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NAVIGATING SYSTEMIC CONDITIONS FOR CULTURAL SAFETY

Evidence summary

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Positionality

The primary author of this work - Brooke Hayward (she/her) (MAppPsyc) - is a New Zealander of English descent who identifies as tangata Tiriti.

I am a Pākehā ciswoman, māmā of two beautiful babies, and have been working as an evaluator for 15 years. I acknowledge that I have experienced the privilege and power afforded to me, and noted ways that I benefit during engagements with healthcare providers.

As a health focused evaluator, I bare witness to the systemic failures of health and care services and as tangata Tiriti I work to amplify Māori voices in my daily mahi. Within this work, I have been privileged to work alongside whānau Māori to capture their experiences and future aspirations of health and care in Aotearoa, and co-create evidence that inspires transformation of the healthcare sector. These stories and lived experiences of whānau Māori have been a catalyst for the evolution of my own identity as a partner of Te Tiriti o Waitangi, and lifelong commitment to learning, unlearning, consciousness, and privilege awareness. I identify strongly with social justice values in all aspects of my life – equity, integrity, fairness and humanity. These values inform my orientation to this work, in which I share a vision for antiracist, pro-Tiriti and pro-equity healthcare systems that effectively serve Māori.

For this work, I sought the guidance of indigenous research partners who assisted as I immersed myself within the literature to synthesise and articulate key messages. As a partner of te Tiriti o Waitangi, I view my contributions as my responsibility to support accountability of government agencies to act - through availability and transparency of evidence that serves Māori.

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Funding to support this work was awarded by the Health Research Council's Activation Grant (2024). This work would not be possible without the support, passion and expertise of our indigenous research partners – Dr. Sarah Herbert (Ngāti kahu ki Whangaroa), and Professor Bridgette Masters-Awatere (Te Rarawa, Ngāi te Rangi, Tūwharetoa ki Kawerau).

CONTENTS

Executive summary	5
What we did	5
What we found	6
What we concluded	8
Introduction	10
Indigenous health inequities	10
Addressing ethnic biases through cultural safety	12
Government priorities of healthcare reforms in Aotearoa	14
Methods	16
Evidence quality	18
Findings	19
What we found	20
Systems change for culturally safe services	20
What we can conclude	33
Appendices	34
Appendix A: Included articles	35
Appendix B: Intervention areas summary	47
Appendix C: References	50

EXECUTIVE SUMMARY

This review of evidence intends to contribute to building equitable healthcare systems and services within Aotearoa New Zealand (Aotearoa) through examination of published literature exploring system interventions and systemic conditions that enable culturally safe care - progressing our health and care systems towards Māori health advancement and the achievement of Māori health equity.

Existing evidence demonstrates the need and legislative imperative for culturally safe care (United Nations, 2008; WHO, 1946, Parliamentary Council Office, 2022). There are clear links between cultural safety/culturally safe care and achieving health equity (Curtis et al., 2019).

Cultural safety is emphasised as a pathway for equity of care access, experience and outcomes for all New Zealanders in the 2022 health system reforms across Aotearoa. However, healthcare structures and systems continue to actively maintain processes and practices that diminish the provision of culturally safe care (Allen + Clarke, 2020). While progress to build cultural safety capability of healthcare workforce through training and development has been made, culturally safe practice is difficult for individuals to sustain in the absence of enabling systems (Chrisman, 2007). Support to understand and identify how healthcare systems both enable and disable the healthcare workforce to deliver culturally safe care, and how systems can be effectively improved, is needed.

What we did

As one part of a multi-pronged effort across Aotearoa to support the development of healthcare systems that facilitate culturally safe care, we sought to examine existing evidence through a literature review. We apply a critical, pro-equity lens throughout this literature review and recognise the unique status of both Māori as Tangata Whenua in Aotearoa and indigenous people globally. We seek to make clear the systemic health system changes needed that will benefit Māori and address the unacceptable and persistent health inequities Māori experience.

The rapid review traversed two key areas of inquiry, including:

- (i) what are the **systemic enablers and barriers** to culturally safe healthcare service delivery?
- (ii) what **system interventions** for improving culturally safe practice have been piloted or implemented?

A search for literature was undertaken in April 2024, across Cochrane and PUBMed databases. The review included full text articles in English, published since 1993 that described or evaluated interventions to improve cultural safety of healthcare service delivery and/or examined health inequities or disparities for racial or ethnic groups. We privileged evidence generated in Aotearoa through Māori leadership and partnership through a lower threshold for article inclusion and more detailed discussion in the findings.

To centre opportunities for systems change, we excluded articles only focused on internal transformation (i.e. healthcare workforce personal culture and psychology, and capacity for self-reflection and awareness), or horizontal or interpersonal transformation (i.e. interactions between members of the healthcare workforce). We also excluded articles from outside of the healthcare sector, and publications that examined inequities or disparities but proposed no interventions (e.g. commentaries, observational studies, theoretical frameworks or methodological papers).

What we found

This review included 42 articles (Appendix A), which traversed the following systems interventions to enhance cultural safety of care: disruption of power within healthcare sector leadership, workforce diversity and development, enabling organisational infrastructure such as pro-equity focused or anti-racist position statements, strategies and policies, use of digital tools, enhanced built environments in healthcare settings, renewed models of care, language and interpretation services, national policy advocacy, cost barrier reduction strategies, and navigation or similar roles (see Appendix B).

This paper discusses four intervention opportunities in further detail, including: (i) Leadership and governance; (ii) workforce diversity and development; (iii) equity focused health learning systems; and (iv) models of care. These four areas for systems change to enable culturally safe care were prioritised for further discussion due to frequency of examination within the literature, or perceived relevance to Aotearoa, specifically, potential for strengthening government commitments to Te Tiriti o Waitangi.

Leadership and governance

An abundance of anecdotal evidence suggests that lack of diversity (including ethnic diversity) in healthcare leadership results in policies, procedures and systems that fail to meet the needs and aspirations of diverse consumer populations (Betancourt et al., 2003). The included literature explores opportunities to enhance cultural safety of healthcare delivery through:

- i. Enhancing ethnic diversity and development among healthcare leadership.
- ii. Enhancing community leadership through strengthened relationships with communities who are underserved by healthcare services.
- iii. Renewing existing governance or leadership structures.
- iv. Enhancing leadership accountability.

Themes coalesce around disruption of existing power differentials and need for power sharing with indigenous communities to facilitate co-design of culturally safe systems and services for care (Haitana et al, 2022). Enabling indigenous leadership and governance is essential to delivery on the commitments of Te Tiriti o Waitangi. Māori have voiced the imperative for co-governance partnerships between iwi and Māori leadership groups within healthcare organisations (Haitana et al., 2022), and normalisation of clinical partnerships with whānau Māori role modelled by people in leadership roles (Haitana et al., 2022).

Workforce diversification and development

The benefits of a diverse healthcare workforce are well documented (e.g. Allice, 2022; Betancourt et al, 2003; Guh et al, 2018; Haitana et al., 2022; Haitana et al., 2023). Systems change to recruitment priorities and processes to enhance workforce diversity are within the scope and influence of the healthcare sector, and requires examination and redesign of existing Human Resource business structures and processes from an equity and antiracist lens (Butts et al, 2023). Cultural shifts, including efforts to protect the wellbeing of healthcare workforce and acknowledge and reward cultural knowledges and skills within healthcare organisations are key to providing safe workplace environments that inspire workforce retention. Beyond the healthcare sector, work is also needed to address underrepresentation of minority ethnic groups within medical training and tertiary education, and inability of many migrant healthcare workforce to practice in Aotegroa.

Equity focused learning health systems (LHS)

Equity focused learning health systems (LHS) pursue equity as a focus of learning and improvement of health systems. Key opportunities included:

- i. Data driven healthcare services, such as real-time ethnicity specific feedback. Real-time ethnicity specific feedback, when timely, visible and resourced for appropriate response, can minimise ethnic inequities by making inequities more visible - increasing opportunities to intervene and minimising the risk of compounding impacts caused by persisting inequities over time.
- ii. Exclusion of ethnicity from clinical algorithms. Removing ethnicity from algorithm calculators is critical to ensure diagnostic algorithms, risk assessments and practice guidelines do not perpetuate false ethnicity assumptions that have no scientific basis (e.g. differences in pain tolerance across ethnicity groups). Persisting use of ethnicity in clinical algorithms creates harm by influencing the timing and type of services and treatments that may be offered (Bryant et al, 2023; Boutin-Foster, Clare, Yusuff & Salifu, 2023).
- iii. Eliminating systemic exclusion of underserved populations in medical research (e.g. trials). Representation within clinical trials is critical to supporting equitable and culturally safe healthcare, because it ensures that data and scientific evidence is generalisable to underserved ethnic groups, whom are also likely to experience a higher burden of disease (Adedinsewo et al., 2023).

Known gaps and limitations in the availability, accuracy and appropriateness of demographic data such as ethnicity, gender and language preference, needs to be addressed to realise the potential of data driven healthcare services (Perez et al., 2021; Bryant et al., 2023; Conrick et al., 2023).

Models of care

Models of care in Aotearoa and globally often embody a medical hegemony (Weber, 2016) that privileges biomedical interpretations of health, illness and disease, and consequently, biomedical responses (e.g. treatment). Models of care may therefore fail to

accommodate (or conflict with) the views, values and health knowledges held by many indigenous peoples, including Māori. It is widely recognised in Aotearoa that biomedical models of health will not meet future needs (Tōputanga Tapuhu Kaitiaki O Aotearoa, 2018). Within the included literature, key opportunities for transformation of models of care include:

- i. Drawing on public or population models of health to acknowledge and address broader health and social needs that impact on wellbeing;
- ii. Building cross sector partnerships; and
- iii. Healing approaches.

Public and population models of health critically depart from biomedical models, by acknowledging and attending to wider determinants of health to achieve pae ora¹ and equity (Edwards, 2022). Models of care that respond to social needs and determinants require cross sector equity-oriented partnerships (Hearn et al., 2023), and for processes to identify social needs. We express caution with screening approaches to identify social needs, recognising that 'screening' itself is not always a culturally safe experience for Māori (Paine, Cormack, Reid, Harris & Robson, 2020).

Ensuring a focus on healing within models of care emphasise (i) unravelling the influence of western colonial practices and values on indigenous peoples, while simultaneously (ii) strengthening integral aspects of indigenous cultures (Allice, 2022). 'Healing' in healthcare acknowledges and names racism as a determinant of health and health inequities (Van Eiji et al, 2022), potentially leading to different solutions and healthcare service responses, and inspiring future healthcare engagement by acknowledging distrust and building trust (Haitana et al., 2022).

What we concluded

Despite historic system failures and barriers to creating sustained and meaningful change, building culturally safe healthcare systems that contribute to more equitable healthcare access, experiences and outcomes is not only possible but also imperative. The systems interventions we have discussed represent opportunities that on a fundamental level, disrupt historical and contemporary investment in medical hegemony and Eurocentric, hierarchical leadership.

Investing in meaningful partnerships with community (including iwi), healthcare consumers, and social sector partners to facilitate power sharing is crucial to the cogovernance and co-design of systems that enable culturally safe care, and yet, time and resource to do this is widely cited as a key barrier to change. It is not practical or ethical to continue undermining indigenous rights by ineffectively resourcing the critical work of engagement and partnership building in the design and delivery of health care services. If the health system in Aotearoa is to reflect what is guaranteed to Māori in Te Tiriti o Waitangi then it is critical that Māori leadership and governance is fully and equitably prioritised to ensure this becomes an integral component of all health system design and delivery. Moreover, there must be focused and purposeful investment in diversifying the

¹ Pae ora means 'healthy futures' and emphasises this aspiration for all New Zealanders, particularly those historically underserved by health and care services.

health workforce as well as developing the capacity and capability of the existing workforce in order to effectively meet the needs and rights of Māori and other groups who experience inequities. The health system and its workforce must also mature in the ways learning systems are designed to ensure they are pro-equity and focused on driving culturally safe care. Lastly, not only does the workforce need to diversify, but so too do the models of care drawn on in the health system in Aotearoa to more accurately reflect Māori and other groups worldviews, cultures and ways of understanding and responding to diverse health needs and rights.

