Australian Academy of Health & Medical Sciences

UNDERSTANDING TRUST IN THE HEALTH AND MEDICAL SCIENCES

EXPLAINER

Acknowledgement of Country

The Australian Academy of Health and Medical Sciences acknowledges the traditional custodians of the lands on which our offices stand and on which we hold our meetings and events across the country. Aboriginal and Torres Strait Islander peoples were the nation's first scientists, and they remain the spiritual and cultural custodians of their land. We pay our respects to elders past and present.

About the Academy

The Australian Academy of Health and Medical Sciences is the impartial, authoritative, cross-sector voice of health and medical science in Australia. We advance health and medical research in Australia and its translation into benefits for all, by fostering leadership within our sector, providing expert advice to decision-makers, and engaging patients and the public.

We are an independent, interdisciplinary body of Fellows – elected by their peers for their outstanding achievements and exceptional contributions to health and medical science in Australia. Collectively, they are a representative and independent voice, through which we engage with the community, industry and governments.

The Academy is uniquely positioned to convene cross-sector stakeholders from across Australia to address the most pressing health challenges facing society. We focus on the development of future generations of health and medical researchers, on providing independent advice to government, and on providing a forum for discussion on progress in health and medical research with an emphasis on translation of research into practice.

The Academy is registered with the Australian Charities and Not-for-profits Commission (ACNC) and is endorsed as a deductible gift recipient.

ABN: 55 167 124 067

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Acknowledgements

This *Explainer* is published by the Australian Academy of Health and Medical Sciences. It was developed in collaboration with AAHMS Fellows with expertise across the health and medical sciences. It was reviewed and approved for publication by the Academy's Policy Advice Committee.

The Australian Academy of Health and Medical Sciences would like to thank the Fellows who contributed to this evidence brief.

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Understanding Trust: What is it, and does it matter for health and medical science?

Trust is a critical factor in advancing health and medical science (HMS) and translating research into better health outcomes. Whether it's pandemic responses, vaccine adoption, concerns about misinformation, or the growing role of artificial intelligence (AI) in healthcare – trust is the backbone of effective HMS, bridging the gaps between communities and governments, policymakers and scientists, and patients and clinicians.

The Australian Academy of Health and Medical Sciences (the Academy; AAHMS) is committed to safeguarding and strengthening trust in HMS. We champion effective, evidence-based healthcare, open science, and active consumer and community engagement. This policy explainer is the first in a series exploring the complexities of trust in HMS and the crucial role it plays in shaping health behaviours, policy and practice.[1–3] It aims to:

- Establish an understanding of what trust means in the context of HMS.
- Illustrate why trust in HMS matters.
- Map the multiple intersecting dimensions of trust in HMS..
- Provide evidence-based context about current trust levels in Australia.
- Lay the groundwork for subsequent Academy outputs on trust in HMS that will:
    - Measure Australian communities' levels of trust in HMS.
    - Identify and evaluate policy-level levers that can help to strengthen trust in HMS.

This policy explainer provides an overview of why trust is critical for HMS, the factors that influence it, and how it drives health outcomes. It maps the dynamic, multifaceted nature of trust in the context of HMS, and examines how trust can affect decision-making, public engagement, and the efficacy of health and medical interventions.

The first in an Academy series on trust, this policy explainer sets the stage for deeper exploration of the how we can measure and enhance trust in HMS.

Key insights:

- **Most Australians trust scientists and doctors, but trust is fragile and uneven.** Early childhood vaccination rates have dropped below 90% for the first time since 2016, while 64% of people worry about medical science becoming politicised.
- **Trust is dynamic and relational**, flowing between patients, clinicians, researchers, institutions, governments, health leaders, and communities.
- **Trust is context-specific**, shaped by who is trusting, what they're trusting in, and when.
- **Trust is multidimensional**, encompassing trust in evidence, research integrity, institutions, communication, and equity.
- **Institutional reputation, communication, the information ecosystem, individual factors, and crisis contexts** can either enable or challenge trust.
- **Trust enables the translation of HMS into health policy and clinical practice** and supports community engagement in research and uptake of effective health advice and care.
- **The erosion of trust in HMS has real consequences**, such as disengagement, underuse of evidence-based health interventions, and reduced system effectiveness.
- **Communicating the nature of scientific uncertainty** remains a critical challenge for scientific institutions and leaders.

