

Report of Raw Results for Distribution to Survey Participants

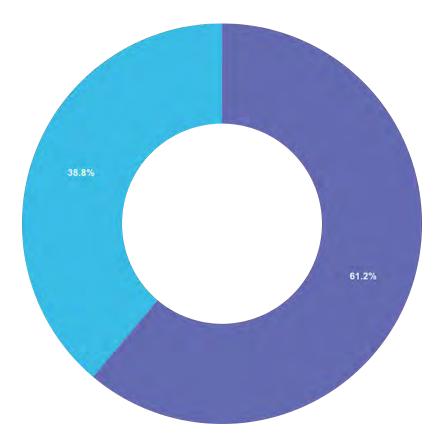
Survey running dates: 18 January - 1 March, 2024 Report date: 12 March 2024 Prepared by: Monica Nicosia, PhD, Nicosia Medical Writer LLC; monica@nicosiamedicalwriter.com



NICOSIA Well-written, fact-checked, **MEDICAL WRITER** on-target, on-time content

Q1 Work History Questions

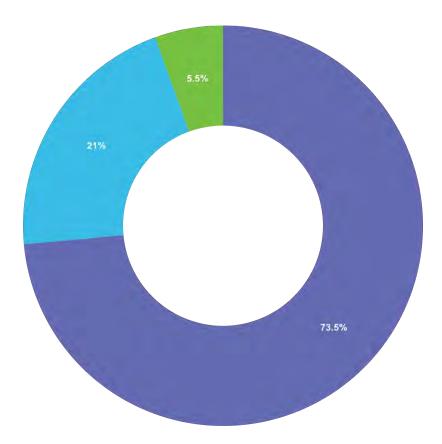






Choice	Total
Full-time	178
Part-time	113

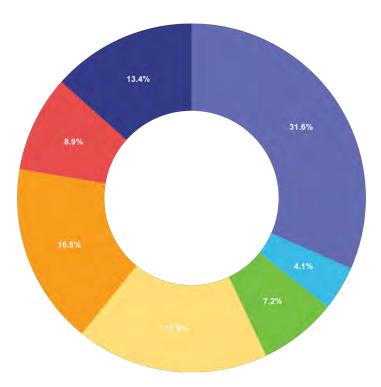
Q2 What is your primary function (>50% of your billable hours) as a freelance medical communicator?*





Choice	Total
Writer	214
Editor	61
Other (Fill in the blank.)	16

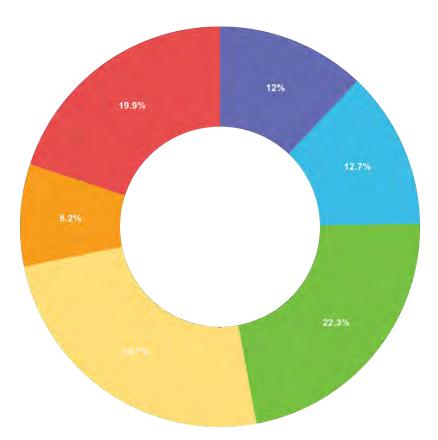
Q3 How many **total years** were you employed as a medical communicator before going freelance?*





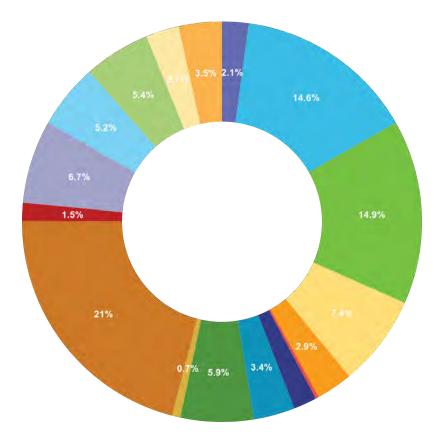


Q4 How many total years have you worked as a freelance medical communicator?*



Choice	Total
	lotai
<1	35
1-2	37
2-5	65
6-10	72
11-15	24
16+	58

Q5 Which of the following are your top 1-3 areas of freelance medical communications work? (Select up to 3.)*



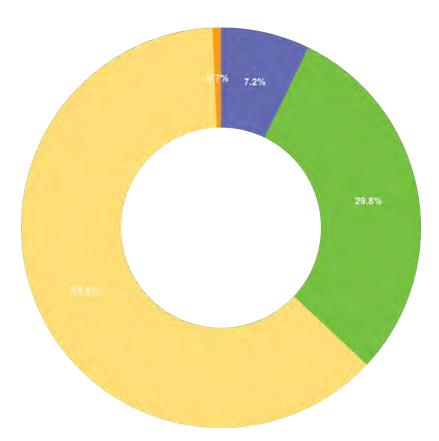
Choice	Total
Books	16
Continuing education for healthcare professionals (medical, nursing, pharmacy, allied health)	109
Conference abstracts, posters, slide decks	111
Educational materials for patients and caregivers	55
Grants	22