INTRODUCTION

Health is a human right (World Health Organisation (WHO), 2024), as is health equity; "the absence of unfair, avoidable or remediable differences among groups of people..." (WHO, 2024, para 1). Health equity is thus a strategic priority for many healthcare systems and services globally. It is key to creating just and fair access, experiences and outcomes of health and care services among groups who experience inequities. Health equity is achieved when "everyone can attain their full potential for health and wellbeing" and no one is disadvantaged from achieving this (WHO, 2024, para 1).

Achieving health equity benefits everyone because the factors that cause inequity, such as broader social, political and economic determinants, are harmful to everyone (Woodward & Kawachi, 2000). Broader societal impacts of health inequities include, for example, higher costs of healthcare, higher prevalence of infectious disease, more alcohol and substance abuse, and increased violence and crime (Woodward & Kawachi, 2000). Achieving health equity requires addressing the structural and social determinants of health and associated downstream consequences.

Despite strategic commitment to health equity, inequities in care access, experience and outcomes persist, and in some cases, are deteriorating (Goodyear-Smith & Ashton, 2019; Reid & Robson, 2007). A multi-sectorial response (Morey et al., 2023), systematic and multipronged approaches (Perez et al., 2021), and interrogation of power structures and health systems (Curtis et al., 2019) is needed to overcome the many barriers to equitable health and wellbeing.

This paper intends to contribute to building equitable healthcare systems and services within Aotearoa New Zealand (Aotearoa) through examination of system interventions and systemic conditions to support Māori health advancement and the achievement of Māori health equity.

We apply a critical, pro-equity lens throughout this literature review and recognise the unique status of both Māori/Tangata Whenua in Aotearoa as well as indigenous people globally. We seek to make clear the systemic health system changes that will benefit Māori as a priority group in recognition of their unique status as tangata whenua and due to the unacceptable and persistent health equities Māori experience.

Indigenous health inequities

The United Nations Declaration on the Rights of Indigenous People (UNDRIP) reaffirm the rights of indigenous peoples globally including "the right to the full enjoyment, as a collective or as individuals, of all human rights and fundamental freedoms" (p.7-8). This encompasses rights to standards of living adequate for health and wellbeing (Article 1), and to the improvement of their economic and social conditions, including health (Article 21). UNDRIP further makes explicit indigenous rights to "the enjoyment of the highest attainable standard of physical and mental health" (p.18) (Article 24). Importantly, the UNDRIP commits governments to take effective measures to ensure indigenous peoples

the freedom from racial discrimination. This includes prejudice and discrimination that may be experienced in the context of healthcare system use (or exclusion).

He Whakaputanga o te Rangatiratanga o Nu Tireni, the Declaration of Independence of 1835, is Aotearoa's first constitutional document, affirming that authority in Aotearoa resided with Māori rangatira (chiefs). This was followed by Te Tiriti o Waitangi in 1840, a significant agreement between the British Crown and Rangatira Māori. Te Tiriti o Waitangi resulted in a declaration of British governance over Aotearoa (Article one – Kāwanatanga) and reaffirms Māori 'Tino Rangatiratanga' (Article two – Tino Rangatiratanga); recognition of Māori sovereignty or full and complete authority of their lives, culture, land, and all treasured things, including health. Article three provides a guarantee of equity among Māori through the provision of equal citizenship rights and responsibilities to British Te Tiriti partners.

Importantly, article one places obligations on the New Zealand Government to ensure fair and just governance of the people of Aotearoa (Reid, 2011). However, Māori rights enshrined/guaranteed through Te Tiriti o Waitangi have not been upheld. Instead, systemic and structural failures within the New Zealand health system has led to persistent health inequities between Māori and non-Māori (Haitana, Pitama, Cormack, Clark & Lacey, 2022). Health related te Tiriti o Waitangi grievances and breaches have been raised and acknowledged in the WAI2575 Hauora report (Waitangi Tribunal, 2023).

Despite firmly established international rights, indigenous people, including Tangata Whenua, continue to experience persistent inequities in healthcare access, experience and outcomes. This is illustrated through Māori having disproportionate mortality and morbidity rates compared to non-Māori, disproportionate exposure to preventable risk factors of illness (e.g. smoking, damp and cold housing, obesity), higher prevalence of chronic diseases, mental health and addiction issues, and a lower life expectancy when compared to non-Māori. Reid and Robson (2007) highlight Māori inequities as "not only avoidable but unfair and unjust" (p.19).

Multiple and complex factors drive indigenous and ethnic health inequities, including socio-economic deprivation as well as differential exposure to social, political, commercial and environmental determinants of health (Robson & Harris, 2002, WHO, 2008). For Māori in Aotearoa, health inequities are directly linked to the historical and contemporary injustices resulting from the ongoing impacts of colonisation which have resulted in significant land loss, cultural marginalisation, racism, discrimination, and socio-economic deprivation. These phenomena illustrate failures by the Crown to honour te Tiriti o Waitangi and uphold Māori (health) rights. In response, Māori have called on the government to honour Te Tiriti o Waitangi, actively protesting to reclaim their rights, land, and sovereignty over successive generations.

In addition to colonisation, there are known basic causes of health inequities (Curtis et al, 2023). These include the behaviours and practices of healthcare professionals and organisations, including racism (Smedly, Stith & Nelson, 2002; Robson & Harris, 2002). Racism is understood to be a key barrier to health equity (Hamed, Bradby, Ahlberg & Thapar-Bjökert, 2022), and a determinant of health (Bloomfield, 2019; Te Manatū Hauora (The Ministry of Health), 2022). Within Aotearoa, the presence of racism within the health system and it's impact on health is well established (Te Manatū Hauora, 2024). Te Manatū Hauora's (2022) working definition for racism is:

"Racism comprises racial prejudice and societal power and manifests in different ways. It results in the unequal distribution of power, privilege, resources and opportunity to produce outcomes that chronically favour, privilege and benefit one group over another. All forms of racism are harmful, and its effects are distinct and not felt equally" (p.3).

Racism is structurally embedded within healthcare systems (Hamed, Bradby, Ahlberg & Thapar-Bjökert, 2022). The permeation of racism in healthcare takes many forms, all of which are harmful (Te Manatū Hauora, 2022).

- 1. Institutional racism in healthcare occurs when policies, processes and practices of healthcare systems and services exclude and/or abet "the unequal distribution of power and privilege" (Te Manatū Hauora, p.4). Institutional racism may be intentional or not, and structures access to opportunities unfairly, advantaging some while simultaneously excluding or disadvantaging others (Te Manatū Hauora, 2022).
- 2. **Interpersonal racism** is mediated *between individuals*, and occurs when "individuals interact with others and their personal racial prejudice affects how they act and behave (overtly, covertly, conscious, unconscious, implicit, explicit) towards racialised 'others'" (Te Manatū Hauora, 2022, p.3).
 - One such manifestation of interpersonal racism are ethnic biases. Ethnic biases (both conscious and unconscious) held by healthcare workforce can negatively influence their interpersonal interactions with people from indigenous or minoritised ethnic groups, resulting in poorer quality of care (Cooper, Beach, Johnson, & Inui, 2006). Ethnic biases underpin culturally unsafe practices of healthcare workforce, creating measured inequity in (for example) access to appropriate testing, diagnosis, procedures, and medications (Cooper, Beach, Johnson, & Inui, 2006). Ethnic biases are a form of racism which are learned over long periods, pervasive and persistent to change (Blair, Steiner & Havranek, 2011).
 - Interpersonal racism becomes institutionalised in healthcare services when people's entrenched ethnic biases or personal racial prejudice indoctrinate healthcare policies, processes and practices. This may happen with or without the conscious awareness of healthcare workforce.
- 3. Internalised racism is "the acceptance and internalisation of oppressive or dominant values, beliefs, attitudes and stereotypes about one's own race" that occurs within individuals (Te Manatū Hauora, 2022, p.3). Internalised racism may manifest as disempowerment, self-inferiority or devaluation (Te Manatū Hauora, 2022).

Common or lay understandings of racism tend to be limited to the interpersonal level, as it is one of the most overt forms of racism.

Addressing ethnic biases through cultural safety

Cultural safety, first defined by Māori nurse and scholar Irihapeti Ramsden in the 1990's, acknowledges the impact of ethnic bias on healthcare delivery, and emphasises providers capacity to understand their own personal and professional culture, values and power, and how this shapes their interactions and relationships with consumers of

healthcare services (Papps & Ramsden, 1996; Ramsden, 2002). Ramsden's work emerged from the post-colonial context of Māori health inequities, and marks a critical shift from earlier concepts such as cultural competency, which emphasised learning about cultures different to ones own.

Focusing on the acquistion of skills and knowledge about the cultures of others, *cultural competence* positioned consumers' cultural beliefs, values and customs as the subject of examination and 'difference' to be understood. In contrast, *cultural safety* emphasises internal transformation focused on healthcare professionals' own culture and psychology, requiring critical self-reflection and awareness (Papps & Ramsden, 1996; Ramsden, 2002).

For the purposes of this work, culturally safe healthcare "requires healthcare professionals and their associated healthcare organisations to examine themselves and the potential impact of their own culture on clinical interactions and healthcare service delivery. This requires individual healthcare professionals and healthcare organisations to acknowledge and address their own biases, attitudes, assumptions, stereotypes, prejudices, structures and characteristics that may affect the quality of care provided" (Curtis et al., 2019, p.13).

Existing evidence demonstrates the need and legislative imperative for culturally safe care (United Nations, 2008; WHO, 1946, Parliamentary Council Office, 2022). Further, there are clear links between cultural safety/culturally safe care and achieving health equity (Curtis et al., 2019).

Addressing ethnic bias among healthcare workforce requires structured and ongoing intervention to identify and disrupt biased behaviours, as well as develop empathetic relationships and health improvement interventions that support the health advancement of Māori. Training and development of healthcare workforce has demonstrated some effectiveness in building self-awareness, skills, knowledge and empathy within healthcare workforce to facilitate cultural safe healthcare delivery (Hardie et al., 2023). However, research also demonstrates that training alone is not sufficient to address organisational barriers, conditions and cultures that impact on capacity of the workforce to deliver culturally safe care, albeit sustainability (Kirmayer & Jarvis, 2019). Culturally safe practice is difficult for individuals to sustain in the absence of enabling systems (Chrisman, 2007).

Healthcare structures, processes and systems continue to actively maintain healthcare workforce practices that diminish the provision culturally safe care (Allen + Clarke, 2020). This occurs for a myriad of reasons, but perhaps most fundamentally, systems have privileged biomedical and Eurocentric or non-Māori approaches to health service design and delivery. The systemic exclusion of Māori and people with lived experience of inequities to inform culturally safe care permeates all aspects of our healthcare system. Support is needed to build enabling and equitable healthcare policies, practices and systems that disrupt ethnic biases and their ongoing impacts on Māori.

Government priorities of healthcare reforms in Aotearoa

Failure to achieve the basic human rights, rights of persons with disabilities, indigenous peoples' rights globally, and legislative rights of Māori under Te Tiriti o Waitangi form the critical context of healthcare service reform in Aotearoa.