What is trust?

What do we mean when we speak about "trust"?

Trust is a multifaceted, relational concept that is used to describe confidence in, beliefs about, and willingness to rely upon a person or people, an organisation, or an institution.[1]

While trust is understood differently by different academic disciplines, and in specific contexts, these definitions often point to an understanding of trust as the "glue" of social life– a dynamic phenomenon holding together the relationships between individuals, groups, organisations and institutions which, taken together, comprise a well-functioning society.[2]

Trust invisibly facilitates everyday interactions, decisions, and systems.[3] However, the important role played by trust comes clearly into view when trust falters – for instance, during moments of perceived crisis, institutional failure, or widespread uncertainty. In such times, the absence or erosion of trust can generate public scrutiny, disengagement or resistance, highlighting just how foundational trust is to functioning systems and societies.

Box 1 below provides a definition of 'trust' as it is used throughout this policy explainer.

Box 1: The definition of trust used in this policy explainer

In this *Explainer*, **'trust in health and medical science' refers to the confidence in, and willingness to rely on, the people, processes, institutions, and evidence that comprise the HMS ecosystem**.

It is a dynamic, context-dependent and relational phenomenon shaped by individuals' experiences values, and perceptions of competence, integrity, transparency, fairness, and care.

Trust in HMS encompasses multiple dimensions, including trust in scientific evidence, the health system, research practices, institutions, public health policy, governance and regulation, and communication.

Trust in institutions

Over recent decades, we have seen a global decline in trust in institutions such as governments and government bodies, media organisations, and business – with geopolitical instability, economic crises, a cluttered information ecosystem, and the upheaval of the COVID-19 pandemic often cited as contributing to a "crisis of trust".[4,5]

The Edelman Trust Barometer has documented this erosion of trust over the last 25 years, which has become more pronounced since 2020.[6] The 2025 Edelman Trust Barometer found that Australia experienced a small decline in trust since 2024, with the percentage of individuals who trust institutions falling from 51% to 49%.[6] Australia ranked 18th out of the 28 countries surveyed in terms of levels of trust in institutions.[6] [i] Of the four types of institutions included in in the 2025 Edelman survey, Non-Governmental Organisations (NGOs) were the type most trusted by Australians (56%, a 2% decline since 2024), followed by business (54%, a 4% decline), government (47%, a 3% decline), and media (37%, a 3% decline).[6,7]

The 2025 Edelman Trust Barometer found a global correlation between grievance and distrust, whereby people who feel unfairly treated, excluded or disregarded – be this economically, socially or politically – tend to exhibit lower trust in institutions.[6] Australia was no exception to this trend. For example, when it came to trust in business leaders, this plummeted from 60% among Australian respondents with low levels of grievance to just 17% amongst those with high levels of grievance.[6]

Trust in science

Understanding trust in science requires recognising that science does not exist in isolation; it is undertaken, communicated, and translated through a complex network of institutions – including government, media, academia, industry and, in the case of health and medical science – the health system. This nexus is reflected in the fact that trust in public institutions is positively associated with trust in science, while declining institutional trust can spill over into doubts about the neutrality or integrity of scientific advice – particularly when science is perceived as being co-opted by political, economic or other agendas.[8,9]

Australians continue to report relatively high level of trust in scientists. According to the 2025 Edelman Trust Barometer, 77% of Australians trust scientists – significantly more than those who trust CEOs (44%), government leaders (41%), or journalists (38%).[6] This