Choice

Grey literature 2 Health economics and outcomes research (HEOR) 14 Health and/or science journalism for lay audiences 25 Health and/or science journalism for professional audiences 44 Health technology assessment (HTA) 5 Manuscripts for peer-reviewed publications 157 Materials for hospitals and/or health insurance companies 11 Promotional materials (for clinicians, allied health, payers, etc) 50 Regulatory documents (eg, clinical study reports, NDAs, protocols) 39 Sales training materials 40 White papers 20 Other (Fill in the blank.) 26

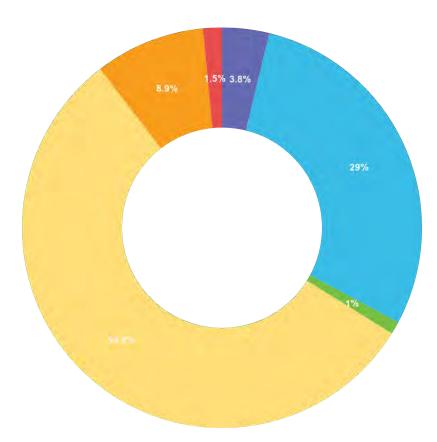
Total

Q6 Which operating system does your main business computer use?*



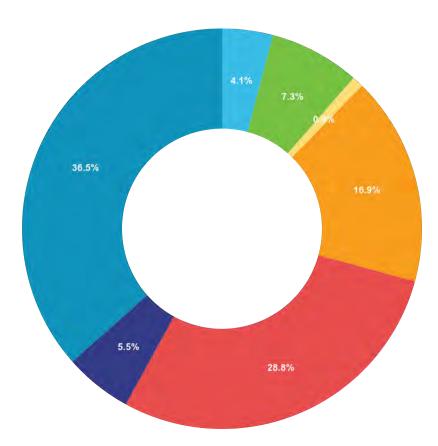
Choice	Total
Google ChromeOS	21
Linux	0
Mac OS	87
Microsoft Windows	182
Other	2

Q7 How do you back up your work computer? (Select all that apply.)*



Choice	Total
No back up	15
External hard-drive	114
External NAS or RAID storage	4
Online/cloud-based service	219
Flash drive/USB keys/sticks	35
Other (Fill in the blank.)	6

Q8 Which online/cloud-based service do you use to back up your computer?*

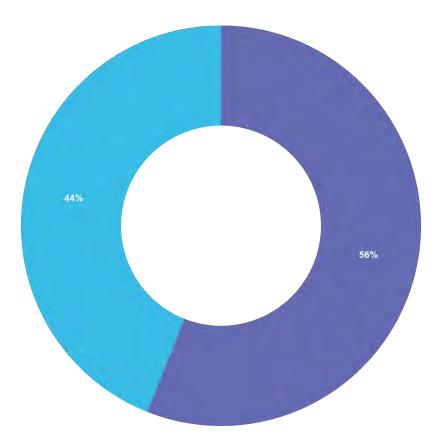


Answered: 219 Unanswered: 72

Choice	Total
Acronis	0
Backblaze	9
Carbonite	16
CrashPlan	2
Dropbox	37
Google Drive	63
IDrive	12
Other (Fill in the blank.)	80

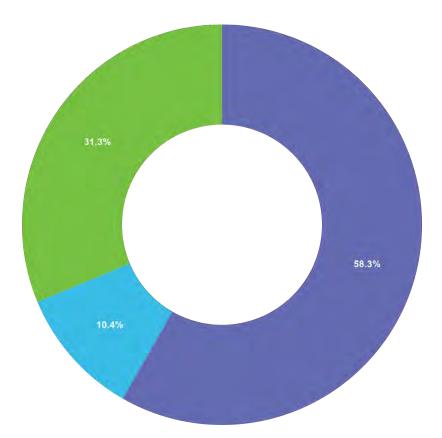
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Q9 Do you have a business website?*