Te Manatū Hauora (The Ministry of Health) committed to addressing racism and discrimination. Ao Mai te Rā (2022), a system wide initiative committed to antiracism values and actions, aims to acknowledge, understand and respond to racism in health. Te Manatū Hauora's antiracism position statement (2022), aimed to build a shared language regarding racism and effective anti-racism action. Commitments and actions under this initiative are reflected in Te Manatū Hauora's Māori Health Action Plan (2020-2025), Pacific Health and Wellbeing Plan (2020-2025), New Zealand Cancer Action Plan (2019-2029) and Kia Manawanui Aotearoa – Long Term Pathway to Mental Wellbeing.

Cultural safety is emphasised as a pathway for equity of care access, experience and outcomes for all New Zealanders in the 2022 health system reforms across Aotearoa. The commencement of the Pae Ora (Healthy Futures) Act from July 1st 2022 aims (among other aims) to achieve equity in health outcomes among New Zealand's population groups. Recommendations for the provision of "services that are culturally safe and culturally responsive to people's needs" (para. 7(d)(i)) are central to this vision. Healthcare reform priorities in Aotearoa require that we co-create systems that support culturally safe care and enhance sustainability of this practice overtime.

A framework to support cultural safety and education was introduced by the Medical Council of New Zealand in January 2023 (Simmons et al., 2023). For the first time in Aotearoa, this framework defined specific professional proficiencies for culturally safe doctors. These proficiencies for culturally safe practice require horizontal or interpersonal transformation (an emphasis on interactions between members of the healthcare workforce), and vertical or structural transformation (e.g. healthcare ecosystem, policies, protocols) that contribute to equity and Māori health advancement (Simmonds et al, 2023).

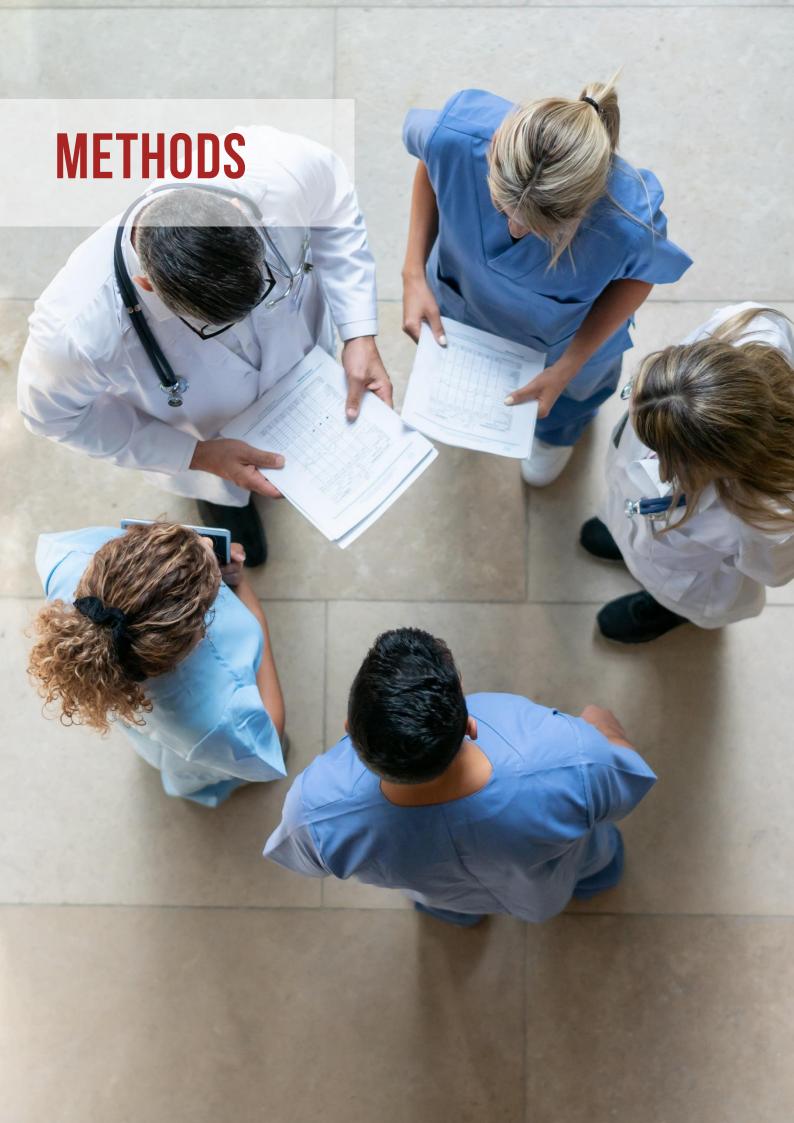
In addition to proficiencies regarding the development of critical consciousness on an individual level, proficiencies require the healthcare workforce to commit to transformative action on broader healthcare ecosystems (e.g. policies, structures and processes). Historically however, healthcare professionals have reported "difficulty" in identifying and addressing factors impacting health equity within the system they work in (Allen + Clarke, 2020). The limited availability of indicators and measures used in a baseline study of cultural safety in Aotearoa (Allen + Clarke, 2020) highlights the need for increased examination of system factors. Further support to understand and identify how healthcare systems both enable and disable the healthcare workforce to deliver culturally safe care, and how systems can be effectively improved is needed.

The current work

This work is underpinned by a systems theory for healthcare service delivery and improvement, which emphasises that the outcomes healthcare systems achieve are not produced through linear cause and effect result chains, but a culmination of a complex

series of interactions with system elements, which stand in relationship with each other (Friedman & Allen, 2014).

This evidence summary aims to contribute to building equitable healthcare systems and services within Aotearoa through exploration of system interventions and conditions to support Māori health advancement and the achievement of Māori health equity. We see this evidence summary as one part of a multi-pronged effort across Aotearoa that centralises cultural safety as a pathway for equitable health outcomes.



METHODS

The rapid review traversed two key areas of inquiry, including:

- (iii) what are the **systemic enablers and barriers** to culturally safe healthcare service delivery?
- (iv) what **system interventions** for improving culturally safe practice have been piloted or implemented?

A search for literature was undertaken in April 2024, across Cochrane and PUBMed databases. Key search terms included: cultural safety*/competence/responsiveness, antiracism*, systemic racism, institutionalised* racism AND system/ "whole of system"/ "large system"/ecosystem/"building blocks"/vertical transformation AND intervention, improvement, change, transformation, iniative, programme, project, AND health or healthcare. We applied truncation (*) and wildcards (?) to search for alternative spellings and replace a definite but variable characters (e.g. racism versus racist).

Article titles and abstracts were scanned for inclusion. Included articles (summarised in Appendix A) were limited to:

- English only with full text available through the University of Waikato library.
- Publication date from 1993 to present, capturing learning since the 1993 Aotearoa health reforms.
- Studies which describe or evaluate interventions (unless evidence generated in Aotearoa), to ensure a focus on intervention opportunities.
- Studies that explicitly discussed cultural safety, and/or examined health inequities or disparities for racial or ethnic groups.

We excluded articles only focused on internal transformation (i.e. healthcare workforce personal culture and psychology, and capacity for self-reflection and awareness), or horizontal or interpersonal transformation (i.e. interactions between members of the healthcare workforce). We also excluded articles from outside of the healthcare sector, and publications that examined inequities or disparities but proposed no interventions (e.g. commentaries, observational studies, methodological papers and theoretical frameworks).

Throughout this review, we have privileged evidence generated in Aotearoa through Māori leadership and partnership. This evidence was privileged through a lower threshold for article inclusion², and more detailed discussion in the findings.

While we have offered a brief summary of the interventions detailed in the literature, we have discussed four intervention opportunities in further detail, including: (i) Governance and leadership; (ii) workforce diversity and development; (iii) equity focused health learning systems; and (iv) models of care. We have prioritised these four areas for

² Both interventional and non-interventional studies from Aotearoa were included. This increased inclusion of Māori voices, experiences and aspirations for systems change in health within the current review.

systems change for further discussion because of frequency of examination within the literature, or perceived relevance to Aotearoa, specifically, potential for strengthening government commitments to Te Tiriti o Waitangi.

Cultural safety, cultural sensitivity, cultural competence, and culturally appropriate, relevant or responsive services and related terms are common vernacular in the literature included in this evidence summary. We acknowledge the variable use of terms over time, and draw attention to how these terms inconsistently acknowledge and address personal and professional power and accountability.

Evidence quality

The interventions examined within the literature included in this review were frequently multipronged, garnering collective impacts across different sectors, organisational teams or clinical specialities to (re)design different system components or structures. Approaches to examine the impacts of multipronged interventions frequently examined these interventions together within the same research or evaluation methodology. This limited clarity around the specific systemic changes that may be attributed to outcomes (whether positive or negative). While this does create challenges in understanding and using evidence, this approach also aptly reflects the complexity of institutional racism and actions required to dismantle racism. Where possible, we have included commentary on evidence quality to support readers to understand gaps and limitations. This review does not draw on primary data of included studies.



What we found

This evidence summary traverses two key areas of inquiry, including:

- 1. System interventions for improving cultural safe practice, drawing on global evidence that focuses on cultural safety, and/or eliminating ethnic disparities in care access, experience and outcomes.
- 2. Systemic enablers and barriers to culturally safe healthcare delivery.

Discussion of these two areas intends to support understanding of what is known and piloted in healthcare settings globally to enable culturally safe care. Recognising that Aotearoa is a unique context with differing structures, needs and constraints from other systems internationally, a broader discussion of systemic enablers and barriers is also contributed which privileges evidence co-created in Aotearoa with Māori. This discussion is woven throughout the intervention findings, and aims to support health leadership to identify unique intervention opportunities, or appropriately adapt international learning for improved relevance and responsiveness within the context of Aotearoa.

While we emphasise the importance of recognising the unique context for culturally safe care in Aotearoa (particularly in relation to the role and responsibilities of the New Zealand government and it's agencies in accordance with Te Tiriti o Waitangi) we also recognise that the ongoing impacts of colonisation and persisting institutional racism that drives health inequities, are experienced by indigenous communities around the globe. Thus we are mindful of potential benefit in considering international findings that may strengthen actions towards eliminating inequities among Māori here in Aotearoa.

The literature search identified 1,000 studies that were screened by abstract and title. In total, 42 studies were included in this review (Appendix A). A small proportion of studies (23%) explicitly reported on indigenous leadership, or diversity of authors responsible for evidence generation, thus highlighting a clear need for further work to specifically explore indigenous perspectives of system interventions and systemic conditions required to achieve health equity.

Systems change for culturally safe services

Investment in change, and concurrent disinvestment in policy, structures, delivery systems and processes that maintain inequity are highlighted by interventions detailed in the included literature. Systems interventions described in the included literature (summarised in Appendix B) traverse disruption of power within health sector leadership, workforce diversity and development, enabling organisational infastructure such as proequity focused or anti-racist position statements, strategies and policies, use of digital tools, renewed models of care, enhanced built environments in healthcare settings, language and interpretation services, national policy advocacy, cost barrier reduction strategies, and navigation or similar roles.

From the included literature, it is clear that systems interventions have the potential to exacerbate or reduce inequities in access, experience and outcomes of healthcare services among underserved groups. For example, the use of digital technologies in healthcare have demonstrated contrasting impacts, from the systemic exclusion of

groups who lack internet access or digital literacy skills (Bryant et al., 2023), to the potential to minimise healthcare access barriers for rural and remote communities (Adedinsewi et al., 2023). Potentially variable outcomes and impacts of interventions essentialise partnerships with people who experience inequities for intervention design and implementation.

Creating sustained systems change requires us to examine and respond to how system components interact with each other. Simultaneous interventions over time that are multipronged and multi-level (i.e. individual, interpersonal, organisational, community) are essential to ensuring impactful, sustainable change (Hassen et al., 2021). Further, prioritisation of organisational interventions (before interventions that target the behaviour of individual healthcare workforce) can enhance outcomes because individual behaviour is shaped, constrained and/or enabled by organisational culture and practices (Griffith et al., 2007).

