Australian Clinical Trials Alliance

Clinical trial awareness and access amongst culturally and linguistically diverse (CALD) populations: environmental scan

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INTRODUCTION

Australian governments and health institutions have been actively improving the environment and infrastructure required for conducting high quality clinical trials. The Australian Government invests heavily into medical research, with pharmaceutical companies investing a further AUD$1b annually into research and development. Australia is widely considered to have world-class medical research and health care infrastructure.[1]

Research is defined as 'a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalisable knowledge'.[2] This is a broad definition that may include clinical research, epidemiological studies, and health services research, as well as studies of behavioural, social, and economic factors that affect health.

Clinical trials are part of clinical research and look at new ways to prevent, detect, or treat disease, using a systematic approach to understand if an intervention (old or new) is safe, effective and improves health outcomes. Awareness of the role and value of clinical trials amongst the broader public remains low and there is often a lack of access to ongoing trials. These issues are even more acute for people from culturally and linguistically diverse (CALD) backgrounds.

CALD is a general and inclusive descriptor for communities with diverse language, ethnic background, nationality, dress, traditions, food, societal structures, art and religion characteristics.[3] This term is used broadly and often synonymously with the term 'ethnic communities'.

In Australia, CALD individuals are generally defined as people born overseas, in countries other than those classified by the Australian Bureau of Statistics (ABS) as 'mainly English-speaking countries'. The set of mainly English speaking countries other than Australia identified by the ABS comprises: Canada, the Republic of Ireland, New Zealand, South Africa, the United Kingdom (England, Scotland, Wales, Northern Ireland) and the United States of America.[4] In 2016, 28% of the Australian population was overseas-born and an additional 21% had at least one overseas-born parent.[5]

Lack of representation in clinical trials by diverse populations has greater implications beyond equity, for example in recent years pharmacogenetic research has uncovered significant differences among racial and ethnic groups in the metabolism, clinical effectiveness, and side-effect profiles of many clinically important drugs. As a result, the generalisability of research findings is challenged, and at a societal level, we need to acknowledge that the potential benefits of health research may not be reaching the most vulnerable groups who are commonly underrepresented in research.[6]

Recently, the objectives of raising awareness and improving health research literacy have moved beyond the primary aspiration of increasing participant recruitment rates. For underrepresented populations especially, they are evolving to ensure patient and public views and needs are central, prioritised, and part of every healthcare decision. This approach builds confidence, trust and facilitates a personal sense of control in the health journey, enabling shared opportunities and outcomes for patients and health professionals alike.

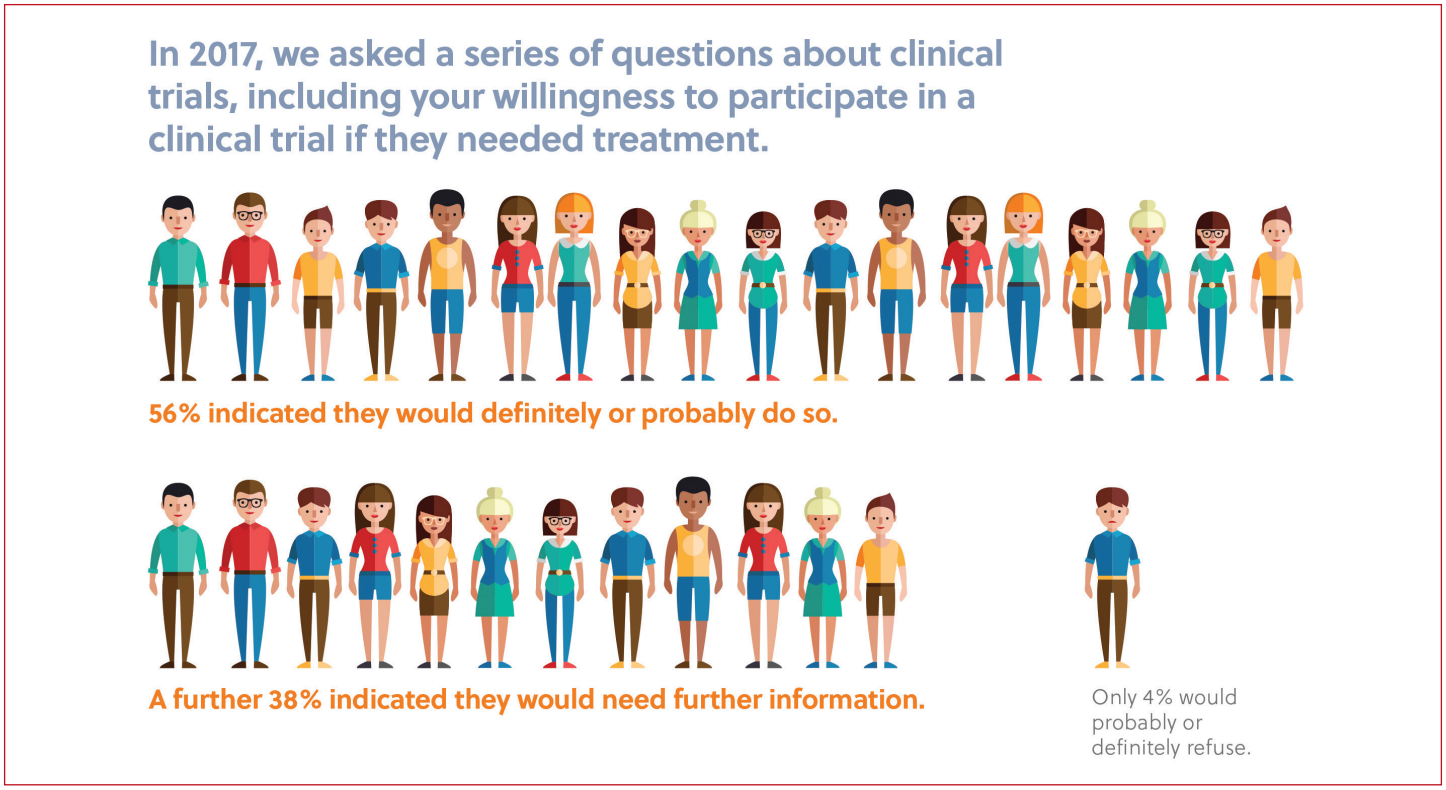
The Australian Clinical Trials Alliance, on behalf investigator-led research sector and informed by the strengthening consumer involvement in clinical trials program, sought to review national and international initiatives that have aimed to increase participation in clinical trials by ethnic minority groups, to further understand how to improve and develop sustainable clinical trial awareness, involvement, and access strategies for the CALD populations in Australia.