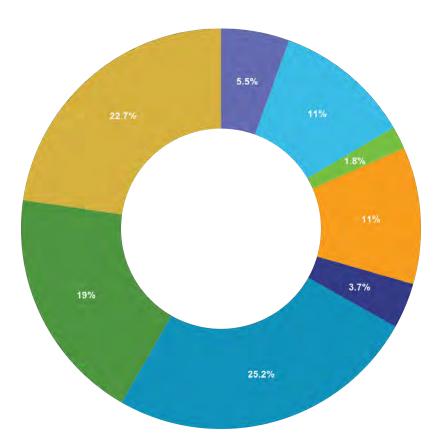
Choice	Total
Yes	163
No	128

Q10 Who designed your website?*



Choice	Total
I designed it myself	95
A relative/friend designed it at no charge	17
I paid someone to design it	51

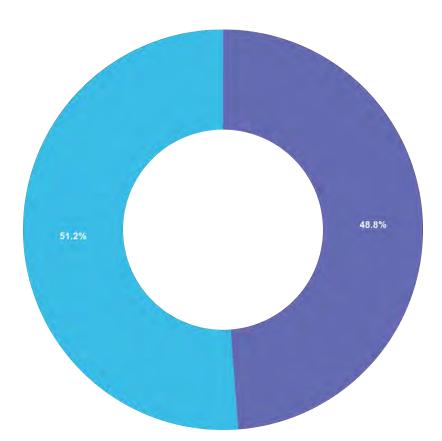
Q11 Which website builder/host service do you use for your website?*



Choice	Total
Bluehost	9
GoDaddy	18
HostGator	3
Nexcess	0
Squarespace	18
Web.com	0

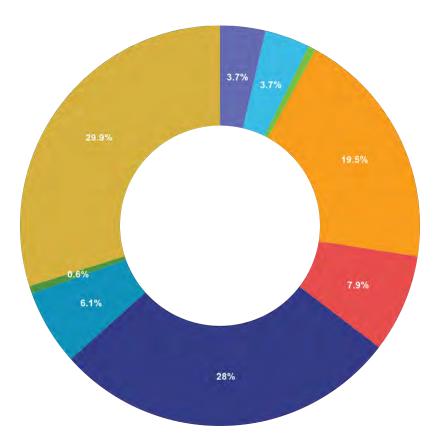
Choice	Total
Weebly	6
Wix	41
WordPress	31
Other (Fill in the blank.)	37

Q12 Do you use any software/app for accounting/bookkeeping?*



Choice	Total
Yes	142
No	149

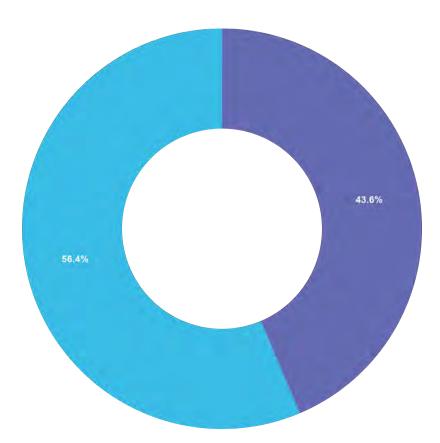
Q13 Which software/app do you use for accounting/bookkeeping? (Select up to 3.)*



Choice	Total
FreeAgent	6
FreshBooks	6
GoDaddy Bookkeeping	1
Moxie	0
QuickBooks Self-Employed	32
Quicken	13

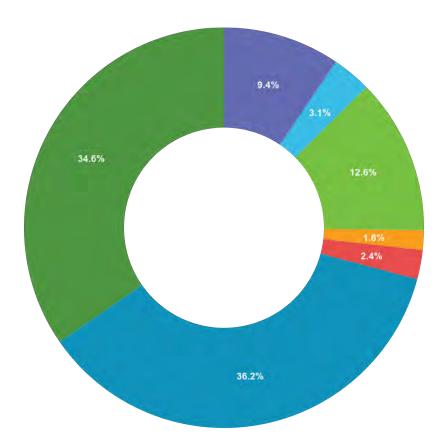
Choice	Total
Spreadsheet (eg, Excel, Google Sheets, Numbers)	46
Wave	10
ZipBooks	1
Other (Fill in the blank.)	49

Q14 Do you use any software/app for time tracking?*



Choice	Total
Yes	127
No	164

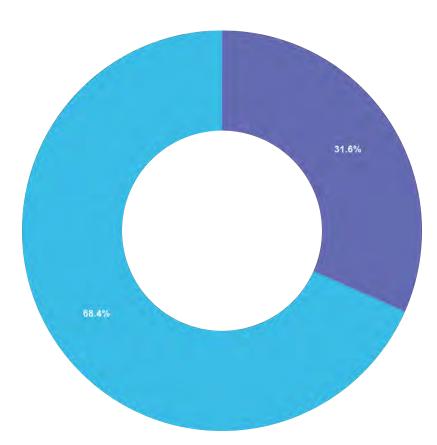
Q15 Which software/app do you use for time tracking?*