Throughout these findings, we have been deliberate in our use of the term healthcare workforce (instead of clinicians or professionals). This acknowledges that dismantling racism is the responsibility of everyone - clinical and non-clinical staff alike. Good experiences that inspire engagement and enhance equity of access, experiences and outcomes start before consumers reach the (metaphorical) 'front door' (Hayward et al., 2019), and are influenced by a range of healthcare workforce that may coordinate, welcome, follow-up, and in other ways support people seeking health (Hayward et al., 2019).

As earlier described in the review methodology, we have prioritised four areas for indepth discussion. These include leadership and governance, workforce diversification and development, equity focused health learning systems, and, models of care. For readability, these are discussed as discrete system intervention opportunities. It is therefore important to emphasise, that healthcare systems have many interacting components that influence one another. It is not appropriate to approach systems change as discrete or siloed efforts that do not consider these interactions.

Leadership and governance

Leadership and governance has been deliberately positioned first in this discussion. This is because effective leadership and governance focused interventions (i) disrupt the distribution of power within healthcare systems that perpetuate culturally unsafe care, and (ii) are also a critical enabler for further transformative efforts that drive or enable systems change. Moreover, enabling *indigenous* leadership and governance is central to delivering on the commitments of Te Tiriti o Waitangi. In Aotearoa, Māori health gains have always coincided with Māori leadership (Kingi, 2006).

Within the literature, leadership support was the second most frequently cited enabler of systems change. The supportive actions or characteristics of leaders are understood to be pivotal in building sustainable change (Hassen et al., 2021). These actions include, for example, socialising the importance of change across organisations (Hassen et al., 2021), employee engagement (Boutin-Foster, Clare, Yusuff & Salifu, 2023; Golden, 2023), forming or maintaining relationships with community (Griesember et al., 2023; Allice, 2022; Hassen et al., 2021; Oetzel et al., 2024) including iwi (Haitana et al., 2022), maintaining prioritisation and visibility of change efforts (Guh et al., 2018; Griesember et

al., 2023), and committing and protecting resources for change, including time (Guh et al., 2018; Hassen et al., 2021). Conversely, lack of visible and consistent leadership engagement or 'buy in' is a barrier to change (Haitana et al., 2022). To enable progress, leadership "must acknowledge the need of whole system change" (Haitana et al., 2022, p.2619).

The included literature delivers examples of leadership and governance interventions in the form of:

- 1. Enhancing ethnic diversity among leadership and committing to leadership development.
- 1. Enhancing community leadership through strengthened relationships with communities who are underserved by healthcare services.
- 2. Renewing governance or leadership structures.
- 3. Enhancing leadership accountability.

An abundance of anecdotal evidence suggests that lack of diversity (including ethnic diversity) in healthcare leadership results in policies, procedures and systems that are not designed to meet the needs and aspirations of diverse consumer populations (Betancourt et al., 2003). Disrupting the status quo demands increased ethnic diversity within healthcare leadership (Golden, 2023).

"HEALTHCARE SYSTEMS AND PROCESSES OF CARE ARE SHAPED BY THE LEADERSHIP THAT DESIGNS THEM AND THE WORKFORCE THAT CARRIES THEM OUT"³

In Aotearoa, attention to indigenous leadership is especially critical. To build equitable healthcare services that are responsive to the health needs and aspirations of Māori, existing leadership must proactively support Māori to fulfill leadership positions, and resource equity leadership pathways for Māori (Haitana et al., 2022).

Within the included literature, leadership themes coalesce around disruption of existing power differentials, and need for power sharing with indigenous communities to facilitate co-design of culturally safe systems and services for care (Haitana et al., 2022). This requires leadership to have or be supported to develop skills to engage effectively with Māori (Haitana et al., 2022).

Māori have voiced the imperative for co-governance partnerships between iwi and Māori leadership groups within healthcare organisations (Haitana et al., 2022), and normalisation of clinical partnerships with whānau Māori role modelled by people in leadership roles (Haitana et al., 2022). Creating culturally safe healthcare services

³ Betancourt et al., 2003, p.295

requires a commitment to both "forge new, and leverage existing, partnerships and networks to accelerate and expand antiracism and equity efforts" (Butts et al, 2023, p. 1385). Leveraging community connections is integral to strengthening equity or cultural safety focused initiatives (Bryant et al., 2023; Golden, 2023).

Participatory approaches, co-design, and user-centred design approaches were the most cited enabler of equity focused or cultural safety focused interventions. Building meaningful and long-term relationships between government agencies and indigenous peoples and communities, or other communities of colour, is essential to build services that work for these communities, and establish trust of healthcare services and/or government agencies more broadly (Allice, 2022; Butts et al., 2023; Faherty et al., 2023; McCalman et al., 2024; Nash et al., 2023; Oetzel et al., 2024; Wild et al., 2021). Building partnerships and relationships takes time (Griesember et al, 2023), and a commitment to meaningful engagement both within and outside of professional contexts (Allice, 2022). Lack of time and adequate resourcing for the essential work of building relationships and building trust is a barrier to systems change (Allice, 2022; Haitana et al., 2023; Hearn et al., 2023).

Morey and colleagues (2023), describe the establishment of a consortium, embedded within the National Health and Medical Research Council (in Australia), which drives, coordinates and sustains the implementation of state-wide plans aimed at reducing negative health impacts of chronic disease experienced by Aboriginal and Torres Strait Island people residing in South Australia. The Consortium reportedly prioritises evidence-based strategies to address diabetes, cancer control, and heart health and stroke. The establishment of the consortium sought to reflect the diversity of health services and the Aboriginal and Torres Strait Islander communities they served, including those with lived experience. Further, there is a commitment to Aboriginal and Torres Strait Islander leadership across planning, implementation, monitoring and accountability structures, including the 'Executive group', and all working groups. These leaders contribute as members and co-chairs within governance arrangements ensuring Aboriginal and Torres Strait Islander skill, leadership and power across both strategic and operational focused resource and decision-making spaces. Accountability to communities impacted by racist oppression is crucial (Griesember et al., 2023).

Workforce diversification and development

The benefits of a diverse healthcare workforce are well documented (e.g. Allice, 2022; Betancourt et al, 2003; Guh et al, 2018; Haitana et al., 2022; Haitana et al., 2023; Kanengoni, Andajani-Sutjahjo & Holroyd, 2020). An ethnically diverse workforce can facilitate higher satisfaction with care, availability and acceptability of healthcare services among underserved (ethnic) groups, and is correlated with care quality (Betancourt et al, 2003). Studies highlight that shared cultural values between healthcare workforce and consumers can facilitate trust, empathy and increased willingness to share personal health information (Johnson et al, 2022). In Aotearoa, the availability of Māori staff who can understand and express Māori knowledges and worldviews is valued by many Māori (Haitana et al., 2022; Haitana et al., 2023).

"COMPASSIONATE, RESPECTFUL, APPROPRIATE AND CULTURALLY SAFE CARE FOCUSING ON POSITIVE RELATIONSHIP-BUILDING CAN HELP MITIGATE SOME OF THE IMPACT OF RACISM ON ENGAGEMENT IN PREVAILING HEALTHCARE SERVICES"

An ongoing concern in Aotearoa is that Māori are underrepresented as doctors (The Royal New Zealand Colleges of General Practitioners, 2022), and nurses (New Zealand Nurse Organisation (NZNO), 2018). Of importance, nurses represent over 50 percent of Aotearoa's regulated health workforce, and supervise the largest unregulated workforce (e.g. health care assistants) (NZNO, 2018). Back-office roles in healthcare also contribute significantly to organisational development, culture, and improvement. Consequently, workforce diversification initiatives should attend to different staff roles, groups or business areas – both clinical and non-clinical.

Systems change to recruitment priorities and processes to enhance workforce diversity are within the scope and influence of the healthcare sector. Furthermore, system changes to retain and develop workforce, growing and/or securing diverse leadership that embeds Māori power within health leadership roles, is also critical (earlier described). From the literature, the following system interventions to enhance workforce diversity were identified:

- (i) Equity, Diversity and Inclusion (EDI) human resources (HR) policies and processes, such as recruitment processes.
- (ii) Workforce development and retention strategies.
- (iii) Procedures to safely identify and address occurances of interpersonal racism that may be experienced by consumers or healthcare workforce.

Equity, Diversity and Inclusion (EDI) policies and processes are explicitly grounded in diversity values and aim to minimise barriers to the recruitment and retention of a diverse workforce. This requires examination and re-design of existing HR business structures and processes from an equity and antiracist lens (Butts et al, 2023).

Guh and colleagues (2018) described a workforce initiative aimed at increasing diversity in a community-based residency programme. Recognising the many barriers that people of colour may encounter to complete medical school, they overhauled applicant evaluation processes, so that scoring rubrics placed greater emphasis on "the lived experience of being a person of colour" (p.38). They also developed standardised interview questions to examine applicants' values and perspectives around minority underrepresentation in healthcare workforce. Among other actions, over a three-year commitment to their diversity initiative, they increased representation of people of

⁴ Wild et al., 2021, p.670.

colour within the residency programme from 28 per cent (10 of 36 residents) to 68 per cent⁵. Work to adapt recruitment processes, for increased emphasis on lived experience and racial and social justice mindset has also been applied in the context of doula services in the United States (Van Eiji et al., 2022).

In Aotearoa, Māori have described the need for incentive structures "that recognise and reward Māori knowledge competencies" (Haitana et al., 2022, p.2622). Māori also identified the need to prioritise the wellbeing of healthcare workforce (Haitana et al., 2023). Cultural shifts within healthcare organisations are key to providing safe workplace environments that inspire workforce retention (Shroff, 2023). Bryant and colleagues (2023) describe the development of a Patient Code of Conduct, which sets clear expectations for consumer behaviour and treatment of healthcare workforce (who may themselves be the victim of interpersonal racism perpetrated by consumers). Further, they redesigned processes for reporting of and response to racism and discrimination within the organisation. The processes emphasised trust, feedback to the reporter, appropriate investigation processes, and reconciliation. At the time of publication, these reporting processes were being piloted at several sites, with no reported outcomes.

In addition to increasing workforce diversity there must also be concerted effort and conscious action to protect the existing Māori workforce from cultural loading and its impacts including burnout. Cultural loading is the practice of requiring or expecting Māori healthcare workers to provide cultural support and services that are over and above their contracted employment responsibilities. Twqhis is an important consideration for future work, and requires that we continue to build cultural safety capacity of non-Māori workforce, while simultaneously diversifying the roles and responsibilities of Māori workforce (Haitana et al., 2022). We may need to expand our definitions of healthcare workforce to incorporate those outside of 'traditional' health roles (Faherty et al., 2023). For example, people with living or lived experience of health inequities may or may not fulfil 'traditional' leadership roles within health, but do contribute critical skills and perspectives to shaping healthcare systems.

It is insufficient to expect that increasing workforce diversity can be achieved through only systems change with the healthcare sector. Enhancing the diversity of healthcare workforce also requires broader system changes that address historical underrepresentation of minority ethnic groups within medical training and tertiary education. Studies highlighted barriers to enrolment, training and retention of indigenous healthcare and social service providers (Allice, 2022). These include, but are not limited to, financial, cultural, familial or linguistic barriers (Guh et al., 2018). Underrepresentation of minority ethnic groups as both students and faculty at medical and public health schools is an issue globally (Betancourt et al, 2003). Further, recruiting healthcare workforce internationally may be hindered by differences in code of conduct that prohibit healthcare workforce to practice in Aotearoa (Kanengoni, Andajani-Sutjahjo & Holroyd, 2020).

⁵ The study design did not include a counterfactual.

