

Your research can do so much more!

Writing for non-academic audiences to achieve
progress towards the SDGs

May 17, 2023

HESI SDG Publishers Compact Fellows
Open Climate Campaign
Open Pharma

Outline

- Welcome and overview - **Gerald Beasley, Independent Consultant and former Carl A. Kroch University Librarian, Cornell University**
- Why should we write for non-academic audiences? **Shane Rydquist, Cactus and Monica Granados, Open Climate Campaign**
- How can we write for non-academic audiences? **Sally Wilson, Emerald; Tim Koder and Joana Osório, Open Pharma**
- Guided participant activity - write your own bullets or summary - **Jo Wixon, Wiley and Rebecca Kirk, PLoS**
- Resources: including Top Tips from the SDG Publishers Compact Fellows - **Vicky Gardner, Taylor & Francis**
- Q&A and networking

Format of the event

- Interactive and participatory - please share your ideas, inputs, and experience. We are keen to learn from you!
- We agree to treat each other with respect and courtesy
- The event will be recorded and shared with registrants and others

Learning outcomes from this workshop

- Understand the benefits of writing for non-academic audiences
- Hear how our view of impact is widening
- Learn how to identify your audience and frame your research
- Access tips and resources to write for non-academics and share your key points

DORA is 10!

DORA10

#DORAat10: DORA's 10th Anniversary Celebration!

- May 15-19: Decentralized program of local events
- May 16: Two Plenary Sessions *DORA at 10: A look at our history and the bright future of responsible research assessment*
- Registration and local event schedule can be found at <https://sfdora.org/dora-10th-anniversary-events/>

Helping your work do more and drive progress towards the SDGs



Introducing the convenors

HESI SDG Publishers Compact Fellows, Open Climate Campaign, Open Pharma

HESI SDG Publishers Compact Fellows

Working collaboratively to support progress towards the SDGs

- Publishers
- Academic Societies
- Faculty
- PhD Students
- Librarians
- Sustainability Experts



Open Climate Campaign



IF WE ARE GOING TO SOLVE
THE WORLD'S BIGGEST
PROBLEMS, **THEN THE
KNOWLEDGE ABOUT
THEM MUST BE OPEN**

Open Pharma

Driving positive change in the communication of pharma-sponsored research

- A collaborative, multi-sponsor, non-profit-seeking project at Oxford PharmaGenesis
- 16 Member and Supporter organizations across pharma and publishing

Transparency

(includes open access, trial transparency and data sharing)

Accountability

(includes authorship tools and DOIs for data, organizations and funders)

Accessibility

(includes preprints, PLS and publication enhancements)

Discoverability

(includes metadata, information standardization and green open access)

Who can your work benefit?

- General public
- Decision makers in government
- Industry and practitioners (inc healthcare professionals and clinicians)
- Non Governmental Organisations (NGOs), advocacy bodies
- Study participants
- Patients, caregivers, family members patient advocates
- Another group - please note in chat

Why write for non-academics?

Shane Rydquist, Cactus

Monica Granados, Open Climate Campaign

Widens your impact

- **Public engagement in science:**
Inspire and engage new audiences
- **Influence policy makers:**
research that drives national and international policy.
- **Media attention:**
interest from a community beyond active scientists.
- **Clinical/translational research:**
Demonstrate a treatment can be used on humans.
- **Commercial success:**
proving viability of new technologies, spin-off companies, working with industry
- **Discoveries with local impact:**
for example, air pollution, food and water security.
- And many more.....



Academic
impact



Cultural or
societal



Policy



Economic
impact



Environmental



Health

Paves the way for discoverability

Academic Search Engine Optimization (ASEO)

The creation, publication, and modification of scholarly literature in a way that makes it easier for academic search engines to both crawl it and index it.

How search engines index a manuscript

1. Articles are **ranked by relevance** to the terms being searched - In other words, the more search terms for a given topic appear organically in an article, the better its chances of ranking.
2. A **search term used in the title** is weighted more heavily than a search term that appears in the abstract.
3. Unfortunately, search **engines prefer shorter titles** preferred over longer ones.
4. The **specific citations** the author uses in the paper play a large role in an article's ranking. Citing articles that have high rank will give your article a higher rank.
5. Keep in mind that **author and publication names** in citations matter.
6. Google Scholar favors **"big names"** in its searching system. "Big names" are people and publications that possess extensive expertise in a certain area.
7. Google Scholar is an **"invitation-based search engine"** since it only indexes articles coming from trusted sources.
8. Even if Google Scholar has received the pdf file of an article, it will still search the web for the **different versions of the same file** and then bundle them together in terms of indexing and ranking.

But, not always practical

Title optimization for scholarly publications

DOs

- 01 Use meaningful titles**
Make sure to include the most important terms and conclusion of your research.
- 02 Important terms up front**
Position the most important words in the beginning of your main title.
- 03 Think in search terms**
Would you search for the terms you used in the title to find your article?
- 04 Make it succinct**
Short titles are easier to identify and more likely to be cited. Ponder the display on mobile devices.


DON'Ts

- 01 Avoid creative main titles**
Use the subtitle for catchy phrases, funny remarks or quotes.
- 02 Avoid special characters**
Hyphens, suspended hyphens, asterisk, slashes hinder the search functionality.
- 03 Don't use abbr.**
If you use abbreviations, clarify them in the subtitle or abstract.
- 04 Don't overstate**
Follow the guidelines of good scientific practice and don't exaggerate your results.

 Schilhan, Kaier, Lackner graphic designed by pikisuperstar

Keyword optimization for scholarly publications

- 01 Use thesauri**
MeSH, Emtree or other field specific thesauri can help you choose a keyword
- 02 Narrow vs. broad terms**
Alternate between specific terms and broader terms that make it easier to identify the topic
- 03 Use the singular form**
When choosing a keyword use its singular and not declined form
- 04 Perspective of a searcher**
Would you search with this keyword yourself?
- 05 Indicative terms**
Give information about the content, not the result

 Schilhan, Kaier, Lackner graphic designed by pikisuperstar

Abstract optimization for scholarly publications

- 01 Short sentences**
Write in a clear, precise and succinct fashion.
Don't use overly flamboyant language.
- 02 Important terms up front**
Position the most important words at the beginning of your abstract.
- 03 Use synonyms**
Improve your chances of being found using different terms.
- 04 Write informative**
State your claims, methodology and results.
- 05 Repeat keywords**
Repetition is a way to increase ranking and show the focus of the article.

