# Building equity through standardised cancer nursing assessment: the NEAT

Prof Mei Krishnasamy

Professor of Nursing (Cancer), Department of Nursing - University of Melbourne

VCCC Alliance Research and Education Lead - Cancer Nursing

Honorary Research Fellow - Peter MacCallum Cancer Centre


# No disclosures

# The NEAT: alignment with this plenary

To examine opportunity to:

- improve patient outcomes while mitigating risk
- advocate for equity across diverse settings
- think differently about the future of care
- Innovate and implement timely, practical education to safely deliver care
- shape the future of cancer nursing

# The NEAT - Nursing Equity Assessment Tool

- **Principal Investigator**
- **Prof Mei Krishnasamy,** University of Melbourne, VCCC Alliance, Peter MacCallum Cancer Centre
- **Project Officers**
- **Liz Crone,** Peter MacCallum Cancer Centre, University of Melbourne
- **Holly Chung,** Peter MacCallum Cancer Centre, University of Melbourne
- **Co-investigators**
- **Phuong Lang**, Consumer representative, Peter MacCallum Cancer Centre
- **Sudhir Sakhuja**, Consumer representative, Peter MacCallum Cancer Centre
- **Shu-Yi Soong**, Consumer representative, Peter MacCallum Cancer Centre
- **Samantha Susa**, Consumer representative, Peter MacCallum Cancer Centre
- **Kathleen Wilkins**, Consumer representative, VCCC Alliance
- **Mary Gow**, Consumer representative, Peter MacCallum Cancer Centre
- **Amelia Hyatt**, Senior Research Officer, Peter MacCallum Cancer Centre, University of Melbourne
- **A/Prof Karla Gough**, Associate Professor, Principal Research Fellow, University of Melbourne
- **Dr Donna Milne**, CNC and nurse researcher, Peter MacCallum Cancer Centre
- **Dr Sharon de Graves**, Program Manager: Nurse-Led Research, VCCC Alliance, University of Melbourne
- **Prof Sanchia Aranda**, Board Chair, VCCC Alliance, University of Melbourne
- **Dr Vijaya Joshi**, Program Manager: Health Equity, VCCC Alliance
- **Dr Lesley McKarney**, Health Equity, VCCC Alliance
- **Prof Helen Skouteris**, Professor of Health and Social Care Improvement, Monash University
- **Spase Veljanovski**, Senior Project Officer, Centre for Culture, Ethnicity & Health

THE UNIVERSITY OF MELBOURNE

# What is the NEAT?

- An evidence-informed, point of care resource developed with cancer nurses and people with lived experience to help rapidly identify and initiate support for people at risk of poor health outcomes due to complex physical and social determinant of health needs (SDoH).
- 21 items across five domains, targeting SDoH proven to influence opportunity for equitable health outcomes.
- Standardising opportunity for equitable needs identification at scale
- Enables nurses to confidently explore SDoH