[i] The Edelman Trust Barometer selects countries to survey based on geographical representation, economic influence, demographic and social variation, and relevance to current issues. The 2025 Barometer surveyed 1,150-2,124 respondents from each of the following countries: Argentina, Australia, Brazil, Canada, China, Columbia, France, Germany, India, Indonesia, Ireland, Italy, Japan, Kenya, Malaysia, Mexico, Netherlands, Nigeria, Saudi Arabia, Singapore, South Africa, South Korea, Spain, Sweden, Thailand, the United Arab Emirates, the United Kingson, and the United States.[6]

figure was identified as lower by the 2024 Ipsos Trustworthiness Index, which found that 58% of Australians say that trust scientists.[10] A separate international survey of over 70,000 people from 68 countries recently ranked Australia equal fifth highest for trust in scientists out of all countries surveyed.[11] Most people (58%) in Australia view being a world leader in scientific achievements as very important, and the vast majority (88%) view government investments in scientific research aimed at advancing knowledge as usually worthwhile for society over time.[12] However, 61% of people in Australia say that they worry about medical science becoming politicised or being used to support a specific political agenda.[13]

While the 2025 Edelman Trust Barometer found that most Australians self-report high levels of trust in scientists and approval of government investment in scientific research, a lack of trust in scientists by even a small minority can have serious consequences.

Distrust among small segments of a population can still influence how scientific evidence is received and applied, including in policymaking. These effects are particularly significant when such views receive substantial media attention or are endorsed by individuals in positions of influence, for example if they can shape public policy.[14,15] Factors that shape trust in health and medical science include the specific scientific discipline in question, the perceived risks and benefits involved, and who is conducting it.

Australian data show that public trust in university research is higher than trust in research conducted in other types of institutions.[9] While 70% of people place "a great deal" or "quite a lot" of trust in scientists regarding weather forecasting, this falls to 58% regarding climate science.[9]

With respect to nurturing public trust in research, a key challenge faced by scientists of all disciplines is how to effectively communicate findings, given the reality of scientific uncertainty. Scientific progress evolves through ongoing inquiry, questioning and debate.

While this is a strength of the scientific method, uncertainty can be unsettling for the broader community, particularly in times of crisis.[8] During the COVID-19 pandemic, for instance, evolving public health advice was sometimes interpreted as inconsistency, at times fuelling mistrust.[ii] [16] Communicating uncertainty transparently, while maintaining public confidence, remains a critical challenge for scientific institutions and leaders.[8,16]

Trust in health and medical science

People in Australia tend to trust evidence-based health interventions; for example, 78% of people say the preventive health benefits from the MMR vaccine are high, 69% rate the risk of side effects from the MMR vaccine as low or none, and the majority see medical treatments more favourably than achievements in other areas of science, technology,

[ii] Scientific uncertainty is one of multiple factors that undermined public trust in science-informed advice and measures during the COVID-19 pandemic. Levels of trust varied across Federal and State/Territory governments and across different points during the crisis. [47]

mathematics and engineering (STEM).[12] Trust in practitioners of evidence-based healthcare is also high; for example, the 2024 Ipsos Global Trustworthiness Index identified doctors as the most trusted profession among people in Australia, with 66% of respondents saying that doctors are trusted.[10] In fact, according to some metrics, HMS is one of the most trusted areas of science in Australia.[12]

However, although the majority of Australians self-report high levels of trust in HMS, behavioural trends can present a more nuanced picture. For example, childhood and adolescent vaccination coverage rates in Australia have decreased steadily since the onset of the COVID-19 pandemic – with vaccination coverage at 24 months of age having recently dropped below 90% for the first time since 2016.[iii] [17] Barriers to child vaccination are numerous and complex – and can include social influences such a clinician being unable to answer a parent's questions, and practical obstacles such as difficulties travelling to a vaccination appointment, associated costs, and difficulty securing a convenient appointment.[18]

However, trust in HMS plays a role. Of parents with unvaccinated children, 48% do not believe vaccines are safe for their child, and 40% do not believe vaccinating their child prevents or lessens the impact of, disease or helps protect others in the community.[18]

A total of 64% of people in Australia worry about medical science becoming politicized or being used to support a specific political agenda.[13] Globally, most people believe that societal leaders purposely mislead them on health matters: 59% believe that business leaders purposely mislead them on health matters by saying things they know are false or gross exaggerations, while 57% of people believe the same of both government leaders and journalists.[13]

Trust cannot be fully understood through survey or interview responses alone. Output 2 in this series will explore alternative approaches to assessing the levels of trust that Australians place in HMS. Before doing so, however, it is important to examine more deeply the meaning and significance of, and factors that may contribute to, trust in HMS.