 Schilhan, Kaier, Lackner graphic designed by pikisuperstar

Less intimidating with a PLS

Impact of PLS: Metrics and analysis

American Academy of Neurology

We repurposed lengthy AAN articles into **250-300-word short-form articles**

Busy **journal readers** were able to stay up to date with new research content

AAN observed an **increase in readership** for their articles



The new Neurology
Readings, short articles for print, full articles online, and data availability policies

Readers will see emerging changes in Neurology as of the January 2, 2018 issue, changes that were carefully considered as the Editors reimagined the journal in the context of changes to scholarly publishing in general, and supported by extensive research to reader habits and preferences. The most visible design choice will be print and online, for which there are new designs, the result of 7 month work and testing. For print, we are publishing articles in a short format, allowing your comprehensive reading experience to decline less. For the online, essential version of the journal, we are now able to accommodate longer articles. Along with the new design and format of the reimagined journal, the Editors and Editorial Board have put in place new policies on data availability.

THE SHORT-ARTICLE FORMAT

Abstract
Readers will see emerging changes in Neurology as of the January 2, 2018 issue, changes that were carefully considered as the Editors reimagined the journal in the context of changes to scholarly publishing in general, and supported by extensive research to reader habits and preferences. The most visible design choice will be print and online, for which there are new designs, the result of 7 month work and testing. For print, we are publishing articles in a short format, allowing your comprehensive reading experience to decline less. For the online, essential version of the journal, we are now able to accommodate longer articles. Along with the new design and format of the reimagined journal, the Editors and Editorial Board have put in place new policies on data availability.

Study question
In patients with possible dementia with Lewy bodies (DLB), which core and supportive features best predict an abnormal dopamine transporter scan?

Study design
Retrospective study

Setting
Parkinson and the best predictor of an abnormal dopamine transporter scan?

What is known and what this paper adds
Distinguishing DLB from non-DLB dementia is important, since the management of response to DLB is different compared to non-DLB dementia. This study provides evidence that baseline performance on possible DLB may increase the likelihood that a DLB diagnosis will be confirmed with a scan.

Participants and setting
As part of a multi-center, randomized, open-label Phase 3 trial of the dopamine transporter SPECT agent¹ 123I-β-CIT, we recruited 115 patients with possible DLB who were enrolled in 11 centers across 6 countries, with both patient and caregiver phone interviews of the caregivers. Patients were followed up at 4 and 24 weeks post baseline.

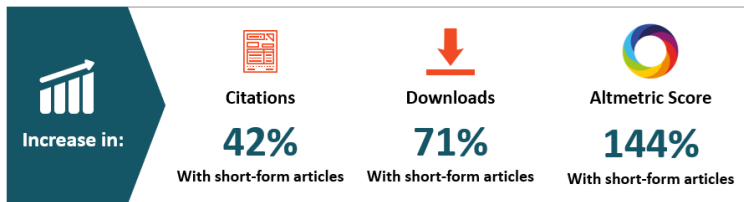
Design, size, and duration
After baseline visit, 115 patients were randomized 1:1 to either a scan or no scan, with both patient and caregiver phone interviews of the caregivers. Patients were followed up at 4 and 24 weeks post baseline.

Main results and the role of chance
Among patients receiving scans, only Parkinsonism was highly predictive of an abnormal scan, with 70% of patients with Parkinsonism having abnormal dopamine transporter scans. In contrast, abnormal scans were seen in only 25% (27% of patients with fluctuations, hallucinations, or RBD sleep behavior disorder) (p < 0.001).

Bias, confounding, and other reasons for caution
The absence of autopsy data prevented confirmation of the diagnosis.

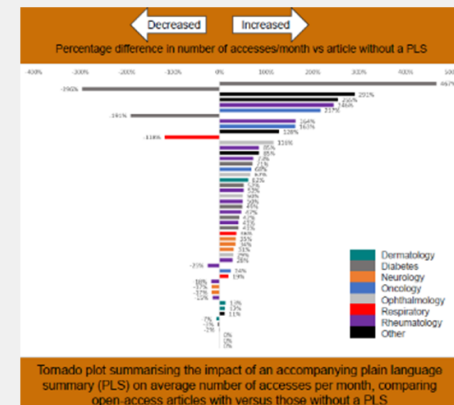
Conclusion
Online 123I-β-CIT

Copyright © 2018 The Author(s). Published by Wolters Kluwer Health | Inc. on behalf of the American Academy of Neurology.



Including a PLS in open access articles may contribute to increased readership

Overall, 62% (31/50) of articles with PLS were accessed significantly more often than those without a PLS.



Winter S. et al. Do plain language summaries encourage readers to download your publication? A pilot study. Poster presentation at ISMP Europe 2022 (25-26 Jan)