| NEAT INDICATORS | | RESPONSE | |
|---|---|---|---|
| **HEALTH SYSTEM NAVIGATION / SAFETY** | | **YES** | **NO** |
| **Aboriginal / Torres Strait Islander** | Does the patient identify as Aboriginal and/or Torres Strait Islander? | | |
| **CALD** | Does the patient require an interpreter?<br>Does the patient have language requirements for written information?<br>Does the patient have cultural or religious requirements for their care? | | |
| **Navigation Support** | Does the patient require a support person to assist with care navigation? | | |
| **Sexual and Gender Diversity** | Does the patient have a diverse sexual orientation or gender identity? | | |
| **DEMOGRAPHIC** | | | |
| **Living Arrangements** | Do you consider the patient's current living arrangements or discharge destination unsuitable and not able to meet their care needs? | | |
| **Distance from Treatment** | Is distance likely to impact on safety and accessibility of care? | | |
| **Patient Capacity** | Does the patient have family and/or work/ studying commitments which will be significantly impacted by their diagnosis and require extra intervention? | | |
| **Social Support** | Does the patient have inadequate access to care support from family or friends? | | |
| **Caregiver Anxiety** | Nurse Assessment: Are close family or primary caregiver highly anxious or distressed by the cancer diagnosis? | | |
| **Safety at Home** | Has anyone in the patient's family done or said something that made the patient feel unsafe or afraid? | | |
| **Financial Toxicity** | Does the patient have financial concerns which will require referral? | | |
| **DISEASE STATUS** | | | |
| **Advanced Disease** | Does the patient have advanced disease? | | |
| **Diagnosis** | Despite investigations, is the patient's diagnosis unknown? | | |
| **HEALTH STATUS** | | | |
| **Functional Capacity** | Does the patient have a disability or functional impairment (cognitive or physical) likely to require additional support as part of their care? | | |
| **Psycho-pathology** | Does the patient have a psychological illness (currently unmanaged by other health professional or service) which requires referral for intervention or support? | | |
| **Health/Lifestyle** | Does the patient have health lifestyle factors likely to complicate their care including (tick which): | | |
| | Obesity | | |
| | Substance use/abuse (specify) | | |
| | Sedentary Lifestyle | | |
| **Comorbidities** | Does the patient have one or more comorbidities likely to complicate their cancer care? | | |
| | Specify: | | |
| **SYMPTOMS** | | | |
| **Uncontrolled Symptoms** | Does the patient have poorly or uncontrolled physical symptoms which require prompt intervention? | | |
| **SUMMARY** | | | |
| **Summary Question** | Does the patient know where/how to access the support services they need? | | |

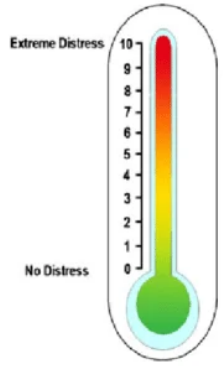
Chung H, Crone E, Gough K, Hyatt A, Milne D, Krishnasamy M. Equity in cancer care: mixed methods clinical utility analysis of the Nursing Equity Assessment Tool to identify disadvantage in newly diagnosed cancer patients. Support Care Cancer. 2024

# What the NEAT isn't..


A postcode

First please circle the number (0-10) that best describes how much distress you have been experiencing in the past week including today.

Second, please indicate if any of the following has been a problem for you in the past week including today. Be sure to check YES or NO for each.




YES NO Practical Problems
- Child Care
- Housing
- Insurance/financial
- Transportation
- Work/school

Family Problems
- Dealing with children
- Dealing with partner
- Dealing with close Friend/relative

Emotional Problems
- Depression
- Fears
- Nervousness
- Sadness
- Worry
- Loss of interest in usual activities

- Spiritual/religious concerns

YES NO Physical Problems
- Appearance
- Bathing/dressing
- Breathing
- Changes in urination
- Constipation
- Diarrhoea
- Eating
- Fatigue
- Feeling Swollen
- Fevers
- Getting around
- Indigestion
- Memory/concentration
- Mouth sores
- Nausea
- Nose dry/congested
- Pain
- Sexual
- Skin dry itchy
- Sleep
- Tingling in hands/feet

Other problems

The DT and Problem List

https://www.nccn.org/docs/default-source/patient-resources/nccn_distress_thermometer.pdf, accessed 14062026

# Setting the scene: why develop the NEAT?

Current Oncology

MDPI

*Article*

**Collecting Data on the Social Determinants of Health to Advance Health Equity in Cancer Care in Canada: Patient and Community Perspectives**

Jacqueline L. Bender [1,2,*], Eryn Tong [1,3], Ekaterina An [1,4], Zhihui Amy Liu [5], Gilla K. Shapiro [1,2,6], Jonathan Avery [7,8], Alanna Chu [9], Christian Schulz-Quach [1,6], Sarah Hales [1,6], Alies Maybee [10,11], Ambreen Sayani [2,11,12], Andrew Pinto [2,13,14] and Aisha Lofters [2,12,14]

Even though cancer care has improved, differences in care and outcomes still exist among different groups of people. One way to help reduce these differences is by **collecting information about social determinants of health** (SDOH). However, **this information is not collected regularly in many parts of the world**.