[iii] A small decrease in coverage from 90.8% in December 2015 to 89.6% in December 2016 likely reflects a change in assessment algorithms.[48] This is because, during this period, the assessment algorithm was revised to include dour doses of the DTPa vaccine (rather than three), following the reintroduction of the 18-month booster dose in December 2016. Contrastingly, the recent drop in vaccination coverage at 24 months of age below 90% reflects an actual reduction in vaccine uptake.

Dimensions of trust in health and medical science

Trust in HMS encompasses a range of interconnected dimensions shaped by:

- The *contextual and multidirectional relationships* within which trust operates;
- *Who* is placing trust;
- *What* or *who* trust is placed in.

Understanding these dimensions is essential to both measuring and fostering trust in HMS.

Contextual, multidirectional trust relationships

Trust in HMS is the product of a network of contextual, multidirectional relationships that connect individuals, communities, scientists, clinicians, institutions, and governments. These relationships are shaped by factors such as:

- **Public trust in experts and institutions**, including expectations of competence, fairness, transparency, and accountability.
- **Institutional trust in the public**, including confidence that communities will engage in good faith, act on evidence-based advice, and participate in health initiatives.
- **Interpersonal trust**, such as the relationships between patients and clinicians, or researchers and study participants.
- **Intra-sectoral trust**, such as the degree to which researchers, policymakers, and healthcare professionals trust one another to uphold high standards and prioritise public benefit.

When these trust relationships function well, they create reinforcing cycles of confidence and collaboration. When they break down, trust can be difficult to rebuild.

The 2025 Edelman Trust Barometer identified personal connection as a key factor contributing to perceived trustworthiness in terms of health advice. A total of 67% of global participants stated that friends and family have influenced their health decisions – making them as trusted as medical scientists and health experts.[13]

Who is placing trust?

Trust in HMS is shaped by the perspectives and experiences of different individuals and groups. Each stakeholder interacts with the HMS ecosystem in distinct ways and brings different expectations, concerns, and forms of expertise. Relevant actors include:

- **Patients and health consumers**, who must trust that medical interventions are safe, effective, and grounded in robust, credible evidence.
- **The general public**, whose engagement in public health initiatives and willingness to adopt evidence-based health advice depends on trust in scientific evidence and the government, media, and health institutions through which this is mediated.
- **Health professionals and health service leaders**, who rely on scientific evidence to guide clinical, preventive and public health practice and policies.
- **Health and medical researchers**, who need to trust that funding systems are equitable, peer review is rigorous and fair, scientific institutions uphold research integrity, and that decision-makers and media will not misrepresent their findings.
- **Policymakers and governments**, who depend on HMS to inform evidence-based decisions and need the public to trust the resulting policies.
- **Traditionally underserved groups**, including Aboriginal and Torres Strait Islander people, culturally and linguistically diverse (CALD) communities, LGBTQIA+ people, women, and rural and remote populations – each with their distinct historical, social, and political relationships with scientific, health, and government institutions.

What or who trust is placed in

Trust in HMS may be directed toward different components of the HMS ecosystem, each of which plays a role in shaping individual and collective confidence. These components include:

- **Trust in evidence-based healthcare**, including the belief that medical interventions are developed, tested, and delivered ethically, safely and effectively.
- **Trust in research integrity**, encompassing the methods, motivations, and ethical frameworks guiding health and medical research.