Choice	Total
Clockify	12
FreshBooks	4
Harvest	16
HoneyBook	0
My Hours	2
Paymo	3

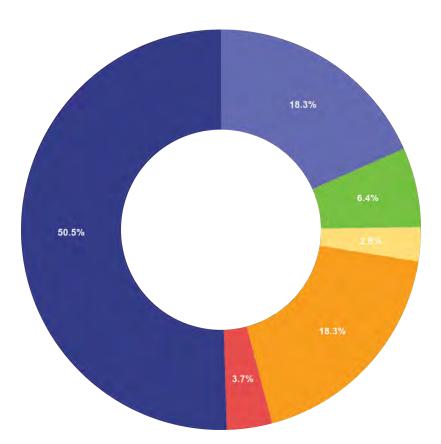
Choice	Total
RescueTime	0
Toggl	46
Other (Fill in the blank.)	44

Q16 Do you use any software/app for project management?*



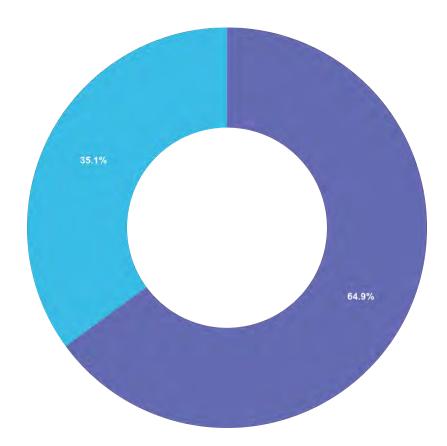
Choice	Total
Yes	92
No	199

Q17 Which software/app do you use for project management? (Select up to 3.)*



Choice	Total
Asana	20
Bonsai	0
ClickUp	7
Paymo	3
Trello	20
Zoho	4
Other (Fill in the blank.)	55

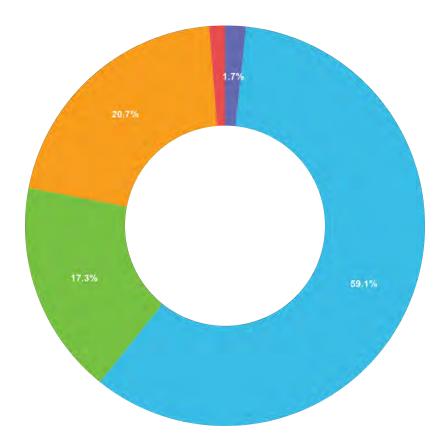
Q18 Do you use any citation/reference management software/app for your medical writing or editing work?*





Choice	Total
Yes	189
No	102

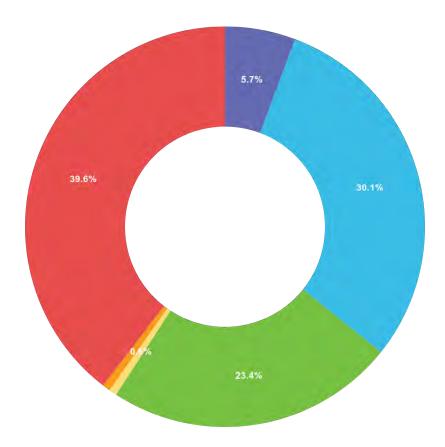
Q19 Which citation/reference management software/app do you use for your medical writing or editing work? (Select all that apply.)*





Choice	Total
Edifix	4
EndNote	140
Mendeley	41
Paperpile	0
Zotero	49
Other (Fill in the blank.)	3

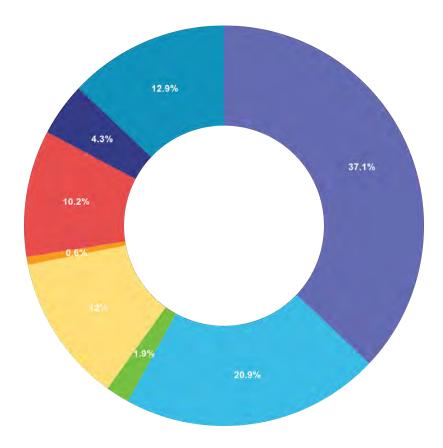
Q20 Which antivirus/anti-malware app/software provider(s) do you use? (Select all that apply.)*