*Curr. Oncol.* **2025**, *32*, 406. https://doi.org/ 10.3390/curroncol32070406

# Why develop the NEAT: because it's long overdue

THE LANCET 1971

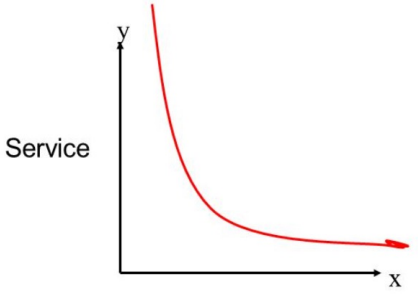
THE INVERSE CARE LAW

Julian Tudor Hart

Public Health England

Health inequity

Inequity : those with most need get the lowest level of service - the undesirable "inverse care law"




Social Inequalities and Cancer
Kogevinas, M., Pearce, N., Susser, M. and Boffetta, P., eds
IARC Scientific Publications No. 150
International Agency for Research on Cancer, Lyon, 1997

## Socioeconomic differences in cancer survival: a review of the evidence

M. Kogevinas and M. Porta

42 papers, 1969-1995

studies on social class differences in cancer survival. Twenty-three studies were conducted in North America, and 15 in western European countries. Twenty-three studies were carried out through population-based cancer registries and 17 through hospitals or hospital-based registries. Seven studies examined survival differences for multiple cancer sites. Social class differences in cancer survival appear remarkably general. Patients in low social classes had consistently poorer survival than those in high social classes. The magnitude of the differences for most cancer sites was fairly narrow, with most relative risks falling between 1 and 1.5. The widest differences were observed for cancers of good prognosis and specifically cancers of the female breast, corpus uteri, bladder and colon. The pattern of the social differences in survival

THE UNIVERSITY OF MELBOURNE

# 1995 - 2006

review

*Annals of Oncology* 17: 5–19, 2006
doi:10.1093/annonc/mdj007
Published online 2 September 2005

## Origins of socio-economic inequalities in cancer survival: a review

L. M. Woods*, B. Rachet & M. P. Coleman

**Background:** Cancer survival is known to vary by socio-economic group. A review of studies published by 1995 showed this association to be universal and resilient to the many different ways in which socio-economic status was determined. Differences were most commonly attributed to differences in stage of disease at diagnosis.

**Materials and methods:** A review of research published since 1995 examining the association of cancer survival with socio-economic variables.

**Results:** An association between socio-economic status and cancer survival has continued to be demonstrated in the last decade of research. Stage at diagnosis and differences in treatment have been cited as the most important explanatory factors. Some research has evaluated the psychosocial elements of this association.

**Conclusions:** Socio-economic differences in cancer survival are now well documented. The explanatory power of stage at diagnosis, although great, should not detract from the evidence of differential treatment between social groups. Neither factor can completely explain the observed socio-economic differences in survival, however, and the importance of differences in tumour and patient factors should now be quantified.

**Key words:** cancer, deprivation, poverty, social class, socio-economic status, survival analysis

THE UNIVERSITY OF MELBOURNE

# 2010 - 2014

Public Health Information Development Unit (PHIDU). Cancer incidence and socioeconomic status: a brief summary. Adelaide: PHIDU, Torrens University Australia, July 2021

https://phidu.torrens.edu.au/pdf/2020-onwards/factsheets/Cancer_fact_sheet_June_2021.pdf, accessed 13062026

- There is little relationship between socioeconomic status and the overall prevalence of cancer, with all socioeconomic quintiles being within +/- 5% of the national rate

- Although there is minimal difference in total cancer incidence between the least and most socioeconomically disadvantaged quintiles in Australia, the potential years of life lost per 1,000 population is more than twice as large in the most disadvantaged quintile compared to the least disadvantaged quintile, *showing that having cancer disproportionately affects those in the most disadvantaged quintile in terms of years of life lost.*

