

Use of ChatGPT to obtain health information in Australia, 2024: insights from a nationally representative survey

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Since the launch of ChatGPT in 2022,¹ people have had easy access to a generative artificial intelligence (AI) application that can provide answers to most health-related questions. Although ChatGPT could massively increase access to tailored health information, the risk of inaccurate information is also recognised, particularly with early ChatGPT versions, and its accuracy varies by task and topic.² Generative AI tools could be a further problem for health services and clinicians, adding to the already large volume of medical misinformation.³ Discussions of the benefits and risks of the new technology for health equity, patient engagement, and safety need reliable information about who is using ChatGPT, and the types of health information they are seeking.

To examine the use of ChatGPT in Australia for obtaining health information, we surveyed a nationally representative sample of adults (18 years or older) drawn from the June 2024 wave of the Life in Australia panel.⁴ Participants who completed the Life in Australia survey online or by telephone were asked how often they used ChatGPT for health information purposes during the preceding six months, the type of questions they asked, and their trust in the responses. Participants who were aware of ChatGPT but had not used it for health information purposes were asked about their intentions to do so in the following six months. Health literacy was assessed using a validated single-item

screening question: “If you need to go to the doctor, clinic or hospital, how confident are you filling out medical forms by yourself?”⁵ Demographic information was derived from previously collected panel data. Residential postcode-based socio-economic standing was classified according to the Index of Relative Socio-economic Advantage and Disadvantage (IRSAD; by quintile).⁶ Participant responses were weighted to the Australian population using propensity scores. Associations between respondent characteristics and survey responses were assessed using simple logistic regression; we report odds ratios (ORs) with 95% confidence intervals (CIs). Analyses were conducted in SPSS 26. Unless otherwise stated, we report unweighted results (further study details: [Supporting Information](#), part 1). Our study was approved by the University of Sydney Human Research Ethics Committee (2024/HE000247).

Of 2951 invited panellists, 2034 completed the three ChatGPT and the health literacy survey items (68.9%). The demographic characteristics of the sample were similar to those of the Australian population (data not shown). The weighted proportion of participants who had heard of ChatGPT was 84.7% (95% CI, 83.0–86.3%). The weighted proportion of participants who had used ChatGPT to obtain health-related information during the preceding six months was 9.9% (95% CI, 8.5–11.4%). The proportion of people who had used ChatGPT to

1 Survey response proportions, by participant characteristics (sample weighted to be nationally representative)*

Characteristic	Weighted proportion of sample	People aware of ChatGPT		<i>p</i> [†]	Had not heard of ChatGPT	<i>p</i> [‡]
		Asked ChatGPT health-related questions in the past six months	Had not asked ChatGPT health-related questions in the past six months			
Number of participants	2034	187	1523		324	
Weighted proportion		9.9%	74.8%		15.3%	
Age group (years)				< 0.001		< 0.001
18–24	11.3%	24.3%	11.5%		2.2%	
25–34	18.7%	26.3%	19.5%		9.6%	
35–44	17.8%	23.2%	18.6%		10.4%	
45–54	15.8%	13.6%	16.2%		15.0%	
55–64	14.6%	8.7%	14.3%		19.7%	
65 or older	21.8%	3.9%	19.9%		43.0%	
Gender				0.38		< 0.001
Man/male	50.1%	52.7%	51.7%		40.6%	
Woman/female	48.4%	43.9%	46.8%		59.4%	
Non-binary/prefer different term	1.5%	3.4%	1.5%		0	