Equity focused learning health systems

Equity focused learning health systems (LHS) pursue equity as a focus of learning and improvement of health systems. The transformative potential of health data was highlighted throughout the literature, which explored a myriad of ways in which the use of data can contribute to culturally safe care. Data-driven technologies "operate through the collection, utilisation, and analysis of patient data via the use of machine learning (ML) or other types of artificial intelligence" (Casini et al., 2021). Where differences in experiences and outcomes between consumer groups may have been unknown, unnoticed or unaccounted by treating clinicians, these technologies promise progress towards antiracist systems that value transparency and accountability (Baker et al., 2021).

Key opportunities traversed in the literature include:

- (i) Data driven healthcare services, such as real-time ethnicity specific feedback to make inequities in care more visible and actionable to clinicians, through the use of, for example, data generated alerts or warning systems.
- (ii) Exclusion of ethnicity from clinical algorithms.
- (iii) Eliminating systemic exclusion of underserved populations in medical research (e.g. trials).

The literature highlighted both the potential of **real-time ethnicity specific feedback**, which can make ethnic disparities more visible (Charlot et al, 2002; Baker et al, 2023), and the significant foundational work required to ensure availability and reliability of basic information needed to identify and measure inequities (Perez et al, 2021; Bryant et al, 2023).

Real-time ethnicity specific feedback, when timely, visible and resourced for appropriate response, can minimise ethnic inequities by making inequities more visible - increasing opportunities to intervene and minimising the risk of compounding impacts caused by persisting inequities over time. An example from cancer care services discusses the establishment of a web-based real time warning system derived from electronic health records (Charlot et al., 2022). This provided daily alerts for missed appointments, and time sensitive clinical milestones. Electronic warnings were delivered to navigators, who coordinated clinical responses and consumer engagement.

The ethnicity specific feedback generated in the study by Charlot and colleagues (2022) warning system was associated with more timely lung cancer surgery for Black and White consumers, and a reduction in inequities in timely surgery between these groups. In similar research, real time warnings derived from Electronic Health Records demonstrated positive effects on treatment completion, equity and overall outcomes (Cykert et al, 2019). Translation of real-time alert systems in other settings, such as maternity care, have also demonstrated promising outcomes for reducing inequities (Baker et al., 2021).

AN UNDERLYING ASSUMPTION FOR DATA DRIVEN INTERVENTIONS, IS THE ACCURACY, APPROPRIATENESS AND AVAILABILITY OF DATA THAT CAN GENERATE INTELLIGENT AND TRUSTWORTHY INSIGHTS.

A key barrier to data driven healthcare are known gaps and limitations in the availability, accuracy and appropriateness of demographic data such as ethnicity, gender and language preference, which needs to be addressed (Perez et al., 2021; Bryant et al., 2023; Conrick et al., 2023). These limitations may result from lack of systematic approaches for the collection of this data (Perez, at al., 2021; Conrick et al., 2023). Consumers who have experienced racism during healthcare service engagement, may feel suspicious at requests for ethnicity information (Conrick et al., 2023). This can lead to assumption-based entry of ethnicity data by staff (Conrick et al., 2023), further degrading data accuracy. The authors have presumed that in Aotearoa, the lack of a single Electronic Health Record may also contribute to data limitations, given the multiple clinical information systems for entry and storage of this information in place across primary, secondary and tertiary care providers.

Leveraging centralised health records, Bryant and colleagues (2023) developed standardised methods to collect and improve consumer data. Their work recognised the critical role of data collectors and delivered training and education materials for clinicians and consumers, detailing the rationale for the collection and value of accurate data. Similarly, in the duration of a multiple year quality improvement project, Perez and colleagues (2021) worked closely in partnership with the Information Technology (IT) department and lead personnel from each hospital site to enhance data quality and capture processes for ethnicity. Key actions from Perez and colleagues work (2021) included the establishment of mandatory entry fields within core registration systems, addition of more descriptive identifies for consumer ethnicity, training and education of staff on recommended data collection processes and relevance to equity, and unconscious bias education for frontline staff. As part of this work, agreement on meaningful clinical indicators to monitor was also required (Perez et al, 2021).

These studies draw our attention to the substantial foundational work required to realise the potential of data-driven healthcare. Participatory approaches that draw on the lived or living experience of healthcare consumers are a key enabler in developing data collection processes that are high quality, systematic and acceptable (for consumers), and prioritise equity indicators that are necessary to guide effective monitoring, prevention and intervention to achieve equity (Conrick et al., 2023).

There was a dearth of literature which explored the implications of ethnicity-specific feedback systems and the application of Māori Data Sovereignty principles for operationalising hauora Māori data sovereignty (Te Mana Raraunga, 2022). This is a critical space for further development when considering data driven interventions in the Aotearoa context.

The use of ethnicity in clinical algorithms is an unreliable proxy for genetic differences that should be eliminated from use in diagnostic algorithms, risk assessments or practice guidelines that determine clinical care (Bryan et al., 2023). This can create harm by influencing the timing and type of services and treatments that is offered (Bryant et al., 2023; Boutin-Foster, Clare, Yusuff & Salifu, 2023).

"RACE AND RACIAL IDENTIFY ARE SOCIAL CONSTRUCTS, PRODUCED AND CONTINUOUSLY REINFORCED THROUGH PREJUDICED HUMAN PERCEPTIONS, WITH NO SCIENTIFIC BASIS"6

In their work to eliminate racialised medicine, Bryant and colleagues (2023) established a working group of subject matter experts tasked with removing 'race' from medical calculators while retaining scientific rigour. They first focused on calculations of estimated glomerular filtration rates (eGFR) – a measure of renal function that resulted in the underdiagnosis and undertreatment of Black consumers experiencing chronic kidney disease, including indication for kidney transplantation.

Similar work by Boutin-Foster and colleagues (2023) resulted in the reclassification of many black consumers stage of chronic kidney disease (CKD) – "39.9% of patients in CKD G1/2" were reclassified to CKD G3a, 72.6% of patients in CKD G3a would be reclassified to CKD G3b, and 54.1% and 36.4% of patients would be reclassified from CKD 3b to CKD G4 and CKD G4 to CKD G5, respectively" (p.786). These reclassifications are clinically significant, given that stage 3a CKD is also associated with increased risk of heart disease and other complications.

Finally, culturally safe care requires that we eliminate systemic exclusion of underserved groups in medical research (e.g. trials). Historically, medical research is plagued by pervasive racism, mistreatment, exploitation and experimentation of ethnic minority populations, which can imbue continued (and warranted) medical distrust among these groups (Adedinsewo, et al., 2023). These historic injustices set a "harmful precedent and laid foundations for inequity in healthcare and participation in clinical trials" (Adedinsewo et al., 2023, p. 1876). Representation within clinical trials is critical to supporting equitable and culturally safe healthcare, because it ensures that data and scientific evidence is generalisable to underserved ethnic groups, whom are also likely to experience a higher burden of disease (Adedinsewo et al., 2023)

Adedinsewo and colleagues (2023) advocate for the need for academia and sector researchers to "be intentional in including marginalised and health disparity populations and ensure equal access through innovative trial design (e.g. stepped-wedge and delayed intervention randomised control trials, community-oriented

⁶ Adedinsewo et al., 2023, p.1876.

⁷ There are five stages of Chronic Kidney Disease (CKD), including kidney damage but normal function (stage one), kidney damage with mild loss of function (stage 2), moderate to severe loss of function (stage three), severe loss of function (stage four), and failure (stage five) (Life Options and Medical Education Institute Inc., 2024).

recruitment/implementation)" (p.1883). They explore the potential for digital solutions to support trial engagement among underserved communities, and established a vision for community engagement and user centred design of digital innovations.

In Aotearoa, Kaupapa Māori health researchers play a critical role in contributing to Māori focused research that serves the rights and interests of Māori. Within academic settings in Aotearoa there are increasing efforts and recognition of Māori as both researchers and participants in health research to ensure there is fair representation (Reid et al., 2017).

Models of care

A model of care broadly defines "the way health services are delivered. It outlines best practice care and services for a person, population group or patient cohort as they progress through the stages of a condition, injury or event" (Tōputanga Tapuhu Kaitiaki O Aotearoa, 2018, para 1). Models of care in Aotearoa and globally often embody a medical hegemony (Weber, 2016) that privileges biomedical interpretations of health, illness and disease, and consequently, biomedical responses (e.g. treatment). Models of care may therefore fail to accommodate (or conflict with) the views, values and health knowledges held by many indigenous peoples, including Māori. It is widely recognised in Aotearoa that biomedical models of health will not meet future needs (Tōputanga Tapuhu Kaitiaki O Aotearoa, 2018).

Within the included literature, key opportunities for transformation of models of care include:

- iv. Drawing on **public or population models of health** to acknowledge and address broader health and social needs that impact on wellbeing;
- v. Building cross sector partnerships; and
- vi. Healing approaches.

Public and population models of health critically depart from biomedical models, by acknowledging and attending to wider determinants of health to achieve pae ora⁸ and equity (Edwards, 2022). Population health models focus on "interrelated conditions and factors that influence the health of populations over the life course, identifies systematic variations in their patterns of occurrence, and applies the resulting knowledge to develop and implement policies and actions to improve the health and wellbeing of those populations" (Kindig & Stoddart, 2003, p.380). Public and population models of health may be more closely aligned with the aspirations of Māori, who have voiced the need for models of care that "enhance personal and social resources", and "consider wider aspects of patient and whānau wellbeing" (Haitana et al., 2023, p.243).

The included literature clearly establishes the need for healthcare services and systems that mitigate unmet social needs which contribute to ill health and persisting health inequities (Bryant et al., 2023; Golden, 2023; Shroff, 2023). In a summary of previous literature focused on diabetes, Golden (2023) concludes that interventions to address social determinants of health within healthcare settings have been effective at reducing

⁸ Pae ora means 'healthy futures' and emphasises this aspiration for all New Zealanders, particularly those historically underserved by health and care services.

health inequities among underserved groups. In example, neighbourhoods and built environments are strong determinants of health for people with diabetes or metabolic conditions (Golden, 2023), as they variably influence access to and affordability of food, and exposure to direct-to-consumer marketing of foods (particularly 'junk' foods). In their study, which provided intervention group participants with housing support to move to low-poverty neighbourhoods, participants who moved from high to low-poverty neighbourhoods experienced lower prevalence of obesity and diabetes (Golden, 2023). Shross (2023) also identifies improving food security as key to improving the health of people of colour.

To effectively respond to social needs, these first need to be identified. Bryant and colleagues (2023) discussed their work to screen consumers within clinical settings to identify social needs and connect consumers with needed resources or services. Additionally, data pertaining to social needs collected during clinical care can inform where to prioritise strategic partnerships to more effectively respond to social needs, or direct financial investment in community services or resources to address needs (Golden, 2023).

While screening may present opportunities to document inequities in social needs, identifying and addressing unmet social needs, 'screening' itself is not always a culturally safe experience for healthcare consumers (Paine, Cormack, Reid, Harris & Robson, 2020). Historically, Māori have had little influence over how data about them has been collected and used by colonial governments, including health services (Paine, Cormack, Reid, Harris & Robson, 2020). How screening is approached, facilitated, and then responded to requires careful consideration and capability building within the healthcare workforce. Culturally safe approaches focused on empathetic and non-judgemental personal interactions between healthcare workforce and consumers is another important consideration when designing interventions.

Cross-sectorial collaboration is a critical enabler for the delivery of healthcare that addresses social determinants of health and is responsive to the multiple needs of people and communities (Edwards, 2022). Expanding our definition of the public health workforce to include those traditionally conceived as outside of the scope of healthcare can support reach within underserved communities (Golden, 2023), and enhance availability of sufficient skillsets to respond to multiple and diverse needs of underserved communities.