THE UNIVERSITY OF MELBOURNE

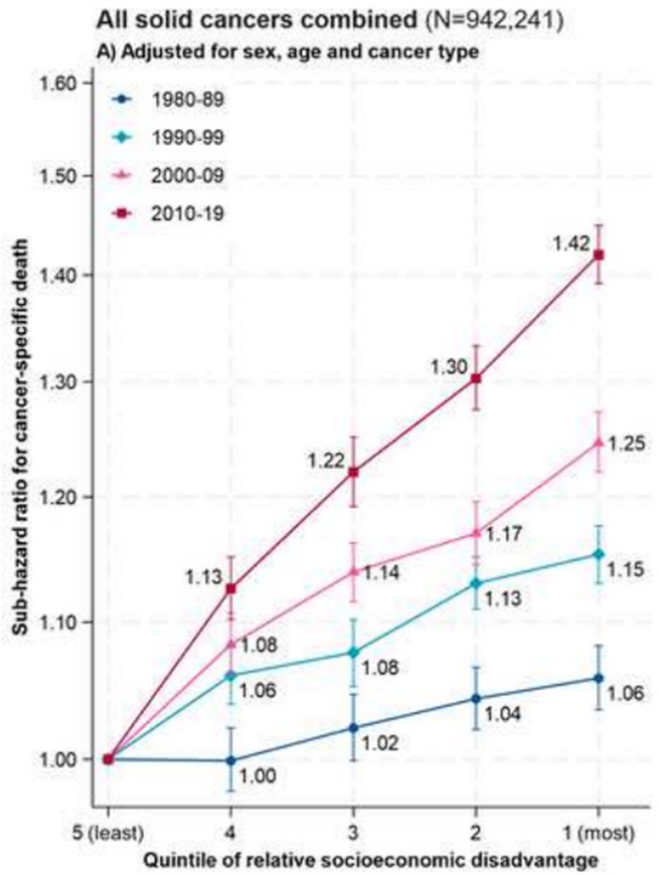
# 1980-2019

J Natl Cancer Inst. 2025 Nov 13:djaf305. doi: 10.1093/jnci/djaf305. Online ahead of print.

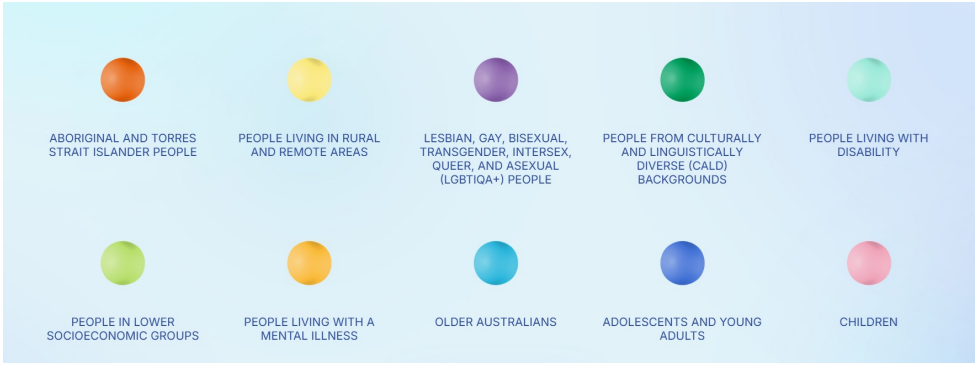
## Disparities in cancer survival by socioeconomic status: findings from a population-based study of 942,241 Australians from 1980 to 2019

Sarsha Yap [1], Qingwei Luo [1], Jeff Cuff [2 3], David Goldsbury [1], Xue Qin Yu [1], Yoon-Jung Kang [1 4], Benjamin D T Gallagher [1], Eleonora Feletto [1], Marianne Weber [1], Preston Ngo [5], Melissa A Merritt [1], Karen Canfell [4], David P Smith [1], Julia Steinberg [1]

- In Australia five-year cancer-specific survival for all cancers improved from 50.3% in 1980-89 to 73.3% in 2010-19.
- Risk of cancer death was higher for individuals living in most socio-economically disadvantaged areas (versus least disadvantaged areas) – **35% gap**
- Disparities in cancer outcomes continue to widen, requiring improved understanding and targeted interventions to address inequities



# 2023 : A way forward


- Designed to improve cancer outcomes for all Australians, and particularly for those groups whose health outcomes are poorest.