- **Trust in HMS institutions**, including universities and medical research institutes, regulatory agencies, healthcare providers, government structures, industry, and the broader health system.
- **Trust in science communication**, including the clarity, transparency, and cultural relevance of evidence-based health and medical information conveyed to the public by government, media, or other channels.
- **Trust in policy processes**, especially where scientific evidence is translated into clinical practice, legislation, guidelines, or public health directives.
- **Trust in equity and representation**, including whether scientific research considers diverse lived experiences and whether communities feel seen, heard, and included in research design and delivery.
- **Trust in community health and health consumer organisations,** including those designed to support marginalized communities.

The 2025 Edelman Trust Barometer identified a global trend whereby more respondents state that doctors have influenced their health decisions (86%) than medical scientists and health experts (69%).[13] It also found that hospitals and local pharmacies are trusted by 80% and 77% of global respondents respectively – making them more trusted than the biotechnology and life sciences sector (63%), health technology sector (63%) and pharmaceutical/drug sector (62%).[13]

Why does trust in health and medical science matter?

Trust in HMS underpins the legitimacy of research and the ability of public institutions to deliver positive health outcomes – including the ability of the health system to deliver effective care to all Australian communities. When trust is strong, it enables the effective development, communication, and uptake of scientific knowledge. When trust is weak or eroded, the consequences can be far reaching.

- **Trust enables scientific progress and its translation into real-world health outcomes.** When communities trust researchers and the institutions they represent, they are more likely to participate in clinical trials and accept the integration of new technologies into clinical care.[19,20] Likewise, trust among stakeholders within the HMS ecosystem – such as between funders and researchers, or between clinicians and policymakers – facilitates collaboration, data sharing, and timely innovation, which can facilitate research and its translation. [21,22]
- **Trust supports public health and clinical decision-making.** In public health, trust is essential to ensuring population-wide compliance with interventions, advice and recommendations such as vaccination, and health screening.[23] During the COVID-19 pandemic, trust in government was associated with higher compliance with containment measures and reduced mortality.[24] For individual consumers or patients, trust in clinicians fosters confidence in the evidence-based treatments and care they provide.[25]
- **Trust builds community engagement and research participation.** Research commissioned by the Australian Government has shown that Australians are more likely to participate in health and medical research if they trust the motivations of the researchers or organisations involved – and that they are less likely to trust research when it is perceived to be driven by private or commercial interests rather than public benefit.[iv] [26]
- **The erosion of trust has measurable consequences**, such as susceptibility to misinformation, healthcare avoidance, or non-compliance with public health advice – all of which risk undermining health outcomes and social cohesion.[6]

[iv] Research into what shapes a person's decision to become a biobank participant suggests that commercial activities – particularly if these involve profit making – can deter a people from participating, but that this can be countered with good governance. [49]

What shapes trust in health and medical science?

Trust is not a static attribute but a dynamic, situational, and often fragile phenomenon – especially in times of uncertainty or crisis. Understanding what shapes trust in HMS requires us to move beyond surface-level metrics and examine the deeper structural and interpersonal dimensions that can influence how trust is built, maintained, or eroded across different communities and contexts.

The role of institutions

Institutional trust is positively associated with trust in scientists, with trust in HMS therefore partly shaped by the public's confidence in the institutions responsible for regulating, producing, communicating, and translating HMS.[9] These include research organisations, government bodies, health services and media. The 2025 Edelman Trust

Barometer identified healthcare as the most trusted sector in Australia (trusted by 72% of respondents) and scientists as the most trusted group of people (77%), but found that Australians have lower levels of trust in government leaders (44%), CEOs (41%) and journalists (38%).[6]

Recent qualitative research commissioned by the Australian Government involving 158 broad-based participants identified the following key drivers of trust in the health and medical research sector:[26]

- The perceived impact of research.
- The purpose and motivations of those funding or conducting research.
- The timeliness of research.
- The transparency of research.
- Alignment of research priorities with the needs of the community.
- Perceived regulation of ethics and quality.