BACKGROUND

AWARENESS IN THE GENERAL COMMUNITY

In 2015, the Australian Government Department of Health commissioned Ernst & Young Global Limited to undertake systematic scoping and analysis of issues in recruitment and retention in Australian clinical trials. A key theme identified was a lack of clinical trial awareness among clinicians, consumers (patients, carers, and the public) and local health networks amongst others. Stakeholders suggested that this was underpinned by a lack of a clinical trial culture at a national, jurisdictional, site, and community level.

The Research Australia 2017 National Opinion Poll asked Australians a series of questions related to clinical trials, including their willingness to participate in a clinical trial if they needed treatment. With findings (below) demonstrating 56% of respondents saying, 'they would definitely or probably take part in a clinical trial' and 38% saying they would 'consider participating in a clinical trial but they would need further information'.[7]



Despite the Australian public being interested in clinical trials, a 2017 national survey of patients (n=1,000) conducted by the Centre for Community-Driven Research (CCDR) found more than 70% of participants said 'they had not discussed clinical trials' as part of their healthcare decision-making'.[8]

Similar research seeking to understand more about public attitudes in relation to participation in clinical trials has been undertaken by many countries. A survey conducted in 2003 of 1,000 healthy adults in the United States found around 40% of participants did not understand the idea of a clinical trial, however 32% indicated that they would be very willing to participate in a clinical trial if asked to do so.[9]

AWARENESS ISSUES PARTICULARLY RELEVANT TO THE CALD POPULATION

Despite CALD Australians representing almost a third of the population, they are often excluded from clinical research conducted within Australia. For example, Low and colleagues (2019)[10] conducted a search of the Australian New Zealand Clinical Trials Registry and ClinicalTrials.gov and found that 42 of the 94 currently registered active dementia clinical trials in Australia (44.7%) excluded patients not fluent in English.

There are increasing efforts to understand the reasons for the underrepresentation of CALD communities in research. Some earlier studies in the US signalled that a willingness to participate in medical research was lower among ethnic minorities than whites.[11,12] But a more in-depth review of these findings demonstrated that the conclusions drawn were not consistent and it is clear that other factors, including provider perceptions, lower access to care, poorly designed trials and a lack of resources also play a role.[13]

A ten-year review published in 2019[14] examining the status of reporting and representation of racial/ethnic groups in landmark trials leading to US Food and Drug Administration (FDA) approval of oncology drugs further supports that more systemic reasons may be influencing access. Among 230 trials with a total of 112, 293 participants, 145 (63.0%) reported on at least one race, 18 (7.8%) documented the four major races in the United States (white, Asian, black, and Hispanic). The results demonstrated whites, Asians, blacks, and Hispanics represented 76.3%, 18.3%, 3.1% and 6.1% of trial participants respectively. Yet despite clinical trial awareness initiatives during this time, the proportion for ethnic minorities enrolled only changed nominally (Blacks, 3.6% vs 2.9% and Hispanics, 5.3% vs 6.7%) from July 2008 to June 2013 vs July 2013 to June 2018. Evaluating the clinical trial awareness campaigns and access pathways for such groups during this time may be of benefit.

While clinical trial awareness across the broader Australian population may be low, there are specific issues such as access, cultural and language barriers which exacerbate the problems for CALD communities. The first steps to improve awareness, involvement, and access to clinical trials should seek to comprehensively understand exactly what information is needed, by which individuals (and communities) and in what delivery format to facilitate effective engagement.

BARRIERS TO THE AWARENESS OF AND ACCESS TO CLINICAL TRIALS FOR ETHNIC COMMUNITIES

Awareness can be defined as 'knowing that something exists or understanding of a situation or subject at the present time based on information or experience'.[15]

Awareness and knowledge are often terms used interchangeably in public health research, Trevethan[15] recommends in this context, 'knowledge be used to refer to information that is, to a greater or lesser extent, detailed and factual, and that awareness be associated with information that is personally relevant'. Adopting such recommendations and applying them across all stakeholders (e.g. CALD individuals, general public, healthcare providers, researchers and sponsors, etc) involved in the research process may further facilitate practical approaches useful to improving clinical trial awareness and access amongst the CALD population.

A review of the literature examining barriers and opportunities associated with clinical trial awareness and access for ethnic minority groups has been extensive in current years. To understand and explore the reasons for such underrepresentation of ethnic minorities in clinical trials, a summary of four key papers below outline the aims, methods, and central findings specific to the CALD population (Table 1).