Choice	Total
Bitdefender	18
McAfee	95
Norton	74
Surfshark	2
TotalAv	2
Other	125

Q21 Other than MS Word, PowerPoint, Outlook, and Excel, which software/apps would you recommend to your fellow medical communicators? (Select all that apply.)*

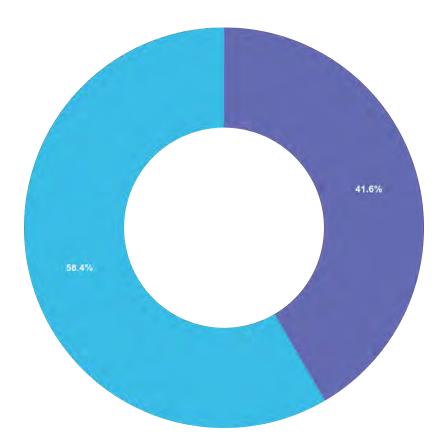




Choice	Total
Adobe Acrobat	232
EndNote	131
Evernote	12
Perfect It	75
Scrivener	4

Choice	Total
Stedman's Online Medical Dictionary	64
Taber's Medical Dictionary Online	27
Other (Fill in the blank.)	81

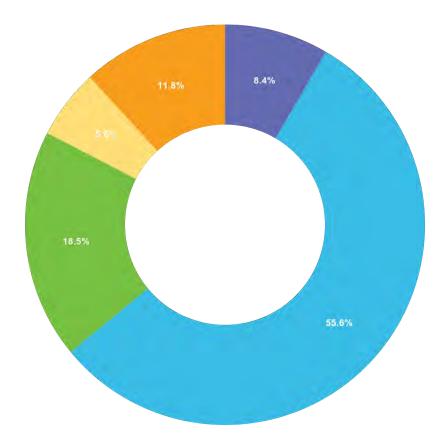
Q22 Have you used ChatGPT or other generative artificial intelligence (AI) apps for any of your medical writing or editing work?*



Answered: 291 Unanswered: 0

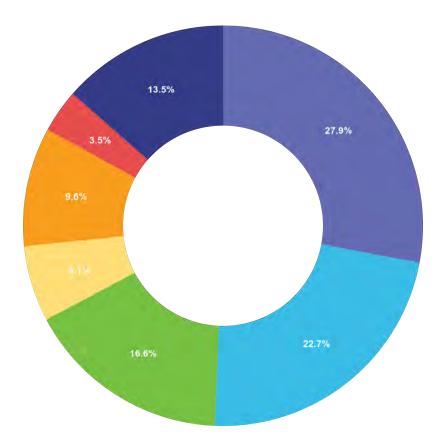
Choice	Total
Yes	121
No	170

Q23 Which generative AI apps have you used for any of your medical writing/editing work? (Select all that apply.)*



Choice	Total
Bard (from Google)	15
ChatGPT (from OpenAI)	99
Copilot (from Bing)	33
Dall-E (from OpenAI)	10
Other (Fill in the blank.)	21

Q24 How have you used generative AI apps for any of your medical writing/editing work? (Select all that apply.)*



Choice	Total
Research	64
Edit and/or rewrite content	52
Paraphrase published text	38
Write content for professional audience	14
Write content for lay audience	22

Q25

Please briefly answer the following optional questions based on your experience using generative AI apps in your medical writing/editing work. Form

What are the advantages of using a generative AI app in your medical writing/editing work?	What are the disadvantages of using a generative AI app in your medical writing/editing?
A quick overview of a new area provides a context saves time.	One must assume there are errors and it is not current and take it for what it is.
Content outlines	Accuracy
It just gets my writing process started. It gives me some ideas to get going with, then I take it in the direction I need or want to go, to add my own style, make it less generic/flat, and to ensure appropriate citations are integrated.	-blank-
Put author list in alphabetical order by last name - it saved time	Have to be very clear with prompts
Can help when you're stuck or tired or not sure what to do	Everything needs to be checked, so not sure how much time it's saving.

What are the advantages of using a generative AI app in your medical writing/editing work?	What are the disadvantages of using a generative AI app in your medical writing/editing?
Saves time	Need to check for accuracy
Eliminate redundancies; help paraphrase clinical data	Does not always accurately capture language/medical writing nuances; requires clinical and copywriting to ensure accuracy
It gives a good idea to build on	-blank-
It enhances and simplifies the work further	When prompt is not specific and elaborated, the results are not.accurate.
Saves time.	Monotonous sentences.
It helps with brainstorming at times, and getting my throughts into actual words.	It can be repetative or have incorrect information.