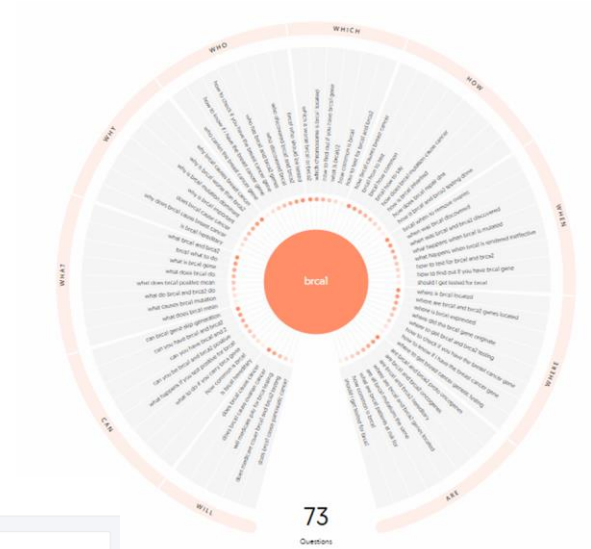
Tools that can help

Google Scholar

Stand on the shoulders of giants

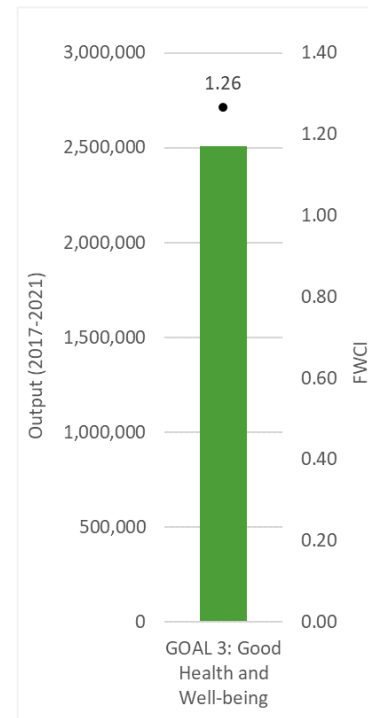
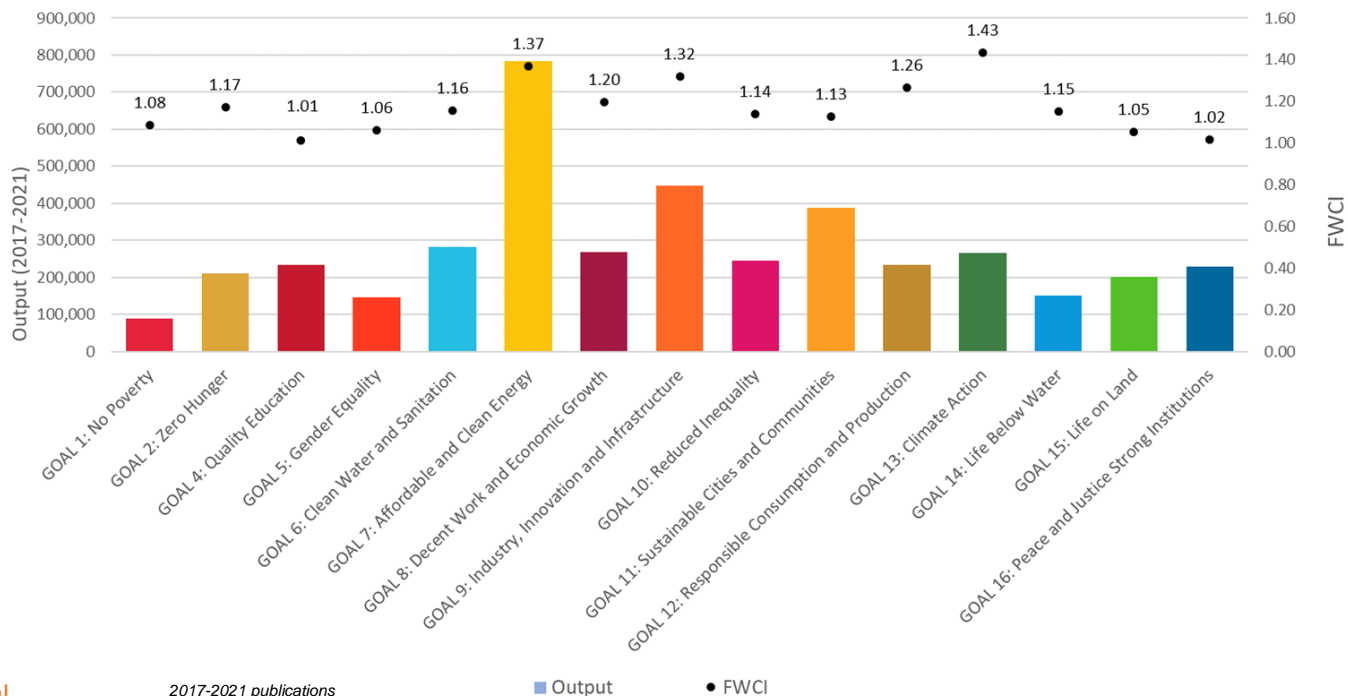
allelic variants of brca1 English United States

1 Topics from top 20 search results (SERP)	2 Sub-Topics for selected Topic
germline mutation in 11 results	<input type="checkbox"/> germline vs somatic mutations
genetic variant in 10 results	<input type="checkbox"/> germline and somatic mutations
risk of breast cancer in 9 results	<input type="checkbox"/> where do germline mutations occur
uncertain significance in 9 results	<input type="checkbox"/> what are germline mutations
pathogenic variant in 8 results	<input type="checkbox"/> germline mutations cancer
history of cancer in 7 results	<input type="checkbox"/> examples of germline mutations
contralateral breast cancer in 6 results	<input type="checkbox"/> germline mutations examples
ovarian cancer in 6 results	<input type="checkbox"/> germline mutations definition
ovarian cancer risk in 6 results	<input type="checkbox"/> germline mutations in cancer

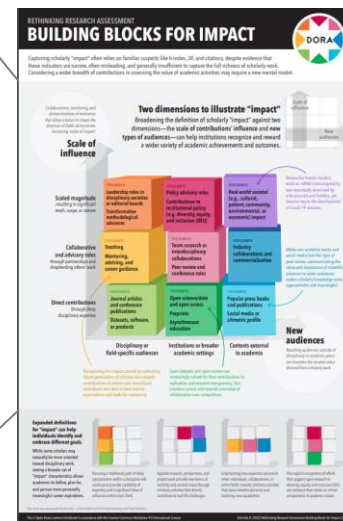
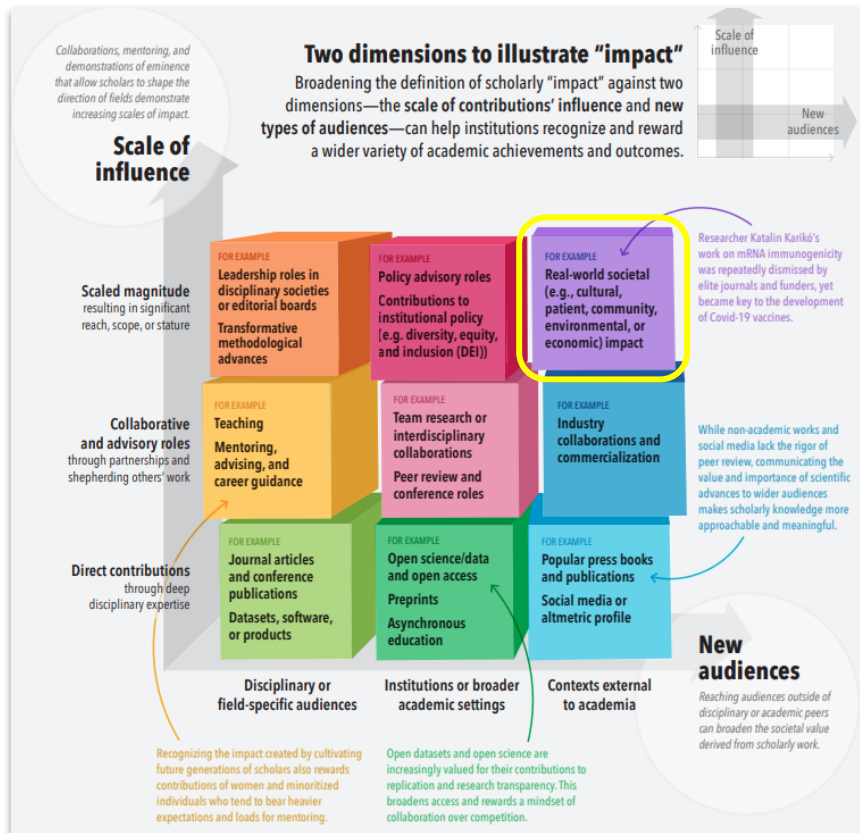


