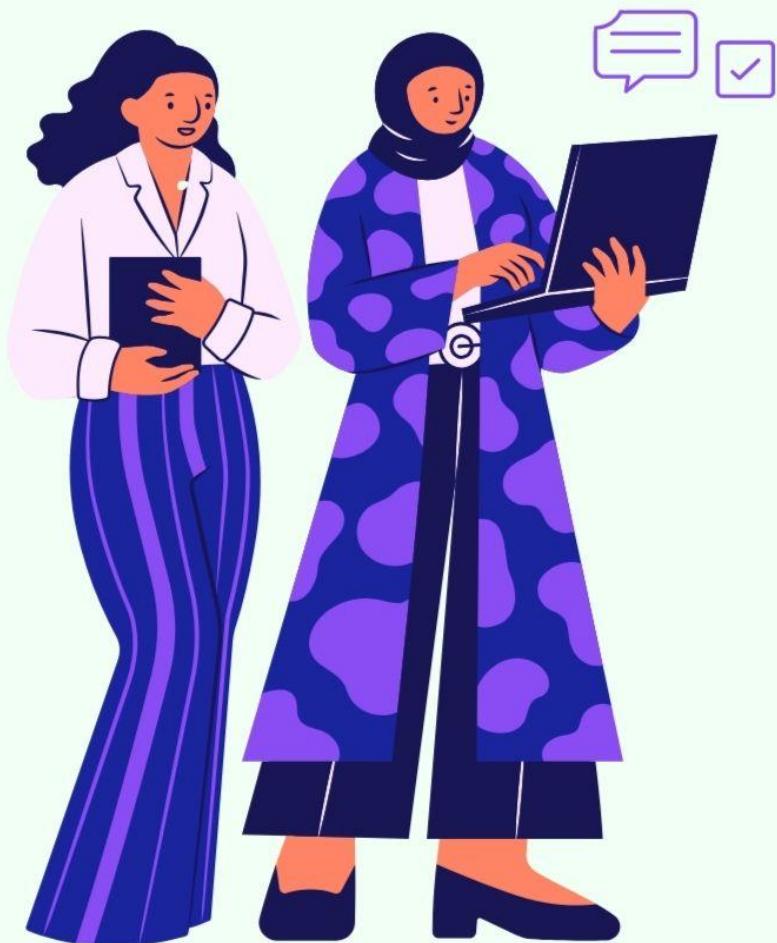




Communicating Research Clearly: Guidelines for Writing Lay Research Summaries



Environmental
Child Health
Research Group

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Communicating Research Clearly: Guidelines for Writing Lay Research Summaries

We have spoken to many parents and young people about environmental health research whilst developing the Kids' Environment and Health Cohort. We frequently heard people express the importance of simple, yet clear research summaries that empower parents and young people to make positive changes to support their and their children's health. We therefore held an event with a group of parents to develop guidelines for researchers on writing lay summaries of their research. We describe how we co-developed the guidelines with parents in section 4.

1. Lay summary

Parents suggested the following tips for writing a lay summary:

1.1 Formatting and style

1. Write a lay summary (250-350 words) in a way that accurately summarises your work but does not simply duplicate the paper abstract (if you are summarising results from a study).
2. Use plain, inclusive, everyday language. You can find resources on how to write in plain, inclusive language [here](#), [here](#) and [here](#). Use short sentences that are easy for the general public to understand. Avoid jargon, technical terms and acronyms or abbreviations. If there are no substitutes and these must be used, then they should be clearly explained.
3. Avoid the passive voice and use an active voice as much as possible.
4. Present information in a clear order and structure, using subheadings (e.g., *Background, Methods, Findings*) to explain what is known so far, what the research team has done, what they have discovered, and what they will do next.

1.2 Content

1. Include a lay summary title (in line with the text), using plain, inclusive language that is easy to understand.
2. Identify clearly the aims of the study; include in the introduction what we might know already, and, importantly, why the research was undertaken.
3. State any key limitations/uncertainties to avoid over-claiming.
4. Specify who/where/when: study population, location, and time frame.