- Achieving equity in cancer outcomes will be a fundamental measure of success for the Plan and will align Australia with global calls to improve cancer outcomes for all people.

THE UNIVERSITY OF MELBOURNE

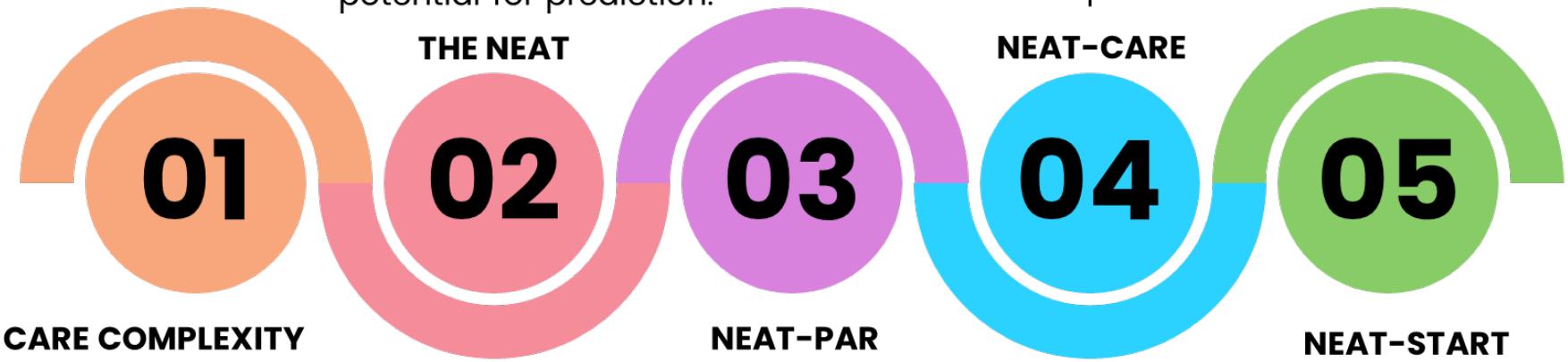
# Thinking differently about the future of care

- **Policy demands equity**, but we lack both data and tools to deliver it
- **Socially disadvantaged** Australians with cancer experience increased morbidity and mortality
- **Documentation and reporting** of social determinants of health and related outcomes **is variable**
- **No point-of-care interventions** available to rapidly identify people who may benefit from early support or increased follow up
- **We have little understanding of how people with lived experience** or the community **feel about being asked to disclose SDOH or how they would like to be asked**

THE UNIVERSITY OF MELBOURNE

# The NEAT

cancer nursing
innovate | integrate | educate | advocate




**CARE COMPLEXITY**

What makes a person with cancer complex to care for?

**THE NEAT**

A clinical utility study – acceptability, appropriateness, practicability and potential for prediction.

**NEAT-PAR**

A participatory action research study to assess utility with people from culturally and linguistically diverse backgrounds.

**NEAT-CARE**

Co-designing resources to support implementation of the NEAT in practice.

**NEAT-START**

*National implementation trial.*

# Underpinning principles

Current Oncology

MDPI

Article

**Collecting Data on the Social Determinants of Health to Advance Health Equity in Cancer Care in Canada: Patient and Community Perspectives**

Jacqueline L. Bender [1,2,*], Eryn Tong [1,3], Ekaterina An [1,4], Zhihui Amy Liu [5], Gilla K. Shapiro [1,2,6], Jonathan Avery [7,8], Alanna Chu [9], Christian Schulz-Quach [1,6], Sarah Hales [1,6], Alies Maybee [10,11], Ambreen Sayani [2,11,12], Andrew Pinto [2,13,14] and Aisha Lofters [2,12,14]

- This study looked at what cancer patients and community members in Canada think about hospitals collecting SDOH information. Most people were comfortable with the hospital collecting SDOH data. However, people were concerned about privacy, discrimination, relevance to care, and data accuracy.

- To **collect SDOH data in a way that works for patients**, it is important to **explain why the information is being collected, train healthcare staff, protect patient privacy,** and **have clear plans to use the information to improve care**.