Table 1 Barriers and opportunities related to clinical trial awareness and access

Title, Author, Location, Year	Outcome
Increasing Diversity in Clinical Trials: Overcoming Critical Barriers. Clark et al. (US) 2019[16]	**Aim:** Develop sustainable solutions that would benefit all key stakeholders and lead to making diversity in clinical trials a standard part of the clinical research model. **Method:** The study involved an 8-step process. Steps 1–5 (literature review and evaluation, expert interviews, and development of stimuli to address barriers and find solutions) formed the foundation for steps 6–8 (testing the solutions). Study participants belonged to one of four key stakeholder groups: patients, referring physicians, investigators, and clinical trial coordinators. **Relevant key barriers:** (1) mistrust: lack of understanding the value, fear, stigma of participating, and communication style of investigator/staff; (2) lack of comfort with the clinical trial process: mistrust of process, fear, family members' opinions, and information; (3) lack of information about clinical trials: fear and stigma of participating; (4) time and resource constraints associated with clinical trial participation: financial burden, time commitment, transportation, and compensation and logistics; and (5) lack of clinical trial awareness (e.g. understanding the role and value). **Conclusion:** The study reaffirmed well-known critical barriers impacting the willingness of minority patients to participate in clinical trials, identified solutions for overcoming the barriers by direct testing with key stakeholders, and developed a multi-stakeholder roadmap designed to enhance sustainable success.

Title, Author, Location, Year	Outcome
Review of diversity and inclusion literature and an evaluation of methodologies and metrics relating to health research. Chambers et al. (UK) 2017[17]	**Aim:** Systematic and critical review of the evidence base for a positive relationship between a diverse and inclusive health research community, and the qualities and impacts of the research they undertake. Secondary aim to evaluate the efficacy of the metrics used to measure diversity, inclusion, quality and impact in health research, and the relationship between these metrics and wider agendas for diversity and inclusion. **Method:** Mapping review for consideration of diversity and inclusion across the health research system; supplemented by three qualitative institutional case studies; a stakeholder workshop (including patients and the public); and a targeted look at evidence for the relationship between research metrics, diversity and inclusion. **Relevant key barriers:** There are persistent areas of controversy and complexity, such as how to conceptualise and operationalise race/ethnicity. These demand careful and explicit consideration. **Potential enablers:** Interventions and initiatives aimed at increasing diversity and inclusion of research participants and/or topics: > legislation > policies and guidelines > targeted investments > workforce diversification and skills development > research tools and techniques > community engagement and participatory methods (e.g. awareness and priority setting) > metrics. **Conclusion:** Scope to pioneer creative and ambitious funding, policy and advocacy strategies that draw links between these (at times) disparate and siloed agendas, to advance a more holistic understanding of links between diversity, inclusion, integrity, responsibility and public engagement.
A review of approaches to improve participation of culturally and linguistically diverse populations in clinical trials. Hughson et al. (AU) 2016[18]	**Aim:** Examine the complexities of recruiting CALD older people to medical research and to examine responses to these issues. **Method:** Literature review focusing on: 1) trends in the existing literature on barriers to and strategies for recruiting CALD and older people to clinical research; 2) issues with informed consent for CALD populations; and 3) the efficacy of innovative approaches, including approaches incorporating multimedia in research and consent processes. **Relevant key findings:** Barriers to the inclusion of elderly CALD people in clinical trials: 1) mistrust; 2) communication barriers; 3) cultural barriers; 4) economic and time constraints; 5) mobility and health issues; and 6) opportunity barriers. **Potential enablers:** 1) Community relationship building and outreach; 2) communication–initial and ongoing (e.g. awareness and education about the purposes of medical research); 3) cultural sensitivity; and 4) facilitate access to research studies 5) awareness raising amongst researchers and other stakeholders of barriers to CALD participation. **Conclusion:** A multi-methodological approach, including the use of CALD sensitive multimedia tools. Researcher education needs to be considered to address preconceptions about CALD resistance to research participation and to raise awareness of cultural concerns regarding research participation.

Title, Author, Location, Year	Outcome
Scoping and analysis of recruitment and retention in Australian clinical trials. Ernst & Young (AU) 2016[1]	**Aim:** To identify current initiatives underway in Australia; undertake a review of barriers and enablers via consultation with stakeholders, participants and the general public; and provide advice on the most effectively direct effort to enhance clinical trial recruitment and accruals. **Method:** Literature review and consultation. Stakeholder consultation (150 members consulted in workshops including government, investigators, ethics committees, contract research organisations (CROs), clinicians, consumer groups and pharmaceutical companies), noting the key themes and findings from the consultations. Patient and public consultation also included interviews with patients who had participated, withdrawn, or refused clinical trials, as well as the general public. **Relevant key findings:** Key themes relating to issues in recruitment and retention in clinical trials including 1) leadership and coordination; 2) networks, registries and digital health; 3) leading practice and performance; 4) awareness (e.g. role and value of clinical trials); and 5) regulation and safety. CALD groups: research and consultation identified a lack of access to language services for people from a CALD background – both in the design of trials and exclusion criteria, and the way information about clinical trials is presented and disseminated. Indigenous Australians: low levels of health literacy, including low levels of understanding in relation to research and clinical trials, a culture of mistrust of clinical trials and institutions more broadly, lack of engagement in protocol design, and complexity of trials failing to provide flexibility for Indigenous people are key barriers to recruitment, as evidenced by a poor history of success or completion in clinical trials in this context. **Conclusion:** There is no single strategy that will improve recruitment and retention in Australian clinical trials. Rather, recruitment and retention must be considered together with the systemic, structural, and cultural factors shaping the Australian clinical trials environment at the national, jurisdictional, and institutional level.

Increasing clinical trial awareness and access in an effective, sustainable, and scalable manner remains a shared challenge for the academic institutions, industry, and clinical research overall. Importantly so, as evident from findings highlighted above, the need to address this amongst CALD population would be an important step to increasing equity and reducing underrepresentation.

CLINICAL TRIAL AWARENESS INITIATIVES

The lack of awareness and understanding of research amongst the general public is recognised as an important barrier to embedding research in healthcare. Initiatives in many countries are working to address the significant knowledge and information gap.

EUROPE

In 2005, European Clinical Research Infrastructure Network (ECRIN) launched International Clinical Trials Day (ICTD) to commemorate the day when James Lind started his famous clinical trial on scurvy on 20 May 1747, and laid the foundation for modern clinical research. Celebrated every year on or around 20 May, ICTD is an opportunity for research organisations, clinical research professionals, and the public to acknowledge the achievements that result from clinical research and to discuss various trial-related topics. Since then, several countries have introduced their own ICTD celebrations.