Continues

1 Continued

Characteristic	Weighted proportion of sample	People aware of ChatGPT		p [†]	Had not heard of ChatGPT	p [†]
		Asked ChatGPT health-related questions in the past six months	Had not asked ChatGPT health-related questions in the past six months			
Residential location				0.007		< 0.001
Capital city	67.1%	78.9%	68.6%		52.2%	
Elsewhere	32.9%	21.1%	31.4%		8%	
Residential postcode social disadvantage (IRSAD), quintile				0.97		< 0.001
1 (most disadvantage)	15.2%	14.7%	14.0%		21.5%	
2	19.2%	16.3%	18.6%		23.9%	
3	23.0%	24.0%	23.3%		20.6%	
4	21.9%	23.5%	22.2%		19.7%	
5 (least disadvantage)	20.7%	21.5%	21.9%		14.3%	
Education				0.13		< 0.001
Year 12 or less	23.9%	20.3%	22.2%		34.6%	
Trade certificate (I-IV)	25.4%	19.3%	23.9%		37.0%	
Advanced diploma/diploma	17.8%	16.1%	18.7%		14.5%	
Bachelor degree	18.3%	28.5%	19.1%		8.1%	
Postgraduate degree	14.5%	15.8%	16.0%		5.8%	
Country of birth				0.006		0.025
Australia	70.1%	62.2%	70.3%		74.2%	
Mainly English-speaking country [‡]	11.5%	8.6%	11.5%		13.2%	
Other	18.4%	29.2%	18.2%		12.6%	
Language spoken at home				< 0.001		0.001
English	75.8%	62.0%	76.1%		83.7%	
Other	24.2%	38.0%	23.9%		16.3%	
Indigenous status				0.22		0.65
Aboriginal or Torres Strait Islander	2.4%	4.1%	2.2%		2.0%	
Non-Indigenous	97.6%	95.9%	97.8%		98.0%	
Health literacy [¶]				0.001		0.95
Limited/marginal	10.9%	18.4%	9.4%		13.8%	
Adequate	89.1%	81.6%	90.6%		86.2%	

IRSAD = Index of Relative Socio-economic Advantage and Disadvantage. * Weighted counts and missing data are reported in the [Supporting Information](#), table 2. Data were not included in analyses if they were missing, not stated, or if the expected count for a cell was less than 5. † Aware of and used ChatGPT for health-related questions v aware of but have not used ChatGPT for health related questions. ‡ Aware of v not aware of ChatGPT. § Canada, Ireland, New Zealand, South Africa, United Kingdom, United States of America. ¶ "If you need to go to the doctor, clinic or hospital, how confident are you filling out medical forms by yourself?": adequate = responses of "extremely", "quite a bit"; limited/marginal = "somewhat", "a little bit", "not at all". ♦

obtain health-related information was larger than their overall respondent proportion for people who were aged 18–44 years, lived in capital cities, were born in non-English speaking countries, spoke languages other than English at home, or had limited or marginal health literacy ([Box 1](#); [Supporting Information](#), table 3).

Among the 187 people who asked ChatGPT health-related questions, trust in the tool was moderate (mean score, 3.1 [of 5]; standard deviation [SD], 0.8). Their questions most frequently related to learning about a specific health condition (89, 48%), finding out what symptoms mean (70, 37%), finding actions to take (67, 36%), and understanding medical terms (65, 35%) ([Box 2](#)). At least one higher risk question (ie, questions related to taking action that would typically require clinical advice, rather than questions about general health information) had been asked by

115 participants (61%); the proportion was larger for people born in mainly non-English speaking countries than for those born in Australia (OR, 2.62; 95% CI, 1.27–5.39) and for those who spoke a language at home other than English (OR, 2.24; 95% CI, 1.16–4.32) ([Supporting Information](#), table 4).

Among the 1523 respondents who were aware of ChatGPT but had not used it for health-related questions during the preceding six months, 591 (38.8%) reported they would consider doing so in the next six months, most frequently for learning about a specific health condition (276 of 1523, 18.1%), understanding medical terms (256, 16.8%), or finding out what symptoms mean (249, 16.3%) ([Supporting Information](#), table 5). At least one higher risk-type question would be considered by 375 participants (24.6%); the proportion was larger for participants with year 12 education or less (OR, 1.76; 95% CI, 1.19–2.61) or an advanced