*Curr. Oncol.* **2025**, *32*, 406. https://doi.org/ 10.3390/curroncol32070406

# Underpinning principles

NCCN POLICY REPORT

## Measuring and Addressing Health-Related Social Needs in Cancer

Victoria Hood, MPP[1]; Alyssa Schatz, DrPH, MSW[1]; Yelak Biru, MSc[2]; Loretta Erhunmwunsee, MD[3]; and Crystal S. Denlinger, MD[1]

Health care institutions must not only screen for HRSN but also have a plan to address any unmet needs that may be identified. **Screening without a plan to address the unmet need may further harm the patient.**

HRSN screening is **not a "check the box" exercise** and should be conducted as a part of the care conversation. HRSN screening should be viewed as a "**discussion-based screening**."

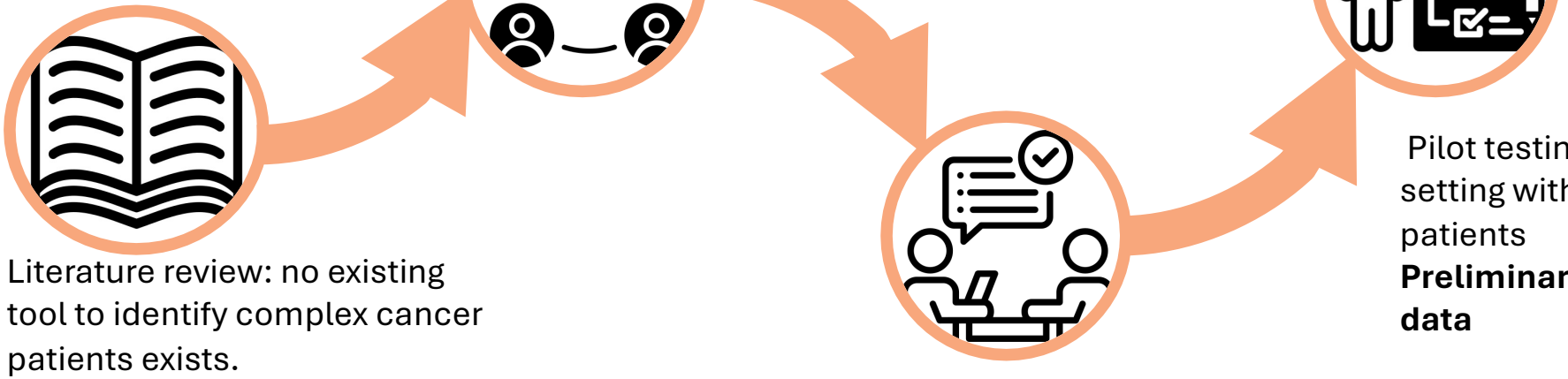
Health organizations and systems must provide **training and education** on both why screening for and addressing HRSN is an integral part of quality care and how to do this well.

HRSN screening and follow-up to **connect patients with relevant services** must be integrated into comprehensive care plans.

Overcoming cancer together

Hood V, et al. Measuring and Addressing Health-Related Social Needs in Cancer. J Natl Compr Canc Netw. 2025

# Innovation :



Literature review: no existing tool to identify complex cancer patients exists.

A mixed methods, three phase study using focus groups and surveys. Data from focus groups were analysed inductively to generate resource content and descriptively (surveys) to establish priorities for item inclusion and relevance

Online and face to face focus groups with 100 cancer nurses across Australia:
*What makes a person with cancer complex to care for?*
**Preliminary content validity**

Iterative refinement of the NEAT through case study testing with 30 nurses:
**Preliminary face validity**

Pilot testing in real-world setting with 5 CNCs & 50 patients
**Preliminary feasibility data**

Cancer Nurses Society of Australia

01
CARE COMPLEXITY

# Integration : Clinical utility

7 CNCs used the NEAT in practice with 37 newly diagnosed cancer patients.

**Do patients receiving, and nurses delivering, care find the NEAT acceptable, appropriate, and practicable?**

"I felt really comfortable, no problem. And I think the reason for that was because, [CNC] went through it with me. **Rather than giving me a form and having to fill it out, she was there**. So, she was having a conversation with me and recording the answers" – P21