5. State the benefits to patients and families.
6. Include how members of the public (including patients and their parents or carers) were involved in the research.
7. Explain how the results will be shared with the public.
8. State the funding source for the study.
9. Include a link to the original paper (if already published).
10. If possible, produce the lay summary with members of the public or ask them to review a draft of it.

2. Other suggestions for communicating research effectively

We also discussed other tools for communicating the research effectively, which you could consider.

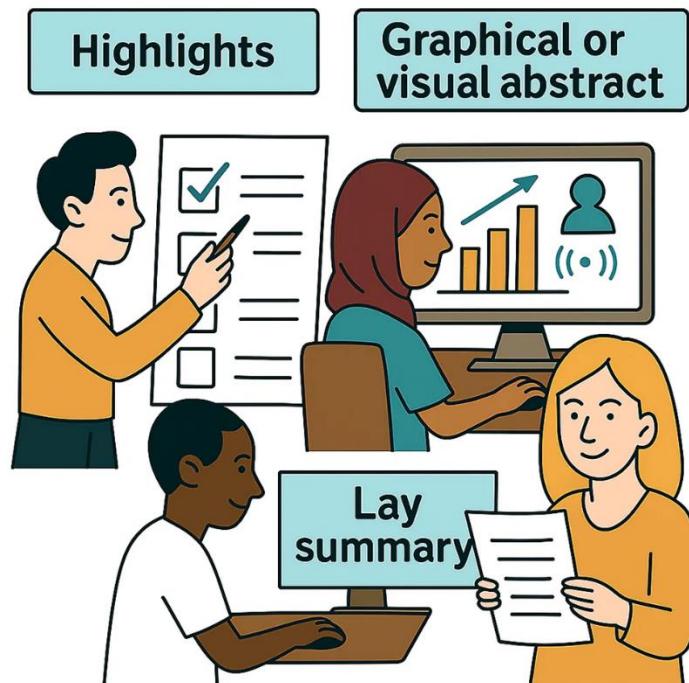


Figure 1. Key components for communicating scientific research to a lay audience. Image generated by Sora, an AI video model developed by OpenAI (2025).

2.1 Highlights

Research highlights are 3 to 5 bullet points that help you communicate the most important takeaways from your study. Summarise the new methods used in your study, your key findings, or what your study adds to what is already known about the topic.

Tips for writing highlights:

- Use 3-5 bullet points, 100 characters max each, including spaces.

- Write in plain, inclusive language, avoid technical terms, jargon and passive voice.
- Write each one as a standalone point, so that the reader does not need to refer to the full article for an explanation.

2.2 Graphical abstract

A graphical abstract is a visual summary of the main findings of your research. Its purpose is to simplify complex scientific concepts and make them more accessible to a general audience.

Below are some tips for creating a graphical abstract adapted from [Jambor and Bornhauser, PLOS Computational Biology, 2024](#)

1. Focus on one idea or one main message from the research, rather than communicating every detail.
2. Use simple visuals, such as icons or diagrams or arrows that are easy to recognize and can help you connect elements in your graphical abstract to tell a story.
3. Use a clear layout (with considerations for a clear reading direction) and a limited colour scheme to increase readability.
4. Ensure visuals are designed for accessibility (e.g., use high resolution images and sufficient contrast in the colours, avoid red-green combinations).
5. Use clear labels to identify key elements in the graphic.
6. Keep the text brief.
7. If using data or charts as visuals, use chart types with few categories or points to communicate high level information. Ensure that they are properly labelled and easy for the general public to understand.

3. Additional resources

On writing lay research summaries:

- National Institute for Health and Care Research. Plain English summaries. [Internet]. London: NIHR; [cited 2025 Jun 2]. Available from: <https://www.nihr.ac.uk/plain-english-summaries>
- Zarshenas S, Mosel J, Chui A, Seaton S, Singh H, Moroz S, Khan T, Logan S, Colquhoun H. Recommended characteristics and processes for writing lay summaries of healthcare evidence: a co-created scoping review and consultation exercise. *Res Involv Engagem*. 2023 Dec 20;9(1):121. doi: 10.1186/s40900-023-00531-5. PMID: 38124104; PMCID: PMC10734197.