Support the Sustainable Development Goals

SDG related research makes up 30% of research output: Health is the most prolific SDG while Climate Action is the most cited



Be rewarded for wider impact



<https://sfdora.org/resource/rethinking-research-assessment-building-blocks-for-impact/>

Align with change in research assessment



- Guide for funders, institutions and researchers on research evaluation
- Reducing reliance upon shorthand criteria (e.g. Impact Factor)
- Wider, balanced assessment across a range of outputs and outcomes
- Library of good practice examples: https://sfdora.org/resource-library/?_resource_type=good-practices

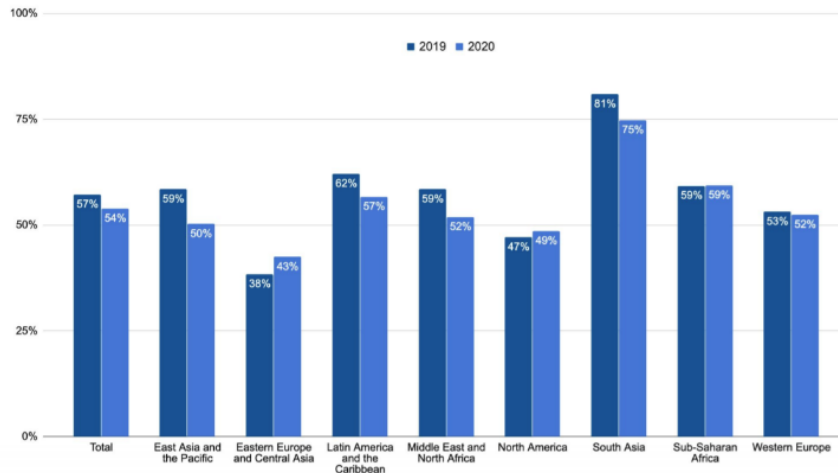


Counter misinformation: Example: Climate skeptics

QUESTION

How much do you trust what scientists say about the environment?

Percentage saying "a great deal" or "a lot"



[Which country has the most climate skeptics? | World Economic Forum \(weforum.org\)](https://www.weforum.org)

Which of the following comes closest to your views on climate change?

All adults (5064 US adults - Aug 10, 2021)

Climate change is being caused mostly by human activity

45%

Climate change is caused equally by human activity and other factors not related to human activity

27%

Climate change is being caused mostly by factors not related to human activity

12%

The climate is not changing

5%

Don't know

10%

YouGov | What the world thinks

today.yougov.com

[Which of the following comes closest to your views on climate change? | Daily Question \(yougov.com\)](https://www.yougov.com)

OCC: influence policy

IN 1974 MOLINA AND ROWLAND FIRST DESCRIBED THE EFFECTS OF CHLOROFLUOROMETHANES ON THE OZONE

Source: Molina and Rowland, 1974, Nature

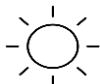


Ozone is the earth's sunscreen



(CFCs)

+



(Sun)

+

O_3

(Ozone)

=

$Cl+O_2$

This reaction is particularly effective in

Source: Farman et al., 1985, Nature

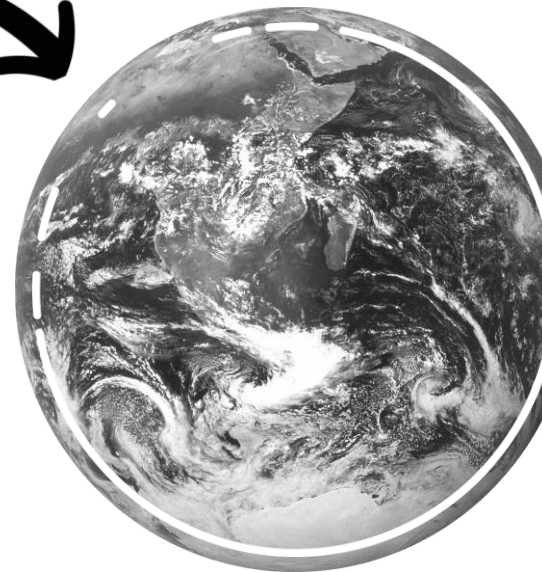


UV radiation at Earth's surface could dramatically increase

Decrease in the density of O_3



THE MONTREAL PROTOCOL IS THE LANDMARK MULTILATERAL ENVIRONMENTAL AGREEMENT THAT REGULATES THE PRODUCTION AND CONSUMPTION OF NEARLY 100 MAN-MADE CHEMICALS REFERRED TO AS OZONE DEPLETING SUBSTANCES



How to write for a non-academic audience

Sally Wilson, Emerald

Tim Koder and Joana Osório, Open Pharma

Writing for a non academic audience

WHO you are writing for, **HOW** does your research help them and **WHY** should they keep reading?

Top tips:

- **Understand your audience** - who do you want to engage with and why?
- **Use storytelling** - put your audience at the heart of your work
- **Keep it simple** - plain language (or talking about your work to a member of your family)

Understanding different audiences

Professionals and practitioners

Need to get answers to practical questions and make informed decisions while at their desks, onsite, in the field, or with patients to improve practice

Policymakers, science writers, journalists and the public

Need clear information on the decisions, steps and actions that can be taken, or pitfalls that can be avoided to make positive change



How can your work benefit them?

Putting your audience at the centre - what is their need and how does your work help them?

- Does your work relate to a policy issue they're working on?
- Does it have relevance to your local community?
- Could it positively impact them? How?
- Will it change best practice or help professionals re-assess how a job is done?
- Will it aid decision-making on the job
- Could it answer a practical question for someone working in the field?