"I think it would save time…I think to have a format, or a checklist, means you're not missing things, you're prompted to remember things that may not have come out in the conversation" – CNC08

Chung H, Crone E, Gough K, Hyatt A, Milne D, Krishnasamy M. Equity in cancer care: mixed methods clinical utility analysis of the Nursing Equity Assessment Tool (NEAT) to identify disadvantage in newly diagnosed cancer patients. Support Care Cancer. 2024

TOUR DE CURE
Curing Cancer Changing Lives

THE NEAT 02

# **Equity :** NEAT-PAR - Refinement with culturally and linguistically diverse cancer consumers

**Phase 1**

Focus groups with 5 CALD cancer consumers and 5 clinicians, and researchers to understand NEAT completeness and appropriateness.

**Phase 2**

Interviews with 25 clinicians to map barriers CALD patients face in accessing and navigating care, and helpful resources.

**Phase 3**

Interviews with 5 CALD community advocates & leaders to verify & expand on phase 2 findings.

Finalise prompts for the NEAT.

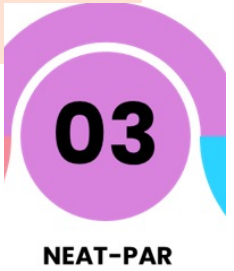
Three phase, modified participatory action research with 40 participants, using qualitative focus groups and interviews. Data were analysed using inductive content analysis and interpretive description to identify themes for NEAT refinement – *paper under review*

TOUR DE CURE
Curing Cancer Changing Lives

03
NEAT-PAR

# NEAT-PAR: items added to the NEAT

| Domain | Item |
|---|---|
| **CALD** | • Does the patient require an interpreter?<br>• Does the patient have language requirements for written information that differs to oral needs?<br>• Does the patient have cultural or religious requirements for their care? |
| **Navigation Support** | • Does the patient require a support person to assist with access to care and care navigation? |
| **Summary** | • Does the patient know where/how to access the support services they need? |



# **Integration:** NEAT-CARE

- *Clinical prompts* for each of the 21 NEAT items co-designed with regional cancer consumers and nurses
  - Brief, open-ended *example* questions facilitating conversation
  - Direct but gentle language
  - Nurses should take responsibility for initiating conversations, especially when sensitive issues need to be explored
  - Development of a *co-designed education resource*
  - Enabling *access to resources - WeCan*
  - Utility testing of the education resource, prompts and NEAT in 2 regional settings (Vic and NSW)- 3 nurses and 6 patients

NEAT-CARE 04

" It opens up the conversation t someone that is lonely, and, you know, might actually be able to raise it." - Consumer 5

"Too many people skip around it because they feel uncomfortable asking... They don't know what to say if someone does say 'yes, I'm lonely'. So, it's an uncomfortable emotion" - Consumer 4

https://wecan.org.au/neat/

VCCC Alliance
Overcoming cancer together

# Training health care staff (Bender et al, 2025)


- **An education resource co-designed with cancer nurses to standardise and enable use of the NEAT**
- Content:
  - What is The Nursing Equity Assessment Tool
  - Introduction to Health Equity
  - Applying The NEAT
  - Essential Communication Skills
  - Using the NEAT in Practice

NEAT-CARE 04

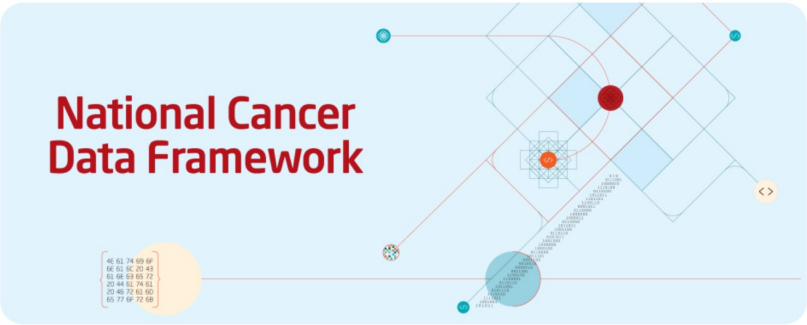
# Integration, advocacy and ongoing revision

