Writing a lay summary

Tara Packham
Lay summaries are a key skill used in:

- Grant applications
- Ethics submissions
- Executive summary
- Stakeholder engagement
- Journal websites
- Patient support websites and newsletters
Lay summaries share core qualities

Plain language (not necessarily shorter)
Key details only – not aiming for same rigor as an abstract**
Not necessarily sharing work in a chronological order or under the traditional headings
Plain language

"The writing and setting out of essential information in a way that gives a cooperative, motivated person a good chance of understanding it at first reading, and in the same sense that the writer meant it to be understood."

Plain language

“Write clearly using simple terms to make it easy for everyone to read and understand quickly. Tell the story of your research.”

Tara Packham, 2022
Plain language is NOT dumbing it down
"I can't do the things I want and need to do" Piglet said. "Then I'll teach you." Pooh replied, "And if I can't then I'll change the world around you to make it easier."

#OTWeek2020
#ChooseOT
@keirwales
@KeirHardingOT
Lay summaries tell an active story

**Passive voice:** It is estimated that by 2030 long-term conditions will account for three-quarters of deaths globally with a huge social and economic impacts.

**Active voice:** Health researchers think chronic health conditions will account for three out of every four deaths globally by the year 2030. Our families, cities and governments will pay for these problems.

**Negative phrasing:** However, this scale seems to evaluate quality of life outcomes and does not tackle items related to acceptance which is an essential attribute when living with a long-term condition.

**Positive phrasing:** This scale just focuses on evaluating quality of life. Acceptance is another idea that might be important to measure with people living with chronic health problems.
Grant lay summaries focus on key details

What is the nature of this problem?

Why is it important?

What should we do to address it?

How will this change things?

...not necessarily in this order...
BLAM!

Bottom Line Actionable Message
Who is your lay audience?

What is the stated purpose of the lay abstract?
   For lay committee members?
   For sharing with stakeholders?

Who serves on the review committee as lay members?
   Clinicians?
   Persons with lived experience?
Simple Measure of Gobbledygook (SMOG)

SMOG Grading

1. Count 10 consecutive sentences near the beginning of the text to be assessed, 10 in the middle and 10 near the end. Count as a sentence any string of words ending with a period, question mark or exclamation point.

2. In the 30 selected sentences count every word of three or more syllables. Any string of letters or numerals beginning and ending with a space or punctuation mark should be counted if you can distinguish at least three syllables when you read it aloud in context. If a polysyllabic word is repeated, count each repetition.

3. Estimate the square root of the number of polysyllabic words counted. This is done by taking the square root of the nearest perfect square. For example, if the count is 95, the nearest perfect square is 100, which yields a square root of 10. If the count lies roughly between two perfect squares, choose the lower number. For instance, if the count is 110, take the square root of 100 rather than that of 121.

4. Add 3 to the approximate square root. This gives the SMOG Grade, which is the reading grade that a person must have reached if he is to understand fully the text assessed.

McLaughlan, 1969
Background: Residual size discrepancy between the affected and unaffected limbs is a distinct but not well-understood consequence of an obstetrical brachial plexus injury. This study aimed to document the extent of limb length differences in children with obstetrical brachial plexus injury compared with typically developing children. The effects of age, growth patterns, severity, and surgical intervention were also explored. Also, this study examined the reliability of the clinical measurement technique.
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Plain language

Why we did this study: (Bain et al, 2012)

Injuries during birth can cause nerve damage, but it is hard to know whether the baby will make a good recovery without surgery. When a baby has nerve damage, the arm with the injury doesn’t grow as fast. We did a study using a simple measuring tape to compare the length and size of the arms in healthy children as well as babies and children with a birth nerve injury.
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Can a simple measuring tape tell doctors whether a baby needs surgery?

Why we did this study:

Injuries during birth can cause nerve damage, but it is hard to know whether the baby will make a good recovery without surgery. When a baby has nerve damage, the arm with the injury doesn’t grow as fast. We did a study using a simple measuring tape to compare the length and size of the arms in healthy children as well as babies and children with a birth nerve injury.

What we did:

We took measurements to see if the arms of healthy children were always the same size and length. We also measured arm size and length in 179 children with nerve injuries at birth, starting when they were one month old. We kept measuring those children to see how the differences in growth changed over time. We also looked at whether children with worse injuries had slower growth, and if surgery to repair the nerve damage helped to speed up the arm growth again. Sometimes, both the doctor and the therapist did the same measurements and compared them to see if they found the same thing.

What we found:

Even using a simple measuring tape, everyone would get very similar numbers. This means the measurements were consistent and gave us confidence in what we found. Differences in arm length were seen as early as the first measurement at one month of age. The differences at 3 months were a strong indicator of ongoing differences at one year. If there were differences at one and two months, the babies were likely to have surgery. We didn’t find any differences in the length and size of the arms of healthy children. This helps us be certain the differences in babies with birth nerve injuries were due to nerve damage.

What we should do now:

Doctors and therapists can use simple measures of length and size in combination with other information to decide whether babies need surgery after a birth nerve injury.
Importance: Hormone therapy (HT) has been suggested for protection against age-related muscle weakness in women. However, the potential for HT-associated health risks necessitates a better understanding of the direction and magnitude of the association between HT and health outcomes, such as lean body mass (LBM).

Objective: To determine whether HT was associated with reduced LBM loss compared with not receiving HT among postmenopausal women aged 50 years and older.

Data Sources: MEDLINE, Embase, AgeLine, CINAHL, and SportDiscus (searched from inception until April 25, 2018).

Study Selection: For this systematic review and meta-analysis, randomized clinical trials including postmenopausal women undergoing HT and control groups of women not receiving HT were selected by 2 reviewers. Studies were included if LBM or fat-free mass were measured as an outcome. Studies with participants from hospitals, long-term care facilities, or with specific diseases were excluded.