<https://www.sdgcompactfellows.org/communicating-implications>

How to share practical implications

Sharing practical implications with professionals:

- specialist audience with some understanding of terminology
- limited time to make decisions and take action on the job
- **add practical implications bullet points to your abstracts**

Sharing policy implications and findings the public can apply:

- non-specialist audience, need plain language and clear take homes
- **add to your abstracts / article highlights:**
 - **policy/practical bullet points**
 - **plain language summaries**
- **support these with video, infographics, social media posts**

What are plain language summaries (PLS)?

A concise summary of a scientific publication that is written in jargon-free, non-technical language for a broad, non-expert audience



Written in a way that is
accessible and understandable



Reflective of the **same** scientific
**messages and conclusions as
the scientific content**



Typically
peer-reviewed



Non-promotional

- Patients agree that **health-related information should be more accessible** and easy to understand and look for information online using:¹
 - General **internet searches**, patient-specific **websites**, and **articles in scientific journals**
- PLS can **empower patients** and **facilitate conversations between patients and healthcare providers**²

PLS have a broad audience of readers



Time-poor healthcare professionals and researchers



Non-specialist professionals and researchers or those from a different specialty



Professionals and researchers whose native language may be different



Patients, support networks and organizations



The media and science communicators

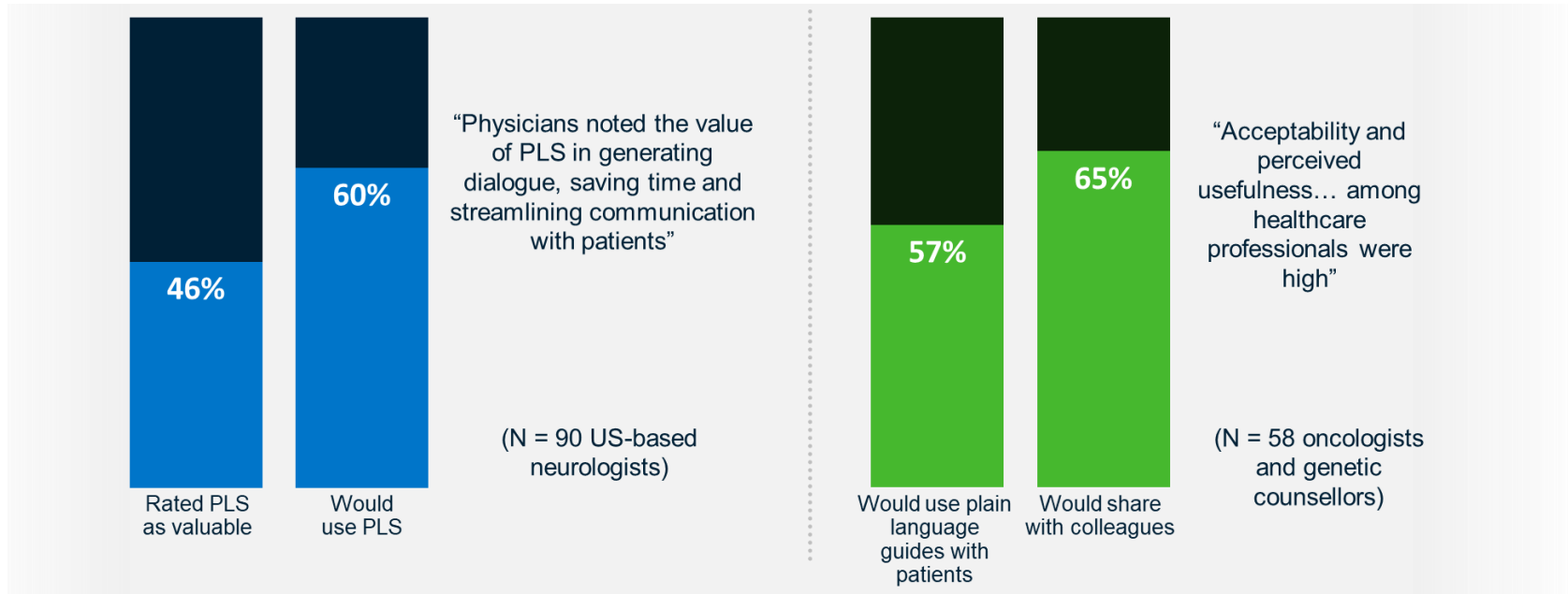


Policymakers



The public

PLS have value for healthcare professionals

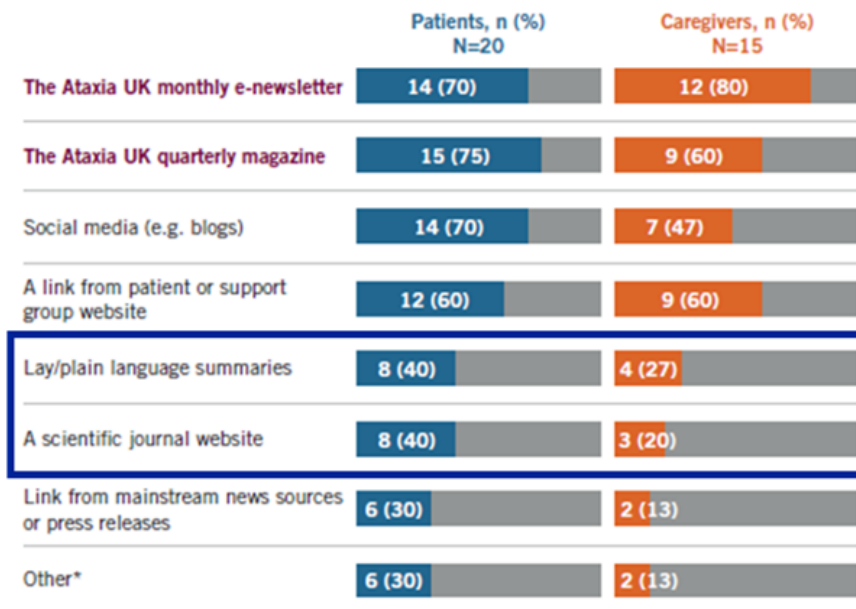


1. Lobban D et al. *Curr Med Res Opin.* 2022;38(sup1):25-45.
2. Pushparajah DS et al. *Ther Innov Regul Sci.* 2018;52(4):474-481.
3. van der Giessen JAM et al. *Support Care Cancer.* 2021;29(6);2895-2905

PLS have value to patients

Likely to be especially important to rare disease communities, where there is little information available, and where patients often need to become experts in their own disease.