The endorsement of ICTD and facilitation across Europe was supported by a grant from the European Commission and led by European Communication on Research Awareness Needs (ERCAN) project (2012–2014). Over a two-year activity period, ECRAN developed communication materials for European citizens, providing free access to general and comprehensible information about clinical trials. In order to achieve this objective, the complete website contents (awareness and educational) were made available in English, French, German, Spain, Italian and Polish, and basic information provided in 23 European languages.

The ECRAN project was designed to support the strategy of the European Commission to fund independent (investigator-driven) multinational clinical trials, as a major component of the cooperation health priority work programme. The project finished in 2014, achieving the proposed objectives (final report) and despite the initiative not being currently active, resourcesremain available, free to access and are still used by many organisations (e.g. Cochrane), indictating the potential wide-reaching benefit of centralised educational resources on the role and value of clinical trials for people from English and Non-English speaking backgrounds.

UNITED KINGDOM

In the UK, a five-year strategic plan 'Promoting a research active nation' set out a new program to encourage public engagement and participation in health research (embedding). NIHR marked International Clinical Trials Day (ICTD) with its 'Ok to ask' campaign (2013–16). The campaign positioned patient participation in clinical trials as a right, and the campaign message was about empowerment to ask about clinical research and potential participation, in the context of routine healthcare delivery.

The National Institute for Health Research (NIHR) strategy was updated in 2017, with the launch of the 'I am Research' campaign, contextualising research participation as both a right and an obligation, a way to 'give back' to the healthcare system to help improve care and further encourage a greater sense of community, becoming more informed about illness, gaining access to latest treatments and promoting a feeling of increased control over health conditions.

The messages of 'I am Research' frame patient participation in terms of reciprocity for health care provision based on equity or solidarity while calling upon the imagined patient's reasoning of cost-benefit.[19] Furthermore, this campaign was revised to include feedback from INVOLVE in recognition of the growing patient and public involvement in research strategy championed and growing within the UK.

UNITED STATES

The National Institute of Health (NIH) recognises the importance of clinical trial awareness, stating 'clinical research should be seen as the social good that it is'. However, they highlight that the ethics of promoting greater awareness of clinical research must be considered carefully. Commenting 'the focus of any awareness campaign should be to advocate for consideration of participation, rather than to encourage participation'. Providing resources to help individuals make informed decisions about research involvement assists understanding of the true benefits and risks of participation.

Their broader 'Feeling Better Brought to You by Clinical Trials' showcases clinical trial participation using real-world patients. In addition, targeted awareness campaigns were created focusing on common conditions (e.g. asthma, cancer, dementia), to deliver key messages with a similar locus on control on disease awareness, treatment and prevention. The NIH provides clinical trial awareness and educational material in English and Spanish in an attempt to meet common language needs of the population.

In 2015, the NIH also launched the 'All of Us Research' and unlike research studies that focus on one disease or group of people, this program is building a diverse database that can inform thousands of studies on a variety of health conditions. To enable this, the program has undertaken several activities focussed on localising outreach messages and events for different communities to encourage greater minority representation in research.

Although the Food and Drug Administration (FDA) does not normally conduct clinical trials, they recognise the need for increased diversity in clinical participation and are currently working with a variety of stakeholders, including federal partners, medical product manufacturers, medical professionals, patient groups and health advocates. One approach led by the FDA's Office of Minority Health, is to provide resources and tools for racial and ethnic minority groups to assist people and their health care providers to learn more about clinical trials. In particular, the site includes case stories by people from different racial and ethnic backgrounds sharing their personal experiences of clinical trials.

Aside from national health and research peak bodies, the broader research sector has also partnered with stakeholders to develop campaigns which promote the clinical trial awareness and extend further to provide educational material and encourage community engagement. For example, in 2018, the Center for Information and Study on Clinical Research Participation (CISCRP), a US non-profit organisation, released an educational video called the 'MT Pharmacy'. Sponsored by Sanofi US, the educational video is designed to increase awareness of the important role that clinical research participants and clinical trials play in advancing public health. In over one month, CISCRP received over 5,000 views across various social media platforms. More importantly the announcement received overwhelmingly positive reactions from industry professionals, patients, and members of the public both locally and internationally, commenting on the innovative approach taken to educate the public about clinical research. Complimenting the NIHR approach to raise awareness of research and allowing members of the public to appreciate how this in turn fosters a learning health system model.

Industry in addition are aware of the underrepresentation of ethnic groups in clinical trials and recently a collaboration between several partners, both across US and Australia, launched a diversity campaign led by CISCRP. The aim to build on the momentum and success of recent activities, with access to free bilingual resources. Opportunities created by such collaborative partnerships include the ability to reach over one million individuals in the Black, African American, Hispanic, and Latino communities (US). Also, such collaboration addresses one of the key barriers outlined above; to support efforts to educate diverse communities about clinical research and build trust for the research sector within minority populations.

AUSTRALIA

Recommendations from the *Clinical Trials Action Report* (2011) and the EY review (2016)[1] of the Australian landscape, outlined an overwhelming need to define the value proposition for clinical trials and communicate the benefits to participating in trials to both clinicians and consumers, while also observing there are systemic issues that also need to be resolved. To address these issues a national web portal was launched – Australianclinicaltrials.gov.au – acting as a one-stop shop for all stakeholders. The key aim was to share clinical trial educational material, trial participant stories and importantly provide a tool for finding trials via the Australian and New Zealand Clinical Trials Registry (ANZCTR) platform.