| NEAT INDICATORS | | RESPONSE | |
|---|---|---|---|
| **HEALTH SYSTEM NAVIGATION / SAFETY** | | **YES** | **NO** |
| **Aboriginal / Torres Strait Islander** | Does the patient identify as Aboriginal and/or Torres Strait Islander? | | |
| **CALD** | Does the patient require an interpreter?<br>Does the patient have language requirements for written information?<br>Does the patient have cultural or religious requirements for their care? | | |
| **Navigation Support** | Does the patient require a support person to assist with care navigation? | | |
| **Sexual and Gender Diversity** | Does the patient have a diverse sexual orientation or gender identity? | | |
| **DEMOGRAPHIC** | | | |
| **Living Arrangements** | Do you consider the patient's current living arrangements or discharge destination unsuitable and not able to meet their care needs? | | |
| **Distance from Treatment** | Is distance likely to impact on safety and accessibility of care? | | |
| **Patient Capacity** | Does the patient have family and/or work/ studying commitments which will be significantly impacted by their diagnosis and require extra intervention? | | |
| **Social Support** | Does the patient have inadequate access to care support from family or friends? | | |
| **Caregiver Anxiety** | Nurse Assessment: Are close family or primary caregiver highly anxious or distressed by the cancer diagnosis? | | |
| **Safety at Home** | Has anyone in the patient's family done or said something that made the patient feel unsafe or afraid? | | |
| **Financial Toxicity** | Does the patient have financial concerns which will require referral? | | |
| **DISEASE STATUS** | | | |
| **Advanced Disease** | Does the patient have advanced disease? | | |
| **Diagnosis** | Despite investigations, is the patient's diagnosis unknown? | | |
| **HEALTH STATUS** | | | |
| **Functional Capacity** | Does the patient have a disability or functional impairment (cognitive or physical) likely to require additional support as part of their care? | | |
| **Psycho-pathology** | Does the patient have a psychological illness (currently unmanaged by other health professional or service) which requires referral for intervention or support? | | |
| **Health/Lifestyle** | Does the patient have health lifestyle factors likely to complicate their care including (tick which):<br>Obesity<br>Substance use/abuse (specify)<br>Sedentary Lifestyle | | |
| **Comorbidities** | Does the patient have one or more comorbidities likely to complicate their cancer care?<br>Specify: | | |
| **SYMPTOMS** | | | |
| **Uncontrolled Symptoms** | Does the patient have poorly or uncontrolled physical symptoms which require prompt intervention? | | |
| **SUMMARY** | | | |
| **Summary Question** | Does the patient know where/how to access the support services they need? | | |

- Embedding the NEAT in usual care
- Exploring potential for real-world implementation in your place of work
- Implementation pack and implementation session
- 2 REDCap surveys
  - Evaluation of the Education resource
  - De-identified feedback on experience of using the NEAT with 10 patients
- Future national trial

Ethics id: 2026-34995-78817-4, University of Melbourne

# The NEAT and National Cancer Policy




**Person-centred and equity focused:** data used to provide patient-centred treatment and care, delivering the best outcomes and improved equity for all Australians

**Cancer data as an asset:** a cancer data ecosystem that enables collaboration to inform policy and health service delivery, drives economic value, supports innovation and improves cancer outcomes for all Australians

**Leverage existing strength:** actions align with, build on and add to initiatives and innovations in policy approaches to capture data and sharing that can be harnessed and scaled

**Integrated and relevant data use:** data access is enabled, data-driven decision-making is embraced, and data collection is promoted as part of patient care through seamless integration into clinician workforce

https://www.canceraustralia.gov.au/sites/default/files/2025-11/national-cancer-data-framework-november-2025.pdf, accessed 14062026

# To finish, the NEAT…

Offers opportunity to:

- improve patient outcomes while mitigating risk
- advocate for equity across diverse settings
- think differently about the future of care
- Innovate and implement timely, practical education to safely deliver care
- shape the future of cancer nursing

# Advocacy

Cancer nurses shaping the future of equitable cancer care

**Not because we have to - but because we get to.**

**meik@unimelb.edu.au**