Models of care that respond to social needs and determinants require cross sector equity-oriented partnerships (Hearn et al., 2023). For example, the pregnancy care intervention described by Hearn and colleagues (2023) required a multi-disciplinary and cross-sector team to ensure responsiveness to the needs of refugees accessing pregnancy care services. Healthcare workforce report that investments in cross-sector partnerships and knowledge sharing simplified access to a wide referral network (Hearn et al., 2023), but required healthcare workforces to forge new ways of working together. Cross sector collaborations required professional respect, clarity of roles and practice boundaries, appreciation of diverse skills and knowledges, and funding approaches that did not constrain care delivery (Hearn et al., 2023).

Māori in Aotearoa aspire for models of care that give hope, are empathetic and are strength-based (in contrast to deficit focused) (Haitana et al., 2023). Ensuring a focus on

healing within models of care was also a focus within the included literature. Allice (2022) positioned healing as imperative for culturally safe care. An emphasis on healing within models of care recognises the "historical and current-day barriers to healing, as well as a transfer of power to Indigenous clients and communities through culturally safe practices, approaches and policies" (Allice, 2022, p.14). Discussions of healing within the included literature coalesce around two nuanced but intertwined healing journeys: (i) the need for healing from healthcare sector failures, including experiences of discrimination, that exacerbate inequities; and (ii) healing from the direct and intergenerational impacts associated with the ongoing processes of colonisation that may manifest as ill health and health inequities.

Healing approaches emphasise (i) unravelling the influence of western colonial practices and values on indigenous peoples, while simultaneously (ii) strengthening integral aspects of indigenous cultures (Allice, 2022). Within the included literature, 'healing' meant first acknowledging and naming racism as a determinant of health and health inequities (Van Eiji et al, 2022). Explicitly naming racism was understood to potentially enhance opportunities to unpack and examine the underlying context to address inequities (Van Eiji et al., 2022). In contrast to focusing on individual risk factors, this may lead to different solutions and healthcare service responses. Healing was described as a 'journey' (Allice, 2022): "For some, the journey towards healing included naming and addressing the harms that were inflicted on their families and communities through colonial policies and continues in mainstream practices, as well as naming current experienced of harm" (Allice, 2022, p.11).

Poor prior experiences, abuse and exploitation of Māori within the healthcare sector may cement distrust of health and government services, potentially impacting individual or whānau willingness to seek medical care (Haitana et al., 2022). These experiences resulting in distrust are a key barrier to achieving health equity and culturally safe experiences of care (Adedinsewi et al., 2023; Allice, 2022; Betancourt et al., 2003; Geyman, 2022; Golden, 2023; Johnson et al., 2022; Haitana et al., 2022; Wild et al., 2021). Experiences of disrespect and discrimination across government services may culminate in suspicion and disengagement with government agencies and services more generally and are not isolated to the health sector (Wild et al., 2021).

Due to distrust and other factors, when people do engage with healthcare services, they may feel reluctant to share personal information (Johnson et al., 2022). Failure to ensure people feel safe to disclose personal information has direct and tangible impacts on the ability of healthcare workforce to deliver quality health care. Feeling emotionally safe during interactions with healthcare staff was a key strength of care identified by McCalman and colleagues, in their study exploring pregnancy care among refugee populations in Australia (2024).

"ORGANISATIONAL CULTURE REQUIRED RESTORATIVE PROCESSES TO REBUILD TRUST AND REPAIR

PARTNERSHIPS WITH MĀORI PATIENTS AND WHĀNAU"9

In their review, Allice (2022) identifies (among other examples) applied examples such as the integration of traditional practices for healing within healthcare services, and strategies to support consumers with strengthening their connections within indigenous communities, with indigenous knowledge, and culture (Morey et al, 2023). In Aotearoa, there is increasing recognition and resourcing of Rongoā Māori¹⁰ services, with new funded committed in Budget 2022, and expansion of support for 31 existing Rongoā Māori providers (Beehive, 2022).

⁹ Haitana et al, 2022, p.2621.

¹⁰ "Rongoā Māori is a holistic and cultural healing practice that incorporates deep, personal connections with the natural environment." (Te Whatu Ora, 2024, para 1).

What we can conclude

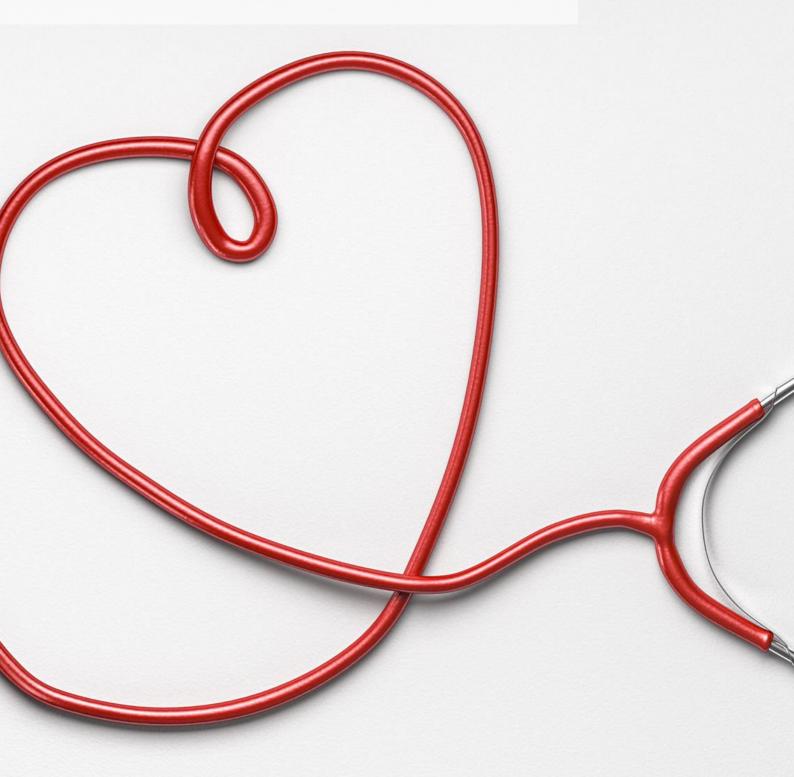
While education and training of healthcare workforce are critical to build culturally safe healthcare services, ensuring meaningful and sustainable change in approaches and practices to address inequities requires a commitment to broader systemic changes within (and beyond) the healthcare sector.

The literature included in this paper demonstrates that despite historic system failures and barriers to creating sustained and meaningful change, building culturally safe healthcare systems that contribute to more equitable healthcare access, experiences and outcomes is not only possible but also imperative. In particular, we explored leadership and governance functions and structures, workforce diversification and development, equity focused learning systems and models of care as opportunities for systems change that enable culturally safe care.

These interventions represent opportunities that on a fundamental level, disrupt historical and contemporary investment in medical hegemony and Eurocentric, hierarchical leadership. This paper has identified that critical enabling factors for systems change include investment in relationships with communities (including iwi), social sector delivery partners in care and wellbeing, and structures that privilege the leadership of healthcare consumers. Despite widespread recognition within the literature of how critical these relationships are to creating healthcare systems that work effectively for underserved groups, the literature simultaneously voices lack of time and resources to meaningfully engage as a barrier to change. It is not practical or ethical to continue undermining indigenous rights by ineffectively resourcing the critical work of engagement and partnership building in the design and delivery of health care services.

If the health system in Aotearoa is to reflect what is guaranteed to Māori in Te Tiriti o Waitangi, then it is critical that Māori leadership and governance is fully and equitably invested in to ensure this becomes an integral component of all health system design and delivery. Moreover, there must be focused and purposeful investment in diversifying the health workforce and developing the capacity and capability of the existing workforce in order to effectively meet the needs and rights of Māori and other groups who experience inequities. The health system and its workforce must also mature the ways in which learning systems are designed to ensure they are pro-equity and focused on driving culturally safe care. Lastly, not only does the workforce need to diversify, but so too do the models of care drawn on in the health system in Aotearoa to more accurately reflect Māori and other groups worldviews, cultures and ways of understanding and responding to health needs and rights.

APPENDICES



Appendix A: Included articles

Table 1: Summary of included articles

Study name	Study design	Country & setting	Study leadership	System interventions	Intervention evidence
Adedinsewo et al., (2023). Health Disparities, clinical trials, and the digital divide.	Literature review.	Multiple – international review.	Unknown – no indigeneity or diversity statement.	Use of digital technologies to increase healthcare access, and representation of underserved ethnic groups in medical research.	Mixed – digital technologies have capacity to exacerbate or reduce inequities.
Allice, Acai, Ferdossifard, Wekerle & Kimber (2022). Indigenous cultural safety in recognising and responding to family violence: a systematic scoping review.	Systematic scoping review.	Canada - family violence response, health care services.	Indigenous leadership in review process, and as participants in included studies.	There were 34 articles included in this review. Thematic areas for recommendations to inform care among indigenous communities experiencing violence included: (i) create cultural safety conditions; (ii) facilitate healing, and (iii) system level change.	Recommendations were based on evidence from included studies. Primary data is not known.
Baker et al., (2021). Expanding the reach of an evidence-based, system-level, racial equity intervention: translating ACCURE to the maternal healthcare and education systems.	Longitudinal Randomised Control Trial (RCT).	United States of America - Cancer treatment services.	Unknown – no indigeneity or diversity statement.	ACCURE intervention combines a 'milestone tracker', navigator, champion and racial equity training.	In ACCURE, racial disparities in cancer treatment completion rates disappeared, and improved for both black and white consumers (88.4 and 89.5%, p = 0.77).
Boutin-Foster, Clare, Yusuff, Salifu (2023). Promoting Anti-Racism in Clinical Practice: Lessons Learned in the Process of Removing the	Review of clinical algorithms.	United States of America - academic	Unknown – no indigeneity or diversity statement.	Removal of race from the estimation of glomerular filtration rate for chronic kidney disease.	When race was removed from the glomerular filtration rate (a measure of renal function) chronic kidney disease classifications among patients shifted,

Study name	Study design	Country & setting	Study leadership	System interventions	Intervention evidence
Race Coefficient from the Estimated Glomerular Filtration Rate Algorithm.		medical center.			impacting clinical protocol for diagnosis and treatment.
Bryant, Healey, Wilkie, Carten, Sequist & Taveras (2023). A Health System Framework for Addressing Structural Racism: Mass General Brigham's United Against Racism Initiative	Descriptive paper.	United States of America – Mass General Brigham Health System.	Unknown – no indigeneity or diversity statement.	Multiple – digital access, language access, Community Health Worker (CHW) support through social riskinformed care models, screening for social risks, improvement projects, eliminating ethnicity based clinical algorithms, workforce antiracism education, and policy advocacy.	Not discussed in the scope of this article.
Betancourt, Green & Ananeh-Firempong (2003). Defining cultural competence: a practical framework for addressing racial/ethnic disparities in health and healthcare.	Literature review.	Multiple – international review.	Unknown – no indigeneity statement.	Interventions included organisational (workforce and leadership diversity factors), structural (language supports such as interpretation services, health education resources) and clinical (cultural 'competence' training).	This review incorporates examples of studies that minimise barriers to equitable care through organisational, structural and clinical improvements.
Butts et al. (2023). Designing a road map for action to address bias and racism within a large academic medical center.	Descriptive paper.	United States of America – Academic Medical Centre in New York City.	Unknown – no indigeneity or diversity statement.	Multiple- 11 change strategies traversing community engagement, business systems, finance operations, delivery of care, training, workforce and leadership development, and medical education.	Not discussed in the scope of this article.
Charlot, Stein, Domon, Wood et al., (2022). Effect of an antiracism intervention on racial disparities in time to lung cancer surgery.	Prospective quality improvement trial.	United States of America, Cancer Care.	Unknown – no indigeneity or diversity statement.	The intervention consisted of (1) a real-time warning system to identify unmet care milestones, (2) ethnicity specific feedback on lung cancer	Positive – this study demonstrated improved time to surgery for black and white patients, with reduced inequity between groups.