The National 'Helping Our Health' media campaign launched in 2018 to raise awareness of clinical trials was able to leverage existing public websites. The initiative provided a comprehensive overview of the role and value of clinical trials and what they mean to the everyday person and successfully helped raise awareness of clinical trials by engaging a recognisable national sports player forthe media launch. Resources are provided in English but again encourage free access to materials for use in different contexts (e.g. social media platforms, posters for clinical areas and video case stories sharing perspectives of patients, carers and clinicians), to deliver central messages for the broader community in a comprehensible format.

The approach of many clinical trial awareness initiatives is often coupled with 'matching' or 'self-referring' services. Examples include the NIH Clinical Centre alliance with ResearchMatch, US Alzheimer's Association TrialMatch and the NIHR Join Dementia Research initiative. In the 'Helping our Health' campaign this method was also used, providing direct access to Australian New Zealand Clinical Trials Registry (ANZCTR) enabling members of the public to search for open clinical trials across a variety of health conditions.

Besides increasing the knowledge and understanding of clinical trials through awareness activities to the broader public who may have never considered clinical research, an opportunity exists in the recognition of people who have been trial participants. The White Coats Foundation advocates and recognises trial participants, with its 'iwearawhitecoat' initiative. Acknowledging that clinical trials are often associated with doctors, scientists, pharmaceutical companies or people in the health care professions, this initiative instead focusses on the volunteering public with the aim to 'thank them' for the important role they play in helping advance new therapies/treatments. Testimonials hosted on their website similarly share stories of clinical trial participants from diverse backgrounds.

Other pivotal organisations raising awareness of and access to clinical trials as part of standard health care options are patient groups (e.g. condition specific or advocacy) with direct linkage to patients and the broader community. Several of these organisations facilitate consumer involvement activities directly with research teams or offering trial matching services for a range of different health conditions. In addition a recently formed national peak body, the Australian Patient Organisation Network (APON), was formed to further support the sector and strengthen its impact through collaboration. Its work includes setting up special interest groups to discuss different approaches to community-based clinical registries and identify opportunities for collaboration, leverage existing data collection mechanisms, information sharing and understand how clinical registries could be useful to evaluate interest and participation in clinical trials.

IMPLEMENTATION AND SUSTAINABILITY

Raising clinical trial awareness amongst the general public requires effective multi-stakeholder engagement, implementation planning and sustainability strategies. This is even more relevant for underrepresented groups such as CALD individuals and communities.

APPROACH

A recent global study (2018)[20] of 12, 427 individuals (representing 68 countries and including 2,194 clinical trial participants) looking at public attitudes about clinical research and patient experiences with clinical trials, revealed a perceived importance of clinical research but continued limited understanding of the clinical research process. It also showed that clinical trials are rarely discussed during regular clinician visits, and that clinical trial participation is perceived as burdensome. These findings are clearly helpful in assisting with the development of general communication strategies seeking to further engage patients and the public in the awareness of, and access to clinical research.

Many recognise increased, often focused efforts are required to address the knowledge gap and engagement issues identified by ethnic communities, incorporating enabling approaches such as:

- development and long-term partnership building with groups that patients and communities trust, without time pressure
- enabling patients, communities, and researchers to work together to develop research priorities
- designing trials to be more patient-centric and inclusive
- translating study language into everyday language
- engaging patient and public advocates who have participated in studies.

In the US several organisations are actively progressing such activities, for example CTTI (as part of the Moving The Needle Together program) and the FDA which hosted a meeting in early 2019 with a focus on enhancing awareness and access, inviting investigators, patients and other stakeholders – with specific representation from minority advocacy groups. Some major findings from the meeting include:

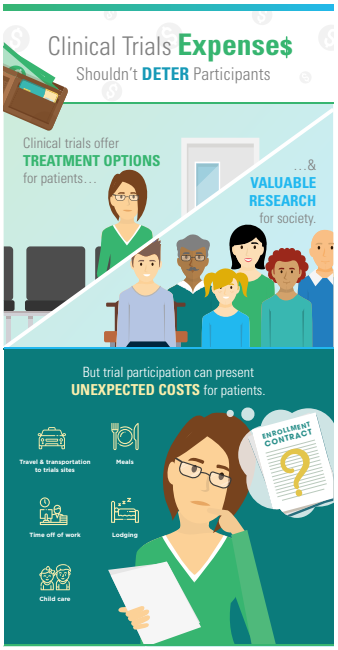
- 'people are not for clinical trials – clinical trials are for people'
- for patients to be engaged, communities need to be engaged to raise awareness and educate about clinical research in general as well as to learn about communities' specific needs and experiences
- likewise, clinicians also need to be engaged so that a patient finding a trial opportunity is not a matter of luck but, rather, the result of a discussion between clinician and patient.

The Multi-Regional Clinical Trials Centre (US) are also working collaboratively with multi-stakeholder groups to increase diverse representation in clinical trials for many individuals including those from different ethnic backgrounds. Late 2019 releasing fundamental principles to help frame clinical trial considerations, potentially a useful starting point for many countries evaluating similar issues. The next step will be to work with the partners to develop and implement best practice recommendations to advance awareness of, and access to clinical trials.

Using country-specific information gathered from the broader population and ethnic communities can further assist with addressing the misinformation or preconceptions related to clinical trials awareness and access. For example, the US Coalition for Clinical Trials Awareness (CCTA) which acts as an advocate for the creation of federally sponsored public awareness campaigns, has hosted a consultation with the public and research sector each year since its inception (2015). Facilitating priority topics for discussion based on stakeholder feedback, and developing resources addressing common barriers associated with clinical trial awareness and access include:

2015 'Aware for All' and Clinical Trial Awareness Toolkit
2016 What Does Clinical Trial Awareness Look Like? – a campaign model
2017 Empowered Patient Chats, How Can Federal Government Increase Clinical Trial Awareness? Clinical Trials Mythbuster webinar
2018 Why Clinical Trials Need Newborns, Why Clinical Trials Need Senior Citizens
2019 Financial and health care policies to raise awareness about support services to overcome financial barriers to clinical trial enrolment.