2 Reasons for using ChatGPT to obtain health information during the preceding six months (187 respondents)

ChatGPT task*	Number
Higher risk questions	
Find out what my symptoms mean (or the symptoms of someone I know)	70 (37%)
Find out what to do about a specific health issue that I or someone I know has	67 (36%)
Find out if I or someone I know should see a doctor	23 (12%)
Interpret results from blood tests or imaging	16 (8.6%)
Lower risk questions	
Learn about a specific health condition	89 (48%)
Understand medical terms	65 (35%)
Learn more about a medicine, test or treatment (eg, safety, side effects or interactions)	57 (30%)
Learn about healthy lifestyles	53 (28%)
Help create a plan to improve my health (or the health of someone I know)	44 (24%)

* Multiple responses possible. ◆

diploma or diploma (OR, 1.67; 95% CI, 1.11–2.51) than for people with postgraduate degrees; for women (OR, 1.34; 95% CI, 1.06–1.70) than for men; and for people aged 35–44 (OR, 2.14; 95% CI, 1.25–3.68), 55–64 (OR, 2.11; 95% CI, 1.21–3.69), or 65 years or older (OR, 2.69; 95% CI, 1.58–4.59) than for people aged 18–24 years ([Supporting Information](#), table 6).

On the basis of our exploratory study, we estimate that 9.9% of Australian adults (about 1.9 million people⁷) asked ChatGPT

health-related questions during the six months preceding the June 2024 survey. Given the rapid growth in AI technology and the availability of similar tools,⁸ this may be a conservative estimate of the use of generative AI services for obtaining health-related information. The number of users is likely to grow: 38.8% of participants who were aware of ChatGPT but had not recently used it for health-related questions were considering doing so within six months. We also found health-related ChatGPT use was higher for groups who face barriers to health care access,⁹ including people who were born in non-English speaking countries, do not speak English at home, or whose health literacy is limited or marginal. The types of health questions that pose a higher risk for the community will change as AI evolves, and identifying them will require further investigation. There is an urgent need to equip our community with the knowledge and skills to use generative AI tools safely, in order to ensure equity of access and benefit.

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- Vallance C. ChatGPT: New AI chatbot has everyone talking about it. *BBC* [website], 7 Dec 2022. <https://www.bbc.com/news/technology-63861322> (viewed Jan 2025).
- Wei Q, Yao Z, Cui Y, et al. Evaluation of ChatGPT-generated medical responses: a systematic review and meta-analysis. *J Biomed Inform* 2024; 151: 104620.
- Dunn AG, Shih I, Ayre J, Spallek H. What generative AI means for trust in health communications. *J Commun Healthc* 2023; 16: 385–388.
- Social Research Centre. Life in Australia methods: documentation. Oct 2024. <https://srcentre.com.au/wp-content/uploads/2024/10/LinA-recruitment-sample-and-allocation-description-20241023-final.pdf> (viewed Oct 2024).
- Wallace LS, Rogers ES, Roskos SE, et al. Screening items to identify patients with limited health literacy skills. *J Gen Intern Med* 2006; 21: 874–877.
- Australian Bureau of Statistics. Index of Relative Socio-economic Advantage and Disadvantage (IRSAD). In: Socio-Economic Indexes for Areas (SEIFA), Australia, 2021. 27 Apr 2021. <https://www.abs.gov.au/statistics/people/people-and-communities/socio-economic-indexes-areas-seifa-australia/latest-release#index-of-relative-socio-economic-advantage-and-disadvantage-irsad> (viewed Aug 2024).
- Australian Bureau of Statistics. National, state and territory population, December 2023. 13 June 2024. [https://www.abs.gov.au/statistics/people/population/dec-2023](https://www.abs.gov.au/statistics/people/population/national-state-and-territory-population/dec-2023) (viewed Aug 2024).
- Singla A, Sukharevsky A, Yee L, et al. The state of AI in early 2024: gen AI adoption spikes and starts to generate value. *QuantumBlack, AI by McKinsey*, 30 May 2024. <https://www.mckinsey.com/capabilities/quantumblack/our-insights/the-state-of-ai> (viewed Aug 2024).
- Australian Department of Health and Aged Care. National Preventive Health Strategy 2021–2030. Updated 14 Dec 2021. <https://www.health.gov.au/resources/publications/national-preventive-health-strategy-2021-2030> (viewed Aug 2024). ■

Supporting Information

Additional Supporting Information is included with the online version of this article.