Study name	Study design	Country & setting	Study leadership	System interventions	Intervention evidence
				treatment rates, and (3) patient navigation.	
Cineas, Schwartz & Patel (2022). Nursing Leadership at Nation's Leading Public Health System Addressing Health Equity and Social Determinants of Health at the Administrative Level and at the Bedside.	Descriptive article.	United States of America – New York City Health and Hospitals.	Unknown – no indigeneity or diversity statement.	Multiple, including workforce diversification, development and retention strategies (e.g. Enhanced Emotional Wellness services), organisational culture, models of care (addressing social needs), and more.	Outcomes of the interventions are not explored in the scope of this article.
Conrick et al. (2023). Centering patient perspectives to achieve injury-related health equity in traumatic care systems: improving trauma registry data.	Descriptive mixed methods study.	United States of America – Level 1 trauma centre.	Non-proportional quota sampling was used to privilege ethnic diversity among study participants.	Authors describe development of data collection processes to establish a traumatic injury registry, drawing on the lived experience of people impacted by traumatic injury. The registry aims to identify injury risk and protective factors.	Participants informed adaptions to the data collection script, data collector (patient registration specialist rather than a nurse of social worker) and collected items (removing items that did not feel relevant to their care). High acceptability of final registration data and processes were reported.
Cykert, Eng, Walker, Manning, Robertson, Arya, Jones & Heron (2018). A system-based intervention to reduce Black- White disparities in the treatment of early-stage lung cancer: A pragmatic trial at five cancer centers.	Five-year trial with intervention, retrospective and concurrent control groups.	United States of America – Cancer care at five cancer centres.	Unknown – no indigeneity or diversity statement.	The intervention consisted of (1) a real-time warning system to identify unmet care milestones, (2) feedback to clinical teams on cancer treatment completion by ethnicity, and (3) nurse navigator management of the warning system.	Positive – this study demonstrated better rates of curative treatment access among black participants,
Decamp, Acosta, Vazquez & Polk (2022). From Clinic to Community: Adapting Evidence	Non- experimental study	United States of America – Active and	Authors describe community-based participatory	Establishment of stakeholder network to support localisation of an	Study findings are limited to outputs and qualitative insights on adapting the

Study name	Study design	Country & setting	Study leadership	System interventions	Intervention evidence
Based Weight Management for Overweight Latinx Children to Better Address Social Determinants.	exploring stakeholder network meetings experiences and intervention fit assessments.	Healthy Families Preventative Programme.	research approaches that involved Latinx communities in designing the intervention.	existing evidence-based weight management intervention.	programme to address social determinants of health.
Donohue, Cole, James, Jalenski, Michener & Roberts (2022). The US Medicaid Program – coverage, financing, reforms and implications for health equity.	Observationa I review of public Medicaid data from 2010 to 2022.	United States of America.	Unknown – no indigeneity or diversity statement.	Medicaid delivery reforms in the United States, aiming to provide expanded eligibility for health insurance to improve care access and reduce health insurance disparities by 'race, ethnicity and social class under the Affordable Care Act.	Negative - Despite expanded coverage to underserved groups, ethnic disparities in care persist.
Faherty et al., (2023). The U.S. equity-first vaccination (EVI) initiative: impacts and lessons learned.	Mixed methods quasi experimental evaluation.	Five U.S. cities, Community Based Organisation (CBO) delivery.	Unknown – no indigeneity or diversity statement.	Equity-first vaccination Initiative (EVI) delivered by 100 community-based organisations for hyper-local outreach.	Mixed – evidence suggests the EVI improved vaccination equity among Latinx communities. Less progress was made for black residents.
Geyman (2022). Disparities and inequities in US health care: alive and sick.	Historical review.	United States of America.	Unknown – no indigeneity or diversity statement.	Universal health funding (traditional Medicare care example).	Mixed – universal health care coverage demonstrates ability to reduce ethnic disparities in healthcare access (inequities in experience and outcomes can persist).
Golden (2023). Disruptive innovations to achieve health	Historical review.	United States of America.	Unknown – no indigeneity or	Multiple interventions including: (i) integrating health equity principles into clinical workflows, (ii) addressing	Positive – anecdotal evidence only.

Study name	Study design	Country & setting	Study leadership	System interventions	Intervention evidence
equity through healthcare and research transformation.			diversity statement.	social determinants of health, (iii) renewed research recruitment strategies, and (iv) health system advocacy.	
Griesember et al., (2023). Mechanisms to enhance racial equity in health care: developing a model to facilitate translation of the ACCURE intervention.	Post hoc qualitative study.	United States of America – cancer care	Study guided by a Community Advisory Board, including people who experience inequities.	The intervention (described in Cykert et al., 2018) consisted of (1) a realtime warning system to identify unmet care milestones, (2) feedback to clinical teams on cancer treatment completion by ethnicity, and (3) nurse navigator management of the warning system.	Not explored in the scope of this article. This article focused on ACCURE intervention implementation processes and strengths.
Griesember et al., (2023). Examining ACCURE's nurse navigation through an antiracist lens: transparency and accountability in cancer care.	Review of clinical notes of consumers randomly allocated to intervention.	United States of America – cancer care	Study guided by community, academic and medical research partners, including those directly impacted by racism.	The intervention (described in Cykert et al., 2018) consisted of (1) a realtime warning system to identify unmet care milestones, (2) feedback to clinical teams on cancer treatment completion by ethnicity, and (3) nurse navigator management of the warning system. This paper focused on the nurse navigator component.	Mixed – Review of clinical notes demonstrate promising outputs and outcomes for navigation service such as advocacy, addressing barriers to care, connecting consumers to resources, reengaging consumers who have not attended services, addressing symptoms and side effects and offering emotional support. However, the study offers no comparison group, or 'race' specific analysis to examine potential differences in support between black and white consumers of this service.
Guerrero, Song, Henwood, Kong & Kim (2018). Response to culturally competent drug treatment among homeless persons with different living arrangements.	Observationa I study of outcomes achieved across 52 drug	United States of America – drug treatment programmes.	Unknown – no indigeneity or diversity statement.	The outcome was days of primary drug use at discharge.	Results demonstrated that "higher levels of staff personal involvement in minority communities (IRR = 0.437; 95% CI = 0.222, 0.861) and outreach to minority communities (IRR = 0.406; 95% CI = 0.213,

Study name	Study design	Country & setting	Study leadership	System interventions	Intervention evidence
	treatment programmes.				0.771) were associated with fewer days of drug use at discharge" (p.63).
Guh et al., (2018). Antiracism in residency: a multimethod intervention to increase racial diversity in a community-based residency programme.	Monitoring of total programme resident ethnicity identities.	Sweden – community- based family medicine.	Intervention design included persons of colour (POC), but diversity of authors is unknown.	The initiative included: (1) mission statement revision; (2) diversity task force establishment (3); antiracism curriculum development; and (4) monitoring.	The diversity initiative increased underrepresented ethnicity groups in the residency programme from 28% (10/36) to 68% (27/40) and faculty from 9% to 27% over the same period.
Haitana, Pitama, Cormack, Te Rangimarie Clark & Lacey (2022). "If we can just dream" Māori talk about healthcare for bipolar disorder in New Zealand: a qualitative study privileging Indigenous voices on organisational transformation for health equity.	Qualitative Kaupapa Māori study including 24 semi- structured interviews with Māori and whānau.	Aotearoa – mental health services, with Māori consumers experience bipolar disorder.	Indigenous New Zealand researchers and study participants.	No intervention – offers recommendations for system improvement grounded in the experiences of whānau Māori.	N/A
Haitana, Pitama, Cormack, Te Rangimarie Clark & Lacey (2023). "It absolutely needs to move out of that structure": Māori with bipolar disorder identify structural solutions to reform the New Zealand mental health system.	Qualitative Kaupapa Māori study including 24 semi- structured interviews with Māori and whānau.	Aotearoa – mental health services, with Māori consumers experience bipolar disorder.	Indigenous New Zealand researchers and study participants.	No intervention – offers recommendations for system improvement grounded in the experiences of whānau Māori.	N/A

Study name	Study design	Country & setting	Study leadership	System interventions	Intervention evidence
Hassen, Lofter, Michael, Mall, Pinto & Rackel (2021). Implementing anti-racism interventions in healthcare settings: a scoping review.	Scoping review.	Outpatient healthcare settings.	Unknown – no indigeneity or diversity statement.	Multiple – this review includes 37 peer reviewed articles, covering the following interventions: individual level (e.g. training), interpersonal level (e.g. guidelines for culturally safe healthcare), organisational (e.g. data, strategic leadership committee), policy (recruitment and retention of people of colour), and community level (e.g. partnerships with indigenous stakeholders).	Narrative summary of evidence in these intervention areas is positive. Authors note an over-emphasis on individual level interventions in the literature.
Hearn et al., (2023). Finding our own ways of working together: reflections on implementing and facilitating a multidisciplinary and equity-oriented model of Group Pregnancy Care for women of refugee background.	Exploratory descriptive qualitative study.	Melbourne, Australia – Pregnancy care for refugees.	Reflexity statement was included, but did not clarify ethnic diversity, indigeneity or refugee status of authors.	This intervention introduced (i) bicultural family mentors to support navigation and build community trust, and (ii) expanded referral network access to address social needs of women and their families.	Outcomes were limited to staff perceptions and did not include the lived experiencing of service consumers.
Johnson et al., (2022). Centring health equity within COVID-19 contact tracing: Connecticut's community outreach specialist program.	Cross sectional analysis of contact tracing system data.	United States of America – Connecticut community contract tracing services.	Unknown – no indigeneity or diversity statement.	Community outreach specialist services that integrated: "(i) targeted, bilingual contact tracing services(2) 'warm handoffs' to social service providers; and (3) community-based COVID19 education and communication activities (p.730).	Positive – the proportion of residents able to be contacted for contract tracing was higher in comparison to regular contract tracing approaches.
Kanengoni, Andajani-Sutjahjo & Holroyd (2020). Improving health equity among the African ethnic	Narrative review.	Aotearoa – African ethnic	Unknown – no indigeneity or	Multiple – 27 studies were incorporated in this review. Authors discussed disparities in access to	N/A - This paper explored key issues and opportunities for addressing health

Study name	Study design	Country & setting	Study leadership	System interventions	Intervention evidence
minority through health system strengthening: a narrative review of the New Zealand healthcare system.		minority communities.	diversity statement.	healthcare services among African communities in Aotearoa, limited African health workforce, and funding models.	inequities for African ethnic communities in Aotearoa.
McBride et al., (2018). Improving health equity for ethnic minority women in Thai Nguyen, Vietnam: qualitative results from an mHealth intervention targeting maternal and infant health service access.	Midterm and final qualitative evaluations (pre and post survey will be published at a later date).	Vietnam – maternal and infant health services.	Unknown – no indigeneity or diversity statement.	Low-cost mobile health intervention that sent timely newborn and child health information and behaviour change communication text messages to participants.	Qualitative insights indicate acceptability of the mobile health intervention, strengthened relationships with care providers and local women, father engagement in child wellbeing, and improvements in self-reported knowledge of pregnancy and newborn care. Behaviour change communication was more effective than traditional information, education and communication in influencing engagement with the health system.
McCalman, Forster, Newton, McLardie-Hore, & McLachlan (2024). "Safe, connected and supported in a complex system". Exploring the views of women who had a First Nations baby at one of three maternity services offering culturally tailored continuity of midwife care in Victoria, Australia.	Descriptive exploratory methods involving a qualitative analysis of free-text survey responses.	Victoria, Australia – maternity services.	The study included indigenous leadership through study authorship, codevelopment partnerships, and survey participation.	Models of care were culturally tailored, offering: (i) continuity of care from a known hospital-based midwife, (ii) cultural safety training of midwives, (iii) collaboration with Aboriginal Hospital liaison Officers (AHLOs). Women could choose to have all hospital-based care, or to have the continuity model of care in conjunction with community Aboriginal health services.	Qualitative feedback overall illustrates satisfaction with models of care. Specifically, women appreciated continuity of the midwife for their care, and emotional safety in the relationship with their midwife.
Moreo, Sullivan, Carter & Heggen (2023). Generating team-based	Observationa I study of interprofessio nal factors	US – Cancer care services in two large oncology	Unknown – no indigeneity or	Case management interventions within interprofessional care teams, using audit feedback sessions to	Evidence of impact on disparities is not explored in the scope of this article. However, the article highlights