To understand why patients and the public feel participation in clinical trials may be burdensome, we need to understand the individual elements of burden. The financial costs of enrolment to institutions and individual patients affect all patient populations, but there is a disproportionate impact on minorities compared with non-minorities.[21] For example, minority groups in the US are more likely to be underinsured, to seek care at under-resourced hospitals, and to have concerns about the cost of participating in a clinical trial. In Australia health models are slightly different but identifying community-specific challenges may assist effective engagement with different ethnic groups, and enable opportunities to overcome perceived or actual barriers.



Equally, federal-level recognition of such barriers is often a critical step towards national equity. In the US the NIH acknowledges this and supports several direct initiatives, such as the 'Building Trust between minorities and researchers' project. In addition, CISCRP – in partnership with ten leading pharmaceutical companies and clinical research service providers in the US recently developed a new consortium (2019) to improve national health literacy. The consortium specifically seeks to address the need to improve patient diversity in clinical trials and will focus efforts and resources on community-based education during a five-year period, demonstrating a sustained commitment to change.

SUSTAINABLE COMMUNITY ENGAGEMENT

To build trust, underrepresented communities need to have confidence the organisation engaging with them is committed to an equal and long-term partnership.

In Australia there is a large body of evidence related to the conduct and implementation of research in Indigenous communities. A 2015 study[22] identified facilitators and barriers to implementation of a pragmatic clinical trial seeking to improve adherence to indicated drug treatments for people at high risk of cardiovascular disease within Aboriginal health services. The researchers found the fundamental enablers to implement the trial were:

- endorsement and oversight of the research was undertaken by the local health service
- community priorities were being researched
- Indigenous champions were visible in the community to provide information and support.

Concluding that, aside from strong community and health service support, major investments in time (sustainability) and resources were needed to ensure successful implementation and minimal disruption to services. Authors also noted further work needs to be undertaken to appreciate the economic implications of such approaches (e.g. research grants), specifically when supporting trials of a similar nature.

Community awareness and engagement strategies have existed for many years in health – and the consolidation of learnings and metrics to measure the effectiveness of these activities may further inform sustainable best practice and guidance in clinical trials. The case study in Box 1 highlights how to evaluate the effectiveness of awareness and engagement initiatives in healthcare amongst minority groups, recognising that one solution may not suit all stakeholders equally. In recent years similar approaches have been adopted by the UK government, which now requires the NIHR to monitor the impact of its awareness activities through an annual survey of public attitudes to clinical research.

An effective approach is important. The limitations of public funds for clinical trials and so a lack of adequate engagement with underrepresented ethnic groups systematically impacting research outcomes. For example a review of research priorities in mental health, conducted on behalf of the Commonwealth Department of Health and Aged Care, revealed that there was a lack of mental health research dealing with Australia's non-English speaking population groups. These groups were included in only 2.2% of published articles and attracted only 1.5% of competitive research grant funding.

Successful community engagement approaches often start by building foundational research knowledge within each community and identifying relevant research priorities. Recently the NHMRC National Institute for Dementia Research (NNIDR), embarked on research prioritisation to develop a Strategic Roadmap for Dementia Research and Translation recognising the needs of the CALD communities and the challenges that dementia presents for Australia's ageing population. After extensive consultation (two stakeholder workshops, 19 national CALD community consultations and national surveys), the group identified 21 priority research and translation needs. The findings of this exercise have informed the development of a national action plan to support increased CALD inclusion in dementia research, at the same time values and facilitates ongoing partnerships with CALD communities.

Box 1: Case study – how to implement and evaluate engagement initiatives

A systematic review by Deedat (2013)[23] sought to identify effective interventions to increase organ donor registration and improve knowledge about organ donation among ethnic minorities in North America and the UK. Key drivers for work (led by UK's Organ Donation Taskforce) were the underrepresentation of minority groups and an inability to meet their health demands. For example:

> *'In the UK, Black and South Asian individuals constitute 8.4% of the population but represent 4% of organ donors for whom ethnicity is recorded and 20% of the active kidney transplant waiting list. Similarly, in the USA, African Americans account for 13% of the population but constitute 34% of those waiting for a kidney, while overall ethnic minorities account for 56.3% of those waiting for a transplant in the USA.'*

Key known modifiable barriers to the donation rate among minority ethnic groups include lack of knowledge of the need, how to register as a donor, cultural and religious beliefs and lack of trust, echoing similar barriers associated with clinical trial awareness, access and participation.

Prior to undertaking the review, the taskforce highlighted that, despite mass media campaigns and some community engagement activities, the proportion of the population on the Organ Donor Register only increased from 25% in 2008 to 30% in 2012, while the actual number of minority ethnic registrants remains small.

Results: 18 studies were included, comprising educational and mass media interventions. Mass media interventions alone reported no significant change in the intention or willingness to register. Educational interventions either alone or combined with mass media approaches were more effective in increasing registration rates, with a strong interpersonal component (e.g. community advocate and/or interventions delivered in community setting) and an immediate opportunity to register identified as important characteristics in successful change.

Conclusion: Effective interventions need to be matched to the populations' stage of readiness to register. Measured outcomes should include registration and shifts along the pathway towards this behavioural outcome.

Implication: Opportunities to consider generalisable engagement and access approaches in the context of clinical trials amongst the CALD population, and recommendations to develop outcome metrics to evaluate effectiveness of such activities.