Have you ever read about ataxia from any of the following sources? ¹



"Generally, respondents were familiar with lay summaries and felt positively about the role these can play in empowering patients."



Recommendations for PLS

Lack of guidance was limiting use of PLS by journals and authors

Open Pharma ran a roundtable of experts and a public consultation to develop a recommendations [article](#) and [graphical abstract](#)

Outcomes

- Our article has had over 9400 views and six citations
- PLS guidance consensus is emerging among key publishers
- Pharma companies are adopting mandatory PLS policies
- Guideline updates ([GPP 2022](#)) advised PLS for clinical publications

The recommendations encourage development of other accessible content alongside text-based PLS, such as infographics, video, slides or podcast



Metrics data recorded on 21 February 2023 from journal website
GPP, Good Publication Practice; PLS, plain language summary

UNDERSTANDABLE LANGUAGE

Written in easily understandable, unbiased language that is free of expert or technical jargon and accessible to readers who may have a different first language to that of the summary

TEXT BASED

Text based and concise (of 250 words or fewer) – this allows for indexing in directories such as PubMed and facilitates straightforward translation

FOR A BROAD AUDIENCE

Targeted toward a broad, inclusive, and non-technical, non-specialist, or time-challenged audience

CONSISTENT

Consistent with the same overall key points and conclusions as the scientific publication abstract

LINKED TO THE EVIDENCE

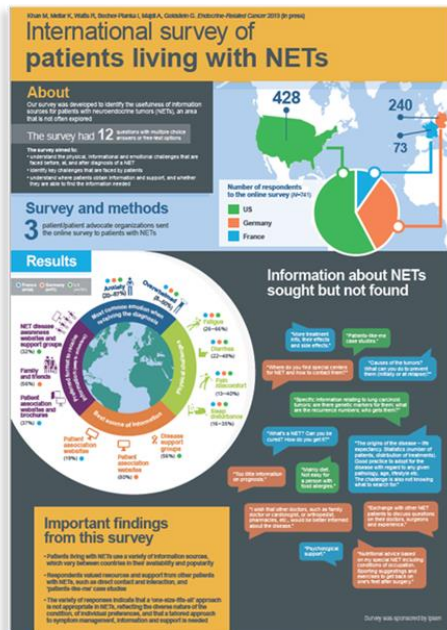
Explicitly linked to the source publication citation and relevant clinical trial identifiers, with brief reference to the existing evidence

STYLE

CONTENT



Journals are increasingly offering PLS in different formats



International survey of patients living with NETs

About
Our survey was designed to identify the unmet needs of information sources for patients with Neuroendocrine Tumors (NETs), an area that is not often reported.

The survey had 12 countries with highest rates of respondents:
- Netherlands (18%)
- Italy (16%)
- Germany (15%)
- France (14%)
- Spain (13%)
- Canada (12%)
- United Kingdom (11%)
- Sweden (10%)
- Australia (9%)
- Belgium (8%)
- Denmark (7%)
- Norway (6%)

Survey and methods
3 patient/academic organizations sent the online survey to patients with NETs.

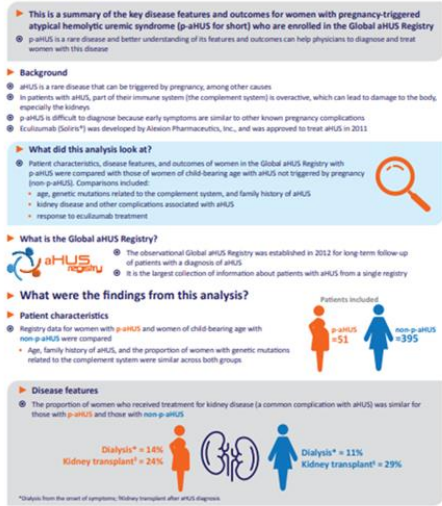
Results
Information about NETs sought but not found

Important findings from this survey

- Patients living with NETs use a variety of information sources, with very little being reported in their availability and popularity.
- Importantly, related resources and support from other patients with NETs, such as direct contact and newsletters, and YouTube videos were most utilized.
- The majority of responses indicate that a new site or app approach is not preferred in NETs, reflecting the diverse nature of the condition, of individual preferences, and that a tailored approach to symptom management, information and support is needed.

Pregnancy-Triggered Atypical Hemolytic Uremic Syndrome (aHUS): A Global aHUS Registry Analysis

Date of summary: April 2021



► This is a summary of the key disease features and outcomes for women with pregnancy-triggered atypical hemolytic uremic syndrome (p-aHUS for short) who are enrolled in the Global aHUS Registry

- p-aHUS is a rare disease and better understanding of its features and outcomes can help physicians to diagnose and treat women with this disease

► Background

- aHUS is a rare disease that can be triggered by pregnancy, among other causes
- In patients with aHUS, part of their immune system (the complement system) is overactive, which can lead to damage to the body, especially the kidneys.
- p-aHUS is difficult to diagnose because early symptoms are similar to other known pregnancy complications
- Eculizumab (Soliris[®]) was developed by Alexion Pharmaceuticals, Inc., and was approved to treat aHUS in 2011

► What did this analysis look at?

- Patient characteristics, disease features, and outcomes of women in the Global aHUS Registry with p-aHUS were compared with those of women of child-bearing age with aHUS not triggered by pregnancy (non-p-aHUS). Comparisons included:
 - age, genetic mutations related to the complement system, and family history of aHUS
 - kidney disease and other complications associated with aHUS
 - response to eculizumab treatment

► What is the Global aHUS Registry?

- The observational Global aHUS Registry was established in 2012 for long-term follow-up of patients with a diagnosis of aHUS
- It is the largest collection of information about patients with aHUS from a single registry

► What were the findings from this analysis?

► Patient characteristics

- Registry data for women with p-aHUS and women of child-bearing age with non-p-aHUS were compared
- Age, family history of aHUS, and the proportion of women with genetic mutations related to the complement system were similar across both groups

► Disease features

- The proportion of women who received treatment for kidney disease (a common complication with aHUS) was similar for those with p-aHUS and those with non-p-aHUS

Statistics:
 Dialysis* = 14% (p-aHUS) vs 11% (non-p-aHUS)
 Kidney transplant* = 24% (p-aHUS) vs 29% (non-p-aHUS)

*Dialysis from the onset of symptoms; Kidney transplant after aHUS diagnosis.