Study name	Study design	Country & setting	Study leadership	System interventions	Intervention evidence
strategies to reduce health inequity in cancer care.	that could enhance equity.	systems and four community clinics.	diversity statement.	facilitate patient-centred goals of care.	opportunity for case managers to highlight and address disparities.
Morey, et al., (2023). An aboriginal-led consortium approach to chronic disease action for health equity and holistic wellbeing.	Descriptive paper.	Australia – three state- wide chronic disease plans.	Indigenous consortium leadership guided work and study.	Consortium establishment, for government, non-government, research and aboriginal community partnership. Aboriginal and Torres Strait Islander led governance structure.	Three statewide plans for chronic disease management were developed. Discussion of the impact of these is not in the scope of the article. The authors provide anecdotal evidence regarding foundational partnerships, relationships and shared priorities.
Nash et al., (2023). Ear and hearing care programs for First Nations children: a scoping review.	Scoping review.	Multiple – international review.	Unknown – no indigeneity or diversity statement.	Multiple – this review includes 27 peer reviewed articles, covering the following interventions: strategies to extend geographic reach of services, including telehealth and outreach services; skilled workforce trained in cultural safety; and participation of First Nations people in the design, implementation and evaluation of interventions.	The paper describes lack of outcome measures to determine intervention effectiveness with confidence.
Nesbit, Robinson & Bryan (2022). A national landscape: Injury and violence prevention health equity scan findings and implications for the field of practice.	Environment al scan drawing on focus groups, survey and secondary data.	United States of America – injury and violence prevention.	Unknown – no indigeneity or diversity statement.	Participating workforce describe efforts to enhance equity, including addressing social needs and determinants, use of data and monitoring, and building equity focused organisational infrastructure (e.g. policies) with the support of leadership.	N/A – Article explored intervention themes but did not discuss outcomes or impacts.

Study name	Study design	Country & setting	Study leadership	System interventions	Intervention evidence
Norońa-Zhou et al., (2023). Rates of Preterm Birth and Low Birth Weight in an Adolescent Obstetric Clinic: Achieving Health Equity Through Trauma-Informed Care.	Quasi- experimental evaluation design.	United States of America - Colorado Adolescent Maternity Program (CAMP).	Unknown – no indigeneity or diversity statement.	The Colorado Adolescent Maternity Program (CAMP) delivers trauma- informed obstetric care, offering comprehensive multidisciplinary care and case management.	Positive – Trauma informed care eliminated disparities in birth outcomes (e.g. preterm or low birth weight infants).
Oetzel et al. (2024). Facilitators and barriers for implementation of health programmes with Māori communities.	Concurrent mixed methods study comprising online survey and in-depth interviews.	Aotearoa – Mãori focused health programmes.	Indigenous New Zealand researchers and study participants. Participants were programme staff (not consumers).	No intervention – explores facilitators and barriers experienced by kamahi and leadership for health programme delivery.	N/A
Peek et al., (2023). Advancing health equity through social care interventions.	Literature review of social care interventions affiliated with healthcare systems.	Multiple – international review.	Unknown – no indigeneity or diversity statement.	Multiple – Community Health Worker focused consumer liaison role, including language or interpretation support, community input on study design, culturally appropriate resources, formative work to understand population needs, cultural 'sensitivity' training and sharing findings with community.	The literature review summarises that addressing sociocultural priorities is needed to create effective care and provides a range of recommendations based on evidence from included studies,
Perez et al., (2022). Improving patient race and ethnicity data capture to address health disparities: a case study from a large urban health system.	Policy experience case study.	United States of America – New York City health institution.	Unknown – no indigeneity or diversity statement.	Implementation of a multi-year patient registration data collection improvement processes, facilitating systemic expansion of REL (Race, Ethnicity, preferred Language) data.	Intervention evidence is output focused only, demonstrating marked and sustained improvement in race and ethnicity data in year one, increasing to 90% data capture by year five – a 76% reduction in unknown fields.

Study name	Study design	Country & setting	Study leadership	System interventions	Intervention evidence
Schoenthaler et al., (2023). Roadmap for embedding health equity research into learning health systems.	Implementati on description.	United States of America – Langone Health, New York	Diverse racial/ethnic and gender identifies of authors noted in positionality statement.	This article describes a roadmap for learning health systems which includes 6 key elements: (1) developing processes for collecting accurate disaggregate data ; (2) using a data- driven approach to identify health equity gaps; (3) creating performance and metric-based quality improvement goals; (4) investigating the root cause of the identified health equity gap; (5) developing and evaluating evidence-based solutions to address and resolve the inequities; and (6) continuous monitoring and feedback for system improvements" (p.261).	Outcomes of the intervention are not explored in the scope of this article.
Shah & Bohlen (2023). Implicit bias.	Descriptive paper.	United States of America – Nursing and Allied Health.	Unknown – no indigeneity or diversity statement.	Explores nursing, allied health and interprofessional team collaborative practice standards and links to minimising impacts of implicit bias in healthcare delivery.	Outcomes of the intervention are not explored in the scope of this article.
Wild, Ngauru, Willing, Hofman & Anderson (2021). What affects programme engagement for Māori families? A qualitative study of a family-based, multidisciplinary healthy lifestyle programme for children and adolescents.	Qualitative study comprising 64 semi- structured interviews.	Aotearoa – healthy lifestyle programme addressing childhood obesity.	Yes – indigenous New Zealand researchers and study participants.	No intervention – explores barriers to health and care engagement.	N/A

Study name	Study design	Country & setting	Study leadership	System interventions	Intervention evidence
Van Eijk et al., (2022). Addressing systemic racism in birth doula services to reduce health inequities in the United States.	Literature and policy review, and key informant interviews.	United States of America – birthing care.	Unknown – no indigeneity or diversity statement.	Authors describe four interventions: (1) training, recruitment and funding opportunities; (2) explicitly acknowledging racism as a cause of pregnancy related inequities to inform more appropriate solutions; (3) shifting balances of power; and (4) caution around the expansion of Medicaid cover doula services.	Outcomes of the intervention are not explored in the scope of this article.
Varcoe et al., (2022). EQUIP emergency: can interventions to reduce racism, discrimination and	interventions to methods three diverse under discrimination and multi-site emergency partner on prove outcomes? longitudinal departments. clinical commindige leader includingles.	This study was undertaken in partnership with	Site 1: patient way finding improvements, and equity-oriented messaging in waiting rooms.	After adjusting for demographic change over time between data collection phases, there was no significant impact	
stigma in EDs improve outcomes?		clinical, community and indigenous	Site 2: improved signage at triage, monitor messaging, improved patient environment (art installation).	on quality of care.	
			leaders, and included indigenous participation.	Site 3: no interventions delivered.	

Appendix B: Intervention areas summary

Table 2: Systems interventions to support culturally safe care – summary of included literature.

Intervention focus	Description	Citations
Workforce diversity and development	Interventions aimed at increasing diversity of healthcare workforce, retaining or developing existing workforce to enhance cultural safety of care, or improving organisational culture to support retention of healthcare workforce (e.g. procedures for responding to instances of interpersonal racism experienced by staff or consumers.)	Butts et al, 2003; Bryant et al., 2023; Cineas, Schwartz & Patel, 2022; Guh et al., 2018; Shroff, 2023; Van Eiji et al., 2022.
Reducing cost barriers	Universal healthcare, Medicare and Medicaid interventions.	Geyman, 2022; Van Eiji, 2022; Donohue, 2022.
Pro-equity or anti- racist organisational infrastructure.	Enabling organisational infrastructure may include: Position statement, frameworks; strategy, road maps, health equity policies, business planning tools etc.	Peek et al., 2023; Golden, 2023; Hassen et al., 2021; Butts et al., 2023; Faherty et al., 2023; Nesbit, Robinson & Bryan; 2022;
Dedicated navigator, case management or Community Health Worker roles.	The literature describes dedicated consumer focused roles to support navigation of healthcare services/ systems, reduce barriers to care access, facilitate communication across clinical care teams, and access to resources or other health or social services.	Baker et al., 2021; Charlot et al., 2021; Cykert et al., 2021; Griesember et al., 2022; Griesember et al., 2022; Bryant et al., 2023; Moreo, Sullican, Carter and Geggen, 2023; Hearn et al., 2023.
Outreach and mobile services	Community outreach through nongovernment organisations or community providers.	Bryant et al., 2023; Allice, 2022; Golden, 2023; Decamp, Acosta, Vazquez & Polk, 2022; Johnson et al., 2022; Guerrero, Song, Henwood, Kong & Kim, 2018.
Machine learning (ML) and Artificial Intelligence (AI)	Diagnostic support through ML and AI.	Adedinsewi et al., 2023.
Leadership and partnership strengthening.	Leadership focused interventions that aim to develop existing leadership, diversify leadership, or address power differentials in	Allice, 2022; Butts et al., 2023; Cineas, Schwartz & Patel, 2022; Haitana

	leadership through use of partnership approaches, co-design of other approaches or structures.	et al., 2023; Haitana et al., 2022; Hassen et al., 2021; McCalman et al., 2024; Morey et al., 2023; Nash et al., 2023; Peek et al., 2023; Van Eiji et al., 2022.
Language and interpretation services.	Ensuring access to interpretation supports/service for people for whom English is not their primary language, or development of health education resources in another language.	Bryant et al., 2023; Hassen et al.; 2021; Peek et al., 2023.
Models of care	Models of care encompassed a range of interventions that adapt biomedical models of care to incorporate, for example: responsiveness to social needs or determinants of health, continuity of care, self-determination of care options, traumainformed care.	Allice, 2022; Morey et al, 2023; Bryant et al., 2023; Shroff, 2023; Golden, 2023; Cineas, Schwartz & Patel, 2022; Decamp, Acosta, Vazquez & Polk, 2022; Hearn et al., 2023; McCalman et al., 2024; Nesbit, Robinson & Bryan, 2022; Norońa-Zhou et al., 2023; Peek et al., 2023.
Harm reduction approaches	Harm reduction approaches seek to reduce negative impacts of specific behaviours without requiring cessation of these entirely. It may include, for example, safe sleep advice, drug harm reduction methods etc.	Faherty et al., 2023.
Equity focused learning systems	Includes data driven health care, health registry development, eliminating ethnic bias from clinical algorithms etc.	Baker et al., 2021; Boutin-Foster, Clare, Yusuff & Salifu, 2023; Conrick et al., 2023; Bryant et al, 2023; Nesbit, Robinson & Bryan, 2022; Schoenthaler, Francois, Cho & Ogedegbe, 2023.
Care environments	Design and built environments, for example cultural artefacts in waiting rooms.	Varcoe et al,. 2022.
Digital tools	Mobile health interventions (e.g. telehealth or mobile health interventions such as behaviour change information delivered via text).	Adedinsewo et al, 2023; Bryant et al., 2023; McBride et al., 2018;
Advocacy	Advocacy and influencing of local and national (i.e. government) policies that	Bryant et al., 2023; Golden, 2023; Griesember et al, 2023).

impact on the health and wellbeing of people the healthcare sector serves.

Appendix C: References

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