

Tips for Writing Plain Language Summaries

Q. What is a lay summary? How do you write one?

A. A lay summary is a clear, plain-language explanation of a research project, its goals, and its desired outcomes. It explains in non-technical terms why the research is important. A lay summary can be understood by the general public as well as researchers in other fields of study. Think of explaining your work so that a high school student or your grandparents can understand it. It is about clarity NOT absolute accuracy.

A complete lay summary will address six items:

1. statement of health problem or issue
2. objective of your project
3. How will you undertake your work?
4. What is unique/innovative about your project?
5. How is the proposed research directly relevant to cancer?
6. What is the impact of the proposed research to cancer treatment, prevention or recovery (e.g. to the health and quality of life of people with cancer)?

Q. What is plain language?

A. Plain language is clear, concise language that the reader can understand quickly and completely. It avoids jargon, abbreviations, verbosity, and convoluted sentence constructions. A plain-language description does not take on a patronizing tone or leave out information: it simply presents information clearly to a non-scientific person.

Use this scenario as a guide:

- BHCRI invites you to a reception to “meet and greet” members of your community who support cancer research through gifts of time and money. You approach a trio of supporters. One is a mechanic who works on airplane engines; another is a history professor with a passion for the Punic Wars; the third is a personable stay-at-home mom. Regardless of their level of formal education, each of these people – like you – has a specialty. That specialty is simply not medicine/science. Explain your proposed research to these specialists in appropriate, non-technical language.

Q. How do you write a lay summary in plain language?

A. Here are some recommendations for writing at an appropriate lay level (note that you can view examples of each recommendation by clicking ‘example’):

- Simplify vocabulary by using simpler, shorter words.

Instead of	Use
mortality	death
morbidity	disease
analgesic	painkiller

illustrate	show
take a decision on	decide
in the forthcoming years	in the years to come, in the future
be investigated pre- and post-intervention	be investigated before and after intervention
to retain gains in motor skill learning	to retain the skills they learned
efficacious intervention to improve	an effective way to improve
the variability in the response to this type of exercise	how much the patient retains
This can have a negative impact on the accomplishment of daily tasks, such as driving or using a computer mouse.	This can make daily tasks such as driving or using a computer mouse difficult or impossible.

- Get rid of extraneous words. For example: “Cancer is characterized by rapid, uncontrolled cellular replication...” could read “A normal feature of cancer is cells don’t stop multiplying...”
- Use shorter sentences. Readers get lost in run-on sentences.
- Avoid convoluted phrasing using a noun plus “of”. Use a gerund or an infinitive instead.
- “the consolidation of this information” → “consolidating this information”
- “the acquisition of this information” → “acquiring this information”
- “... cisplatin as a therapeutic intervention of high-grade serous adenocarcinoma.” → “...cisplatin to treat high grade serous ovarian cancer...”
- Write out in full an abbreviated term or acronym the first time it appears in the text.
- Explain complicated concepts or specialised procedures in broad terms.
- Use analogies to compare a scientific concept to an ordinary-life situation.
- Write out in words math, science or similar symbols.
- Numbers less than 10 should be written in words: 1-year intervention → one-year intervention.
- Be careful of terminology that has a different meaning (or no meaning) outside the medical domain.
- Treat aggressively: “For some patients, this might mean we can treat them less aggressively.” So, you will beat them up less? It is the disease that you treat aggressively, not the patient!
- Randomized: “Eligible patients with prostate cancer will be randomized.” Studies may be randomized, but not patients. “Eligible patients with prostate cancer will be chosen randomly.”
- Living with cancer: The lay person reads in obituaries that cancer kills people; therefore, no one can “live” with cancer. Qualify the term to clarify it: remission, for instance.
- Acute: “acute response”. The lay reader is likely to understand “acute” as painful, not the opposite of “chronic or delayed”.
- Control: “Healthy controls” should be “healthy control subjects”
- Use the active voice where possible.
- To test or gauge the readability of your lay summary, ask a handy lay person – a parent, a neighbor, an assistant in another department – to read the text prior to submission.

Q. What tool is available to help determine readability?

A. Microsoft Word© uses the Flesch-Kincaid grade formula and Flesch Reading ease formula to assess writing level. The Flesch-Kincaid grad formula calculates an overall reading grade level while the Flesch reading ease formula calculates a reading ease score from 0-100, with 100 being easier to read. Both formulae use average sentence length and average syllables per word. Note that Microsoft Word© readability statistics will not display a grade level greater than Grade 12 (American). The Flesch-Kincaid grad formula may be used as a guide but is not used in determining acceptable lay summaries.

Following these instructions for displaying readability statistics from Microsoft Word©:

- Click on “File” (upper left corner of screen)
- Select “Options”
- Select “Proofing”
- Check off “spelling with grammar”, as well as “readability statistics” options
- Click the “OK” button

*BHCRI relied heavily on the Heart and Stroke Foundation of Canada’s guide for writing lay summaries to compile the above information.

The Heart and Stroke Foundation of Canada has excellent advice for writing lay summaries. The Heart and Stroke Foundation of Canada 2019/20 Frequently Asked Questions:
http://www.hsf.ca/research/sites/default/files/E-FAQ%202019-2020_FINAL.pdf

For more tips, visit:

<http://www.btb.termiumplus.gc.ca/tcdnstyl-chap?lang=eng&lettr=chapsect13&info0=13>
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