Plain Language Summary

Multiple sclerosis (MS) usually worsens over time, with many patients transitioning from “relapsing–remitting” MS (RRMS) to “secondary progressive” MS (SPMS). Categorizing MS in this way may be useful for healthcare professionals (HCPs) because it can help to guide treatment decisions. However, these medical definitions of MS may be ambiguous to patients. Additionally, HCPs themselves do not always agree on the definition of SPMS.

Interviews with four MS patients and one physician who specializes in MS were conducted to understand the patients’ perspectives of how their disease worsens over time, and to assess how useful patients find the medical definitions used to describe different forms of MS.

From the interviews, it was clear that patients find it hard to come to terms with their diagnosis of MS, especially because they understand their disease will worsen over time. Patients may not fully understand the medical definitions used to describe different forms of MS and may not want to be identified in this way. They do not always think that these medical terms are relevant to them, as they do not reflect the reality of living with MS. In particular, some patients might not want to be identified as having SPMS, because this may limit their access to treatments. When speaking to their patients with MS, rather than using complex medical terms, doctors might want to describe MS as being part of a spectrum of disease.

Did you know?
Plain language summaries in this format can be indexed on PubMed!

Keep it simple - formats to try

“Articles published with an accompanying video abstract had the highest average accesses per year (3111 accesses), followed by graphical PLS (1564 accesses).”²

Visual abstracts - Articles associated with a visual abstract are three times more likely to be viewed than articles published with text-only abstracts (Ibrahim AM, et al, 2017)

Video abstracts - Articles with video abstracts had 82% more full-text downloads (Dickerson, 2014)

Plain language summary - 71% (47/66) of Healthcare Professionals rated PLS as 'very/extremely useful' (ISMPP Europe Meeting 2022)

Infographics - we are likely to remember up to 6.5 times more through learning from an infographic than by reading text alone (Krum R., 2013)

“Overall, 60% (30/50) of articles with PLS were downloaded significantly more often than those without a PLS.”¹

Guided activity: Write your own bullets

Jo Wixon, Wiley

Rebecca Kirk, PLoS

Writing!

- Provide **2-5 bullet points** (ideally relating to specific SDGs)
- Always be clear and succinct
- Clearly state the issue you are addressing / helping your reader address
- Make sure that key information comes first
- Share what your findings mean in real terms
- Keep statements factual
- Use the active voice!

Group exercise

Summarise as 2-5 bullets:

1. Who is your / the audience?
2. Why was the research done?
3. How can what you learned be applied?
4. What was missing or needs to happen next?

The task: summarise as 2-5 bullets:

1. Who is your / the audience?
2. Why was the research done?
3. How can what you learned be applied?
4. What was missing or needs to happen next?

Framing and audience

TOP TIP: Put your audience at the centre - what is their need and how does your work help them?

- Does your work relate to a policy issue they're working on?
- Does it have relevance to your local community?
- Could it positively impact them? How?
- Will it change best practice or help professionals re-assess how a job is done?
- Will it aid decision-making on the job
- Could it answer a practical question for someone working in the field?

Advice on writing

- Provide **2-5 bullet points** (ideally highlighting any relationship to specific Sustainable Development Goals)
- Always be clear and succinct
- Start with a point that clearly states the issue that you are addressing / helping your reader to address
- Put key information first to catch the attention of busy readers (not everyone will read to the end)
- Share what your findings mean in real terms; e.g.: 'Medicine X works better if taken with food' or 'Without restriction of air pollution levels to below Y, deaths from respiratory conditions in affected areas are X% higher'
- Keep statements factual and avoid providing opinions or speculation on the study's findings and significance.
- Use the active voice!

Example summary

Article

One Earth

Reaching New Heights in Plastic Pollution— Preliminary Findings of Microplastics on Mount Everest

Mount Everest was once a pristine environment. However, due to increased tourism, waste is accumulating on the mountain, with a large proportion being made of plastic. This research aimed to identify and characterize microplastic (MP) pollution near the top of highest mountain on Earth and could illustrate the implications for the environment and the people living below. Stream water and snow were collected from multiple locations leading up to, and including, the Balcony (8,440 m.a.s.l). MPs were detected at an ~30 MP L1 in snow and ~1 MP L1 in stream water, and the majority were fibrous. Therefore, with increased tourism, deposition of MP near Mt. Everest is expected to rise. At a pivotal point in the exploration of remote areas, environmental stewardship should focus on technological and other advances toward minimizing sources of MP pollution.

Example summary - 'The Why'

Article

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Why?

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Example summary - The 'How'

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Example summary - 'The How'

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How can it be applied?

Example summary

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Example - Authors' summary

SCIENCE FOR SOCIETY Plastic pollution is a key issue of our time, with the environmental impacts of this remarkable material increasingly the focus of interventions ranging from grassroots clean-up initiatives to product re-design and international policies. In this paper, we provide the first documentation of the likely presence of microplastics in snow and stream water on Mt. Everest, including near regions of high human presence, such as near climbing paths. These tiny plastic pieces (<5 mm) were mainly polyester fibers, likely coming from climber's clothing and equipment. These findings highlight human impacts in Earth's remotest areas, partly through the act of exploration of extreme environments. This creates a challenge and opportunity for manufacturers of performance clothing and equipment to develop designs that use more sustainable materials that are either natural or minimize shedding of microplastics. Climbers and trekkers should consider the full impact of exploration activities on the environment.

Highlights

- Microplastics were found in snow and stream water samples on Mt. Everest
- The highest microplastics were discovered in a sample from 8,440 m.a.s.l.
- Most microplastics were polyester fibers, likely from clothing and equipment
- Technological advances could minimize microplastic pollution from exploration

Group exercise: Reflection

Post exercise reflection (please share your comments in Chat)

- What did you find easy?
- What did you find more challenging?
- Have you done this before?

Next steps: From draft to final version

- Give your draft time - revise next day or later
- Ask a professional / practitioner to check your bullets for clarity
- Check for jargon: is your summary understandable by non-specialists? Ask a family member to read your summary!
- Your readers:
 - should find it interesting and be able to understand the conclusions, and the potential impact of the research.
- Check your word count

Clear writing is not just capable of being understood, it's *incapable* of being *misunderstood*.