Deedat, S., Kenten, C., Morgan, M. (2013). What are effective approaches to increasing rates of organ donor registration among ethnic minority populations: a systematic review. *BMJ Open, 3*, e003453. 10.1136/bmjopen-2013-003453

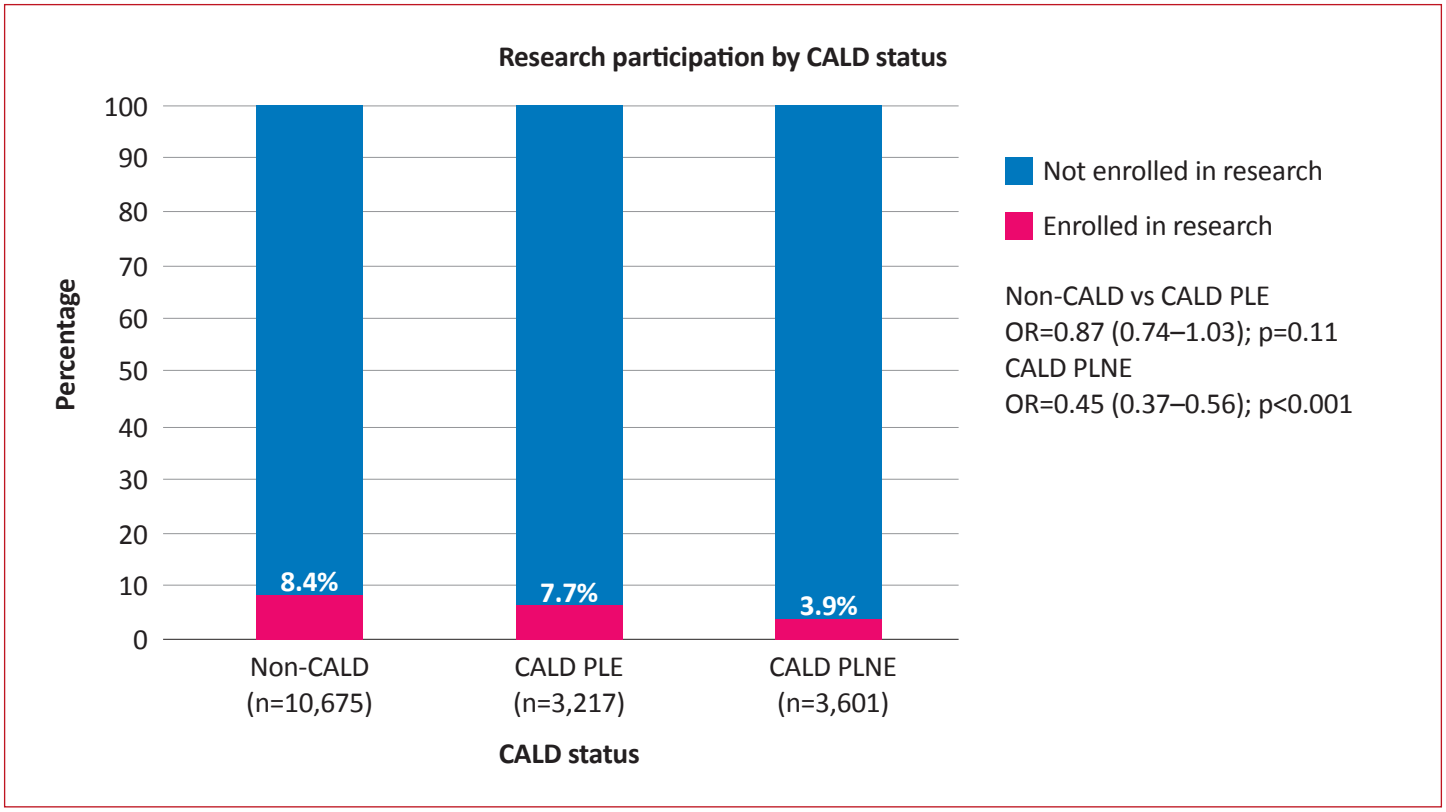
ACCESS TO CLINICAL TRIALS

Awareness campaigns are being engineered to allow patients and the public to better understand the need for higher quality evidence and to motivate the demand for more trials to generate that evidence (embedding). Higher quality evidence should consequently include a diverse participant sample, and as such awareness initiatives need to be accompanied by clinical trial direct-access platforms or strategies. For the CALD population this often poses more complex engagement challenges.

LANGUAGE

Language and health literacy barriers can often lead to exclusion of CALD individuals from trials. In addition the extra time required and lack of resources (e.g. interpreter services or translated materials), in the healthcare setting compound this issue. These barriers tend to result in CALD individuals being unaware of the option to participate in trials, not being offered the opportunity to participate in trials, and/or, not agreeing to participate in trials when invited.[24]

Australia is one of the world's most culturally diverse countries, with more than one-quarter (26%) of the population born overseas and almost one-fifth (19%) speaking a language other than English at home. A study by Smith and colleagues (2018)[25] explored this further in the context of the research setting and based on previous international research, hypothesising that trial participation would be lower in CALD than non-CALD cancer patients. The total sample was 19,453 cancer patients diagnosed and/or treated in South Western Sydney Local Health District, which included 54.9% non-CALD, 16.5% CALD-Preferred Language English (CALD-PLE) and 18.5% CALD Preferred Language Non-English (CALD-PLNE) patients. The findings are demonstrated in the graph overleaf.



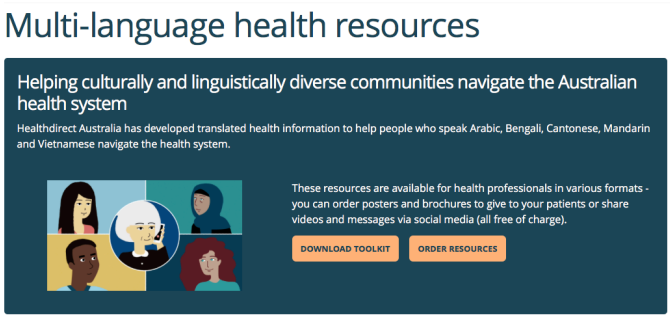
Adapted from Smith et al. (2018). Research participation by CALD status, Ingham Institute, UNSW, Sydney

The researchers concluded that limited English proficiency seems particularly unfavourable to trial participation. Development and evaluation of strategies to overcome language barriers (e.g. simplified and translated multimedia participant information materials) may be a solution.