Health and medical research organisations, funders, and publishers all have a key role to play in fostering trust in HMS – for example by strengthening peer review, dealing appropriately with research misconduct, actively engaging Australian communities in

research agendas and funding decisions, promoting cultures of integrity and quality, and deploying metrics that measure and promote research and translation with real-world impact.[27,28]

Communication, scientific literacy, and the information ecosystem

Effective communication is central to building and maintaining trust in HMS. What exactly constitutes effective and ethical science communication depends on the context, aims, and audience of that communication.[29] However, the timeliness, clarity, accessibility, cultural relevance, and consistency of science communication can all help to make the science being communicated and institutions involved be perceived as trustworthy.[30] For example trust among CALD communities may depend on whether HMS communication is culturally appropriate accessible, and inclusive of their lived experiences.[31]

The 2025 Edelman Trust Barometer found that health Information becomes more believable the more frequently it is communicated, and that local, national, and global health authorities remain more trusted than social media in terms of health information.[13] Communicating HMS and HMS-informed policies effectively, in ways that foster public trust, is an imperative for all parties involved in undertaking and translating HMS. For example, during the COVID-19 pandemic, the quality of government explanations of the rationale for vaccination mandates influenced the shape of public trust in these measures and in vaccination more broadly.[32] Meanwhile, health and medical scientists have a role to play in building trust in HMS by ensuring that they communicate their research in ways that are transparent, timely and meaningful; clearly disclose their methods, uncertainties, conflicts of interest and funding; and explain what their findings do and to not show.[27]

Scientific literacy may play a role in trust in HMS. According to a 2025 survey, 25% of Australians expressed concern that they lacked the education or knowledge required to participate in health and medical research.[26] However, there is mixed evidence regarding whether trust in scientists is higher in countries with higher average scientific literacy scores.[11]

For the second year in a row, the World Economic Forum has identified misinformation and disinformation as the leading short- to-medium-term risk facing the global community.[33,34] Information and disinformation – which spreads rapidly via social media and which increasingly includes AI-generated content – pose significant challenges to trust in HMS. [35,36] In an increasingly busy and polarised information ecosystem, health and medical scientists – and the decision-makers who draw on their research – compete with both traditional and non-traditional media outlets, and social media influencers, for Australians' trust. Social media platforms (26%) are now a main source of news for more

Australians than online news platforms (23%), while 21% of Australians are comfortable with news produced mainly by AI.[37]

The 2025 Edelman Trust Barometer found that 43% of young people surveyed globally said that they regretted a health decision they made based on misinformation at least once.[13] Young people across Australia are often turning to social media for health and medical information. The Royal Children's Hospital's most recent Child Health Poll of 2,012 Australian parents and 1,488 children (aged 12-17 years) found that:[38]

- 63% of teenagers get health information from social media, with the leading topics being fitness and diet.
- Most teenagers (77%) and their parents (79%) say it is hard to tell what is true and untrue on social media.
- 42% of teenagers have made a health decision based on content they've seen on social media.

As well as catalysing the creation and dissemination of inaccurate and conflicting information, technological developments such as those across social media and artificial intelligence are also increasing the pace of our social and work interactions, thereby reducing the time available to build meaningful personal and institutional relationships needed to foster trust.[39]

Despite the complexity of today's information ecosystem and the fast pace of our communications, during the COVID-19 pandemic, Australians placed the highest trust in scientists and health experts as sources of information compared to other sources, with 85% of people identifying them as trustworthy.[40] This was followed by state and territory governments (67%) and the federal government (66%).[40] From the early stages of the crisis, politicians and government officials consistently framed their decisions as being guided by the science, frequently stating, for example, that they were "following the advice of medical experts."[41] While this alignment with HMS sometimes helped bolster public trust and confidence in public health measures, is also sparked criticism by groups who perceived political leaders were using HMS as a shield to justify controversial or coercive decisions and deflect responsibility for the trade-offs involved.[41]

Situational context

Trust can be impacted by uncertainty or crisis. During events such as environmental disasters, climate events, pandemics and other public health emergencies, HMS is brought into sharper focus. In these contexts, the stakes are high, uncertainty may be more acutely felt, and decisions must often be made quickly. In such situations, individuals may be more inclined to defer to expert advice, but may also be more sensitive to perceived inconsistencies, inequities, coercion, or knowledge gaps.