On using plain, accessible and inclusive language:

- National Institute for Health and Care Research. A guide to creating inclusive content and language. A guide to creating inclusive content and language; 2021 Sep; [cited 2025 Jun 18]. Available from: <https://www.learningforinvolvement.org.uk/wp-content/uploads/2021/09/A-guide-to-creating-inclusive-content-and-language.pdf>
- Office for National Statistics. Writing and editing: Plain language – Content style guide [Internet]. Newport (UK): Office for National Statistics; [cited 2025 Jun 18]. Available from: <https://service-manual.ons.gov.uk/content/writing-for-users/plain-language>
- Sensory Trust. Designing with plain language [Internet]. Cornwall (UK): Sensory Trust; [cited 2025 Jun 18]. Available from: <https://www.sensorytrust.org.uk/resources/guidance/designing-with-plain-language>

4. How we developed the guidelines

Step 1: Workshop preparation

- Researchers worked with an experienced facilitator to organize a workshop with interested parents/carers from existing networks, including those who have previously advised on other related research studies.
- Researchers identified a number of examples of lay research summaries from funder websites and academic journals.
- Parents/carers were asked to prepare feedback on the characteristics of each (e.g., readability, structure, language).
- Parents/carers were also asked to identify key features they valued in effective research communication, particularly for enhancing accessibility and engagement

Step 2: Researcher-Parent Workshop

- The 2-hour workshop was held online on the 5th of March 2025. Five parents/carers attended along with three researchers and the facilitator.

Step 3: Researchers draft guidelines

- The researchers drafted an initial version of the guidelines, drawing on existing resources and best practices.

Step 4: Parent feedback

- Researchers asked parents for feedback to ensure the guidelines reflected their perspective and priorities.

Step 5: Finalise guidelines

- Researchers revised and finalized feedback based on the parents' input.

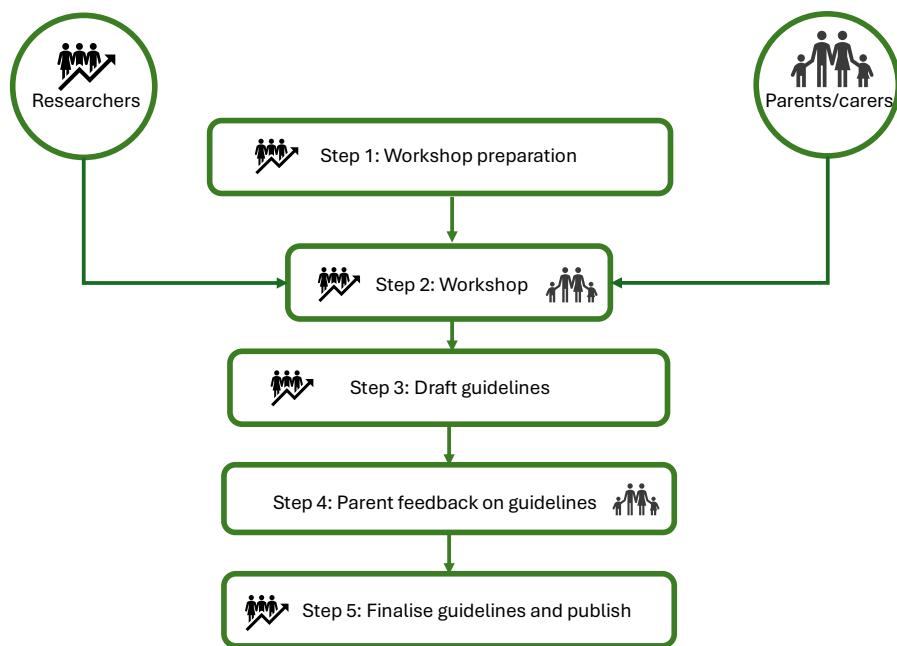


Figure 2. Collaborative process for co-creating guidelines for writing lay research summaries with parents/carers

Document info

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