HEALTH CARE PROFESSIONALS

Cultural competence education for healthcare professionals (HCP) to ensure all people receive equitable, effective health care, particularly those from CALD backgrounds, varies globally both in content and implementation in practice. The combination of this challenge plus low-or variable levels of clinical trial awareness and literacy amongst HCPs, has been shown to further exacerbate barriers related to the engagement of the CALD population in research. Niranjan et al. (2020)[26] recently demonstrated this within oncology clinical trials conducted at five centres in the US, in which key stakeholders (including principal investigators, referring clinicians and research staff) participated in extensive interviews. Three key themes emerged: 1) recruitment interactions with potential minority participants were perceived to be challenging; 2) potential minority participants were not perceived to be ideal study candidates; and 3) a combination of clinic-level barriers and negative perceptions of minority study participants led to providers withholding clinical trial opportunities from potential minority participants, highlighting the potential risk of bias and stereotyping among research and clinical professionals.

Despite complex structural barriers, some organisations responsively recognise this as an opportunity. For example Healthdirect Australia have developed a range of health information resources translated into Arabic, Bengali, Cantonese, Mandarin and Vietnamese to help CALD individuals navigate the health system. The content on this site is yet to include clinical research, but centres on similar health and barriers as commonly identified by consumers (e.g. cost, life-style burden, access to services). Again, this platform could be considered to assist HCP increase research awareness and access.



TranCelerate has also long recognised these barriers and in 2015 developed a suite of resources as part of the Clinical Trial Diversification Initiative for sponsors and clinical trial sites, promoting better practices and processes for minority recruitment. The material covers awareness, patient engagement, cultural competency, reimbursement IRB insights, informed consent and community engagement.

CLINICAL TRIAL DESIGN

To increase participation of people with CALD backgrounds, clinical trials must be designed and operationalised in a way that facilitates their awareness, inclusion and access. Yet lack of know-how, practical guidance, time, and funding are often identified as obstacles to facilitating greater inclusion of CALD people by many clinical researchers and the broader researcher sector (e.g. ethics departments, review panels).

The Federation of Ethnic Communities' Council of Australia (FECCA) acts as the peak national body representing Australians from culturally and linguistically diverse backgrounds. In the lead up to the 2019 Federal Election FECCA issued calls for all parties to adopt a policy platform that responds to Australia's diversity, and in reference to research design this involved the data standards policy. The policy seeks to progress a national project to develop consistent and more accurate measures of CALD to ensure adequate, appropriate, and useful data collection. The NHMRC and other bodies have been targeted to highlight current inadequacies in relation to CALD data and the impacts to health and research outcomes.

The NHMRC *Keeping Research on Track II* is a useful framework to ensure research is considered, meaningful, ethical and beneficial to in the context of Aboriginal and Torres Strait Islander people and communities. The primary audiences are Aboriginal and Torres Strait Islander research participants and communities, but it may also be of benefit for researchers. Similar consultation and development of this framework with CALD communities may further enable respectful and inclusive initiatives and approaches.

The EDICT (Eliminating Diversity in Clinical Trials) Publications Working Group (US) published project outcomes in 2011, with one recommendation being to influence trial design and diversity with more stringent requirements for population diversity in scientific publications. The outcomes suggest 'if journal editors and reviewers begin to demand change, the research establishment will follow', a method used in the UK by the British Medical Journal (BMJ) to advance public involvement in clinical trials.

POLICY

The need for health researchers to generate an evidence base that reflects the needs of a diverse population has been federally mandated in the US in relation to clinical research, gender and race since 1993 (NIH, 2001), and has been formally acknowledged by the UK's Department of Health in its *Research Governance Framework for Health and Social Care* (DH, 2005).

While these are essential first steps, often more complex is their adoption and embedding into routine practice, as experienced by the FDA which has developed policy initiatives over recent decades focusing on promoting enrolment practices that lead to clinical trials reflecting the population most likely to use the drug if it is approved. This is achieved through broadening eligibility criteria. Despite these efforts, challenges to participation in clinical trials remain, and certain groups continue to be unnecessarily underrepresented in many clinical trials. Based on this feedback and that of a national 2019 FDA-led consultation, a review of the guidance for *Enhancing the Diversity of Clinical Trial Populations – Eligibility Criteria, Enrolment Practices, and Trial Designs Guidance for Industry* is now underway.

In Australia there are no laws that expressly require the inclusion of traditionally underrepresented populations in clinical research and there are currently limited legal options available to support improved access to clinical trials for people whose preferred language is not English. The McCabe Centre for Law and Cancer recently reviewed the policy and legal landscape in Australia, suggesting as an initial step there may be scope to amend or broaden existing regulatory tools, which have high normative value such as National Statement[27] and National Clinical Trials Governance Framework[28].

CONCLUSION

Awareness of clinical trials across the whole Australian population is low, but there may be some additional issues that contribute to even poorer awareness and access in CALD communities. It is possible to raise awareness in the community using campaigns, however the evidence to date suggests more successful approaches should include tailored messaging supported by educational resources, coupled with improved opportunities to be involved with – or participate in – clinical trials. Furthermore, organisations need to work to ensure healthcare professionals are culturally competent and clinical trial literate, as it is often these individuals members of the public turn when first seeking health advice.

Advancing opportunities to address clinical trial awareness and access for the CALD population would benefit from a federal approach, to address common identified barriers and enable best-practice guidance development and implementation into routine healthcare and research systems. Identifying and consolidating the challenges specific to the CALD communities, who make up almost a third of the Australian population, will be an important first step. This could be achieved by learning and building on evidence from more mature and established initiatives seeking to address underrepresentation of ethnic groups in clinical research. Clearly evident is the need to ensure the approach engages CALD individuals and communities from the outset, enabling long-term partnership formation and the delivery of sustainable solutions.

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