

## Living evidence synthesis: Plain language summary

### What question did we want to answer?

- 1) What is the impact of strategies to reduce or address misinformation in diverse settings, and across diverse populations?
- 2) Which behaviour change strategies (based on behavioural science), and which challenges or supports, are being tested in studies that aim to reduce health misinformation?

### What are the key results?

- Educational strategies to develop media/information literacy (ability to recognize the need for information and to locate, evaluate the information found), and fact-checking (monitoring and exposing misinformation) can reduce misinformation across different settings
  - These can help change the beliefs of people exposed to misinformation and encourage action to protect against misinformation in the future
- Technical and algorithmic strategies (for example, the use of machine learning and other artificial-intelligence methods to quickly spot false or misleading information so that people can respond to it faster), credibility labelling (to indicate good evidence sources), and counter-misinformation campaigns are also helpful in reducing misinformation
  - These can help people identify misinformation and be critical about the information they are exposed to
- Behaviour change techniques (for example, providing incentives or comparing behaviours to others) based in behavioural science are effective in influencing intentions, attitudes, and recognizing true information
  - Techniques involving a comparison of outcomes were especially effective, such as involving a credible source, and providing pros and cons for taking action
  - Knowledge and skills, social influences, intentions to do the behaviour, beliefs about the consequences, and emotions were all frequently targeted pros and cons across studies for taking action
- Other strategies currently have little or no evidence for reducing misinformation, including:
  - Narrative (e.g., condemnations of misinformation and recommendations to address it), economic and legislative (e.g., bills and laws for approaches such as advertising bans and stopping people from making money from certain content, and other policy strategies)
  - More research is needed to make conclusions about these strategies
- The living evidence synthesis shows these results visually across [pages 9 and 10](#)

### Impact of strategies to mitigate health-related misinformation in diverse settings and populations

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[MHF product code: LES 22.2]

Note Protocol registered with PROSPERO ([CRD42023421149](#)) and [published in BMJ Open](#)

### Key Terms

[insert key terms that would be necessary for someone unfamiliar with the topic to understand]

e.g.

**Misinformation:** Information that is false, inaccurate, or misleading according to the best available evidence at the time

### Why was this done?

- Our digital and social media era creates both good and bad opportunities
  - It helps communicate and spread helpful information in personal networks of citizens, government decision-makers, leaders of systems, organizations and professional groups and in research communities
  - However, it also increases the risk of misinformation being introduced in these networks

- Misinformation can delay or prevent effective care, affect mental health, disrupt health resources, and/or create or worsen public health crises
- Misinformation can affect some people and groups more than others:
  - people with lower digital, numerical and health literacy and/or cognitive skills are more vulnerable to misinformation
  - groups most vulnerable to health-related misinformation include younger people, those with lower levels of education, racial minorities, social media users, and women, trans, and nonbinary people

### How up to date is this?

This is the second version of this living evidence synthesis, which was improved by:

- 1) checking for possible bias or unfair influence (known as risk of bias) in the included studies
- 2) conducting a behavioural science analysis.

The authors last searched for the included evidence on 3 May 2023. Most studies were published between 2020 and May 2023. Only four studies were published before 2020. We are currently conducting a new LES focused on assessing strategies to address misinformation related to political institutions that will complement the findings from this LES. The next version of this LES will:

- 1) update searches to identify new studies to include in the analysis and findings
- 2) using a tool (GRADE) that will provide an assessment of the strength of the evidence to further support the interpretation of findings.

### How did we do the research?

[A database search was done which identified 2,086 articles. After review for studies relevant to the question and the 10 broad types of strategies that can be used to address misinformation ([see the main report for more details on these](#)), 59 studies were included. The studies were not limited to any region and included a variety of approaches, but mostly experimental designs such as randomized controlled trials. Of these 59 studies within the main review, 37 were identified that included behavioural science-related content.

Studies were summarized and grouped to the ten responses/strategies to counter misinformation. Behavioural science analysis was conducted by identifying the behaviour change techniques used, the barriers or enablers intended for change, and the specific behavioural science theories used in the studies.

### In thinking about the evidence, what else needs to be considered?

Risk of bias was high in a majority of both experimental and observational studies. All six qualitative studies had a moderate risk of bias. This indicates that more rigor is required across experimental and observational studies.

**This summary is based on a larger report that can be found at:**

<https://www.mcmasterforum.org/about-us/products/project/examining-types-of-misinformation-and-disinformation-practices-and-the-effectiveness-of-interventions-to-combat-misinformation-and-disinformation>

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