Data Extraction and Synthesis: Information regarding study characteristics and outcome measures were extracted by 1 reviewer and verified by another. Risk of bias was evaluated. Quality of evidence was assessed using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach. Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines were used to abstract data and assess data quality/validity. Data were pooled using a fixed-effects model.

Main Outcomes and Measures: The primary study outcome was the overall absolute change in LBM (measured in kilograms), captured by dual-energy x-ray absorptiometry, dual-photon absorptiometry, or bioelectrical impedance analysis imaging.

Results: Of 8961 studies that met selection criteria, 12 were included, with a total of 4474 recruited participants. Of the participants, mean (SD) age was 59.0 (6.1) years. Data on ethnicity were collected by 2 of the studies. Of the 22 HT intervention arms, 15 used estrogen-progesterone combination HT and 7 used estrogen-only HT. Control participants were women who received no HT at all or who received placebo. The median follow-up duration was 2 years (range, 6 months to 6 years). Seven treatment arms showed a loss of LBM, and 14 were protective. Overall, HT users lost 0.06 kg (95% CI, –0.05 to 0.18) less LBM compared with control participants, but the difference was not statistically significant ($P = .26$). The results were unchanged when stratified based on treatment type and dosage, duration of follow-up, time since menopause, study quality, and type of LBM measurement, with HT users losing between 0.06 kg more to 0.20 kg less LBM compared with control participants for all strata. The quality of evidence based on GRADE was low.

Conclusions and Relevance: This systematic review and meta-analysis did not show a significant beneficial or detrimental association of HT with muscle mass. Although muscle retention in aging women is of crucial importance, these findings suggest that interventions other than HT should be explored.

https://docs.google.com/document/d/1GsF5m5u13KS47IvTNpqsJMBt2OqhMEPUYtvWkzt5w/edit?usp=sharing
Importance: Hormone therapy (HT) has been suggested for protection against age-related muscle weakness in women. However, the potential HT-associated health risks necessitates a better understanding of the direction and magnitude of the association between HT and health outcomes such as lean body mass (LBM).

Objective: To determine whether HT was associated with reduced LBM compared with not receiving HT among postmenopausal women aged 5 years and older.

Data Sources: MEDLINE, Embase, Age Line, CINAHL, and Sport Discus (searched from inception until April 25, 2018).

Study Selection: For this systematic review and meta-analysis, randomized clinical trials including postmenopausal women undergoing similar control groups of women not receiving HT were selected by 2 reviewers. Studies were included if LBM or fat-free mass were measured as an outcome. Studies with participants from hospitals, long-term care facilities, or with specific diseases were excluded.

Data Extraction and Synthesis: Information regarding study
Key Points

Question: In postmenopausal women 50 years or older, is estrogen-based hormone therapy associated with reduced loss of lean body mass compared with no hormone therapy?

Findings: In this systematic review and meta-analysis of 12 studies comprising 4474 postmenopausal women, those who received estrogen-based hormone therapy lost less lean body mass compared with women who received no hormone therapy and women who received placebo, but this finding was not statistically significant.

Meaning: The importance of muscle retention in aging women is crucial, but these findings suggest that interventions other than hormone therapy should be explored.
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Sixty percent of Canadian adults lack the literacy skills or language proficiency needed to manage their own health. Increased technology use in health care settings increase barriers to communication, also demanding digital health literacy. There is a need to provide accessible educational materials facilitating self-management and support behaviour change in chronic conditions such as osteoarthritis. Our national team combines rehabilitation, knowledge translation (KT), cross-cultural and accessibility expertise to meet this challenge. We propose to co-develop a toolkit for clinicians to use in adjunct to tele-rehabilitation, to support behavior change and self-management skills for people with knee OA (KOA) who have barriers to engagement in rehabilitation, including low health literacy and/or low English language proficiency.

**Specific objectives are to:**

1. Identify important topics needing accessible resources to support self-management in persons with KOA
2. Codesign and develop priority accessible teaching modules for clinicians to use in tele-rehabilitation and virtual care
3. Share the teaching modules to clinicians working with people with health and/or English literacy challenges
4. Outline core principles for the development of accessible resources for use in future module development

To do this work, we will conduct an environmental scan to identify existing content for adaptation, while considering clinician and patient needs and priorities. Based on these results, at least 2 priority modules of accessible and inclusive content will be developed through adaptations with KT and digital accessibility experts, then usability tested. We will share these materials in partnership with stakeholders, professional associations, patient partners, and clinical networks.
To take care of your health, you need to be able to read and understand words and numbers. In online care with your therapist, this might be more difficult, especially if English wasn’t the first language you learned. Six out of ten Canadians find it hard to read and learn enough to take care of ongoing health problems like arthritis. We are a group of therapists and patients from across Canada who want to design a toolkit to help share ideas simply and clearly during telehealth for people with knee arthritis.

We will:

1. Identify important topics for people with knee arthritis that will help them manage their health
2. Work together to design simple and clear ways of teaching on these topics in virtual care and face-to-face too
3. Share these teaching tools with therapists and others working with people who may have trouble understanding sometimes
4. Make a checklist to help other therapists and care providers make more teaching tools

To do this, we will pick information that is important for patients and therapists, where the key ideas have already been written about knee arthritis. We will pick at least 2 topics and create simple and clear materials on those topics including those key ideas, and we will make sure it is easy to read for everyone, even if they use technology to help them read. We will freely share the teaching tools and our checklist with other therapists and patient groups.
Write clear lay summaries for grant success

Know your audience

Craft your message

Revise, share, revise
Resources


Plain Language Summary Tool [https://ktddr.org/resources/plst](https://ktddr.org/resources/plst)


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