Crises can consolidate trust, for example the response is seen by those impacted as effective, transparent, and equitable. However, crises can conversely also deepen mistrust, particularly where they exacerbate grievances. For example, the 2020 Edelman Trust Barometer found that early government success in combating COVID-19 often increased national trust in that government.[42] However, the longer a government maintains a containment measure, the higher the risk that this trust would degrade.[24]

Individual factors

Trust in HMS is not evenly distributed across the population. Individual-level factors may shape how an individual perceives health and medical scientists and the institutions that facilitate, communicate, and translate their research. Regarding trust in science in general (i.e. not just HMS), in Australia, gender, age, education level, location, political affiliation, country of birth, and health status all impact levels of trust in science, and this also varies across different fields of science.[43] However, these factors do not operate in isolation – their impact on trust is shaped by how they intersect with broader institutional, cultural, political, social, and situational contexts.

Research suggests that some certain demographic traits may correlate with higher or lower levels of trust in science. For instance, some studies have found that women, older adults, and those with higher levels of educational attainment tend to express greater trust in scientists.[11] However, these patterns are not consistent across contexts or scientific domains. For example, in Australia, younger people (i.e. under 30) have been found to report greater levels of trust in scientists in relation to vaccines compared with older age groups.[9]

During the COVID-19 pandemic, lower confidence and trust in HMS-informed, government-led public health measures were associated with:[41]

- Older age
- Lower education levels
- Lower health literacy
- Being born in Australia
- Use of non-government information sources as a top information source (e.g. social media, new websites)
- Living with chronic health conditions

Income and socioeconomic status likely play a role in trust in HMS. The 2025 Edelman Trust Barometer found that, in Australia, those in the lowest income quartile reported significantly lower levels of institutional trust than those in the highest income quartile.[6] Lower levels of trust among socioeconomically disadvantaged groups may reflect broader experiences of social exclusion, inequity, or lack of representation in decision-making processes – not simply personal attitudes toward HMS of health and medical scientists.

Science-related populist attitudes – i.e. an individual's beliefs that what they perceive to be "common sense" is superior to scientific expertise – are associated with low trust in scientists.[11] These attitudes, which may reflect broader scepticism towards institutions and perceived "elites", can shape how scientific advice is received, especially when amplified by political or media narratives.

The influence of individual factors on trust is further complicated by cultural and historical contexts such as collective and personal histories with scientific and health institutions and professionals. For example, Aboriginal and/or Torres Strait Islander peoples have experienced persistent discrimination and marginalization by research and health institutions and practices, often rooted in scientific racism and the colonial legacy of Western science [44]. Among Aboriginal and/or Torres Strait Islander communities, trust in researchers and research practices, along with research proposals not aligning with local community priorities, continue to be cited as reasons for not participating in health and medical research.[45]

Different lived experiences and systemic barriers intersect and combine in individuals to shape their trust in HMS. For example, in an Australian longitudinal study involving 709 mothers, vaccine hesitancy was associated with poorer quality of life and disability. Among Australian-born women, it was associated with separation anxiety disorder and younger age.[46]

Ultimately, while demographic and individual characteristics matter, they cannot fully explain levels of trust in HMS. The influence of age, gender, socio-economic background, political affiliation, etc., is shaped by how individuals engage with institutions, how well their values and concerns are acknowledged, and the quality and relevance of their experiences with the HMS ecosystem – which encompasses the health system, government, media and industry, alongside research organisations and health and medical scientists.

Looking ahead

Understanding and strengthening trust in HMS is essential Australia's capacity to develop and deliver an equitable, evidence-based, and future-fit health system.

Future outputs in this Academy series will explore how trust in HMS can be better measured and consolidated – including across Australia's diverse communities, and in a rapidly evolving social and technological landscape

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