Conversational	Not always accurate or using the best resources when providing answers
Saves time with rewrites, paraphrasing and grammar checks.	Sometimes you get so used to it that we go to AI for every small edit and don't use our brains anymore.
Helps me phrase things - sometimes just to give me ideas and can be useful as a sounding board.	It sometimes only works within a restricted framework, according to what I asked it - i.e. it can't quite make the leap to what I need. Can also contradict itself, especially when using it for more demanding tasks.
Time saving	Plagarism, poor quality work, references not correctly cited
It can quickly summarize and paraphrase.	The language is generic and repetitive.
tightens and shortens my text, which tends to run long	I feel like it is a cop out
quick research, bibliographies	errors, cliches, low-level writing
Efficient tool for background research	-blank-
Quick fact checking and background research	Having to verify results
The ability to occasionally rewrite sentences.	-blank-
Quickly rephrase and/or simplify sentences	l would not trust entering confidential info in free Al apps
Saves time	It does not always provide helpful answers
can simplify complex language	nuances are lost

What are the advantages of using a generative AI app in your medical writing/editing work?	What are the disadvantages of using a generative AI app in your medical writing/editing?
speed	accuracy, lack of trusted fact- check/annotation/referencing
it helps summarize, organize, and develop ideas when creating an initial draft. It is a good assistant tool	limited use

It's fast to provide insights/answers

saves time

More efficient research

Time saving

None for actual medical writing work

none- it is confidently inaccurate and cant answer questions I posed

Getting ideas for themes, titles, but I'm usually using it as a jumping off point

It's fast and can help me get started with basic notes, outline, or a place to start researching.

Generative AI apps can expedite medical writing/editing by offering quick access to relevant literature, generating summaries, and suggesting improvements, thus enhancing productivity and accuracy in the medical writing process.

A way to quickly find information regarding an unfamiliar topic

Helps get ideas on paper faster.

Suggests ideas you may not have thought of including

Helps give a starting point when I am stuck for what to write

Quick

Not always trustworthy or helpful; sometimes it removes details that are neccessary for differentiating ideas

I personally can't trust, doesn't show that human touch and thought process in any writings.

Incorrect information, hallucinations

Some information might be wrong

It takes longer to fact check and rewrite than it would have taken to research and write in the first place. It's like a flakey intern with a limited skillset who you can't even trust to make the same mistakes consistently.

it is confidently inaccurate and cant answer questions I posed, I am currently writing an article on advances and risks -but only providing examples- not article writing

It usually sucks

So far they don't integrate super smoothly with MS Word and the content isn't top quality. It definitely won't replace actual research and writing - it's more of a note taking app for me.

The disadvantages of using a generative AI app in medical writing/editing work include the potential for inaccuracies, lack of domain-specific knowledge, and ethical concerns regarding patient privacy and data security.

There is still a need to verify references given by an AI app and likely more references needed to be found using traditional searches.

Can become a crutch

Information is wrong or inappropriate

1. Lack of accuracy 2. Sometimes strings words together in more of a word salad than something that actually has meaning

Repetitive and hallucinatory

What are the advantages of using a generative AI app in your medical writing/editing work?	generative AI app in your medical writing/editing?
Faster research	Not entirely accurate or precise
Get ideas on plain language / lower literacy ways to say things	-blank-
Faster research	Data leak to gpt models
ideas generation and starting point for relevant refs to use	occasionally takes longer than just doing it myself; the app doesn't always fully understand my query (yet)
It gives me a starting point when looking for applicable research papers. I still check and source all the original research myself, but at least now I know where to look.	It can take up to three to four prompts before I get what I'm looking for. It often goes off at a tangent and gives me information that is sort of relevant but not quite what I'm looking for
Get an overview of a new medical topic.	Not reliable references, missing information
Mainly help in content creation idea heading	Use different ideas and content other than necessary things
Brainstorming ideas, content strategy	It's sometimes inaccurate, can't trust completely
Great for idea generation, editing and getting menial work done quickly.	The copy is generated by Al is generally sub-par and requires so much editing that it's better to not use Al at all.
Inspiration, at times, and table creation	It fails me most times
Speed up some the outline of the writing, double check writing and editing	Lacks up to date accuracy
Useful for research to identify KOLs	Poor for referencing
Save time	Not accurate, can be repetitive, does not sound like a human (lacks emotion/real life experience)
Ideas and to overcome writers block	Confidentiality concerns
A quick tool to summarise a topic in not familiar with	Doesn't always provide me what I want. Perhaps I need training in prompts!
It's faster than me at rephrasing text. Better than Google at getting specific answers to questions	It's still not great at referencing
It's a great starting point and useful for word count. It gives a good framework to build upon.	Legal uncertainty.