DORA 10 

The DORA 10 logo consists of the text "DORA 10" in a bold, black, sans-serif font, followed by a circular icon containing ten colored segments (red, orange, yellow, green, blue, purple) arranged in a ring around a central white dot.

Resources

Vicky Gardner, Taylor & Francis

Top Action Tips

Download the Tip Sheets

Academic publishers, editors & reviewers

The academic publishing community must create the systems through which research and education can drive global achievement of the SDGs.

Find ways to drive organizational change.

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Graduate researchers & students

The new generations of researchers, beginning their careers in a time of change and action, must integrate sustainability into the agenda of future scholarship.

Get tips on building SDGs into your career.

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Academic authors

Authors must actively choose to create the knowledge humankind needs to fuel growth that is sustainable and make change that is positive.

See our recommendations for best practices on bringing SDGs into your research.

Download PDF

Academic librarians

Libraries must ensure that the knowledge required to achieve the SDGs can be recognized, discovered and made available to those who will build upon it and put it into action.

See tips on how to uncover SDG scholarship.

Download PDF

Connecting researchers & practitioners

Research alone will not make the SDGs reality. Each member of scholarly community must work to put research in the hands of practitioners.

See tips on how each group can get research into practice.

Download PDF



Top Action Tips

Connecting researchers
and practitioners



SDG Publishers Compact Fellows

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1: Set the scope

Publishers and editors should include an explicit statement in the journal's Aims & Scope and Submission Guidelines that indicates the editor not only values and welcomes but actively seeks submissions that align with one or more of the SDGs, in particular, SDG-related research with a specific, actionable connection to challenges and opportunities in practice.

2: Create special collections

Specifically solicit SDG and practitioner-aligned content for these special issues. These may serve as an initial step toward a goal of broad scope change.

3: Seed research ideas

Publishers, academic societies and practitioners should facilitate a collaboration between publishers, academic societies and practitioner networks to create an interdisciplinary shared forum where practitioners can share (and upvote) their urgent SDG-related research questions to help inform academic researchers' research agendas. Publishers and academic societies create other mechanisms (joint conferences) to foster academic researcher - practitioner communication.

4: Ask for implications

Editors should ask academic researchers to ask themselves - who is this research for? Ask academic researchers specifically to include in their Implications section the research outcomes relevant to practitioners. Also consider asking authors to create a separate summary of thesis relevant outcomes for sharing, as appropriate, with practitioners via plain language summaries and infographics in practitioner publications.

5: Insist on impact

Editors should ask reviewers to see if authors included comments on the relevance of the research for practitioners. Add a question about this on reviewer forms or include this guidance in reviewer instructions.

6: Make it visual

Publishers should create and distribute translated research via accessible, easily digestible formats to practitioners, publications, and organizations, including infographics, plain language summaries, and visual abstracts resonate with practitioners in many fields. One possible approach is to encourage journal authors to create these formats for their own research work (which may require support, training, or an optional author service). Another approach is to outsource this work to an organization that provides such services. Possible revenue streams to fund outsourcing could be industry advertising or sponsorship, payment by authors or institutions to have their research included in these efforts to ensure broader dissemination into practice, etc. There is some AI tech to assist with this.

7: Offer support

Publishers and academic societies should offer training, mentoring and support services to create opportunities for editors, researchers, practitioners and other writers to learn how to write for different audiences. Also include opportunities to learn to listen and partner equitably in order to foster research driven by challenges in practice.

8: Include practitioners

Editors should bring diversity to the editorial board by appointing practitioner editors on journal editorial boards to provide practitioner perspectives and connections. Leverage academic, professional, and civil societies that often include practicing scientists and clinicians to help identify an appropriate practitioner editor. This person can: help the journal connect to practitioner organizations to hear from practitioners what are the urgent research questions for the SDG(s); help researchers connect with practitioners for joint research projects; help select content suitable for translation and dissemination to practitioner markets; help the editorial board distribute to the practitioner associations the relevant research outcomes.

9: Reward contributions

Publishers and academic societies should create awards or similar recognitions for outstanding efforts in translating research. Creating award(s) that recognize author, reviewer, and editor efforts to translate research are good incentives to encourage these constituencies to be thinking about the relevance of research in practice when writing, reviewing, and evaluating papers.

10: Make joint sessions

Academic societies should encourage joint researcher and practitioner sessions within research conferences to share how research is being translated into practice, helping those doing this kind of work.



Higher
Education
Sustainability
Initiative

Information Classification: General

Resources and useful links

- <https://www.sdgcompactfellows.org/communicating-implications>
- [Communications: How to communicate effectively to policy makers - Bennett Institute for Public Policy \(cam.ac.uk\)](#)
- How to Guides for Patient Engagement: Plain language summaries (PLS) of peer-reviewed publications and conference presentations: practical 'How-To' Guide for multi-stakeholder co-creation: <https://pemsuite.org/How-to-Guides/WG5.pdf>
- Ross-Hellauer T, Tennant JP, Banelytè V, Gorogh E, Luzi D, Kraker P, et al. (2020) Ten simple rules for innovative dissemination of research. PLoS Comput Biol 16(4): e1007704. <https://doi.org/10.1371/journal.pcbi.1007704>
- Adeline Rosenberg, Slávka Baróniková, Linda Feighery, William Gattrell, Rikke Egelund Olsen, Adam Watson, Tim Koder & Christopher Winchester (2021) Open Pharma recommendations for plain language summaries of peer-reviewed medical journal publications, Current Medical Research and Opinion, 37:11, 2015-2016, DOI: [10.1080/03007995.2021.1971185](https://doi.org/10.1080/03007995.2021.1971185)
- Dormer, L., Schindler, T., Williams, L.A. *et al.* A practical 'How-To' Guide to plain language summaries (PLS) of peer-reviewed scientific publications: results of a multi-stakeholder initiative utilizing co-creation methodology. *Res Involv Engagem* 8, 23 (2022). <https://doi.org/10.1186/s40900-022-00358-6>

Thank you! Q&A and discussion

- Share in chat - what is your takeaway from today?
- Do you have any questions?
- Would you like future sessions?
- If so, what would you like to hear / learn about in future sessions?
- **OVER TO YOU!**



DORA 10 

The text "DORA 10" is displayed in a large, bold, black sans-serif font. To the right of the number "10" is a circular logo consisting of ten colored segments (red, orange, yellow, green, blue, purple, red, orange, green, blue) arranged in a ring around a central white star-like shape.

Thank you