon reliable health information, because believing in rumours can have serious consequences.

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