Speeds up research

Inaccuracy

good for creative ideas generation

often have to double check scientific context is accurate

excellent at creating a first draft (get me started much faster), improve text quality, AI can propose alternatives and new ideas, and the Copilot paid subscription is totally confidential I can't think of any disadvantages... I now cannot live without Copilot... it has significantly improved my productivity

	hat are the advantages of using a generative app in your medical writing/editing work?	What are the disadvantages of using a generative AI app in your medical writing/editing?
Sp	eed and accuracy	Introducing new errors, security
It's	fast	Hallucinations
Gr	eat for paraphrasing and idea generation	Takes time to data check
	ster idea generation and removing writer's ock	Al written stuff needs to be edited for SEO and also the word choices that Al uses frequently. Cannot solely depend on the facts generated
Th	ey help a lot in quick writing.	Most of them are not oriented for medical writing.
	king the AI to rephrase what I wrote is a nice eck for meaning and flow	Al hallucination. Having to verify the answers provided by the Al
Ma	ay help save time on a laborious task	Visability in what it's done. I would be particularly concerned about hallucinations concerning references
Sa	ves time looking for topics	No reliable referencing
Tir	ne saving	Decreasing human resources
Re	view more papers faster	Can't trust the results, must check everything carefully
tra ma	elps summarise work, especially when there is a inscript to create a document. It needs to be atched with the transcript and slide deck bugh to ensure content is accurate.	It changes the meaning many times and cannot be trusted blindly.

Helps overcome writers block; helps me edit my own work and see errors	Hallucinations, repetitive and boring copy
Provide succinct answers to some questions, outline for new topics	No references, not much useful for technical workl
increased efficiency, decreased time doing tasks i dislike	I don't entirely trust it
may uncover untapped sources; identify research blindspots	everything needs to be factchecked by humans!
Al saves time and money by helping brainstorm/organize ideas and acting as an array of consultants at my fingertips.	Generic answers, can't introduce confidential client data, hallucinates references.
It stimulates ideas and speeds up the creative process	Unreliable/absent referencing
It is useful to bounce ideas around when you are working alone	You can only use it for projects that used published sources and can't put in any confidential information
Rapid ideas when I need help	-blank-

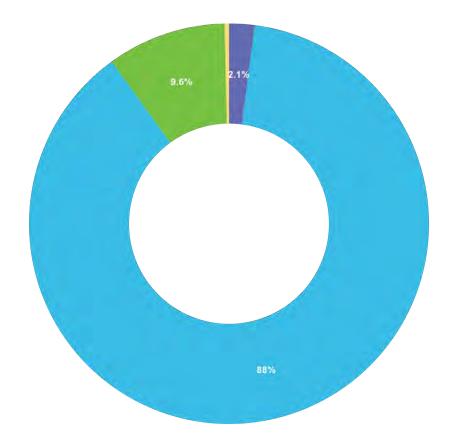
What are the advantages of using a generative AI app in your medical writing/editing work?	What are the disadvantages of using a generative AI app in your medical writing/editing?
different perspective on what I've written. helps with reducing overall word count. faster than using a thesaurus. helpful for plain language. I'm a better editor than writer, so running what I've written through Al gives me more material to edit to my heart's content.	still need to heavily edit to ensure message meaning is not lost, unintentional errors can slip through if relying too much on Al just to meet a deadline. Al will default to its in-built style guide so need to catch for AMA or house style. Al "voice" has no soul so content loses storytelling narrative.
Helps with mental/writer's block	not completely trust-worthy, risk of disclosing confidential information
It can help summarize and simplify content you provide.	I do not trust AI to provide 100% factual information so I rather do the research myself.
It helps me to get started on a project.	Too generic.

sometimes it is easier to edit than to write from scratch, so I would say I use it for "pump priming"	feels like cheating
It can quickly check my work for readability and grammatical mistakes.	You MUST double-check the validity of everything.
Good basic information for new projects	Must QC every citation/reference
none- it is confidently inaccurate and cant answer questions I posed	it is confidently inaccurate and cant answer questions I posed
Efficiency, can easily and quickly generate summaries	They are buggy and produce garbled and inaccurate text that needs careful checking and is sometimes useless
Quicker, helps spark new ideas	Inaccuracies, not good for large document writing because I have to go back and factcheck everything, I use for writing ideas but just sentences or small paragraphs at a time.
It speeds up the literature review process and the writing process.	When it doesn't work it can waste a lot of time.
Quickly reviews scores of papers	Inaccuracies, lack of citation in ChatGPT
Time saving	Cannot rely
Save time	Not confident it's accurate
It makes feel like I have a coworker I can bounce ideas off of.	Fact checking takes longer than writing myself

Unanswered 194 Answered 97

Q26 Demographic data

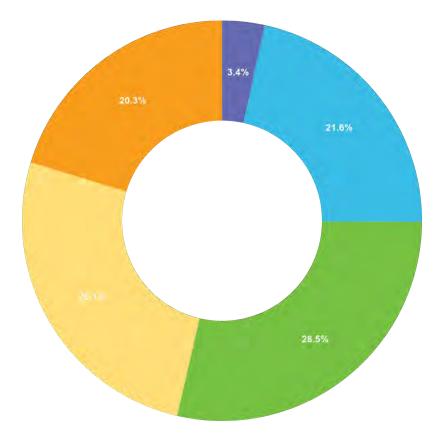
How do you identify yourself?*





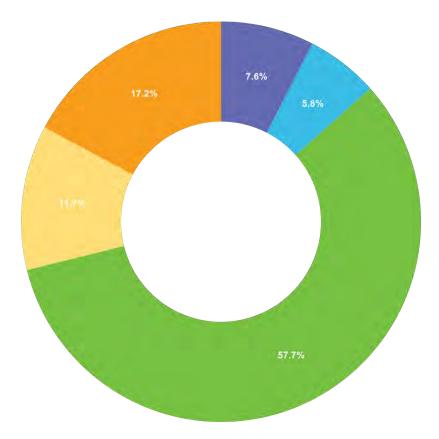
Choice	Total
I don't want to answer this question	6
Female	256
Male	28
Nonbinary	1
Another gender idendity (Fill in the blank.)	0

Q27 How old are you?*



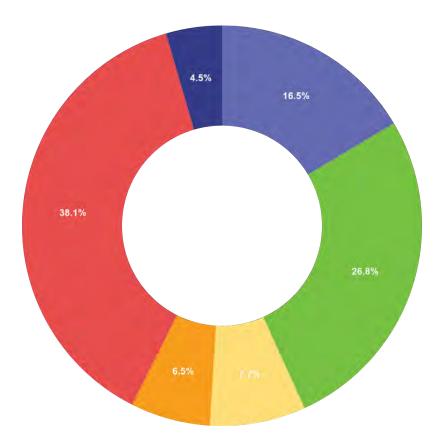
Choice	Total
20-29 years	10
30-39 years	63
40-49 years	83
50-59 years	76
60 years or older	59

Q28 Where do you live?*



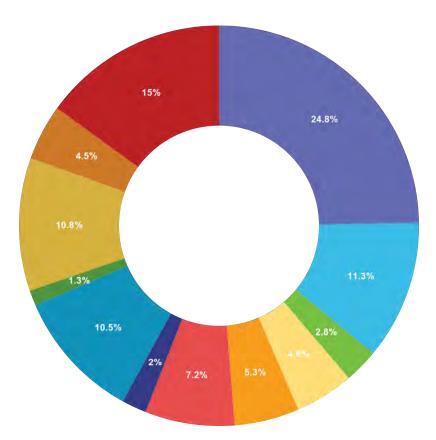
Choice	Total
Canada	22
India	17
United States	168
United Kingdom	34
A country not listed (Fill in the blank.)	50

Q29 What is/are your highest degree(s)? (Select up to 2.)*



Choice	Total
BA, BS, BSN, or other first undergraduate degree	51
DNP (or other doctorate in nursing degree)	0
MA, MBA, MPhil, MS, MSN, or other master's degree	83
MD or DO (or other medical degree)	24
PharmD (or other doctorate in pharmacy degree)	20
PhD or other doctorate degree	118
Other (Fill in the blank.)	14

Q30 What is/are the general field(s) of your highest degree(s)? (Select all that apply.)*



Choice	Total
Biology	99
Biomedical/Medical/Science Writing	45
Business and/or Marketing	11
Chemistry	19
English and/or Literature	21
Health Sciences	29
	Biology Biomedical/Medical/Science Writing Business and/or Marketing Chemistry English and/or Literature

Choice	Total
Journalism	8
Medicine	42
Nursing	5
Pharmacy, Pharmacology, and/or Toxicology	43
Public Health	18
Other (Fill in the blank.)	60